

# 2018 Impaired Waters - 303(d) List

## Category 5 - Waters needing Total Maximum Daily Load Study

### Potomac and Shenandoah River Basins

Cause Group Code	Water Name	Cause	Cause Category	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)	Initial List Date	TMDL Dev. Priority
<b>A01R-01-BEN</b>	Dutchman Creek							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			2.93	2018	L
<b>A02R-02-BEN</b>	North Fork Catoctin Creek							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			4.42	2008	H, 2yr
<b>A02R-03-BEN</b>	South Fork Catoctin Creek							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			6.33	2008	L
<b>A03R-02-BAC</b>	Clarks Run							
Recreation		Escherichia coli	5A			5.46	2008	L
<b>A03R-03-BEN</b>	Big Spring Creek							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			4.49	2018	L
<b>A05R-01-BEN</b>	Wancopin Creek							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			3.44	2008	L
<b>A05R-02-BEN</b>	Jeffries Branch							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			4.41	2012	L
<b>A05R-03-BEN</b>	Goose Creek							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			10.57	2018	L
<b>A06R-01-BEN</b>	North Fork Goose Creek							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			4.69	2010	L
<b>A06R-02-BEN</b>	Jacks Run							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			3.18	2018	L
<b>A07R-02-BEN</b>	North Fork Beaverdam Creek							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			4.81	2008	L
		Benthic-Macroinvertebrate Bioassessments	5A			5.75	2018	L
<b>A08L-01-BAC</b>	Beaverdam Reservoir							
Recreation		Escherichia coli	5A		301.08		2018	L
<b>A08L-02-BAC</b>	Goose Creek Reservoir							
Recreation		Escherichia coli	5A		97.75		2018	L
<b>A08R-01-PCB</b>	Broad Run, Difficult Run, Goose Creek							
Fish Consumption		PCB in Fish Tissue	5A		39.63	15.34	2006	L
<b>A08R-04-BEN</b>	Tuscarora Creek							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			3.89	2014	L
<b>A08R-05-BEN</b>	Dry Mill Branch							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			2.97	2016	L
<b>A08R-06-BEN</b>	Goose Creek							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			2.54	2018	L
<b>A08R-07-BEN</b>	Cattail Branch							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			3.41	2018	L

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<b>A08R-08-BEN</b>	Sycolin Creek							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			3.98	2018	L
<b>A09R-01-BAC</b>	Unnamed tributary to the Potomac River							
Recreation		Escherichia coli	5A			1.74	2010	M
<b>A09R-01-BEN</b>	Broad Run							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			2.93	2006	M
		Benthic-Macroinvertebrate Bioassessments	5A			5.49	2008	M
<b>A09R-01-HG</b>	Broad Run							
Fish Consumption		Mercury in Fish Tissue	5A			2.93	2010	L
<b>A09R-02-BAC</b>	Broad Run							
Recreation		Escherichia coli	5A			3.22	2010	M
		Escherichia coli	5A			2.93	2014	M
<b>A09R-02-BEN</b>	Broad Run							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			3.69	2008	M
		Benthic-Macroinvertebrate Bioassessments	5A			5.76	2018	M
<b>A09R-03-BAC</b>	Broad Run							
Recreation		Escherichia coli	5A			3.69	2012	M
<b>A09R-03-BEN</b>	Horsepen Run							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			8.17	2016	M
<b>A09R-04-BAC</b>	South Fork Broad Run							
Recreation		Escherichia coli	5A			5.28	2014	M
<b>A09R-04-BEN</b>	South Fork Broad Run							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			5.28	2014	M
<b>A09R-05-BAC</b>	Beaverdam Run							
Recreation		Escherichia coli	5A			3.85	2014	M
<b>A09R-05-BEN</b>	Beaverdam Run							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			3.85	2016	L
<b>A09R-06-BAC</b>	Indian Creek							
Recreation		Escherichia coli	5A			3.48	2014	M
<b>A09R-06-BEN</b>	Frying Pan Branch							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			1.42	2018	L
<b>A09R-07-BAC</b>	Horsepen Run							
Recreation		Escherichia coli	5A			8.17	2016	L
<b>A09R-08-BAC</b>	Frying Pan Branch							
Recreation		Escherichia coli	5A			1.42	2018	L
<b>A10R-01-BEN</b>	Sugarland Run							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			9.71	2012	L
<b>A11R-01-HEPOXID</b>	Difficult Run							
Fish Consumption		Heptachlor epoxide	5A			3.17	2006	L

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<b>A11R-02-BEN</b>	Captain Hickory Run							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			3.27	2008	L
<b>A11R-03-BEN</b>	Difficult Run							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			6.37	2008	L
<b>A11R-04-BEN</b>	Colvin Run							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			2.09	2010	L
<b>A11R-05-BEN</b>	Snakeden Branch							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			0.97	2010	L
<b>A11R-06-BEN</b>	Little Difficult Run							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			1.75	2010	L
<b>A11R-07-BEN</b>	Old Courthouse Spring Branch							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			2.11	2010	L
<b>A11R-08-BAC</b>	Nichols Run							
Recreation		Escherichia coli	5A			4.56	2012	L
<b>A11R-08-BEN</b>	Turkey Run							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			1.34	2012	L
<b>A11R-09-BEN</b>	Dead Run							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			2.82	2012	L
<b>A11R-10-BEN</b>	Wolftrap Creek							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			2.72	2018	L
<b>A12E-01-CDANE</b>	Four Mile Run							
Fish Consumption		Chlordane	5A	0.050			2010	L
<b>A12R-01-BEN</b>	Pimmit Run							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			2.76	2012	L
<b>A12R-02-BEN</b>	Four Mile Run							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			7.96	2018	L
<b>A12R-03-CDANE</b>	Pimmit Run							
Fish Consumption		Chlordane	5A			1.64	2006	L
<b>A12R-03-HEPOXID</b>	Pimmit Run							
Fish Consumption		Heptachlor epoxide	5A			1.64	2006	L
<b>A13R-01-PCB</b>	Indian Run							
Fish Consumption		PCB in Fish Tissue	5A			3.18	2006	L
<b>A13R-03-BEN</b>	Holmes Run							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			6.09	2004	M
<b>A13R-04-BEN</b>	Trippls Run							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			3.70	2004	M
<b>A14R-01-BAC</b>	Paul Springs Branch							
Recreation		Escherichia coli	5A			3.38	2010	L

