Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Almond Creek**

TMDL Group ID: **00334**

VAP-G01R_ALM01A98	Almond Creek	HENRICO CO	Almond Creek from its headwaters to the James River.

VA Overall AU Category: **5A**

Use	Impairment	2.26 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**pH**		00334	**2004**	**2016**	VAP-G01R-02

In 2004, the segment was also considered impaired of the Aquatic Life uses due to pH violations at 2-ALM000.42 as well as pH violations at station located downstream of the BFI landfill (2-XVO000.10 and 2-XVP000.04). The pH TMDL is due in 2016. The impairments continued in the 2006 cycle.

Sources: Landfills

TMDL Group ID: **01128**

VAP-G01R_ALM01A98	Almond Creek	HENRICO CO	Almond Creek from its headwaters to the James River.

VA Overall AU Category: **5A**

Use	Impairment	2.26 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**		01128	**2006**	**2010**	VAP-G01R-02

Almond Creek was assessed not supporting of the Recreation use support goal based on a fecal coliform standard violation rate of 9/20 recorded at the Route 5 bridge (2-ALM000.42). During the 2006 cycle, E. coli was added as an impairment because of a violation rate of 3/8 at 2-ALM000.42. The segment has been listed since the 1998 cycle, therefore the TMDL is due in 2010.

Sources: Source Unknown

Recreation	**Fecal Coliform**		01128	**1998**	**2010**	VAP-G01R-02

Almond Creek was assessed not supporting of the Recreation use support goal based on a fecal coliform standard violation rate of 9/20 recorded at the Route 5 bridge (2-ALM000.42). During the 2006 cycle, E. coli was added as an impairment because of a violation rate of 3/8 at 2-ALM000.42. The segment has been listed since the 1998 cycle, therefore the TMDL is due in 2010.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Appomattox River**

TMDL Group ID: **50091**

VAC-J01R_APP01A02 **Appomattox River** APPOMATTOX CO Appomattox River from Suanee Creek to the Appomattox/Buckingham county line

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	5.94 MILES	50091	**2004**	**2004**	

Sources: Source Unknown

VAC-J01R_APP02A02 **Appomattox River** APPOMATTOX CO Appomattox River from Appomattox/Buckingham county line to Vaughan's Creek

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**	10.77 MILES	50091	**2006**	**2018**	

Sources: Non-Point Source

TMDL Watershed Name: **Appomattox River, Lower**

TMDL Group ID: **00044**

VAP-J15R_APP01A98 **Appomattox River** CHESTERFIELD CO PETERSBURG CITY The Appomattox River from the Lake Chesdin dam to the fall line at the Route 1/301 bridge.

VA Overall AU Category: **5D**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	8.17 MILES	00044	**2002**	**2004**	Cat 4A - Fecal coliform/E.coli. 00044 (FC) VAP-J15R-01 In 2002, this segment was originally listed for fecal coliform violations at 2-APP012.79. The bacteria TMDL for the Appomattox River was completed and approved by EPA on 8/30/2004. The segment should be assessed as Cat. 4A, however the EPA TMDLID was not available at the time of assessment. In 2006, the bacteria impairment switched from fecal coliform to E. coli.

Sources: Agriculture
Municipal Point Source Discharges
Non-Point Source

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Appomattox River, Lower and Ashton Creek**

TMDL Group ID: **01761**

VAP-J15E_APP01A98 — **Lower Appomattox River/Ashton Creek** — CHESTERFIELD CO, PRINCE GEORGE CO

The estuarine Appomattox River from the fall line to river mile 5.0.

APPTF.

VA Overall AU Category: **5D**

Use	Impairment	0.94 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**		01761	**2002**	**2014**	01761 (PCBs) VAP-G01E-03 The Appomattox River was listed in 2002 as not supporting for Fish Consumption due to PCBs in fish tissue from DEQ monitoring. The Appomattox River from the Lake Chesdin dam downstream to the mouth is now included in the James River Basin VDH PCB Fish Consumption Advisory that was issued on 12/13/2004. No more than 2 meals/month of fish from these waterbody boundaries are recommended.

Sources: Source Unknown

VAP-J15E_APP02A98 — **Appomattox River** — CHESTERFIELD CO, PRINCE GEORGE CO

The estuarine portion of the Appomattox River from river mile 5.0 to the confluence with the James River.

APPTF.

VA Overall AU Category: **5D**

Use	Impairment	1.63 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**		01761	**2002**	**2014**	01761 (PCBs) VAP-G01E-03 During the 2002 cycle the segment was initially listed as impaired of the fish consumption use because of PCBs in fish tissue in DEQ monitoring performed in 1997 and 2001. The PCB TMDL is due in 2014. On 12/13/2004, VDH issued a Fish Consumption Advisory for the James River Basin for PCBs in fish tissue. This advisory includes the Appomattox River from the dam at Lake Chesdin downstream to its mouth at the James River. No more than 2 meal/month of the fish from this portion of the river are recommended.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Appomattox River, Lower and Ashton Creek**

TMDL Group ID: **01761**

VAP-J15R_APP01A98	Appomattox River	CHESTERFIELD CO PETERSBURG CITY	The Appomattox River from the Lake Chesdin dam to the fall line at the Route 1/301 bridge.

VA Overall AU Category: **5D**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**	8.17 MILES	01761	**2006**	**2018**	01761 (PCBs) VAP-G01E-03 Based on the James River Basin - VDH Fish Consumption Advisory for PCBs in fish tissue that was issued on 12/13/2004, no more than two meals/month are recommended of fish from the mainstem Appomattox River from dam at Lake Chesdin down the mouth at the James River.

Sources: Source Unknown

TMDL Watershed Name: **Appomattox River, Lower and Tributaries**

TMDL Group ID: **00043**

VAP-J15E_APP01A98	Lower Appomattox River/Ashton Creek	CHESTERFIELD CO PRINCE GEORGE CO	The estuarine Appomattox River from the fall line to river mile 5.0. APPTF.

VA Overall AU Category: **5D**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	0.94 SQUARE MILES	00043	**1998**	**2004**	Cat 4A: Fecal coliform/E.coli 00043 (FC) VAP-J15E-01, In 1998, this segment was listed for fecal coliform violations. The bacteria TMDL Development for the Appomattox River was completed and approved by EPA on 8/30/2004. The segment should be assessed as Cat. 4A, however the EPA TMDLID was not available at the time of assessment. In 2006, the bacteria impairment switched from fecal coliform to E. coli.

Sources: Agriculture
Municipal Point Source Discharges
Non-Point Source

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Appomattox River, Lower and Tributaries**

TMDL Group ID: **00043**

VAP-J15E_APP02A98	Appomattox River	CHESTERFIELD CO PRINCE GEORGE CO	The estuarine portion of the Appomattox River from river mile 5.0 to the confluence with the James River. APPTF.

VA Overall AU Category: **5D**

Use	Impairment	1.63 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**		00043	**1998**	**2004**	Cat 4A: Fecal coliform/E.coli 00043 (FC) VAP-J15E-01 In 1998, this segment was listed for fecal coliform violations. The bacteria TMDL Development for the Appomattox River was completed and approved by EPA on 8/30/2004. The segment should be assessed as Cat. 4A, however the EPA TMDLID was not available at the time of assessment. In 2006, the bacteria impairment switched from fecal coliform to E. coli.

Sources: Agriculture
Municipal Point Source Discharges
Non-Point Source

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Appomattox River, Lower and Tributaries**

TMDL Group ID: **15008**

VAP-J15E_APP01A98	Lower Appomattox River/Ashton Creek	CHESTERFIELD CO PRINCE GEORGE CO	The estuarine Appomattox River from the fall line to river mile 5.0. APPTF.

VA Overall AU Category: **5D**

Use	Impairment	0.94 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		15008	**2006**	**2010**	15008 (SAV) VAP-J15E-02 During the 2006 cycle, the Chesapeake Bay Water Quality Standards were adopted. The Appomattox River Tidal Fresh segment (APPTF) failed the Submerged Aquatic Vegetation acreage requirements.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		15008	**2006**	**2010**	15008 (SAV) VAP-J15E-02 During the 2006 cycle, the Chesapeake Bay Water Quality Standards were adopted. The Appomattox River Tidal Fresh segment (APPTF) failed the Submerged Aquatic Vegetation acreage requirements.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Appomattox River, Lower and Tributaries**

TMDL Group ID: **15008**

VAP-J15E_APP02A98	Appomattox River	CHESTERFIELD CO PRINCE GEORGE CO	The estuarine portion of the Appomattox River from river mile 5.0 to the confluence with the James River. APPTF.

VA Overall AU Category: **5D**

Use	Impairment	1.63 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		15008	**2006**	**2010**	15008 (SAV) VAP-J15E-02 During the 2006 cycle, the Chesapeake Bay Water Quality Standards were adopted. The Appomattox River Tidal Fresh segment (APPTF) failed the Submerged Aquatic Vegetation acreage requirements.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		15008	**2006**	**2010**	15008 (SAV) VAP-J15E-02 During the 2006 cycle, the Chesapeake Bay Water Quality Standards were adopted. The Appomattox River Tidal Fresh segment (APPTF) failed the Submerged Aquatic Vegetation acreage requirements.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Appomattox River, Lower and Tributaries**

TMDL Group ID: **15008**

VAP-J17E_SFT01D04	Swift Creek	CHESTERFIELD CO COLONIAL HEIGHTS CITY	Tidal Swift Creek from the confluence with Timsbury Creek downstream to the mouth at the Appomattox River APPTF.

VA Overall AU Category: **5A**

Use	Impairment	0.09 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		15008	**2006**	**2010**	15008 (SAV) VAP-J15E-02 During the 2006 cycle, the Chesapeake Bay Water Quality Standards were adopted. The Appomattox River Tidal Fresh segment (APPTF) failed the Submerged Aquatic Vegetation acreage requirements.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		15008	**2006**	**2010**	15008 (SAV) VAP-J15E-02 During the 2006 cycle, the Chesapeake Bay Water Quality Standards were adopted. The Appomattox River Tidal Fresh segment (APPTF) failed the Submerged Aquatic Vegetation acreage requirements.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Appomattox River, Lower and Tributaries**

TMDL Group ID: **15008**

VAP-J17E_ZZZ02A02	Unsegmented portion in J17E watershed	CHESTERFIELD CO	Unsegmented portion of J17E watershed HUC: 02080207 APPTF

VA Overall AU Category: **5A**

Use	Impairment	0.05 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		15008	**2006**	**2010**	15008 (SAV) VAP-J15E-02 During the 2006 cycle, the Chesapeake Bay Water Quality Standards were adopted. The Appomattox River Tidal Fresh segment (APPTF) failed the Submerged Aquatic Vegetation acreage requirements.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		15008	**2006**	**2010**	15008 (SAV) VAP-J15E-02 During the 2006 cycle, the Chesapeake Bay Water Quality Standards were adopted. The Appomattox River Tidal Fresh segment (APPTF) failed the Submerged Aquatic Vegetation acreage requirements.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Appomattox River, Lower and Tributaries**

TMDL Group ID: **85000**

VAP-J15R_HRA01A04	Harrison Creek	CHESTERFIELD CO COLONIAL HEIGHTS CITY	Headwaters to mouth at Appomattox River.

VA Overall AU Category: **5A**

Use	Impairment	2.39 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**		85000	**2006**	**2016**	00043 (FC) VAP-J15R-03 In 2004, the segment was listed as not supporting for recreation use due to fecal coliform violations rate at USGS Stations 02041758 and 02041760. In 2006, E. coli. was added as an impairment due to a violation rate of 2/4 recorded at monitoring station 2-HRA000.85.
		Sources: Source Unknown				
Recreation	**Fecal Coliform**		85000	**2004**	**2016**	00043 (FC) VAP-J15R-03 In 2004, the segment was listed as not supporting for recreation use due to fecal coliform violations rate at USGS Stations 02041758 and 02041760. In 2006, E. coli. was added as an impairment due to a violation rate of 2/4 recorded at monitoring station 2-HRA000.85.
		Sources: Source Unknown				

VAP-J15R_POR01A04	Poor Creek	PETERSBURG CITY	Headwaters to mouth at Appomattox River

VA Overall AU Category: **5A**

Use	Impairment	3.13 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**		85000	**2004**	**2016**	00043 (FC) VAP-J15R-04 Poor Creek was initially listed in 2004 for fecal coliform violations at USGS station 02041745.
		Sources: Source Unknown				

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Ashton Creek**

TMDL Group ID: **15012**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAP-J15R_ASH01A06	**Ashton Creek**	CHESTERFIELD CO	Headwaters to mouth at Appomattox River 02080207

VA Overall AU Category: **5A**

Use	Impairment	8.48 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**		15012	**2006**	**2018**	15012 (E.coli) VAP-J15R-04 In 2006, this segment was assessed as not supporting for the recreation use due to an E. coli violation rate of 2/9 at the Rt. 746 bridge (2-ASH001.26).

Sources: Source Unknown

TMDL Watershed Name: **Austin Creek**

TMDL Group ID: **00734**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAC-H21R_AUS01A00	**Austin Creek**	BUCKINGHAM CO	Austin Creek from the headwaters to the mouth at the North River.

VA Overall AU Category: **5A**

Use	Impairment	6.14 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**		00734	**2004**	**2008**	

Sources: Non-Point Source

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Bailey Creek**

TMDL Group ID: **00339**

VAP-G03R_BLY01A98	Bailey Creek	HOPEWELL CITY PRINCE GEORGE CO	Bailey Creek from its headwaters to the fall line at approximately river mile 1.

VA Overall AU Category: **5A**

Use	Impairment	6.54 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**		00339	**1998**	**2010**	VAP-G03R-02

Bailey Creek was initially included on the 303(d) list in 1994 based on water quality monitoring performed at the Route 10 bridge (2-BLY000.65) and historical water quality problems in Bailey Bay. The causes of impairment were excessive DO and fecal coliform standard violations recorded at 2-BLY000.65.

A special study was performed in 1997 and 1998 to delineate the area of impact. The tidal station 2-BLY000.65 continues to show impairment, however the riverine stations in Bailey Creek did not show impairment for dissolved oxygen in the 2002 cycle, therefore dissolved oxygen was removed as an impairment during the 2004 cycle. It continued to show fecal coliform impairment.

There has been no additional monitoring in the segment since 2000, therefore the previous assessment is carried over to 2006.

Sources: Source Unknown

TMDL Group ID: **00526**

VAP-G03R_BLY01A98	Bailey Creek	HOPEWELL CITY PRINCE GEORGE CO	Bailey Creek from its headwaters to the fall line at approximately river mile 1.

VA Overall AU Category: **5A**

Use	Impairment	6.54 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**Aldrin**		00526	**2002**	**2014**	VAP-G03R-02

The non-tidal portion of Bailey Creek was assessed in the 2002 cycle as impaired of the Fish Consumption Use goal because of exceedances of the human health screening levels for PCBs and aldrin in fish studies at station 2-BLY005.72 in 1997. Heptachlor epoxide was found in one species, so is considered an "observed effect." The TMDLs for aldrin and PCBs in fish are due in 2014.

There has been no additional monitoring in the segment since 2000, therefore the previous assessment is carried over to 2006.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Bailey Creek**

TMDL Group ID: **00589**

VAP-G03R_BLY01A98	Bailey Creek	HOPEWELL CITY PRINCE GEORGE CO	Bailey Creek from its headwaters to the fall line at approximately river mile 1.

VA Overall AU Category: **5A**

Use	Impairment	6.54 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**		00589	**2002**	**2014**	VAP-G03R-02

The non-tidal portion of Bailey Creek was assessed in the 2002 cycle as impaired of the Fish Consumption Use goal because of exceedances of the human health screening levels for PCBs and aldrin in fish studies at station 2-BLY005.72 in 1997. Heptachlor epoxide was found in one species, so is considered an "observed effect." The TMDLs for aldrin and PCBs in fish are due in 2014.

There has been no additional monitoring in the segment since 2000, therefore the previous assessment is carried over to 2006.

Sources: Source Unknown

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Bailey Creek (tidal), Cattail Creek (tidal) (JMSTFL)**

TMDL Group ID: **01782**

VAP-G02E_JMS03A06	**James River**	CHARLES CITY CO HOPEWELL CITY	The James River and the tidal portion of all tributaries from the upstream extent of JMSTFI to the downstream extent of PWS. JMSTFI

VA Overall AU Category: **5A**

Use	Impairment	0.75 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01782	**2006**	**2010**	VAP-G03E-02

The James River from the Appomattox River to the Chickahominy River was originally listed on the 1998 list as fully supporting but threatened of the Aquatic Life Use goal based on chlorophyll a violations. During the 1998 cycle, EPA extended the segment upstream to the fall line and downgraded the river to not supporting the Aquatic Life Use, citing nutrient concerns.

In previous cycles, the mainstem James River had acceptable dissolved oxygen levels. In addition the entire tidal freshwater portion (fall line to just above the Chickahominy River) has good benthic community based on the results from the Chesapeake Bay Benthic Index of Biological Community; therefore the James River from the fall line to the oligohaline boundary was considered impaired solely for Nutrients/Eutrophication Biological Indicators (EPA Overlist).

During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the Shallow Water Use SAV acreage requirements. However, it also failed the 30-day Open Water summer dissolved oxygen criteria. There was insufficient information to assess the other OW criteria or the Migratory Spawning Use.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Bailey Creek (tidal), Cattail Creek (tidal) (JMSTFL)**

TMDL Group ID: **01782**

Open-Water Aquatic Life	**Oxygen, Dissolved**	01782	**2006**	**2010**	VAP-G03E-02

The James River from the Appomattox River to the Chickahominy River was originally listed on the 1998 list as fully supporting but threatened of the Aquatic Life Use goal based on chlorophyll a violations. During the 1998 cycle, EPA extended the segment upstream to the fall line and downgraded the river to not supporting the Aquatic Life Use, citing nutrient concerns.

In previous cycles, the mainstem James River had acceptable dissolved oxygen levels. In addition the entire tidal freshwater portion (fall line to just above the Chickahominy River) has good benthic community based on the results from the Chesapeake Bay Benthic Index of Biological Community; therefore the James River from the fall line to the oligohaline boundary was considered impaired solely for Nutrients/Eutrophication Biological Indicators (EPA Overlist).

During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the Shallow Water Use SAV acreage requirements. However, it also failed the 30-day Open Water summer dissolved oxygen criteria. There was insufficient information to assess the other OW criteria or the Migratory Spawning Use.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Bailey Creek (tidal), Cattail Creek (tidal) (JMSTFL)**

TMDL Group ID: **01782**

VAP-G02E_XGJ01A06	UT to James River	CHESTERFIELD CO	To mouth at the Appomattox River.
			JMSTFI

VA Overall AU Category: **5A**

Use	Impairment	0.01 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01782	**2006**	**2010**	VAP-G03E-02 During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the 30-day Open Water summer dissolved oxygen criteria. There was insufficient information to assess the other OW criteria or the Migratory Spawning Use.
		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)			
Open-Water Aquatic Life	**Oxygen, Dissolved**		01782	**2006**	**2010**	VAP-G03E-02 During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the 30-day Open Water summer dissolved oxygen criteria. There was insufficient information to assess the other OW criteria or the Migratory Spawning Use.
		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)			

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Bailey Creek (tidal), Cattail Creek (tidal) (JMSTFL)**

TMDL Group ID: **01782**

VAP-G02E_XGK01A06	UT to James River	CHESTERFIELD CO	Tidal limit to mouth near Appomattox River
			JMSTFI

VA Overall AU Category: **5A**

Use	Impairment	0.81 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01782	**2006**	**2010**	VAP-G03E-02 During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the 30-day Open Water summer dissolved oxygen criteria. There was insufficient information to assess the other OW criteria or the Migratory Spawning Use.
		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)			
Open-Water Aquatic Life	**Oxygen, Dissolved**		01782	**2006**	**2010**	VAP-G03E-02 During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the 30-day Open Water summer dissolved oxygen criteria. There was insufficient information to assess the other OW criteria or the Migratory Spawning Use.
		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)			

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Bailey Creek (tidal), Cattail Creek (tidal) (JMSTFL)**

TMDL Group ID: **01782**

VAP-G03E_BLY01A98	**Bailey Creek/Cattail Creek**	HOPEWELL CITY PRINCE GEORGE CO	The tidal portions of Bailey Creek and Cattail Creek. JMSTFI

VA Overall AU Category: **5A**

Use	Impairment	0.29 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01782	**1998**	**2010**	VAP-G03E-04 The segment was initially listed on the 1994 cycle 303(d) list because of excessive violations of the dissolved oxygen, fecal coliform, and ammonia standards. The segment has been previously assessed as not supporting the Aquatic Life use because of dissolved oxygen violations at 2-BLY000.65. During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the Shallow Water Use SAV acreage requirements and the 30-day Open Water summer dissolved oxygen criteria. There was insufficient information to assess the other OW criteria or the Migratory Spawning Use.

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		01782	**1998**	**2010**	VAP-G03E-04 The segment was initially listed on the 1994 cycle 303(d) list because of excessive violations of the dissolved oxygen, fecal coliform, and ammonia standards. The segment has been previously assessed as not supporting the Aquatic Life use because of dissolved oxygen violations at 2-BLY000.65. During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the Shallow Water Use SAV acreage requirements and the 30-day Open Water summer dissolved oxygen criteria.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Bailey Creek (tidal), Cattail Creek (tidal) (JMSTFL)**

TMDL Group ID: **01782**

VAP-G03E_GRV01A02	Gravelly Run	HOPEWELL CITY	Tidal limit to mouth at James River
			JMSTFI

VA Overall AU Category: **5A**

Use	Impairment	0.01 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01782	**2006**	**2010**	VAP-G03E-02 During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the 30-day Open Water summer dissolved oxygen criteria. There was insufficient information to assess the other OW criteria or the Migratory Spawning Use.
		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)			
Open-Water Aquatic Life	**Oxygen, Dissolved**		01782	**2006**	**2010**	VAP-G03E-02 During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the 30-day Open Water summer dissolved oxygen criteria. There was insufficient information to assess the other OW criteria or the Migratory Spawning Use.
		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)			

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Bailey Creek (tidal), Cattail Creek (tidal) (JMSTFL)**

TMDL Group ID: **01782**

VAP-G03E_JMS01A00	**James River**	CHARLES CITY CO PRINCE GEORGE CO	The mainstem of the James River from the confluence with the Appomattox River downstream to Queens Creek. Now incorporates previous segments JMS02A00 and JMS03A02 JMSTFI

VA Overall AU Category: **5A**

Use	Impairment	13.82 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01782	**2006**	**2010**	VAP-G03E-02

The James River from the Appomattox River to the Chickahominy River was originally listed on the 1998 list as fully supporting but threatened of the Aquatic Life Use goal based on chlorophyll a violations. During the 1998 cycle, EPA extended the segment upstream to the fall line and downgraded the river to not supporting the Aquatic Life Use, citing nutrient concerns.

In previous cycles, the mainstem James River had acceptable dissolved oxygen levels. In addition the entire tidal freshwater portion (fall line to just above the Chickahominy River) has good benthic community based on the results from the Chesapeake Bay Benthic Index of Biological Community; therefore the James River from the fall line to the oligohaline boundary was considered impaired solely for Nutrients/Eutrophication Biological Indicators (EPA Overlist).

During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the Shallow Water Use SAV acreage requirements. However, it also failed the 30-day Open Water summer dissolved oxygen criteria. There was insufficient information to assess the other OW criteria or the Migratory Spawning Use.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Bailey Creek (tidal), Cattail Creek (tidal) (JMSTFL)**

TMDL Group ID: **01782**

Open-Water Aquatic Life	**Oxygen, Dissolved**	01782	**2006**	**2010**	VAP-G03E-02

The James River from the Appomattox River to the Chickahominy River was originally listed on the 1998 list as fully supporting but threatened of the Aquatic Life Use goal based on chlorophyll a violations. During the 1998 cycle, EPA extended the segment upstream to the fall line and downgraded the river to not supporting the Aquatic Life Use, citing nutrient concerns.

In previous cycles, the mainstem James River had acceptable dissolved oxygen levels. In addition the entire tidal freshwater portion (fall line to just above the Chickahominy River) has good benthic community based on the results from the Chesapeake Bay Benthic Index of Biological Community; therefore the James River from the fall line to the oligohaline boundary was considered impaired solely for Nutrients/Eutrophication Biological Indicators (EPA Overlist).

During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the Shallow Water Use SAV acreage requirements. However, it also failed the 30-day Open Water summer dissolved oxygen criteria. There was insufficient information to assess the other OW criteria or the Migratory Spawning Use.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Bailey Creek (tidal), Cattail Creek (tidal) (JMSTFL)**

TMDL Group ID: **01782**

VAP-G03E_PTH01A00	**Poythress Run**	HOPEWELL CITY	The tidal portion of Poythress Run. JMSTFI

VA Overall AU Category: **5A**

Use	Impairment	0.01 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01782	**2006**	**2010**	VAP-G03E-02 During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the 30-day Open Water summer dissolved oxygen criteria. There was insufficient information to assess the other OW criteria or the Migratory Spawning Use.
		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)			
Open-Water Aquatic Life	**Oxygen, Dissolved**		01782	**2006**	**2010**	VAP-G03E-02 During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the 30-day Open Water summer dissolved oxygen criteria. There was insufficient information to assess the other OW criteria or the Migratory Spawning Use.
		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)			

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Bailey Creek (tidal), Cattail Creek (tidal) (JMSTFL)**

TMDL Group ID: **01782**

VAP-G03E_PWL01A02	Powell Creek	PRINCE GEORGE CO	The estuarine portion of Powell Creek. JMSTFI

VA Overall AU Category: **5A**

Use	Impairment	0.25 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01782	**2006**	**2010**	VAP-G03E-02 During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the 30-day Open Water summer dissolved oxygen criteria. There was insufficient information to assess the other OW criteria or the Migratory Spawning Use.

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		01782	**2006**	**2010**	VAP-G03E-02 During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the 30-day Open Water summer dissolved oxygen criteria. There was insufficient information to assess the other OW criteria or the Migratory Spawning Use.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Bailey Creek (tidal), Cattail Creek (tidal) (JMSTFL)**

TMDL Group ID: **01782**

VAP-G03E_QEE01A06 **Queens Creek** CHARLES CITY CO Tidal limit to mouth

JMSTFI

VA Overall AU Category: **5A**

Use	Impairment (0.23 SQUARE MILES)	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**	01782	**2006**	**2010**	VAP-G03E-02 During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the 30-day Open Water summer dissolved oxygen criteria. There was insufficient information to assess the other OW criteria or the Migratory Spawning Use.
	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)			
Open-Water Aquatic Life	**Oxygen, Dissolved**	01782	**2006**	**2010**	VAP-G03E-02 During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the 30-day Open Water summer dissolved oxygen criteria. There was insufficient information to assess the other OW criteria or the Migratory Spawning Use.
	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)			

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Bailey Creek (tidal), Cattail Creek (tidal) (JMSTFL)**

TMDL Group ID: **01782**

VAP-G03E_ZZZ01A00	Unsegmented estuaries in G03	CHARLES CITY CO PRINCE GEORGE CO	Unsegmented portion of watershed JMSTFI

VA Overall AU Category: **5A**

Use	Impairment	0.75 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01782	**2006**	**2010**	VAP-G03E-02 During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the 30-day Open Water summer dissolved oxygen criteria. There was insufficient information to assess the other OW criteria or the Migratory Spawning Use.
		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)			
Open-Water Aquatic Life	**Oxygen, Dissolved**		01782	**2006**	**2010**	VAP-G03E-02 During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the 30-day Open Water summer dissolved oxygen criteria. There was insufficient information to assess the other OW criteria or the Migratory Spawning Use.
		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)			

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Bailey Creek (tidal), Cattail Creek (tidal) (JMSTFL)**

TMDL Group ID: **01782**

VAP-G04E_BNG01A04	**Brandon Gut**	SURRY CO	Tidal portion of Brandon Gut
			JMSTFI

VA Overall AU Category: **5A**

Use	Impairment	0.01 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01782	**2006**	**2010**	VAP-G03E-02 During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater and Oligohaline James River failed the 30-day Open Water summer dissolved oxygen criteria.
		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)			
Open-Water Aquatic Life	**Oxygen, Dissolved**		01782	**2006**	**2010**	VAP-G03E-02 During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater and Oligohaline James River failed the 30-day Open Water summer dissolved oxygen criteria.
		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)			

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Bailey Creek (tidal), Cattail Creek (tidal) (JMSTFL)**

TMDL Group ID: **01782**

VAP-G04E_JMS01A02	**James River**	CHARLES CITY CO PRINCE GEORGE CO	The James River from the confluence with Queens Creek downstream to Brandon Point JMSTFI

VA Overall AU Category: **5A**

Use	Impairment	7.80 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01782	**2006**	**2010**	VAP-G03E-02

The James River from the Appomattox River to the Chickahominy River was originally listed on the 1998 list as fully supporting but threatened of the Aquatic Life Use goal based on chlorophyll a violations. During the 1998 cycle, EPA extended the segment upstream to the fall line and downgraded the river to not supporting the Aquatic Life Use, citing nutrient concerns.

In previous cycles, the mainstem James River had acceptable dissolved oxygen levels. In addition the entire tidal freshwater portion (fall line to just above the Chickahominy River) has good benthic community based on the results from the Chesapeake Bay Benthic Index of Biological Community; therefore the James River from the fall line to the oligohaline boundary was considered impaired solely for Nutrients/Eutrophication Biological Indicators (EPA Overlist).

During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the Shallow Water Use SAV acreage requirements. However, it also failed the 30-day Open Water summer dissolved oxygen criteria. There was insufficient information to assess the other OW criteria or the Migratory Spawning Use.

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)

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Bailey Creek (tidal), Cattail Creek (tidal) (JMSTFL)**

TMDL Group ID: **01782**

Open-Water Aquatic Life	**Oxygen, Dissolved**	01782	**2006**	**2010**	VAP-G03E-02

The James River from the Appomattox River to the Chickahominy River was originally listed on the 1998 list as fully supporting but threatened of the Aquatic Life Use goal based on chlorophyll a violations. During the 1998 cycle, EPA extended the segment upstream to the fall line and downgraded the river to not supporting the Aquatic Life Use, citing nutrient concerns.

In previous cycles, the mainstem James River had acceptable dissolved oxygen levels. In addition the entire tidal freshwater portion (fall line to just above the Chickahominy River) has good benthic community based on the results from the Chesapeake Bay Benthic Index of Biological Community; therefore the James River from the fall line to the oligohaline boundary was considered impaired solely for Nutrients/Eutrophication Biological Indicators (EPA Overlist).

During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the Shallow Water Use SAV acreage requirements. However, it also failed the 30-day Open Water summer dissolved oxygen criteria. There was insufficient information to assess the other OW criteria or the Migratory Spawning Use.

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)

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Bailey Creek (tidal), Cattail Creek (tidal) (JMSTFL)**

TMDL Group ID: **01782**

VAP-G04E_JMS03A04	**James River**	CHARLES CITY CO SURRY CO	Brandon Point to the tidal freshwater/oligohaline boundary at approximately river mile 52.08. JMSTFI

VA Overall AU Category: **5A**

Use	Impairment	4.71 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01782	**2006**	**2010**	VAP-G03E-02

In the 2004 cycle, the James River from Brandon Point downstream to the Chickahominy River confluence was assessed as impaired of the Aquatic Life Use and Wildlife Uses due to chloride violations (see 2004 fact sheet VAP-G03E-02.) The chloride TMDL is due in 2016. In the 2006 cycle, the segment remained impaired.

The James River from the Appomattox River to the Chickahominy River was originally listed on the 1998 list as fully supporting but threatened of the Aquatic Life Use goal based on chlorophyll a violations. During the 1998 cycle, EPA extended the segment upstream to the fall line and downgraded the river to not supporting the Aquatic Life Use, citing nutrient concerns.

In previous cycles, the mainstem James River had acceptable dissolved oxygen levels. In addition the entire tidal freshwater portion (fall line to just above the Chickahominy River) has good benthic community based on the results from the Chesapeake Bay Benthic Index of Biological Community; therefore the James River from the fall line to the oligohaline boundary was considered impaired solely for Nutrients/Eutrophication Biological Indicators (EPA Overlist).

During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the Shallow Water Use SAV acreage requirements. However, it also failed the 30-day Open Water summer dissolved oxygen criteria.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Bailey Creek (tidal), Cattail Creek (tidal) (JMSTFL)**

TMDL Group ID: **01782**

Open-Water Aquatic Life	**Oxygen, Dissolved**	01782	**2006**	**2010**	VAP-G03E-02

The James River from the Appomattox River to the Chickahominy River was originally listed on the 1998 list as fully supporting but threatened of the Aquatic Life Use goal based on chlorophyll a violations. During the 1998 cycle, EPA extended the segment upstream to the fall line and downgraded the river to not supporting the Aquatic Life Use, citing nutrient concerns.

In previous cycles, the mainstem James River had acceptable dissolved oxygen levels. In addition the entire tidal freshwater portion (fall line to just above the Chickahominy River) has good benthic community based on the results from the Chesapeake Bay Benthic Index of Biological Community; therefore the James River from the fall line to the oligohaline boundary was considered impaired solely for Nutrients/Eutrophication Biological Indicators (EPA Overlist).

During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the Shallow Water Use SAV acreage requirements. However, it also failed the 30-day Open Water summer dissolved oxygen criteria.

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)

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Bailey Creek (tidal), Cattail Creek (tidal) (JMSTFL)**

TMDL Group ID: **01782**

VAP-G04E_KEN01A06	Kennon Creek	CHARLES CITY CO	Tidal limit to mouth
			JMSTFI

VA Overall AU Category: **5A**

Use	Impairment	0.05 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01782	**2006**	**2010**	VAP-G03E-02 During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the 30-day Open Water summer dissolved oxygen criteria.
		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)			
Open-Water Aquatic Life	**Oxygen, Dissolved**		01782	**2006**	**2010**	VAP-G03E-02 During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the 30-day Open Water summer dissolved oxygen criteria.
		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)			

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Bailey Creek (tidal), Cattail Creek (tidal) (JMSTFL)**

TMDL Group ID: **01782**

VAP-G04E_UCK01A06	**Upper Chippokes Creek**	PRINCE GEORGE CO SURRY CO	Tidal limit to mouth at James River JMSTFI

VA Overall AU Category: **5A**

Use	Impairment	0.99 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01782	**2006**	**2010**	VAP-G03E-02 During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the 30-day Open Water summer dissolved oxygen criteria.
		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)			
Open-Water Aquatic Life	**Oxygen, Dissolved**		01782	**2006**	**2010**	VAP-G03E-02 During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the 30-day Open Water summer dissolved oxygen criteria.
		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)			

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Bailey Creek (tidal), Cattail Creek (tidal) (JMSTFL)**

TMDL Group ID: **01782**

VAP-G04E_ZZZ01A00	Unsegmented estuaries in G04	CHARLES CITY CO SURRY CO	Unsegmented portion of watershed JMSTFI

VA Overall AU Category: **5A**

Use	Impairment	0.37 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01782	**2006**	**2010**	VAP-G03E-02 During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater and Oligohaline James River segments failed the 30-day Open Water summer dissolved oxygen criteria.

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		01782	**2006**	**2010**	VAP-G03E-02 During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater and Oligohaline James River failed the 30-day Open Water summer dissolved oxygen criteria.

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)

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Bailey Creek/Cattail Creek**

TMDL Group ID: **00335**

VAP-G03E_BLY01A98	Bailey Creek/Cattail Creek	HOPEWELL CITY PRINCE GEORGE CO	The tidal portions of Bailey Creek and Cattail Creek. JMSTFI

VA Overall AU Category: **5A**

Use	Impairment	0.29 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**		00335	**1998**	**2010**	VAP-G03E-01 The segment was initially listed on the 1994 cycle 303(d) list because of excessive violations of the dissolved oxygen, fecal coliform, and ammonia standards. For the 2006 303(d) list, the segment continues to be assessed as not supporting of the Recreation Use goal based on an E. coli violation rate of 4/23 at 2-BLY000.65. The TMDL is due in 2010.

Sources: Industrial Point Source Discharge
Municipal Point Source Discharges
Non-Point Source
Source Unknown

TMDL Group ID: **00587**

VAP-G03E_BLY01A98	Bailey Creek/Cattail Creek	HOPEWELL CITY PRINCE GEORGE CO	The tidal portions of Bailey Creek and Cattail Creek. JMSTFI

VA Overall AU Category: **5A**

Use	Impairment	0.29 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**		00587	**2002**	**2014**	VAP-G01E-03 The segment was assessed not supporting of the Fish Consumption Use beginning in 2002 because of PCBs in fish tissue during monitoring in 1997 and 2001. In addition, during the 2006 cycle, the VDH restriction for PCBs in the James River was extended on 12/13/2004 and now includes the tidal portions of several tributaries, including Bailey Creek up to Route 630.

Sources: Contaminated Sediments
Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Bailey Creek/Cattail Creek**

TMDL Group ID: **01142**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAP-G03E_BLY01A98	**Bailey Creek/Cattail Creek**	HOPEWELL CITY PRINCE GEORGE CO	The tidal portions of Bailey Creek and Cattail Creek. JMSTFI

VA Overall AU Category: **5A**

Use	Impairment	0.29 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**pH**		01142	**2004**	**2016**	VAP-G03E-01 pH violations were experienced at Hopewell Region Monitoring and Assessment Project (HERMA) stations during the 1998-1999. Although the pH violation rate upstream at 2-BLY000.65 was 0/38, the segment should remain listed due to the downstream HERMA stations.

Sources: Industrial Point Source Discharge
Municipal Point Source Discharges
Source Unknown

TMDL Watershed Name: **Ballard Creek - Upper (Tributary to James River)**

TMDL Group ID: **76700**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAT-G11E_BAL01A06	**Ballard Creek - Upper (Tributary to James River)**	ISLE OF WIGHT CO	South shore tributary to James R., upstream of James R. Bridge. North of Ragged Isand area. From end of tidal waters downstream to end of DSS shellfish direct harvesting condemnation # 062- 164 A. Portion of CBP segment JMSMH.

VA Overall AU Category: **5A**

Use	Impairment	0.02 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Shellfishing	**Fecal Coliform**		76700	**2006**	**2010**	DSS shellfish direct harvesting condemnation # 061- 064 A.

Sources: Source Unknown

TMDL Watershed Name: **Ballinger Creek**

TMDL Group ID: **01656**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAV-H17R_BLR01A00	**Ballinger Creek**	ALBEMARLE CO	Ballanger Creek from the headwaters downstream to its confluence with the James River.

VA Overall AU Category: **5A**

Use	Impairment	9.91 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**		01656	**2004**	**2016**	

Sources: Non-Point Source
Wildlife Other than Waterfowl

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Baptist Run**

TMDL Group ID: **01509**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAT-G11R_BAP01A04	**Baptist Run**	YORK CO	Located south of Lackey. Segment begins at outflow of pond upstream of station at Crawford Drive extending downstream to confluence with Great Run and Beaverdam Creek.

VA Overall AU Category: **5A**

Use	Impairment	1.70 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**		01509	**2004**	**2016**	The Recreation Use is impaired (2 violates / 2 observations) based on exceedance of the DEQ Fecal Coliform bacteria instantaneous maximum criteria.

Sources: Source Unknown

TMDL Watershed Name: **Barbours Creek**

TMDL Group ID: **50036**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAW-I23R_BAR01A02	**Barbours Creek**	CRAIG CO	Barbours Creek mainstem from the Watershed Boundary with I22 at the mouth of Valley Branch upstream to the confluence of the South Prong Barbours Creek.

VA Overall AU Category: **5C**

Use	Impairment	6.32 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Temperature, water**		50036	**2006**	**2018**	Category 5C

Sources: Source Unknown

TMDL Watershed Name: **Barbours Creek, Lower**

TMDL Group ID: **01696**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAW-I22R_BAR01A00	**Barbours Creek Lower**	CRAIG CO	Barbours Creek from its mouth on Craig Creek upstream to the I23 Watershed Boundary located just downstream of the Rt. 617 and 611 junction at the mouth of Valley Branch.

VA Overall AU Category: **5A**

Use	Impairment	7.07 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**		01696	**2004**	**2016**	

Sources: Livestock (Grazing or Feeding Operations)
On-site Treatment Systems (Septic Systems and Similar Decencentralized Systems)
Unspecified Domestic Waste
Wildlife Other than Waterfowl

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Barbours Creek, Lower**

TMDL Group ID: **01697**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAW-I22R_BAR01A00	**Barbours Creek Lower**	CRAIG CO	Barbours Creek from its mouth on Craig Creek upstream to the I23 Watershed Boundary located just downstream of the Rt. 617 and 611 junction at the mouth of Valley Branch.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Temperature, water**	7.07 MILES	01697	**2002**	**2014**	Category 5C

Sources: Source Unknown

TMDL Watershed Name: **Bear Creek Lake**

TMDL Group ID: **50073**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAC-H36L_BRC01A06	**Bear Creek Lake**	CUMBERLAND CO	Bear Creek Lake at Bear Creek Lake State Park

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**pH**	43.13 ACRES	50073	**2006**	**2018**	

Sources: Source Unknown

TMDL Watershed Name: **Bear Garden Creek**

TMDL Group ID: **00730**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAC-H20R_BGC01A98	**Bear Garden Creek**	BUCKINGHAM CO	Bear Garden Creek from the a point 5 miles above the Fork Union Sanitary District raw water ntake to the mouth at the James River.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	4.69 MILES	00730	**2002**	**2014**	

Sources: Source Unknown

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAC-H20R_BGC02A04	**Bear Garden Creek**	BUCKINGHAM CO	Bear Garden Creek from its headwaters downstream to a point 5 miles above the Fork Union Sanitary DIstrict's raw water intake.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	4.52 MILES	00730	**2002**	**2014**	

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Beaver Creek**

TMDL Group ID: **00765**

VAC-H05R_BCR01A00	Beaver Creek	CAMPBELL CO	Beaver Creek mainstem from its mouth on the James River upstream to an unnamed tributaries mouth at the Rt. 501 Bridge.

VA Overall AU Category: **5A**

Use	Impairment	8.50 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**		00765	**2004**	**2016**	

Sources: Source Unknown

TMDL Group ID: **01662**

VAV-H23R_BVR02A04	Beaver Creek	ALBEMARLE CO	Beaver Creek from the headwaters downstream to the Beaver Creek Reservoir.

VA Overall AU Category: **5A**

Use	Impairment	4.80 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**		01662	**2004**	**2016**	

Sources: Non-Point Source
Wildlife Other than Waterfowl

TMDL Watershed Name: **Beaver Creek Reservoir**

TMDL Group ID: **50052**

VAV-H23L_00	Beaver Creek Reservoir	ALBEMARLE CO	Beaver Creek Reservoir

VA Overall AU Category: **5A**

Use	Impairment	104.00 ACRES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**pH**		50052	**2006**	**2018**	Newly listed for dissolved oxygen and pH in 2006. Dissolved oxygen impairment is natural.

Sources: Atmospheric Deposition - Acidity

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Beaverdam Creek**

TMDL Group ID: **01155**

VAP-G06R_BEV01A00	Beaverdam Creek	HANOVER CO	Beaverdam Creek from its headwaters to its mouth at the Chickahominy River.

VA Overall AU Category: **5A**

Use	Impairment	6.05 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**pH**		01155	**2004**	**2016**	VAP-G06R-06

Beaverdam Creek is assessed as not supporting of the Aquatic Life Use based on a pH standard violation rate of 3/4 at USGS station 02042433. However, during the 2006 cycle, monitoring at DEQ's station at the Route 156 bridge, only slightly upstream of the USGS station, had an acceptable violation rate of 0/9.

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

TMDL Group ID: **01170**

VAP-G09R_BDM01A98	Beaverdam Creek	NEW KENT CO	Beaverdam Creek from its headwaters to the upstream limit of Diascund Reservoir.

VA Overall AU Category: **5A**

Use	Impairment	4.06 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01170	**2002**	**2014**	VAP-G09R-01

Beaverdam Creek was assessed as not supporting of the Aquatic Life use because of dissolved oxygen standard violations at the Route 632 bridge (2-BDM004.12). The segment was initially considered fully supporting but threatened in the 1998 cycle, but was downgraded to impaired in the 2002 cycle. The DO TMDL is due in 2014.

Sources: Source Unknown

TMDL Group ID: **01171**

VAP-G09R_BDM01A98	Beaverdam Creek	NEW KENT CO	Beaverdam Creek from its headwaters to the upstream limit of Diascund Reservoir.

VA Overall AU Category: **5A**

Use	Impairment	4.06 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**		01171	**2004**	**2016**	VAP-G09R-01

In the 2004 cycle, Beaverdam Creek was assessed as not supporting the Recreation Use goal based on a fecal coliform violation rate of 3/19 at 2-BDM004.12. The fecal coliform TMDL is due in 2016. There has been no additional monitoring since 2001, therefore the segment remains impaired although there are no fecal coliform violations during the 2006 window. Further monitoring is recommended to confirm the impairment.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Beaverdam Creek**

TMDL Group ID: **01177**

VAP-H38R_BDC01A98 **Beaverdam Creek** GOOCHLAND CO, LOUISA CO — Beaverdam Creek from its headwaters to the James River.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	8.73 MILES	01177	**2004**	**2016**	VAP-H38R-03 The segment was originally listed as impaired of the Recreation use during the year 2004 cycle due to a fecal coliform violation rate of 4/21 at 2-BDC000.79. Sampling ended in 2001, therefore the 2004 assessment was carried over.

Sources: Source Unknown

TMDL Group ID: **10109**

VAP-G06R_BEV01A00 **Beaverdam Creek** HANOVER CO — Beaverdam Creek from its headwaters to its mouth at the Chickahominy River.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**	6.05 MILES	10109	**2006**	**2018**	VAP-G06R-12 Beaverdam Creek was assessed as not supporting the Recreation Use based on an E. coli violation rate of 3/9 at DEQ's station at the Route 156 bridge (2-BEV002.00.)

Sources: Source Unknown

TMDL Watershed Name: **Bennett Creek**

TMDL Group ID: **00609**

VAT-G13E_BEN01A04 **Bennett Creek - Tributary to Nansemond R.** SUFFOLK CITY — Western shore trib. to Nansemond R., near confluence with James R. Drains the Bennett Harbor area. From headwaters to mouth, including tidal tributaries. Portion of CBP segment JMSMH. DSS shellfish direct harvesting condemnation # 063- 046.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**	0.50 SQUARE MILES	00609	**2006**	**2016**	The Fish Consumption Use is impaired based on the VDH fish consumption advisory for PCBs issued 12/13/04. This segment was previously identified (2004 IR) as a site-specific impairment for PCBs in fish tissue concentrations under TMDL ID VAT-G13E-04, this previous impairment TMDL due date is carried forward for this AU, rather than base the TMDL due date on the issuance date of the VDH PCB advisory.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Bennett Creek**

TMDL Group ID: **01294**

VAT-G13E_BEN01A04	Bennett Creek - Tributary to Nansemond R.	SUFFOLK CITY	Western shore trib. to Nansemond R., near confluence with James R. Drains the Bennett Harbor area. From headwaters to mouth, including tidal tributaries. Portion of CBP segment JMSMH. DSS shellfish direct harvesting condemnation # 063- 046.

VA Overall AU Category: **5A**

Use	Impairment	0.50 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Shellfishing	**Fecal Coliform**		01294	**2006**	**2010**	DSS shellfish direct harvesting condemnation # 063- 046.

Sources: Source Unknown

TMDL Group ID: **01512**

VAT-G13E_BEN01A04	Bennett Creek - Tributary to Nansemond R.	SUFFOLK CITY	Western shore trib. to Nansemond R., near confluence with James R. Drains the Bennett Harbor area. From headwaters to mouth, including tidal tributaries. Portion of CBP segment JMSMH. DSS shellfish direct harvesting condemnation # 063- 046.

VA Overall AU Category: **5A**

Use	Impairment	0.50 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Enterococcus**		01512	**2006**	**2016**	The Recreation Use is impaired (4 violate / 14 obs.) due to exceedance of the instantaneous criteria for Enterococcus bacteria. The previous Fecal Coliform indicator bacteria impairment (VAT-G13E-04) no longer applies, replaced by Enterococcus criteria impairment since threshold of 12 observations reached, with TMDL ID and due date same as original FC impairment.

Sources: Source Unknown

TMDL Watershed Name: **Bent Creek**

TMDL Group ID: **00769**

VAC-H07R_BTC01A00	Bent Creek	APPOMATTOX CO	Bent Creek mainstem from its mouth on the James River upstream to its headwaters.

VA Overall AU Category: **5A**

Use	Impairment	13.50 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**		00769	**2004**	**2016**	

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Bernards Creek**

TMDL Group ID: **01183**

VAP-H39R_BOR01A02	Bernards Creek	POWHATAN CO	Headwaters to mouth at Norwood Creek

VA Overall AU Category: **5A**

Use	Impairment	6.97 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**		01183	**2004**	**2016**	VAP-H39R-10

Bernards Creek was assessed as impaired of the Recreation Use based on a fecal coliform violation rate of 5/22 at the Route 711 bridge (2-BOR001.73).

Sources: Source Unknown

TMDL Watershed Name: **Big Guinea Creek**

TMDL Group ID: **00167**

VAC-J06R_BGU01A98	Big Guinea Creek	CUMBERLAND CO	Big Guinea Creek from its headwaters to the mouth at the Appomattox River.

VA Overall AU Category: **5A**

Use	Impairment	8.46 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**		00167	**2006**	**2018**	

Sources: Source Unknown

Recreation	**Fecal Coliform**		00167	**2004**	**2016**	

Sources: Source Unknown

TMDL Watershed Name: **Big Lickinghole Creek/Little Lickinghole Creek**

TMDL Group ID: **01176**

VAP-H37R_BLG01A98	Big Lickinghole Creek/Little Lickinghole Creek	GOOCHLAND CO	The mainstems of Big Lickinghole and Little Lickinghole Creeks.

VA Overall AU Category: **5A**

Use	Impairment	29.54 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**		01176	**2002**	**2014**	VAP-H37R-01

The creeks were assessed not supporting of the Recreation use support goal based on water quality monitoring performed at the confluence of Big Lickinghole Creek and Little Lickinghole Creek (2-BLG002.60). The fecal coliform violation rate was 2/8.

Bacteria monitoring was switched to E. coli in 2003. During the 2006 cycle, the violation rate was 1/9 (insufficient for assessment).

Sources: Source Unknown

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Blackman Creek**

TMDL Group ID: **01304**

VAP-J16R_BCM01A04 **Blackman Creek** CHESTERFIELD CO Headwaters to mouth

HUC: 02080207

VA Overall AU Category: **5C**

Use	Impairment	4.45 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01304	**2004**	**2016**	VAP-J16R-02

The DO standards violation rate for Blackman Creek was 6/12, and the pH violation rate was 3/12. However, it is suspected the low DO and pH are due to natural conditions of the watershed. Therefore, for the 2006 cycle, Blackman Creek is assessed as Cat. 5C.

The segment also had observed effects for violation in Total Phosphorus standards with exceedances of 2/12.

Sources: Source Unknown

TMDL Group ID: **01305**

VAP-J16R_BCM01A04 **Blackman Creek** CHESTERFIELD CO Headwaters to mouth

HUC: 02080207

VA Overall AU Category: **5C**

Use	Impairment	4.45 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**pH**		01305	**2004**	**2016**	VAP-J16R-02

The DO standards violation rate for Blackman Creek was 6/12, and the pH violation rate was 3/12. However, it is suspected the low DO and pH are due to natural conditions of the watershed. Therefore, for the 2006 cycle, Blackman Creek is assessed as Cat. 5C.

The segment also had observed effects for violation in Total Phosphorus standards with exceedances of 2/12.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Blackwater Creek**

TMDL Group ID: **00358**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAC-H03R_BKW01A00	**Blackwater Creek**	LYNCHBURG CITY	Blackwater Creek mainstem from the confluence of Tomahawk and Burton Creeks downstream to the Blackwater Creek confluence on the James River.

VA Overall AU Category: **5A**

Use	Impairment	10.30 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**		00358	**2006**	**2010**	
		Sources: Combined Sewer Overflows				
Recreation	**Fecal Coliform**		00358	**1996**	**2010**	
		Sources: Combined Sewer Overflows				

TMDL Watershed Name: **Bleakhorn Creek - Tributary to Nansemond R.**

TMDL Group ID: **01299**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAT-G13E_BHN01A00	**Bleakhorn Creek - Tributary to Nansemond R.**	SUFFOLK CITY	Western shore trib. to Nansemond R., near confluence with James R. Drains the Eclipse area near Crittenden. From headwaters to mouth, including tidal tributaries. Portion of CBP segment JMSMH. DSS shellfish direct harvesting condemnation # 063- 182.

VA Overall AU Category: **5A**

Use	Impairment	0.04 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Shellfishing	**Fecal Coliform**		01299	**2006**	**2010**	DSS shellfish direct harvesting condemnation # 063- 182.
		Sources: Source Unknown				

TMDL Watershed Name: **Bloody Run**

TMDL Group ID: **01153**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAP-G06R_BDY01A04	**Bloody Run**	HANOVER CO	Headwaters to mouth at Powhite Creek

VA Overall AU Category: **5C**

Use	Impairment	1.05 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01153	**2004**	**2016**	VAP-G06R-11
						Bloody Run is assessed as not supporting of the Aquatic Life Use based on pH violation rates of 4/4 at USGS stations 0204243610 and 0204243650 and a dissolved oxygen violation rate of 3/3 at 0204243610.
		Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed				

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Bloody Run**

TMDL Group ID: **01154**

VAP-G06R_BDY01A04	Bloody Run	HANOVER CO	Headwaters to mouth at Powhite Creek

VA Overall AU Category: **5C**

Use	Impairment	1.05 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**pH**		01154	**2004**	**2016**	VAP-G06R-11

Bloody Run is assessed as not supporting of the Aquatic Life Use based on pH violation rates of 4/4 at USGS stations 0204243610 and 0204243650 and a dissolved oxygen violation rate of 3/3 at 0204243610.