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<b>A14R-01-BEN</b>	Paul Springs Branch							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			3.38	2010	L
<b>A14R-01-DO</b>	Paul Springs Branch							
Aquatic Life		Oxygen, Dissolved	5A			3.38	2014	L
<b>A14R-02-BAC</b>	Dogue Creek							
Recreation		Escherichia coli	5A			1.41	2014	L
<b>A15E-01-PH</b>	Pohick Bay							
Aquatic Life		pH	5A	0.450			2012	L
<b>A15L-01-HG</b>	Lake Accotink							
Fish Consumption		Mercury in Fish Tissue	5A		73.93		2010	L
<b>A15L-01-PCB</b>	Lake Accotink							
Fish Consumption		PCB in Fish Tissue	5A		73.93		2010	L
<b>A15R-01-PCB</b>	Accotink Creek							
Fish Consumption		PCB in Fish Tissue	5A			10.09	2010	L
<b>A16E-01-BZOKFL</b>	Pohick Creek							
Fish Consumption		Benzo[k]fluoranthene	5A	0.461			2002	L
<b>A16R-01-BAC</b>	Pohick Creek							
Recreation		Escherichia coli	5A			3.78	2006	M
<b>A16R-01-BEN</b>	Pohick Creek							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			2.61	2014	M
<b>A16R-02-BAC</b>	Pohick Creek							
Recreation		Escherichia coli	5A			1.77	2006	M
		Escherichia coli	5A			5.41	2012	M
		Escherichia coli	5A			2.61	2016	M
<b>A16R-03-BAC</b>	South Run							
Recreation		Escherichia coli	5A			4.16	2016	L
<b>A16R-04-BAC</b>	Middle Run							
Recreation		Escherichia coli	5A			2.85	2016	L
<b>A18R-02-BEN</b>	Lucky Run							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			3.48	2008	L
<b>A21R-01-BEN</b>	Catharpin Creek							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			6.80	2012	M
<b>A21R-01-PCB</b>	Bull Run							
Fish Consumption		PCB in Fish Tissue	5A			5.81	2004	L
		PCB in Fish Tissue	5A			5.72	2006	L
<b>A21R-02-BEN</b>	Bull Run							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			4.66	2016	L
<b>A21R-03-BEN</b>	Unnamed Tributary to Bull Run							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			3.73	2018	L

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<b>A21R-04-BEN</b>	Little Bull Run							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			5.12	2018	L
<b>A22R-01-BEN</b>	Flatlick Branch							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			3.22	2008	M
<b>A22R-01-PCB</b>	Cub Run							
Fish Consumption		PCB in Fish Tissue	5A			6.89	2018	L
<b>A22R-02-BEN</b>	Big Rocky Run							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			4.34	2010	M
<b>A22R-03-BEN</b>	Cub Run							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			6.89	2012	M
		Benthic-Macroinvertebrate Bioassessments	5A			6.34	2016	M
<b>A22R-04-BEN</b>	Elklick Run							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			2.27	2014	M
<b>A22R-05-BEN</b>	Sand Branch							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			1.54	2018	L
<b>A23R-03-BEN</b>	Little Rocky Run							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			5.23	2010	M
<b>A24L-01-PCB</b>	Occoquan Reservoir							
Fish Consumption		PCB in Fish Tissue	5A		63.12		2006	L
<b>A24L-02-PCB</b>	Occoquan Reservoir							
Fish Consumption		PCB in Fish Tissue	5A		1,250.03		2018	L
<b>A24R-01-BAC</b>	Wolf Run							
Recreation		Escherichia coli	5A			2.50	2006	L
<b>A24R-02-BAC</b>	Sandy Run							
Recreation		Escherichia coli	5A			6.08	2008	L
<b>A24R-03-BAC</b>	Hooes Run							
Recreation		Escherichia coli	5A			0.98	2012	L
<b>A25E-02-BAC</b>	Neabsco Creek							
Recreation		Escherichia coli	5A	0.545			2004	L
<b>A25E-03-BAC</b>	Occoquan River							
Recreation		Escherichia coli	5A	0.086			2014	L
<b>A25E-04-BAC</b>	Marumsco Creek							
Recreation		Escherichia coli	5A	0.025			2012	L
<b>A25E-04-EBEN</b>	Occoquan River							
Aquatic Life		Estuarine Bioassessments	5A	0.286			2006	L
<b>A25R-01-BEN</b>	Giles Run							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			6.48	2012	L

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<b>A25R-02-BAC</b>	Mills Branch							
Recreation		Escherichia coli	5A			1.72	2014	L
<b>A25R-03-BAC</b>	Giles Run							
Recreation		Escherichia coli	5A			6.48	2014	L
<b>A25R-04-BAC</b>	Marumsco Creek							
Recreation		Escherichia coli	5A			0.53	2014	L
<b>A25R-05-BAC</b>	Unnamed Tributary to Occoquan River							
Recreation		Escherichia coli	5A			1.11	2016	L
<b>A26E-01-BZOKFL</b>	Powells Creek							
Fish Consumption		Benzo[k]fluoranthene	5A	0.402			2002	L
<b>A26L-01-HG</b>	Lake Montclair							
Fish Consumption		Mercury in Fish Tissue	5A		103.54		2010	L
<b>A26R-02-PH</b>	Unnamed tributary to Potomac River							
Aquatic Life		pH	5A			3.67	2014	L
<b>A26R-08-BAC</b>	South Branch Chopawamsic Creek							
Recreation		Escherichia coli	5A			4.66	2018	L
<b>A27R-01-DO</b>	Unnamed tributary to Aquia Creek							
Aquatic Life		Oxygen, Dissolved	5A			2.25	2010	L
<b>A27R-02-BAC</b>	Aquia Creek							
Recreation		Escherichia coli	5A			8.81	2012	L
<b>A29E-01-PH</b>	Potomac Creek							
Aquatic Life		pH	5A	0.587			2014	L
<b>A29E-02-BAC</b>	Fairview Beach (Potomac River)							
Recreation		Enterococcus	5R	0.005			2006	L
<b>A29E-03-BAC</b>	Chotank Creek							
Recreation		Enterococcus	5A	0.054			2012	L
<b>A29R-01-BEN</b>	Unnamed tributary to Long Branch							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			2.30	2016	L
<b>A29R-03-DO</b>	Potomac Run							
Aquatic Life		Oxygen, Dissolved	5A			6.59	2014	L
<b>A29R-05-BAC</b>	Dirt Bridge Run							
Recreation		Escherichia coli	5A			1.81	2018	L
<b>A30R-01-DO</b>	Pepper Mill Creek							
Aquatic Life		Oxygen, Dissolved	5C			8.66	2010	L
<b>A30R-01-PH</b>	Pepper Mill Creek							
Aquatic Life		pH	5C			8.66	2010	L
<b>A30R-02-DO</b>	Gambo Creek							
Aquatic Life		Oxygen, Dissolved	5C			0.95	2016	L

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<b>A30R-02-PH</b> Aquatic Life	<b>Gambo Creek</b> pH	5C			0.95	2016	L
<b>A31E-11-BAC</b> Recreation	<b>Bridges Creek</b> Enterococcus	5A	0.182			2012	L
<b>A31R-01-BAC</b> Recreation	<b>Pine Hill Creek Watershed</b> Escherichia coli	5A			34.91	2014	L
<b>A32E-09-EBEN</b> Aquatic Life	<b>Lower Machodoc Creek</b> Estuarine Bioassessments	5A	0.687			2016	L
<b>A32R-01-DO</b> Aquatic Life	<b>Thompson Branch</b> Oxygen, Dissolved	5C			1.60	2006	L
<b>A32R-01-PH</b> Aquatic Life	<b>Thompson Branch</b> pH	5C			1.60	2006	L
<b>A32R-03-PH</b> Aquatic Life	<b>XLK - Nomini Creek, UT</b> pH	5C			1.45	2010	L
<b>A32R-05-PH</b> Aquatic Life	<b>Tavern Run</b> pH	5C			3.27	2012	L
<b>A32R-06-PH</b> Aquatic Life	<b>Nontidal Nomini Creek Tributaries</b> pH	5C			16.36	2014	L
<b>A32R-07-DO</b> Aquatic Life	<b>Marshall Creek</b> Oxygen, Dissolved	5C			2.88	2014	L
<b>A32R-08-DO</b> Aquatic Life	<b>Barnes Creek</b> Oxygen, Dissolved	5C			1.94	2014	L
<b>A32R-08-PH</b> Aquatic Life	<b>Barnes Creek</b> pH	5C			1.94	2014	L
<b>A32R-09-DO</b> Aquatic Life	<b>Mount Pleasant Creek</b> Oxygen, Dissolved	5C			2.26	2014	L
<b>A32R-09-PH</b> Aquatic Life	<b>Mount Pleasant Creek</b> pH	5C			2.26	2014	L
<b>A33E-04-BAC</b> Recreation	<b>Lodge Creek</b> Enterococcus	5A	0.301			2006	L
<b>A33E-08-EBEN</b> Aquatic Life	<b>West Yeocomico River</b> Estuarine Bioassessments	5A	0.394			2018	L
<b>A33L-01-DO</b> Aquatic Life	<b>Hampton Hall, Gardy Millpond</b> Oxygen, Dissolved	5C		45.86		2016	L
<b>A33R-02-BAC</b> Recreation	<b>Lodge Creek</b> Escherichia coli	5A			3.44	2014	L
<b>A33R-02-DO</b> Aquatic Life	<b>Lodge Creek</b> Oxygen, Dissolved	5C			3.44	2010	L