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

TMDL Watershed Name: **Boatswain Creek**

TMDL Group ID: **01156**

VAP-G06R_BTS01A02	Boatswain Creek	HANOVER CO	Boatswain Creek from its headwaters to its mouth at the Chickahominy River.

VA Overall AU Category: **5A**

Use	Impairment	3.41 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**pH**		01156	**2004**	**2016**	VAP-G06R-07

Boatswain Creek is assessed as not supporting of the Aquatic Life Use based on a pH standard violation rate of 3/4 at USGS station 0204243830, 2/4 at USGS station 02043790, and 3/4 at DEQ station 2-BTS002.62.

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

TMDL Group ID: **10039**

VAP-G06R_BTS01A02	Boatswain Creek	HANOVER CO	Boatswain Creek from its headwaters to its mouth at the Chickahominy River.

VA Overall AU Category: **5A**

Use	Impairment	3.41 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**		10039	**2006**	**2018**	VAP-G06R-13

Boatswain Creek was assessed as not supporting of the Recreation Use based on an E. coli violation rate of 2/4 at 2-BTS002.62.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Bolar Run**

TMDL Group ID: **50043**

VAV-I01R_BOL01A04	Bolar Run	BATH CO HIGHLAND CO	Bolar Run from the headwaters downstream to its confluence with the Jackson River.

VA Overall AU Category: **5A**

Use	Impairment	6.40 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Temperature, water**		50043	**2006**	**2018**	Newly listed for temperature in 2006.

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

TMDL Watershed Name: **Broad Axe Run**

TMDL Group ID: **01661**

VAV-H23R_BRX01A00	Broad Axe Run	ALBEMARLE CO	Broad Axe Run from the headwaters downstream to its confluence with the Mechums River.

VA Overall AU Category: **5A**

Use	Impairment	1.95 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Benthic-Macroinvertebrate Bioassessments (Streams)**		01661	**2004**	**2016**	

Sources: Source Unknown

TMDL Watershed Name: **Broad Branch**

TMDL Group ID: **10042**

VAP-H39R_BOD02A06	Broad Branch	GOOCHLAND CO	Broad Branch from its headwaters to the dam upstream of Route 623.

VA Overall AU Category: **5D**

Use	Impairment	2.56 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**pH**		10042	**2006**	**2018**	VAP-H39R-02 In 2006 pH was added as an impairing cause based on 3 high DO violations in the summer of 2003 at 2-BOD003.31, which is located downstream of a pond draining a golf course. The source is considered unknown, but nonpoint source runoff is suspected. The TMDL is due in 2018.

Sources: Non-Point Source

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Broad Creek, Eastern Branch**

TMDL Group ID: **00353**

VAT-G15E_BRO01A02	Broad Creek, Eastern Br. Elizabeth R.	NORFOLK CITY	Located between Ingleside and Thomas Corner areas. North shore tributary to Eastern Branch Elizabeth River. Entirety of Broad Creek. Portion of CBP segment EBEMH. Portion of the DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	0.37 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Enterococcus**		00353	**2006**	**2016**	The Recreation Use is impaired (4 violate / 14 obs.) due to exceedance of the instantaneous criteria for Enterococcus bacteria. The previous Fecal Coliform indicator bacteria impairment (VAT-G13E-04) no longer applies, replaced by Enterococcus criteria impairment since threshold of 12 observations reached, with TMDL ID and due date same as original FC impairment.

Sources: Source Unknown

TMDL Watershed Name: **Broad Creek, Eastern Branch Elizabeth River**

TMDL Group ID: **00611**

VAT-G15E_BRO01A02	Broad Creek, Eastern Br. Elizabeth R.	NORFOLK CITY	Located between Ingleside and Thomas Corner areas. North shore tributary to Eastern Branch Elizabeth River. Entirety of Broad Creek. Portion of CBP segment EBEMH. Portion of the DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	0.37 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**		00611	**2006**	**2016**	The Fish Consumption Use is impaired based on the VDH fish consumption advisory for PCBs issued 12/13/04. This segment was previously identified (2004 IR) as a site-specific impairment for PCBs in fish tissue concentrations under TMDL ID: VAT-G15E-02-04, this previous impairment TMDL due date is carried forward for this AU, rather than base the TMDL due date on the issuance date of the VDH PCB advisory.

Sources: Source Unknown

VAT-G15E_EBE01A00	Eastern Branch, Elizabeth R. - Upper	CHESAPEAKE CITY NORFOLK CITY	Located between Carolanne Farms and Tanglewood areas. Upper Eastern Br., from headwaters to confluence of Broad Creek (RM 4.0). Portion of CBP segment EBEMH. Portion of the DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	0.38 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**		00611	**2006**	**2016**	The Fish Consumption Use is impaired based on the VDH fish consumption advisory for PCBs issued 12/13/04. This segment was previously identified (2004 IR) as a site-specific impairment for PCBs in fish tissue concentrations under TMDL ID: VAT-G15E-02-04, this previous impairment TMDL due date is carried forward for this AU, rather than base the TMDL due date on the issuance date of the VDH PCB advisory.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Broad Rock Creek**

TMDL Group ID: **10029**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAP-G01R_BDO01A06	**Broad Rock Creek**	RICHMOND CITY	Headwaters to Goode Creek

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**	3.28 MILES	10029	**2006**	**2018**	VAP-G01R-11

During the 2006 cycle, Broad Rock Creek was assessed as not supporting the Recreation Use based on an E. coli violation rate of 2/8 at 2-BDO000.38.

Sources: Source Unknown

TMDL Watershed Name: **Buffalo Creek**

TMDL Group ID: **01685**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAV-I38R_BLD01A00	**Buffalo Creek**	ROCKBRIDGE CO	Buffalo Creek from its confluence with an unnamed tributary near Buffalo Bend downstream to its confluence with the Maury River.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	3.94 MILES	01685	**2004**	**2016**	

Sources: Non-Point Source
Wildlife Other than Waterfowl

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAV-I38R_BLD02A04	**Buffalo Creek**	ROCKBRIDGE CO	Buffalo Creek from its confluence with Moore Creek downstream to its confluence with an unnamed tributary near Buffalo Bend.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	11.55 MILES	01685	**2006**	**2016**	Newly listed for bacteria in 2006.

Sources: Non-Point Source
Wildlife Other than Waterfowl

TMDL Group ID: **50096**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAC-J02R_BFL02A02	**Buffalo Creek**	PRINCE EDWARD CO	Buffalo Creek from the Spring Creek confluence to its mouth at the Appomattox River.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**	11.43 MILES	50096	**2006**	**2018**	

Sources: Non-Point Source

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Buffalo River**

TMDL Group ID: **00728**

VAC-H11R_BUF03A00	Buffalo River	AMHERST CO	Buffalo River mainstem from the upstream end of the WQS public water supply (PWS) designation upstream to the mouth of Franklin Creek.

VA Overall AU Category: **5A**

Use	Impairment	5.87 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**		00728	**2006**	**2016**	
		Sources:	Source Unknown			
Recreation	**Fecal Coliform**		00728	**2004**	**2016**	
		Sources:	Source Unknown			

TMDL Group ID: **50304**

VAC-H12R_BUF01A00	Buffalo River	NELSON CO	Buffalo River mainstem from its mouth on the Tye River upstream to a low water dam located at.

VA Overall AU Category: **5A**

Use	Impairment	2.33 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**		50304	**2004**	**2016**	
		Sources:	Source Unknown			

VAC-H12R_BUF02A02	Buffalo River	AMHERST CO	Buffalo River from Rocky Creek to the dam at the Route 629 bridge.

VA Overall AU Category: **5A**

Use	Impairment	5.46 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**		50304	**2004**	**2016**	
		Sources:	Source Unknown			

TMDL Watershed Name: **Bullpasture River**

TMDL Group ID: **50250**

VAV-I13R_BLP01A00	Bullpasture River	BATH CO HIGHLAND CO	Bullpasture River from the headwaters downstream to its confluence with the Cowpasture River.

VA Overall AU Category: **5A**

Use	Impairment	24.25 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**		50250	**2006**	**2018**	Newly listed for bacteria in 2006.
		Sources:	Non-Point Source Wildlife Other than Waterfowl			

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Burnetts Mill Creek - Tributary to Nansemond R.**

TMDL Group ID: **76145**

VAT-G13E_BML01A06	**Burnetts Mill Creek - Tributary to Nansemond R.**	SUFFOLK CITY	Eastern shore trib. to Nansemond R., south of the Nansemond area. Drains the Beamon area. From headwaters to mouth. Portion of CBP segment JMSMH. Portion of DSS shellfish direct harvesting condemnation # 063-008.

VA Overall AU Category: **5A**

Use	Impairment	0.03 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Shellfishing	**Fecal Coliform**		76145	**2006**	**2010**	Portion of DSS shellfish direct harvesting condemnation # 063- 008.

Sources: Source Unknown

TMDL Watershed Name: **Burton Creek**

TMDL Group ID: **50085**

VAC-H03R_BUN01A06	**Burton Creek**	LYNCHBURG CITY	Burton Creek from its headwaters to the confluence with Tomahawk Creek.

VA Overall AU Category: **5A**

Use	Impairment	3.47 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**		50085	**2006**	**2018**	

Sources: Source Unknown

TMDL Watershed Name: **Butterwood Creek**

TMDL Group ID: **15018**

VAP-J07R_BWD01A00	**Butterwood Creek**	POWHATAN CO	Butterwood Creek from its headwaters to its mouth at the Appomattox River.

VA Overall AU Category: **5A**

Use	Impairment	5.37 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**		15018	**2006**	**2018**	15018 (FC) VAP-J07R-03 Butterwood Creek was assessed as not supporting the Recreation Use due to a fecal coliform violation rate of 2/10 at the Route 603 bridge (2-BTR000.50).

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Byrd Creek**

TMDL Group ID: **00373**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAP-H34R_BYR01A98	**Byrd Creek**	FLUVANNA CO LOUISA CO	Byrd Creek from its headwaters to its mouth at the Little River at the branch of the James River at Elk Island.

VA Overall AU Category: **5A**

Use	Impairment	25.97 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**		00373	**2002**	**2010**	VAP-H34R-01 Assessed as impaired of the Swimmable Use based on a fecal coliform standard violation rate of 3/21 at the Route 603 bridge (2-BYR003.35) during the 2004 cycle. Monitoring was discontinued in 2001, therefore the impairment was carried over to the 2006 cycle.

Sources: Source Unknown

TMDL Watershed Name: **Calfpasture River**

TMDL Group ID: **50251**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAV-I30R_CFP02A00	**Calfpasture River**	AUGUSTA CO ROCKBRIDGE CO	Calfpasture River from its confluence with Tizzle Branch downstream to its confluence with Brattons Run.

VA Overall AU Category: **5A**

Use	Impairment	23.60 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**		50251	**2006**	**2018**	Newly listed for bacteria in 2006.

Sources: Non-Point Source
Wildlife Other than Waterfowl

TMDL Watershed Name: **Carbell Swamp**

TMDL Group ID: **01516**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAT-G14R_CRL01A02	**Carbell Swamp**	ISLE OF WIGHT CO NORFOLK CITY	Upstream tributary to the northwest branch of Lake Prince (near Holly Grove Church). Entire watershed is portion of PWS for City of Norfolk.

VA Overall AU Category: **5A**

Use	Impairment	3.62 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Benthic-Macroinvertebrate Bioassessments (Streams)**		01516	**2004**	**2016**	The Aquatic Life Use is impaired based on moderately impaired rating for freshwater benthic bioassessment. DEQ Streams Benthic-Macroinvertebrate Bioassessment at DEQ (BIO) freshwater benthic bioassessment monitoring station @ 2-CRL004.04 (slightly impaired rating measured spring 2000 & fall 2000, moderately impaired rating measured in fall 2001,spring 2002, fall 2002).

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

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Carbell Swamp**

TMDL Group ID: **01517**

VAT-G14R_CRL01A02	Carbell Swamp	ISLE OF WIGHT CO NORFOLK CITY	Upstream tributary to the northwest branch of Lake Prince (near Holly Grove Church). Entire watershed is portion of PWS for City of Norfolk.

VA Overall AU Category: **5A**

Use	Impairment	3.62 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**pH**		01517	**2004**	**2014**	The Aquatic Life Use is impaired based on pH concentrations below the DEQ minimum criteria (6.0 SU). DEQ freshwater benthic bioassessment monitoring station @ 2-CRL004.04 (3 violates / 6 observations).

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

TMDL Watershed Name: **Catawba Creek**

TMDL Group ID: **01702**

VAW-I25R_CAT01A00	Catawba Creek Lower	BOTETOURT CO	Catawba Creek mainstem from Slate Branch downstream to its mouth on the James River.

VA Overall AU Category: **5A**

Use	Impairment	7.13 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**		01702	**2004**	**2014**	

Sources: Livestock (Grazing or Feeding Operations)
On-site Treatment Systems (Septic Systems and Similar Decencentralized Systems)
Unspecified Domestic Waste
Wastes from Pets
Wildlife Other than Waterfowl

VAW-I25R_CAT02A00	Catawba Creek Middle	BOTETOURT CO	Catawba Creek mainstem from the Town of Fincastle POTW downstream to the mouth of Slate Branch.

VA Overall AU Category: **5A**

Use	Impairment	4.10 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**		01702	**2004**	**2014**	

Sources: Livestock (Grazing or Feeding Operations)
On-site Treatment Systems (Septic Systems and Similar Decencentralized Systems)
Unspecified Domestic Waste
Wastes from Pets
Wildlife Other than Waterfowl

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Catawba Creek**

TMDL Group ID: **01702**

VAW-I25R_CAT03A00 **Catawba Creek Upper** BOTETOURT CO Catawba Creek mainstem from the mouth of Stone Coal Creek downstream to the Town of Fincastle POTW.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	10.51 MILES	01702	**2002**	**2014**	

Sources: Livestock (Grazing or Feeding Operations)
On-site Treatment Systems (Septic Systems and Similar Decencentralized Systems)
Unspecified Domestic Waste
Wastes from Pets
Wildlife Other than Waterfowl

VAW-I25R_CAT03B04 **Catawba Creek** BOTETOURT CO Catawba Creek from the Roanoke Cement intake downstream to the mouth of Stone Coal Creek.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	1.38 MILES	01702	**2002**	**2014**	

Sources: Livestock (Grazing or Feeding Operations)
On-site Treatment Systems (Septic Systems and Similar Decencentralized Systems)
Unspecified Domestic Waste
Wildlife Other than Waterfowl

VAW-I25R_CAT04A04 **Catawba Creek** BOTETOURT CO Catawba Creek from the Roanoke Cement Outfalls downstream to the Roanoke Cement Intake.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	0.34 MILES	01702	**2004**	**2014**	

Sources: Livestock (Grazing or Feeding Operations)
On-site Treatment Systems (Septic Systems and Similar Decencentralized Systems)
Unspecified Domestic Waste
Wildlife Other than Waterfowl

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Catawba Creek**

TMDL Group ID: **01702**

VAW-I25R_CAT04B04	Catawba Creek	BOTETOURT CO	Catawba Creek from the mouth of Little Catawba Creek downstream to the Roanoke Cement outfalls.

VA Overall AU Category: **5A**

Use	Impairment	0.81 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**		01702	**2004**	**2014**	

Sources: Livestock (Grazing or Feeding Operations)
On-site Treatment Systems (Septic Systems and Similar Decencentralized Systems)
Unspecified Domestic Waste
Wildlife Other than Waterfowl

TMDL Watershed Name: **Cedar Creek**

TMDL Group ID: **01676**

VAV-I28R_CEC01A00	Cedar Creek	ROCKBRIDGE CO	Cedar Creek from the headwaters downstream to its confluence with the James River.

VA Overall AU Category: **5A**

Use	Impairment	11.52 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**		01676	**2002**	**2014**	

Sources: Non-Point Source
Wildlife Other than Waterfowl

TMDL Group ID: **50260**

VAW-I05R_CRE01A00	Cedar Creek Lower	ALLEGHANY CO BATH CO	Cedar Creek mainstem from its mouth on the Jackson R. upstream to a series of springs.

VA Overall AU Category: **5A**

Use	Impairment	1.65 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**		50260	**2006**	**2018**	

Sources: Livestock (Grazing or Feeding Operations)
On-site Treatment Systems (Septic Systems and Similar Decencentralized Systems)
Unspecified Domestic Waste
Wildlife Other than Waterfowl

Recreation	**Fecal Coliform**		50260	**2006**	**2018**	

Sources: Livestock (Grazing or Feeding Operations)
On-site Treatment Systems (Septic Systems and Similar Decencentralized Systems)
Unspecified Domestic Waste
Wildlife Other than Waterfowl

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Cedar Creek**

TMDL Group ID: **50260**

VAW-I05R_CRE01A06	Cedar Creek	BATH CO	Cedar Creek mainstem from the confluence of several springs upstream to Hot Springs Run.

VA Overall AU Category: **5A**

Use	Impairment	1.72 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**		50260	**2006**	**2018**	
		Sources:	Livestock (Grazing or Feeding Operations) On-site Treatment Systems (Septic Systems and Similar Decencentralized Systems) Unspecified Domestic Waste Wastes from Pets Wildlife Other than Waterfowl			
Recreation	**Fecal Coliform**		50260	**2006**	**2018**	
		Sources:	Livestock (Grazing or Feeding Operations) On-site Treatment Systems (Septic Systems and Similar Decencentralized Systems) Unspecified Domestic Waste Wastes from Pets Wildlife Other than Waterfowl			

TMDL Watershed Name: **Cedar Grove Branch**

TMDL Group ID: **01679**

VAV-I33R_CGB01A00	Cedar Grove Branch	ROCKBRIDGE CO	Cedar Grove Branch from the headwaters downstream to its confluence with the Maury River.

VA Overall AU Category: **5A**

Use	Impairment	4.66 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**		01679	**2004**	**2016**	
		Sources:	Non-Point Source Wildlife Other than Waterfowl			

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Chickahominy Lake**

TMDL Group ID: **00449**

VAP-G07L_CHK01A00	Chickahominy Lake	CHARLES CITY CO NEW KENT CO	Chickahominy Lake from Walkers Dam to the extent of backwater

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**	1500.00 ACRES	00449	**1998**	**2010**	VAP-G07L-01

Chickahominy Lake was included on EPA's 1998 list of "Waters Identified to Virginia for Listing Consideration During Development of Next List." No parameter of concern was listed.

Low DO in the bottom waters was observed at station 2-CHK025.15, which is closest to the dam. However, the summer temperature difference was <4°C, therefore the lake is considered not stratified using the 2006 guidance. It is assessed as not supporting the Aquatic Life Use (Cat. 5A).

The source of the dissolved oxygen violations is unknown but is believed to be exacerbated by nutrient overenrichment.

Sources: Source Unknown

TMDL Watershed Name: **Chickahominy River**

TMDL Group ID: **00447**

VAP-G06R_CHK01A98	Chickahominy River	HANOVER CO HENRICO CO	The Chickahominy River from the Route 360 bridge downstream to the Route 156 bridge.

VA Overall AU Category: **5C**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**	8.23 MILES	00447	**1996**	**2010**	VAP-G06R-01N

The Chickahominy River has been assessed as not supporting of the Aquatic Life use goal since 1996 based on dissolved oxygen and pH violations at the Route 360 bridge (2-CHK062.57) and at the Route 156 bridge (2-CHK055.04). During the year 2006 cycle, the dissolved oxygen violation rates were 11/37 and 7/37, respectively.

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

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Chickahominy River**

TMDL Group ID: **01145**

VAP-G08E_CHK02A00	Chickahominy River	CHARLES CITY CO JAMES CITY CO	The Chickahominy River from the confluence with Diascund Creek downstream to the James River. CHKOH

VA Overall AU Category: **5A**

Use	Impairment	5.47 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Chloride**		01145	**2004**	**2016**	VAP-G08E-02 The Chickahominy River was assessed as not supporting the Aquatic Life and Wildlife Uses because of chloride violations at 2-CHK002.17, 2-CHK006.14, and 2004 violations at 2-CHK0014.33.
		Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed				
Wildlife	**Chloride**		01145	**2004**	**2016**	VAP-G08E-02 The Chickahominy River was assessed as not supporting the Aquatic Life and Wildlife Uses because of chloride violations at 2-CHK002.17, 2-CHK006.14, and 2004 violations at 2-CHK0014.33.
		Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed				

TMDL Group ID: **01149**

VAP-G05R_CHK01A00	Chickahominy River	HANOVER CO HENRICO CO	The Chickahominy River from its headwaters to the confluence with Stony Run.

VA Overall AU Category: **5A**

Use	Impairment	14.98 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01149	**2004**	**2016**	VAP-G05R-04 The segment was assessed as impaired of the Aquatic Life Use goal based on a dissolved oxygen violation rate of 3/24 at 2-CHK076.59.
		Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed				

TMDL Group ID: **01150**

VAP-G05R_CHK01A00	Chickahominy River	HANOVER CO HENRICO CO	The Chickahominy River from its headwaters to the confluence with Stony Run.

VA Overall AU Category: **5A**

Use	Impairment	14.98 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**		01150	**2004**	**2016**	VAP-G05R-04 The segment was assessed as impaired of the Recreation Use because of fecal coliform violation rates of 3/21 and 2/13 at 2-CHK076.59 and 2-CHK079.23, respectively. The E. coli violation rate at 2-CHK076.59 was acceptable (0/9).
		Sources: Source Unknown				

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Chickahominy River**

TMDL Group ID: **01762**

VAP-G08E_CHK01A00 | **Chickahominy River** | CHARLES CITY CO, NEW KENT CO | The Chickahominy River from Walkers Dam to the confluence with Diascund Creek.

Size adjusted in 2006 although area did not change

CHKOH

VA Overall AU Category: **5A**

Use	Impairment			TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**	1.37	SQUARE MILES	01762	**2004**	**2016**	VAP-G08E-01

In the 2004 cycle, the segment from Walkers Dam to Diascund Creek was assessed as not supporting the Fish Consumption Use because the DEQ screening value for PCBs was exceeded in 3 species during sampling in 2001. In addition, on 12/13/2004 the VDH reissued the James River PCB advisory and extended the impairment to include the entire tidal Chickahominy River up to Walkers Dam (see VAP-G01E-03). The PCB TMDL is due in 2016.

Sources: Source Unknown

VAP-G08E_CHK02A00 | **Chickahominy River** | CHARLES CITY CO, JAMES CITY CO | The Chickahominy River from the confluence with Diascund Creek downstream to the James River.

CHKOH

VA Overall AU Category: **5A**

Use	Impairment			TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**	5.47	SQUARE MILES	01762	**2006**	**2018**	VAP-G08E-01

In the 2004 cycle, the segment from Walkers Dam to Diascund Creek was assessed as not supporting the Fish Consumption Use because the DEQ screening value for PCBs was exceeded in 3 species during sampling in 2001. In addition, on 12/13/2004 the VDH reissued the James River PCB advisory and extended the impairment to include the entire tidal Chickahominy River up to Walkers Dam (see VAP-G01E-03). The PCB TMDL in the lower extended portion is due in 2018.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Chickahominy River**

TMDL Group ID: **10096**

VAP-G08E_CHK01A00	Chickahominy River	CHARLES CITY CO NEW KENT CO	The Chickahominy River from Walkers Dam to the confluence with Diascund Creek. Size adjusted in 2006 although area did not change CHKOH

VA Overall AU Category: **5A**

Use	Impairment	1.37 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		10096	**2006**	**2010**	VAP-G08E-03 During the 2006 cycle, the Chesapeake Bay Water Quality Standards were adopted. The oligohaline Chickahominy River estuary failed the Open Water 30-day summer dissolved oxygen criteria.

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		10096	**2006**	**2010**	VAP-G08E-03 During the 2006 cycle, the Chesapeake Bay Water Quality Standards were adopted. The oligohaline Chickahominy River estuary failed the Open Water 30-day summer dissolved oxygen criteria.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Chickahominy River**

TMDL Group ID: **10096**

VAP-G08E_CHK02A00	Chickahominy River	CHARLES CITY CO JAMES CITY CO	The Chickahominy River from the confluence with Diascund Creek downstream to the James River. CHKOH

VA Overall AU Category: **5A**

Use	Impairment	5.47 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		10096	**2006**	**2010**	VAP-G08E-03 During the 2006 cycle, the Chesapeake Bay Water Quality Standards were adopted. The oligohaline Chickahominy River estuary failed the Open Water 30-day summer dissolved oxygen criteria.

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		10096	**2006**	**2010**	VAP-G08E-03 During the 2006 cycle, the Chesapeake Bay Water Quality Standards were adopted. The oligohaline Chickahominy River estuary failed the Open Water 30-day summer dissolved oxygen criteria.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Chickahominy River**

TMDL Group ID: **10096**

VAP-G08E_DSC01A00	Diascund Creek	JAMES CITY CO NEW KENT CO	Diascund Creek from the Diascund Reservoir dam downstream to the mouth at the Chickahominy River. CHKOH

VA Overall AU Category: **5A**

Use	Impairment	0.56 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		10096	**2006**	**2010**	VAP-G08E-03 During the 2006 cycle, the Chesapeake Bay Water Quality Standards were adopted. The oligohaline Chickahominy River estuary failed the Open Water 30-day summer dissolved oxygen criteria.
		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)			
Open-Water Aquatic Life	**Oxygen, Dissolved**		10096	**2006**	**2010**	VAP-G08E-03 During the 2006 cycle, the Chesapeake Bay Water Quality Standards were adopted. The oligohaline Chickahominy River estuary failed the Open Water 30-day summer dissolved oxygen criteria.
		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)			

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Chickahominy River**

TMDL Group ID: **10096**

VAP-G08E_GOR01A06	Gordon Creek	JAMES CITY CO	Tidal limit to mouth CHKOH

VA Overall AU Category: **5A**

Use	Impairment	0.30 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		10096	**2006**	**2010**	VAP-G08E-03 During the 2006 cycle, the Chesapeake Bay Water Quality Standards were adopted. The oligohaline Chickahominy River estuary failed the Open Water 30-day summer dissolved oxygen criteria.

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		10096	**2006**	**2010**	VAP-G08E-03 During the 2006 cycle, the Chesapeake Bay Water Quality Standards were adopted. The oligohaline Chickahominy River estuary failed the Open Water 30-day summer dissolved oxygen criteria.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Chickahominy River**

TMDL Group ID: **10096**

VAP-G08E_MOC01A02	Morris Creek	CHARLES CITY CO	The tidal portion of Morris Creek. CHKOH

VA Overall AU Category: **5A**

Use	Impairment	0.41 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		10096	**2006**	**2010**	VAP-G08E-03 During the 2006 cycle, the Chesapeake Bay Water Quality Standards were adopted. The oligohaline Chickahominy River estuary failed the Open Water 30-day summer dissolved oxygen criteria.
		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)			
Open-Water Aquatic Life	**Oxygen, Dissolved**		10096	**2006**	**2010**	VAP-G08E-03 During the 2006 cycle, the Chesapeake Bay Water Quality Standards were adopted. The oligohaline Chickahominy River estuary failed the Open Water 30-day summer dissolved oxygen criteria.
		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)			

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Chickahominy River**

TMDL Group ID: **10096**

VAP-G08E_YRM01A04	Yarmouth Creek	JAMES CITY CO	Headwaters to confluence with Little Creek
			CHKOH

VA Overall AU Category: **5A**

Use	Impairment	0.17 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		10096	**2006**	**2010**	VAP-G08E-03 During the 2006 cycle, the Chesapeake Bay Water Quality Standards were adopted. The oligohaline Chickahominy River estuary failed the Open Water 30-day summer dissolved oxygen criteria.

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		10096	**2006**	**2010**	VAP-G08E-03 During the 2006 cycle, the Chesapeake Bay Water Quality Standards were adopted. The oligohaline Chickahominy River estuary failed the Open Water 30-day summer dissolved oxygen criteria.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Chickahominy River**

TMDL Group ID: **10096**

VAP-G08E_ZZZ01A00	Unsegmented estuaries in G08	CHARLES CITY CO NEW KENT CO	Unsegmented portion of watershed CHKOH

VA Overall AU Category: **5A**

Use	Impairment	1.16 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		10096	**2006**	**2010**	VAP-G08E-03 During the 2006 cycle, the Chesapeake Bay Water Quality Standards were adopted. The oligohaline Chickahominy River estuary failed the Open Water 30-day summer dissolved oxygen criteria.
		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)			
Open-Water Aquatic Life	**Oxygen, Dissolved**		10096	**2006**	**2010**	VAP-G08E-03 During the 2006 cycle, the Chesapeake Bay Water Quality Standards were adopted. The oligohaline Chickahominy River estuary failed the Open Water 30-day summer dissolved oxygen criteria.
		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)			

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Chickahominy River**

TMDL Group ID: **10097**

VAP-G08E_CHK01A00	Chickahominy River	CHARLES CITY CO NEW KENT CO	The Chickahominy River from Walkers Dam to the confluence with Diascund Creek. Size adjusted in 2006 although area did not change CHKOH

VA Overall AU Category: **5A**

Use	Impairment	1.37 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		10097	**2006**	**2010**	VAP-G08E-03 During the 2006 cycle, the Chesapeake Bay Water Quality Standards were adopted. The oligohaline Chickahominy River estuary failed the Shallow Water SAV acreage criteria.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		10097	**2006**	**2010**	VAP-G08E-03 During the 2006 cycle, the Chesapeake Bay Water Quality Standards were adopted. The oligohaline Chickahominy River estuary failed the Shallow Water SAV acreage criteria.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Chickahominy River**

TMDL Group ID: **10097**

VAP-G08E_CHK02A00	Chickahominy River	CHARLES CITY CO JAMES CITY CO	The Chickahominy River from the confluence with Diascund Creek downstream to the James River. CHKOH

VA Overall AU Category: **5A**

Use	Impairment	5.47 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		10097	**2006**	**2010**	VAP-G08E-03 During the 2006 cycle, the Chesapeake Bay Water Quality Standards were adopted. The oligohaline Chickahominy River estuary failed the Shallow Water SAV acreage criteria.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**	10097	**2006**	**2010**	VAP-G08E-03 During the 2006 cycle, the Chesapeake Bay Water Quality Standards were adopted. The oligohaline Chickahominy River estuary failed the Shallow Water SAV acreage criteria.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Chickahominy River**

TMDL Group ID: **10097**

VAP-G08E_DSC01A00	Diascund Creek	JAMES CITY CO NEW KENT CO	Diascund Creek from the Diascund Reservoir dam downstream to the mouth at the Chickahominy River. CHKOH

VA Overall AU Category: **5A**

Use	Impairment	0.56 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		10097	**2006**	**2010**	VAP-G08E-03 During the 2006 cycle, the Chesapeake Bay Water Quality Standards were adopted. The oligohaline Chickahominy River estuary failed the Shallow Water SAV acreage criteria.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**	10097	**2006**	**2010**	VAP-G08E-03 During the 2006 cycle, the Chesapeake Bay Water Quality Standards were adopted. The oligohaline Chickahominy River estuary failed the Shallow Water SAV acreage criteria.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Chickahominy River**

TMDL Group ID: **10097**

VAP-G08E_GOR01A06	**Gordon Creek**	JAMES CITY CO	Tidal limit to mouth CHKOH

VA Overall AU Category: **5A**

Use	Impairment	0.30 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		10097	**2006**	**2010**	VAP-G08E-03 During the 2006 cycle, the Chesapeake Bay Water Quality Standards were adopted. The oligohaline Chickahominy River estuary failed the Shallow Water SAV acreage criteria.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		10097	**2006**	**2010**	VAP-G08E-03 During the 2006 cycle, the Chesapeake Bay Water Quality Standards were adopted. The oligohaline Chickahominy River estuary failed the Shallow Water SAV acreage criteria.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Chickahominy River**

TMDL Group ID: **10097**

VAP-G08E_MOC01A02	**Morris Creek**	CHARLES CITY CO	The tidal portion of Morris Creek. CHKOH

VA Overall AU Category: **5A**

Use	Impairment	0.41 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		10097	**2006**	**2010**	VAP-G08E-03 During the 2006 cycle, the Chesapeake Bay Water Quality Standards were adopted. The oligohaline Chickahominy River estuary failed the Shallow Water SAV acreage criteria.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		10097	**2006**	**2010**	VAP-G08E-03 During the 2006 cycle, the Chesapeake Bay Water Quality Standards were adopted. The oligohaline Chickahominy River estuary failed the Shallow Water SAV acreage criteria.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Chickahominy River**

TMDL Group ID: **10097**

VAP-G08E_YRM01A04	**Yarmouth Creek**	JAMES CITY CO	Headwaters to confluence with Little Creek CHKOH

VA Overall AU Category: **5A**

Use	Impairment	0.17 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		10097	**2006**	**2010**	VAP-G08E-03 During the 2006 cycle, the Chesapeake Bay Water Quality Standards were adopted. The oligohaline Chickahominy River estuary failed the Shallow Water SAV acreage criteria.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		10097	**2006**	**2010**	VAP-G08E-03 During the 2006 cycle, the Chesapeake Bay Water Quality Standards were adopted. The oligohaline Chickahominy River estuary failed the Shallow Water SAV acreage criteria.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Chickahominy River**

TMDL Group ID: **10097**

VAP-G08E_ZZZ01A00	Unsegmented estuaries in G08	CHARLES CITY CO NEW KENT CO	Unsegmented portion of watershed CHKOH

VA Overall AU Category: **5A**

Use	Impairment	1.16 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		10097	**2006**	**2010**	VAP-G08E-03 During the 2006 cycle, the Chesapeake Bay Water Quality Standards were adopted. The oligohaline Chickahominy River estuary failed the Shallow Water SAV acreage criteria.
		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 (Point Source and Combination of Stormwater, SSO or CSO)			
Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		10097	**2006**	**2010**	VAP-G08E-03 During the 2006 cycle, the Chesapeake Bay Water Quality Standards were adopted. The oligohaline Chickahominy River estuary failed the Shallow Water SAV acreage criteria.
		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 (Point Source and Combination of Stormwater, SSO or CSO)			

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Chickahominy River**

TMDL Group ID: **10098**

VAP-G08E_CHK02A00	Chickahominy River	CHARLES CITY CO JAMES CITY CO	The Chickahominy River from the confluence with Diascund Creek downstream to the James River. CHKOH

VA Overall AU Category: **5A**

Use	Impairment	5.47 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Enterococcus**		10098	**2006**	**2018**	VAP-G08E-04 The segment was assessed as not supporting the Recreation Use due to an enterococci violation rate of 2/8 at 2-CHK002.17. The source of the violations is unknown. Continued monitoring is recommended to increase the data set and confirm the impairment since the fecal coliform violation rates within the segment are acceptable.

Sources: Source Unknown

TMDL Watershed Name: **Chickahominy River, Unnamed Tributary**

TMDL Group ID: **10037**

VAP-G05R_XDD02A06	Chickahominy River, UT	HANOVER CO	Headwaters to Tysons Foods discharge

VA Overall AU Category: **5D**

Use	Impairment	0.58 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		10037	**2006**	**2018**	VAP-G05R-07 The DO impairment is new to the 2006 cycle. The DO impairment is suspected to be caused by low flow conditions exacerbated by the excess phosphorus in the watershed.

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

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Chickahominy River, Unnamed Tributary**

TMDL Group ID: **90070**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAP-G05R_XDD02A06	**Chickahominy River, UT**	HANOVER CO	Headwaters to Tysons Foods discharge

VA Overall AU Category: **5D**

Use	Impairment	0.58 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**pH**		90070	**2006**	**2018**	Category 4A VAP-G05R-01 The pH impairment in the segment was determined during the TMDL study for the lower portion of XDD. The TMDL incorporates this segment for pH and therefore the segment should be considered Category 4A.

Sources: Non-Point Source

TMDL Watershed Name: **Chuckatuck Creek**

TMDL Group ID: **01510**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAT-G11R_CKT01A04	**Chuckatuck Creek**	ISLE OF WIGHT CO SUFFOLK CITY	Riverine portion southwest of Longview. Chuckatuck Creek, from confluence of unnamed trib downstream of Rt 600 downstream to confluence of unnamed triburary downstream of Rt 602 (below BIO station @ 2-CKT005.72).

VA Overall AU Category: **5A**

Use	Impairment	1.44 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Benthic-Macroinvertebrate Bioassessments (Streams)**		01510	**2004**	**2016**	The Aquatic Life Use is impaired based on a moderately impaired rating for freshwater benthic bioassessment. DEQ Streams Benthic-Macroinvertebrate Bioassessments station @ 2-CKT005.72 (Benthic rating of moderate impairment recorded Spring 2000 and Fall 2000].

Sources: Source Unknown

TMDL Watershed Name: **Chuckatuck Creek, Lower**

TMDL Group ID: **01281**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAT-G11E_CKT01A04	**Chuckatuck & Brewers Creeks**	ISLE OF WIGHT CO SUFFOLK CITY	South shore trib to James R., confluence upstream of Nansemond R. Drains Chuckatuck and Benns Church areas. From headwaters to mouths, including tribs. Portion of CBP segment JMSMH. DSS shellfish direct harvesting condemnation # 062- 080 B.

VA Overall AU Category: **5A**

Use	Impairment	1.44 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Shellfishing	**Fecal Coliform**		01281	**2006**	**2010**	DSS shellfish direct harvesting condemnation # 062- 080 B.

Sources: Source Unknown

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Coles Run, Unnamed Tributary**

TMDL Group ID: **10094**

VAP-G01R_XYI01A06	Coles Run, UT	HENRICO CO	Breastworks to mouth at Coles Run

VA Overall AU Category: **5A**

Use	Impairment	1.14 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		10094	**2006**	**2018**	VAP-G01R-12

The segment is assessed as impaired of the Aquatic Life Use based on DO and pH violations of 4/4 at USGS station 0203854210, which is located in the breastworks on the National Battlefield. The violations may be caused by natural conditions, however the source is considered unknown at this time because the total phosphorus screening value was exceeded 2/4 at this station.

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

TMDL Group ID: **10095**

VAP-G01R_XYI01A06	Coles Run, UT	HENRICO CO	Breastworks to mouth at Coles Run

VA Overall AU Category: **5A**

Use	Impairment	1.14 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**pH**		10095	**2006**	**2018**	VAP-G01R-12

The segment is assessed as impaired of the Aquatic Life Use based on DO and pH violations of 4/4 at USGS station 0203854210, which is located in the breastworks on the National Battlefield. The violations may be caused by natural conditions, however the source is considered unknown at this time because the total phosphorus screening value was exceeded 2/4 at this station.

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

TMDL Watershed Name: **College Creek - Lower**

TMDL Group ID: **76030**

VAT-G10E_CLG01A06	College Creek - Lower	JAMES CITY CO WILLIAMSBURG CITY	Located west of Kingsmill area, James City Co. From convergence of two upstream branches (approx. RM 1.0) downstream to mouth. Portion of CBP segment JMSOH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 060-069 B [effective .

VA Overall AU Category: **5A**

Use	Impairment	0.15 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Enterococcus**		76030	**2006**	**2018**	The Recreation Use is impaired (2 violate / 14 obs.) due to exceedance of the instantaneous criteria for Enterococcus bacteria.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **College Run**

TMDL Group ID: **01495**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAT-G10R_CGE01A02	**College Run**	SURRY CO	North of Chippokes Plantation State Park, tributary to Cobham Bay (Surry County, PRO station). From convergence of two upstream branches downstream to the confluence with the James River at Cobham Bay.

VA Overall AU Category: **5A**

Use	Impairment	2.30 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**		01495	**2004**	**2010**	The Recreatiion Use is impaired due to exceedance of the criteria for Fecal Coliform bacteria (2 violates / 8 obs.).

Sources: Source Unknown

TMDL Watershed Name: **Colliers Creek**

TMDL Group ID: **50258**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAV-I38R_CLL01A00	**Colliers Creek**	ROCKBRIDGE CO	Colliers Creek from the headwaters downstream to its confluence with Buffalo Creek.

VA Overall AU Category: **5A**

Use	Impairment	13.80 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**		50258	**2006**	**2018**	Newly listed for bacteria in 2006.

Sources: Non-Point Source
Wildlife Other than Waterfowl

TMDL Watershed Name: **Collins Run**

TMDL Group ID: **01163**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAP-G07R_CNR01A00	**Collins Run**	CHARLES CITY CO	Collins Run from the headwaters downstream to river mile 0.99.

VA Overall AU Category: **5A**

Use	Impairment	4.36 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**pH**		01163	**2002**	**2014**	VAP-G07R-01 The segment was assessed as not supporting of the Recreation and Aquatic Life Uses in 2002 because of fecal coliform and pH violations at two confined animal feeding operation special study locations, 2 -CNR001.16 and 2-CNR001.54. There has been no additional monitoring since 2002, therefore the previous assessment is carried over to 2006.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Collins Run**

TMDL Group ID: **01164**

VAP-G07R_CNR01A00 | **Collins Run** | CHARLES CITY CO | Collins Run from the headwaters downstream to river mile 0.99.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	4.36 MILES	01164	**2002**	**2014**	VAP-G07R-01

The segment was assessed as not supporting of the Recreation and Aquatic Life Uses in 2002 because of fecal coliform and pH violations at two confined animal feeding operation special study locations, 2 -CNR001.16 and 2-CNR001.54.

There has been no additional monitoring since 2002, therefore the previous assessment is carried over to 2006.

Sources: Source Unknown

VAP-G07R_CNR02A00 | **Collins Run** | CHARLES CITY CO | Collins Run from river mile 0.99 downstream to the mouth at the Chickahominy River.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	0.99 MILES	01164	**2004**	**2016**	VAP-G07R-04

The segment was assessed not supporting of the Recreation Use because of fecal coliform violations at 2-CNR000.89.

This station is part of a confined animal feeding operation special study.

Sources: Source Unknown

TMDL Watershed Name: **Courthouse Creek**

TMDL Group ID: **10110**

VAP-H38R_CTS01A06 | **Courthouse Creek** | GOOCHLAND CO
LOUISA CO | Headwaters to mouth at Beaverdam Creek

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**	9.82 MILES	10110	**2006**	**2018**	VAP-H38R-06

Courthouse Creek was assessed as impaired of the Recreation Use due to an E. coli violation rate of 2/9 at 2-CTS003.23

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Cowpasture River**

TMDL Group ID: **01673**

VAV-I14R_CWP01A00 **Cowpasture River** BATH CO Cowpasture River from its confluence with Dry Run downstream to its confluence with Lick Run.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	15.54 MILES	01673	**2004**	**2016**	

Sources: Non-Point Source
Wildlife Other than Waterfowl

VAV-I14R_CWP02A04 **Cowpasture River** BATH CO Cowpasture River from its confluence with the Bullpasture River downstream to its confluence with Dry Run.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	16.54 MILES	01673	**2004**	**2016**	

Sources: Non-Point Source
Wildlife Other than Waterfowl

TMDL Watershed Name: **Craig Creek, Upper**

TMDL Group ID: **01693**

VAW-I19R_CRG02A02 **Craig Creek Upper 1** CRAIG CO Craig Creek mainstem from downstream of Abbott and the Rt. 311 crossing upstream to the confluence of Turnpike Creek.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	7.78 MILES	01693	**2004**	**2016**	

Sources: Livestock (Grazing or Feeding Operations)
On-site Treatment Systems (Septic Systems and Similar Decencentralized Systems)
Unspecified Domestic Waste
Wildlife Other than Waterfowl

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Crewes Channel**

TMDL Group ID: **01137**

VAP-G02R_CCH01A00	Crewes Channel	HENRICO CO	Crewes Channel from the headwaters to Turkey Island Creek.

VA Overall AU Category: **5C**

Use	Impairment	3.31 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**pH**		01137	**2004**	**2016**	VAP-G02R-05

Crewes Channel was assessed as not supporting the Aquatic Life Use goal based on pH violation rates of 4/4 and 3/4 at USGS stations 0203874770 and 0203874785, respectively. 2004 monitoring at DEQ station 2-CCH000.54 had an acceptable pH violation rate (0/4), therefore further monitoring in the segment is warranted to confirm the impairment.

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

TMDL Watershed Name: **Cunningham Creek, Middle Fork**

TMDL Group ID: **01671**

VAV-H32R_CNM02A04	Middle Fork Cunningham Creek	FLUVANNA CO	Middle Fork Cunningham Creek and tributary from the headwaters downstream to its confluence with an unnamed tributary originating near Antioch.

VA Overall AU Category: **5C**

Use	Impairment	3.72 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Benthic-Macroinvertebrate Bioassessments (Streams)**		01671	**2004**	**2016**	The impairment is due to suspected natural causes.

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

TMDL Group ID: **50249**

VAV-H32R_CNM01A00	Cunningham Creek Middle Fork	FLUVANNA CO	Middle Fork Cunningham Creek from its confluence with an unnamed tributary originating near Antioch downstream to its confluence with Cunngham Creek.

VA Overall AU Category: **5A**

Use	Impairment	3.94 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**		50249	**2006**	**2018**	Newly listed for bacteria in 2006.

Sources: Non-Point Source
Wildlife Other than Waterfowl

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Cypress Creek**

TMDL Group ID: **76701**

VAT-G11E_CYP01A06	Cypress Creek	ISLE OF WIGHT CO	South shore tributary to Pagan R, confluence near Smithfield. From end of tidal waters downstream to mouth. Portion of CBP segment JMSMH. DSS shellfish direct harvesting condemnation # 061-064 A.

VA Overall AU Category: **5A**

Use	Impairment	0.26 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Shellfishing	**Fecal Coliform**		76701	**2006**	**2010**	DSS shellfish direct harvesting condemnation # 061-064 A.

Sources: Source Unknown

TMDL Watershed Name: **Deep Creek**

TMDL Group ID: **00612**

VAT-G15E_DEC01A06	Deep Creek, Southern Br. Elizabeth R.	CHESAPEAKE CITY	Located south of I-64 crossing of Southern Branch Elizabeth River. Eastern shore tributary to Southern Branch. Entirety of Creek. Portion of CBP segment SBEMH. Portion of the DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	0.27 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**		00612	**2006**	**2016**	The Fish Consumption Use is impaired based on the VDH fish consumption advisory for PCBs issued 12/13/04. This segment was previously identified (2004 IR) as a site-specific impairment for PCBs in fish tissue concentrations under TMDL ID VAT-G15E-01-05.

Sources: Source Unknown

TMDL Watershed Name: **Deep Creek, Lower**

TMDL Group ID: **00347**

VAT-G11E_DEP01A02	Deep Creek - Lower	NEWPORT NEWS CITY	Located in Menchville area. Tributary to Warwick R. to James R. From 0.5 mi. above DEQ station @ RM 0.76 downstream to mouth. Portion of CBP segment JMSMH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 058-034 A.

VA Overall AU Category: **5A**

Use	Impairment	0.10 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Enterococcus**		00347	**2006**	**2010**	The Recreation Use is impaired (2 violate / 13 obs.) due to exceedance of the instantaneous criteria for Enterococcus bacteria. The previous Fecal Coliform indicator bacteria impairment (VAT-G11E-03) no longer applies, replaced by Enterococcus criteria impairment since threshold of 12 observations reached, with TMDL ID and due date same as original FC impairment.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Deep Run**

TMDL Group ID: **10122**

VAP-G06R_DER01A04 **Deep Run** HENRICO CO Headwaters to mouth at White Oak Swamp

VA Overall AU Category: **5C**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**	2.33 MILES	10122	**2006**	**2016**	VAP-G06R-10

Deep Run is assessed as not supporting of the Aquatic Life Use based on a pH standard violation rate of 15/15 at 2-DER000.65. This is a TMDL station to address the pH impairment in White Oak Swamp. The Natural Conditions Assessment for low pH in White Oak Swamp was completed and recommends that White Oak Swamp and its tributaries be reclassified as Class VII swampwaters. Until the standards can be revised, the watershed will be considered Cat. 4C for pH.

During the 2006 cycle, Deep Run was also considered impaired of the Aquatic Life Use due to a dissolved oxygen violation rate of 2/15 at 2-DER000.65. Although natural conditions are also suspected, the report only addressed pH, therefore the segment will be classified as Category 5C.

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

TMDL Watershed Name: **Dunlap Creek**

TMDL Group ID: **50261**

VAW-I07R_DNP01A00 **Dunlap Creek Lower** ALLEGHANY CO Dunlap Creek mainstem from its mouth on the Jackson River upstream to the Boys Home water intake.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**	2.54 MILES	50261	**2006**	**2018**	

Sources: Livestock (Grazing or Feeding Operations)
On-site Treatment Systems (Septic Systems and Similar Decencentralized Systems)
Unspecified Domestic Waste
Wildlife Other than Waterfowl

VAW-I07R_DNP02A00 **Dunlap Creek Lower 2 PWS** ALLEGHANY CO Dunlap Creek from the Boys Home water intake upstream to the mouth of Ogle Creek, a WQS public water supply designated section.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**	3.78 MILES	50261	**2006**	**2018**	

Sources: Livestock (Grazing or Feeding Operations)
On-site Treatment Systems (Septic Systems and Similar Decencentralized Systems)
Unspecified Domestic Waste
Wildlife Other than Waterfowl

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Eley Swamp**

TMDL Group ID: **00350**

VAT-G12R_ELE01A00	Eley Swamp tributary to Lake Cohoon (PWS)	SUFFOLK CITY	Located northeast of Mrtyle. Segment extends 2.40 mi. upstream and 2.20 mi. downstream from Rt. 607 crossing. Portion of Portsmouth water supply reservoirs.

VA Overall AU Category: **5C**

Use	Impairment	4.60 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**pH**		00350	**1998**	**2010**	The Aquatic Life Use impairment, based on pH concentrations below the allowable DEQ minimum criteria (6.0 SU) from the 1998 303d listing is retained due to lack of more recent data. The impairment is believed caused by natural swamp water conditions of low flow velocity and high organic conditions with tannic acids present (these tannic acids may be the cause of the low pH excursions). This segment is containe din the 1999 EPA Consent Decree (Attachment A, Category 1, Part 2).

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

TMDL Watershed Name: **Elizabeth River**

TMDL Group ID: **00356**

VAT-G15E_EBE02A06	Eastern Branch, Elizabeth R. - Lower	CHESAPEAKE CITY NORFOLK CITY	Located between Tanglewood area to mouth. From Broad Creek (RM 4.0) downstream to the confluence with Elizabeth R. mainstem. Portion of CBP segment EBEMH. Portion of the DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	1.06 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Tributylin TBT (Tributylstanne)**		00356	**1996**	**2010**	The Aquatic Life Use is impaired based on failure to meet the DEQ tributyltin (TBT) salt water chronic criteria. This segment was previously included (2004 IR) in TMDL ID: VAT-G15E-02-02. The TMDL due date is carried from the previous 2004 IR impairment identification date.

Sources: Other Shipping Releases (Wastes and Detritus)
Shipbuilding, Repairs, Drydocking

VAT-G15E_ELI01A06	Elizabeth River Mainstem - Upper	NORFOLK CITY PORTSMOUTH CITY	From headwaters (RM 8.0) at confluence Southern and Eastern Branches downstream to a line between Hospital Point and Smiths Creek. Portion of CBP segment ELIPH. Portion of the DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	0.40 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Tributylin TBT (Tributylstanne)**		00356	**2006**	**2010**	The Aquatic Life Use is impaired based on failure to meet the DEQ tributyltin (TBT) salt water chronic criteria under TMDL ID: VAT-G15E-03-01.

Sources: Other Shipping Releases (Wastes and Detritus)
Shipbuilding, Repairs, Drydocking

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Elizabeth River**

TMDL Group ID: **00356**

VAT-G15E_ELI02A06 — **Elizabeth River Mainstem - Lower** — NORFOLK CITY, PORTSMOUTH CITY

From a line between Hospital Pt and Smiths Cr down stream to mouth (line from northeast corner of Craney Isl. towards Gate 2 at Naval Sta.). Portion of CBP segment ELIPH. Portion of the DSS (ADMINISTRATIVE) shellfish harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	7.18 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Tributylin TBT (Tributylstanne)**		00356	**2006**	**2010**	The Aquatic Life Use is impaired based on failure to meet the DEQ tributyltin (TBT) salt water chronic criteria under TMDL ID: VAT-G15E-03-01.