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Impaired Use	Cause						
<b>A33R-03-DO</b>	Gardner Creek						
Aquatic Life	Oxygen, Dissolved	5C			1.40	2010	L
<b>A33R-03-PH</b>	Gardner Creek						
Aquatic Life	pH	5C			1.40	2010	L
<b>A33R-04-PH</b>	XMB - Hampton Hall Creek, UT						
Aquatic Life	pH	5C			3.48	2014	L
<b>A33R-05-DO</b>	XLZ - Hampton Hall Creek, UT						
Aquatic Life	Oxygen, Dissolved	5C			3.13	2018	L
<b>A33R-05-PH</b>	XLZ - Hampton Hall Creek, UT						
Aquatic Life	pH	5C			3.13	2014	L
<b>A34R-02-PH</b>	Little Wicomico River						
Aquatic Life	pH	5C			2.33	2006	L
<b>A34R-03-DO</b>	XLL - Coan Mill Stream, UT						
Aquatic Life	Oxygen, Dissolved	5C			2.10	2010	L
<b>B02R-01-BAC</b>	West Strait Creek						
Recreation	Escherichia coli	5A			0.87	2010	L
<b>B02R-06-BAC</b>	Strait Creek						
Recreation	Escherichia coli	5A			2.77	2006	L
<b>B03R-03-BAC</b>	South Fork South Branch Potomac River						
Recreation	Escherichia coli	5A			2.71	2012	L
<b>B04R-01-BAC</b>	Middle Fork Sleepy Creek						
Recreation	Escherichia coli	5A			2.93	2014	L
<b>B04R-02-BAC</b>	Sleepy Creek						
Recreation	Escherichia coli	5A			7.72	2016	L
<b>B04R-03-BAC</b>	Middle Fork Sleepy Creek X-trib						
Recreation	Escherichia coli	5A			2.55	2018	L
<b>B05R-01-BAC</b>	Back Creek						
Recreation	Escherichia coli	5A			17.61	2010	L
<b>B05R-02-BAC</b>	Little Isaacs Creek						
Recreation	Escherichia coli	5A			9.93	2008	L
<b>B05R-03-BAC</b>	Isaacs Creek						
Recreation	Escherichia coli	5A			2.84	2016	L
<b>B07R-01-BAC</b>	Back Creek						
Recreation	Escherichia coli	5A			4.92	2018	L
<b>B12R-01-PCB</b>	Lewis Creek						
Fish Consumption	PCB in Fish Tissue	5A			10.06	2004	H
<b>B14R-03-TEMP</b>	Long Meadow Run						
Aquatic Life	Temperature, water	5C			11.06	2006	L



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## Category 5 - Waters needing Total Maximum Daily Load Study

### Potomac and Shenandoah River Basins

Cause Group Code Impaired Use	Water Name Cause	Cause Category	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)	Initial List Date	TMDL Dev. Priority
<b>B16L-01-TEMP</b> Aquatic Life	Elkhorn Lake Temperature, water	5A		52.66		2010	L
<b>B16R-01-PH</b> Aquatic Life	North River pH	5A			4.46	2002	L
<b>B18R-01-BEN</b> Aquatic Life	Wolf Run Benthic-Macroinvertebrate Bioassessments	5A			1.18	2002	L
	Benthic-Macroinvertebrate Bioassessments	5A			2.11	2004	L
<b>B18R-01-PH</b> Aquatic Life	Wolf Run pH	5A			3.29	2006	L
<b>B18R-06-PH</b> Aquatic Life	Rocky Run pH	5A			1.93	2006	L
<b>B18R-07-PH</b> Aquatic Life	Union Springs Run pH	5A			3.73	2006	L
<b>B20L-01-TEMP</b> Aquatic Life	Switzer Lake Temperature, water	5A		100.81		2006	L
<b>B20R-01-PH</b> Aquatic Life	Dry River pH	5A			9.54	2002	L
	pH	5A			0.64	2008	L
<b>B25L-01-BAC</b> Recreation	Silver Lake Escherichia coli	5A		10.51		2018	L
<b>B30R-02-PH</b> Aquatic Life	Loves Run pH	5A			5.63	2006	M
<b>B30R-03-BEN</b> Aquatic Life	Pine Run Benthic-Macroinvertebrate Bioassessments	5A			20.38	2014	L
<b>B31L-01-PH</b> Aquatic Life	Coles Run Reservoir pH	5A		10.84		2008	L
<b>B31R-01-BAC</b> Recreation	Back Creek Escherichia coli	5A			6.01	2012	L
<b>B31R-01-BEN</b> Aquatic Life	Back Creek Benthic-Macroinvertebrate Bioassessments	5A			6.01	2002	L
<b>B31R-02-BEN</b> Aquatic Life	Mills Creek Benthic-Macroinvertebrate Bioassessments	5A			9.12	2002	L
<b>B31R-02-PH</b> Aquatic Life	Mills Creek pH	5A			9.12	2018	L
<b>B31R-04-PH</b> Aquatic Life	Coles Run pH	5A			6.88	2006	M
<b>B31R-05-PH</b> Aquatic Life	Johns Run pH	5A			5.45	2006	M

# 2018 Impaired Waters - 303(d) List

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### Potomac and Shenandoah River Basins

Cause Group Code Impaired Use	Water Name Cause	Cause Category	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)	Initial List Date	TMDL Dev. Priority
<b>B31R-06-PH</b> Aquatic Life	Kennedy Creek pH	5A			15.47	2006	M
<b>B31R-07-PH</b> Aquatic Life	Orebank Creek pH	5A			3.55	2006	M
<b>B32R-02-PCB</b> Fish Consumption	South River PCB in Fish Tissue	5A			5.37	2008	L
<b>B32R-03-PH</b> Aquatic Life	Paine Run pH	5A			6.73	2004	M
<b>B32R-04-PH</b> Aquatic Life	Meadow Run pH	5A			8.82	2004	M
<b>B33R-02-PH</b> Aquatic Life	Deep Run pH	5A			4.49	2004	M
<b>B33R-03-PH</b> Aquatic Life	Lower Lewis Run pH	5A			3.93	2006	M
<b>B35R-01-BAC</b> Recreation	Boone Run Fecal Coliform Escherichia coli	5A 5A			13.81 13.81	2002 2010	L L
<b>B35R-02-BAC</b> Recreation	Quail Run Escherichia coli	5A			1.46	2010	L
<b>B35R-03-BEN</b> Aquatic Life	Quail Run Benthic-Macroinvertebrate Bioassessments	5C			1.46	2002	L
<b>B35R-04-PH</b> Aquatic Life	Two Mile Run pH	5A			5.05	2006	M
<b>B35R-05-PH</b> Aquatic Life	One Mile Run pH	5A			9.16	2010	M
<b>B37R-01-PCB</b> Fish Consumption	South Fork Shenandoah River PCB in Fish Tissue	5A			19.12	2010	L
<b>B37R-02-BAC</b> Recreation	Line Run Escherichia coli	5A			4.93	2006	L
<b>B37R-03-BAC</b> Recreation	Honey Run Escherichia coli	5A			5.10	2008	L
<b>B37R-04-TEMP</b> Aquatic Life	Cub Run Temperature, water	5A			9.79	2012	L
<b>B38R-02-BAC</b> Recreation	Big Run Escherichia coli	5A			6.40	2006	L
<b>B39R-03-BEN</b> Aquatic Life	East Hawksbill Creek Benthic-Macroinvertebrate Bioassessments	5A			9.38	2008	L

# 2018 Impaired Waters - 303(d) List

## Category 5 - Waters needing Total Maximum Daily Load Study

### Potomac and Shenandoah River Basins

Cause Group Code Impaired Use	Water Name Cause	Cause Category	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)	Initial List Date	TMDL Dev. Priority
<b>B39R-03-PH</b> Aquatic Life	Rocky Branch pH	5A			4.25	2004	L
<b>B39R-03-TEMP</b> Aquatic Life	Pass Run Temperature, water	5A			9.47	2010	L
<b>B39R-04-BEN</b> Aquatic Life	Dry Run Benthic-Macroinvertebrate Bioassessments	5A			5.52	2012	L
<b>B40R-01-BAC</b> Recreation	Jeremys Run Escherichia coli	5A			11.69	2012	H
<b>B40R-02-BAC</b> Recreation	Flint Run Fecal Coliform Escherichia coli	5A 5A			12.58 12.58	2004 2016	H H
<b>B40R-03-BAC</b> Recreation	Gooney Run Escherichia coli	5A			20.17	2010	H
<b>B40R-03-TEMP</b> Aquatic Life	Gooney Run Temperature, water Temperature, water	5A 5A			6.73 7.36	2006 2008	L L
<b>B40R-04-TEMP</b> Aquatic Life	Flint Run Temperature, water	5A			4.10	2010	L
<b>B41R-04-BAC</b> Recreation	South Fork Shenandoah River Escherichia coli Escherichia coli	5A 5A			4.47 5.84	2010 2012	H H
<b>B42R-01-BAC</b> Recreation	Crab Run Escherichia coli	5A			3.93	2010	L
<b>B42R-01-BEN</b> Aquatic Life	North Fork Shenandoah River Benthic-Macroinvertebrate Bioassessments	5A			2.59	2010	L
<b>B42R-02-BAC</b> Recreation	North Fork Shenandoah River Escherichia coli	5A			2.59	2018	L
<b>B45R-05-BEN</b> Aquatic Life	North Fork Shenandoah River Benthic-Macroinvertebrate Bioassessments Benthic-Macroinvertebrate Bioassessments	5A 5A			11.54 1.98	2008 2012	L L
<b>B47R-01-BEN</b> Aquatic Life	Fridley Run Benthic-Macroinvertebrate Bioassessments	5A			2.38	2002	L
<b>B47R-01-PH</b> Aquatic Life	Fridley Run pH	5A			2.38	2006	L
<b>B47R-07-BEN</b> Aquatic Life	Dry Fork Benthic-Macroinvertebrate Bioassessments	5A			10.85	2006	L
<b>B48R-02-BEN</b> Aquatic Life	Crooked Run Benthic-Macroinvertebrate Bioassessments	5A			4.07	2008	L

# 2018 Impaired Waters - 303(d) List

## Category 5 - Waters needing Total Maximum Daily Load Study

### Potomac and Shenandoah River Basins

Cause Group Code Impaired Use	Water Name Cause	Cause Category	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)	Initial List Date	TMDL Dev. Priority
<b>B49R-01-BEN</b>	<b>Stony Creek</b>						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			5.85	2008	L
	Benthic-Macroinvertebrate Bioassessments	5A			3.43	2016	L
<b>B49R-05-TEMP</b>	<b>Little Stony Creek</b>						
Aquatic Life	Temperature, water	5A			4.91	2012	L
<b>B49R-07-TEMP</b>	<b>Stony Creek</b>						
Aquatic Life	Temperature, water	5A			4.70	2002	L
	Temperature, water	5A			4.68	2004	L
	Temperature, water	5A			9.46	2006	L
<b>B50R-01-BAC</b>	<b>Toms Brook</b>						
Recreation	Escherichia coli	5A			9.51	2018	L
<b>B50R-03-BAC</b>	<b>Pughs Run</b>						
Recreation	Fecal Coliform	5A			7.00	2004	L
	Escherichia coli	5A			7.00	2008	L
<b>B50R-03-BEN</b>	<b>Pughs Run</b>						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			7.00	2012	L
<b>B51R-01-BAC</b>	<b>Tumbling Run</b>						
Recreation	Fecal Coliform	5A			4.24	2004	H
	Escherichia coli	5A			4.24	2008	H
<b>B51R-02-BAC</b>	<b>North Fork Shenandoah River</b>						
Recreation	Escherichia coli	5A			5.42	2008	H
	Escherichia coli	5A			1.28	2010	H
<b>B52R-01-PH</b>	<b>Cedar Creek</b>						
Aquatic Life	pH	5A			4.82	2014	M
	pH	5A			3.45	2016	M
<b>B52R-04-BAC</b>	<b>Cedar Creek</b>						
Recreation	Escherichia coli	5A			7.58	2012	H
	Escherichia coli	5A			9.22	2014	H
<b>B52R-05-BAC</b>	<b>Fall Run</b>						
Recreation	Escherichia coli	5A			15.17	2014	H
<b>B52R-06-BAC</b>	<b>Gravel Springs</b>						
Recreation	Escherichia coli	5A			3.29	2016	L
<b>B53R-01-BAC</b>	<b>Cedar Creek</b>						
Recreation	Escherichia coli	5A			14.34	2008	H
	Escherichia coli	5A			3.75	2014	H
<b>B54R-01-BAC</b>	<b>Passage Creek</b>						
Recreation	Fecal Coliform	5A			10.42	2006	H
	Escherichia coli	5A			10.42	2008	H
<b>B54R-01-PH</b>	<b>Passage Creek</b>						
Aquatic Life	pH	5A			5.44	2010	L