Sources: Other Shipping Releases (Wastes and Detritus)
Shipbuilding, Repairs, Drydocking

VAT-G15E_SBE02A06 — **Southern Branch, Elizabeth R. - Middle** — CHESAPEAKE CITY, PORTSMOUTH CITY

North of I-64 crossing and south of Scuffletown Cr. From I-64 crossing @ Deep Cr. confluence (RM 6.86) downstream to the Jordan Bridge (RM 2.30). Portion of CBP segment SBEMH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	1.01 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Tributylin TBT (Tributylstanne)**		00356	**2006**	**2010**	The Aquatic Life Use is impaired based on failure to meet the DEQ tributyltin (TBT) salt water chronic criteria under TMDL ID: VAT-G15E-01-04

Sources: Other Shipping Releases (Wastes and Detritus)
Shipbuilding, Repairs, Drydocking

VAT-G15E_SBE03A06 — **Southern Branch, Elizabeth R. - Lower** — CHESAPEAKE CITY, PORTSMOUTH CITY

North of the Jordan Bridge. From the Jordan Bridge, Rt. 337 (RM 2.30) downstream to the mouth, confluence with the mainstem Elizabeth River. Portion of CBP segment SBEMH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	0.59 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Tributylin TBT (Tributylstanne)**		00356	**2006**	**2010**	The Aquatic Life Use is impaired based on failure to meet the DEQ tributyltin (TBT) salt water chronic criteria under TMDL ID: VAT-G15E-01-04

Sources: Other Shipping Releases (Wastes and Detritus)
Shipbuilding, Repairs, Drydocking

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Elizabeth River**

TMDL Group ID: **76301**

VAT-G15E_BRO01A02 — **Broad Creek, Eastern Br. Elizabeth R.** — NORFOLK CITY

Located between Ingleside and Thomas Corner areas. North shore tributary to Eastern Branch Elizabeth River. Entirety of Broad Creek. Portion of CBP segment EBEMH. Portion of the DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	0.37 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Estuarine Bioassessments**		76301	**2006**	**2010**	The Aquatic Life Use is impaired based on failure to meet a statistical evaluation constituting an un-impacted benthic organism population per CBP (Benthic-BIBI) analysis (VERSAR-2005). The source/stressor tool yielded an unknown source for the impairment. This segment was previously included (2004 IR) in TMDL ID: VAT-G15E-01-03. The TMDL due date is carried from the previous 2004 IR impairment identification date.

Sources: Source Unknown

VAT-G15E_EBE01A00 — **Eastern Branch, Elizabeth R. - Upper** — CHESAPEAKE CITY, NORFOLK CITY

Located between Carolanne Farms and Tanglewood areas. Upper Eastern Br., from headwaters to confluence of Broad Creek (RM 4.0). Portion of CBP segment EBEMH. Portion of the DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	0.38 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Estuarine Bioassessments**		76301	**2006**	**2010**	The Aquatic Life Use is impaired based on failure to meet a statistical evaluation constituting an un-impacted benthic organism population per CBP (Benthic-BIBI) analysis (VERSAR-2005). The source/stressor tool yielded an unknown source for the impairment. This segment was previously included (2004 IR) in TMDL ID: VAT-G15E-01-03. The TMDL due date is carried from the previous 2004 IR impairment identification date.

Sources: Source Unknown

VAT-G15E_EBE02A06 — **Eastern Branch, Elizabeth R. - Lower** — CHESAPEAKE CITY, NORFOLK CITY

Located between Tanglewood area to mouth. From Broad Creek (RM 4.0) downstream to the confluence with Elizabeth R. mainstem. Portion of CBP segment EBEMH. Portion of the DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	1.06 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Estuarine Bioassessments**		76301	**2006**	**2010**	The Aquatic Life Use is impaired based on failure to meet a statistical evaluation constituting an un-impacted benthic organism population per CBP (Benthic-BIBI) analysis (VERSAR-2005). The source/stressor tool yielded an unknown source for the impairment. This segment was previously included (2004 IR) in TMDL ID: VAT-G15E-01-03. The TMDL due date is carried from the previous 2004 IR impairment identification date.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Elizabeth River**

TMDL Group ID: **76301**

VAT-G15E_ELI01A06 — **Elizabeth River Mainstem - Upper** — NORFOLK CITY, PORTSMOUTH CITY

From headwaters (RM 8.0) at confluence Southern and Eastern Branches downstream to a line between Hospital Point and Smiths Creek. Portion of CBP segment ELIPH. Portion of the DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Estuarine Bioassessments** (0.40 SQUARE MILES)	76301	**2006**	**2010**	The Aquatic Life Use is impaired based on failure to meet a statistical evaluation constituting an un-impacted benthic organism population per CBP (Benthic-BIBI) analysis (VERSAR-2005). The source/stressor tool yielded an unknown source for the impairment

Sources: Source Unknown

VAT-G15E_ELI02A06 — **Elizabeth River Mainstem - Lower** — NORFOLK CITY, PORTSMOUTH CITY

From a line between Hospital Pt and Smiths Cr down stream to mouth (line from northeast corner of Craney Isl. towards Gate 2 at Naval Sta.). Portion of CBP segment ELIPH. Portion of the DSS (ADMINISTRATIVE) shellfish harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Estuarine Bioassessments** (7.18 SQUARE MILES)	76301	**2006**	**2010**	The Aquatic Life Use is impaired based on failure to meet a statistical evaluation constituting an un-impacted benthic organism population per CBP (Benthic-BIBI) analysis (VERSAR-2005). The source/stressor tool yielded an unknown source for the impairment. This segment was previously included (2004 IR) in TMDL ID: VAT-G15E-01-03. The TMDL due date is carried from the previous 2004 IR impairment identification date.

Sources: Source Unknown

VAT-G15E_SBE01A00 — **Southern Branch, Elizabeth R. - Upper** — CHESAPEAKE CITY

Located south of I-64 crossing. From headwaters @ Great Bridge Locks (RM 9.0) downstream to I-64 crossing @ Deep Cr. Confluence (RM 6.86).. Portion of CBP segment SBEMH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Estuarine Bioassessments** (0.62 SQUARE MILES)	76301	**2006**	**2010**	The Aquatic Life Use is impaired based on failure to meet a statistical evaluation constituting an un-impacted benthic organism population per CBP (Benthic-BIBI) analysis (VERSAR-2005). The source/stressor tool yielded an unknown source for the impairment. This segment was previously included (2004 IR) in TMDL ID: VAT-G15E-01-03. The TMDL due date is carried from the previous 2004 IR impairment identification date.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Elizabeth River**

TMDL Group ID: **76301**

VAT-G15E_WBE01A02 **Western Branch, Elizabeth R. - Upper** CHESAPEAKE CITY PORTSMOUTH CITY

Located between Stewart Manor and Point Elizabeth areas. From headwaters (RM 8.5) downstream to Sterns Creek (RM 3.5). Portion of CBP segment WBEMH. Portion of the DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	0.56 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Estuarine Bioassessments**		76301	**2006**	**2010**	The Aquatic Life Use is impaired based on failure to meet a statistical evaluation constituting an un-impacted benthic organism population per CBP (Benthic-BIBI) analysis (VERSAR-2005). The source/stressor tool yielded an unknown source for the impairment

Sources: Source Unknown

VAT-G15E_WBE02A00 **Western Branch, Elizabeth R. - Lower** CHESAPEAKE CITY PORTSMOUTH CITY

Located between the Point Elizabeth and Lovett Point areas. From Sterns Creek confluence (RM 3.5) downstream to the mouth. Portion of CBP segment WBEMH. Portion of the DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	1.60 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Estuarine Bioassessments**		76301	**2006**	**2010**	The Aquatic Life Use is impaired based on failure to meet a statistical evaluation constituting an un-impacted benthic organism population per CBP (Benthic-BIBI) analysis (VERSAR-2005). The source/stressor tool yielded an unknown source for the impairment

Sources: Source Unknown

TMDL Watershed Name: **Elizabeth River Mainstem - Upper**

TMDL Group ID: **76041**

VAT-G15E_ELI01A06 **Elizabeth River Mainstem - Upper** NORFOLK CITY PORTSMOUTH CITY

From headwaters (RM 8.0) at confluence Southern and Eastern Branches downstream to a line between Hospital Point and Smiths Creek. Portion of CBP segment ELIPH. Portion of the DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	0.40 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Enterococcus**		76041	**2006**	**2018**	The Recreation Use is impaired (3 violates / 28 observations) due to exceedance of the instantaneous criteria for Enterococcus bacteria. This segment is added for 2006 IR as TMDL ID: VAT-G15E-02-02, to the previously established TMDL ID (2004 IR) as it is

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Elizabeth River Polyhaline Embayments**

TMDL Group ID: **76089**

VAT-G15E_ELI01A06	Elizabeth River Mainstem - Upper	NORFOLK CITY PORTSMOUTH CITY	From headwaters (RM 8.0) at confluence Southern and Eastern Branches downstream to a line between Hospital Point and Smiths Creek. Portion of CBP segment ELIPH. Portion of the DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	0.40 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		76089	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		76089	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Elizabeth River Polyhaline Embayments**

TMDL Group ID: **76089**

VAT-G15E_ELI02A06	Elizabeth River Mainstem - Lower	NORFOLK CITY PORTSMOUTH CITY	From a line between Hospital Pt and Smiths Cr down stream to mouth (line from northeast corner of Craney Isl. towards Gate 2 at Naval Sta.). Portion of CBP segment ELIPH. Portion of the DSS (ADMINISTRATIVE) shellfish harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	7.18 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		76089	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		76089	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Elizabeth River Polyhaline Embayments**

TMDL Group ID: **76089**

VAT-G15E_SCO01A06	Scott Creek	NORFOLK CITY PORTSMOUTH CITY	South shore tributary of Elizabeth River mainstem. Upstream of Pinner Point. Portion of CBP segment ELIPH. Portion of the DSS (ADMINISTRATIVE) shellfish harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	0.19 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		76089	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		76089	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Elizabeth River Polyhaline Embayments**

TMDL Group ID: **76089**

VAT-G15E_ZZZ02A06	**Unsegmented estuaries in Elizabeth River System**	CHESAPEAKE CITY VIRGINIA BEACH CITY	Non-segmented tributaries of the Elizabeth River System. Portion of CBP segment ELIPH. Portion of the DSS (ADMINISTRATIVE) shellfish harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	2.07 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		76089	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		76089	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Elizabeth River, Eastern Branch**

TMDL Group ID: **76550**

VAT-G15E_EBE02A06	Eastern Branch, Elizabeth R. - Lower	CHESAPEAKE CITY NORFOLK CITY	Located between Tanglewood area to mouth. From Broad Creek (RM 4.0) downstream to the confluence with Elizabeth R. mainstem. Portion of CBP segment EBEMH. Portion of the DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	1.06 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Enterococcus**		76550	**2006**	**2016**	The Recreation Use is impaired (4 violates / 28 observations) due to exceedance of the instantaneous criteria for Enterococcus bacteria. The previous Fecal Coliform indicator bacteria impairment no longer applies, replaced by Enterococcus criteria impairment since threshold of 12 observations reached, with TMDL ID and due date same as original FC impairment.

Sources: Source Unknown

TMDL Watershed Name: **Elizabeth River, Eastern Branch (Middle)**

TMDL Group ID: **00613**

VAT-G15E_EBE02A06	Eastern Branch, Elizabeth R. - Lower	CHESAPEAKE CITY NORFOLK CITY	Located between Tanglewood area to mouth. From Broad Creek (RM 4.0) downstream to the confluence with Elizabeth R. mainstem. Portion of CBP segment EBEMH. Portion of the DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	1.06 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**		00613	**2006**	**2016**	The Fish Consumption Use is impaired based on the VDH fish consumption advisory for PCBs issued 12/13/04. This segment was previously identified (2004 IR) as a site-specific impairment for PCBs in fish tissue concentrations under TMDL ID: VAT-G15E-02-02, this previous impairment TMDL due date is carried forward for this AU, rather than base the TMDL due date on the issuance date of the VDH PCB advisory.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Elizabeth River, Eastern Branch Mesohaline Embayments**

TMDL Group ID: **76090**

VAT-G15E_BRO01A02	Broad Creek, Eastern Br. Elizabeth R.	NORFOLK CITY	Located between Ingleside and Thomas Corner areas. North shore tributary to Eastern Branch Elizabeth River. Entirety of Broad Creek. Portion of CBP segment EBEMH. Portion of the DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	0.37 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		76090	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO). This segment was previously identified as impaired for dissolved oxygen concentrations below the DEQ allowable minimum criteria (4.0 mg/l) as identified at DEQ (AQM) monitoring station @ 2-BRO002.95, 2-BRO001.35 under TMDL ID: VAT-G15E-02-04.

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**	76090	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO). This segment was previously identified as impaired for dissolved oxygen concentrations below the DEQ allowable minimum criteria (4.0 mg/l) as identified at DEQ (AQM) monitoring station @ 2-BRO002.95, 2-BRO001.35 under TMDL ID: VAT-G15E-02-04.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Elizabeth River, Eastern Branch Mesohaline Embayments**

TMDL Group ID: **76090**

VAT-G15E_EBE01A00	Eastern Branch, Elizabeth R. - Upper	CHESAPEAKE CITY NORFOLK CITY	Located between Carolanne Farms and Tanglewood areas. Upper Eastern Br., from headwaters to confluence of Broad Creek (RM 4.0). Portion of CBP segment EBEMH. Portion of the DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	0.38 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		76090	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		76090	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO). This segment was previously identified as impaired for dissolved oxygen concentrations below the DEQ allowable minimum criteria (4.0 mg/l) as identified at DEQ (AQM) monitoring station @ 2-BRO002.95, 2-BRO001.35 under TMDL ID: VAT-G15E-02-04.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Elizabeth River, Eastern Branch Mesohaline Embayments**

TMDL Group ID: **76090**

VAT-G15E_EBE02A06	Eastern Branch, Elizabeth R. - Lower	CHESAPEAKE CITY NORFOLK CITY	Located between Tanglewood area to mouth. From Broad Creek (RM 4.0) downstream to the confluence with Elizabeth R. mainstem. Portion of CBP segment EBEMH. Portion of the DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	1.06 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		76090	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		76090	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO). This segment was previously identified as impaired for

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Elizabeth River, Eastern Branch Mesohaline Embayments**

TMDL Group ID: **76090**

VAT-G15E_IND01A02	Indian River - Eastern Branch, Elizabeth R.	CHESAPEAKE CITY	Located southwest of Broad Creek. Between Campostella Heights and Tanglewood. Entirety of creek including tribs. Portion of CBP segment EBEMH. Portion of the DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	0.27 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		76090	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		76090	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Elizabeth River, Eastern Branch Mesohaline Embayments**

TMDL Group ID: **76090**

VAT-G15E_WBE01A02	Western Branch, Elizabeth R. - Upper	CHESAPEAKE CITY PORTSMOUTH CITY	Located between Stewart Manor and Point Elizabeth areas. From headwaters (RM 8.5) downstream to Sterns Creek (RM 3.5). Portion of CBP segment WBEMH. Portion of the DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	0.56 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		76090	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		76090	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO). This segment was previously identified as impaired for

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Elizabeth River, Eastern Branch Mesohaline Embayments**

TMDL Group ID: **76090**

VAT-G15E_WBE02A00	Western Branch, Elizabeth R. - Lower	CHESAPEAKE CITY PORTSMOUTH CITY	Located between the Point Elizabeth and Lovett Point areas. From Sterns Creek confluence (RM 3.5) downstream to the mouth. Portion of CBP segment WBEMH. Portion of the DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	1.60 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		76090	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		76090	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO). This segment was previously identified as impaired for

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Elizabeth River, Southern Branch**

TMDL Group ID: **00693**

VAT-G15E_SBE03A06	Southern Branch, Elizabeth R. - Lower	CHESAPEAKE CITY PORTSMOUTH CITY	North of the Jordan Bridge. From the Jordan Bridge, Rt. 337 (RM 2.30) downstream to the mouth, confluence with the mainstem Elizabeth River. Portion of CBP segment SBEMH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	0.59 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Enterococcus**		00693	**2006**	**2010**	The Recreation Use is impaired (4 violates / 25 observations) due to exceedance of the instantaneous criteria for Enterococcus bacteria. The previous Fecal Coliform indicator bacteria impairment no longer applies, replaced by Enterococcus criteria impairment since threshold of 12 observations reached, with TMDL ID: VAT-G15E-01-02 and due date same as original FC impairment.

Sources: Source Unknown

TMDL Group ID: **76300**

VAT-G15E_SBE03A06	Southern Branch, Elizabeth R. - Lower	CHESAPEAKE CITY PORTSMOUTH CITY	North of the Jordan Bridge. From the Jordan Bridge, Rt. 337 (RM 2.30) downstream to the mouth, confluence with the mainstem Elizabeth River. Portion of CBP segment SBEMH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	0.59 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Estuarine Bioassessments**		76300	**2006**	**2010**	The Aquatic Life Use is impaired based on failure to meet a statistical evaluation constituting an un-impacted benthic organism population per CBP (Benthic-BIBI) analysis (VERSAR-2005). The source/stressor tool yielded an unknown source for the impairment

Sources: Source Unknown

TMDL Watershed Name: **Elizabeth River, Southern Branch - Middle**

TMDL Group ID: **76302**

VAT-G15E_SBE02A06	Southern Branch, Elizabeth R. - Middle	CHESAPEAKE CITY PORTSMOUTH CITY	North of I-64 crossing and south of Scuffletown Cr. From I-64 crossing @ Deep Cr. confluence (RM 6.86) downstream to the Jordan Bridge (RM 2.30). Portion of CBP segment SBEMH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	1.01 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Estuarine Bioassessments**		76302	**2006**	**2010**	The Aquatic Life Use is impaired based on failure to meet a statistical evaluation constituting an un-impacted benthic organism population per CBP (Benthic-BIBI) analysis (VERSAR-2005). The source/stressor tool yielded an unknown source for the impairment

Sources: Source Unknown

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Elizabeth River, Southern Branch Mesohaline Embayments**

TMDL Group ID: **76078**

VAT-G15E_DEC01A06	Deep Creek, Southern Br. Elizabeth R.	CHESAPEAKE CITY	Located south of I-64 crossing of Southern Branch Elizabeth River. Eastern shore tributary to Southern Branch. Entirety of Creek. Portion of CBP segment SBEMH. Portion of the DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	0.27 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		76078	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO). This segment was previously identified as impaired for

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)

Deep-Water Aquatic Life	**Oxygen, Dissolved**		76078	**2006**	**2010**	The Deep-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Deep Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		76078	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Elizabeth River, Southern Branch Mesohaline Embayments**

TMDL Group ID: **76078**

Sources: Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Elizabeth River, Southern Branch Mesohaline Embayments**

TMDL Group ID: **76078**

VAT-G15E_NMC01A00	New Mill Creek - Southern Br. Elizabeth R.	CHESAPEAKE CITY	Located south of I-64 crossing of Southern Br. Elizabeth R. Eastern shore tributary to Southern Branch, down stream of locks. Entirety of Creek. Portion of CBP segment SBEMH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	0.07 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		76078	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO). The Deep-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Deep Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Deep-Water Aquatic Life	**Oxygen, Dissolved**	76078	**2006**	**2010**	The Deep-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Deep Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**	76078	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Elizabeth River, Southern Branch Mesohaline Embayments**

TMDL Group ID: **76078**

Sources: Wet Weather Discharges (Non-Point Source)
Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Elizabeth River, Southern Branch Mesohaline Embayments**

TMDL Group ID: **76078**

VAT-G15E_PAR01A06	Paradise Creek - Southern Br. Elizabeth R.	CHESAPEAKE CITY PORTSMOUTH CITY	Located south of Norfolk Naval Shipyard. Eastern shore tributary to Southern Branch. Entirety of Creek. Portion of CBP segment SBEMH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment (0.06 SQUARE MILES)	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**	76078	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO). The Deep-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Deep Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Deep-Water Aquatic Life	**Oxygen, Dissolved**	76078	**2006**	**2010**	The Deep-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Deep Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**	76078	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Elizabeth River, Southern Branch Mesohaline Embayments**

TMDL Group ID: **76078**

Sources: Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Elizabeth River, Southern Branch Mesohaline Embayments**

TMDL Group ID: **76078**

VAT-G15E_SBE01A00	Southern Branch, Elizabeth R. - Upper	CHESAPEAKE CITY	Located south of I-64 crossing. From headwaters @ Great Bridge Locks (RM 9.0) downstream to I-64 crossing @ Deep Cr. Confluence (RM 6.86).. Portion of CBP segment SBEMH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	0.62 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		76078	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO). The Deep-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Deep Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Deep-Water Aquatic Life	**Oxygen, Dissolved**	76078	**2006**	**2010**	The Deep-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Deep Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**	76078	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Elizabeth River, Southern Branch Mesohaline Embayments**

TMDL Group ID: **76078**

Sources: Wet Weather Discharges (Non-Point Source)
Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Elizabeth River, Southern Branch Mesohaline Embayments**

TMDL Group ID: **76078**

VAT-G15E_SBE02A06	Southern Branch, Elizabeth R. - Middle	CHESAPEAKE CITY PORTSMOUTH CITY	North of I-64 crossing and south of Scuffletown Cr. From I-64 crossing @ Deep Cr. confluence (RM 6.86) downstream to the Jordan Bridge (RM 2.30). Portion of CBP segment SBEMH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	1.01 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		76078	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO). The Deep-Water Aquatic Life Use is impaired based on fa

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)

Deep-Water Aquatic Life	**Oxygen, Dissolved**		76078	**2006**	**2010**	The Deep-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Deep Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		76078	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Elizabeth River, Southern Branch Mesohaline Embayments**

TMDL Group ID: **76078**

Sources: Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Elizabeth River, Southern Branch Mesohaline Embayments**

TMDL Group ID: **76078**

VAT-G15E_SBE03A06	Southern Branch, Elizabeth R. - Lower	CHESAPEAKE CITY PORTSMOUTH CITY	North of the Jordan Bridge. From the Jordan Bridge, Rt. 337 (RM 2.30) downstream to the mouth, confluence with the mainstem Elizabeth River. Portion of CBP segment SBEMH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	0.59 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		76078	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO). The Deep-Water Aquatic Life Use is impaired based on fa

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)

Deep-Water Aquatic Life	**Oxygen, Dissolved**	76078	**2006**	**2010**	The Deep-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Deep Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**	76078	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Elizabeth River, Southern Branch Mesohaline Embayments**

TMDL Group ID: **76078**

Sources: Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Elizabeth River, Southern Branch Mesohaline Embayments**

TMDL Group ID: **76078**

VAT-G15E_STJ01A04	Saint Julian Creek	CHESAPEAKE CITY	Northwest of Gilmerton Bridge. Eastern shore tributary to Southern Branch. Entirety of Creek. Portion of CBP segment SBEMH. Portion of the DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment (0.12 SQUARE MILES)	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**	76078	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO). The Deep-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Deep Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Deep-Water Aquatic Life	**Oxygen, Dissolved**	76078	**2006**	**2010**	The Deep-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Deep Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**	76078	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Elizabeth River, Southern Branch Mesohaline Embayments**

TMDL Group ID: **76078**

Sources: Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

TMDL Watershed Name: **Elizabeth River, Western Branch**

TMDL Group ID: **00616**

VAT-G15E_WBE01A02 **Western Branch, Elizabeth R. - Upper** CHESAPEAKE CITY PORTSMOUTH CITY

Located between Stewart Manor and Point Elizabeth areas. From headwaters (RM 8.5) downstream to Sterns Creek (RM 3.5). Portion of CBP segment WBEMH. Portion of the DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	0.56 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**		00616	**2006**	**2016**	The Fish Consumption Use is impaired based on the VDH fish consumption advisory for PCBs issued 12/13/04. This segment was previously identified (2004 IR) as a site-specific impairment for PCBs in fish tissue concentrations under TMDL ID VAT-G15E-04-02, this previous impairment TMDL due date is carried forward for this AU, rather than base the TMDL due date on the issuance date of the VDH PCB advisory.

Sources: Source Unknown

VAT-G15E_WBE02A00 **Western Branch, Elizabeth R. - Lower** CHESAPEAKE CITY PORTSMOUTH CITY

Located between the Point Elizabeth and Lovett Point areas. From Sterns Creek confluence (RM 3.5) downstream to the mouth. Portion of CBP segment WBEMH. Portion of the DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	1.60 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**		00616	**2006**	**2016**	The Fish Consumption Use is impaired based on the VDH fish consumption advisory for PCBs issued 12/13/04. This segment was previously identified (2004 IR) as a site-specific impairment for PCBs in fish tissue concentrations under TMDL ID VAT-G15E-04-02, this previous impairment TMDL due date is carried forward for this AU, rather than base the TMDL due date on the issuance date of the VDH PCB advisory. Fish Tissue impairment from 2002 303d assessment of 1993 Fish Tissue (2-species with PCBs) @ 2-WBE002.11. 2001 sampling showed 2-species @ 2-WBE002.11 & 3m species @ 2-WBE006.18 exceed DV (52 ppb) PCB contamination exceedance.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Elizabeth River, Western Branch**

TMDL Group ID: **01538**

VAT-G15E_WBE01A02 **Western Branch, Elizabeth R. - Upper** CHESAPEAKE CITY PORTSMOUTH CITY

Located between Stewart Manor and Point Elizabeth areas. From headwaters (RM 8.5) downstream to Sterns Creek (RM 3.5). Portion of CBP segment WBEMH. Portion of the DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	0.56 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Enterococcus**		01538	**2006**	**2016**	The Recreation Use is impaired (4 violates / 26 observations) due to exceedance of the instantaneous criteria for Enterococcus bacteria. The previous Fecal Coliform indicator bacteria impairment no longer applies, replaced by Enterococcus criteria impairment since threshold of 12 observations reached, with TMDL ID: VAT-G15E-04-01 and due date same as original FC impairment.

Sources: Source Unknown

VAT-G15E_WBE02A00 **Western Branch, Elizabeth R. - Lower** CHESAPEAKE CITY PORTSMOUTH CITY

Located between the Point Elizabeth and Lovett Point areas. From Sterns Creek confluence (RM 3.5) downstream to the mouth. Portion of CBP segment WBEMH. Portion of the DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	1.60 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Enterococcus**		01538	**2006**	**2016**	The Recreation Use is impaired (4 violates / 26 observations) due to exceedance of the instantaneous criteria for Enterococcus bacteria. The previous Fecal Coliform indicator bacteria impairment no longer applies, replaced by Enterococcus criteria impairment since threshold of 12 observations reached, with TMDL ID: VAT-G15E-04-01 and due date same as original FC impairment.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Elizabeth River, Western Branch Mesohaline Embayments**

TMDL Group ID: **76074**

VAT-G15E_BAB01A06	Bailey Creek - Western Branch, Elizabeth R.	CHESAPEAKE CITY	Western shore tributary to the Western Branch. Entirety of creek including tributaries. Located in the area of Charlton Village to Ahoy Acres. Portion of CBP segment WBEMH. Portion of the DSS (ADMINISTRATIVE) shellfish harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	0.04 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		76074	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		76074	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Elizabeth River, Western Branch Mesohaline Embayments**

TMDL Group ID: **76074**

VAT-G15E_DPT01A06	Drum Point Creek - Western Branch, Elizabeth R.	CHESAPEAKE CITY	Western shore trib to the Western Br. Entirety of creek including tributaries. Located in the area of Charlton Village to Ahoy Acres. Portion of CBP segment WBEMH. Portion of the DSS (ADMINISTRATIVE) shellfish harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	0.15 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		76074	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		76074	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Elizabeth River, Western Branch Mesohaline Embayments**

TMDL Group ID: **76074**

VAT-G15E_GOE01A06	Goose Creek - Western Branch, Elizabeth R.	CHESAPEAKE CITY	Headwaters tributary to the Western Branch. Entirety of creek including tributaries. Located in the area of Charlton Village to Ahoy Acres. Portion of CBP segment WBEMH. Portion of the DSS (ADMINISTRATIVE) shellfish harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	0.05 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		76074	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		76074	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Ellis Run and Mill Creek**

TMDL Group ID: **01703**

VAW-I26R_ELS01A02 **Ellis Run** BOTETOURT CO Ellis Run mainstem from the Rt. 65 crossing downstream to its confluence with Back Creek.

VA Overall AU Category: **5A**

Use	Impairment	1.60 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**		01703	**2004**	**2016**	12 or more Escherichia coli (E.coli) bacteria samples.

Sources: Livestock (Grazing or Feeding Operations)
On-site Treatment Systems (Septic Systems and Similar Decencentralized Systems)
Unspecified Domestic Waste
Wildlife Other than Waterfowl

VAW-I26R_MIA01A04 **Mill Creek** BOTETOURT CO Mill Creek mainstem from just downstream of the Rt. 11 crossing on downstream to the Mill Creek confluence with Back Creek.

VA Overall AU Category: **5A**

Use	Impairment	8.29 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**		01703	**2004**	**2016**	12 or more Escherichia coli (E.coli) bacteria samples.

Sources: Livestock (Grazing or Feeding Operations)
On-site Treatment Systems (Septic Systems and Similar Decencentralized Systems)
Unspecified Domestic Waste
Wastes from Pets
Wildlife Other than Waterfowl

TMDL Watershed Name: **Falling Creek**

TMDL Group ID: **01129**

VAP-G01R_FAC01A00 **Falling Creek** CHESTERFIELD CO Falling Creek from the Falling Creek Reservoir dam to the James River.

VA Overall AU Category: **5A**

Use	Impairment	3.80 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**		01129	**2006**	**2014**	VAP-G01R-03 Falling Creek was initially assessed as not supporting of the Recreation use support goal in 2002 based on fecal coliform standard violations recorded at the Route 1 bridge (2-FAC000.85). During the 2006 cycle, the impairment was switched to E. coli based on a violation rate of 2/12.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Falling Creek**

TMDL Group ID: **10002**

VAP-G01R_FAC02A04	Falling Creek	CHESTERFIELD CO	Falling Creek from its headwaters to the extent of backwater of Falling Creek Reservoir.

VA Overall AU Category: **5A**

Use	Impairment	15.39 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**		10002	**2006**	**2018**	VAP-G01R-04 Falling Creek from its headwaters downstream to Falling Creek Reservoir was assessed as not supporting the Recreation Use during the 2006 cycle based on the following bacteria violation rates: Fecal coliform 5/22, E. coli 2/9 at 2-FAC009.46 E. coli 3/9 at 2-FAC017.80
		Sources: Source Unknown				
Recreation	**Fecal Coliform**		10002	**2006**	**2018**	VAP-G01R-04 Falling Creek from its headwaters downstream to Falling Creek Reservoir was assessed as not supporting the Recreation Use during the 2006 cycle based on the following bacteria violation rates: Fecal coliform 5/22, E. coli 2/9 at 2-FAC009.46 E. coli 3/9 at 2-FAC017.80
		Sources: Source Unknown				

TMDL Watershed Name: **Fine Creek**

TMDL Group ID: **01178**

VAP-H38R_FIN01A98	Fine Creek	POWHATAN CO	Fine Creek from its headwaters to its mouth.

VA Overall AU Category: **5A**

Use	Impairment	10.34 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**		01178	**2006**	**2016**	VAP-H38R-01 The segment was assessed as impaired of the Recreation Use during the year 2006 cycle due to a fecal coliform violation rate of 5/31 and an E. coli violation rate of 2/10 at the Route 711 bridge (2-FIN000.81).
		Sources: Source Unknown				
Recreation	**Fecal Coliform**		01178	**2004**	**2016**	VAP-H38R-01 The segment was assessed as impaired of the Recreation Use during the year 2006 cycle due to a fecal coliform violation rate of 5/31 and an E. coli violation rate of 2/10 at the Route 711 bridge (2-FIN000.81).
		Sources: Source Unknown				

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Fisby Branch**

TMDL Group ID: **00735**

VAC-H21R_FRY01A00	**Fisby Branch**	BUCKINGHAM CO	Frisby Branch from the headwaters to an unnamed tributary at river mile 2.4.

VA Overall AU Category: **5A**

Use	Impairment			TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	1.34	MILES	00735	**2002**	**2014**	

Sources: Source Unknown

VAC-H21R_FRY02A00	**Frisby Branch**	BUCKINGHAM CO	Frisby Branch from an unnamed tributary at river mile 2.4 to the confluence with Grease Creek.

VA Overall AU Category: **5A**

Use	Impairment			TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	2.59	MILES	00735	**2004**	**2016**	

Sources: Source Unknown

TMDL Watershed Name: **Fishing Creek**

TMDL Group ID: **00359**

VAC-H03R_FSG01A00	**Fishing Creek**	LYNCHBURG CITY	Fishing Creek mainstem from its confluence with the James River upstream to its headwaters.

VA Overall AU Category: **5A**

Use	Impairment			TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	5.45	MILES	00359	**1996**	**2010**	

Sources: Combined Sewer Overflows

TMDL Watershed Name: **Fluvanna Ruritan Lake**

TMDL Group ID: **50051**

VAV-H32L_00	**Fluvanna Ruritan Lake**	FLUVANNA CO	Fluvanna Ruritan Lake

VA Overall AU Category: **5A**

Use	Impairment			TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**pH**	70.00	ACRES	50051	**2006**	**2018**	Newly listed for dissolved oxygen and pH in 2006.

Sources: Atmospheric Deposition - Acidity

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Fourmile Creek**

TMDL Group ID: **00051**

VAP-G02R_FOM02A06	Upper Fourmile Creek	HENRICO CO	Fourmile Creek and tribs upstream of rivermile 5.57

VA Overall AU Category: **5C**

Use	Impairment	5.79 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**		00051	**2006**	**2014**	VAP-G02R-01

The segment was assessed as not supporting of the Recreation use support goal based on an E. coli standard violation rate of 5/20 at the Route 5 bridge (2-FOM003.60). The segment was initially considered threatened in 1998 and downgraded to impaired in 2002 due to fecal coliform violations; the TMDL was due in 2014. The bacteria standard has not converted to E. coli. The bacteria TMDL for the Fourmile Creek watershed was completed and approved by EPA on 9/20/2004. The segment will be assessed as Cat. 4A.

Sources: Non-Point Source
Urban Runoff/Storm Sewers

TMDL Watershed Name: **Fourmile Creek, Upper**

TMDL Group ID: **10030**

VAP-G02R_FOM02A06	Upper Fourmile Creek	HENRICO CO	Fourmile Creek and tribs upstream of rivermile 5.57

VA Overall AU Category: **5C**

Use	Impairment	5.79 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		10030	**2006**	**2018**	VAP-G02R-06

During the 2006 cycle, the upstream portion of the Fourmile Creek watershed was considered impaired due to dissolved oxygen violations at 2-FOM006.87 and 2-XTV001.69 (4/15 and 2/12, respectively). Natural conditions are suspected.

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

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Franks Branch**

TMDL Group ID: **15013**

VAP-J17R_FNK01A00	Franks Branch	CHESTERFIELD CO	Franks Branch from the headwaters to the mouth at Swift Creek.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**pH**	10.04 MILES	15013	**2006**	**2018**	15013 (pH) VAP-J17R-03 The segment was assessed as not supporting for aquatic life use due to a pH violation rate of 3/12 at 2-FNK-001.12. There was a pH violation rate of 16/23 recorded by Chesterfield Co for stations WQ-10 and WQ-11. These data were not acceptable for an impairment but will be assessed as an observed effect for low pH.

Sources: Source Unknown

TMDL Watershed Name: **Gillies Creek**

TMDL Group ID: **01131**

VAP-G01R_GIL01A04	Gillies Creek	HENRICO CO RICHMOND CITY	Headwaters to mainstem

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	5.79 MILES	01131	**2004**	**2016**	VAP-G01R-06 Gillies Creek was initially assessed as not supporting the Aquatic Life and Recreation uses in 2004 based on monitoring at the Government Road Bridge (2-GIL000.42). During the 2006 cycle, the pH violation rate was 2/12 and the fecal coliform violation rate was 7/12.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Gillies Creek**

TMDL Group ID: **01133**

VAP-G01R_GIL01A04	Gillies Creek	HENRICO CO RICHMOND CITY	Headwaters to mainstem

VA Overall AU Category: **5A**

Use	Impairment	5.79 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**pH**		01133	**2004**	**2016**	VAP-G01R-06 Gillies Creek was initially assessed as not supporting the Aquatic Life and Recreation uses in 2004 based on monitoring at the Government Road Bridge (2-GIL000.42). During the 2006 cycle, the pH violation rate was 2/12 and the fecal coliform violation rate was 7/12.

Sources: Source Unknown

TMDL Watershed Name: **Goode Creek**

TMDL Group ID: **01132**

VAP-G01R_GOD01A00	Goode Creek	RICHMOND CITY	Goode Creek from the confluence with Broad Rock Creek to the James River.

VA Overall AU Category: **5A**

Use	Impairment	1.23 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**		01132	**2006**	**2014**	VAP-G01R-01 During the 2006 cycle, Goode Creek was assessed based on past sampling at 2-GOD000.07 and a fecal coliform violation rate of 6/8 at 2-GOD000.77 (Commerce Road). E. coli was added as an impairing cause based on a violation rate of 5/8 at 2-GOD000.77.

Sources: Source Unknown

Use	Impairment	1.23 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**		01132	**2002**	**2014**	VAP-G01R-01 During the 2006 cycle, Goode Creek was assessed based on past sampling at 2-GOD000.07 and a fecal coliform violation rate of 6/8 at 2-GOD000.77 (Commerce Road). E. coli was added as an impairing cause based on a violation rate of 5/8 at 2-GOD000.77.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Goodwin Lake**

TMDL Group ID: **50018**

VAC-J03L_XEP01A06	Goodwin Lake	PRINCE EDWARD CO	Prince Edward and Goodwin Lake State Park

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**	13.45 ACRES	50018	**2006**	**2018**	

Sources: Source Unknown

TMDL Watershed Name: **Gordon Creek**

TMDL Group ID: **10099**

VAP-G08E_GOR01A06	Gordon Creek	JAMES CITY CO	Tidal limit to mouth CHKOH

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Estuarine Bioassessments**	0.30 SQUARE MILES	10099	**2006**	**2018**	VAP-G08E-05 Station 2-GOR002.58 is a Coastal 2000 probabilistic monitoring station. Weight of Evidence assessment performed by CO indicates benthic alteration caused by water quality (scenario 5, category 5A).

Sources: Source Unknown

TMDL Watershed Name: **Graham Creek**

TMDL Group ID: **00764**

VAC-H04R_GRA02A02	Graham Creek	AMHERST CO	Graham Creek mainstem from the Graham Creek Reservoir backwaters upstream to its headwaters.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	5.20 MILES	00764	**2002**	**2014**	

Sources: Source Unknown

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Grassy Swamp Creek**

TMDL Group ID: **10036**

VAP-G05R_GRC01A04	Grassy Swamp Creek	HANOVER CO	Pond downstream to mouth at Chickahominy River

VA Overall AU Category: **5C**

Use	Impairment	0.99 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**pH**		10036	**2006**	**2018**	VAP-G05R-06

Grassy Swamp Creek was assessed as impaired of the Aquatic Life Use due to a pH violation rate of 8/26 at 2-GRC000.96.

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

TMDL Watershed Name: **Gunns Run**

TMDL Group ID: **00338**

VAP-G03R_GUN01A00	Gunns Run	CHARLES CITY CO	Gunns Run from the headwaters to approximately river mile 3.31.

VA Overall AU Category: **5C**

Use	Impairment	4.64 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**pH**		00338	**1998**	**2010**	VAP-G03R-01

In 1998, the entire mainstem of Gunns Run was assessed not supporting of the Aquatic Life use support goal based on pH violations recorded at the Route 618 bridge (2-GUN004.00). The pH TMDL is due in 2010.

In the 2002 cycle, a pH and DO violation rate of 0/3 at 2-GUN002.58 between 1994 and 1997 was used to assess the lower reach as fully supporting. However, dissolved oxygen was also identified as an impairing cause. This TMDL is due in 2014.

During the year 2006 cycle, the pH and DO violations at 2-GUN004.00 continued (4/16 and 12/16, respectively.)

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

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Gunns Run**

TMDL Group ID: **01143**

VAP-G03R_GUN01A00	Gunns Run	CHARLES CITY CO	Gunns Run from the headwaters to approximately river mile 3.31.

VA Overall AU Category: **5C**

Use	Impairment	4.64 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01143	**2002**	**2014**	VAP-G03R-01

In 1998, the entire mainstem of Gunns Run was assessed not supporting of the Aquatic Life use support goal based on pH violations recorded at the Route 618 bridge (2-GUN004.00). The pH TMDL is due in 2010.

In the 2002 cycle, a pH and DO violation rate of 0/3 at 2-GUN002.58 between 1994 and 1997 was used to assess the lower reach as fully supporting. However, dissolved oxygen was also identified as an impairing cause. This TMDL is due in 2014.

During the year 2006 cycle, the pH and DO violations at 2-GUN004.00 continued (4/16 and 12/16, respectively.)

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

TMDL Watershed Name: **Hardware River**

TMDL Group ID: **00368**

VAV-H19R_HRD01A00	Hardware River	ALBEMARLE CO	Hardware River from the headwaters downstream to its confluence with the James River.

VA Overall AU Category: **5A**

Use	Impairment	23.11 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**		00368	**2002**	**2010**	

Sources: Non-Point Source
Wildlife Other than Waterfowl

TMDL Watershed Name: **Hardware River, North Fork**

TMDL Group ID: **01658**

VAV-H18R_HNF01A00	Hardware River North Fork	ALBEMARLE CO	North Fork Hardware River form the headwaters downstream to its confluence with the Hardware River.

VA Overall AU Category: **5A**

Use	Impairment	10.39 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**		01658	**2004**	**2016**	

Sources: Non-Point Source
Wildlife Other than Waterfowl

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Harrison Lake**

TMDL Group ID: **10123**

VAP-G03L_WER04A06 **Harrison Lake** CHARLES CITY CO Harrison Lake located on West Run

VA Overall AU Category: **5A**

Use	Impairment	90.00 ACRES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**pH**		10123	**2006**	**2018**	VAP-G03L-01

Harrison Lake is assessed as not supporting of the Aquatic Life Use based on a pH violation rate of 12/25 at 2-WER000.02.

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

TMDL Group ID: **10124**

VAP-G03L_WER04A06 **Harrison Lake** CHARLES CITY CO Harrison Lake located on West Run

VA Overall AU Category: **5A**

Use	Impairment	90.00 ACRES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		10124	**2006**	**2018**	VAP-G03L-01

The lake is considered impaired Cat. 5A because the dissolved oxygen violation rate was unacceptable in the epilimnion/nonstratified periods. This was primarily due to DO violations during the September 2004 monitoring when the lake was not stratified.

Sources: Changes in Ordinary Stratification and Bottom Water Hypoxia/Anoxia
Source Unknown

TMDL Watershed Name: **Hat Creek**

TMDL Group ID: **01649**

VAV-H09R_HAT01A04 **Hat Creek** NELSON CO Hat Creek from the headwaters downstream to its confluence with the Tye River.

VA Overall AU Category: **5A**

Use	Impairment	9.61 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**		01649	**2004**	**2016**	

Sources: Non-Point Source
Wildlife Other than Waterfowl

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Hays and Moffatts Creeks**

TMDL Group ID: **01680**

VAV-I34R_HYS01A00 **Hays Creek** AUGUSTA CO ROCKBRIDGE CO

Hays Creek from its confluence with Moffatts Creek downstream to its confluence with the Maury River.

VA Overall AU Category: **5A**

Use	Impairment			TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	11.99	MILES	01680	**1998**	**2010**	

Sources: Non-Point Source
Wildlife Other than Waterfowl

VAV-I34R_MOF01A00 **Moffatts Creek** AUGUSTA CO ROCKBRIDGE CO

Moffatts Creek from the headwaters downstream to its confluence with Hays Creek.

VA Overall AU Category: **5A**

Use	Impairment			TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	7.65	MILES	01680	**2004**	**2016**	

Sources: Non-Point Source
Wildlife Other than Waterfowl

TMDL Watershed Name: **Hays Creek**

TMDL Group ID: **50038**

VAV-I34R_HYS01A00 **Hays Creek** AUGUSTA CO ROCKBRIDGE CO

Hays Creek from its confluence with Moffatts Creek downstream to its confluence with the Maury River.

VA Overall AU Category: **5A**

Use	Impairment			TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Temperature, water**	11.99	MILES	50038	**2006**	**2018**	Newly listed for temperature for 2006.

Sources: Source Unknown

TMDL Watershed Name: **Hoffler Creek**

TMDL Group ID: **76350**

VAT-G15E_HOF01A06 **Hoffler Creek** PORTSMOUTH CITY

Located along the southern shore of Hampton Roads Harbor.Entirety of Hoffler Creek. South shore tributary to James River near Craney Island (at mouth of Elizabeth R). Portion of CBP segment JMSPH. DSS shellfish direct harvesting condemnation # 064-019.

VA Overall AU Category: **5A**

Use	Impairment			TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Shellfishing	**Fecal Coliform**	0.06	SQUARE MILES	76350	**2006**	**2018**	DSS shellfish direct harvesting condemnation # 064-019.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Horsepen Branch**

TMDL Group ID: **15020**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAP-J12R_HOI01A00	Horsepen Branch	AMELIA CO	Horsepen Branch from its headwaters to the confluence with the Appomattox River.

VA Overall AU Category: **5C**

Use	Impairment	4.37 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**pH**		15020	**2006**	**2018**	15020 (pH) VAP-J12R-06 In 2006, Horsepen Branch was assessed as not supporting for aquatic life use goals based on a dissolved oxygen violation rate 2/15 and a pH violation rate of 6/15 at the Rt. 622 bridge (2-HOI001.85). Source of the DO and pH violations may be attributed to natural conditions.

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

TMDL Group ID: **15021**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAP-J12R_HOI01A00	Horsepen Branch	AMELIA CO	Horsepen Branch from its headwaters to the confluence with the Appomattox River.

VA Overall AU Category: **5C**

Use	Impairment	4.37 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		15021	**2006**	**2018**	15021 (DO) VAP-J12R-06 In 2006, Horsepen Branch was assessed as not supporting for aquatic life use goals based on a dissolved oxygen violation rate 2/15 and a pH violation rate of 6/15 at the Rt. 622 bridge (2-HOI001.85). Source of the DO and pH violations may be attributed to natural conditions

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

TMDL Watershed Name: **Horsepen Creek**

TMDL Group ID: **50092**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAC-J01R_HRE01A04	Horsepen Creek	BUCKINGHAM CO	Horsepen Creek from its headwaters to the mouth at the Appomattox River

VA Overall AU Category: **5A**

Use	Impairment	3.91 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**		50092	**2006**	**2018**	

Sources: Non-Point Source

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Indian River, Eastern Branch**

TMDL Group ID: **01523**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAT-G15E_IND01A02	**Indian River - Eastern Branch, Elizabeth R.**	CHESAPEAKE CITY	Located southwest of Broad Creek. Between Campostella Heights and Tanglewood. Entirety of creek including tribs. Portion of CBP segment EBEMH. Portion of the DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Enterococcus**	0.27 SQUARE MILES	01523	**2006**	**2014**	The Recreation Use is impaired (5 violates / 12 observations) due to exceedance of the instantaneous criteria for Enterococcus bacteria. The previous Fecal Coliform indicator bacteria impairment no longer applies, replaced by Enterococcus criteria impairment since threshold of 12 observations reached, with TMDL ID and due date same as original FC impairment.

Sources: Source Unknown

TMDL Watershed Name: **Ivy Creek**

TMDL Group ID: **00360**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAC-H03R_IVA01A00	**Ivy Creek**	LYNCHBURG CITY	Ivy Creek mainstem from the mouth of Cheese Creek downstream to Ivy Creek's confluence with Blackwater Creek.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	5.37 MILES	00360	**1998**	**2010**	

Sources: Combined Sewer Overflows

TMDL Group ID: **50064**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAV-H26R_IVC03A00	**Ivy Creek**	ALBEMARLE CO	Ivy Creek from the headwaters downstream to its confluence with Little Ivy Creek.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**pH**	5.23 MILES	50064	**2006**	**2018**	Newly listed for pH in 2006.

Sources: Atmospheric Deposition - Acidity

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Jackson River**

TMDL Group ID: **00280**

VAW-I04R_JKS01A00	**Jackson River Lower 1**	ALLEGHANY CO COVINGTON CITY	Jackson River mainstem from the Westvaco main processing outfall downstream to Dunlap Creek mouth at the watershed boundary with I09R.

VA Overall AU Category: **5A**

Use	Impairment	0.47 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Benthic-Macroinvertebrate Bioassessments (Streams)**		00280	**1996**	**2010**	

Sources: Industrial Point Source Discharge
Municipal (Urbanized High Density Area)

TMDL Group ID: **00281**

VAW-I04R_JKS01A00	**Jackson River Lower 1**	ALLEGHANY CO COVINGTON CITY	Jackson River mainstem from the Westvaco main processing outfall downstream to Dunlap Creek mouth at the watershed boundary with I09R.

VA Overall AU Category: **5A**

Use	Impairment	0.47 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		00281	**1996**	**2010**	

Sources: Industrial Point Source Discharge

TMDL Group ID: **00457**

VAW-I09R_JKS01A00	**Jackson River Lower 1**	ALLEGHANY CO	Jackson River mainstem from the Clifton Forge STP outfall downstream to the Jackson River confluence with the Cowpasture River.

VA Overall AU Category: **5A**

Use	Impairment	3.49 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Benthic-Macroinvertebrate Bioassessments (Streams)**		00457	**1996**	**2010**	

Sources: Industrial Point Source Discharge
Municipal (Urbanized High Density Area)
Municipal Point Source Discharges

VAW-I09R_JKS02A00	**Jackson River Lower 2**	ALLEGHANY CO	Jackson River mainstem from the US 60 crossing downstream to the Clifton Forge STP outfall.

VA Overall AU Category: **5A**

Use	Impairment	1.70 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Benthic-Macroinvertebrate Bioassessments (Streams)**		00457	**1996**	**2010**	

Sources: Industrial Point Source Discharge
Municipal (Urbanized High Density Area)
Municipal Point Source Discharges

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Jackson River**

TMDL Group ID: **00457**

VAW-I09R_JKS03A00 **Jackson River Middle 1** ALLEGHANY CO

Jackson River mainstem from upstream of the Lowmoor community downstream to the US 60 crossing.

VA Overall AU Category: **5A**

Use	Impairment	7.81 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Benthic-Macroinvertebrate Bioassessments (Streams)**		00457	**1996**	**2010**	

Sources: Industrial Point Source Discharge
Municipal (Urbanized High Density Area)
Municipal Point Source Discharges

VAW-I09R_JKS04A00 **Jackson River Middle 2** ALLEGHANY CO

Jackson River mainstem from the Covington STP outfall downstream to just above the Lowmoor community.

VA Overall AU Category: **5A**

Use	Impairment	5.80 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Benthic-Macroinvertebrate Bioassessments (Streams)**		00457	**1996**	**2010**	

Sources: Industrial Point Source Discharge
Municipal (Urbanized High Density Area)
Municipal Point Source Discharges

VAW-I09R_JKS05A00 **Jackson River Upper 1** COVINGTON CITY

Jackson River mainstem from downstream of the Lexington Avenue Bridge to the City of Covington STP outfall on the Jackson River.

VA Overall AU Category: **5A**

Use	Impairment	3.27 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Benthic-Macroinvertebrate Bioassessments (Streams)**		00457	**1996**	**2010**	

Sources: Industrial Point Source Discharge
Municipal (Urbanized High Density Area)

VAW-I09R_JKS06A00 **Jackson River Upper 2** ALLEGHANY CO

Jackson River mainstem from the watershed boundary (I04R) at the mouth of Dunlap Creek downstream to just below the Lexington Avenue Bridge.

VA Overall AU Category: **5A**

Use	Impairment	1.67 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Benthic-Macroinvertebrate Bioassessments (Streams)**		00457	**1996**	**2010**	

Sources: Industrial Point Source Discharge
Municipal (Urbanized High Density Area)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Jackson River**

TMDL Group ID: **00458**

VAW-I09R_JKS04A00 **Jackson River Middle 2** ALLEGHANY CO

Jackson River mainstem from the Covington STP outfall downstream to just above the Lowmoor community.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**	5.80 MILES	00458	**1996**	**2010**	

Sources: Industrial Point Source Discharge
Municipal Point Source Discharges

VAW-I09R_JKS05A00 **Jackson River Upper 1** COVINGTON CITY

Jackson River mainstem from downstream of the Lexington Avenue Bridge to the City of Covington STP outfall on the Jackson River.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**	3.27 MILES	00458	**1996**	**2010**	

Sources: Industrial Point Source Discharge

VAW-I09R_JKS06A00 **Jackson River Upper 2** ALLEGHANY CO

Jackson River mainstem from the watershed boundary (I04R) at the mouth of Dunlap Creek downstream to just below the Lexington Avenue Bridge.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**	1.67 MILES	00458	**1996**	**2010**	

Sources: Industrial Point Source Discharge

TMDL Group ID: **01672**

VAV-I01R_JKS01A00 **Jackson River** BATH CO

Jackson River from its confluence with Muddy Run downstream to the upper end of Lake Moomaw.