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### Potomac and Shenandoah River Basins

Cause Group Code Impaired Use	Water Name Cause	Cause Category	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)	Initial List Date	TMDL Dev. Priority
<b>B56R-01-DO</b> Aquatic Life	<b>Crooked Run</b> Oxygen, Dissolved	5A			2.32	2008	L
<b>B56R-02-BEN</b> Aquatic Life	<b>Stephens Run</b> Benthic-Macroinvertebrate Bioassessments	5A			0.99	2016	L
<b>B57R-03-BAC</b> Recreation	<b>Chapel Run</b> Escherichia coli	5A			11.74	2008	H
<b>B57R-03-BEN</b> Aquatic Life	<b>Chapel Run</b> Benthic-Macroinvertebrate Bioassessments	5A			11.74	2006	L
<b>B57R-05-BAC</b> Recreation	<b>Shenandoah River</b> Escherichia coli	5A			5.40	2014	L
<b>B58R-02-BAC</b> Recreation	<b>Dog Run</b> Escherichia coli	5A			6.13	2008	H
<b>B58R-03-BAC</b> Recreation	<b>Wheat Spring Branch</b> Escherichia coli	5A			4.69	2008	H
<b>B58R-04-BAC</b> Recreation	<b>Long Marsh Run</b> Escherichia coli	5A			7.09	2012	L
<b>B58R-05-BAC</b> Recreation	<b>Shenandoah River</b> Escherichia coli	5A			7.90	2012	L
<b>B58R-06-BAC</b> Recreation	<b>Craig Run</b> Escherichia coli	5A			4.40	2018	L

VA DEQ is transitioning from Fecal Coliform bacteria to Escherichia coli (fresh water) and Enterococci (salt water) for assessing the Recreation Use.

TMDL Development Priorities are: H (High) = formal EPA priority to be addressed with a plan by 2022; M (Medium) = DEQ priority that may be addressed with a plan by 2022; or L (Low) = not prioritized to be addressed with a plan by 2022. Within the H or M priority there may be "2yr" noted which means the priority is to be addressed within the next two years.

Multiple listings are due to the same impairments for different uses and/or different initial listing dates for adjacent waters.

# 2018 Impaired Waters - 303(d) List

## Category 5 - Waters needing Total Maximum Daily Load Study

<b>James River Basin</b>								
<b>Cause Group Code</b>	<b>Water Name</b>	<b>Cause</b>	<b>Cause Category</b>	<b>Estuary (Sq. Miles)</b>	<b>Reservoir (Acres)</b>	<b>River (Miles)</b>	<b>Initial List Date</b>	<b>TMDL Dev. Priority</b>
Impaired Use								
<b>G01E-02-EBEN</b>	<b>James River</b>							
Aquatic Life		Estuarine Bioassessments	5A	6.547			2012	L
<b>G01E-03-PCB</b>	<b>James River and Various Tributaries</b>							
Fish Consumption		PCB in Fish Tissue	5A	62.904			2002	H, 2yr
		PCB in Fish Tissue	5A	1.914			2004	H, 2yr
		PCB in Fish Tissue	5A	183.258		7.51	2006	H, 2yr
		PCB in Fish Tissue	5A	0.002			2008	H, 2yr
<b>G01L-01-CHLA</b>	<b>Falling Creek Reservoir</b>							
Aquatic Life		Chlorophyll-a	5A		88.37		2018	L
<b>G01R-01-PCB</b>	<b>Goode Creek</b>							
Fish Consumption		PCB in Water Column	5A			1.21	2012	H, 2yr
<b>G01R-02-PCB</b>	<b>Almond Creek</b>							
Fish Consumption		PCB in Water Column	5A			2.10	2012	H, 2yr
<b>G01R-02-PH</b>	<b>XVO and XVP - Almond Creek, UT</b>							
Aquatic Life		pH	5A			0.82	2004	L
<b>G01R-04-DO</b>	<b>Falling Creek</b>							
Aquatic Life		Oxygen, Dissolved	5A			0.98	2008	L
<b>G01R-05-PH</b>	<b>Kingsland Creek</b>							
Aquatic Life		pH	5C			8.54	2006	L
<b>G01R-06-PCB</b>	<b>Gillies Creek</b>							
Fish Consumption		PCB in Water Column	5A			5.88	2012	H, 2yr
<b>G01R-06-PH</b>	<b>Gillies Creek</b>							
Aquatic Life		pH	5A			5.88	2004	L
<b>G01R-07-DO</b>	<b>Redwater Creek</b>							
Aquatic Life		Oxygen, Dissolved	5C			2.96	2010	L
<b>G01R-09-DO</b>	<b>XPF - UT to James River</b>							
Aquatic Life		Oxygen, Dissolved	5C			0.39	2004	L
<b>G01R-09-PH</b>	<b>XPF - UT to James River</b>							
Aquatic Life		pH	5C			0.39	2004	L
<b>G01R-12-PH</b>	<b>XYI - Coles Run, UT</b>							
Aquatic Life		pH	5C			0.94	2006	L
<b>G01R-15-BEN</b>	<b>Proctors Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			8.26	2010	L
<b>G01R-21-DO</b>	<b>Great Branch</b>							
Aquatic Life		Oxygen, Dissolved	5C			4.38	2014	L
<b>G01R-22-CU</b>	<b>XVP - Almond Creek, UT</b>							
Aquatic Life		Copper	5A			0.36	2012	L
Wildlife		Copper	5A			0.36	2012	L

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<b>James River Basin</b>								
<b>Cause Group Code</b>	<b>Water Name</b>	<b>Cause</b>	<b>Cause Category</b>	<b>Estuary (Sq. Miles)</b>	<b>Reservoir (Acres)</b>	<b>River (Miles)</b>	<b>Initial List Date</b>	<b>TMDL Dev. Priority</b>
Impaired Use								
<b>G01R-22-ZN</b>	<b>XVP - Almond Creek, UT</b>							
Aquatic Life	Zinc		5A			0.36	2012	L
Wildlife	Zinc		5A			0.36	2012	L
<b>G02E-04-PCB</b>	<b>James River</b>							
Fish Consumption	PCB in Water Column		5A	3.972			2012	H, 2yr
Public Water Supply	PCB in Water Column		5A	1.182			2012	H, 2yr
<b>G02R-03-DO</b>	<b>Johnson Creek Watershed</b>							
Aquatic Life	Oxygen, Dissolved		5C			16.27	2004	L
<b>G02R-03-PH</b>	<b>Johnson Creek Watershed</b>							
Aquatic Life	pH		5C			16.27	2004	L
<b>G02R-05-DO</b>	<b>Crewes Channel</b>							
Aquatic Life	Oxygen, Dissolved		5C			3.24	2012	L
<b>G02R-09-DO</b>	<b>Roundabout Creek</b>							
Aquatic Life	Oxygen, Dissolved		5C			3.96	2014	L
<b>G02R-09-PH</b>	<b>Roundabout Creek</b>							
Aquatic Life	pH		5C			3.96	2014	L
<b>G02R-10-PH</b>	<b>XBE - Roundabout Creek, UT</b>							
Aquatic Life	pH		5C			1.43	2014	L
<b>G02R-11-PH</b>	<b>Turkey Island Creek</b>							
Aquatic Life	pH		5C			7.03	2016	L
<b>G03E-01-PCB</b>	<b>Bailey Creek (tidal), Cattail Creek (tidal)</b>							
Fish Consumption	PCB in Water Column		5A	0.114			2012	H, 2yr
<b>G03E-03-PH</b>	<b>James River</b>							
Aquatic Life	pH		5A	10.194			2014	L
<b>G03L-01-DO</b>	<b>Harrison Lake</b>							
Aquatic Life	Oxygen, Dissolved		5A		60.16		2006	L
<b>G03L-01-HG</b>	<b>Harrison Lake</b>							
Fish Consumption	Mercury in Fish Tissue		5A		60.16		2008	L
<b>G03L-01-PH</b>	<b>Harrison Lake</b>							
Aquatic Life	pH		5A		60.16		2006	L
<b>G03R-02-ALD</b>	<b>Bailey Creek</b>							
Fish Consumption	Aldrin		5A			6.47	2002	L
<b>G03R-02-BEN</b>	<b>Bailey Creek</b>							
Aquatic Life	Benthic-Macroinvertebrate Bioassessments		5A			6.47	2014	L
<b>G03R-02-PCB</b>	<b>Bailey Creek</b>							
Fish Consumption	PCB in Fish Tissue		5A			6.47	2002	H, 2yr

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### James River Basin

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<b>G03R-03-PCB</b>	<b>Poythress Run</b>							
Aquatic Life	PCB in Water Column	5A			0.70	2012	H, 2yr	
Fish Consumption	PCB in Water Column	5A			0.70	2012	H, 2yr	
Wildlife	PCB in Water Column	5A			0.70	2012	H, 2yr	
<b>G03R-04-PH</b>	<b>West Run</b>							
Aquatic Life	pH	5C			1.86	2004	L	
<b>G03R-05-PCB</b>	<b>XYO - Cattail Creek, UT</b>							
Fish Consumption	PCB in Water Column	5A			0.34	2012	H, 2yr	
<b>G03R-06-BEN</b>	<b>XUD - West Run, UT</b>							
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			1.57	2008	L	
<b>G03R-06-DO</b>	<b>Upper West Run / East Run Watershed</b>							
Aquatic Life	Oxygen, Dissolved	5C			45.27	2016	L	
<b>G03R-06-PH</b>	<b>Upper West Run / East Run Watershed</b>							
Aquatic Life	pH	5C			1.57	2006	L	
	pH	5C			43.70	2016	L	
<b>G04E-02-EBEN</b>	<b>James River</b>							
Aquatic Life	Estuarine Bioassessments	5A	20.409			2004	L	
<b>G04L-01-BAC</b>	<b>Sunken Meadow Pond</b>							
Recreation	Escherichia coli	5A		172.85		2016	L	
<b>G04L-01-DO</b>	<b>Sunken Meadow Pond</b>							
Aquatic Life	Oxygen, Dissolved	5C		172.85		2010	L	
<b>G04R-03-MIREX</b>	<b>Bailey Branch</b>							
Aquatic Life	Mirex	5A			5.69	2010	L	
Wildlife	Mirex	5A			5.69	2010	L	
<b>G05R-01-NH3</b>	<b>Chickahominy River, UT - Unnamed Tributary</b>							
Aquatic Life	Ammonia (Un-ionized)	5A			1.17	2008	L	
Wildlife	Ammonia (Un-ionized)	5A			1.17	2008	L	
<b>G05R-06-DO</b>	<b>Grassy Swamp Creek</b>							
Aquatic Life	Oxygen, Dissolved	5C			1.02	2008	L	
<b>G05R-07-DO</b>	<b>XDD - Chickahominy River, UT</b>							
Aquatic Life	Oxygen, Dissolved	5C			0.56	2006	L	
<b>G05R-07-PH</b>	<b>XDD - Chickahominy River, UT</b>							
Aquatic Life	pH	5C			0.56	2006	L	
<b>G05R-09-BEN</b>	<b>North Run</b>							
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			3.66	2008	M	
	Benthic-Macroinvertebrate Bioassessments	5A			4.24	2014	M	
<b>G05R-09-PH</b>	<b>North Run</b>							
Aquatic Life	pH	5A			3.66	2006	L	