VA Overall AU Category: **5C**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Temperature, water**	11.21 MILES	01672	**2004**	**2016**	The impairment is suspected to be natural Category 5C

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

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00361**

VAC-H03R_JMS01A00 — **James River** — AMHERST CO, LYNCHBURG CITY — James River mainstem from the Business Route 29 bridge downstream to the mouth of Williams Run, the watershed boundary.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	3.57 MILES	00361	**1996**	**2010**	

Sources: Combined Sewer Overflows

VAC-H03R_JMS04A02 — **James River** — AMHERST CO, LYNCHBURG CITY — James River mainstem from Reusens dam downstream to Business Route 29.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	4.12 MILES	00361	**1996**	**2010**	

Sources: Combined Sewer Overflows

VAC-H03R_JMS06A02 — **James River** — AMHERST CO, LYNCHBURG CITY — James River mainstem from Holcomb Rock Dam downstream to Reusens Dam.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	8.17 MILES	00361	**2006**	**2018**	

Sources: Source Unknown

VAC-H05R_JMS04A00 — **James River** — AMHERST CO, LYNCHBURG CITY — James River mainstem from the upper watershed boundary at the confluence of Williams Run downstream to the mouth of Archer Creek.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	2.57 MILES	00361	**1996**	**2010**	

Sources: Combined Sewer Overflows

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00441**

VAP-G01E_JMS01A02	James River	RICHMOND CITY	The James River from the fall line to river mile 108.76. JMSTFu

VA Overall AU Category: **5A**

Use	Impairment	0.15 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**		00441	**1996**	**2010**	VAP-G01E-01 The segment has been included on the Impaired Waters list for fecal coliform since 1996. During the 2004 and 2006 cycles, the bacteria standard changed to E.coli for those stations with enough data. Some of the areas in this segment have converted to the E.coli standard, for others the fecal coliform standard is still in effect. The TMDL for both is due in 2010. Bacteria impairment is noted at the following stations: 2-JMS109.39 2-JMS107.51 2-JMS104.16 2-JMS099.30 2-JMS087.01

Sources: Combined Sewer Overflows
Non-Point Source

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00441**

VAP-G01E_JMS02A02	James River	HENRICO CO RICHMOND CITY	The James River from river mile 108.76 to river mile 108.63. JMSTFu

VA Overall AU Category: **5A**

Use	Impairment	0.02 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**		00441	**1996**	**2010**	VAP-G01E-01

The James River from the fall line to the Appomattox River has been assessed as not supporting of the Recreation use support goal based on the results of a summer special study in the fall zone. The special study was designed to monitor the effects of summertime rain and combined sewer overflow (CSO) events on water quality in the James River and to monitor the effects of Richmond's CSO abatement efforts.

The segment has been included on the Impaired Waters list for fecal coliform since 1996. During the 2004 and 2006 cycles, the bacteria standard changed to E.coli for those stations with enough data. Some of the areas in this segment have converted to the E.coli standard, for others the fecal coliform standard is still in effect. The TMDL for both is due in 2010.

Bacteria impairment is noted at the following stations:

2-JMS109.39
2-JMS107.51
2-JMS104.16
2-JMS099.30
2-JMS087.01

Sources: Combined Sewer Overflows
Non-Point Source

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00441**

VAP-G01E_JMS03A02	**James River**	CHESTERFIELD CO RICHMOND CITY	The James River from river mile 108.63 to the confluence with Proctors Creek at river mile 2-JMS097.94. JMSTFu

VA Overall AU Category: **5A**

Use	Impairment	1.43 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**		00441	**1996**	**2010**	VAP-G01E-01

The James River from the fall line to the Appomattox River has been assessed as not supporting of the Recreation use support goal based on the results of a summer special study in the fall zone. The special study was designed to monitor the effects of summertime rain and combined sewer overflow (CSO) events on water quality in the James River and to monitor the effects of Richmond's CSO abatement efforts.

The segment has been included on the Impaired Waters list for fecal coliform since 1996. During the 2004 and 2006 cycles, the bacteria standard changed to E.coli for those stations with enough data. Some of the areas in this segment have converted to the E.coli standard, for others the fecal coliform standard is still in effect. The TMDL for both is due in 2010.

Bacteria impairment is noted at the following stations:

2-JMS109.39
2-JMS107.51
2-JMS104.16
2-JMS099.30
2-JMS087.01

Sources: Combined Sewer Overflows
Non-Point Source

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00441**

Recreation	**Fecal Coliform**	00441	**1996**	**2010**	VAP-G01E-01	The James River from the fall line to the Appomattox River has been assessed as not supporting of the Recreation use support goal based on the results of a summer special study in the fall zone. The special study was designed to monitor the effects of summertime rain and combined sewer overflow (CSO) events on water quality in the James River and to monitor the effects of Richmond's CSO abatement efforts. The segment has been included on the Impaired Waters list for fecal coliform since 1996. During the 2004 and 2006 cycles, the bacteria standard changed to E.coli for those stations with enough data. Some of the areas in this segment have converted to the E.coli standard, for others the fecal coliform standard is still in effect. The TMDL for both is due in 2010. Bacteria impairment is noted at the following stations: 2-JMS109.39 2-JMS107.51 2-JMS104.16 2-JMS099.30 2-JMS087.01

Sources: Combined Sewer Overflows
Non-Point Source

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00441**

VAP-G02E_JMS01A00	**James River/Turkey Island Creek/Fourmile Creek**	CHESTERFIELD CO HENRICO CO	The James River and the tidal portion of all tributaries from Proctors Creek to 5 miles above American Tobacco's raw water intake. Includes Farrar Gut JMSTFu

VA Overall AU Category: **5A**

Use	Impairment	1.50 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**		00441	**1996**	**2010**	VAP-G01E-01

The James River from the fall line to the Appomattox River has been assessed as not supporting of the Recreation use support goal based on the results of a summer special study in the fall zone. The special study was designed to monitor the effects of summertime rain and combined sewer overflow (CSO) events on water quality in the James River and to monitor the effects of Richmond's CSO abatement efforts.

The segment has been included on the Impaired Waters list for fecal coliform since 1996. During the 2004 and 2006 cycles, the bacteria standard changed to E.coli for those stations with enough data. Some of the areas in this segment have converted to the E.coli standard, for others the fecal coliform standard is still in effect. The TMDL for both is due in 2010.

Bacteria impairment is noted at the following stations:
2-JMS109.39
2-JMS107.51
2-JMS104.16
2-JMS099.30
2-JMS087.01

Sources: Combined Sewer Overflows
Non-Point Source

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00441**

VAP-G02E_JMS02A00	**James River/Turkey Island Creek/Fourmile Creek**	CHARLES CITY CO HENRICO CO	The James River and the tidal portion of all tributaries from 5 miles above American Tobacco's raw water intake to downstream extent of JMSTFu. JMSTFu

VA Overall AU Category: **5A**

Use	Impairment	4.81 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**		00441	**2006**	**2010**	VAP-G01E-01

The James River from the fall line to the Appomattox River has been assessed as not supporting of the Recreation use support goal based on the results of a summer special study in the fall zone. The special study was designed to monitor the effects of summertime rain and combined sewer overflow (CSO) events on water quality in the James River and to monitor the effects of Richmond's CSO abatement efforts.

The segment has been included on the Impaired Waters list for fecal coliform since 1996. During the 2004 and 2006 cycles, the bacteria standard changed to E.coli for those stations with enough data. Some of the areas in this segment have converted to the E.coli standard, for others the fecal coliform standard is still in effect. The TMDL for both is due in 2010.

Bacteria impairment is noted at the following stations:
2-JMS109.39
2-JMS107.51
2-JMS104.16
2-JMS099.30
2-JMS087.01

Sources: Combined Sewer Overflows
Non-Point Source

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00441**

VAP-G02E_JMS03A06	**James River**	CHARLES CITY CO HOPEWELL CITY	The James River and the tidal portion of all tributaries from the upstream extent of JMSTFI to the downstream extent of PWS. JMSTFI

VA Overall AU Category: **5A**

Use	Impairment	0.75 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**		00441	**2006**	**2010**	VAP-G01E-01

The James River from the fall line to the Appomattox River has been assessed as not supporting of the Recreation use support goal based on the results of a summer special study in the fall zone. The special study was designed to monitor the effects of summertime rain and combined sewer overflow (CSO) events on water quality in the James River and to monitor the effects of Richmond's CSO abatement efforts.

The segment has been included on the Impaired Waters list for fecal coliform since 1996. During the 2004 and 2006 cycles, the bacteria standard changed to E.coli for those stations with enough data. Some of the areas in this segment have converted to the E.coli standard, for others the fecal coliform standard is still in effect. The TMDL for both is due in 2010.

Bacteria impairment is noted at the following stations:
2-JMS109.39
2-JMS107.51
2-JMS104.16
2-JMS099.30
2-JMS087.01

Sources: Combined Sewer Overflows
Non-Point Source

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: James River

TMDL Group ID: 00442

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00442**

VAP-G01E_JMS01A02	James River	RICHMOND CITY	The James River from the fall line to river mile 108.76.
			JMSTFu

VA Overall AU Category: **5A**

Use	Impairment	0.15 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		00442	**2006**	**2010**	VAP-G03E-02

The James River from the Appomattox River to the Chickahominy River was originally listed on the 1998 list as fully supporting but threatened of the Aquatic Life Use goal based on chlorophyll a violations. During the 1998 cycle, EPA extended the segment upstream to the fall line and downgraded the river to not supporting the Aquatic Life Use, citing nutrient concerns.

In previous cycles, the mainstem James River had acceptable dissolved oxygen levels. In addition the entire tidal freshwater portion (fall line to just above the Chickahominy River) has good benthic community based on the results from the Chesapeake Bay Benthic Index of Biological Community; therefore the James River from the fall line to the oligohaline boundary was considered impaired solely for Nutrients/Eutrophication Biological Indicators (EPA Overlist).

During the 2006 cycle, the CB water quality standards were implemented. The Upper Tidal Freshwater James River from the fall line to the Appomattox failed the Shallow Water Use SAV criteria. The 30-day Open Water dissolved oxygen criteria were acceptable, but there was insufficient information to assess the other OW criteria or the Migratory Spawning Use.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00442**

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**	00442	**2006**	**2010**	VAP-G03E-02 (SAV)

The James River from the Appomattox River to the Chickahominy River was originally listed on the 1998 list as fully supporting but threatened of the Aquatic Life Use goal based on chlorophyll a violations. During the 1998 cycle, EPA extended the segment upstream to the fall line and downgraded the river to not supporting the Aquatic Life Use, citing nutrient concerns.

In previous cycles, the mainstem James River had acceptable dissolved oxygen levels. In addition the entire tidal freshwater portion (fall line to just above the Chickahominy River) has good benthic community based on the results from the Chesapeake Bay Benthic Index of Biological Community; therefore the James River from the fall line to the oligohaline boundary was considered impaired solely for Nutrients/Eutrophication Biological Indicators (EPA Overlist).

During the 2006 cycle, the CB water quality standards were implemented. The Upper Tidal Freshwater James River from the fall line to the Appomattox failed the Shallow Water Use SAV criteria. The 30-day Open Water dissolved oxygen criteria were acceptable, but there was insufficient information to assess the other OW criteria or the Migratory Spawning Use.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00442**

VAP-G01E_JMS02A02	James River	HENRICO CO RICHMOND CITY	The James River from river mile 108.76 to river mile 108.63. JMSTFu

VA Overall AU Category: **5A**

Use	Impairment	0.02 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		00442	**2006**	**2010**	VAP-G03E-02 (SAV)

The James River from the Appomattox River to the Chickahominy River was originally listed on the 1998 list as fully supporting but threatened of the Aquatic Life Use goal based on chlorophyll a violations. During the 1998 cycle, EPA extended the segment upstream to the fall line and downgraded the river to not supporting the Aquatic Life Use, citing nutrient concerns.

In previous cycles, the mainstem James River had acceptable dissolved oxygen levels. In addition the entire tidal freshwater portion (fall line to just above the Chickahominy River) has good benthic community based on the results from the Chesapeake Bay Benthic Index of Biological Community; therefore the James River from the fall line to the oligohaline boundary was considered impaired solely for Nutrients/Eutrophication Biological Indicators (EPA Overlist).

During the 2006 cycle, the CB water quality standards were implemented. The Upper Tidal Freshwater James River from the fall line to the Appomattox failed the Shallow Water Use SAV criteria. The 30-day Open Water dissolved oxygen criteria were acceptable, but there was insufficient information to assess the other OW criteria or the Migratory Spawning Use.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00442**

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**	00442	**2006**	**2010**	VAP-G03E-02	The James River from the Appomattox River to the Chickahominy River was originally listed on the 1998 list as fully supporting but threatened of the Aquatic Life Use goal based on chlorophyll a violations. During the 1998 cycle, EPA extended the segment upstream to the fall line and downgraded the river to not supporting the Aquatic Life Use, citing nutrient concerns. In previous cycles, the mainstem James River had acceptable dissolved oxygen levels. In addition the entire tidal freshwater portion (fall line to just above the Chickahominy River) has good benthic community based on the results from the Chesapeake Bay Benthic Index of Biological Community; therefore the James River from the fall line to the oligohaline boundary was considered impaired solely for Nutrients/Eutrophication Biological Indicators (EPA Overlist). During the 2006 cycle, the CB water quality standards were implemented. The Upper Tidal Freshwater James River from the fall line to the Appomattox failed the Shallow Water Use SAV criteria. The 30-day Open Water dissolved oxygen criteria were acceptable, but there was insufficient information to assess the other OW criteria or the Migratory Spawning Use.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00442**

VAP-G01E_JMS03A02	**James River**	CHESTERFIELD CO RICHMOND CITY	The James River from river mile 108.63 to the confluence with Proctors Creek at river mile 2-JMS097.94. JMSTFu

VA Overall AU Category: **5A**

Use	Impairment	1.43 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		00442	**2006**	**2010**	VAP-G03E-02 (SAV)

The James River from the Appomattox River to the Chickahominy River was originally listed on the 1998 list as fully supporting but threatened of the Aquatic Life Use goal based on chlorophyll a violations. During the 1998 cycle, EPA extended the segment upstream to the fall line and downgraded the river to not supporting the Aquatic Life Use, citing nutrient concerns.

In previous cycles, the mainstem James River had acceptable dissolved oxygen levels. In addition the entire tidal freshwater portion (fall line to just above the Chickahominy River) has good benthic community based on the results from the Chesapeake Bay Benthic Index of Biological Community; therefore the James River from the fall line to the oligohaline boundary was considered impaired solely for Nutrients/Eutrophication Biological Indicators (EPA Overlist).

During the 2006 cycle, the CB water quality standards were implemented. The Upper Tidal Freshwater James River from the fall line to the Appomattox failed the Shallow Water Use SAV criteria. The 30-day Open Water dissolved oxygen criteria were acceptable, but there was insufficient information to assess the other OW criteria or the Migratory Spawning Use.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00442**

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**	00442	**2006**	**2010**	VAP-G03E-02	The James River from the Appomattox River to the Chickahominy River was originally listed on the 1998 list as fully supporting but threatened of the Aquatic Life Use goal based on chlorophyll a violations. During the 1998 cycle, EPA extended the segment upstream to the fall line and downgraded the river to not supporting the Aquatic Life Use, citing nutrient concerns. In previous cycles, the mainstem James River had acceptable dissolved oxygen levels. In addition the entire tidal freshwater portion (fall line to just above the Chickahominy River) has good benthic community based on the results from the Chesapeake Bay Benthic Index of Biological Community; therefore the James River from the fall line to the oligohaline boundary was considered impaired solely for Nutrients/Eutrophication Biological Indicators (EPA Overlist). During the 2006 cycle, the CB water quality standards were implemented. The Upper Tidal Freshwater James River from the fall line to the Appomattox failed the Shallow Water Use SAV criteria. The 30-day Open Water dissolved oxygen criteria were acceptable, but there was insufficient information to assess the other OW criteria or the Migratory Spawning Use.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00442**

VAP-G01E_ZZZ01A04	Unsegmented estuaries in G01	CHESTERFIELD CO RICHMOND CITY	Actual size unknown. JMSTFu

VA Overall AU Category: **5A**

Use	Impairment	0.10 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		00442	**2006**	**2010**	VAP-G03E-02 During the 2006 cycle, the CB water quality standards were implemented. The Upper Tidal Freshwater James River from the fall line to the Appomattox failed the Shallow Water Use SAV criteria.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		00442	**2006**	**2010**	VAP-G03E-02 During the 2006 cycle, the CB water quality standards were implemented. The Upper Tidal Freshwater James River from the fall line to the Appomattox failed the Shallow Water Use SAV criteria.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00442**

VAP-G02E_JMS01A00	**James River/Turkey Island Creek/Fourmile Creek**	CHESTERFIELD CO HENRICO CO	The James River and the tidal portion of all tributaries from Proctors Creek to 5 miles above American Tobacco's raw water intake. Includes Farrar Gut JMSTFu

VA Overall AU Category: **5A**

Use	Impairment	1.50 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		00442	**2006**	**2010**	VAP-G03E-02 (SAV)

The James River from the Appomattox River to the Chickahominy River was originally listed on the 1998 list as fully supporting but threatened of the Aquatic Life Use goal based on chlorophyll a violations. During the 1998 cycle, EPA extended the segment upstream to the fall line and downgraded the river to not supporting the Aquatic Life Use, citing nutrient concerns.

In previous cycles, the mainstem James River had acceptable dissolved oxygen levels. In addition the entire tidal freshwater portion (fall line to just above the Chickahominy River) has good benthic community based on the results from the Chesapeake Bay Benthic Index of Biological Community; therefore the James River from the fall line to the oligohaline boundary was considered impaired solely for Nutrients/Eutrophication Biological Indicators (EPA Overlist).

During the 2006 cycle, the CB water quality standards were implemented. The Upper Tidal Freshwater James River from the fall line to the Appomattox failed the Shallow Water Use SAV criteria. The 30-day Open Water dissolved oxygen criteria were acceptable, but there was insufficient information to assess the other OW criteria or the Migratory Spawning Use.

Sources:
- Agriculture
- Atmospheric Deposition - Nitrogen
- Clean Sediments
- Industrial Point Source Discharge
- Internal Nutrient Recycling
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Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00442**

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**	00442	**2006**	**2010**	VAP-G03E-02 (SAV)

The James River from the Appomattox River to the Chickahominy River was originally listed on the 1998 list as fully supporting but threatened of the Aquatic Life Use goal based on chlorophyll a violations. During the 1998 cycle, EPA extended the segment upstream to the fall line and downgraded the river to not supporting the Aquatic Life Use, citing nutrient concerns.

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- Agriculture
- Atmospheric Deposition - Nitrogen
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- Industrial Point Source Discharge
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- Municipal Point Source Discharges
- Sediment Resuspension (Clean Sediment)
- Sources Outside State Jurisdiction or Borders
- Wet Weather Discharges (Point Source and Combination of Stormwater, SSO or CSO)

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00442**

VAP-G02E_JMS02A00	**James River/Turkey Island Creek/Fourmile Creek**	CHARLES CITY CO HENRICO CO	The James River and the tidal portion of all tributaries from 5 miles above American Tobacco's raw water intake to downstream extent of JMSTFu. JMSTFu

VA Overall AU Category: **5A**

Use	Impairment	4.81 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		00442	**2006**	**2010**	VAP-G03E-02

The James River from the Appomattox River to the Chickahominy River was originally listed on the 1998 list as fully supporting but threatened of the Aquatic Life Use goal based on chlorophyll a violations. During the 1998 cycle, EPA extended the segment upstream to the fall line and downgraded the river to not supporting the Aquatic Life Use, citing nutrient concerns.

In previous cycles, the mainstem James River had acceptable dissolved oxygen levels. In addition the entire tidal freshwater portion (fall line to just above the Chickahominy River) has good benthic community based on the results from the Chesapeake Bay Benthic Index of Biological Community; therefore the James River from the fall line to the oligohaline boundary was considered impaired solely for Nutrients/Eutrophication Biological Indicators (EPA Overlist).

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Sources:
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- Atmospheric Deposition - Nitrogen
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- 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 (Point Source and Combination of Stormwater, SSO or CSO)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00442**

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**	00442	**2006**	**2010**	VAP-G03E-02	The James River from the Appomattox River to the Chickahominy River was originally listed on the 1998 list as fully supporting but threatened of the Aquatic Life Use goal based on chlorophyll a violations. During the 1998 cycle, EPA extended the segment upstream to the fall line and downgraded the river to not supporting the Aquatic Life Use, citing nutrient concerns. In previous cycles, the mainstem James River had acceptable dissolved oxygen levels. In addition the entire tidal freshwater portion (fall line to just above the Chickahominy River) has good benthic community based on the results from the Chesapeake Bay Benthic Index of Biological Community; therefore the James River from the fall line to the oligohaline boundary was considered impaired solely for Nutrients/Eutrophication Biological Indicators (EPA Overlist). During the 2006 cycle, the CB water quality standards were implemented. The Upper Tidal Freshwater James River from the fall line to the Appomattox failed the Shallow Water Use SAV criteria. The 30-day Open Water dissolved oxygen criteria were acceptable, but there was insufficient information to assess the other OW criteria or the Migratory Spawning Use.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00442**

VAP-G02E_JMS03A06	**James River**	CHARLES CITY CO HOPEWELL CITY	The James River and the tidal portion of all tributaries from the upstream extent of JMSTFI to the downstream extent of PWS. JMSTFI

VA Overall AU Category: **5A**

Use	Impairment	0.75 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		00442	**2006**	**2010**	VAP-G03E-02

The James River from the Appomattox River to the Chickahominy River was originally listed on the 1998 list as fully supporting but threatened of the Aquatic Life Use goal based on chlorophyll a violations. During the 1998 cycle, EPA extended the segment upstream to the fall line and downgraded the river to not supporting the Aquatic Life Use, citing nutrient concerns.

In previous cycles, the mainstem James River had acceptable dissolved oxygen levels. In addition the entire tidal freshwater portion (fall line to just above the Chickahominy River) has good benthic community based on the results from the Chesapeake Bay Benthic Index of Biological Community; therefore the James River from the fall line to the oligohaline boundary was considered impaired solely for Nutrients/Eutrophication Biological Indicators (EPA Overlist).

During the 2006 cycle, the CB water quality standards were implemented. The Upper Tidal Freshwater James River from the fall line to the Appomattox failed the Shallow Water Use SAV criteria. The 30-day Open Water dissolved oxygen criteria were acceptable, but there was insufficient information to assess the other OW criteria or the Migratory Spawning Use.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00442**

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**	00442	**2006**	**2010**	VAP-G03E-02	The James River from the Appomattox River to the Chickahominy River was originally listed on the 1998 list as fully supporting but threatened of the Aquatic Life Use goal based on chlorophyll a violations. During the 1998 cycle, EPA extended the segment upstream to the fall line and downgraded the river to not supporting the Aquatic Life Use, citing nutrient concerns. In previous cycles, the mainstem James River had acceptable dissolved oxygen levels. In addition the entire tidal freshwater portion (fall line to just above the Chickahominy River) has good benthic community based on the results from the Chesapeake Bay Benthic Index of Biological Community; therefore the James River from the fall line to the oligohaline boundary was considered impaired solely for Nutrients/Eutrophication Biological Indicators (EPA Overlist). During the 2006 cycle, the CB water quality standards were implemented. The Upper Tidal Freshwater James River from the fall line to the Appomattox failed the Shallow Water Use SAV criteria. The 30-day Open Water dissolved oxygen criteria were acceptable, but there was insufficient information to assess the other OW criteria or the Migratory Spawning Use.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00442**

VAP-G02E_XGJ01A06 **UT to James River** CHESTERFIELD CO To mouth at the Appomattox River.

JMSTFI

VA Overall AU Category: **5A**

Use	Impairment	0.01 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		00442	**2006**	**2010**	VAP-G03E-02 During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the Shallow Water Use SAV acreage requirements.
		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 (Point Source and Combination of Stormwater, SSO or CSO)			
Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		00442	**2006**	**2010**	VAP-G03E-02 (SAV/DO) During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the Shallow Water Use SAV acreage requirements.
		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 (Point Source and Combination of Stormwater, SSO or CSO)			

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00442**

VAP-G02E_XGK01A06	UT to James River	CHESTERFIELD CO	Tidal limit to mouth near Appomattox River
			JMSTFI

VA Overall AU Category: **5A**

Use	Impairment	0.81 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		00442	**2006**	**2010**	VAP-G03E-02 During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the Shallow Water Use SAV acreage requirements.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		00442	**2006**	**2010**	VAP-G03E-02 During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the Shallow Water Use SAV acreage requirements.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00442**

VAP-G03E_BLY01A98	Bailey Creek/Cattail Creek	HOPEWELL CITY PRINCE GEORGE CO	The tidal portions of Bailey Creek and Cattail Creek. JMSTFI

VA Overall AU Category: **5A**

Use	Impairment	0.29 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		00442	**2006**	**2010**	VAP-G03E-04 During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the Shallow Water Use SAV acreage requirements.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		00442	**2006**	**2010**	VAP-G03E-04 During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the Shallow Water Use SAV acreage requirements.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00442**

VAP-G03E_GRV01A02	Gravelly Run	HOPEWELL CITY	Tidal limit to mouth at James River
			JMSTFI

VA Overall AU Category: **5A**

Use	Impairment	0.01 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		00442	**2006**	**2010**	VAP-G03E-02 During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the Shallow Water Use SAV acreage requirements.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		00442	**2006**	**2010**	VAP-G03E-02 During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the Shallow Water Use SAV acreage requirements.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00442**

VAP-G03E_JMS01A00	**James River**	CHARLES CITY CO PRINCE GEORGE CO	The mainstem of the James River from the confluence with the Appomattox River downstream to Queens Creek. Now incorporates previous segments JMS02A00 and JMS03A02 JMSTFI

VA Overall AU Category: **5A**

Use	Impairment	13.82 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		00442	**2006**	**2010**	VAP-G03E-02

The James River from the Appomattox River to the Chickahominy River was originally listed on the 1998 list as fully supporting but threatened of the Aquatic Life Use goal based on chlorophyll a violations. During the 1998 cycle, EPA extended the segment upstream to the fall line and downgraded the river to not supporting the Aquatic Life Use, citing nutrient concerns.

In previous cycles, the mainstem James River had acceptable dissolved oxygen levels. In addition the entire tidal freshwater portion (fall line to just above the Chickahominy River) has good benthic community based on the results from the Chesapeake Bay Benthic Index of Biological Community; therefore the James River from the fall line to the oligohaline boundary was considered impaired solely for Nutrients/Eutrophication Biological Indicators (EPA Overlist).

During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the Shallow Water Use SAV acreage requirements. However, it also failed the 30-day Open Water summer dissolved oxygen criteria. There was insufficient information to assess the other OW criteria or the Migratory Spawning Use.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00442**

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**	00442	**2006**	**2010**	VAP-G03E-02	The James River from the Appomattox River to the Chickahominy River was originally listed on the 1998 list as fully supporting but threatened of the Aquatic Life Use goal based on chlorophyll a violations. During the 1998 cycle, EPA extended the segment upstream to the fall line and downgraded the river to not supporting the Aquatic Life Use, citing nutrient concerns. In previous cycles, the mainstem James River had acceptable dissolved oxygen levels. In addition the entire tidal freshwater portion (fall line to just above the Chickahominy River) has good benthic community based on the results from the Chesapeake Bay Benthic Index of Biological Community; therefore the James River from the fall line to the oligohaline boundary was considered impaired solely for Nutrients/Eutrophication Biological Indicators (EPA Overlist). During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the Shallow Water Use SAV acreage requirements. However, it also failed the 30-day Open Water summer dissolved oxygen criteria. There was insufficient information to assess the other OW criteria or the Migratory Spawning Use.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00442**

VAP-G03E_PTH01A00	**Poythress Run**	HOPEWELL CITY	The tidal portion of Poythress Run. JMSTFI

VA Overall AU Category: **5A**

Use	Impairment	0.01 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		00442	**2006**	**2010**	VAP-G03E-02 During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the Shallow Water Use SAV acreage requirements.
		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 (Point Source and Combination of Stormwater, SSO or CSO)			
Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		00442	**2006**	**2010**	VAP-G03E-02 During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the Shallow Water Use SAV acreage requirements.
		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 (Point Source and Combination of Stormwater, SSO or CSO)			

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00442**

VAP-G03E_PWL01A02	Powell Creek	PRINCE GEORGE CO	The estuarine portion of Powell Creek.

JMSTFI

VA Overall AU Category: **5A**

Use	Impairment	0.25 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		00442	**2006**	**2010**	VAP-G03E-02 During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the Shallow Water Use SAV acreage requirements.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		00442	**2006**	**2010**	VAP-G03E-02 During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the Shallow Water Use SAV acreage requirements.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00442**

VAP-G03E_QEE01A06 **Queens Creek** CHARLES CITY CO Tidal limit to mouth

JMSTFI

VA Overall AU Category: **5A**

Use	Impairment	0.23 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		00442	**2006**	**2010**	VAP-G03E-02 During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the Shallow Water Use SAV acreage requirements.
		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 (Point Source and Combination of Stormwater, SSO or CSO)			
Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		00442	**2006**	**2010**	VAP-G03E-02 During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the Shallow Water Use SAV acreage requirements.
		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 (Point Source and Combination of Stormwater, SSO or CSO)			

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00442**

VAP-G03E_ZZZ01A00	Unsegmented estuaries in G03	CHARLES CITY CO PRINCE GEORGE CO	Unsegmented portion of watershed JMSTFI

VA Overall AU Category: **5A**

Use	Impairment	0.75 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		00442	**2006**	**2010**	VAP-G03E-02 During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the Shallow Water Use SAV acreage requirements.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		00442	**2006**	**2010**	VAP-G03E-02 During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the Shallow Water Use SAV acreage requirements.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00442**

VAP-G04E_BNG01A04	Brandon Gut	SURRY CO	Tidal portion of Brandon Gut
			JMSTFI

VA Overall AU Category: **5A**

Use	Impairment	0.01 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		00442	**2006**	**2010**	VAP-G03E-02 During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater and Oligohaline James River failed the Shallow Water Use SAV acreage requirements.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		00442	**2006**	**2010**	VAP-G03E-02 During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater and Oligohaline James River failed the Shallow Water Use SAV acreage requirements.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00442**

VAP-G04E_JMS01A02	**James River**	CHARLES CITY CO PRINCE GEORGE CO	The James River from the confluence with Queens Creek downstream to Brandon Point JMSTFI

VA Overall AU Category: **5A**

Use	Impairment	7.80 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		00442	**2006**	**2010**	VAP-G03E-02

The James River from the Appomattox River to the Chickahominy River was originally listed on the 1998 list as fully supporting but threatened of the Aquatic Life Use goal based on chlorophyll a violations. During the 1998 cycle, EPA extended the segment upstream to the fall line and downgraded the river to not supporting the Aquatic Life Use, citing nutrient concerns.

In previous cycles, the mainstem James River had acceptable dissolved oxygen levels. In addition the entire tidal freshwater portion (fall line to just above the Chickahominy River) has good benthic community based on the results from the Chesapeake Bay Benthic Index of Biological Community; therefore the James River from the fall line to the oligohaline boundary was considered impaired solely for Nutrients/Eutrophication Biological Indicators (EPA Overlist).

During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the Shallow Water Use SAV acreage requirements. However, it also failed the 30-day Open Water summer dissolved oxygen criteria. There was insufficient information to assess the other OW criteria or the Migratory Spawning Use.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00442**

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**	00442	**2006**	**2010**	VAP-G03E-02	The James River from the Appomattox River to the Chickahominy River was originally listed on the 1998 list as fully supporting but threatened of the Aquatic Life Use goal based on chlorophyll a violations. During the 1998 cycle, EPA extended the segment upstream to the fall line and downgraded the river to not supporting the Aquatic Life Use, citing nutrient concerns. In previous cycles, the mainstem James River had acceptable dissolved oxygen levels. In addition the entire tidal freshwater portion (fall line to just above the Chickahominy River) has good benthic community based on the results from the Chesapeake Bay Benthic Index of Biological Community; therefore the James River from the fall line to the oligohaline boundary was considered impaired solely for Nutrients/Eutrophication Biological Indicators (EPA Overlist). During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the Shallow Water Use SAV acreage requirements. However, it also failed the 30-day Open Water summer dissolved oxygen criteria.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00442**

VAP-G04E_JMS02A02	**James River**	CHARLES CITY CO SURRY CO	The James River from the tidal freshwater/oligohaline boundary at river mile 52.08 to the limit of the watershed at river mile 48.40. JMSOH

VA Overall AU Category: **5A**

Use	Impairment	9.20 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		00442	**2006**	**2010**	VAP-G03E-02 The James River from the Appomattox River to the Chickahominy River was originally listed on the 1998 list as fully supporting but threatened of the Aquatic Life Use goal based on chlorophyll a violations. During the 1998 cycle, EPA extended the segment upstream to the fall line and downgraded the river to not supporting the Aquatic Life Use, citing nutrient concerns. In previous cycles, the mainstem James River had acceptable dissolved oxygen levels and the segment was considered impaired solely for Nutrients/Eutrophication Biological Indicators (EPA Overlist). During the 2006 cycle, the CB water quality standards were implemented. The Oligohaline James River failed the Shallow Water Use SAV acreage requirements. It also failed the 30-day Open Water summer dissolved oxygen criteria. There was insufficient information to assess the other OW criteria or the Migratory Spawning Use.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**	00442	**2006**	**2010**	VAP-G03E-02 The James River from the Appomattox River to the Chickahominy River was originally listed on the 1998 list as fully supporting but threatened of the Aquatic Life Use goal based on chlorophyll a violations. During the 1998 cycle, EPA extended the segment upstream to the fall line and downgraded the river to not supporting the Aquatic Life Use, citing nutrient concerns. In previous cycles, the mainstem James River had acceptable dissolved oxygen levels and the segment was considered impaired solely for Nutrients/Eutrophication Biological Indicators (EPA Overlist). During the 2006 cycle, the CB water quality standards were implemented. The Oligohaline James River failed the Shallow Water Use SAV acreage requirements. It also failed the 30-day Open Water summer dissolved oxygen criteria.

Sources: Agriculture

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: James River

TMDL Group ID: 00442

Sources: 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 (Point Source and Combination of Stormwater, SSO or CSO)

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00442**

VAP-G04E_JMS03A04	**James River**	CHARLES CITY CO SURRY CO	Brandon Point to the tidal freshwater/oligohaline boundary at approximately river mile 52.08. JMSTFI

VA Overall AU Category: **5A**

Use	Impairment	4.71 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		00442	**2006**	**2010**	VAP-G03E-02

In the 2004 cycle, the James River from Brandon Point downstream to the Chickahominy River confluence was assessed as impaired of the Aquatic Life Use and Wildlife Uses due to chloride violations (see 2004 fact sheet VAP-G03E-02.) The chloride TMDL is due in 2016. In the 2006 cycle, the segment remained impaired.

The James River from the Appomattox River to the Chickahominy River was originally listed on the 1998 list as fully supporting but threatened of the Aquatic Life Use goal based on chlorophyll a violations. During the 1998 cycle, EPA extended the segment upstream to the fall line and downgraded the river to not supporting the Aquatic Life Use, citing nutrient concerns.

In previous cycles, the mainstem James River had acceptable dissolved oxygen levels. In addition the entire tidal freshwater portion (fall line to just above the Chickahominy River) has good benthic community based on the results from the Chesapeake Bay Benthic Index of Biological Community; therefore the James River from the fall line to the oligohaline boundary was considered impaired solely for Nutrients/Eutrophication Biological Indicators (EPA Overlist).

During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the Shallow Water Use SAV acreage requirements. However, it also failed the 30-day Open Water summer dissolved oxygen criteria.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00442**

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**	00442	**2006**	**2010**	VAP-G03E-02	In the 2004 cycle, the James River from Brandon Point downstream to the Chickahominy River confluence was assessed as impaired of the Aquatic Life Use and Wildlife Uses due to chloride violations (see 2004 fact sheet VAP-G03E-02.) The chloride TMDL is due in 2016. In the 2006 cycle, the segment remained impaired. The James River from the Appomattox River to the Chickahominy River was originally listed on the 1998 list as fully supporting but threatened of the Aquatic Life Use goal based on chlorophyll a violations. During the 1998 cycle, EPA extended the segment upstream to the fall line and downgraded the river to not supporting the Aquatic Life Use, citing nutrient concerns. In previous cycles, the mainstem James River had acceptable dissolved oxygen levels. In addition the entire tidal freshwater portion (fall line to just above the Chickahominy River) has good benthic community based on the results from the Chesapeake Bay Benthic Index of Biological Community; therefore the James River from the fall line to the oligohaline boundary was considered impaired solely for Nutrients/Eutrophication Biological Indicators (EPA Overlist). During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the Shallow Water Use SAV acreage requirements. However, it also failed the 30-day Open Water summer dissolved oxygen criteria.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00442**

VAP-G04E_KEN01A06	Kennon Creek	CHARLES CITY CO	Tidal limit to mouth
			JMSTFI

VA Overall AU Category: **5A**

Use	Impairment	0.05 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		00442	**2006**	**2010**	VAP-G03E-02 During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the Shallow Water Use SAV acreage requirements.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		00442	**2006**	**2010**	VAP-G03E-02 During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the Shallow Water Use SAV acreage requirements.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00442**

VAP-G04E_UCK01A06	**Upper Chippokes Creek**	PRINCE GEORGE CO SURRY CO	Tidal limit to mouth at James River JMSTFI

VA Overall AU Category: **5A**

Use	Impairment	0.99 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		00442	**2006**	**2010**	VAP-G03E-02 During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the Shallow Water Use SAV acreage requirements.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		00442	**2006**	**2010**	VAP-G03E-02 During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater James River failed the Shallow Water Use SAV acreage requirements.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00442**

VAP-G04E_ZZZ01A00	Unsegmented estuaries in G04	CHARLES CITY CO SURRY CO	Unsegmented portion of watershed JMSTFI

VA Overall AU Category: **5A**

Use	Impairment	0.37 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		00442	**2006**	**2010**	VAP-G03E-02 During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater and Oligohaline James River segments failed the Shallow Water Use SAV acreage requirements.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		00442	**2006**	**2010**	VAP-G03E-02 During the 2006 cycle, the CB water quality standards were implemented. The Lower Tidal Freshwater and Oligohaline James River failed the Shallow Water Use SAV acreage requirements.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00442**

VAP-G04E_ZZZ02A06	Unsegmented estuaries in G04	CHARLES CITY CO SURRY CO	Unsegmented portion of watershed within JMSOH JMSOH

VA Overall AU Category: **5A**

Use	Impairment	0.27 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		00442	**2006**	**2010**	VAP-G03E-02 During the 2006 cycle, the CB water quality standards were implemented. The Oligohaline James River segment failed the Shallow Water Use SAV acreage requirements.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		00442	**2006**	**2010**	VAP-G03E-02 During the 2006 cycle, the CB water quality standards were implemented. The Oligohaline James River failed the Shallow Water Use SAV acreage requirements.

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 (Point Source and Combination of Stormwater, SSO or CSO)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00445**

VAP-G03E_JMS01A00	James River	CHARLES CITY CO PRINCE GEORGE CO	The mainstem of the James River from the confluence with the Appomattox River downstream to Queens Creek. Now incorporates previous segments JMS02A00 and JMS03A02 JMSTFI

VA Overall AU Category: **5A**

Use	Impairment	13.82 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**		00445	**2006**	**2014**	VAP-G03E-04 The James River from the Appomattox River downstream to Powells Creek was initially listed as fully supporting but threatened of the Recreation Use during the 1998 cycle. During the 2002 cycle, the segment was downgraded to impaired. During the 2006 cycle, the segment was extended downstream to Queens Creek and E. coli was added as an impairing cause based on the following violation rates: FC 7/58, E. coli 2/6 at 2-JMS075.04 E. coli 2/6 at 2-JMS074.44 E. coli 2/6 at 2-JMS069.08 The TMDL is due in 2014.
		Sources:	Discharges from Municipal Separate Storm Sewer Systems (MS4) Source Unknown			
Recreation	**Fecal Coliform**		00445	**2002**	**2014**	VAP-G03E-04 The James River from the Appomattox River downstream to Powells Creek was initially listed as fully supporting but threatened of the Recreation Use during the 1998 cycle. During the 2002 cycle, the segment was downgraded to impaired. During the 2006 cycle, the segment was extended downstream to Queens Creek and E. coli was added as an impairing cause based on the following violation rates: FC 7/58, E. coli 2/6 at 2-JMS075.04 E. coli 2/6 at 2-JMS074.44 E. coli 2/6 at 2-JMS069.08 The TMDL is due in 2014.
		Sources:	Discharges from Municipal Separate Storm Sewer Systems (MS4) Source Unknown			

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00451**

VAC-H08R_JMS01A00	James River	BUCKINGHAM CO NELSON CO	James River from Bent Creek to its confluence with the Tye River

VA Overall AU Category: **5A**

Use	Impairment	10.08 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**		00451	**2002**	**2014**	

Sources: Source Unknown

TMDL Group ID: **00452**

VAP-H39R_JMS03A98	James River	RICHMOND CITY	The James River from the Boulevard Bridge to the fall line.

VA Overall AU Category: **5A**

Use	Impairment	3.29 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**		00452	**2006**	**2010**	VAP-H39R-08 The James River has been assessed not supporting of the Recreation use support goal based on the results of a summer special study in the fall zone. The special study was designed to monitor the effects of summertime rain and combined sewer overflow (CSO) events on water quality in the James River and to monitor the effects of Richmond's CSO abatement efforts. The special study data used representative conditions before completion of CSO abatement projects. The segment was extended upstream from the 1998 cycle during the 2002 assessment. The TMDL for the original portion (Boulevard Bridge to Fall Line) is due in 2010, but the TMDL for the upstream portion is not due until 2014. The lower portion remains impaired because of E. coli violations at multiple stations and fecal coliform violations at 2-JMS110.30.

Sources: Combined Sewer Overflows
Non-Point Source

Use	Impairment	3.29 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**		00452	**1996**	**2010**	VAP-H39R-08 The James River has been assessed not supporting of the Recreation use support goal based on the results of a summer special study in the fall zone. The special study was designed to monitor the effects of summertime rain and combined sewer overflow (CSO) events on water quality in the James River and to monitor the effects of Richmond's CSO abatement efforts. The special study data used representative conditions before completion of CSO abatement projects. The segment was extended upstream from the 1998 cycle during the 2002 assessment. The TMDL for the original portion (Boulevard Bridge to Fall Line) is due in 2010, but the TMDL for the upstream portion is not due until 2014. The lower portion remains impaired because of E. coli violations at multiple stations and fecal coliform violations at 2-JMS110.30.

Sources: Combined Sewer Overflows
Non-Point Source

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00453**

VAP-H39R_JMS03A98	James River	RICHMOND CITY	The James River from the Boulevard Bridge to the fall line.

VA Overall AU Category: **5A**

Use	Impairment	3.29 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Benthic-Macroinvertebrate Bioassessments (Streams)**		00453	**1996**	**2010**	VAP-H39R-09

The James River was assessed not supporting of the Aquatic Life use support goal based on the results of biological (benthic) monitoring at station 2-JMS110.34 and 2-JMS110.44, which indicated moderately impaired benthic communities when compared to the control station at 2-JMS115.29. Acanthamoeba (an amoebae that inhabits lesions in fish and has a remote chance of having human health effects) was detected in lesions in fish taken from the James River near Mayo Bridge in September 1997.

In addition, stations 2-HMS112.37 and 2-JMS111.48 had exceedances of the dissolved oxygen violation rate. The DO TMDL is due in 2014.

Sources: Source Unknown

TMDL Group ID: **00455**

VAP-H39R_JMS02A98	James River	RICHMOND CITY	The James River from the William's Island dam to the Boulevard Bridge.

VA Overall AU Category: **5A**

Use	Impairment	3.05 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**		00455	**2006**	**2014**	VAP-H39R-08

The James River has been assessed not supporting of the Recreation use support goal based on the results of a summer special study in the fall zone. The special study was designed to monitor the effects of summertime rain and combined sewer overflow (CSO) events on water quality in the James River and to monitor the effects of Richmond's CSO abatement efforts. The special study data used representative conditions before completion of CSO abatement projects.

The segment was extended upstream from the 1998 cycle during the 2002 assessment. The TMDL for the original portion (Boulevard Bridge to Fall Line) is due in 2010, but the TMDL for the upstream portion is not due until 2014. During the 2006 cycle, the area above Boulevard Bridge was assessed based on 2-JMS115.29. The station had an acceptable E. coli instantaneous violation rate of 0/16, however there was a violation of the monthly geometric mean in July 2003. Typically, one violation would result in an assessment of fully supporting with observed effects, however since the area was previously impaired, the segment should not be delisted.

Sources: Source Unknown

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00460**

VAW-I18R_JMS01A00 **James River Lower** BOTETOURT CO James River mainstem from the confluence of Craig Creek upstream to the confluence of Stull Run.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Benthic-Macroinvertebrate Bioassessments (Streams)**	7.85 MILES	00460	**1998**	**2010**	

Sources: Industrial Point Source Discharge
Municipal Point Source Discharges
Upstream Source

VAW-I18R_JMS02A00 **James River Upper** BOTETOURT CO James River mainstem from the confluence of Stull Run upstream to the confluence of the Jackson and Cowpasture Rivers.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Benthic-Macroinvertebrate Bioassessments (Streams)**	7.51 MILES	00460	**1998**	**2010**	

Sources: Industrial Point Source Discharge
Municipal Point Source Discharges
Upstream Source

TMDL Group ID: **00461**

VAW-I24R_JMS01A00 **James River Upper** BOTETOURT CO James River mainstem from the Craig Creek mouth downstream to the Catawba Creek mouth.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Benthic-Macroinvertebrate Bioassessments (Streams)**	4.99 MILES	00461	**1998**	**2010**	

Sources: Industrial Point Source Discharge
Municipal Point Source Discharges
Upstream Source

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00545**

VAP-H33R_JMS01A98 — **James River** — CUMBERLAND CO, POWHATAN CO — The James River from its confluence with the Rivanna River at river mile 166.61 downstream to the confluence with Big Lickinghole Creek at river mile 143.35.

VA Overall AU Category: **5A**

Use	Impairment	22.87 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**		00545	**2006**	**2016**	VAC-H03R-04

The James River from the Big Island dam to the fall line in Richmond is considered impaired of the fish consumption use due to a VDH fish consumption restriction for PCBs. The segment was expanded during the 2006 cycle from the 2004 SCRO impairment, but the original 2016 TMDL due date was maintained.

Sources: Source Unknown

VAP-H38R_JMS01A00 — **James River** — GOOCHLAND CO, POWHATAN CO — The James River from river mile 137.00 to river mile 135.00

VA Overall AU Category: **5A**

Use	Impairment	2.00 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**		00545	**2006**	**2016**	VAC-H03R-04 (00545)

The James River from the Big Island dam to the fall line in Richmond is considered impaired of the fish consumption use due to a VDH fish consumption restriction for PCBs. The segment was expanded during the 2006 cycle from the 2004 SCRO impairment, but the original 2016 TMDL due date was maintained.

Sources: Source Unknown

VAP-H38R_JMS01A06 — **From Big Lickinghole Creek to start of PWS section** — GOOCHLAND CO — James River Basin

VA Overall AU Category: **5A**

Use	Impairment	1.49 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**		00545	**2006**	**2014**	VAC-H03R-04 (00545)

The James River from the Big Island dam to the fall line in Richmond is considered impaired of the fish consumption use due to a VDH fish consumption restriction for PCBs. The segment was expanded during the 2006 cycle from the 2004 SCRO impairment, but the original 2016 TMDL due date was maintained.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00545**

VAP-H38R_JMS02A04 | **James River** | GOOCHLAND CO POWHATAN CO | James River from the confluence with Mohawk Creek to river mile 137.00

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**	3.64 MILES	00545	**2006**	**2016**	VAC-H03R-04 (00545)

The James River from the Big Island dam to the fall line in Richmond is considered impaired of the fish consumption use due to a VDH fish consumption restriction for PCBs. The segment was expanded during the 2006 cycle from the 2004 SCRO impairment, but the original 2016 TMDL due date was maintained.

Sources: Source Unknown

VAP-H38R_JMS03A06 | **James River** | GOOCHLAND CO POWHATAN CO | Rivermile 137 to rivermile 130.14 in H39

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**	5.21 MILES	00545	**2006**	**2016**	VAC-H03R-04 (00545)

The James River from the Big Island dam to the fall line in Richmond is considered impaired of the fish consumption use due to a VDH fish consumption restriction for PCBs. The segment was expanded during the 2006 cycle from the 2004 SCRO impairment, but the original 2016 TMDL due date was maintained.

Sources: Source Unknown

VAP-H38R_JMS04A06 | **James River** | GOOCHLAND CO POWHATAN CO | Start of PWS section downstream to Mohawk Creek

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**	1.37 MILES	00545	**2006**	**2016**	VAC-H03R-04

The James River from the Big Island dam to the fall line in Richmond is considered impaired of the fish consumption use due to a VDH fish consumption restriction for PCBs. The segment was expanded during the 2006 cycle from the 2004 SCRO impairment, but the original 2016 TMDL due date was maintained.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00545**

VAP-H39R_JMS01A98 | **James River** | CHESTERFIELD CO, RICHMOND CITY | The James River from the confluence with Tuckahoe Creek to the William's Island Dam.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**	10.06 MILES	00545	**2006**	**2016**	VAC-H03R-04 (00545)

The James River from the Big Island dam to the fall line in Richmond is considered impaired of the fish consumption use due to a VDH fish consumption restriction for PCBs. The segment was expanded during the 2006 cycle from the 2004 SCRO impairment, but the original 2016 TMDL due date was maintained.

Sources: Source Unknown

VAP-H39R_JMS01B00 | **James River** | GOOCHLAND CO, POWHATAN CO | The James River from river mile 130.14 to river mile 128.14.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**	2.00 MILES	00545	**2006**	**2016**	VAC-H03R-04 (00545)

The James River from the Big Island dam to the fall line in Richmond is considered impaired of the fish consumption use due to a VDH fish consumption restriction for PCBs. The segment was expanded during the 2006 cycle from the 2004 SCRO impairment, but the original 2016 TMDL due date was maintained.

Sources: Source Unknown

VAP-H39R_JMS02A98 | **James River** | RICHMOND CITY | The James River from the William's Island dam to the Boulevard Bridge.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**	3.05 MILES	00545	**2006**	**2016**	VAC-H03R-04 (00545)

The James River from the Big Island dam to the fall line in Richmond is considered impaired of the fish consumption use due to a VDH fish consumption restriction for PCBs. The segment was expanded during the 2006 cycle from the 2004 SCRO impairment, but the original 2016 TMDL due date was maintained.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00545**

VAP-H39R_JMS02B04 — **James River** — GOOCHLAND CO, POWHATAN CO — The James River from river mile 128.14 to the confluence with Tuckahoe Creek.

VA Overall AU Category: **5A**

Use	Impairment	4.34 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**		00545	**2006**	**2016**	VAC-H03R-04 (00545)

The James River from the Big Island dam to the fall line in Richmond is considered impaired of the fish consumption use due to a VDH fish consumption restriction for PCBs. The segment was expanded during the 2006 cycle from the 2004 SCRO impairment, but the original 2016 TMDL due date was maintained.

Sources: Source Unknown

VAP-H39R_JMS03A98 — **James River** — RICHMOND CITY — The James River from the Boulevard Bridge to the fall line.

VA Overall AU Category: **5A**

Use	Impairment	3.29 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**		00545	**2006**	**2016**	VAC-H03R-04 (00545)

The James River from the Big Island dam to the fall line in Richmond is considered impaired of the fish consumption use due to a VDH fish consumption restriction for PCBs. The segment was expanded during the 2006 cycle from the 2004 SCRO impairment, but the original 2016 TMDL due date was maintained.

Sources: Source Unknown

TMDL Group ID: **00546**

VAC-H03R_JMS01A00 — **James River** — AMHERST CO, LYNCHBURG CITY — James River mainstem from the Business Route 29 bridge downstream to the mouth of Williams Run, the watershed boundary.

VA Overall AU Category: **5A**

Use	Impairment	3.57 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**		00546	**2004**	**2016**	

Sources: Source Unknown

VAC-H03R_JMS04A02 — **James River** — AMHERST CO, LYNCHBURG CITY — James River mainstem from Reusens dam downstream to Business Route 29.

VA Overall AU Category: **5A**

Use	Impairment	4.12 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**		00546	**2004**	**2016**	

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00546**

VAC-H03R_JMS06A02 — **James River** — AMHERST CO, LYNCHBURG CITY — James River mainstem from Holcomb Rock Dam downstream to Reusens Dam.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**	8.17 MILES	00546	**2006**	**2016**	

Sources: Source Unknown

VAC-H05R_JMS01A00 — **James River** — AMHERST CO, NELSON CO — James River mainstem from the Wreck Island Creek confluence downstream to the watershed boundary at the mouth of Bent Creek.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**	6.15 MILES	00546	**2006**	**2016**	

Sources: Source Unknown

VAC-H05R_JMS02A00 — **James River** — AMHERST CO, CAMPBELL CO — James River mainstem from the confluence of Slippery Branch to the Wreck Island Creek mouth on the James River.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**	14.22 MILES	00546	**2006**	**2016**	

Sources: Source Unknown

VAC-H05R_JMS03A00 — **James River** — AMHERST CO, CAMPBELL CO — James River mainstem from the confluence of Archer Creek on downstream to the mouth of Slippery Branch.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**	3.90 MILES	00546	**2006**	**2016**	

Sources: Source Unknown

VAC-H05R_JMS04A00 — **James River** — AMHERST CO, LYNCHBURG CITY — James River mainstem from the upper watershed boundary at the confluence of Williams Run downstream to the mouth of Archer Creek.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**	2.57 MILES	00546	**2004**	**2016**	

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00546**

VAC-H08R_JMS01A00	James River	BUCKINGHAM CO NELSON CO	James River from Bent Creek to its confluence with the Tye River

VA Overall AU Category:	5A	Impairment	10.08 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Use							
Fish Consumption		**PCB in Fish Tissue**		00546	**2006**	**2016**	

Sources: Source Unknown

VAC-H14R_JMS01A00	James River	BUCKINGHAM CO NELSON CO	James River from the Tye River to the Rockfish River

VA Overall AU Category:	5A	Impairment	21.44 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Use							
Fish Consumption		**PCB in Fish Tissue**		00546	**2006**	**2016**	

Sources: Source Unknown

VAC-H20R_JMS01A02	James River	BUCKINGHAM CO FLUVANNA CO	James River from the Hardware River downstream to a point 5 miles above Fork Union Sanitary District raw water intake.

VA Overall AU Category:	5A	Impairment	1.91 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Use							
Fish Consumption		**PCB in Fish Tissue**		00546	**2006**	**2016**	

Sources: Source Unknown

VAC-H20R_JMS02A02	James River	BUCKINGHAM CO FLUVANNA CO	The James River from a point 5 miles above Fork Union Sanitary District's raw water intake to the intake at the Route 15 bridge.

VA Overall AU Category:	5A	Impairment	5.28 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Use							
Fish Consumption		**PCB in Fish Tissue**		00546	**2006**	**2016**	

Sources: Source Unknown

VAC-H20R_JMS03A02	James River	BUCKINGHAM CO FLUVANNA CO	The James River from the Fork Union Sanitary District's water intake at the Route 15 bridge downstream to the confluence with the Rivanna River.

VA Overall AU Category:	5A	Impairment	9.18 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Use							
Fish Consumption		**PCB in Fish Tissue**		00546	**2006**	**2016**	

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00546**

VAV-H17R_JMS01A00 — **James River** — ALBEMARLE CO, FLUVANNA CO — James River from its confluence with Sycamore Creek downstream to its confluence with the Hardware River.

VA Overall AU Category: **5A**

Use	Impairment	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**	

Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule
PCB in Fish Tissue	20.35 MILES	00546	**2006**	**2018**

Sources: Source Unknown

VAW-H01R_JMS01A00 — **James River Holcomb** — AMHERST CO, BEDFORD CO — James River mainstem from the mouth of Wilderness Creek downstream to Holcomb Rock Dam.

VA Overall AU Category: **5A**

Use	Impairment	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**	VDH Fish Consumption Advisory. VAC-H03R-04.

Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule
PCB in Fish Tissue	1.34 MILES	00546	**2006**	**2016**

Sources: Source Unknown

VAW-H01R_JMS01A04 — **James River Upper PWS** — AMHERST CO, BEDFORD CO — The James River from the upstream ending of the WQS PWS designation (37°30'08.38"/79°01'18.18") downstream to the mouth of Wilderness Creek.

VA Overall AU Category: **5A**

Use	Impairment	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**	VDH Fish Consumption Advisory. VAC-H03R-04.

Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule
PCB in Fish Tissue	0.72 MILES	00546	**2006**	**2016**

Sources: Source Unknown

VAW-H01R_JMS02A00 — **James River Lower** — AMHERST CO, BEDFORD CO — James River mainstem from the Georgia Pacific outfalls downstream to the upstream ending of the WQS PWS designation (37°30'08.38"/79°01'18.18")

VA Overall AU Category: **5A**

Use	Impairment	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**	VDH Fish Consumption Advisory. VAC-H03R-04.

Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule
PCB in Fish Tissue	4.02 MILES	00546	**2006**	**2016**

Sources: Source Unknown

VAW-H01R_JMS03A00 — **James River Middle 1** — AMHERST CO, BEDFORD CO — James River mainstem from the mouth of Hunting Creek downstream to the Georgia Pacific outfalls on the James River.

VA Overall AU Category: **5A**

Use	Impairment	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**	VDH Fish Consumption Advisory. VAC-H03R-04.

Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule
PCB in Fish Tissue	0.29 MILES	00546	**2006**	**2016**

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00585**

VAP-G01E_JMS01A02 | **James River** | RICHMOND CITY | The James River from the fall line to river mile 108.76.

JMSTFu

VA Overall AU Category: **5A**

Use	Impairment			TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**	0.15	SQUARE MILES	00585	**2002**	**2014**	VAP-G01E-03

During the 2002 cycle, the James River from the Fall line to Queens Creek was considered not supporting of the Fish Consumption Use due to PCBs in multiple fish species at multiple DEQ monitoring locations. During the 2004 cycle, a VDH Fish Consumption Restriction was issued and the segment was adjusted slightly to end at Flowerdew Hundred like the Restriction. However, during the 2006 cycle, the restriction was extended on 12/13/2004 and now extends from the I-95 bridge downstream to the Hampton Roads Bridge Tunnel.

Sources: Source Unknown

VAP-G01E_JMS02A02 | **James River** | HENRICO CO
RICHMOND CITY | The James River from river mile 108.76 to river mile 108.63.

JMSTFu

VA Overall AU Category: **5A**

Use	Impairment			TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**	0.02	SQUARE MILES	00585	**2002**	**2014**	VAP-G01E-03

During the 2002 cycle, the James River from the Fall line to Queens Creek was considered not supporting of the Fish Consumption Use due to PCBs in multiple fish species at multiple DEQ monitoring locations. During the 2004 cycle, a VDH Fish Consumption Restriction was issued and the segment was adjusted slightly to end at Flowerdew Hundred like the Restriction. However, during the 2006 cycle, the restriction was extended on 12/13/2004 and now extends from the I-95 bridge downstream to the Hampton Roads Bridge Tunnel.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00585**

VAP-G01E_JMS03A02 — **James River** — CHESTERFIELD CO, RICHMOND CITY

The James River from river mile 108.63 to the confluence with Proctors Creek at river mile 2-JMS097.94.

JMSTFu

VA Overall AU Category: **5A**

Use	Impairment	1.43 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**		00585	**2002**	**2014**	VAP-G01E-03

During the 2002 cycle, the James River from the Fall line to Queens Creek was considered not supporting of the Fish Consumption Use due to PCBs in multiple fish species at multiple DEQ monitoring locations. During the 2004 cycle, a VDH Fish Consumption Restriction was issued and the segment was adjusted slightly to end at Flowerdew Hundred like the Restriction. However, during the 2006 cycle, the restriction was extended on 12/13/2004 and now extends from the I-95 bridge downstream to the Hampton Roads Bridge Tunnel.

Sources: Source Unknown

VAP-G02E_JMS01A00 — **James River/Turkey Island Creek/Fourmile Creek** — CHESTERFIELD CO, HENRICO CO

The James River and the tidal portion of all tributaries from Proctors Creek to 5 miles above American Tobacco's raw water intake. Includes Farrar Gut

JMSTFu

VA Overall AU Category: **5A**

Use	Impairment	1.50 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**		00585	**2002**	**2014**	VAP-G01E-03

During the 2002 cycle, the James River from the Fall line to Queens Creek was considered not supporting of the Fish Consumption Use due to PCBs in multiple fish species at multiple DEQ monitoring locations. During the 2004 cycle, a VDH Fish Consumption Restriction was issued and the segment was adjusted slightly to end at Flowerdew Hundred like the Restriction. However, during the 2006 cycle, the restriction was extended on 12/13/2004 and now extends from the I-95 bridge downstream to the Hampton Roads Bridge Tunnel.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00585**

VAP-G02E_JMS02A00 — **James River/Turkey Island Creek/Fourmile Creek** — CHARLES CITY CO, HENRICO CO

The James River and the tidal portion of all tributaries from 5 miles above American Tobacco's raw water intake to downstream extent of JMSTFu.

JMSTFu

VA Overall AU Category: **5A**

Use	Impairment			TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**	4.81	SQUARE MILES	00585	**2002**	**2014**	VAP-G01E-03

During the 2002 cycle, the James River from the Fall line to Queens Creek was considered not supporting of the Fish Consumption Use due to PCBs in multiple fish species at multiple DEQ monitoring locations. During the 2004 cycle, a VDH Fish Consumption Restriction was issued and the segment was adjusted slightly to end at Flowerdew Hundred like the Restriction. However, during the 2006 cycle, the restriction was extended on 12/13/2004 and now extends from the I-95 bridge downstream to the Hampton Roads Bridge Tunnel.

Sources: Source Unknown

VAP-G02E_JMS03A06 — **James River** — CHARLES CITY CO, HOPEWELL CITY

The James River and the tidal portion of all tributaries from the upstream extent of JMSTFI to the downstream extent of PWS.

JMSTFI

VA Overall AU Category: **5A**

Use	Impairment			TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**	0.75	SQUARE MILES	00585	**2002**	**2014**	VAP-G01E-03

During the 2002 cycle, the James River from the Fall line to Queens Creek was considered not supporting of the Fish Consumption Use due to PCBs in multiple fish species at multiple DEQ monitoring locations. During the 2004 cycle, a VDH Fish Consumption Restriction was issued and the segment was adjusted slightly to end at Flowerdew Hundred like the Restriction. However, during the 2006 cycle, the restriction was extended on 12/13/2004 and now extends from the I-95 bridge downstream to the Hampton Roads Bridge Tunnel.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00585**

VAP-G03E_JMS01A00 | **James River** | CHARLES CITY CO, PRINCE GEORGE CO

The mainstem of the James River from the confluence with the Appomattox River downstream to Queens Creek.

Now incorporates previous segments JMS02A00 and JMS03A02

JMSTFI

VA Overall AU Category: **5A**

Use	Impairment	13.82 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**		00585	**2002**	**2014**	VAP-G01E-03

During the 2002 cycle, the James River from the Fall line to Queens Creek was considered not supporting of the Fish Consumption Use due to PCBs in multiple fish species at multiple DEQ monitoring locations, including 2 stations within this segment. During the 2004 cycle, a VDH Fish Consumption Restriction was issued and the segment was adjusted slightly to end at Flowerdew Hundred like the Restriction. However, during the 2006 cycle, the restriction was extended on 12/13/2004 and now extends from the I-95 bridge downstream to the Hampton Roads Bridge Tunnel.

Sources: Source Unknown

VAP-G04E_JMS01A02 | **James River** | CHARLES CITY CO, PRINCE GEORGE CO

The James River from the confluence with Queens Creek downstream to Brandon Point

JMSTFI

VA Overall AU Category: **5A**

Use	Impairment	7.80 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**		00585	**2006**	**2018**	VAP-G01E-03

During the 2002 cycle, the James River from the Fall line to Queens Creek was considered not supporting of the Fish Consumption Use due to PCBs in multiple fish species at multiple DEQ monitoring locations. During the 2004 cycle, a VDH Fish Consumption Restriction was issued and the segment was adjusted slightly to end at Flowerdew Hundred like the restriction. However, during the 2006 cycle, the restriction was reissued on 12/13/2004 and now extends from the I-95 bridge downstream to the Hampton Roads Bridge Tunnel. The TMDL for the upper portion is due in 2014, and the TMDL for the lower extension is due in 2018.

Sources: Source Unknown

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00585**

VAP-G04E_JMS02A02 — **James River** — CHARLES CITY CO, SURRY CO

The James River from the tidal freshwater/oligohaline boundary at river mile 52.08 to the limit of the watershed at river mile 48.40.

JMSOH

VA Overall AU Category: **5A**

Use	Impairment	9.20 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**		00585	**2006**	**2018**	VAP-G01E-03

During the 2002 cycle, the James River from the Fall line to Queens Creek was considered not supporting of the Fish Consumption Use due to PCBs in multiple fish species at multiple DEQ monitoring locations. During the 2004 cycle, a VDH Fish Consumption Restriction was issued and the segment was adjusted slightly to end at Flowerdew Hundred like the restriction. However, during the 2006 cycle, the restriction was extended on 12/13/2004 and now extends from the I-95 bridge downstream to the Hampton Roads Bridge Tunnel. The TMDL for the extended portion is due in 2018.

Sources: Source Unknown

VAP-G04E_JMS03A04 — **James River** — CHARLES CITY CO, SURRY CO

Brandon Point to the tidal freshwater/oligohaline boundary at approximately river mile 52.08.

JMSTFI

VA Overall AU Category: **5A**

Use	Impairment	4.71 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**		00585	**2006**	**2018**	VAP-G01E-03 (PCBs)

During the 2002 cycle, the James River from the Fall line to Queens Creek was considered not supporting of the Fish Consumption Use due to PCBs in multiple fish species at multiple DEQ monitoring locations. During the 2004 cycle, a VDH Fish Consumption Restriction was issued and the segment was adjusted slightly to end at Flowerdew Hundred like the restriction. However, during the 2006 cycle, the restriction was extended on 12/13/2004 and now extends from the I-95 bridge downstream to the Hampton Roads Bridge Tunnel. The TMDL for the lower extended portion is due in 2018.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **00605**

VAT-G11E_JMS02A06	**James River - Blunt Point to Hilton Village**	ISLE OF WIGHT CO NEWPORT NEWS CITY	Mainstem from line between Blunt Point (Newport News)/Rescue (Isle of Wight) downstream to line Hilton Village (Newport News)/Kings Creek (Isle of Wight). Portion of CBP segment JMSMH. DSS (OPEN) shellfish direct harvesting condemnation # 057-069 I.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**	13.65 SQUARE MILES	00605	**2006**	**2014**	The Fish Consumption Use is impaired based on the VDH fish consumption advisory for PCBs issued 12/13/04. This segment was previously identified (2004 IR) as a site-specific impairment for PCBs in fish tissue concentrations under TMDL ID VAT-G11E-09, this previous impairment TMDL due date is carried forward for this AU, rather than base the TMDL due date on the issuance date of the VDH PCB advisory.

Sources: Source Unknown

TMDL Group ID: **00766**

VAC-H05R_JMS01A00	**James River**	AMHERST CO NELSON CO	James River mainstem from the Wreck Island Creek confluence downstream to the watershed boundary at the mouth of Bent Creek.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	6.15 MILES	00766	**2002**	**2014**	

Sources: Source Unknown

TMDL Group ID: **01148**

VAP-G04E_JMS02A02	**James River**	CHARLES CITY CO SURRY CO	The James River from the tidal freshwater/oligohaline boundary at river mile 52.08 to the limit of the watershed at river mile 48.40. JMSOH

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Estuarine Bioassessments**	9.20 SQUARE MILES	01148	**2004**	**2016**	VAP-G04E-02 The oligohaline portion of the James River is impaired for benthics as determined by the Chesapeake Bay B-IBI study. The discriminant tool lists the source as unknown, however natural sediment conditions are suspected.

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

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **01173**

VAP-H33R_JMS01A98 | **James River** | CUMBERLAND CO, POWHATAN CO | The James River from its confluence with the Rivanna River at river mile 166.61 downstream to the confluence with Big Lickinghole Creek at river mile 143.35.

VA Overall AU Category: **5A**

Use	Impairment	22.87 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**		01173	**2004**	**2016**	VAP-H33R-01

This segment was assessed as not supporting of the Recreation Use based on a fecal coliform violation rate of 4/35 at the Route 45 bridge (2-JMS157.28) during the 2004 cycle. Although the violation rate during the 2006 cycle is acceptable (1/13), there has been no bacteria monitoring at this site since 2001, therefore the fecal impairment is carried over.

Sources: Source Unknown

VAP-H38R_JMS02A04 | **James River** | GOOCHLAND CO, POWHATAN CO | James River from the confluence with Mohawk Creek to river mile 137.00

VA Overall AU Category: **5A**

Use	Impairment	3.64 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**		01173	**2004**	**2016**	VAP-H38R-04

The James River was assessed not supporting of the Recreation Use based on a violation rate of 2/13 at the Route 522 bridge (2-JMS140.00.)

Sources: Source Unknown

TMDL Group ID: **01174**

VAP-H39R_JMS02B04 | **James River** | GOOCHLAND CO, POWHATAN CO | The James River from river mile 128.14 to the confluence with Tuckahoe Creek.

VA Overall AU Category: **5A**

Use	Impairment	4.34 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**		01174	**2004**	**2016**	VAP-H39R-12

The James River is assessed not supporting of the Recreation Use support goal because of a fecal coliform violation rate of 4/13 at station 2-JMS127.50, which is located at Watkins Landing at the end of Route 652.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **01187**

VAP-H39R_JMS03A98	James River	RICHMOND CITY	The James River from the Boulevard Bridge to the fall line.

VA Overall AU Category: **5A**

Use	Impairment	3.29 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01187	**2002**	**2014**	VAP-H39R-09

The James River was assessed not supporting of the Aquatic Life use support goal based on the results of biological (benthic) monitoring at station 2-JMS110.34 and 2-JMS110.44, which indicated moderately impaired benthic communities when compared to the control station at 2-JMS115.29. Acanthamoeba (an amoebae that inhabits lesions in fish and has a remote chance of having human health effects) was detected in lesions in fish taken from the James River near Mayo Bridge in September 1997.

In addition, stations 2-HMS112.37 and 2-JMS111.48 had exceedances of the dissolved oxygen violation rate. The DO TMDL is due in 2014.

Sources: Combined Sewer Overflows
Non-Point Source

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: James River

TMDL Group ID: 10125

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **10125**

VAP-G04E_JMS02A02	**James River**	CHARLES CITY CO SURRY CO	The James River from the tidal freshwater/oligohaline boundary at river mile 52.08 to the limit of the watershed at river mile 48.40. JMSOH

VA Overall AU Category: **5A**

Use	Impairment	9.20 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		10125	**2006**	**2010**	VAP-G03E-02 The James River from the Appomattox River to the Chickahominy River was originally listed on the 1998 list as fully supporting but threatened of the Aquatic Life Use goal based on chlorophyll a violations. During the 1998 cycle, EPA extended the segment upstream to the fall line and downgraded the river to not supporting the Aquatic Life Use, citing nutrient concerns. In previous cycles, the mainstem James River had acceptable dissolved oxygen levels and the segment was considered impaired solely for Nutrients/Eutrophication Biological Indicators (EPA Overlist). During the 2006 cycle, the CB water quality standards were implemented. The Oligohaline James River failed the Shallow Water Use SAV acreage requirements. It also failed the 30-day Open Water summer dissolved oxygen criteria.

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		10125	**2006**	**2010**	VAP-G03E-02 The James River from the Appomattox River to the Chickahominy River was originally listed on the 1998 list as fully supporting but threatened of the Aquatic Life Use goal based on chlorophyll a violations. During the 1998 cycle, EPA extended the segment upstream to the fall line and downgraded the river to not supporting the Aquatic Life Use, citing nutrient concerns. In previous cycles, the mainstem James River had acceptable dissolved oxygen levels and the segment was considered impaired solely for Nutrients/Eutrophication Biological Indicators (EPA Overlist). During the 2006 cycle, the CB water quality standards were implemented. The Oligohaline James River failed the Shallow Water Use SAV acreage requirements. It also failed the 30-day Open Water summer dissolved oxygen criteria.

Sources:
- Agriculture
- Atmospheric Deposition - Nitrogen
- Industrial Point Source Discharge

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **10125**

Sources: 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)

VAP-G04E_ZZZ02A06 **Unsegmented estuaries in G04** CHARLES CITY CO, SURRY CO — Unsegmented portion of watershed within JMSOH

JMSOH

VA Overall AU Category: **5A**

Use	Impairment	0.27 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		10125	**2006**	**2010**	VAP-G03E-02 During the 2006 cycle, the CB water quality standards were implemented. The Oligohaline James River segment failed the 30-day Open Water summer dissolved oxygen criteria.

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		10125	**2006**	**2010**	VAP-G03E-02 During the 2006 cycle, the CB water quality standards were implemented. The Oligohaline James River failed the 30-day Open Water summer dissolved oxygen criteria.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **50066**

VAV-I27R_JMS01A00 — **James River** — BOTETOURT CO — James River from its confluence with an unnamed tributary just north of the Rockbrdige County line downstream to its confluence with Long Run.

VA Overall AU Category: **5A**

Use	Impairment	14.58 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**pH**		50066	**2006**	**2018**	Newly listed for pH in 2006.

Sources: Atmospheric Deposition - Acidity
Source Unknown

TMDL Group ID: **50090**

VAC-H20R_JMS01A02 — **James River** — BUCKINGHAM CO, FLUVANNA CO — James River from the Hardware River downstream to a point 5 miles above Fork Union Sanitary District raw water intake.

VA Overall AU Category: **5A**

Use	Impairment	1.91 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**		50090	**2006**	**2018**	

Sources: Source Unknown

VAC-H20R_JMS02A02 — **James River** — BUCKINGHAM CO, FLUVANNA CO — The James River from a point 5 miles above Fork Union Sanitary District's raw water intake to the intake at the Route 15 bridge.

VA Overall AU Category: **5A**

Use	Impairment	5.28 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**		50090	**2006**	**2018**	

Sources: Source Unknown

VAC-H20R_JMS03A02 — **James River** — BUCKINGHAM CO, FLUVANNA CO — The James River from the Fork Union Sanitary District's water intake at the Route 15 bridge downstream to the confluence with the Rivanna River.

VA Overall AU Category: **5A**

Use	Impairment	9.18 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**		50090	**2006**	**2018**	

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **76105**

VAT-G10E_JMS01A06 — **James River Mainstem - Chickahominy R. to Hog Point** — ISLE OF WIGHT CO, SURRY CO

From confluence with Chickahominy R. coincident with watershed line downstream to line between Carter Grove and downstream of Walnut Point. Portion of CBP segment JMSOH.DSS (ADMINISTRATIVE) shellfish harvesting condemnations # 060-069 B & 059-067 B.

VA Overall AU Category: **5A**

Use	Impairment	43.43 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Estuarine Bioassessments**		76105	**2006**	**2016**	The Aquatic Life Use is impaired based on failure to meet a statistical evaluation constituting an un-impacted benthic organism population per CBP (Benthic-BIBI) analysis (VERSAR-2005). The source/stressor tool yielded an unknown source for the impairment. Also listed impaired in 2004 IR based on CBP-BIBI probabilistic estuarine benthic assessment (VERSAR 9/30/2005).This segment was previously included (2004 IR) in TMDL ID: VAT-G10E-05. The TMDL due date is carried from the previous 2004 IR impairment identification date.

Sources: Source Unknown

VAT-G10E_JMS02A06 — **James River - Hog Point (Open Shellfish Area)** — ISLE OF WIGHT CO, SURRY CO

Triangular area in mainstem around Walnut Point. Portion of CBP segment JMSOH. DSS (OPEN) shellfish direct harvesting condemnation # 057-069 I.

VA Overall AU Category: **5A**

Use	Impairment	3.53 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Estuarine Bioassessments**		76105	**2006**	**2016**	The Aquatic Life Use is impaired based on failure to meet a statistical evaluation constituting an un-impacted benthic organism population per CBP (Benthic-BIBI) analysis (VERSAR-2005). The source/stressor tool yielded an unknown source for the impairment. Also listed impaired in 2004 IR based on CBP-BIBI probabilistic estuarine benthic assessment (VERSAR 9/30/2005). This segment was previously included (2004 IR) in TMDL ID: VAT-G10E-05. The TMDL due date is carried from the previous 2004 IR impairment identification date.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **76106**

VAT-G11E_JMS01A06 — **James River - Hog Point to Blunt Point** — ISLE OF WIGHT CO, NEWPORT NEWS CITY

Mainstem from Hog Point downstream to a line between Blunt Point (Newport News)/Rescue (Isle of Wight). Portion of CBP segment JMSMH. DSS (OPEN) shellfish direct harvesting condemnation # 057-069 I.

VA Overall AU Category: **5A**

Use	Impairment	48.28 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Estuarine Bioassessments**		76106	**2006**	**2016**	The Aquatic Life Use is impaired based on failure to meet a statistical evaluation constituting an un-impacted benthic organism population per CBP (Benthic-BIBI) analysis (VERSAR-2005). The source/stressor tool yielded an unknown source for the impairment. Also listed impaired in 2004 IR based on CBP-BIBI probabilistic estuarine benthic assessment (VERSAR 9/30/2005). This segment was previously included (2004 IR) in TMDL ID: VAT-G11E-01. The TMDL due date is carried from the previous 2004 IR impairment identification date.

Sources: Source Unknown

VAT-G11E_JMS01B06 — **James River - Upstream of Skiffes Creek** — ISLE OF WIGHT CO, NEWPORT NEWS CITY

Mainstem along north shore upstream of Skiffes Creek. Portion of CBP segment JMSMH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnations # 059-067 A.

VA Overall AU Category: **5A**

Use	Impairment	0.40 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Estuarine Bioassessments**		76106	**2006**	**2016**	The Aquatic Life Use is impaired based on failure to meet a statistical evaluation constituting an un-impacted benthic organism population per CBP (Benthic-BIBI) analysis (VERSAR-2005). The source/stressor tool yielded an unknown source for the impairment. Also listed impaired in 2004 IR based on CBP-BIBI probabilistic estuarine benthic assessment (VERSAR 9/30/2005). This segment was previously included (2004 IR) in TMDL ID: VAT-G11E-01. The TMDL due date is carried from the previous 2004 IR impairment identification date.

Sources: Source Unknown

VAT-G11E_JMS02A06 — **James River - Blunt Point to Hilton Village** — ISLE OF WIGHT CO, NEWPORT NEWS CITY

Mainstem from line between Blunt Point (Newport News)/Rescue (Isle of Wight) downstream to line Hilton Village (Newport News)/Kings Creek (Isle of Wight). Portion of CBP segment JMSMH. DSS (OPEN) shellfish direct harvesting condemnation # 057-069 I.

VA Overall AU Category: **5A**

Use	Impairment	13.65 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Estuarine Bioassessments**		76106	**2006**	**2016**	The Aquatic Life Use is impaired based on failure to meet a statistical evaluation constituting an un-impacted benthic organism population per CBP (Benthic-BIBI) analysis (VERSAR-2005). The source/stressor tool yielded an unknown source for the impairment. Also listed impaired in 2004 IR based on CBP-BIBI probabilistic estuarine benthic assessment (VERSAR 9/30/2005). This segment was previously included (2004 IR) in TMDL ID: VAT-G11E-01. The TMDL due date is carried from the previous 2004 IR impairment identification date.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **76106**

VAT-G11E_JMS03A06 — **James River - Along Lower North Shore** — ISLE OF WIGHT CO, NEWPORT NEWS CITY

Mainstem along north shore, from Jail Point (Mulberry Isl) downstream to line following Rt. 664. Portion of CBP segment JMSMH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnations # 058-034 A&B & portion 057-007 A&B.

VA Overall AU Category: **5A**

Use	Impairment	3.98 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Estuarine Bioassessments**		76106	**2006**	**2010**	The Aquatic Life Use is impaired based on failure to meet a statistical evaluation constituting an un-impacted benthic organism population per CBP (Benthic-BIBI) analysis (VERSAR-2005). The source/stressor tool yielded an unknown source for the impairment. This segment was previously included (2004 IR) in TMDL ID: VAT-G11E-01. The TMDL due date is carried from the previous 2004 IR impairment identification date.

Sources: Source Unknown

VAT-G11E_JMS03B06 — **James R.- Hilton Beach Area** — NEWPORT NEWS CITY

Mainstem along north shore north shoreline beach in Hilton Village area. Portion of CBP segment JMSMH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnations # 058-034 A.

VA Overall AU Category: **5A**

Use	Impairment	0.11 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Estuarine Bioassessments**		76106	**2006**	**2016**	The Aquatic Life Use is impaired based on failure to meet a statistical evaluation constituting an un-impacted benthic organism population per CBP (Benthic-BIBI) analysis (VERSAR-2005). The source/stressor tool yielded an unknown source for the impairment

Sources: Source Unknown

VAT-G11E_JMS03C06 — **James R.- Huntington Beach Area** — NEWPORT NEWS CITY

Mainstem along the north shore of the James R., adjacent to James R. Bridge. Huntington bathing beach area. Portion of CBP segment JMSMH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnations # 058-034 A.

VA Overall AU Category: **5A**

Use	Impairment	0.01 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Estuarine Bioassessments**		76106	**2006**	**2016**	The Aquatic Life Use is impaired based on failure to meet a statistical evaluation constituting an un-impacted benthic organism population per CBP (Benthic-BIBI) analysis (VERSAR-2005). The source/stressor tool yielded an unknown source for the impairment

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River**

TMDL Group ID: **76106**

VAT-G11E_JMS04A06 — **James River - Hilton Village to Rt. 664 crossing** — ISLE OF WIGHT CO, NEWPORT NEWS CITY

Mainstem from a line between Hilton Village (Newport News)/Kings Creek (Isle of Wight) downstream to a line following the Rt. 664 crossing. Portion of CBP segment JMSMH. DSS (OPEN) shellfish direct harvesting condemnation # 057-069 I.

VA Overall AU Category: **5A**

Use	Impairment	28.44 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Estuarine Bioassessments**		76106	**2006**	**2016**	The Aquatic Life Use is impaired based on failure to meet a statistical evaluation constituting an un-impacted benthic organism population per CBP (Benthic-BIBI) analysis (VERSAR-2005). The source/stressor tool yielded an unknown source for the impairment. Also listed impaired in 2004 IR based on CBP-BIBI probabilistic estuarine benthic assessment (VERSAR 9/30/2005). This segment was previously included (2004 IR) in TMDL ID: VAT-G11E-01. The TMDL due date is carried from the previous 2004 IR impairment identification date.

Sources: Source Unknown

VAT-G11E_JMS05A06 — **James River - Newport News Point to NW Corner Craney Isl.** — ISLE OF WIGHT CO, NEWPORT NEWS CITY

Mainstem from a line following the Rt. 664 crossing downstream to line between Lincoln Park/NW corner Craney Island. Portion of CBP segment JMSMH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnations # 058-034 A&B & portion 057-007 A&B.

VA Overall AU Category: **5A**

Use	Impairment	3.40 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Estuarine Bioassessments**		76106	**2006**	**2010**	The Aquatic Life Use is impaired based on failure to meet a statistical evaluation constituting an un-impacted benthic organism population per CBP (Benthic-BIBI) analysis (VERSAR-2005). The source/stressor tool yielded an unknown source for the impairment. This segment was previously included (2004 IR) in TMDL ID: VAT-G11E-01. The TMDL due date is carried from the previous 2004 IR impairment identification date.

Sources: Source Unknown

TMDL Watershed Name: **James River - Huntington Beach Area**

TMDL Group ID: **76032**

VAT-G11E_JMS03C06 — **James R.- Huntington Beach Area** — NEWPORT NEWS CITY

Mainstem along the north shore of the James R., adjacent to James R. Bridge. Huntington bathing beach area. Portion of CBP segment JMSMH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnations # 058-034 A.

VA Overall AU Category: **5A**

Use	Impairment	0.01 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Enterococcus**		76032	**2006**	**2018**	The Recreation Use is impaired based on Enterococcus bacteria (8 violates / 9 observations) data from the VDH Beach Monitoring Program (VDH (Beach) monitoring station @ VA747813) and joint VDH-DEQ assessment review.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River - Anderson Park Beach Area**

TMDL Group ID: **76043**

VAT-G15E_JMS01C06	James River - Anderson Park Beach Area	NEWPORT NEWS CITY	Located along the western shore portion of Hampton Roads Harbor. Portion of CBP segment JMSPH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 057-007 A.

VA Overall AU Category: **5A**

Use	Impairment	0.01 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Enterococcus**		76043	**2006**	**2018**	The Recreation Use is impaired based on Enterococcus bacteria data (3 violates / 6 obs.) from the VDH Beach Monitoring Program and joint VDH-DEQ assessment review.

Sources: Source Unknown

TMDL Watershed Name: **James River - Hilton Beach Area**

TMDL Group ID: **76031**

VAT-G11E_JMS03B06	James R.- Hilton Beach Area	NEWPORT NEWS CITY	Mainstem along north shore north shoreline beach in Hilton Village area. Portion of CBP segment JMSMH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnations # 058-034 A.

VA Overall AU Category: **5A**

Use	Impairment	0.11 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Enterococcus**		76031	**2006**	**2018**	The Recreation Use is impaired based on Enterococcus bacteria data (6 violates / 9 observations) from the VDH Beach Monitoring Program (VDH (Beach) monitoring station @ VA747818) and joint VDH-DEQ assessment review.

Sources: Source Unknown

TMDL Watershed Name: **James River - King/Lincoln Park Beach Area**

TMDL Group ID: **76042**

VAT-G15E_JMS01B06	James River - King/Lincoln Park Beach Area	NEWPORT NEWS CITY	Located along the western shore portion of Hampton Roads Harbor. Portion of CBP segment JMSPH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 057-007 A.

VA Overall AU Category: **5A**

Use	Impairment	0.01 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Enterococcus**		76042	**2006**	**2018**	The Recreation Use is impaired based on Enterococcus bacteria data (3 violates / 6 obs.) from the VDH Beach Monitoring Program and joint VDH-DEQ assessment review.

Sources: Source Unknown

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River (Dry Ditch), Unnamed Tributary**

TMDL Group ID: **01134**

VAP-G01R_JMS01B04	UT (dry ditch) to James River	CHESTERFIELD CO	Headwaters to mouth at James River Richmond National Battlefield Park

VA Overall AU Category: **5A**

Use	Impairment	0.35 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01134	**2004**	**2016**	VAP-G01R-09 The ditch is considered impaired of the Aquatic Life use due to monitoring by the USGS: DO 2/4, pH 2/4 at 0203853010 DO 2/4, pH 2/4 at 0203853030

Sources: Source Unknown

TMDL Group ID: **01135**

VAP-G01R_JMS01B04	UT (dry ditch) to James River	CHESTERFIELD CO	Headwaters to mouth at James River Richmond National Battlefield Park

VA Overall AU Category: **5A**

Use	Impairment	0.35 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**pH**		01135	**2004**	**2016**	VAP-G01R-09 The ditch is considered impaired of the Aquatic Life use due to monitoring by the USGS: DO 2/4, pH 2/4 at 0203853010 DO 2/4, pH 2/4 at 0203853030

Sources: Source Unknown

TMDL Watershed Name: **James River (Upper)**

TMDL Group ID: **50259**

VAW-H01R_JMS04A00	James River Upper	ROCKBRIDGE CO	James River mainstem from the Balcony Falls Dam downstream to the mouth of Hunting Creek.

VA Overall AU Category: **5A**

Use	Impairment	9.22 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**		50259	**2006**	**2018**	

Sources: Livestock (Grazing or Feeding Operations)
On-site Treatment Systems (Septic Systems and Similar Decencentralized Systems)
Unspecified Domestic Waste
Wastes from Pets
Wildlife Other than Waterfowl

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River and Johnson Creek**

TMDL Group ID: **01144**

VAP-G04E_JMS02A02 **James River** CHARLES CITY CO, SURRY CO

The James River from the tidal freshwater/oligohaline boundary at river mile 52.08 to the limit of the watershed at river mile 48.40.

JMSOH

VA Overall AU Category: **5A**

Use	Impairment	9.20 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Chloride**		01144	**2004**	**2016**	VAP-G04E-01 In the 2004 cycle, the James River from Brandon Point downstream to the Chickahominy River confluence was assessed as impaired of the Aquatic Life Use and Wildlife Uses due to chloride violations (see 2004 fact sheet VAP-G03E-02.) The chloride TMDL is due in 2016. In the 2006 cycle, the segment remained impaired.
		Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed				
Wildlife	**Chloride**		01144	**2004**	**2016**	VAP-G04E-01 In the 2004 cycle, the James River from Brandon Point downstream to the Chickahominy River confluence was assessed as impaired of the Aquatic Life Use and Wildlife Uses due to chloride violations (see 2004 fact sheet VAP-G03E-02.) The chloride TMDL is due in 2016. In the 2006 cycle, the segment remained impaired.
		Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed				

VAP-G04E_JMS03A04 **James River** CHARLES CITY CO, SURRY CO

Brandon Point to the tidal freshwater/oligohaline boundary at approximately river mile 52.08.

JMSTFI

VA Overall AU Category: **5A**

Use	Impairment	4.71 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Chloride**		01144	**2004**	**2016**	VAP-G04E-01 In the 2004 cycle, the James River from Brandon Point downstream to the Chickahominy River confluence was assessed as impaired of the Aquatic Life Use and Wildlife Uses due to chloride violations (see 2004 fact sheet VAP-G03E-02.) The chloride TMDL is due in 2016. In the 2006 cycle, the segment remained impaired.
		Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed				
Wildlife	**Chloride**		01144	**2004**	**2016**	VAP-G04E-01 In the 2004 cycle, the James River from Brandon Point downstream to the Chickahominy River confluence was assessed as impaired of the Aquatic Life Use and Wildlife Uses due to chloride violations (see 2004 fact sheet VAP-G03E-02.) The chloride TMDL is due in 2016. In the 2006 cycle, the segment remained impaired.
		Sources: Natural Conditions - Water Quality Standards Use Attainability Analyses Needed				

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River and Tributaries**

TMDL Group ID: **76069**

VAT-G10E_JMS01A06 — **James River Mainstem - Chickahominy R. to Hog Point** — ISLE OF WIGHT CO, SURRY CO

From confluence with Chickahominy R. coincident with watershed line downstream to line between Carter Grove and downstream of Walnut Point. Portion of CBP segment JMSOH.DSS (ADMINISTRATIVE) shellfish harvesting condemnations # 060-069 B & 059-067 B.

VA Overall AU Category: **5A**

Use	Impairment	43.43 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**		76069	**2006**	**2018**	The Fish Consumption Use is impaired based on the VDH fish consumption advisory for PCBs issued 12/13/04.

Sources: Source Unknown

VAT-G10E_JMS02A06 — **James River - Hog Point (Open Shellfish Area)** — ISLE OF WIGHT CO, SURRY CO

Triangular area in mainstem around Walnut Point. Portion of CBP segment JMSOH. DSS (OPEN) shellfish direct harvesting condemnation # 057-069 I.

VA Overall AU Category: **5A**

Use	Impairment	3.53 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**		76069	**2006**	**2018**	The Fish Consumption Use is impaired based on the VDH fish consumption advisory for PCBs issued 12/13/04.

Sources: Source Unknown

VAT-G11E_CKT01A04 — **Chuckatuck & Brewers Creeks** — ISLE OF WIGHT CO, SUFFOLK CITY

South shore trib to James R., confluence upstream of Nansemond R. Drains Chuckatuck and Benns Church areas. From headwaters to mouths, including tribs. Portion of CBP segment JMSMH. DSS shellfish direct harvesting condemnation # 062- 080 B.

VA Overall AU Category: **5A**

Use	Impairment	1.44 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**		76069	**2006**	**2016**	The Fish Consumption Use is impaired based on the VDH fish consumption advisory for PCBs issued 12/13/04. This segment was previously identified (2004 IR) as a site-specific impairment for PCBs in fish tissue concentrations under TMDL ID VAT-G11E-07, this previous impairment TMDL due date is carried forward for this AU, rather than base the TMDL due date on the issuance date of the VDH PCB advisory.

Sources: Source Unknown

VAT-G11E_CYP01A06 — **Cypress Creek** — ISLE OF WIGHT CO

South shore tributary to Pagan R, confluence near Smithfield. From end of tidal waters downstream to mouth. Portion of CBP segment JMSMH. DSS shellfish direct harvesting condemnation # 061-064 A.

VA Overall AU Category: **5A**

Use	Impairment	0.26 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**		76069	**2006**	**2016**	The Fish Consumption Use is impaired based on the VDH fish consumption advisory for PCBs issued 12/13/04. This segment was previously identified (2004 IR) as a site-specific impairment for PCBs in fish tissue concentrations under TMDL ID VAT-G11E-07, this previous impairment TMDL due date is carried forward for this AU, rather than base the TMDL due date on the issuance date of the VDH PCB advisory.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River and Tributaries**

TMDL Group ID: **76069**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAT-G11E_JMS01A06	**James River - Hog Point to Blunt Point**	ISLE OF WIGHT CO NEWPORT NEWS CITY	Mainstem from Hog Point downstream to a line between Blunt Point (Newport News)/Rescue (Isle of Wight). Portion of CBP segment JMSMH. DSS (OPEN) shellfish direct harvesting condemnation # 057-069 I.

VA Overall AU Category: **5A**

Use	Impairment	48.28 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**		76069	**2006**	**2018**	The Fish Consumption Use is impaired based on the VDH fish consumption advisory for PCBs issued 12/13/04.

Sources: Source Unknown

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAT-G11E_JMS01B06	**James River - Upstream of Skiffes Creek**	ISLE OF WIGHT CO NEWPORT NEWS CITY	Mainstem along north shore upstream of Skiffes Creek. Portion of CBP segment JMSMH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnations # 059-067 A.

VA Overall AU Category: **5A**

Use	Impairment	0.40 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**		76069	**2006**	**2018**	The Fish Consumption Use is impaired based on the VDH fish consumption advisory for PCBs issued 12/13/04.

Sources: Source Unknown

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAT-G11E_JMS03A06	**James River - Along Lower North Shore**	ISLE OF WIGHT CO NEWPORT NEWS CITY	Mainstem along north shore, from Jail Point (Mulberry Isl) downstream to line following Rt. 664. Portion of CBP segment JMSMH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnations # 058-034 A&B & portion 057-007 A&B.

VA Overall AU Category: **5A**

Use	Impairment	3.98 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**		76069	**2006**	**2018**	The Fish Consumption Use is impaired based on the VDH fish consumption advisory for PCBs issued 12/13/04.

Sources: Source Unknown

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAT-G11E_JMS03B06	**James R.- Hilton Beach Area**	NEWPORT NEWS CITY	Mainstem along north shore north shoreline beach in Hilton Village area. Portion of CBP segment JMSMH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnations # 058-034 A.

VA Overall AU Category: **5A**

Use	Impairment	0.11 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**		76069	**2006**	**2018**	The Fish Consumption Use is impaired based on the VDH fish consumption advisory for PCBs issued 12/13/04.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River and Tributaries**

TMDL Group ID: **76069**

VAT-G11E_JMS03C06 — **James R.- Huntington Beach Area** — NEWPORT NEWS CITY

Mainstem along the north shore of the James R., adjacent to James R. Bridge. Huntington bathing beach area. Portion of CBP segment JMSMH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnations # 058-034 A.

VA Overall AU Category: **5A**

Use	Impairment	Impairment	SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**			76069	**2006**	**2018**	The Fish Consumption Use is impaired based on the VDH fish consumption advisory for PCBs issued 12/13/04.

Sources: Source Unknown

VAT-G11E_JMS04A06 — **James River - Hilton Village to Rt. 664 crossing** — ISLE OF WIGHT CO, NEWPORT NEWS CITY

Mainstem from a line between Hilton Village (Newport News)/Kings Creek (Isle of Wight) downstream to a line following the Rt. 664 crossing. Portion of CBP segment JMSMH. DSS (OPEN) shellfish direct harvesting condemnation # 057-069 I.

VA Overall AU Category: **5A**

Use	Impairment	Impairment	SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**			76069	**2006**	**2018**	The Fish Consumption Use is impaired based on the VDH fish consumption advisory for PCBs issued 12/13/04.

Sources: Source Unknown

VAT-G11E_JMS05A06 — **James River - Newport News Point to NW Corner Craney Isl.** — ISLE OF WIGHT CO, NEWPORT NEWS CITY

Mainstem from a line following the Rt. 664 crossing downstream to line between Lincoln Park/NW corner Craney Island. Portion of CBP segment JMSMH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnations # 058-034 A&B & portion 057-007 A&B.

VA Overall AU Category: **5A**

Use	Impairment	Impairment	SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**			76069	**2006**	**2018**	The Fish Consumption Use is impaired based on the VDH fish consumption advisory for PCBs issued 12/13/04.

Sources: Source Unknown

VAT-G11E_PGN01A06 — **Pagan River - Upstream of Mouth** — ISLE OF WIGHT CO

Located in Smithfield area. South shore tributary to James R. From end of tide downstream to narrowing north of Battery Park. Portion of CBP segment JMSMH. DSS shellfish direct harvesting condemnation # 061-064 A.

VA Overall AU Category: **5A**

Use	Impairment	Impairment	SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**			76069	**2006**	**2016**	The Fish Consumption Use is impaired based on the VDH fish consumption advisory for PCBs issued 12/13/04. This segment was previously identified (2004 IR) as a site-specific impairment for PCBs in fish tissue concentrations under TMDL ID VAT-G11E-05, this previous impairment TMDL due date is carried forward for this AU, rather than base the TMDL due date on the issuance date of the VDH PCB advisory.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River and Tributaries**

TMDL Group ID: **76069**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAT-G11E_PGN02A06	**Pagan River - Mouth Area**	ISLE OF WIGHT CO	Located in Smithfield area. South shore tributary to James R. From narrowing north of Battery Park downstream to mouth. Portion of CBP segment JMSMH. DSS shellfish direct harvesting condemnation # 061-064 A.

VA Overall AU Category: **5A**

Use	Impairment	1.00 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**		76069	**2006**	**2016**	The Fish Consumption Use is impaired based on the VDH fish consumption advisory for PCBs issued 12/13/04. This segment was previously identified (2004 IR) as a site-specific impairment for PCBs in fish tissue concentrations under TMDL ID VAT-G11E-05, this previous impairment TMDL due date is carried forward for this AU, rather than base the TMDL due date on the issuance date of the VDH PCB advisory.

Sources: Source Unknown

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAT-G13E_NAN01A00	**Nansemond River - Upper**	SUFFOLK CITY	Upper Nansemond River. Extends from most upstream point in river at Lake Meade Dam (RM 19.8) downstream to Rt. 58/460 crossing (RM 15.2). Portion of CBP segment JMSMH. Portion of DSS shellfish condemnation # 063-008.

VA Overall AU Category: **5A**

Use	Impairment	0.26 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**		76069	**2006**	**2018**	The Fish Consumption Use is impaired based on the VDH fish consumption advisory for PCBs issued 12/13/04.

Sources: Source Unknown

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAT-G13E_NAN02A06	**Nansemond River - Upper Middle**	SUFFOLK CITY	Downstream of Suffolk. From Rt 58/460 (RM 15.1) crossing downstream to confluence with the Western Branch from the Reservoir (RM 11.9). Portion of the CBP segment JMSMH. Portion of DSS shellfish condemnation # 063-008.

VA Overall AU Category: **5A**

Use	Impairment	0.21 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**		76069	**2006**	**2018**	The Fish Consumption Use is impaired based on the VDH fish consumption advisory for PCBs issued 12/13/04.

Sources: Source Unknown

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAT-G13E_NAN03A06	**Nansemond River - Lower Middle**	SUFFOLK CITY	In area of Western Branch Reservoir. From confluence with Western Br. (RM 11.8) downstream to a line from Sleepy Hole Pt to Lobo on west shore (0.8 mi. downstream Rt 125, RM 7.5). CBP segment JMSMH. Portion of DSS shellfish condemnation # 063-008.

VA Overall AU Category: **5A**

Use	Impairment	1.96 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**		76069	**2006**	**2018**	The Fish Consumption Use is impaired based on the VDH fish consumption advisory for PCBs issued 12/13/04.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River and Tributaries**

TMDL Group ID: **76069**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAT-G13E_NAN04A00	Nansemond River - Lower	SUFFOLK CITY	Nansemond R nearer mouth. from a line from Sleepy Hole Pt on east shore to Lobo on west (0.8 mi. downstream of Rt 125, RM 7.5) downstream to mouth. CBP segment JMSMH. Portion of DSS (OPEN) shellfish direct harvesting condemnations # 063- 008 & 057-069 F.

VA Overall AU Category: 5A

Use	Impairment	7.66 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	PCB in Fish Tissue		76069	2006	2018	The Fish Consumption Use is impaired based on the VDH fish consumption advisory for PCBs issued 12/13/04.

Sources: Source Unknown

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAT-G15E_ELI01A06	Elizabeth River Mainstem - Upper	NORFOLK CITY PORTSMOUTH CITY	From headwaters (RM 8.0) at confluence Southern and Eastern Branches downstream to a line between Hospital Point and Smiths Creek. Portion of CBP segment ELIPH. Portion of the DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: 5A

Use	Impairment	0.40 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	PCB in Fish Tissue		76069	2006	2018	The Fish Consumption Use is impaired based on the VDH fish consumption advisory for PCBs issued 12/13/04.

Sources: Source Unknown

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAT-G15E_ELI02A06	Elizabeth River Mainstem - Lower	NORFOLK CITY PORTSMOUTH CITY	From a line between Hospital Pt and Smiths Cr down stream to mouth (line from northeast corner of Craney Isl. towards Gate 2 at Naval Sta.). Portion of CBP segment ELIPH. Portion of the DSS (ADMINISTRATIVE) shellfish harvesting condemnation # 065-007 E.

VA Overall AU Category: 5A

Use	Impairment	7.18 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	PCB in Fish Tissue		76069	2006	2018	The Fish Consumption Use is impaired based on the VDH fish consumption advisory for PCBs issued 12/13/04.

Sources: Source Unknown

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAT-G15E_HAI01A06	Hampton River	HAMPTON CITY	North shore trib to Hampton Roads near the end of Queen St. Portion of CBP segment JMSPH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 057-007 A.

VA Overall AU Category: 5A

Use	Impairment	0.55 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	PCB in Fish Tissue		76069	2006	2018	The Fish Consumption Use is impaired based on the VDH fish consumption advisory for PCBs issued 12/13/04.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River and Tributaries**

TMDL Group ID: **76069**

VAT-G15E_HAI02A06 — **Mill Point Creek - Beach Area** — HAMPTON CITY

Located along the Hampton River near the end of Queen St. Portion of CBP segment JMSPH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 057-007 A.

VA Overall AU Category: **5A**

Use	Impairment	0.00 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**		76069	**2006**	**2018**	The Fish Consumption Use is impaired based on the VDH fish consumption advisory for PCBs issued 12/13/04.

Sources: Source Unknown

VAT-G15E_JMS01A00 — **James River at Hampton Roads Harbor** — HAMPTON CITY, PORTSMOUTH CITY

From a line between Lincoln Park and the NW corner of Craney Isl. downstream to mouth at Hampton Roads Tunnel. Portion of CBP segment JMSPH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 057-007 A.

VA Overall AU Category: **5A**

Use	Impairment	24.33 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**		76069	**2006**	**2018**	The Fish Consumption Use is impaired based on the VDH fish consumption advisory for PCBs issued 12/13/04.

Sources: Source Unknown

VAT-G15E_JMS01B06 — **James River - King/Lincoln Park Beach Area** — NEWPORT NEWS CITY

Located along the western shore portion of Hampton Roads Harbor. Portion of CBP segment JMSPH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 057-007 A.

VA Overall AU Category: **5A**

Use	Impairment	0.01 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**		76069	**2006**	**2018**	The Fish Consumption Use is impaired based on the VDH fish consumption advisory for PCBs issued 12/13/04.

Sources: Source Unknown

VAT-G15E_JMS01C06 — **James River - Anderson Park Beach Area** — NEWPORT NEWS CITY

Located along the western shore portion of Hampton Roads Harbor. Portion of CBP segment JMSPH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 057-007 A.

VA Overall AU Category: **5A**

Use	Impairment	0.01 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**		76069	**2006**	**2018**	The Fish Consumption Use is impaired based on the VDH fish consumption advisory for PCBs issued 12/13/04.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River and Tributaries**

TMDL Group ID: **76069**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAT-G15E_SBE01A00	**Southern Branch, Elizabeth R. - Upper**	CHESAPEAKE CITY	Located south of I-64 crossing. From headwaters @ Great Bridge Locks (RM 9.0) downstream to I-64 crossing @ Deep Cr. Confluence (RM 6.86).. Portion of CBP segment SBEMH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	0.62 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**		76069	**2006**	**2018**	The Fish Consumption Use is impaired based on the VDH fish consumption advisory for PCBs issued 12/13/04. Observed Effects exhibited due to the VDH (issued 1988) caution to limit consumption of fish on a daily basis due to the potential for Kepone fish tissue contamination, reported in historical fish monitoring data with the potential for presence in the sediments of the James River.

Sources: Source Unknown

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAT-G15E_SBE02A06	**Southern Branch, Elizabeth R. - Middle**	CHESAPEAKE CITY PORTSMOUTH CITY	North of I-64 crossing and south of Scuffletown Cr. From I-64 crossing @ Deep Cr. confluence (RM 6.86) downstream to the Jordan Bridge (RM 2.30). Portion of CBP segment SBEMH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	1.01 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**		76069	**2006**	**2018**	The Fish Consumption Use is impaired based on the VDH fish consumption advisory for PCBs issued 12/13/04. Observed Effects exhibited due to the VDH (issued 1988) caution to limit consumption of fish on a daily basis due to the potential for Kepone fish tissue contamination, reported in historical fish monitoring data with the potential for presence in the sediments of the James River.

Sources: Source Unknown

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAT-G15E_SBE03A06	**Southern Branch, Elizabeth R. - Lower**	CHESAPEAKE CITY PORTSMOUTH CITY	North of the Jordan Bridge. From the Jordan Bridge, Rt. 337 (RM 2.30) downstream to the mouth, confluence with the mainstem Elizabeth River. Portion of CBP segment SBEMH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	0.59 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**		76069	**2006**	**2018**	The Fish Consumption Use is impaired based on the VDH fish consumption advisory for PCBs issued 12/13/04. Observed Effects exhibited due to the VDH (issued 1988) caution to limit consumption of fish on a daily basis due to the potential for Kepone fish tissue contamination, reported in historical fish monitoring data with the potential for presence in the sediments of the James River.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River and Tributaries**

TMDL Group ID: **76069**

VAT-G15E_WLY01A06	Willoughby Bay	NORFOLK CITY	Located adjacent to mouth of James River at Hampton Roads, southeast of Hampton Roads Bridge Tunnel. Portion of CBP segment JMSPH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 057-007 A.

VA Overall AU Category: **5A**

Use	Impairment	2.48 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**		76069	**2006**	**2018**	The Fish Consumption Use is impaired based on the VDH fish consumption advisory for PCBs issued 12/13/04.

Sources: Source Unknown

VAT-G15E_WLY03A06	Willoughby Bay - Beach Area	NORFOLK CITY	Located along the northern shore portion of Willoughby Bay along Willoughby Spit. Portion of CBP segment JMSPH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 057-007 A.

VA Overall AU Category: **5A**

Use	Impairment	0.15 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**		76069	**2006**	**2018**	The Fish Consumption Use is impaired based on the VDH fish consumption advisory for PCBs issued 12/13/04.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Embayments**

TMDL Group ID: **76086**

VAT-G10E_CLG01A06	College Creek - Lower	JAMES CITY CO WILLIAMSBURG CITY	Located west of Kingsmill area, James City Co. From convergence of two upstream branches (approx. RM 1.0) downstream to mouth. Portion of CBP segment JMSOH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 060-069 B [effective .

VA Overall AU Category: **5A**

Use	Impairment	0.15 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76086	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		76086	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Embayments**

TMDL Group ID: **76086**

VAT-G10E_JMS01A06	James River Mainstem - Chickahominy R. to Hog Point	ISLE OF WIGHT CO SURRY CO	From confluence with Chickahominy R. coincident with watershed line downstream to line between Carter Grove and downstream of Walnut Point. Portion of CBP segment JMSOH.DSS (ADMINISTRATIVE) shellfish harvesting condemnations # 060-069 B & 059-067 B.

VA Overall AU Category: **5A**

Use	Impairment	43.43 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76086	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		76086	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Embayments**

TMDL Group ID: **76086**

VAT-G10E_JMS02A06	James River - Hog Point (Open Shellfish Area)	ISLE OF WIGHT CO SURRY CO	Triangular area in mainstem around Walnut Point. Portion of CBP segment JMSOH. DSS (OPEN) shellfish direct harvesting condemnation # 057-069 I.

VA Overall AU Category: **5A**

Use	Impairment	3.53 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76086	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		76086	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Embayments**

TMDL Group ID: **76086**

VAT-G10E_MIC01A00	Mill Creek	JAMES CITY CO	North of Jamestown Island area, tributary to the Thorofare embayment. From end of tidal waters downstream to the mouth. Portion of CBP segment JMSOH.Portion of DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 060-069 B.

VA Overall AU Category: **5A**

Use	Impairment	0.08 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76086	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		76086	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Embayments**

TMDL Group ID: **76086**

VAT-G10E_POW01A02	Powhatan Creek/Sandy Bay	JAMES CITY CO	West of Jamestown Island, north shore tributary to the James R. From end of tidal waters downstream to the mouth of Sandy Bay. Portion of CBP segment JMSOH.Portion of DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 060-069 B.

VA Overall AU Category: **5A**

Use	Impairment	0.20 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76086	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		76086	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Embayments**

TMDL Group ID: **76086**

VAT-G10E_ZZZ01A00	Unsegmented estuaries in G10E	JAMES CITY CO SURRY CO	Unsegmented estuaries in G10E where Shellfish Use not-assessed due to DSS non-productive area designation. Portion of CBP segment JMSOH.

VA Overall AU Category: **5A**

Use	Impairment	1.58 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76086	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		76086	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Embayments**

TMDL Group ID: **76086**

VAT-G10E_ZZZ02A00	Unsegmented estuaries - Gravel Neck Area	JAMES CITY CO SURRY CO	Unsegmented estuaries in G10E where DSS (OPEN) shellfish direct harvesting condemnation # 057-069I. Portion of CBP segment JMSOH.

VA Overall AU Category: **5A**

Use	Impairment	0.20 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76086	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		76086	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Embayments**

TMDL Group ID: **76087**

VAT-G10E_CLG01A06	College Creek - Lower	JAMES CITY CO WILLIAMSBURG CITY	Located west of Kingsmill area, James City Co. From convergence of two upstream branches (approx. RM 1.0) downstream to mouth. Portion of CBP segment JMSOH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 060-069 B [effective .

VA Overall AU Category: **5A**

Use	Impairment	0.15 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		76087	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		76087	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Embayments**

TMDL Group ID: **76087**

VAT-G10E_JMS01A06	James River Mainstem - Chickahominy R. to Hog Point	ISLE OF WIGHT CO SURRY CO	From confluence with Chickahominy R. coincident with watershed line downstream to line between Carter Grove and downstream of Walnut Point. Portion of CBP segment JMSOH.DSS (ADMINISTRATIVE) shellfish harvesting condemnations # 060-069 B & 059-067 B.

VA Overall AU Category: **5A**

Use	Impairment	43.43 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		76087	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		76087	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Embayments**

TMDL Group ID: **76087**

VAT-G10E_JMS02A06	James River - Hog Point (Open Shellfish Area)	ISLE OF WIGHT CO SURRY CO	Triangular area in mainstem around Walnut Point. Portion of CBP segment JMSOH. DSS (OPEN) shellfish direct harvesting condemnation # 057-069 I.

VA Overall AU Category: **5A**

Use	Impairment	3.53 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		76087	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		76087	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Embayments**

TMDL Group ID: **76087**

VAT-G10E_MIC01A00	Mill Creek	JAMES CITY CO	North of Jamestown Island area, tributary to the Thorofare embayment. From end of tidal waters downstream to the mouth. Portion of CBP segment JMSOH.Portion of DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 060-069 B.

VA Overall AU Category: **5A**

Use	Impairment	0.08 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		76087	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		76087	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Embayments**

TMDL Group ID: **76087**

VAT-G10E_POW01A02	Powhatan Creek/Sandy Bay	JAMES CITY CO	West of Jamestown Island, north shore tributary to the James R. From end of tidal waters downstream to the mouth of Sandy Bay. Portion of CBP segment JMSOH.Portion of DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 060-069 B.

VA Overall AU Category: **5A**

Use	Impairment	0.20 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		76087	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		76087	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Embayments**

TMDL Group ID: **76087**

VAT-G10E_ZZZ01A00	Unsegmented estuaries in G10E	JAMES CITY CO SURRY CO	Unsegmented estuaries in G10E where Shellfish Use not-assessed due to DSS non-productive area designation. Portion of CBP segment JMSOH.

VA Overall AU Category: **5A**

Use	Impairment	1.58 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		76087	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		76087	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Embayments**

TMDL Group ID: **76087**

VAT-G10E_ZZZ02A00	Unsegmented estuaries - Gravel Neck Area	JAMES CITY CO SURRY CO	Unsegmented estuaries in G10E where DSS (OPEN) shellfish direct harvesting condemnation # 057-069I. Portion of CBP segment JMSOH.

VA Overall AU Category: **5A**

Use	Impairment	0.20 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		76087	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		76087	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **01769**

VAT-G11E_BAL01A06	Ballard Creek - Upper (Tributary to James River)	ISLE OF WIGHT CO	South shore tributary to James R., upstream of James R. Bridge. North of Ragged Isand area. From end of tidal waters downstream to end of DSS shellfish direct harvesting condemnation # 062- 164 A. Portion of CBP segment JMSMH.

VA Overall AU Category: **5A**

Use	Impairment	0.02 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **01769**

VAT-G11E_CKT01A04	Chuckatuck & Brewers Creeks	ISLE OF WIGHT CO SUFFOLK CITY	South shore trib to James R., confluence upstream of Nansemond R. Drains Chuckatuck and Benns Church areas. From headwaters to mouths, including tribs. Portion of CBP segment JMSMH. DSS shellfish direct harvesting condemnation # 062- 080 B.

VA Overall AU Category: **5A**

Use	Impairment	1.44 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **01769**

VAT-G11E_CYP01A06	Cypress Creek	ISLE OF WIGHT CO	South shore tributary to Pagan R, confluence near Smithfield. From end of tidal waters downstream to mouth. Portion of CBP segment JMSMH. DSS shellfish direct harvesting condemnation # 061-064 A.

VA Overall AU Category: **5A**

Use	Impairment	0.26 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **01769**

VAT-G11E_DEP01A02	Deep Creek - Lower	NEWPORT NEWS CITY	Located in Menchville area. Tributary to Warwick R. to James R. From 0.5 mi. above DEQ station @ RM 0.76 downstream to mouth. Portion of CBP segment JMSMH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 058-034 A.

VA Overall AU Category: **5A**

Use	Impairment	0.10 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **01769**

VAT-G11E_JMS01A06	James River - Hog Point to Blunt Point	ISLE OF WIGHT CO NEWPORT NEWS CITY	Mainstem from Hog Point downstream to a line between Blunt Point (Newport News)/Rescue (Isle of Wight). Portion of CBP segment JMSMH. DSS (OPEN) shellfish direct harvesting condemnation # 057-069 I.

VA Overall AU Category: **5A**

Use	Impairment (48.28 SQUARE MILES)	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**	01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).
	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)				
Open-Water Aquatic Life	**Oxygen, Dissolved**	01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).
	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)				

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **01769**

VAT-G11E_JMS01B06	James River - Upstream of Skiffes Creek	ISLE OF WIGHT CO NEWPORT NEWS CITY	Mainstem along north shore upstream of Skiffes Creek. Portion of CBP segment JMSMH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnations # 059-067 A.

VA Overall AU Category: **5A**

Use	Impairment (0.40 SQUARE MILES)	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**	01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).
	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)			
Open-Water Aquatic Life	**Oxygen, Dissolved**	01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).
	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)			

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **01769**

VAT-G11E_JMS02A06	James River - Blunt Point to Hilton Village	ISLE OF WIGHT CO NEWPORT NEWS CITY	Mainstem from line between Blunt Point (Newport News)/Rescue (Isle of Wight) downstream to line Hilton Village (Newport News)/Kings Creek (Isle of Wight). Portion of CBP segment JMSMH. DSS (OPEN) shellfish direct harvesting condemnation # 057-069 I.

VA Overall AU Category: **5A**

Use	Impairment	13.65 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **01769**

VAT-G11E_JMS03A06	James River - Along Lower North Shore	ISLE OF WIGHT CO NEWPORT NEWS CITY	Mainstem along north shore, from Jail Point (Mulberry Isl) downstream to line following Rt. 664. Portion of CBP segment JMSMH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnations # 058-034 A&B & portion 057-007 A&B.

VA Overall AU Category: **5A**

Use	Impairment	3.98 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**	01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **01769**

VAT-G11E_JMS03B06	James R.- Hilton Beach Area	NEWPORT NEWS CITY	Mainstem along north shore north shoreline beach in Hilton Village area. Portion of CBP segment JMSMH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnations # 058-034 A.

VA Overall AU Category: **5A**

Use	Impairment	0.11 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **01769**

VAT-G11E_JMS03C06	James R.- Huntington Beach Area	NEWPORT NEWS CITY	Mainstem along the north shore of the James R., adjacent to James R. Bridge. Huntington bathing beach area. Portion of CBP segment JMSMH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnations # 058-034 A.

VA Overall AU Category: **5A**

Use	Impairment	0.01 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **01769**

VAT-G11E_JMS04A06	James River - Hilton Village to Rt. 664 crossing	ISLE OF WIGHT CO NEWPORT NEWS CITY	Mainstem from a line between Hilton Village (Newport News)/Kings Creek (Isle of Wight) downstream to a line following the Rt. 664 crossing. Portion of CBP segment JMSMH. DSS (OPEN) shellfish direct harvesting condemnation # 057-069 I.

VA Overall AU Category: **5A**

Use	Impairment	28.44 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**	01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **01769**

VAT-G11E_JMS05A06	James River - Newport News Point to NW Corner Craney Isl.	ISLE OF WIGHT CO NEWPORT NEWS CITY	Mainstem from a line following the Rt. 664 crossing downstream to line between Lincoln Park/NW corner Craney Island. Portion of CBP segment JMSMH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnations # 058-034 A&B & portion 057-007 A&B.

VA Overall AU Category: **5A**

Use	Impairment	3.40 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **01769**

VAT-G11E_JOG01A04	Jones Creek - Tributary to Pagan River	ISLE OF WIGHT CO SUFFOLK CITY	South shore trib. to Pagen R., near confluence with James R. Drains the Battery Park & Rescue areas. From headwaters to mouth, including tidal tributaries. Portion of CBP segment JMSMH. Portion of DSS shellfish direct harvesting condemnation # 061- 064 A.

VA Overall AU Category: **5A**

Use	Impairment	0.35 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **01769**

VAT-G11E_KIN01A06	Kings Creek - Upper (Tributary to James River)	ISLE OF WIGHT CO	South shore tributary to James R., upstream of James R. Bridge. North of Ragged Isand area. From end of tidal waters downstream to end of DSS shellfish direct harvesting condemnation # 062-164 B.Portion of CBP segment JMSMH.

VA Overall AU Category: **5A**

Use	Impairment	0.03 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **01769**

VAT-G11E_LAW01A00	Lawnes Creek (Tributary to James River)	ISLE OF WIGHT CO	South shore tributary to James R. near Hog Island WMA. Hog Isl. area, opposite Mulberry Point. From end of tidal waters downstream to mouth. Portion of CBP segment JMSMH. DSS shellfish direct harvesting condemnation # 060-206 A.

VA Overall AU Category: **5A**

Use	Impairment	0.29 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**	01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **01769**

VAT-G11E_MRS01A06	Morrisons Creek - Mulberry Island	NEWPORT NEWS CITY	North shore tributary to James R. on Mulberry Island. Downstream of Mulberry Point. From end of tidal waters downstream to mouth. Portion of CBP segment JMSMH. DSS (OPEN) shellfish direct harvesting condemnation # 058-183 [2004-06-07].

VA Overall AU Category: **5A**

Use	Impairment	0.14 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **01769**

VAT-G11E_PGN01A06	Pagan River - Upstream of Mouth	ISLE OF WIGHT CO	Located in Smithfield area. South shore tributary to James R. From end of tide downstream to narrowing north of Battery Park. Portion of CBP segment JMSMH. DSS shellfish direct harvesting condemnation # 061-064 A.

VA Overall AU Category: **5A**

Use	Impairment	1.00 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO). Previous site specific DO excursion below the previous minimum criteria is recorded (listed impaired in the 2004 IR as TMDL ID: VAT-G11E-05) as well as excursion below the minimum reported in data from the citizens monitoring @ 2PGN-32-ALL.

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**	01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **01769**

VAT-G11E_PGN02A06	Pagan River - Mouth Area	ISLE OF WIGHT CO	Located in Smithfield area. South shore tributary to James R. From narrowing north of Battery Park downstream to mouth. Portion of CBP segment JMSMH. DSS shellfish direct harvesting condemnation # 061-064 A.

VA Overall AU Category: **5A**

Use	Impairment	1.00 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO). Site specific DO excursion below the previous minimum criteria (listed impaired in the 2004 IR as TMDL ID: VAT-G11E-05).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **01769**

VAT-G11E_RIC01A06	Ragged Island Creek	ISLE OF WIGHT CO	North shore tributary to James R. on Mulberry Island. Downstream of Mulberry Point. From end of tidal waters downstream to mouth. Portion of CBP segment JMSMH. DSS (OPEN) shellfish direct harvesting condemnation # 062-080 [effective 2003-07-31].

VA Overall AU Category: **5A**

Use	Impairment	0.29 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO). Site specific DO exceedance below instantaneous minimum SV (4.0 mg/l) recorded (3 excursions / 23 obs.) at Citizen's monitoring station @ 2RIC-RIC-ALL.

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **01769**

VAT-G11E_SFF01A04	Skiffes Creek System	JAMES CITY CO NEWPORT NEWS CITY	Located west of Lee Hall area, flows along the James City Co./ Newport News City boundary. Includes tidal tributaries. Portion of CBP segment JMSMH. DSS shellfish direct harvesting condemnation # 059-023.

VA Overall AU Category: **5A**

Use	Impairment (0.58 SQUARE MILES)	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**	01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).
	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)			
Open-Water Aquatic Life	**Oxygen, Dissolved**	01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).
	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)			

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **01769**

VAT-G11E_TYB01A00	Tylers Beach Boat Basin	ISLE OF WIGHT CO	Located in the Bailey Beach area. Adjacent to the James River. Opposite Mulberry Island. NW corner of Burwell Bay. From end of tidal waters downstream to mouth. Portion of CBP segment JMSMH. DSS shellfish direct harvesting condemnation # 060-206 B.

VA Overall AU Category: **5A**

Use	Impairment	0.00 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **01769**

VAT-G11E_WWK01A06	Warwick River - Tidal Portion	NEWPORT NEWS CITY	Located in Menchville area. Tributary to James R. From end of tidal waters downstream to mouth. Portion of CBP segment JMSMH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 058-034 A.

VA Overall AU Category: **5A**

Use	Impairment	1.32 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **01769**

VAT-G11E_ZZZ01A00	Unsegmented estuaries - Open Shellfish	ISLE OF WIGHT CO SURRY CO	Non-segmented small tributaries in the watershed. Portion of CBP segment JMSMH. DSS (OPEN) shellfish direct harvesting condemnation # 057-069 I.

VA Overall AU Category: **5A**

Use	Impairment	0.43 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **01769**

VAT-G11E_ZZZ02A00	**Unsegmented estuaries - Administrative DSS Condemnations**	NEWPORT NEWS CITY	Non-segmented small tributaries in the watershed. Portion of CBP segment JMSMH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnations # 058-034 A&B & portion 057-007 A&B.

VA Overall AU Category: **5A**

Use	Impairment	0.15 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **01769**

VAT-G13E_BEN01A04	Bennett Creek - Tributary to Nansemond R.	SUFFOLK CITY	Western shore trib. to Nansemond R., near confluence with James R. Drains the Bennett Harbor area. From headwaters to mouth, including tidal tributaries. Portion of CBP segment JMSMH. DSS shellfish direct harvesting condemnation # 063- 046.

VA Overall AU Category: **5A**

Use	Impairment	0.50 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **01769**

VAT-G13E_BHN01A00	Bleakhorn Creek - Tributary to Nansemond R.	SUFFOLK CITY	Western shore trib. to Nansemond R., near confluence with James R. Drains the Eclipse area near Crittenden. From headwaters to mouth, including tidal tributaries. Portion of CBP segment JMSMH. DSS shellfish direct harvesting condemnation # 063- 182.

VA Overall AU Category: **5A**

Use	Impairment	0.04 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**	01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **01769**

VAT-G13E_BML01A06	Burnetts Mill Creek - Tributary to Nansemond R.	SUFFOLK CITY	Eastern shore trib. to Nansemond R., south of the Nansemond area. Drains the Beamon area. From headwaters to mouth. Portion of CBP segment JMSMH. Portion of DSS shellfish direct harvesting condemnation # 063-008.

VA Overall AU Category: **5A**

Use	Impairment	0.03 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **01769**

VAT-G13E_KNC01A00	Knotts Creek - Tributary to Nansemond R.	SUFFOLK CITY	Eastern shore trib. to Nansemond R., near confluence with James R. Drains the Belleville and Huntersville areas. From headwaters to mouth, including tidal tributaries. Portion of CBP segment JMSMH. DSS shellfish direct harvesting condemnation # 063- 077.

VA Overall AU Category: **5A**

Use	Impairment	0.15 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **01769**

VAT-G13E_NAN01A00	Nansemond River - Upper	SUFFOLK CITY	Upper Nansemond River. Extends from most upstream point in river at Lake Meade Dam (RM 19.8) downstream to Rt. 58/460 crossing (RM 15.2). Portion of CBP segment JMSMH. Portion of DSS shellfish condemnation # 063-008.

VA Overall AU Category: **5A**

Use	Impairment	0.26 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO). This segment was previously identified as impaired for dissolved oxygen concentrations below the DEQ allowable minimum criteria (4.0 mg/l) as identified at DEQ (AQM) monitoring station @ 2-NAN019.14 under TMDL ID: VAT-G13E-03.

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**	01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **01769**

VAT-G13E_NAN02A06	Nansemond River - Upper Middle	SUFFOLK CITY	Downstream of Suffolk. From Rt 58/460 (RM 15.1) crossing downstream to confluence with the Western Branch from the Reservoir (RM 11.9). Portion of the CBP segment JMSMH. Portion of DSS shellfish condemnation # 063-008.

VA Overall AU Category: **5A**

Use	Impairment	0.21 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**	01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **01769**

VAT-G13E_NAN03A06	Nansemond River - Lower Middle	SUFFOLK CITY	In area of Western Branch Reservoir. From confluence with Western Br. (RM 11.8) downstream to a line from Sleepy Hole Pt to Lobo on west shore (0.8 mi. downstream Rt 125, RM 7.5). CBP segment JMSMH. Portion of DSS shellfish condemnation # 063-008.

VA Overall AU Category: **5A**

Use	Impairment	1.96 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**	01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **01769**

VAT-G13E_NAN04A00	Nansemond River - Lower	SUFFOLK CITY	Nansemond R nearer mouth. from a line from Sleepy Hole Pt on east shore to Lobo on west (0.8 mi. downstream of Rt 125, RM 7.5) downstream to mouth. CBP segment JMSMH. Portion of DSS (OPEN) shellfish direct harvesting condemnations # 063- 008 & 057-069 F.

VA Overall AU Category: **5A**

Use	Impairment	7.66 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **01769**

VAT-G13E_OYS01A06	Oyster House Creek - Tributary to Nansemond R.	SUFFOLK CITY	Eastern shore trib. to Nansemond R., west of the Bailey town area. Drains the Beamon area. From headwaters to mouth, not including the Star Creek tributary. Portion of CBP segment JMSMH. Portion of DSS shellfish direct harvesting condemnation # 063- 008.

VA Overall AU Category: **5A**

Use	Impairment	0.03 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**	01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **01769**

VAT-G13E_SGL01A00	Shingle Creek - Tributary to Nansemond R.	SUFFOLK CITY	Northeast of Suffolk, near Rt 642. From end of tidal waters (0.2 mi uptream of Portsmouth Blvd downstream to Nansemond R. Headwaters connect to canals (Jericho Ditch) in Dismal Swamp. CBP segment JMSMH. Portion of DSS shellfish condemnation # 063-008.

VA Overall AU Category: **5A**

Use	Impairment	0.04 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**	01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **01769**

VAT-G13E_STR01A04	Star Creek - Tributary to Oyster House Cr.	SUFFOLK CITY	Eastern shore trib. to Oyster House Cr. Adjacent to the Naval Communication station at Driver. From headwaters to mouth. Portion of CBP segment JMSMH. Portion of DSS shellfish direct harvesting condemnation # 063- 008.

VA Overall AU Category: **5A**

Use	Impairment	1.00 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **01769**

VAT-G13E_WBN01A06	Western Branch - Nansemond River	SUFFOLK CITY	Western shore branch off the Nansemond R. South of the Reids Ferry area. Downstream of the Western Branch Reservoir, prior to reaching the Nansemond River. Portion of CBP segment JMSMH. Portion of DSS shellfish direct harvesting condemnation # 063- 008.

VA Overall AU Category: **5A**

Use	Impairment	0.11 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **01769**

VAT-G13E_ZZZ01A00	Unsegmented estuaries - no DSS condemnation in G13E	SUFFOLK CITY	Lower Nansemond River unsegmented tributaries without a DSS condemnation. Portion of CBP segment JMSMH. Portion of CBP segment JMSMH. Portion of DSS (OPEN) shellfish direct harvesting condemnations # 063- 008 & 057-069 F.

VA Overall AU Category: **5A**

Use	Impairment	0.19 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **01769**

VAT-G13E_ZZZ01B06	Unsegmented estuaries with DSS condemnation	SUFFOLK CITY	Upper Nansemond River unsegmented tributaries with a DSS condemnation. Portion of CBP segment JMSMH. Portion of CBP segment JMSMH. Portion of DSS shellfish direct harvesting condemnation # 063-008.

VA Overall AU Category: **5A**

Use	Impairment	0.06 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		01769	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **76088**

VAT-G11E_BAL01A06	Ballard Creek - Upper (Tributary to James River)	ISLE OF WIGHT CO	South shore tributary to James R., upstream of James R. Bridge. North of Ragged Isand area. From end of tidal waters downstream to end of DSS shellfish direct harvesting condemnation # 062- 164 A. Portion of CBP segment JMSMH.

VA Overall AU Category: **5A**

Use	Impairment	0.02 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **76088**

VAT-G11E_CKT01A04	Chuckatuck & Brewers Creeks	ISLE OF WIGHT CO SUFFOLK CITY	South shore trib to James R., confluence upstream of Nansemond R. Drains Chuckatuck and Benns Church areas. From headwaters to mouths, including tribs. Portion of CBP segment JMSMH. DSS shellfish direct harvesting condemnation # 062- 080 B.

VA Overall AU Category: **5A**

Use	Impairment	1.44 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **76088**

VAT-G11E_CYP01A06	Cypress Creek	ISLE OF WIGHT CO	South shore tributary to Pagan R, confluence near Smithfield. From end of tidal waters downstream to mouth. Portion of CBP segment JMSMH. DSS shellfish direct harvesting condemnation # 061-064 A.

VA Overall AU Category: **5A**

Use	Impairment	0.26 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **76088**

VAT-G11E_DEP01A02	Deep Creek - Lower	NEWPORT NEWS CITY	Located in Menchville area. Tributary to Warwick R. to James R. From 0.5 mi. above DEQ station @ RM 0.76 downstream to mouth. Portion of CBP segment JMSMH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 058-034 A.

VA Overall AU Category: **5A**

Use	Impairment	0.10 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **76088**

VAT-G11E_JMS01A06	James River - Hog Point to Blunt Point	ISLE OF WIGHT CO NEWPORT NEWS CITY	Mainstem from Hog Point downstream to a line between Blunt Point (Newport News)/Rescue (Isle of Wight). Portion of CBP segment JMSMH. DSS (OPEN) shellfish direct harvesting condemnation # 057-069 I.

VA Overall AU Category: **5A**

Use	Impairment	48.28 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **76088**

VAT-G11E_JMS01B06	James River - Upstream of Skiffes Creek	ISLE OF WIGHT CO NEWPORT NEWS CITY	Mainstem along north shore upstream of Skiffes Creek. Portion of CBP segment JMSMH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnations # 059-067 A.

VA Overall AU Category: **5A**

Use	Impairment	0.40 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **76088**

VAT-G11E_JMS02A06	James River - Blunt Point to Hilton Village	ISLE OF WIGHT CO NEWPORT NEWS CITY	Mainstem from line between Blunt Point (Newport News)/Rescue (Isle of Wight) downstream to line Hilton Village (Newport News)/Kings Creek (Isle of Wight). Portion of CBP segment JMSMH. DSS (OPEN) shellfish direct harvesting condemnation # 057-069 I.

VA Overall AU Category: **5A**

Use	Impairment	13.65 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**	76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **76088**

VAT-G11E_JMS03A06	James River - Along Lower North Shore	ISLE OF WIGHT CO NEWPORT NEWS CITY	Mainstem along north shore, from Jail Point (Mulberry Isl) downstream to line following Rt. 664. Portion of CBP segment JMSMH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnations # 058-034 A&B & portion 057-007 A&B.

VA Overall AU Category: **5A**

Use	Impairment	3.98 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **76088**

VAT-G11E_JMS03B06	James R.- Hilton Beach Area	NEWPORT NEWS CITY	Mainstem along north shore north shoreline beach in Hilton Village area. Portion of CBP segment JMSMH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnations # 058-034 A.

VA Overall AU Category: **5A**

Use	Impairment	0.11 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **76088**

VAT-G11E_JMS03C06	James R.- Huntington Beach Area	NEWPORT NEWS CITY	Mainstem along the north shore of the James R., adjacent to James R. Bridge. Huntington bathing beach area. Portion of CBP segment JMSMH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnations # 058-034 A.

VA Overall AU Category: **5A**

Use	Impairment	0.01 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **76088**

VAT-G11E_JMS04A06	James River - Hilton Village to Rt. 664 crossing	ISLE OF WIGHT CO NEWPORT NEWS CITY	Mainstem from a line between Hilton Village (Newport News)/Kings Creek (Isle of Wight) downstream to a line following the Rt. 664 crossing. Portion of CBP segment JMSMH. DSS (OPEN) shellfish direct harvesting condemnation # 057-069 I.

VA Overall AU Category: **5A**

Use	Impairment	28.44 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **76088**

VAT-G11E_JMS05A06	James River - Newport News Point to NW Corner Craney Isl.	ISLE OF WIGHT CO NEWPORT NEWS CITY	Mainstem from a line following the Rt. 664 crossing downstream to line between Lincoln Park/NW corner Craney Island. Portion of CBP segment JMSMH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnations # 058-034 A&B & portion 057-007 A&B.

VA Overall AU Category: **5A**

Use	Impairment	3.40 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**	76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **76088**

VAT-G11E_JOG01A04	Jones Creek - Tributary to Pagan River	ISLE OF WIGHT CO SUFFOLK CITY	South shore trib. to Pagen R., near confluence with James R. Drains the Battery Park & Rescue areas. From headwaters to mouth, including tidal tributaries. Portion of CBP segment JMSMH. Portion of DSS shellfish direct harvesting condemnation # 061- 064 A.

VA Overall AU Category: **5A**

Use	Impairment	0.35 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **76088**

VAT-G11E_KIN01A06	Kings Creek - Upper (Tributary to James River)	ISLE OF WIGHT CO	South shore tributary to James R., upstream of James R. Bridge. North of Ragged Isand area. From end of tidal waters downstream to end of DSS shellfish direct harvesting condemnation # 062-164 B.Portion of CBP segment JMSMH.

VA Overall AU Category: **5A**

Use	Impairment	0.03 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **76088**

VAT-G11E_LAW01A00	Lawnes Creek (Tributary to James River)	ISLE OF WIGHT CO	South shore tributary to James R. near Hog Island WMA. Hog Isl. area, opposite Mulberry Point. From end of tidal waters downstream to mouth. Portion of CBP segment JMSMH. DSS shellfish direct harvesting condemnation # 060-206 A.

VA Overall AU Category: **5A**

Use	Impairment	0.29 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **76088**

VAT-G11E_MRS01A06	Morrisons Creek - Mulberry Island	NEWPORT NEWS CITY	North shore tributary to James R. on Mulberry Island. Downstream of Mulberry Point. From end of tidal waters downstream to mouth. Portion of CBP segment JMSMH. DSS (OPEN) shellfish direct harvesting condemnation # 058-183 [2004-06-07].

VA Overall AU Category: **5A**

Use	Impairment	0.14 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **76088**

VAT-G11E_PGN01A06	Pagan River - Upstream of Mouth	ISLE OF WIGHT CO	Located in Smithfield area. South shore tributary to James R. From end of tide downstream to narrowing north of Battery Park. Portion of CBP segment JMSMH. DSS shellfish direct harvesting condemnation # 061-064 A.

VA Overall AU Category: **5A**

Use	Impairment	1.00 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **76088**

VAT-G11E_PGN02A06	Pagan River - Mouth Area	ISLE OF WIGHT CO	Located in Smithfield area. South shore tributary to James R. From narrowing north of Battery Park downstream to mouth. Portion of CBP segment JMSMH. DSS shellfish direct harvesting condemnation # 061-064 A.

VA Overall AU Category: **5A**

Use	Impairment	1.00 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **76088**

VAT-G11E_RIC01A06	Ragged Island Creek	ISLE OF WIGHT CO	North shore tributary to James R. on Mulberry Island. Downstream of Mulberry Point. From end of tidal waters downstream to mouth. Portion of CBP segment JMSMH. DSS (OPEN) shellfish direct harvesting condemnation # 062-080 [effective 2003-07-31].

VA Overall AU Category: **5A**

Use	Impairment	0.29 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **76088**

VAT-G11E_SFF01A04	Skiffes Creek System	JAMES CITY CO NEWPORT NEWS CITY	Located west of Lee Hall area, flows along the James City Co./ Newport News City boundary. Includes tidal tributaries. Portion of CBP segment JMSMH. DSS shellfish direct harvesting condemnation # 059-023.

VA Overall AU Category: **5A**

Use	Impairment	0.58 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **76088**

VAT-G11E_TYB01A00	Tylers Beach Boat Basin	ISLE OF WIGHT CO	Located in the Bailey Beach area. Adjacent to the James River. Opposite Mulberry Island. NW corner of Burwell Bay. From end of tidal waters downstream to mouth. Portion of CBP segment JMSMH. DSS shellfish direct harvesting condemnation # 060-206 B.

VA Overall AU Category: **5A**

Use	Impairment	0.00 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **76088**

VAT-G11E_WWK01A06	Warwick River - Tidal Portion	NEWPORT NEWS CITY	Located in Menchville area. Tributary to James R. From end of tidal waters downstream to mouth. Portion of CBP segment JMSMH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 058-034 A.

VA Overall AU Category: **5A**

Use	Impairment	1.32 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **76088**

VAT-G11E_ZZZ01A00	Unsegmented estuaries - Open Shellfish	ISLE OF WIGHT CO SURRY CO	Non-segmented small tributaries in the watershed. Portion of CBP segment JMSMH. DSS (OPEN) shellfish direct harvesting condemnation # 057-069 I.

VA Overall AU Category: **5A**

Use	Impairment	0.43 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **76088**

VAT-G11E_ZZZ02A00	Unsegmented estuaries - Administrative DSS Condemnations	NEWPORT NEWS CITY	Non-segmented small tributaries in the watershed. Portion of CBP segment JMSMH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnations # 058-034 A&B & portion 057-007 A&B.

VA Overall AU Category: **5A**

Use	Impairment	0.15 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **76088**

VAT-G13E_BEN01A04	Bennett Creek - Tributary to Nansemond R.	SUFFOLK CITY	Western shore trib. to Nansemond R., near confluence with James R. Drains the Bennett Harbor area. From headwaters to mouth, including tidal tributaries. Portion of CBP segment JMSMH. DSS shellfish direct harvesting condemnation # 063- 046.

VA Overall AU Category: **5A**

Use	Impairment	0.50 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **76088**

VAT-G13E_BHN01A00	Bleakhorn Creek - Tributary to Nansemond R.	SUFFOLK CITY	Western shore trib. to Nansemond R., near confluence with James R. Drains the Eclipse area near Crittenden. From headwaters to mouth, including tidal tributaries. Portion of CBP segment JMSMH. DSS shellfish direct harvesting condemnation # 063- 182.

VA Overall AU Category: **5A**

Use	Impairment	0.04 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **76088**

VAT-G13E_BML01A06	Burnetts Mill Creek - Tributary to Nansemond R.	SUFFOLK CITY	Eastern shore trib. to Nansemond R., south of the Nansemond area. Drains the Beamon area. From headwaters to mouth. Portion of CBP segment JMSMH. Portion of DSS shellfish direct harvesting condemnation # 063-008.

VA Overall AU Category: **5A**

Use	Impairment	0.03 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **76088**

VAT-G13E_KNC01A00	Knotts Creek - Tributary to Nansemond R.	SUFFOLK CITY	Eastern shore trib. to Nansemond R., near confluence with James R. Drains the Belleville and Huntersville areas. From headwaters to mouth, including tidal tributaries. Portion of CBP segment JMSMH. DSS shellfish direct harvesting condemnation # 063- 077.

VA Overall AU Category: **5A**

Use	Impairment	0.15 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **76088**

VAT-G13E_NAN01A00	Nansemond River - Upper	SUFFOLK CITY	Upper Nansemond River. Extends from most upstream point in river at Lake Meade Dam (RM 19.8) downstream to Rt. 58/460 crossing (RM 15.2). Portion of CBP segment JMSMH. Portion of DSS shellfish condemnation # 063-008.

VA Overall AU Category: **5A**

Use	Impairment	0.26 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **76088**

VAT-G13E_NAN02A06	Nansemond River - Upper Middle	SUFFOLK CITY	Downstream of Suffolk. From Rt 58/460 (RM 15.1) crossing downstream to confluence with the Western Branch from the Reservoir (RM 11.9). Portion of the CBP segment JMSMH. Portion of DSS shellfish condemnation # 063-008.

VA Overall AU Category: **5A**

Use	Impairment	0.21 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **76088**

VAT-G13E_NAN03A06	Nansemond River - Lower Middle	SUFFOLK CITY	In area of Western Branch Reservoir. From confluence with Western Br. (RM 11.8) downstream to a line from Sleepy Hole Pt to Lobo on west shore (0.8 mi. downstream Rt 125, RM 7.5). CBP segment JMSMH. Portion of DSS shellfish condemnation # 063-008.

VA Overall AU Category: **5A**

Use	Impairment	1.96 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**	76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **76088**

VAT-G13E_NAN04A00	Nansemond River - Lower	SUFFOLK CITY	Nansemond R nearer mouth. from a line from Sleepy Hole Pt on east shore to Lobo on west (0.8 mi. downstream of Rt 125, RM 7.5) downstream to mouth. CBP segment JMSMH. Portion of DSS (OPEN) shellfish direct harvesting condemnations # 063- 008 & 057-069 F.

VA Overall AU Category: **5A**

Use	Impairment	7.66 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **76088**

VAT-G13E_OYS01A06	Oyster House Creek - Tributary to Nansemond R.	SUFFOLK CITY	Eastern shore trib. to Nansemond R., west of the Bailey town area. Drains the Beamon area. From headwaters to mouth, not including the Star Creek tributary. Portion of CBP segment JMSMH. Portion of DSS shellfish direct harvesting condemnation # 063- 008.

VA Overall AU Category: **5A**

Use	Impairment	0.03 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **76088**

VAT-G13E_SGL01A00	Shingle Creek - Tributary to Nansemond R.	SUFFOLK CITY	Northeast of Suffolk, near Rt 642. From end of tidal waters (0.2 mi uptream of Portsmouth Blvd downstream to Nansemond R. Headwaters connect to canals (Jericho Ditch) in Dismal Swamp. CBP segment JMSMH. Portion of DSS shellfish condemnation # 063-008.

VA Overall AU Category: **5A**

Use	Impairment	0.04 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **76088**

VAT-G13E_STR01A04	Star Creek - Tributary to Oyster House Cr.	SUFFOLK CITY	Eastern shore trib. to Oyster House Cr. Adjacent to the Naval Communication station at Driver. From headwaters to mouth. Portion of CBP segment JMSMH. Portion of DSS shellfish direct harvesting condemnation # 063- 008.

VA Overall AU Category: **5A**

Use	Impairment	1.00 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **76088**

VAT-G13E_WBN01A06	Western Branch - Nansemond River	SUFFOLK CITY	Western shore branch off the Nansemond R. South of the Reids Ferry area. Downstream of the Western Branch Reservoir, prior to reaching the Nansemond River. Portion of CBP segment JMSMH. Portion of DSS shellfish direct harvesting condemnation # 063- 008.

VA Overall AU Category: **5A**

Use	Impairment	0.11 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **76088**

VAT-G13E_ZZZ01A00	Unsegmented estuaries - no DSS condemnation in G13E	SUFFOLK CITY	Lower Nansemond River unsegmented tributaries without a DSS condemnation. Portion of CBP segment JMSMH. Portion of CBP segment JMSMH. Portion of DSS (OPEN) shellfish direct harvesting condemnations # 063- 008 & 057-069 F.

VA Overall AU Category: **5A**

Use	Impairment	0.19 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Mesohaline Embayments**

TMDL Group ID: **76088**

VAT-G13E_ZZZ01B06	Unsegmented estuaries with DSS condemnation	SUFFOLK CITY	Upper Nansemond River unsegmented tributaries with a DSS condemnation. Portion of CBP segment JMSMH. Portion of CBP segment JMSMH. Portion of DSS shellfish direct harvesting condemnation # 063-008.

VA Overall AU Category: **5A**

Use	Impairment	0.06 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		76088	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Polyhaline Embayments**

TMDL Group ID: **76085**

VAT-G15E_HAI01A06	Hampton River	HAMPTON CITY	North shore trib to Hampton Roads near the end of Queen St. Portion of CBP segment JMSPH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 057-007 A.

VA Overall AU Category: **5A**

Use	Impairment	0.55 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76085	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		76085	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Polyhaline Embayments**

TMDL Group ID: **76085**

VAT-G15E_HAI02A06	Mill Point Creek - Beach Area	HAMPTON CITY	Located along the Hampton River near the end of Queen St. Portion of CBP segment JMSPH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 057-007 A.

VA Overall AU Category: **5A**

Use	Impairment (0.00 SQUARE MILES)	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**	76085	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**	76085	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Polyhaline Embayments**

TMDL Group ID: **76085**

VAT-G15E_HOF01A06	Hoffler Creek	PORTSMOUTH CITY	Located along the southern shore of Hampton Roads Harbor.Entirety of Hoffler Creek. South shore tributary to James River near Craney Island (at mouth of Elizabeth R). Portion of CBP segment JMSPH. DSS shellfish direct harvesting condemnation # 064-019.

VA Overall AU Category: **5A**

Use	Impairment	0.06 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76085	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		76085	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Polyhaline Embayments**

TMDL Group ID: **76085**

VAT-G15E_JMS01A00	James River at Hampton Roads Harbor	HAMPTON CITY PORTSMOUTH CITY	From a line between Lincoln Park and the NW corner of Craney Isl. downstream to mouth at Hampton Roads Tunnel. Portion of CBP segment JMSPH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 057-007 A.

VA Overall AU Category: **5A**

Use	Impairment	24.33 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76085	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		76085	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Polyhaline Embayments**

TMDL Group ID: **76085**

VAT-G15E_JMS01B06	James River - King/Lincoln Park Beach Area	NEWPORT NEWS CITY	Located along the western shore portion of Hampton Roads Harbor. Portion of CBP segment JMSPH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 057-007 A.

VA Overall AU Category: **5A**

Use	Impairment	0.01 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76085	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		76085	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Polyhaline Embayments**

TMDL Group ID: **76085**

VAT-G15E_JMS01C06	James River - Anderson Park Beach Area	NEWPORT NEWS CITY	Located along the western shore portion of Hampton Roads Harbor. Portion of CBP segment JMSPH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 057-007 A.

VA Overall AU Category: **5A**

Use	Impairment (0.01 SQUARE MILES)	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**	76085	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**	76085	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Polyhaline Embayments**

TMDL Group ID: **76085**

VAT-G15E_SRE01A06	Streeter Creek	PORTSMOUTH CITY	Located along the southern shore of Hampton Roads Harbor. Entirety of Streeter Creek. South shore tributary to James River near Craney Island (at mouth of Elizabeth R). Portion of CBP segment JMSPH. DSS shellfish direct harvesting condemnation # 064-018.

VA Overall AU Category: **5A**

Use	Impairment	0.03 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76085	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**	76085	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Polyhaline Embayments**

TMDL Group ID: **76085**

VAT-G15E_WLY01A06	Willoughby Bay	NORFOLK CITY	Located adjacent to mouth of James River at Hampton Roads, southeast of Hampton Roads Bridge Tunnel. Portion of CBP segment JMSPH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 057-007 A.

VA Overall AU Category: **5A**

Use	Impairment	2.48 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76085	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		76085	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Polyhaline Embayments**

TMDL Group ID: **76085**

VAT-G15E_WLY03A06	Willoughby Bay - Beach Area	NORFOLK CITY	Located along the northern shore portion of Willoughby Bay along Willoughby Spit. Portion of CBP segment JMSPH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 057-007 A.

VA Overall AU Category: **5A**

Use	Impairment	0.15 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76085	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		76085	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River Polyhaline Embayments**

TMDL Group ID: **76085**

VAT-G15E_ZZZ01A00	Unsegmented estuaries in Hampton Roads Harbor	HAMPTON CITY PORTSMOUTH CITY	Non segmented areas of G15 within the Hampton Roads Harbor area. Portion of CBP segment JMSPH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 057-007 A.

VA Overall AU Category: **5A**

Use	Impairment	0.93 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Aquatic Plants (Macrophytes)**		76085	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Shallow-Water Submerged Aquatic Vegetation	**Aquatic Plants (Macrophytes)**		76085	**2006**	**2010**	The Shallow-Water Submerged Aquatic Vegetation Use is impaired based on failure to meet the SAV acreage criteria provided by the CBPO 12/1/2005.

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **James River, Unnamed Tributary**

TMDL Group ID: **01179**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAP-H38R_XVV01A04	**UT to UT (XNH) to James River**	GOOCHLAND CO	Roadside ditch downstream of Four Seasons Laundry lagoon.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	0.42 MILES	01179	**2004**	**2016**	VAP-H38R-05

This segment was assessed not supporting of the Recreation Use based on fecal coliform violations (2/2) in the ditch below the lagoon.

Sources: Industrial Point Source Discharge

TMDL Watershed Name: **Johns Creek, Lower**

TMDL Group ID: **01695**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAW-I21R_JOB01A00	**Johns Creek Lower 1**	CRAIG CO	Johns Creek mainstem from near Lovers Leap upstream of New Castle downstream to its mouth on Craig Creek.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	2.19 MILES	01695	**2004**	**2016**	

Sources: Municipal (Urbanized High Density Area)
Unspecified Domestic Waste
Wastes from Pets
Wildlife Other than Waterfowl

TMDL Watershed Name: **Johnson Creek**

TMDL Group ID: **01138**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAP-G02R_JOD01A04	**Johnson Creek**	CHESTERFIELD CO	Johnson Creek and tribs from its headwaters to tidal limit Segment extended in 2006 to incorporate tribs.

VA Overall AU Category: **5C**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**	14.16 MILES	01138	**2004**	**2016**	VAP-G02R-03

Johnson Creek was assessed as not supporting the Aquatic Life Use goal based on a dissolved oxygen violation rate of 4/22 and a pH violation rate of 10/22 at Route 827 Allied Road (2-JOD001.19).

The segment was extended during 2006 based on monitoring by Chesterfield County.

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

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Johnson Creek**

TMDL Group ID: **01139**

VAP-G02R_JOD01A04	Johnson Creek	CHESTERFIELD CO	Johnson Creek and tribs from its headwaters to tidal limit Segment extended in 2006 to incorporate tribs.

VA Overall AU Category: **5C**

Use	Impairment	14.16 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**pH**		01139	**2004**	**2016**	VAP-G02R-03 Johnson Creek was assessed as not supporting the Aquatic Life Use goal based on a dissolved oxygen violation rate of 4/22 and a pH violation rate of 10/22 at Route 827 Allied Road (2-JOD001.19). The segment was extended during 2006 based on monitoring by Chesterfield County.

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

TMDL Watershed Name: **Jones Creek - Tributary to Pagan River**

TMDL Group ID: **76033**

VAT-G11E_JOG01A04	Jones Creek - Tributary to Pagan River	ISLE OF WIGHT CO SUFFOLK CITY	South shore trib. to Pagen R., near confluence with James R. Drains the Battery Park & Rescue areas. From headwaters to mouth, including tidal tributaries. Portion of CBP segment JMSMH. Portion of DSS shellfish direct harvesting condemnation # 061- 064 A.

VA Overall AU Category: **5A**

Use	Impairment	0.35 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Enterococcus**		76033	**2006**	**2018**	The Recreation Use is impaired (2 violate / 14 obs.) due to exceedance of the instantaneous criteria for Enterococcus bacteria.

Sources: Source Unknown

TMDL Watershed Name: **Jones Creek (Pagan River)**

TMDL Group ID: **00606**

VAT-G11E_JOG01A04	Jones Creek - Tributary to Pagan River	ISLE OF WIGHT CO SUFFOLK CITY	South shore trib. to Pagen R., near confluence with James R. Drains the Battery Park & Rescue areas. From headwaters to mouth, including tidal tributaries. Portion of CBP segment JMSMH. Portion of DSS shellfish direct harvesting condemnation # 061- 064 A.

VA Overall AU Category: **5A**

Use	Impairment	0.35 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**		00606	**2006**	**2016**	The Fish Consumption Use is impaired based on the VDH fish consumption advisory for PCBs issued 12/13/04. This segment was previously identified (2004 IR) as a site-specific impairment for PCBs in fish tissue concentrations under TMDL ID VAT-G11E-07, this previous impairment TMDL due date is carried forward for this AU, rather than base the TMDL due date on the issuance date of the VDH PCB advisory.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Jones Creek (Pagan River)**

TMDL Group ID: **01284**

VAT-G11E_JOG01A04	Jones Creek - Tributary to Pagan River	ISLE OF WIGHT CO SUFFOLK CITY	South shore trib. to Pagen R., near confluence with James R. Drains the Battery Park & Rescue areas. From headwaters to mouth, including tidal tributaries. Portion of CBP segment JMSMH. Portion of DSS shellfish direct harvesting condemnation # 061- 064 A.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Shellfishing	**Fecal Coliform**	0.35 SQUARE MILES	01284	**2006**	**2010**	DSS shellfish direct harvesting condemnation # 061- 064 A.

Sources: Source Unknown

TMDL Watershed Name: **Judith Creek**

TMDL Group ID: **50086**

VAC-H03R_JTH01A06	Judith Creek	BEDFORD CO LYNCHBURG CITY	Judith Creek from its headwaters to the confluence with the James River.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**	10.55 MILES	50086	**2006**	**2018**	

Sources: Source Unknown

TMDL Watershed Name: **King Creek and Ballards Marsh**

TMDL Group ID: **01285**

VAT-G11E_KIN01A06	Kings Creek - Upper (Tributary to James River)	ISLE OF WIGHT CO	South shore tributary to James R., upstream of James R. Bridge. North of Ragged Isand area. From end of tidal waters downstream to end of DSS shellfish direct harvesting condemnation # 062-164 B.Portion of CBP segment JMSMH.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Shellfishing	**Fecal Coliform**	0.03 SQUARE MILES	01285	**2006**	**2010**	DSS shellfish direct harvesting condemnation # 061- 064 A.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Kingsland Creek**

TMDL Group ID: **10027**

VAP-G01R_KSL01A04	Kingsland Creek	CHESTERFIELD CO	Headwaters to mouth

VA Overall AU Category: **5A**

Use	Impairment	8.55 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**pH**		10027	**2006**	**2018**	VAP-G01R-05

During the 2006 cycle, Kingsland Creek was assessed as not supporting the Aquatic Life Use based on a pH violation rate of 2/9 at 2-KSL002.62.

Sources: Source Unknown

TMDL Group ID: **10028**

VAP-G01R_KSL01A04	Kingsland Creek	CHESTERFIELD CO	Headwaters to mouth

VA Overall AU Category: **5A**

Use	Impairment	8.55 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**		10028	**2006**	**2018**	VAP-G01R-05

During the 2006 cycle, Kingsland Creek was assessed as not supporting the Recreation Use based on an E. coli violation rate of 4/9 at 2-KSL002.62.

Sources: Source Unknown

TMDL Watershed Name: **Knotts Creek - Tributary to Nansemond R.**

TMDL Group ID: **76722**

VAT-G13E_KNC01A00	Knotts Creek - Tributary to Nansemond R.	SUFFOLK CITY	Eastern shore trib. to Nansemond R., near confluence with James R. Drains the Belleville and Huntersville areas. From headwaters to mouth, including tidal tributaries. Portion of CBP segment JMSMH. DSS shellfish direct harvesting condemnation # 063- 077.

VA Overall AU Category: **5A**

Use	Impairment	0.15 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Shellfishing	**Fecal Coliform**		76722	**2006**	**2010**	DSS shellfish direct harvesting condemnation # 063- 077.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Lafayette River**

TMDL Group ID: **00614**

VAT-G15E_LAF01A06 **Lafayette River - Upper** NORFOLK CITY

Located east of Craney Isl. From headwaters (approx. RM 7.5) downstream to Rt 337 (Hampton Blvd bridge,RM 1.75). Portion of CBP segment LAFMH. Portion of the DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	1.41 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**		00614	**2006**	**2016**	The Fish Consumption Use is impaired based on the VDH fish consumption advisory for PCBs issued 12/13/04. This segment was previously identified (2004 IR) as a site-specific impairment for PCBs in fish tissue concentrations under TMDL ID: VAT-G15E-05-02, this previous impairment TMDL due date is carried forward for this AU, rather than base the TMDL due date on the issuance date of the VDH PCB advisory. Observed Effects exhibited due to the VDH (issued 1988) caution to limit consumption of fish on a daily basis due to the potential for Kepone fish tissue contamination, reported in historical fish monitoring data with the potential for presence in the sediments of the James River.

Sources: Source Unknown

VAT-G15E_LAF02A06 **Lafayette River - Lower** NORFOLK CITY

Located east of Craney Isl. From Rt. 337 (Hampton Blvd bridge,RM 1.75) downstream to the mouth. Portion of CBP segment LAFMH. Portion of the DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	1.04 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**		00614	**2006**	**2016**	The Fish Consumption Use is impaired based on the VDH fish consumption advisory for PCBs issued 12/13/04. This segment was previously identified (2004 IR) as a site-specific impairment for PCBs in fish tissue concentrations under TMDL ID: VAT-G15E-05-02, this previous impairment TMDL due date is carried forward for this AU, rather than base the TMDL due date on the issuance date of the VDH PCB advisory. Observed Effects exhibited due to the VDH (issued 1988) caution to limit consumption of fish on a daily basis due to the potential for Kepone fish tissue contamination, reported in historical fish monitoring data with the potential for presence in the sediments of the James River.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Lafayette River**

TMDL Group ID: **01524**

VAT-G15E_LAF01A06 **Lafayette River - Upper** NORFOLK CITY

Located east of Craney Isl. From headwaters (approx. RM 7.5) downstream to Rt 337 (Hampton Blvd bridge,RM 1.75). Portion of CBP segment LAFMH. Portion of the DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	1.41 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Estuarine Bioassessments**		01524	**2006**	**2016**	The Aquatic Life Use is impaired based on failure to meet a statistical evaluation constituting an un-impacted benthic organism population per CBP (Benthic-BIBI) analysis (VERSAR-2005). The source/stressor tool yielded an unknown source for the impairment

Sources: Source Unknown

VAT-G15E_LAF02A06 **Lafayette River - Lower** NORFOLK CITY

Located east of Craney Isl. From Rt. 337 (Hampton Blvd bridge,RM 1.75) downstream to the mouth. Portion of CBP segment LAFMH. Portion of the DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	1.04 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Estuarine Bioassessments**		01524	**2006**	**2016**	The Aquatic Life Use is impaired based on failure to meet a statistical evaluation constituting an un-impacted benthic organism population per CBP (Benthic-BIBI) analysis (VERSAR-2005). The source/stressor tool yielded an unknown source for the impairment. This segment was previously included (2004 IR) in TMDL ID: VAT-G15E-05-01. The TMDL due date is carried from the previous 2004 IR impairment identification date.

Sources: Source Unknown

TMDL Group ID: **01526**

VAT-G15E_LAF01A06 **Lafayette River - Upper** NORFOLK CITY

Located east of Craney Isl. From headwaters (approx. RM 7.5) downstream to Rt 337 (Hampton Blvd bridge,RM 1.75). Portion of CBP segment LAFMH. Portion of the DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	1.41 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Enterococcus**		01526	**2006**	**2014**	The Recreation Use is impaired (6 violates / 27 observations) due to exceedance of the instantaneous criteria for Enterococcus bacteria. The previous Fecal Coliform indicator bacteria impairment no longer applies, replaced by Enterococcus criteria impairment since threshold of 12 observations reached, with TMDL ID and due date same as original FC impairment.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Lafayette River**

TMDL Group ID: **01526**

VAT-G15E_LAF02A06	Lafayette River - Lower	NORFOLK CITY	Located east of Craney Isl. From Rt. 337 (Hampton Blvd bridge,RM 1.75) downstream to the mouth. Portion of CBP segment LAFMH. Portion of the DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	1.04 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Enterococcus**		01526	**2006**	**2014**	The Recreation Use is impaired (6 violates / 27 observations) due to exceedance of the instantaneous criteria for Enterococcus bacteria. The previous Fecal Coliform indicator bacteria impairment no longer applies, replaced by Enterococcus criteria impair

Sources: Source Unknown

TMDL Watershed Name: **Lafayette River (Lower)**

TMDL Group ID: **01531**

VAT-G15E_LAF02A06	Lafayette River - Lower	NORFOLK CITY	Located east of Craney Isl. From Rt. 337 (Hampton Blvd bridge,RM 1.75) downstream to the mouth. Portion of CBP segment LAFMH. Portion of the DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	1.04 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Tributylin TBT (Tributylstanne)**		01531	**2004**	**2016**	The Aquatic Life Use is impaired based on failure to meet the DEQ tributyltin (TBT) salt water chronic criteria. This segment was previously included (2004 IR) in TMDL ID: VAT-G15E-05-03. The TMDL due date is carried from the previous 2004 IR impairment identification date.

Sources: Other Shipping Releases (Wastes and Detritus)
Shipbuilding, Repairs, Drydocking

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Lafayette River Mesohaline Embayments**

TMDL Group ID: **76084**

VAT-G15E_LAF01A06	Lafayette River - Upper	NORFOLK CITY	Located east of Craney Isl. From headwaters (approx. RM 7.5) downstream to Rt 337 (Hampton Blvd bridge,RM 1.75). Portion of CBP segment LAFMH. Portion of the DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	1.41 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		76084	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		76084	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Lafayette River Mesohaline Embayments**

TMDL Group ID: **76084**

VAT-G15E_LAF02A06	Lafayette River - Lower	NORFOLK CITY	Located east of Craney Isl. From Rt. 337 (Hampton Blvd bridge,RM 1.75) downstream to the mouth. Portion of CBP segment LAFMH. Portion of the DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment	1.04 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		76084	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

Open-Water Aquatic Life	**Oxygen, Dissolved**		76084	**2006**	**2010**	The Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer (CFD reference conditions using the 2/26/2006 CFD results supplied by CBPO).

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)

TMDL Watershed Name: **Lake Albemarle**

TMDL Group ID: **01659**

VAV-H23L_SIN01A04	Lake Albemarle	ALBEMARLE CO	Lake Albemarle

VA Overall AU Category: **5A**

Use	Impairment	40.00 ACRES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**pH**		01659	**2004**	**2016**	

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Lake Burnt Mills**

TMDL Group ID: **76039**

VAT-G14L_NWB01A06 **Lake Burnt Mills - Upper (PWS)** ISLE OF WIGHT CO NORFOLK CITY

West of Chuckatuck. Upper northwest portion of Western Branch Reservoir system. Upstream of Rt 603. Impounded headwaters tributary of the Nansemond River. Portion of Norfolk water supply reservoirs.

VA Overall AU Category: **5A**

Use	Impairment	451.00 ACRES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		76039	**2006**	**2018**	The Aquatic Life Use is impaired based on dissolved oxygen concentrations below the minimum allowable instantaneous criteria of 4.0 mg/l. Failure to meet the dissolved oxygen concentrations below the minimum allowable instantaneous criteria as recorded at the DEQ (Lake) monitoring stations @ 2-NWB010.54 (22 vioates / 30 observations), 2-NWB009.48 (32 vioates / 42 observations) and at Norfolk (MUN) station @ BM2 (15 vioates / 27 observations). TSI calculation for 2-NWB009.48, (epilimnion) indicates impairment DUE TO anthropogenic sources { Category 5A} and Eutrophic Category = Eutrophic (TSI 60-79).□□□□□□□□□□□□ TSI calculation for 2-NWB010.54, (epilimnion) indicates impairment DUE TO anthropogenic sources { Category 5A} and Eutrophic Category = Mesotrophic (TSI 60-79).□□□□□□□□□□□□□

Sources: Source Unknown

VAT-G14L_NWB04A06 **Western Branch Reservoir - Lower (PWS)** ISLE OF WIGHT CO NORFOLK CITY

West of Chuckatuck. Lower southeast portion of Western Branch Reservoir system. Upstream of Rt 10/32. Impounded headwaters tributary of the Nansemond River. Portion of Norfolk water supply reservoirs.

VA Overall AU Category: **5A**

Use	Impairment	853.00 ACRES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		76039	**2006**	**2018**	The Aquatic Life Use is impaired based on dissolved oxygen concentrations below the minimum allowable instantaneous criteria of 4.0 mg/l. Failure to meet the dissolved oxygen concentrations below the minimum allowable instantaneous criteria as recorded at the DEQ (Lake) monitoring stations @ 2-NWB004.67 (8 vioates / 45 observations) and at Norfolk (MUN) lake monitoring stations @ WB1 (5 vioates / 33 observations) and WB2 (4 vioates / 32 observations) TSI calculation indicates non-stratified conditions.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Lake Chesdin**

TMDL Group ID: **01205**

VAP-J14L_APP01A00	Lake Chesdin	CHESTERFIELD CO DINWIDDIE CO	Extent of backwater for Lake Chesdin

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**	3196.00 ACRES	01205	**2004**	**2016**	VAP-J14L-01 Lake Chesdin was assessed as Cat. 5A for DO violations. The DO violation rates for the monitoring stations on Lake Chesdin were: 10/41 in the epilimnion and 26/26 in the hypolimnion at 2-APP020.23; 7/36 in the epilimnion and 8/10 in the hypolimnion at 2-APP23.27; and 5/28 in the epilimnion at 2-APP026.67. Monitoring for these stations ceased in 2001. Station 2-APP026.67 had observed effects for Total Phosphorus with a standards violation rate of 3/7. Station 2-APP028.59 had observed effects for Total Phosphorus with a violation rate of 3/6. Station 2-APP029.23 (located upstream in J12L) was assessed with the Lake Chesdin stations in J14L.

Sources: Source Unknown

TMDL Watershed Name: **Lake Cohoon (PWS)**

TMDL Group ID: **76037**

VAT-G12L_LCN01A06	Lake Cohoon (PWS)	SUFFOLK CITY	Southeast of Myrtle. West and upstream of Lake Meade, (portion of the headwater impoundment system of the Nansemond River). Portion of Portsmouth PWS system.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**	454.00 ACRES	76037	**2006**	**2018**	The Aquatic Life Use is impaired based on dissolved oxygen concentrations below the DEQ minimum allowable instantaneous criteria (4.0 mg/l). TSI calculation for 2-LCN000.20, (epilimnion) indicates impairment due to anthropogenic sources { Category 5A} and Eutrophic Category = Eutrophic (TSI 60-79).□□□□□□□□□□□□ TSI calculation for 2-LMD004.35, (epilimnion) indicates impairment due to anthropogenic sources { Category 5A} and Eutrophic Category = Eutrophic (TSI 60-79).□□□□□□□□□□□□ TSI calculation for 2-LMD005.55, (epilimnion) indicates impairment due to anthropogenic sources { Category 5A} and Eutrophic Category = Eutrophic (TSI 60-79).

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Lake Kilby (PWS)**

TMDL Group ID: **76036**

VAT-G12L_LKK01A06	Lake Kilby (PWS)	SUFFOLK CITY	Northwest of Suffolk Municipal Airport. South of Pitchkettle Creek. Most southwest branch of Lake Kilby/Pitchkettle Creek/Lake Meade system (headwater impoundments of Nansemond River). Portion of Portsmouth PWS system.

VA Overall AU Category: **5A**

Use	Impairment	200.00 ACRES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		76036	**2006**	**2018**	The Aquatic Life Use is impaired (27 vilolates / 35 observations) based on dissolved oxygen concentrations below the DEQ minimum allowable instantaneous criteria (4.0 mg/l). TSI calculation for 2-LKK000.80, (epilimnion) indicates impairment due to anthropogenic sources { Category 5A} and Eutrophic Category = Eutrophic (TSI 60-79).

Sources: Source Unknown

TMDL Watershed Name: **Lake Meade (PWS)**

TMDL Group ID: **76569**

VAT-G12L_LMD01A06	Lake Meade (PWS)	SUFFOLK CITY	Northwest of City of Suffolk. Headwater impoundments of Nansemond River. Downstream receptor of Lakes Cohoon & Kilby. Portion of Portsmouth PWS system.

VA Overall AU Category: **5A**

Use	Impairment	490.00 ACRES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		76569	**2006**	**2018**	The Aquatic Life Use is impaired based on dissolved oxygen concentrations below the DEQ minimum allowable instantaneous criteria, also exhibits Observed Effects based on exceedance of the DEQ screening values for the nutrient total phosphorus and excessive chlorophyll a. TSI calculation for 2-LMD000.02, (epilimnion) indicates impairment due to anthropogenic sources { Category 5A} and Eutrophic Category = Eutrophic (TSI 60-79).□□□□□□□□□□□□ TSI calculation for 2-LMD000.20, (epilimnion) indicates impairment due to anthropogenic sources { Category 5A} and Eutrophic Category = Eutrophic (TSI 60-79).□□□□□□□□□□□□ TSI calculation for 2-LMD000.41, (epilimnion) indicates impairment due to anthropogenic sources { Category 5A} and Eutrophic Category = Eutrophic (TSI 60-79).□□□□□□□□□□□□ TSI calculation for 2-LMD001.41, (epilimnion) indicates impairment due to anthropogenic sources { Category 5A} and Eutrophic Category = Eutrophic (TSI 60-79).□□□□□□□□□□□□□

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Lake Nottoway (Lee Lake)**

TMDL Group ID: **15019**

VAP-J11L_LDJ01A98	Lake Nottoway (Lee Lake)	NOTTOWAY CO	Extent of backwater for Lake Nottoway (Lee Lake)

VA Overall AU Category: **5A**

Use	Impairment			TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**	188.00	ACRES	15019	**2006**	**2018**	15019 (DO) VAP-J11L-01 The DO violation rate at Lake Nottoway station 2-LDJ000.60 at the dam was 5/21 in the epilimnion and 27/32 in the hypolimnion (when stratified). Lake Nottoway (Lee Lake) will be assessed as Cat. 5A needing TMDL development (impaired partially due to anthropogenic sources) of pollution.)

Sources: Changes in Ordinary Stratification and Bottom Water Hypoxia/Anoxia
Dam or Impoundment
Source Unknown

TMDL Watershed Name: **Laurel Run**

TMDL Group ID: **50081**

VAV-I14R_LAA01A02	Laurel Run	BATH CO	Laurel Run from the headwaters downstream to its confluence with Dry Run.

VA Overall AU Category: **5A**

Use	Impairment			TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**pH**	2.02	MILES	50081	**2006**	**2018**	

Sources: Atmospheric Deposition - Acidity

TMDL Watershed Name: **Lawnes Creek**

TMDL Group ID: **01286**

VAT-G11E_LAW01A00	Lawnes Creek (Tributary to James River)	ISLE OF WIGHT CO	South shore tributary to James R. near Hog Island WMA. Hog Isl. area, opposite Mulberry Point. From end of tidal waters downstream to mouth. Portion of CBP segment JMSMH. DSS shellfish direct harvesting condemnation # 060-206 A.

VA Overall AU Category: **5A**

Use	Impairment			TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Shellfishing	**Fecal Coliform**	0.29	SQUARE MILES	01286	**2006**	**2010**	DSS shellfish direct harvesting condemnation # 061- 064 A.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Lee Hall (City Reservoir-Newport News)**

TMDL Group ID: **01302**

VAT-G11L_LHR02A06 **Lee Hall Reservoir - Middle Portion** NEWPORT NEWS CITY

Southeast of Lee Hall. Between northeast and southwest sections (excludes two sections of system in LHR01A04 & LHR03A06). The section of system located entirely north of Ft. Eustis Blvd (Rt 105) and west of I-64. Newport News PWS component.

VA Overall AU Category: **5A**

Use	Impairment	69.00 ACRES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Copper**		01302	**2004**	**2016**	The Aquatic Life Use is impaired based on exceedance of the DEQ copper (acute) criteria as reported from a USGS 2002 special study, extrapolated from stations in neighboring portions of system @ 0204279210 (4 vioates / 6 observations), 0204279230 (4 vioates / 6 observations) and @ 0204279240 (4 vioates / 6 observations).
		Sources:	Municipal (Urbanized High Density Area) Source Unknown			
Wildlife	**Copper**		01302	**2004**	**2016**	The Aquatic Life (and in conjunction the Wildlife) Use is impaired based on exceedance of the DEQ copper (acute) criteria as reported from a USGS 2002 special study, extrapolated from stations in neighboring portions of system @ 0204279210 (4 vioates / 6 observations), 0204279230 (4 vioates / 6 observations) and @ 0204279240 (4 vioates / 6 observations).
		Sources:	Municipal (Urbanized High Density Area) Source Unknown			

VAT-G11L_LHR03A06 **Lee Hall Reservoir - Northeast Portion** NEWPORT NEWS CITY

Southeast of Lee Hall. Northeast section (excludes two sections of system in LHR01A04 & LHR02A06). The section of system located entirely north of Ft. Eustis Blvd (Rt 105) and east of I-64. Newport News PWS component.

VA Overall AU Category: **5A**

Use	Impairment	155.00 ACRES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Copper**		01302	**2004**	**2016**	The Aquatic Life Use is impaired based on exceedance of the DEQ copper (acute) criteria as reported from a USGS 2002 special study. Exceedance of copper criteria @ 0204279210 (4 vioates / 6 observations).
		Sources:	Municipal (Urbanized High Density Area) Source Unknown			
Wildlife	**Copper**		01302	**2004**	**2016**	The Aquatic Life (and in conjunction the Wildlife) Use is impaired based on exceedance of the DEQ copper (acute) criteria as reported from a USGS 2002 special study. Exceedance of copper criteria @ 0204279210 (4 vioates / 6 observations).
		Sources:	Municipal (Urbanized High Density Area) Source Unknown			

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Lee Hall (City Reservoir-Newport News)**

TMDL Group ID: **01506**

VAT-G11L_LHR01A04	Lee Hall Reservoir - Southwest Portion	NEWPORT NEWS CITY	Located southeast of Lee Hall area. The two southwest sections of the reservoir system located on either side of Ft. Eustis Blvd (Rt 105). Newport News PWS component.

VA Overall AU Category: **5A**

Use	Impairment	66.00 ACRES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01506	**2004**	**2016**	The Aquatic Life Use is impaired based on dissolved oxygen concentrations below the minimum allowable instantaneous criteria of 4.0 mg/l. Failure to meet the dissolved oxygen concentrations below the minimum allowable instantaneous criteria @ 0204279230 (4 vioates / 18 observations) and @ 0204279240 (4 vioates / 15 observations). TSI calculations indicate the station is not stratified.

Sources: Source Unknown

TMDL Group ID: **01507**

VAT-G11L_LHR01A04	Lee Hall Reservoir - Southwest Portion	NEWPORT NEWS CITY	Located southeast of Lee Hall area. The two southwest sections of the reservoir system located on either side of Ft. Eustis Blvd (Rt 105). Newport News PWS component.

VA Overall AU Category: **5A**

Use	Impairment	66.00 ACRES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Copper**		01507	**2004**	**2016**	The Aquatic Life Use is impaired based on exceedance of the DEQ copper (acute) criteria as reported from a USGS 2002 special study. Exceedance of copper criteria @ 0204279230 (4 vioates / 6 observations) and @ 0204279240 (4 vioates / 6 observations).

Sources: Municipal (Urbanized High Density Area)
Source Unknown

Use	Impairment	66.00 ACRES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Wildlife	**Copper**		01507	**2004**	**2016**	The Aquatic Life (and in conjunction the Wildlife since impairment is based on a water column toxics pollutant) Use is impaired based on exceedance of the DEQ copper (acute) criteria as reported from a USGS 2002 special study. Exceedance of copper criteria @ 0204279230 (4 vioates / 6 observations) and @ 0204279240 (4 vioates / 6 observations).

Sources: Municipal (Urbanized High Density Area)
Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Lee Hall Reservoir - Middle Portion**

TMDL Group ID: **76034**

VAT-G11L_LHR02A06	Lee Hall Reservoir - Middle Portion	NEWPORT NEWS CITY	Southeast of Lee Hall. Between northeast and southwest sections (excludes two sections of system in LHR01A04 & LHR03A06). The section of system located entirely north of Ft. Eustis Blvd (Rt 105) and west of I-64. Newport News PWS component.

VA Overall AU Category: **5A**

Use	Impairment	69.00 ACRES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		76034	**2006**	**2018**	The Aquatic Life Use is impaired (station 2-LHR000.96; 4 violates / 35 observations) based on dissolved oxygen concentrations below the DEQ minimum allowable instantaneous criteria (4.0 mg/l). TSI calculations indicate the station is not stratified.

Sources: Source Unknown

TMDL Watershed Name: **Little Calfpasture River**

TMDL Group ID: **00371**

VAV-I32R_LCF01A00	Little Calfpasture River	ROCKBRIDGE CO	Little Calfpasture River from the Lake Merriweather Dam downstream to its confluence with the Calfpasture River.

VA Overall AU Category: **5A**

Use	Impairment	0.83 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Benthic-Macroinvertebrate Bioassessments (Streams)**		00371	**1996**	**2008**	

Sources: Upstream Impoundments (e.g., PI-566 NRCS Structures)

TMDL Group ID: **01678**

VAV-I32R_LCF03A00	Little Calfpasture River	AUGUSTA CO	Little Calfpasture River from the headwaters downstream to its confluence with Smith Creek.

VA Overall AU Category: **5A**

Use	Impairment	10.33 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**		01678	**2004**	**2016**	

Sources: Non-Point Source
Wildlife Other than Waterfowl

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Little Patterson Creek**

TMDL Group ID: **01699**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAW-I22R_LIP01A04	Little Patterson Creek	BOTETOURT CO	Little Patterson Creek from just upstream of the Rt. 684 (Sugar Tree Hollow Rd.) crossing downstream to its confluence with Patterson Creek.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	3.65 MILES	01699	**2004**	**2016**	

Sources: Livestock (Grazing or Feeding Operations)
On-site Treatment Systems (Septic Systems and Similar Decencentralized Systems)
Unspecified Domestic Waste
Wildlife Other than Waterfowl

TMDL Watershed Name: **Little Sayler's Creek**

TMDL Group ID: **50099**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAC-J06R_LIU01A02	Little Sayler's Creek	PRINCE EDWARD CO	Little Sayler's Creek from headwaters to Sayler's Creek

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**	6.62 MILES	50099	**2006**	**2018**	

Sources: Source Unknown

TMDL Watershed Name: **Lonestar Lake G (PWS)**

TMDL Group ID: **76035**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAT-G11L_LSL01G06	Lonestar Lake G (PWS)	SUFFOLK CITY	Upstream impounded portions of Chuckatuck Creek. Pond north and adjacent to Chuckatuck Creek. Water supply system composed of flooded borrow pits. Suffolk PWS component.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**	90.00 ACRES	76035	**2006**	**2018**	The Aquatic Life Use is impaired based on dissolved oxygen concentrations below the minimum allowable instantaneous criteria of 4.0 mg/l. Failure to meet the dissolved oxygen concentrations below the minimum allowable instantaneous criteria as recorded at the DEQ (Lake) monitoring station @ 2-LSL000.04 (15 vioates / 45 observations). TSI calculation for [lake G] 2-LSL000.04, (epilimnion) indicates impairment due to anthropogenic sources { Category 5A} and Eutrophic Category = Eutrophic (TSI 60-79).

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Marrowbone Creek**

TMDL Group ID: **00741**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAC-J03L_MBN01A06	**Sandy River Reservoir - Marrowbone Arm**	PRINCE EDWARD CO	Sandy River Reservoir

VA Overall AU Category:	5A	Impairment	160.57 ACRES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Use							
Aquatic Life		**Oxygen, Dissolved**		00741	**2006**	**2014**	

Sources: Source Unknown

TMDL Watershed Name: **Maury River**

TMDL Group ID: **00618**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAV-I37R_MRY01A00	**Maury River**	ROCKBRIDGE CO	Maury River from its confluence with Buffalo Creek downstream to its confluence with the James River.

VA Overall AU Category:	5A	Impairment	5.77 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Use							
Fish Consumption		**PCB in Fish Tissue**		00618	**2006**	**2016**	Newly listed for PCB's in 2006 due to VDH Fish Consumption Advisory.

Sources: Source Unknown

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAV-I37R_MRY02A00	**Maury River**	BUENA VISTA CITY ROCKBRIDGE CO	Maury River from its confluence with Indian Gap Run downstream to its confluence with Buffalo Creek.

VA Overall AU Category:	5A	Impairment	7.10 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Use							
Fish Consumption		**PCB in Fish Tissue**		00618	**2006**	**2016**	Newly listed for PCB's in 2006 due to VDH Fish Consumption Advisory.

Sources: Source Unknown

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAV-I37R_MRY03A00	**Maury River**	BUENA VISTA CITY ROCKBRIDGE CO	Maury River from its confluence with South River downstream to its confluence with Indian Gap Run.

VA Overall AU Category:	5A	Impairment	4.59 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Use							
Fish Consumption		**PCB in Fish Tissue**		00618	**2004**	**2016**	

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Maury River**

TMDL Group ID: **01683**

VAV-I37R_MRY02A00 **Maury River** BUENA VISTA CITY ROCKBRIDGE CO Maury River from its confluence with Indian Gap Run downstream to its confluence with Buffalo Creek.

VA Overall AU Category: **5A**

Use	Impairment	7.10 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Benthic-Macroinvertebrate Bioassessments (Streams)**		01683	**1998**	**2010**	The Benthic Assessments have always fully supported the Aquatic Life Use. EPA mistakenly allowed this segment to be added to the 1998 Consent Decree when it was fully supporting.

Sources: Source Unknown

TMDL Group ID: **50253**

VAV-I33R_MRY01A00 **Maury River** ROCKBRIDGE CO Maury River from its confluence with Taylor Branch downstream to its confluence with Kerrs Creek.

VA Overall AU Category: **5A**

Use	Impairment	13.61 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**		50253	**2006**	**2018**	Newly listed for bacteria in 2006.

Sources: Non-Point Source
Wildlife Other than Waterfowl

VAV-I33R_MRY02A04 **Maury River** ROCKBRIDGE CO Maury River from its confluence with the Calfpasture River/Cowpasture River downstream to its confluence with Taylor Branch.

VA Overall AU Category: **5A**

Use	Impairment	5.97 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**		50253	**2006**	**2018**	Newly listed for bacteria in 2006.

Sources: Non-Point Source
Wildlife Other than Waterfowl

TMDL Group ID: **50256**

VAV-I37R_MRY03A00 **Maury River** BUENA VISTA CITY ROCKBRIDGE CO Maury River from its confluence with South River downstream to its confluence with Indian Gap Run.

VA Overall AU Category: **5A**

Use	Impairment	4.59 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**		50256	**2006**	**2018**	Newly listed for bacteria in 2006.

Sources: Municipal (Urbanized High Density Area)
Non-Point Source
Wildlife Other than Waterfowl

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Meadow Creek**

TMDL Group ID: **01667**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAV-H28R_MWC01A00	**Meadow Creek**	ALBEMARLE CO CHARLOTTESVILLE CITY	Meadow Creek from where it becomes a perennial stream downstream to its confluence with the Rivanna River.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	4.01 MILES	01667	**2002**	**2014**	

Sources: Municipal (Urbanized High Density Area)
Non-Point Source
Wildlife Other than Waterfowl

TMDL Group ID: **40007**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAV-H28R_MWC01A00	**Meadow Creek**	ALBEMARLE CO CHARLOTTESVILLE CITY	Meadow Creek from where it becomes a perennial stream downstream to its confluence with the Rivanna River.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Benthic-Macroinvertebrate Bioassessments (Streams)**	4.01 MILES	40007	**2006**	**2018**	Newly listed for benthics in 2006.

Sources: Non-Point Source

TMDL Watershed Name: **Meadow Creek Lower**

TMDL Group ID: **50035**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAW-I20R_MEO01A00	**Meadow Creek Lower**	CRAIG CO	Meadow Creek mainstem from its mouth on Craig Creek upstream just above the Rt. 42 crossing.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Temperature, water**	2.53 MILES	50035	**2006**	**2018**	Category 5C

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Meadow Creek, Lower**

TMDL Group ID: **01694**

VAW-I20R_MEO01A00 **Meadow Creek Lower** CRAIG CO Meadow Creek mainstem from its mouth on Craig Creek upstream just above the Rt. 42 crossing.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**		01694	**2004**	**2016**	

Sources: Livestock (Grazing or Feeding Operations)
On-site Treatment Systems (Septic Systems and Similar Decencentralized Systems)
Unspecified Domestic Waste
Wildlife Other than Waterfowl

TMDL Watershed Name: **Mechums River**

TMDL Group ID: **50245**

VAV-H23R_MCM01A00 **Mechums River** ALBEMARLE CO Mechums River from its confluence with Lickinghole Creek downstream to its confluence with the Moormans River.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**		50245	**2006**	**2018**	Newly listed for bacteria in 2006.

Sources: Non-Point Source
Wildlife Other than Waterfowl

TMDL Group ID: **50316**

VAV-H23R_MCM02A00 **Mechums River** ALBEMARLE CO NELSON CO Mechums River from the headwaters downstream to its confluence with Lickinghole Creek.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Benthic-Macroinvertebrate Bioassessments (Streams)**		50316	**2004**	**2016**	

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Mill Creek**

TMDL Group ID: **00345**

VAT-G10E_MIC01A00	Mill Creek	JAMES CITY CO	North of Jamestown Island area, tributary to the Thorofare embayment. From end of tidal waters downstream to the mouth. Portion of CBP segment JMSOH.Portion of DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 060-069 B.

VA Overall AU Category: **5A**

Use	Impairment	0.08 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Enterococcus**		00345	**2006**	**2010**	The Recreation Use is impaired (9 violate / 14 obs.) due to exceedance of the instantaneous criteria for Enterococcus bacteria. The previous Fecal Coliform indicator bacteria impairment (VAT-G10E-03) no longer applies, replaced by Enterococcus criteria impairment since threshold of 12 observations reached, with TMDL ID and due date same as original FC impairment.

Sources: Source Unknown

TMDL Group ID: **01166**

VAP-G08R_MCR01A04	Mill Creek	JAMES CITY CO	Headwaters to tidal limit

VA Overall AU Category: **5C**

Use	Impairment	5.29 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01166	**2004**	**2016**	VAP-G08R-02 Mill Creek was initially assessed as not supporting of the Aquatic Life use support (ALUS) goal in 2004 based on pH and DO violations at the Route 603 bridge (2-MCR002.38). During the 2006 cycle, the segment remained impaired for DO with a violation rate of 3/21.

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

TMDL Group ID: **01168**

VAP-G08R_MCR01A04	Mill Creek	JAMES CITY CO	Headwaters to tidal limit

VA Overall AU Category: **5C**

Use	Impairment	5.29 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**		01168	**2004**	**2016**	VAP-G08R-02 Mill Creek was assessed not supporting of the Recreation use support goal based on a fecal coliform violation rate of 3/13 recorded at 2-MCR002.38.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Mill Creek**

TMDL Group ID: **50252**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAV-I30R_MIT01A02	Mill Creek	BATH CO ROCKBRIDGE CO	Mill Creek from the headwaters downstream to its confluence with the Calfpasture River.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	20.92 MILES	50252	**2006**	**2018**	Newly listed for bacteria in 2006.

Sources: Non-Point Source
Wildlife Other than Waterfowl

TMDL Group ID: **50255**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAV-I35R_MIS01A00	Mill Creek	ROCKBRIDGE CO	Mill Creek from the headwaters downstream to its confluence with the Maury River.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	8.60 MILES	50255	**2006**	**2018**	Newly listed for bacteria in 2006.

Sources: Non-Point Source
Wildlife Other than Waterfowl

TMDL Watershed Name: **Mill Creek, Lower**

TMDL Group ID: **01692**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAW-I18R_MIV01A00	Mill Creek Lower	BOTETOURT CO	Mill Creek mainstem from its mouth on the James River on upstream of the Rebecca Furnace community and downstream of the Allen Creek mouth.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	4.93 MILES	01692	**2004**	**2016**	

Sources: Livestock (Grazing or Feeding Operations)
On-site Treatment Systems (Septic Systems and Similar Decencentralized Systems)
Unspecified Domestic Waste
Wildlife Other than Waterfowl

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Mill Creek, Lower**

TMDL Group ID: **01700**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAW-I22R_MIU01A02	**Mill Creek Lower**	CRAIG CO	Mill Creek mainstem from its confluence on Craig Creek upstream 2.1 miles.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Benthic-Macroinvertebrate Bioassessments (Streams)**	2.04 MILES	01700	**2004**	**2016**	

Sources: Impacts from Abandoned Mine Lands (Inactive)
Mine Tailings

TMDL Watershed Name: **Mill Creek, Upper**

TMDL Group ID: **01701**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAW-I22R_MIU02A02	**Mill Creek Upper**	CRAIG CO	Mill Creek mainstem from 2.1 miles upstream of its mouth on Craig Creek upstream to its headwaters.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Benthic-Macroinvertebrate Bioassessments (Streams)**	3.96 MILES	01701	**2004**	**2016**	

Sources: Impacts from Abandoned Mine Lands (Inactive)
Mine Tailings

TMDL Watershed Name: **Moffatts Creek**

TMDL Group ID: **50044**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAV-I34R_MOF01A00	**Moffatts Creek**	AUGUSTA CO ROCKBRIDGE CO	Moffatts Creek from the headwaters downstream to its confluence with Hays Creek.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Temperature, water**	7.65 MILES	50044	**2006**	**2018**	Newly listed for temperature in 2006.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Montebello Spring Branch**

TMDL Group ID: **00089**

VAV-H09R_MSB01A00	**Montebello Spring Branch**	NELSON CO	Montebello Spring Branch from the spring downstream to its confluence with Mill Creek.

VA Overall AU Category: **5D**

Use	Impairment	0.02 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Benthic-Macroinvertebrate Bioassessments (Streams)**		00089	**1998**	**2002**	Federal TMDL ID # 20746

Sources: Aquaculture (Permitted)

TMDL Group ID: **01650**

VAV-H09R_MSB01A00	**Montebello Spring Branch**	NELSON CO	Montebello Spring Branch from the spring downstream to its confluence with Mill Creek.

VA Overall AU Category: **5D**

Use	Impairment	0.02 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**pH**		01650	**2004**	**2016**	

Sources: Source Unknown

TMDL Watershed Name: **Moores Creek**

TMDL Group ID: **40009**

VAV-I36R_MRC01A00	**Moores Creek**	ROCKBRIDGE CO	Moores Creek and tributaries from the headwaters downstream to its confluence with the South River.

VA Overall AU Category: **5A**

Use	Impairment	8.42 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Benthic-Macroinvertebrate Bioassessments (Streams)**		40009	**2006**	**2018**	Newly listed for benthics in 2006.

Sources: Non-Point Source
Wildlife Other than Waterfowl

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Moores Creek, X-Tributary**

TMDL Group ID: **40006**

VAV-H28R_XRC01A04	Moores Creek X-Trib	CHARLOTTESVILLE CITY	Moores Creek X-trib from the headwaters downstream to its confluence with Moores Creek.

VA Overall AU Category: **5A**

Use	Impairment	1.57 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Benthic-Macroinvertebrate Bioassessments (Streams)**		40006	**2006**	**2018**	Newly listed for benthics in 2006.

Sources: Non-Point Source

TMDL Watershed Name: **Moormans River North Fork**

TMDL Group ID: **01665**

VAV-H24R_MNF01A00	Moormans River North Fork	ALBEMARLE CO	North Fork Moormans River and tributaries from the headwaters downstream to the Charlottesville Reservoir.

VA Overall AU Category: **5A**

Use	Impairment	11.04 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01665	**2004**	**2016**	

Sources: Source Unknown

TMDL Watershed Name: **Morris Creek**

TMDL Group ID: **00341**

VAP-G08R_MOC01A98	Morris Creek	CHARLES CITY CO	Morris Creek from its headwaters to the fall line at river mile 6.

VA Overall AU Category: **5A**

Use	Impairment	7.72 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**		00341	**2002**	**2014**	VAP-G08R-01

Morris Creek was assessed in 2004 as not supporting of the Recreation use support goal based on a fecal coliform violation rate of 3/20 recorded at 2-MOC005.97. The segment was listed as threatened in 1998, and then downgraded to impaired during the 2002 cycle, therefore the TMDL is due in 2014. There has been no additional monitoring at this station since 2001, therefore the segment remains impaired although there are no fecal coliform violations during the assessment window. Further monitoring is recommended.

Sources: Source Unknown

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Morris Creek**

TMDL Group ID: **00342**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAP-G08R_MOC01A98	Morris Creek	CHARLES CITY CO	Morris Creek from its headwaters to the fall line at river mile 6.

VA Overall AU Category: **5A**

Use	Impairment	7.72 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		00342	**1998**	**2010**	VAP-G08R-01

Morris Creek was assessed as not supporting of the Aquatic Life use support (ALUS) goal based on water quality monitoring performed at the Route 623 bridge (2-MOC005.97). Relative to the ALUS assessment, there were 3 violations of the DO standard, and 4 violations of the pH standard, recorded in 10 samples collected during the 2006 cycle. The segment was initially listed in 1998, therefore the DO and pH TMDLs are due in 2010.

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

TMDL Group ID: **00343**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAP-G08R_MOC01A98	Morris Creek	CHARLES CITY CO	Morris Creek from its headwaters to the fall line at river mile 6.

VA Overall AU Category: **5A**

Use	Impairment	7.72 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**pH**		00343	**1998**	**2010**	VAP-G08R-01

Morris Creek was assessed as not supporting of the Aquatic Life use support (ALUS) goal based on water quality monitoring performed at the Route 623 bridge (2-MOC005.97). Relative to the ALUS assessment, there were 3 violations of the DO standard, and 4 violations of the pH standard, recorded in 10 samples collected during the 2006 cycle. The segment was initially listed in 1998, therefore the DO and pH TMDLs are due in 2010.

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

TMDL Watershed Name: **Muddy Creek**

TMDL Group ID: **10014**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAP-H33R_MUY01B00	Muddy Creek	CUMBERLAND CO POWHATAN CO	Muddy Creek from the confluence of Davis Creek downstream to the mouth at the James River.

VA Overall AU Category: **5A**

Use	Impairment	3.67 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**		10014	**2006**	**2018**	VAP-H33R-04

Muddy Creek was assessed as not supporting of the Recreation Use goals in the 2006 cycle based on a fecal coliform violation rate of 2/12 at the Route 684 bridge (2-MUY001.23).

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Nansemond River**

TMDL Group ID: **76038**

VAT-G13E_NAN01A00 — **Nansemond River - Upper** — SUFFOLK CITY

Upper Nansemond River. Extends from most upstream point in river at Lake Meade Dam (RM 19.8) downstream to Rt. 58/460 crossing (RM 15.2). Portion of CBP segment JMSMH. Portion of DSS shellfish condemnation # 063-008.

VA Overall AU Category: **5A**

Use	Impairment	0.26 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Estuarine Bioassessments**		76038	**2006**	**2018**	The Aquatic Life Use is impaired based on failure to meet a statistical evaluation constituting an un-impacted benthic organism population per CBP (Benthic-BIBI) analysis (VERSAR-2005). The source/stressor tool yielded sediment contaminants as the source for the impairment. This segment was not previously identified as impaired for impacted benthic organism population per CBP (Benthic-BIBI) analysis. Listed under TMDL ID: VAT-G13E-08.

Sources: Contaminated Sediments

VAT-G13E_NAN02A06 — **Nansemond River - Upper Middle** — SUFFOLK CITY

Downstream of Suffolk. From Rt 58/460 (RM 15.1) crossing downstream to confluence with the Western Branch from the Reservoir (RM 11.9). Portion of the CBP segment JMSMH. Portion of DSS shellfish condemnation # 063-008.

VA Overall AU Category: **5A**

Use	Impairment	0.21 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Estuarine Bioassessments**		76038	**2006**	**2018**	The Aquatic Life Use is impaired based on failure to meet a statistical evaluation constituting an un-impacted benthic organism population per CBP (Benthic-BIBI) analysis (VERSAR-2005). The source/stressor tool yielded sediment contaminants as the source for the impairment. This segment was not previously identified as impaired for impacted benthic organism population per CBP (Benthic-BIBI) analysis. Listed under TMDL ID: VAT-G13E-08.

Sources: Contaminated Sediments

VAT-G13E_NAN03A06 — **Nansemond River - Lower Middle** — SUFFOLK CITY

In area of Western Branch Reservoir. From confluence with Western Br. (RM 11.8) downstream to a line from Sleepy Hole Pt to Lobo on west shore (0.8 mi. downstream Rt 125, RM 7.5). CBP segment JMSMH. Portion of DSS shellfish condemnation # 063-008.

VA Overall AU Category: **5A**

Use	Impairment	1.96 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Estuarine Bioassessments**		76038	**2006**	**2018**	The Aquatic Life Use is impaired based on failure to meet a statistical evaluation constituting an un-impacted benthic organism population per CBP (Benthic-BIBI) analysis (VERSAR-2005). The source/stressor tool yielded sediment contaminants as the source for the impairment. This segment was not previously identified as impaired for impacted benthic organism population per CBP (Benthic-BIBI) analysis. Listed under TMDL ID: VAT-G13E-08.

Sources: Contaminated Sediments

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Nansemond River**

TMDL Group ID: **76038**

VAT-G13E_NAN04A00	Nansemond River - Lower	SUFFOLK CITY	Nansemond R nearer mouth. from a line from Sleepy Hole Pt on east shore to Lobo on west (0.8 mi. downstream of Rt 125, RM 7.5) downstream to mouth. CBP segment JMSMH. Portion of DSS (OPEN) shellfish direct harvesting condemnations # 063- 008 & 057-069 F.

VA Overall AU Category: **5A**

Use	Impairment	7.66 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Estuarine Bioassessments**		76038	**2006**	**2018**	The Aquatic Life Use is impaired based on failure to meet a statistical evaluation constituting an un-impacted benthic organism population per CBP (Benthic-BIBI) analysis (VERSAR-2005). The source/stressor tool yielded sediment contaminants as the source for the impairment. This segment was not previously identified as impaired for impacted benthic organism population per CBP (Benthic-BIBI) analysis. Listed under TMDL ID: VAT-G13E-08.

Sources: Contaminated Sediments

TMDL Watershed Name: **Nansemond River, Unsegmented Estuaris (no DSS condemnation)**

TMDL Group ID: **76143**

VAT-G13E_ZZZ01A00	Unsegmented estuaries - no DSS condemnation in G13E	SUFFOLK CITY	Lower Nansemond River unsegmented tributaries without a DSS condemnation. Portion of CBP segment JMSMH. Portion of CBP segment JMSMH. Portion of DSS (OPEN) shellfish direct harvesting condemnations # 063- 008 & 057-069 F.

VA Overall AU Category: **5A**

Use	Impairment	0.19 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Shellfishing	**Fecal Coliform**		76143	**2006**	**2010**	Portion of DSS shellfish direct harvesting condemnation # 063- 008.

Sources: Source Unknown

TMDL Watershed Name: **Nansemond River, Upper (Lake Meade)**

TMDL Group ID: **00332**

VAT-G13E_NAN01A00	Nansemond River - Upper	SUFFOLK CITY	Upper Nansemond River. Extends from most upstream point in river at Lake Meade Dam (RM 19.8) downstream to Rt. 58/460 crossing (RM 15.2). Portion of CBP segment JMSMH. Portion of DSS shellfish condemnation # 063-008.

VA Overall AU Category: **5A**

Use	Impairment	0.26 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Enterococcus**		00332	**1994**	**2010**	The Recreation Use is impaired due to exceedance of the instantaneous criteria for Enterococcus bacteria, as recorded at the associated DEQ (AQM) monitoring station @ 2-NAN019.14 (15 violates / 34 observations). The previous Fecal Coliform indicator bacteria impairment (VAT-G13E-03) no longer applies, replaced by Enterococcus criteria impairment since threshold of 12 observations reached, with TMDL ID and due date same as original FC impairment.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Nansemond River, Upper and Middle**

TMDL Group ID: **01295**

VAT-G13E_NAN01A00 — **Nansemond River - Upper** — SUFFOLK CITY

Upper Nansemond River. Extends from most upstream point in river at Lake Meade Dam (RM 19.8) downstream to Rt. 58/460 crossing (RM 15.2). Portion of CBP segment JMSMH. Portion of DSS shellfish condemnation # 063-008.

VA Overall AU Category: **5A**

Use	Impairment	Impairment	0.26 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Shellfishing	**Fecal Coliform**			01295	**1994**	**2010**	Portion of DSS shellfish condemnation # 063-008.

Sources: Source Unknown

VAT-G13E_NAN02A06 — **Nansemond River - Upper Middle** — SUFFOLK CITY

Downstream of Suffolk. From Rt 58/460 (RM 15.1) crossing downstream to confluence with the Western Branch from the Reservoir (RM 11.9). Portion of the CBP segment JMSMH. Portion of DSS shellfish condemnation # 063-008.

VA Overall AU Category: **5A**

Use	Impairment	Impairment	0.21 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Shellfishing	**Fecal Coliform**			01295	**2002**	**2010**	Portion of DSS shellfish condemnation # 063-008.

Sources: Source Unknown

VAT-G13E_NAN03A06 — **Nansemond River - Lower Middle** — SUFFOLK CITY

In area of Western Branch Reservoir. From confluence with Western Br. (RM 11.8) downstream to a line from Sleepy Hole Pt to Lobo on west shore (0.8 mi. downstream Rt 125, RM 7.5). CBP segment JMSMH. Portion of DSS shellfish condemnation # 063-008.

VA Overall AU Category: **5A**

Use	Impairment	Impairment	1.96 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Shellfishing	**Fecal Coliform**			01295	**2002**	**2010**	Portion of DSS shellfish condemnation # 063-008.

Sources: Source Unknown

VAT-G13E_NAN04A00 — **Nansemond River - Lower** — SUFFOLK CITY

Nansemond R nearer mouth. from a line from Sleepy Hole Pt on east shore to Lobo on west (0.8 mi. downstream of Rt 125, RM 7.5) downstream to mouth. CBP segment JMSMH. Portion of DSS (OPEN) shellfish direct harvesting condemnations # 063- 008 & 057-069 F.

VA Overall AU Category: **5A**

Use	Impairment	Impairment	7.66 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Shellfishing	**Fecal Coliform**			01295	**2002**	**2010**	Portion of DSS shellfish condemnation # 063-008.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Nansemond River, Western Branch**

TMDL Group ID: **76142**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAT-G13E_WBN01A06	**Western Branch - Nansemond River**	SUFFOLK CITY	Western shore branch off the Nansemond R. South of the Reids Ferry area. Downstream of the Western Branch Reservoir, prior to reaching the Nansemond River. Portion of CBP segment JMSMH. Portion of DSS shellfish direct harvesting condemnation # 063- 008.

VA Overall AU Category: **5A**

Use	Impairment	0.11 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Shellfishing	**Fecal Coliform**		76142	**2006**	**2010**	Portion of DSS shellfish direct harvesting condemnation # 063- 008.

Sources: Source Unknown

TMDL Watershed Name: **No Name Creek (Unnamed Tributary to the James Rive**

TMDL Group ID: **01130**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAP-G01R_XSZ01A04	**No Name Creek (UT to James River)**	CHESTERFIELD CO	Headwaters to mouth including multiple unnamed tributaries to XSZ

VA Overall AU Category: **5A**

Use	Impairment	1.83 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**		01130	**2004**	**2016**	VAP-G01R-08 The segment was assessed as not supporting the Recreation Use based on the following fecal coliform violation rates: 2/2 at 2-XTC000.08 1/1 at 2-XUH000.01 2/2 at 2-XUI000.01

Sources: Source Unknown

TMDL Watershed Name: **North Creek**

TMDL Group ID: **00731**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAC-H20R_NOR02A02	**North Creek**	FLUVANNA CO	North Creek from first tributary to North Creek to fourth unnamed tributary to North Creek.

VA Overall AU Category: **5A**

Use	Impairment	1.24 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Benthic-Macroinvertebrate Bioassessments (Streams)**		00731	**2002**	**2014**	

Sources: Municipal Point Source Discharges

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **North River**

TMDL Group ID: **00736**

VAC-H21R_NTH01A00	North River	BUCKINGHAM CO	The North River from the confluence with Meadow Creek to the mouth at the Slate River.

VA Overall AU Category: **5A**

Use	Impairment	8.44 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**		00736	**2002**	**2014**	

Sources: Source Unknown

TMDL Watershed Name: **North Run**

TMDL Group ID: **10004**

VAP-G05R_NTR02A06	North Run	HENRICO CO	North Run from its headwaters to Hungary Creek.

VA Overall AU Category: **5A**

Use	Impairment	3.65 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**pH**		10004	**2006**	**2018**	VAP-G05R-09

North Run from its headwaters to the confluence with Hungary Creek was assessed as not supporting the Aquatic Life Use based on a pH violation rate of 2/6 at 2-NTR005.53.

Sources: Source Unknown

TMDL Watershed Name: **Oldtown Creek**

TMDL Group ID: **01206**

VAP-J15R_OTC01A00	Oldtown Creek	CHESTERFIELD CO COLONIAL HEIGHTS CITY	Oldtown Creek from the confluence with Big Branch to the fall line.

VA Overall AU Category: **5A**

Use	Impairment	3.57 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01206	**2004**	**2016**	VAP-J15R-02

In 2004, this segment was listed as not supporting for aquatic life use due to low dissolved oxygen violations at station 2-OTC001.54. The violations are unknown, but considered to be due to natural conditions, therefore the segment was assessed as Cat 5C for the DO impairment.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Oldtown Creek**

TMDL Group ID: **15010**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAP-J15R_OTC01A00	**Oldtown Creek**	CHESTERFIELD CO COLONIAL HEIGHTS CITY	Oldtown Creek from the confluence with Big Branch to the fall line.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	3.57 MILES	15010	**2006**	**2018**	15010 (FC) VAP-J15R-02 In 2006, the segment was assessed as not supporting for recreation use due to a fecal coliform violation rate of 2/12 at station 2-OTC001.54.

Sources: Source Unknown

TMDL Watershed Name: **Opposum Creek**

TMDL Group ID: **00767**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAC-H05R_OPP01A00	**Opposum Creek**	CAMPBELL CO	Opossum Creek mainstem from its mouth on the James River upstream to the Rt. 660 crossing.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	2.86 MILES	00767	**2004**	**2016**	

Sources: Source Unknown

TMDL Watershed Name: **Otts Creek**

TMDL Group ID: **40114**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAV-I34R_OTS01A00	**Otts Creek**	AUGUSTA CO ROCKBRIDGE CO	Otts Creek from its confluence with an unnamed tributary at the Route 726 bridge crossing downstream to its confluence with Moffatts Creek.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**	5.13 MILES	40114	**2006**	**2018**	

Sources: Non-Point Source
Wildlife Other than Waterfowl

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Oyster House Creek - Tributary to Nansemond R.**

TMDL Group ID: **76140**

VAT-G13E_OYS01A06	Oyster House Creek - Tributary to Nansemond R.	SUFFOLK CITY	Eastern shore trib. to Nansemond R., west of the Bailey town area. Drains the Beamon area. From headwaters to mouth, not including the Star Creek tributary. Portion of CBP segment JMSMH. Portion of DSS shellfish direct harvesting condemnation # 063- 008.

VA Overall AU Category: **5A**

Use	Impairment	0.03 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Shellfishing	**Fecal Coliform**		76140	**2006**	**2010**	Portion of DSS shellfish direct harvesting condemnation # 063- 008.

Sources: Source Unknown

TMDL Watershed Name: **Pagan River**

TMDL Group ID: **00348**

VAT-G11E_PGN01A06	Pagan River - Upstream of Mouth	ISLE OF WIGHT CO	Located in Smithfield area. South shore tributary to James R. From end of tide downstream to narrowing north of Battery Park. Portion of CBP segment JMSMH. DSS shellfish direct harvesting condemnation # 061-064 A.

VA Overall AU Category: **5A**

Use	Impairment	1.00 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Enterococcus**		00348	**2006**	**2010**	The Recreation Use is impaired at all of the associated monitoring stations due to exceedance of the instantaneous criteria for Enterococcus bacteria. The previous Fecal Coliform indicator bacteria impairment (VAT-G11E-05) no longer applies, replaced by Enterococcus criteria impairment since threshold of 12 observations reached, with TMDL ID and due date same as original FC impairment.

Sources: Source Unknown

TMDL Group ID: **01288**

VAT-G11E_PGN01A06	Pagan River - Upstream of Mouth	ISLE OF WIGHT CO	Located in Smithfield area. South shore tributary to James R. From end of tide downstream to narrowing north of Battery Park. Portion of CBP segment JMSMH. DSS shellfish direct harvesting condemnation # 061-064 A.

VA Overall AU Category: **5A**

Use	Impairment	1.00 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Shellfishing	**Fecal Coliform**		01288	**2006**	**2010**	

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Pagan River, Upper Tidal**

TMDL Group ID: **01289**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAT-G11E_PGN02A06	**Pagan River - Mouth Area**	ISLE OF WIGHT CO	Located in Smithfield area. South shore tributary to James R. From narrowing north of Battery Park downstream to mouth. Portion of CBP segment JMSMH. DSS shellfish direct harvesting condemnation # 061-064 A.

VA Overall AU Category: **5A**

Use	Impairment			TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Shellfishing	**Fecal Coliform**	1.00	SQUARE MILES	01289	**2006**	**2010**	

Sources: Source Unknown

TMDL Watershed Name: **Paradise Creek - Southern Br. Elizabeth R.**

TMDL Group ID: **76040**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAT-G15E_PAR01A06	**Paradise Creek - Southern Br. Elizabeth R.**	CHESAPEAKE CITY PORTSMOUTH CITY	Located south of Norfolk Naval Shipyard. Eastern shore tributary to Southern Branch. Entirety of Creek. Portion of CBP segment SBEMH. DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment			TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Enterococcus**	0.06	SQUARE MILES	76040	**2006**	**2018**	The Recreation Use is impaired due to exceedance of the instantaneous criteria (2-PAR000.12, 5 violates / 15 observations; 2-PAR000.77, 13 violates / 15 observations; 2-PAR001.77, 15 violates / 15 observations) for Enterococcus bacteria.

Sources: Source Unknown

TMDL Watershed Name: **Pedlar Lake**

TMDL Group ID: **00762**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAC-H02L_POL01A02	**Pedlar Lake**	AMHERST CO	Pedlar Reservoir from its impounding structure to its backwaters.

VA Overall AU Category: **5C**

Use	Impairment			TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**pH**	116.98	ACRES	00762	**2004**	**2016**	

Sources: Changes in Ordinary Stratification and Bottom Water Hypoxia/Anoxia

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Pedlar River**

TMDL Group ID: **50083**

VAC-H02R_POL02A00 **Pedlar River** AMHERST CO

Pedlar River mainstem from the Little Cedar Creek mouth upstream to the mouth of an unnamed tributary located just downstream of the Rt. 610 crossing and upstream of the Little Dancing Creek mouth.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**	2.47 MILES	50083	**2006**	**2018**	

Sources: Non-Point Source

VAC-H02R_POL03A02 **Pedlar River** AMHERST CO

Pedlar River mainstem from an unnamed tributary's confluence with the Pedlar River, just downstream of the Rt. 610 crossing upstream to the mouth of Enchanted Creek.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**	7.02 MILES	50083	**2006**	**2018**	

Sources: Non-Point Source

TMDL Watershed Name: **Piney Branch**

TMDL Group ID: **50067**

VAV-I30R_XGR01A06 **Piney Branch** ROCKBRIDGE CO

Piney Branch from the headwaters downstream to its confluence with Guys Run.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**pH**	2.23 MILES	50067	**2006**	**2018**	Newly listed for pH in 2006.

Sources: Atmospheric Deposition - Acidity

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Pitch Kettle Creek - Lake (PWS)**

TMDL Group ID: **76570**

VAT-G12L_PKC01A06	Pitch Kettle Creek - Lake (PWS)	SUFFOLK CITY	Northwest of Suffolk Municipal Airport. North of Lake Kilby and south of Lake Meade. Section between Lake Kilby and Lake Meade (headwater impoundments of Nansemond River). Portion of Portsmouth PWS system.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**	115.00 ACRES	76570	**2006**	**2018**	The Aquatic Life Use is impaired (27 vilolates / 35 observations) based on dissolved oxygen concentrations below the DEQ minimum allowable instantaneous criteria (4.0 mg/l). TSI calculation for 2-LKK000.80, (epilimnion) indicates impairment due to anthropogenic sources { Category 5A} and Eutrophic Category = Eutrophic (TSI 60-79).

Sources: Source Unknown

TMDL Watershed Name: **Pocoshock Creek**

TMDL Group ID: **10003**

VAP-G01R_PSK01A04	Pocoshock Creek	CHESTERFIELD CO RICHMOND CITY	Headwaters to mouth at Falling Creek Reservoir

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	8.33 MILES	10003	**2006**	**2018**	VAP-G01R-10 During the 2006 cycle, the fecal coliform violation rate was 2/12 at 2-PSK000.23. Monitoring ceased in 2001, therefore additional monitoring is recommended.

Sources: Source Unknown

TMDL Watershed Name: **Porters Mill Creek**

TMDL Group ID: **50065**

VAV-I16R_XRI01A02	Porters Mill Creek	BATH CO	Porters Mill Creek and tributary from the headwaters downstream to its confluence with Mill Creek.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**pH**	4.96 MILES	50065	**2006**	**2018**	Newly listed for pH in 2006.

Sources: Atmospheric Deposition - Acidity

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Potts Creek**

TMDL Group ID: **01691**

VAW-I10R_POT02A02 **Potts Creek Lower 2** ALLEGHANY CO Potts Creek mainstem from the mouth of Hamilton Branch upstream to the Alleghany / Craig County Line.

VA Overall AU Category: **5A**

Use	Impairment	3.97 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**pH**		01691	**2004**	**2016**	Category 5C

Sources: Source Unknown

VAW-I10R_POT03A02 **Potts Creek Lower Class V** ALLEGHANY CO Potts Creek from the Alleghany / Craig County Line upstream to the confluence of Paint Bank Branch.

VA Overall AU Category: **5A**

Use	Impairment	5.54 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**pH**		01691	**2004**	**2016**	Category 5C

Sources: Source Unknown

TMDL Group ID: **50262**

VAW-I10R_POT02A02 **Potts Creek Lower 2** ALLEGHANY CO Potts Creek mainstem from the mouth of Hamilton Branch upstream to the Alleghany / Craig County Line.

VA Overall AU Category: **5A**

Use	Impairment	3.97 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**		50262	**2006**	**2018**	

Sources: Livestock (Grazing or Feeding Operations)
On-site Treatment Systems (Septic Systems and Similar Decencentralized Systems)
Unspecified Domestic Waste
Wildlife Other than Waterfowl

VAW-I10R_POT03A02 **Potts Creek Lower Class V** ALLEGHANY CO Potts Creek from the Alleghany / Craig County Line upstream to the confluence of Paint Bank Branch.

VA Overall AU Category: **5A**

Use	Impairment	5.54 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**		50262	**2006**	**2018**	

Sources: Livestock (Grazing or Feeding Operations)
On-site Treatment Systems (Septic Systems and Similar Decencentralized Systems)
Unspecified Domestic Waste
Wildlife Other than Waterfowl

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Potts Creek, Lower**

TMDL Group ID: **50034**

VAW-I10R_POT03A02	Potts Creek Lower Class V	ALLEGHANY CO	Potts Creek from the Alleghany / Craig County Line upstream to the confluence of Paint Bank Branch.

VA Overall AU Category: **5A**

Use	Impairment	5.54 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Temperature, water**		50034	**2006**	**2018**	Category 5C

Sources: Source Unknown

TMDL Watershed Name: **Powell Creek**

TMDL Group ID: **01146**

VAP-G03R_PWL01A04	Powell Creek	PRINCE GEORGE CO	Headwaters to tidal limit

VA Overall AU Category: **5A**

Use	Impairment	6.92 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**		01146	**2004**	**2016**	VAP-G03R-05

Powell Creek was initially assessed as impaired of the Recreation Use in 2004 based on fecal coliform violations at the Route 10 bridge (2-PWL005.73). During the 2006 cycle, the segment remained impaired (2/13).

Sources: Source Unknown

TMDL Watershed Name: **Powhatan Creek**

TMDL Group ID: **00346**

VAT-G10E_POW01A02	Powhatan Creek/Sandy Bay	JAMES CITY CO	West of Jamestown Island, north shore tributary to the James R. From end of tidal waters downstream to the mouth of Sandy Bay. Portion of CBP segment JMSOH.Portion of DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 060-069 B.

VA Overall AU Category: **5A**

Use	Impairment	0.20 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Enterococcus**		00346	**2006**	**2010**	The Recreation Use is impaired (8 violate / 14 obs.) due to exceedance of the instantaneous criteria for Enterococcus bacteria. The previous Fecal Coliform indicator bacteria impairment no longer applies, replaced by Enterococcus criteria impairment since threshold of 12 observations reached, with TMDL due date same as original FC impairment.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Powhatan Creek**

TMDL Group ID: **01496**

VAT-G10R_POW01A00	Powhatan Creek	JAMES CITY CO	West of the Five Forks area. North of Jamestown Island, north shore tributary to the James R. Powhatan Creek from the confluence with Long Hill Swamp and Chisel Run downstream to the beginning of tidal waters.

VA Overall AU Category: **5A**

Use	Impairment	4.85 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**		01496	**2004**	**2016**	The Recreatiion Use is impaired due to exceedance of the criteria for Fecal Coliform bacteria (4 violates / 31 obs.).

Sources: Source Unknown

TMDL Group ID: **01497**

VAT-G10R_POW01A00	Powhatan Creek	JAMES CITY CO	West of the Five Forks area. North of Jamestown Island, north shore tributary to the James R. Powhatan Creek from the confluence with Long Hill Swamp and Chisel Run downstream to the beginning of tidal waters.

VA Overall AU Category: **5A**

Use	Impairment	4.85 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Benthic-Macroinvertebrate Bioassessments (Streams)**		01497	**2004**	**2014**	The Aquatic Life Use is impaired based on impacts to the stream's benthic population as measured by DEQ's Benthic-Macroinvertebrate Bioassessments program at station 2-POW006.77. Benthic data assessment (Spring - 2000 and Fall - 2000) resulted in a moderate impairment rating for this station.

Sources: Source Unknown

TMDL Watershed Name: **Powhite Creek**

TMDL Group ID: **01190**

VAP-H39R_PWT01A98	Powhite Creek	CHESTERFIELD CO RICHMOND CITY	The mainstem of Powhite Creek.

VA Overall AU Category: **5A**

Use	Impairment	8.12 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**		01190	**2002**	**2014**	VAP-H39R-05 Powhite Creek was assessed not supporting of the Recreation use goals based on a fecal coliform standard violation rate of 3/19 at the Route 635 (Forest Hill Avenue) bridge (2-PWT000.57.)

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Preddy Creek**

TMDL Group ID: **50246**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAV-H27R_PRD01A00	**Preddy Creek**	ALBEMARLE CO ORANGE CO	Preddy Creek and tributaries from the headwaters downstream to its confluence with the North Fork Rivanna River.

VA Overall AU Category: **5A**

Use	Impairment	25.96 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**		50246	**2006**	**2018**	Newly listed for bacteria in 2006.

Sources: Non-Point Source
Wildlife Other than Waterfowl

TMDL Watershed Name: **Reedy Creek**

TMDL Group ID: **01191**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAP-H39R_RDD01A00	**Reedy Creek**	RICHMOND CITY	Reedy Creek from its headwaters to the James River.

VA Overall AU Category: **5A**

Use	Impairment	3.68 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**		01191	**2006**	**2014**	VAP-H39R-06 The segment was previously listed as impaired for fecal coliform. During the 2006 cycle, the fecal coliform violation rate at 2-RDD000.19 was acceptable (0/6), however the E. coli violation rate was 2/8. The impairment has been converted to E. coli, but the original TMDL due date was maintained.

Sources: Source Unknown

TMDL Watershed Name: **Rivanna River**

TMDL Group ID: **00370**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAV-H28R_RVN01A00	**Rivanna River**	ALBEMARLE CO CHARLOTTESVILLE CITY	Rivanna River from its confluence with North/South Fork Rivanna downstream to its confluence with Moores Creek.

VA Overall AU Category: **5A**

Use	Impairment	5.28 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Benthic-Macroinvertebrate Bioassessments (Streams)**		00370	**1996**	**2010**	

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Rivanna River**

TMDL Group ID: **00370**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAV-H29R_RVN04A00	**Rivanna River**	ALBEMARLE CO	Rivanna River from its confluence with Moores Creek downstream to its confluence with an unnamed tributary just below the RWSA-Glemore STP.

VA Overall AU Category: **5A**

Use	Impairment	5.88 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Benthic-Macroinvertebrate Bioassessments (Streams)**		00370	**2006**	**2018**	Newly listed for benthics in 2006.

Sources: Source Unknown

TMDL Group ID: **50248**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAV-H28R_RVN01A00	**Rivanna River**	ALBEMARLE CO CHARLOTTESVILLE CITY	Rivanna River from its confluence with North/South Fork Rivanna downstream to its confluence with Moores Creek.

VA Overall AU Category: **5A**

Use	Impairment	5.28 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**		50248	**2006**	**2018**	Newly listed for bacteria in 2006.

Sources: Non-Point Source

TMDL Watershed Name: **Rivanna River, North Fork**

TMDL Group ID: **50247**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAV-H27R_RRN01A00	**Rivanna River North Fork**	ALBEMARLE CO	North Fork Rivanna River from the RWSA NF Rivanna River Public Water Intake downstream to its confluence with the Rivanna River.

VA Overall AU Category: **5A**

Use	Impairment	10.38 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**		50247	**2006**	**2018**	Newly listed for bacteria in 2006.

Sources: Non-Point Source
Wildlife Other than Waterfowl

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Rock Island Creek**

TMDL Group ID: **01657**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAV-H17R_RKI01A00	Rock Island Creek	BUCKINGHAM CO	Rock Island Creek from the headwaters downstream to its confluence with the James River.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	8.84 MILES	01657	**2004**	**2016**	

Sources: Non-Point Source
Wildlife Other than Waterfowl

TMDL Watershed Name: **Rockfish River**

TMDL Group ID: **50244**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAV-H16R_RKF02A00	Rockfish River	NELSON CO	Rockfish River from the headwaters downstream to its confluence with Davis Creek.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**	6.51 MILES	50244	**2006**	**2018**	Newly listed for bacteria in 2006.

Sources: Non-Point Source
Wildlife Other than Waterfowl

TMDL Watershed Name: **Rockfish River South Fork**

TMDL Group ID: **01655**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAV-H15R_RFS01A00	Rockfish River South Fork	NELSON CO	South Fork Rockfish River from the headwaters downstream to its confluence with the Rockfish River.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	11.57 MILES	01655	**2004**	**2016**	

Sources: Non-Point Source
Wildlife Other than Waterfowl

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Rockfish River, North Fork**

TMDL Group ID: **50243**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAV-H15R_RFN01A00	**Rockfish River North Fork**	NELSON CO	North Fork Rockfish River from the headwaters downstream to its confluence with the Rockfish River.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**	7.29 MILES	50243	**2006**	**2018**	Newly listed for bacteria in 2006.

Sources: Non-Point Source
Wildlife Other than Waterfowl

TMDL Watershed Name: **Rocky Ford Creek**

TMDL Group ID: **01198**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAP-J07R_RFD01A00	**Rocky Ford Creek**	POWHATAN CO	Rocky Ford Creek from its headwaters to the confluence with Fighting Creek.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	5.53 MILES	01198	**2004**	**2016**	VAP-J07R-02 Rocky Ford Creek was assessed not supporting of the Recreation use goal based on a fecal coliform violation rate of 6/20 at the Rt. 603 bridge (2-RFD002.58).

Sources: Source Unknown

TMDL Watershed Name: **Rohoic Creek**

TMDL Group ID: **15009**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAP-J15R_RHC01A06	**Rohoic Creek**	DINWIDDIE CO PETERSBURG CITY	Headwaters to mouth at Appomattox River

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**	6.84 MILES	15009	**2006**	**2018**	15009 (FC) VAP-J15R-05 In 2006, this segment of Rohoic Creek was assessed as not supporting for the Recreation Use due to an E. coli violation rate of 2/9 at station 2-RHC000.58.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Roundabout Creek**

TMDL Group ID: **01140**

VAP-G02R_ROT02A00 **Roundabout Creek** HENRICO CO Roundabout Creek from the pond at river mile 2.04 to the James River.

VA Overall AU Category: **5C**

Use	Impairment	2.14 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**pH**		01140	**2004**	**2016**	VAP-G02R-02

Roundabout Creek was initially assessed as not supporting the Aquatic Life Use goal in 2004 based on pH violations at 2-ROT001.15. During the 2006 cycle, the segment remained impaired for pH with a violation rate of 4/28. In addition, the creek was impaired for dissolved oxygen with a violation rate of 3/15. The pH TMDL is due in 2016; the DO TMDL is due in 2018.

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

TMDL Group ID: **10031**

VAP-G02R_ROT02A00 **Roundabout Creek** HENRICO CO Roundabout Creek from the pond at river mile 2.04 to the James River.

VA Overall AU Category: **5C**

Use	Impairment	2.14 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		10031	**2006**	**2018**	VAP-G02R-02

Roundabout Creek was initially assessed as not supporting the Aquatic Life Use goal in 2004 based on pH violations at 2-ROT001.15. During the 2006 cycle, the segment remained impaired for pH with a violation rate of 4/28. In addition, the creek was impaired for dissolved oxygen with a violation rate of 3/15. The pH TMDL is due in 2016; the DO TMDL is due in 2018.

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

TMDL Watershed Name: **Rucker Run**

TMDL Group ID: **01653**

VAV-H13R_RKR01A00 **Rucker Run** NELSON CO Rucker Run from the headwaters downstream to its confluence with the Tye River.

VA Overall AU Category: **5A**

Use	Impairment	18.30 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**		01653	**2004**	**2016**	

Sources: Non-Point Source
Wildlife Other than Waterfowl

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Rumley Marsh**

TMDL Group ID: **01165**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAP-G07R_RUM01A98	**Rumley Marsh**	NEW KENT CO	Rumley Marsh from its headwaters downstream to Old Forge Pond.

VA Overall AU Category: **5C**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**	5.80 MILES	01165	**2002**	**2014**	VAP-G07R-02 Special studies conducted in Rumley Marsh and Jones Run in 1994 identified summertime DO violations in Rumley Marsh at station 2-RUM002.46. The segment was threatened in 1998 and downgraded in 2002. More monitoring needs to be conducted to verify impairment.

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

TMDL Watershed Name: **Rutledge Creek**

TMDL Group ID: **00729**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAC-H12R_RTD01A00	**Rutledge Creek**	AMHERST CO	Rutledge Creek mainstem from the Town of Amherst outfall downstream to its mouth on the Buffalo River.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	3.16 MILES	00729	**2002**	**2014**	

Sources: Source Unknown

TMDL Watershed Name: **Saint Julian Creek**

TMDL Group ID: **00615**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAT-G15E_STJ01A04	**Saint Julian Creek**	CHESAPEAKE CITY	Northwest of Gilmerton Bridge. Eastern shore tributary to Southern Branch. Entirety of Creek. Portion of CBP segment SBEMH. Portion of the DSS (ADMINISTRATIVE) shellfish direct harvesting condemnation # 065-007 E.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**	0.12 SQUARE MILES	00615	**2006**	**2016**	The Fish Consumption Use is impaired based on the VDH fish consumption advisory for PCBs issued 12/13/04. This segment was previously identified (2004 IR) as a site-specific impairment for PCBs in fish tissue concentrations under TMDL ID: VAT-G15E-01-07, this previous impairment TMDL due date is carried forward for this AU, rather than base the TMDL due date on the issuance date of the VDH PCB advisory.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Saint Marys River**

TMDL Group ID: **50068**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAV-I36R_SMR01A00	**Saint Marys River**	AUGUSTA CO	Saint Marys River from a point 1.77 miles above its confluence with Cellar Hollow downstream to its confluence with Cellar Hollow.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**pH**	1.77 MILES	50068	**2006**	**2018**	Newly listed for pH in 2006.

Sources: Atmospheric Deposition - Acidity

TMDL Watershed Name: **Sandy River**

TMDL Group ID: **00169**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAC-J03R_SDY01A00	**Sandy River**	PRINCE EDWARD CO	Sandy River from Sandy River Reservoir Dam to its mouth at Bush River

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	3.25 MILES	00169	**2004**	**2016**	

Sources: Source Unknown

TMDL Watershed Name: **Shingle Creek**

TMDL Group ID: **00351**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAT-G13E_SGL01A00	**Shingle Creek - Tributary to Nansemond R.**	SUFFOLK CITY	Northeast of Suffolk, near Rt 642. From end of tidal waters (0.2 mi uptream of Portsmouth Blvd downstream to Nansemond R. Headwaters connect to canals (Jericho Ditch) in Dismal Swamp. CBP segment JMSMH. Portion of DSS shellfish condemnation # 063-008.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Enterococcus**	0.04 SQUARE MILES	00351	**2006**	**2010**	The Recreation Use is impaired as indicated by the exceedance of the instantaneous criteria for Fecal Coliform bacteria data from 2-SGL001.00 (15 violate / 25 obs.) and from 2-SGL001.50 (5 violate / 7 obs.) as well as due to exceedance of the instantaneous criteria for Enterococcus bacteria from station 2-SGL001.00 (2 violate / 9 obs.) . The previous Fecal Coliform indicator bacteria impairment (VAT-G13E-07) is retained (since the threshold of 12 observations for replacing the Fecal Coliform criteria has not been reached). The Enterococcus bacteria criteria impairment is associated with the previous bacteria impairment TMDL ID and due date.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Shingle Creek**

TMDL Group ID: **01298**

VAT-G13E_SGL01A00	Shingle Creek - Tributary to Nansemond R.	SUFFOLK CITY	Northeast of Suffolk, near Rt 642. From end of tidal waters (0.2 mi uptream of Portsmouth Blvd downstream to Nansemond R. Headwaters connect to canals (Jericho Ditch) in Dismal Swamp. CBP segment JMSMH. Portion of DSS shellfish condemnation # 063-008.

VA Overall AU Category: **5A**

Use	Impairment	0.04 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Shellfishing	**Fecal Coliform**		01298	**2006**	**2010**	Portion of DSS shellfish condmentaion # 063-008.

Sources: Source Unknown

TMDL Group ID: **97100**

VAT-G13E_SGL01A00	Shingle Creek - Tributary to Nansemond R.	SUFFOLK CITY	Northeast of Suffolk, near Rt 642. From end of tidal waters (0.2 mi uptream of Portsmouth Blvd downstream to Nansemond R. Headwaters connect to canals (Jericho Ditch) in Dismal Swamp. CBP segment JMSMH. Portion of DSS shellfish condemnation # 063-008.

VA Overall AU Category: **5A**

Use	Impairment	0.04 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**pH**		97100	**2002**	**2010**	The Aquatic Life Use is impaired based on failure to meet the minimum pH criteria.(4.0 SU) at both stations (2-SGL001.00; 5/39 = 12.8% & 2-SGL001.50, 5/8 = 62.5%).

Sources: Source Unknown

TMDL Watershed Name: **Skiffes Creek**

TMDL Group ID: **00608**

VAT-G11E_SFF01A04	Skiffes Creek System	JAMES CITY CO NEWPORT NEWS CITY	Located west of Lee Hall area, flows along the James City Co./ Newport News City boundary. Includes tidal tributaries. Portion of CBP segment JMSMH. DSS shellfish direct harvesting condemnation # 059-023.

VA Overall AU Category: **5A**

Use	Impairment	0.58 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**		00608	**2006**	**2016**	The Fish Consumption Use is impaired based on the VDH fish consumption advisory for PCBs issued 12/13/04. This segment was previously identified (2004 IR) as a site-specific impairment for PCBs in fish tissue concentrations under TMDL ID VAT-G11E-02, this previous impairment TMDL due date is carried forward for this AU, rather than base the TMDL due date on the issuance date of the VDH PCB advisory.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Skiffes Creek**

TMDL Group ID: **01292**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAT-G11E_SFF01A04	**Skiffes Creek System**	JAMES CITY CO NEWPORT NEWS CITY	Located west of Lee Hall area, flows along the James City Co./ Newport News City boundary. Includes tidal tributaries. Portion of CBP segment JMSMH. DSS shellfish direct harvesting condemnation # 059-023.

VA Overall AU Category: **5A**

Use	Impairment			TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Shellfishing	**Fecal Coliform**	0.58	SQUARE MILES	01292	**2006**	**2010**	DSS shellfish direct harvesting condemnation # 059-023.

Sources: Source Unknown

TMDL Watershed Name: **Slate River**

TMDL Group ID: **00364**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAC-H22R_SLT02A02	**Slate River**	BUCKINGHAM CO	The Slate River from the confluence with Sharps Creek to river mile 3.64.

VA Overall AU Category: **5A**

Use	Impairment			TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	3.84	MILES	00364	**2002**	**2007**	

Sources: Source Unknown

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAC-H22R_SLT03A02	**Slate River**	BUCKINGHAM CO	The Slate River from a point 5 miles upstream of the Fork Union Sanitary District raw water intake to the mouth at the James River.

VA Overall AU Category: **5A**

Use	Impairment			TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	3.27	MILES	00364	**2002**	**2007**	

Sources: Source Unknown

TMDL Group ID: **00737**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAC-H21R_SLT01A00	**Slate River**	BUCKINGHAM CO	The Slate River from the confluence with Frisby Branch downstream to the confluence with Walton Fork.

VA Overall AU Category: **5A**

Use	Impairment			TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	18.03	MILES	00737	**2002**	**2014**	

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Smith Creek Lower**

TMDL Group ID: **01689**

VAW-I09R_SMH01A00	Smith Creek Lower	ALLEGHANY CO	Smith Creek mainstem from its mouth on the Jackson River upstream 1.20 miles; the beginning of the WQS natural trout section.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	1.19 MILES	01689	**2004**	**2016**	

Sources: Municipal (Urbanized High Density Area)
Sanitary Sewer Overflows (Collection System Failures)
Unspecified Domestic Waste
Wastes from Pets
Wildlife Other than Waterfowl

TMDL Watershed Name: **Speights Run - Lake (PWS)**

TMDL Group ID: **76571**

VAT-G12L_SPE01A06	Speights Run - Lake (PWS)	SUFFOLK CITY	Northwest of Suffolk Municipal Airport. Southwest of Lake Kilby. Most southwest branch and upstream of Lake Kilby/Pitchkettle Creek/Lake Meade system (headwater impoundments of Nansemond River). Portion of Portsmouth PWS system.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**	118.00 ACRES	76571	**2006**	**2018**	The Aquatic Life Use is impaired based on dissolved oxygen concentrations below the DEQ minimum allowable instantaneous criteria (4.0 mg/l). TSI calculation for 2-SPE000.17, (epilimnion) indicates impairment due to anthropogenic sources { Category 5A} and Eutrophic Category = Eutrophic (TSI 60-79).□□□□□□□□□□□□□ TSI calculation for 2-SPE001.18, (epilimnion) indicates impairment due to anthropogenic sources { Category 5A} and Eutrophic Category = Eutrophic (TSI 60-79).

Sources: Source Unknown

TMDL Watershed Name: **Spring Creek**

TMDL Group ID: **50095**

VAC-J02R_SPA02A04	Spring Creek	PRINCE EDWARD CO	Spring Creek from Mud Creek to the Buffalo Creek Dam No. 4

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**	2.37 MILES	50095	**2006**	**2018**	

Sources: Non-Point Source

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Star Creek**

TMDL Group ID: **00610**

VAT-G13E_STR01A04	Star Creek - Tributary to Oyster House Cr.	SUFFOLK CITY	Eastern shore trib. to Oyster House Cr. Adjacent to the Naval Communication station at Driver. From headwaters to mouth. Portion of CBP segment JMSMH. Portion of DSS shellfish direct harvesting condemnation # 063- 008.

VA Overall AU Category: **5A**

Use	Impairment	1.00 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Fish Consumption	**PCB in Fish Tissue**		00610	**2006**	**2016**	The Fish Consumption Use is impaired based on the VDH fish consumption advisory for PCBs issued 12/13/04. This segment was previously identified (2004 IR) as a site-specific impairment for PCBs in fish tissue concentrations under TMDL ID VAT-G13E-05, this previous impairment TMDL due date is carried forward for this AU, rather than base the TMDL due date on the issuance date of the VDH PCB advisory.

Sources: Source Unknown

TMDL Watershed Name: **Star Creek - Tributary to Oyster House Cr.**

TMDL Group ID: **76141**

VAT-G13E_STR01A04	Star Creek - Tributary to Oyster House Cr.	SUFFOLK CITY	Eastern shore trib. to Oyster House Cr. Adjacent to the Naval Communication station at Driver. From headwaters to mouth. Portion of CBP segment JMSMH. Portion of DSS shellfish direct harvesting condemnation # 063- 008.

VA Overall AU Category: **5A**

Use	Impairment	1.00 SQUARE MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Shellfishing	**Fecal Coliform**		76141	**2006**	**2010**	Portion of DSS shellfish direct harvesting condemnation # 063- 008.

Sources: Source Unknown

TMDL Watershed Name: **Stegers Creek**

TMDL Group ID: **01175**

VAP-H33R_STG01A00	Stegers Creek	POWHATAN CO	Stegers Creek from its headwaters to confluence of Sallee Creek, including upper and lower Powhatan Lakes.

VA Overall AU Category: **5C**

Use	Impairment	4.58 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01175	**2002**	**2014**	VAP-H33R-03 This segment was assessed as not supporting of the Aquatic Life Use goals in the 2002 cycle based on dissolved oxygen standard exceedances at three special study stations (2-STG002.00, 2-STG000.91, 2-STG000.21). There has been no additional monitoring. The dams for both upper and lower Powhatan Lakes broke during a storm in summer 2004.

Sources: Dam or Impoundment

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Stock Creek**

TMDL Group ID: **50100**

VAC-J06R_SCK01A06	Stock Creek	AMELIA CO	Stock Creek from its headwaters to the mouth at the Appomattox River

VA Overall AU Category: **5A**

Use	Impairment			TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**	8.47	MILES	50100	**2006**	**2018**	

Sources: Source Unknown

TMDL Watershed Name: **Stonehouse Creek Reservoir**

TMDL Group ID: **50071**

VAC-H11L_SHS01A02	Stonehouse Creek Reservoir	AMHERST CO	Stonehouse Creek Reservoir from its impounding structure upstream to its backwaters.

VA Overall AU Category: **5C**

Use	Impairment			TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**pH**	125.00	ACRES	50071	**2006**	**2018**	

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

TMDL Watershed Name: **Stony Run**

TMDL Group ID: **01152**

VAP-G05R_SNF01A02	Stony Run	HANOVER CO	Stony Run from the confluence with Lickinghole Creek downstream to its mouth at the Chickahominy River.

VA Overall AU Category: **5A**

Use	Impairment			TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	0.22	MILES	01152	**2004**	**2016**	VAP-G05R-05 The segment was initially assessed as impaired of the Recreation Use in 2004 because of fecal coliform violations at the Route 656 bridge (2-SNF000.04). During the 2006 cycle, the violation rate was 2/12.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Streeter Creek**

TMDL Group ID: **76044**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAT-G15E_SRE01A06	**Streeter Creek**	PORTSMOUTH CITY	Located along the southern shore of Hampton Roads Harbor. Entirety of Streeter Creek. South shore tributary to James River near Craney Island (at mouth of Elizabeth R). Portion of CBP segment JMSPH. DSS shellfish direct harvesting condemnation # 064-018.

VA Overall AU Category: **5A**

Use	Impairment			TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Shellfishing	**Fecal Coliform**	0.03	SQUARE MILES	76044	**2006**	**2018**	DSS shellfish direct harvesting condemnation # 064-018.

Sources: Source Unknown

TMDL Watershed Name: **Suanee Creek**

TMDL Group ID: **50093**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAC-J01R_SUA01A04	**Suanee Creek**	APPOMATTOX CO	Suanee Creek from its headwaters to the mouth at the Appomattox River.

VA Overall AU Category: **5A**

Use	Impairment			TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**	5.86	MILES	50093	**2006**	**2018**	

Sources: Non-Point Source

TMDL Watershed Name: **Sweet Springs Creek**

TMDL Group ID: **01687**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAW-I06R_SSC01A02	**Sweet Springs Creek**	ALLEGHANY CO	Sweet Springs Creek mainstem from its confluence with Dunlap Creek to its headwaters.

VA Overall AU Category: **5C**

Use	Impairment			TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Temperature, water**	2.69	MILES	01687	**2002**	**2014**	Category 5C. Temperature exceedances are believed naturally occuring.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Swift Creek**

TMDL Group ID: **00046**

VAP-J17R_SFT01B98	Swift Creek	CHESTERFIELD CO	Swift Creek from the Swift Creek Lake dam downstream to the confluence with Licking Creek.

VA Overall AU Category: **5C**

Use	Impairment	7.09 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**		00046	**2006**	**2004**	Cat 4A: E. coli Swift Creek was initially assessed for fecal coliform in 2002. During the 2006 cycle, the bacteria parameter switched to E. coli. During the year 2004 cycle, this segment of Swift Creek had an acceptable fecal coliform violation rate and was recommended for delisting of the Recreation use impairment. In 2006, the E. coli violation rate was 2/12 at 2-SFT019.15. Bacteria TMDL for Swift Creek was included the TMDL for the Appomattox River development report and was approved by EPA 8/30/2004. The segment is now assessed as Cat 4A, however as of the 2006 assessment cycle the EPA TMDLID was not available.
		Sources: Agriculture Municipal Point Source Discharges Non-Point Source				
Recreation	**Fecal Coliform**		00046	**2002**	**2004**	Cat 4A: E. coli Swift Creek was initially assessed for fecal coliform in 2002. During the 2006 cycle, the bacteria parameter switched to E. coli. During the year 2004 cycle, this segment of Swift Creek had an acceptable fecal coliform violation rate and was recommended for delisting of the Recreation use impairment. In 2006, the E. coli violation rate was 2/12 at 2-SFT019.15. Bacteria TMDL for Swift Creek was included the TMDL for the Appomattox River development report and was approved by EPA 8/30/2004. The segment is now assessed as Cat 4A, however as of the 2006 assessment cycle the EPA TMDLID was not available.
		Sources: Agriculture Municipal Point Source Discharges Non-Point Source				

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Swift Creek**

TMDL Group ID: **01306**

VAP-J17R_SFT01B98	Swift Creek	CHESTERFIELD CO	Swift Creek from the Swift Creek Lake dam downstream to the confluence with Licking Creek.

VA Overall AU Category: **5C**

Use	Impairment	7.09 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		01306	**2002**	**2014**	01306 (DO) VAP-J17R-01 In 2006, the DO violation rate was 3/22 at the Rt. 655 bridge. However, it is suspected the low DO violations in this segment of Swift Creek are due to an upstream impoundment, therefore will be assessed as Cat. 5C.

Sources: Dam or Impoundment

TMDL Group ID: **15011**

VAP-J17E_SFT01D04	Swift Creek	CHESTERFIELD CO COLONIAL HEIGHTS CITY	Tidal Swift Creek from the confluence with Timsbury Creek downstream to the mouth at the Appomattox River APPTF.

VA Overall AU Category: **5A**

Use	Impairment	0.09 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**		15011	**2006**	**2018**	15011 (E.coli) VAP-J15E-02 This segment was also assessed as not supporting for the recreation use due to an E. coli violations rate of 3/4 recorded at 2DSFT001.18.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Swift Creek**

TMDL Group ID: **15022**

VAP-J17R_SFT02B00 **Swift Creek** CHESTERFIELD CO Swift Creek from the confluence with Licking Creek downstream to the confluence with Franks Branch.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**	5.09 MILES	15022	**2006**	**2018**	15022 (E.coli) VAP-J17R-04 During the 2006 cycle, an E. coli violation rate of 3/9 was recorded at the Rt. 631 bridge (2-SFT012.84). Bacteria TMDL for the Appomattox River development report was completed and approved by EPA on 8/30/2004. Though allocations were calculated for Swift Creek, this segment was not included in the study. Additional monitoring is recommended to better determine if the bacteria impairment will improve with implementation of TMDL. Therefore this segment will be assessed as Cat. 5A

Sources: Source Unknown

TMDL Watershed Name: **Tanyard Branch**

TMDL Group ID: **50097**

VAC-J05R_TNY01A04 **Tanyard Branch** PRINCE EDWARD CO Tanyard Branch from Route 646 downsteam to its mouth at Briery Creek

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**	0.41 MILES	50097	**2006**	**2018**	

Sources: Source Unknown

TMDL Watershed Name: **Thrashers Creek Reservoir**

TMDL Group ID: **50072**

VAC-H11L_TRH01A02 **Thrashers Creek Reservoir** AMHERST CO Thrashers Creek Reservoir from its impounding structure upstream to its backwaters.

VA Overall AU Category: **5C**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**pH**	109.50 ACRES	50072	**2006**	**2018**	

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

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Tomahawk Creek**

TMDL Group ID: **50087**

VAC-H03R_THK01A06 **Tomahawk Creek** LYNCHBURG CITY Tomahawk Creek from its headwaters to its confluence with Burton Creek.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**		50087	**2006**	**2018**	

Sources: Source Unknown

TMDL Watershed Name: **Totier Creek**

TMDL Group ID: **00367**

VAV-H17R_TOT01A00 **Totier Creek** ALBEMARLE CO Totier Creek from the RWSA-Scottsville Public Water Intake downstream to its confluence with the James River.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	0.78 MILES	00367	**2002**	**2010**	

Sources: Non-Point Source
Wildlife Other than Waterfowl

VAV-H17R_TOT02A00 **Totier Creek** ALBEMARLE CO Totier Creek from the 5 mile upper limit of the PWS designation for the RWSA-Scottsville Public Water Intake downstream to the RWSA-Scottsville Public Water Intake.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	5.13 MILES	00367	**2002**	**2010**	

Sources: Non-Point Source
Wildlife Other than Waterfowl

VAV-H17R_TOT03A00 **Totier Creek** ALBEMARLE CO Totier Creek from the headwaters downstream to the 5 mile upper limit of the PWS designation for the RWSA-Scottsville Public Water Intake.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	5.53 MILES	00367	**2002**	**2010**	

Sources: Non-Point Source
Wildlife Other than Waterfowl

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Totier Creek**

TMDL Group ID: **40005**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAV-H17R_TOT01A00	**Totier Creek**	ALBEMARLE CO	Totier Creek from the RWSA-Scottsville Public Water Intake downstream to its confluence with the James River.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Benthic-Macroinvertebrate Bioassessments (Streams)**	0.78 MILES	40005	**2006**	**2018**	Newly listed for benthics in 2006.

Sources: Source Unknown

TMDL Watershed Name: **Troublesome Creek**

TMDL Group ID: **00738**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAC-H21R_TBM01A00	**Troublesome Creek**	BUCKINGHAM CO	Troublesome Creek from the Troublesome Creek Reservoir dam to the mouth at the Slate River.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	0.95 MILES	00738	**2004**	**2016**	

Sources: Source Unknown

TMDL Watershed Name: **Tuckahoe Creek and Tributaries**

TMDL Group ID: **00054**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAP-H39R_BOD02A06	**Broad Branch**	GOOCHLAND CO	Broad Branch from its headwaters to the dam upstream of Route 623.

VA Overall AU Category: **5D**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	2.56 MILES	00054	**2004**	**2004**	Category 4A VAP-H39R-02 The "Bacteria TMDL for Tuckahoe Creek, Little Tuckahoe Creek, Anderson, Broad, Georges, and Readers Branches, and Deep Run Henrico, Goochland, and Hanover Counties, Virginia" was approved by EPA on 9/20/2004. The report allocates E. coli between nonpoint source and urban runoff. The allocation includes the entire watershed. Bacteria-impaired segments within the watershed should be assessed as Cat. 4A. However, Anderson Branch is considered not assessed for fecal coliform.

Sources: Discharges from Municipal Separate Storm Sewer Systems (MS4)
Industrial Point Source Discharge
Non-Point Source

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Tuckahoe Creek, Unnamed Tributary**

TMDL Group ID: **10043**

VAP-H39R_XUT01A04 **UT to Tuckahoe Creek** GOOCHLAND CO Headwaters to mouth

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**pH**	1.80 MILES	10043	**2006**	**2018**	VAP-H39R-03

During the 2006 cycle, the segment was assessed as impaired of the Aquatic Life use due to a pH violation rate of 2/13 at 2-XUT000.62.

Sources: Source Unknown

TMDL Watershed Name: **Tye River**

TMDL Group ID: **01654**

VAV-H09R_TYE02A00 **Tye River** NELSON CO Tye River from its confluence with Hat Creek downstream to its confluence with Naked Creek.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**	8.33 MILES	01654	**2006**	**2018**	Newly listed for bacteria in 2006.

Sources: Non-Point Source
Wildlife Other than Waterfowl

VAV-H13R_TYE01A00 **Tye River** NELSON CO Tye River from its confluence with the Buffalo River downstream to its confluence with the James River.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	7.60 MILES	01654	**2004**	**2016**	

Sources: Non-Point Source
Wildlife Other than Waterfowl

TMDL Group ID: **50041**

VAV-H09R_TYE04A04 **Tye River** NELSON CO Tye River from its confluence with North & South Fork Tye River downstream to its confluence with Silver Creek.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Temperature, water**	3.77 MILES	50041	**2006**	**2018**	Newly listed for temperature in 2006.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Tye River South Fork**

TMDL Group ID: **50042**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAV-H09R_TYS01A00	**Tye River South Fork**	NELSON CO	South Fork Tye River and tributaries from the headwaters downstream to its confluence with the Tye River.

VA Overall AU Category: **5A**

Use	Impairment			TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Temperature, water**	16.64	MILES	50042	**2006**	**2018**	Newly listed for temperature in 2006.

Sources: Source Unknown

TMDL Watershed Name: **Tylers Beach Boat Basin**

TMDL Group ID: **01293**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAT-G11E_TYB01A00	**Tylers Beach Boat Basin**	ISLE OF WIGHT CO	Located in the Bailey Beach area. Adjacent to the James River. Opposite Mulberry Island. NW corner of Burwell Bay. From end of tidal waters downstream to mouth. Portion of CBP segment JMSMH. DSS shellfish direct harvesting condemnation # 060-206 B.

VA Overall AU Category: **5A**

Use	Impairment			TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Shellfishing	**Fecal Coliform**	0.00	SQUARE MILES	01293	**2006**	**2010**	DSS shellfish direct harvesting condemnation # 060-206 B.

Sources: Source Unknown

TMDL Watershed Name: **Unsegmented estuaries with DSS condemnation**

TMDL Group ID: **76144**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAT-G13E_ZZZ01B06	**Unsegmented estuaries with DSS condemnation**	SUFFOLK CITY	Upper Nansemond River unsegmented tributaries with a DSS condemnation. Portion of CBP segment JMSMH. Portion of CBP segment JMSMH. Portion of DSS shellfish direct harvesting condemnation # 063-008.

VA Overall AU Category: **5A**

Use	Impairment			TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Shellfishing	**Fecal Coliform**	0.06	SQUARE MILES	76144	**2006**	**2010**	Portion of DSS shellfish direct harvesting condemnation # 063- 008.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Upham Brook**

TMDL Group ID: **10038**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAP-G05R_UPM03A06	**Upham Brook**	HENRICO CO	Upham Brook from its headwaters to Shaaf Pond.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**	0.72 MILES	10038	**2006**	**2018**	VAP-G05R-08 The segment was assessed as not supporting the Aquatic Life Use based on a dissolved oxygen violation rate of 2/4 at 2-UPM011.11.

Sources: Source Unknown

TMDL Watershed Name: **Upham Brook Watershed**

TMDL Group ID: **00340**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAP-G05R_NTR01A00	**North Run**	HENRICO CO	North Run from Hungary Creek to its mouth at Upham Brook.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**	3.94 MILES	00340	**2006**	**2010**	VAP-G05R-02 The segment was assessed in 2004 as not supporting of the Swimming Use support goal based on an E.coli violation rate of 4/14 at DEQ's Ambient Monitoring Station 2-UPM003.53, located at the Brook Road (Rt. 1) bridge over Upham Brook, as well as excessive fecal coliform violation rates at the Richmond Regional PDC special study stations. The segment was extended in the year 2002 cycle to include the entire watershed. During the 2006 cycle, the bacteria impairment was converted to E. coli based on widespread violations in the watershed: 1/9 at 3-NTR003.42 4/14 at 2-UPM003.53 1/9 at 2-UPM007.03 4/4 at 2-UPM011.11

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Upham Brook Watershed**

TMDL Group ID: **00340**

VAP-G05R_NTR02A06 **North Run** HENRICO CO North Run from its headwaters to Hungary Creek.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**	3.65 MILES	00340	**2006**	**2010**	VAP-G05R-02

The segment was assessed in 2004 as not supporting of the Swimming Use support goal based on an E.coli violation rate of 4/14 at DEQ's Ambient Monitoring Station 2-UPM003.53, located at the Brook Road (Rt. 1) bridge over Upham Brook, as well as excessive fecal coliform violation rates at the Richmond Regional PDC special study stations.

The segment was extended in the year 2002 cycle to include the entire watershed.

During the 2006 cycle, the bacteria impairment was converted to E. coli based on widespread violations in the watershed:

1/9 at 3-NTR003.42
4/14 at 2-UPM003.53
1/9 at 2-UPM007.03
4/4 at 2-UPM011.11

Sources: Source Unknown

VAP-G05R_UPM01A02 **Upham Brook** HENRICO CO RICHMOND CITY Upham Brook from the dam at Shaaf Pond to the mouth at the Chickahominy River.

Segment extended in 2006 to incorporate VAP-G05R_UPM02A02, which was deleted.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**	10.41 MILES	00340	**2006**	**2010**	VAP-G05R-02

The segment was assessed in 2004 as not supporting of the Swimming Use support goal based on an E.coli violation rate of 4/14 at DEQ's Ambient Monitoring Station 2-UPM003.53, located at the Brook Road (Rt. 1) bridge over Upham Brook, as well as excessive fecal coliform violation rates at the Richmond Regional PDC special study stations.

The segment was extended in the year 2002 cycle to include the entire watershed.

During the 2006 cycle, the bacteria impairment was converted to E. coli based on widespread violations in the watershed:

1/9 at 3-NTR003.42
4/14 at 2-UPM003.53
1/9 at 2-UPM007.03
4/4 at 2-UPM011.11

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Upham Brook Watershed**

TMDL Group ID: **00340**

VAP-G05R_UPM03A06 **Upham Brook** HENRICO CO Upham Brook from its headwaters to Shaaf Pond.

VA Overall AU Category: **5A**

Use	Impairment	0.72 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**		00340	**2006**	**2010**	VAP-G05R-02

The segment was assessed in 2004 as not supporting of the Swimming Use support goal based on an E.coli violation rate of 4/14 at DEQ's Ambient Monitoring Station 2-UPM003.53, located at the Brook Road (Rt. 1) bridge over Upham Brook, as well as excessive fecal coliform violation rates at the Richmond Regional PDC special study stations.

The segment was extended in the year 2002 cycle to include the entire watershed.

During the 2006 cycle, the bacteria impairment was converted to E. coli based on widespread violations in the watershed:

1/9 at 3-NTR003.42
4/14 at 2-UPM003.53
1/9 at 2-UPM007.03
4/4 at 2-UPM011.11

Sources: Non-Point Source

VAP-G05R_ZZZ01B02 **Upham Brook Tributaries** HENRICO CO RICHMOND CITY Upham Brook Watershed

VA Overall AU Category: **5A**

Use	Impairment	29.32 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**		00340	**2006**	**2010**	VAP-G05R-02

The segment was assessed in 2004 as not supporting of the Swimming Use support goal based on an E.coli violation rate of 4/14 at DEQ's Ambient Monitoring Station 2-UPM003.53, located at the Brook Road (Rt. 1) bridge over Upham Brook, as well as excessive fecal coliform violation rates at the Richmond Regional PDC special study stations.

The segment was extended in the year 2002 cycle to include the entire watershed.

During the 2006 cycle, the bacteria impairment was converted to E. coli based on widespread violations in the watershed:

1/9 at 3-NTR003.42
4/14 at 2-UPM003.53
1/9 at 2-UPM007.03
4/4 at 2-UPM011.11

Sources: Non-Point Source

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Vaughan's Creek**

TMDL Group ID: **50094**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAC-J01R_VNS01A02	**Vaughan's Creek**	APPOMATTOX CO PRINCE EDWARD CO	Vaughan's Creek from headwaters to mouth at Appomattox River

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**	6.81 MILES	50094	**2006**	**2018**	

Sources: Non-Point Source

TMDL Watershed Name: **Walker Creek**

TMDL Group ID: **50254**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAV-I34R_WKS01A06	**Walker Creek**	AUGUSTA CO ROCKBRIDGE CO	Walker Creek and headwater tributaries from the headwaters downstream to its confluence with Hays Creek

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**	11.62 MILES	50254	**2006**	**2018**	Newly listed for bacteria in 2006.

Sources: Non-Point Source
Wildlife Other than Waterfowl

TMDL Watershed Name: **Walls Run**

TMDL Group ID: **10034**

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description
VAP-G03R_WRL01A06	**Walls Run**	PRINCE GEORGE CO	Headwaters to mouth at Powells Creek

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**	5.29 MILES	10034	**2006**	**2018**	VAP-G03R-07 Walls Run was assessed as not supporting the Recreation Use based on an E. coli violation rate of 2/9 at 2-WRL000.42.

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Wards Creek**

TMDL Group ID: **10035**

VAP-G04R_WRD01A00	Wards Creek	PRINCE GEORGE CO	Wards Creek from its headwaters to the tidal limit Segment shortened in 2006 to reflect tidal influence.

VA Overall AU Category: **5A**

Use	Impairment	7.67 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**		10035	**2006**	**2018**	VAP-G04R-01 Wards Creek was assessed as not supporting of the Recreation use support goal based on an E. coli violation rate of 2/9 at monitoring station 2-WRD005.40. The fecal coliform rate was acceptable.

Sources: Source Unknown

TMDL Watershed Name: **West Run**

TMDL Group ID: **01147**

VAP-G03R_WER03A00	West Run	CHARLES CITY CO	West Run from the confluence with East Run downstream to the upstream limits of Harrison Lake. Length corrected in 2006 cycle.

VA Overall AU Category: **5C**

Use	Impairment	1.81 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**pH**		01147	**2004**	**2016**	VAP-G03R-04 West Run was initially assessed as not supporting the Aquatic Life Use in 2004 based on pH violations at the Route 625 bridge (2-WER001.93.) During the 2006 cycle, the segment remained impaired (7/12).

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

TMDL Watershed Name: **West Run, Unnamed Tributary**

TMDL Group ID: **10033**

VAP-G03R_XUD01A06	UT to West Run	CHARLES CITY CO	Headwaters to mouth at West Run

VA Overall AU Category: **5C**

Use	Impairment	1.68 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**pH**		10033	**2006**	**2018**	VAP-G03R-06 The segment was assessed as not supporting the Aquatic Life Use based on a pH violation rate of 2/2 at 2-XUD000.16.

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

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Western Run**

TMDL Group ID: **01141**

VAP-G02R_WSN01A00	Western Run	HENRICO CO	Western Run from its headwaters to the confluence with Turkey Island Creek.

VA Overall AU Category: **5A**

Use	Impairment	3.03 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**pH**		01141	**2004**	**2016**	VAP-G02R-04 Western Run was assessed as not supporting the Aquatic Life use goals based on pH violation rates of 2/4 and 1/4 at USGS stations 0203874275 and 0203874250, respectively. In addition, DEQ station 2-WSN0000.85 is collocated with 0203874275; the pH violation rate was 1/4 during the 2006 cycle.

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

TMDL Group ID: **10032**

VAP-G02R_WSN01A00	Western Run	HENRICO CO	Western Run from its headwaters to the confluence with Turkey Island Creek.

VA Overall AU Category: **5A**

Use	Impairment	3.03 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**		10032	**2006**	**2018**	VAP-G02R-07 Western Run was assessed as not supporting the Recreation use goals based on bacteria sampling at the Route 156 bridge: Fecal coliform violation rate of 2/3 at USGS station 0203874275 E. coli violation rate of 2/4 at DEQ station 2-WSN000.85

Sources: Source Unknown

Use	Impairment	3.03 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**		10032	**2006**	**2018**	VAP-G02R-07 Western Run was assessed as not supporting the Recreation use goals based on bacteria sampling at the Route 156 bridge: Fecal coliform violation rate of 2/3 at USGS station 0203874275 E. coli violation rate of 2/4 at DEQ station 2-WSN000.85

Sources: Source Unknown

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **White Oak Swamp**

TMDL Group ID: **10040**

VAP-G06R_WOS02A02	White Oak Swamp	HENRICO CO	White Oak Swamp from its headwaters to the confluence with White Oak Swamp Creek.

VA Overall AU Category: **5C**

Use	Impairment	3.47 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		10040	**2006**	**2018**	VAP-G06R-08

The Natural Conditions Assessment for low pH in White Oak Swamp was completed during the 2006 cycle and recommends that White Oak Swamp and its tributaries be reclassified as Class VII swampwaters. Until the standards can be revised, the watershed will be considered Cat. 4C for pH.

During the 2006 cycle, the segment was also considered impaired of the Aquatic Life Use due to a dissolved oxygen violation rate of 6/15 at 2-WOS008.15. Although natural conditions are also suspected, the report only addressed pH, therefore the segment will be classified as Category 5C. The TMDL is due in 2018.

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

TMDL Watershed Name: **White Oak Swamp Creek**

TMDL Group ID: **10041**

VAP-G06R_WSC01A04	White Oak Swamp Creek	HENRICO CO	Headwaters to mouth at White Oak Swamp

VA Overall AU Category: **5C**

Use	Impairment	3.90 MILES	TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**		10041	**2006**	**2018**	VAP-G06R-09

During the 2006 cycle, the Natural Conditions Assessment for low pH in White Oak Swamp was completed and recommends that White Oak Swamp and its tributaries be reclassified as Class VII swampwaters. Until the standards can be revised, the watershed will be considered Cat. 4C for pH. However during the 2006 cycle, White Oak Swamp Creek was also considered impaired of the Aquatic Life Use due to a dissolved oxygen violation rate of 2/15 at 2-WSC002.62. Although natural conditions are also suspected, the report only addressed pH, therefore the segment will be classified as Category 5C. The TMDL is due in 2018.

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

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Williams Run**

TMDL Group ID: **50088**

VAC-H03R_WLM01A02	Williams Run	AMHERST CO	Williams Run from its confluence with the James River upstream to it headwaters.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Escherichia coli**	6.39 MILES	50088	**2006**	**2018**	

Sources: Source Unknown

TMDL Watershed Name: **Willis River and Tributaries**

TMDL Group ID: **00113**

VAC-H35R_XQM01A00	UT to Willis River	BUCKINGHAM CO	An unnamed tributary to the Willis River.

VA Overall AU Category: **5D**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	1.73 MILES	00113	**2004**	**2002**	Category 4A - Willis River Bacteria TMDL - EPA TMDL ID 9488 (Fecal Coliform)/22159 (Pathogens)

Sources: Non-Point Source

TMDL Watershed Name: **Willis River, Unnamed Tributary**

TMDL Group ID: **00740**

VAC-H35R_XQM01A00	UT to Willis River	BUCKINGHAM CO	An unnamed tributary to the Willis River.

VA Overall AU Category: **5D**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Oxygen, Dissolved**	1.73 MILES	00740	**2002**	**2014**	

Sources: Source Unknown

Appendix A - List of Impaired (Category 5) Waters in 2006*

Assessment Unit ID	Waterbody Name	City / County	Assessment Unit Description

James River Basin

TMDL Watershed Name: **Wilson Creek, Upper**

TMDL Group ID: **50047**

VAW-I09R_WLN03A06	Wilson Creek Upper	BATH CO	Wilson Creek mainstem from the backwaters of Douthat Lake upstream to its headwaters.

VA Overall AU Category: **5C**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Aquatic Life	**Temperature, water**	6.60 MILES	50047	**2004**	**2016**	Category 5C

Sources: Drought-related Impacts
Source Unknown

TMDL Watershed Name: **Wreck Island Creek**

TMDL Group ID: **00768**

VAC-H06R_WIC01A00	Wreck Island Creek	APPOMATTOX CO	Wreck Island Creek mainstem from its mouth on the James River upstream to the confluence of Little Wreck Island Creek.

VA Overall AU Category: **5A**

Use	Impairment		TMDL Group ID	First Listed on 303(d)	TMDL Schedule	Impairment Specific Comments and/or Impairment Specific VA Category
Recreation	**Fecal Coliform**	9.75 MILES	00768	**2002**	**2014**	

Sources: Source Unknown

Note: * Includes Category 4A and 4C Impairments within each Assessment Unit. Assessment Units may extend across jurisdictional boundaries.