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<b>James River Basin</b>								
<b>Cause Group Code</b>	<b>Water Name</b>	<b>Cause</b>	<b>Cause Category</b>	<b>Estuary (Sq. Miles)</b>	<b>Reservoir (Acres)</b>	<b>River (Miles)</b>	<b>Initial List Date</b>	<b>TMDL Dev. Priority</b>
Impaired Use								
<b>G05R-10-DO</b>	<b>Upham Brook</b>							
Aquatic Life	Oxygen, Dissolved		5A			1.16	2008	L
<b>G05R-11-DO</b>	<b>Upham Brook, UT (XXP)</b>							
Aquatic Life	Oxygen, Dissolved		5C			1.46	2008	L
<b>G05R-14-BEN</b>	<b>Jordans Branch</b>							
Aquatic Life	Benthic-Macroinvertebrate Bioassessments		5A			2.19	2016	M
<b>G05R-15-PH</b>	<b>XCJ - North Run, UT</b>							
Aquatic Life	pH		5A			0.42	2016	L
<b>G05R-16-BEN</b>	<b>Upham Brook</b>							
Aquatic Life	Benthic-Macroinvertebrate Bioassessments		5A			12.15	2016	M
<b>G06L-04-TEMP</b>	<b>Westhaven Lake</b>							
Aquatic Life	Temperature, water		5A		15.12		2014	L
<b>G06R-01-HG</b>	<b>Chickahominy River</b>							
Fish Consumption	Mercury in Fish Tissue		5A			7.45	2010	L
<b>G06R-05-DO</b>	<b>Powhite Creek</b>							
Aquatic Life	Oxygen, Dissolved		5C			2.14	2014	L
<b>G06R-06-PH</b>	<b>Beaverdam Creek</b>							
Aquatic Life	pH		5C			2.67	2004	L
<b>G06R-07-DO</b>	<b>Boatswain Creek</b>							
Aquatic Life	Oxygen, Dissolved		5C			3.75	2016	L
<b>G06R-07-PH</b>	<b>Boatswain Creek</b>							
Aquatic Life	pH		5C			3.75	2004	L
<b>G06R-11-PH</b>	<b>Bloody Run</b>							
Aquatic Life	pH		5C			1.16	2004	L
<b>G07L-01-DO</b>	<b>Chickahominy Lake</b>							
Aquatic Life	Oxygen, Dissolved		5A		1,050.46		2002	L
<b>G07L-01-HG</b>	<b>Chickahominy Lake</b>							
Fish Consumption	Mercury in Fish Tissue		5A		1,050.46		2008	L
<b>G07R-01-DO</b>	<b>Collins Run</b>							
Aquatic Life	Oxygen, Dissolved		5C			4.49	2010	L
<b>G07R-01-PH</b>	<b>Collins Run</b>							
Aquatic Life	pH		5C			4.49	2012	L
<b>G07R-02-DO</b>	<b>Rumley Marsh</b>							
Aquatic Life	Oxygen, Dissolved		5A			1.31	2002	L
<b>G07R-02-PH</b>	<b>Rumley Marsh</b>							
Aquatic Life	pH		5A			1.31	2010	L
<b>G07R-04-DO</b>	<b>Schiminoe Creek</b>							
Aquatic Life	Oxygen, Dissolved		5C			6.22	2012	L

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<b>James River Basin</b>							
<b>Cause Group Code</b>	<b>Water Name</b>	<b>Cause Category</b>	<b>Estuary (Sq. Miles)</b>	<b>Reservoir (Acres)</b>	<b>River (Miles)</b>	<b>Initial List Date</b>	<b>TMDL Dev. Priority</b>
Impaired Use	Cause						
<b>G07R-04-PH</b>	Schiminoe Creek						
Aquatic Life	pH	5C			6.22	2012	L
<b>G07R-06-DO</b>	XWS - Rumley Marsh, UT						
Aquatic Life	Oxygen, Dissolved	5A			2.17	2012	L
<b>G07R-06-PH</b>	XWS - Rumley Marsh, UT						
Aquatic Life	pH	5A			2.17	2012	L
<b>G07R-07-PH</b>	XAB - Collins Run, UT						
Aquatic Life	pH	5C			1.72	2012	L
<b>G08E-02-EBEN</b>	Chickahominy River						
Aquatic Life	Estuarine Bioassessments	5A	0.452			2018	L
<b>G08E-07-EBEN</b>	XAC - Chickahominy River, UT						
Aquatic Life	Estuarine Bioassessments	5A	0.017			2010	L
<b>G08R-04-DO</b>	Yarmouth Creek						
Aquatic Life	Oxygen, Dissolved	5C			4.09	2012	L
<b>G08R-05-DO</b>	Barrows Creek						
Aquatic Life	Oxygen, Dissolved	5C			6.93	2014	L
<b>G09L-01-HG</b>	Diascund Creek Reservoir						
Fish Consumption	Mercury in Fish Tissue	5A		1,056.13		2010	L
<b>G09R-01-DO</b>	Beaverdam Creek						
Aquatic Life	Oxygen, Dissolved	5A			4.34	2002	L
<b>G09R-01-PH</b>	Beaverdam Creek						
Aquatic Life	pH	5A			4.34	2012	L
<b>G09R-02-DO</b>	Diascund Creek						
Aquatic Life	Oxygen, Dissolved	5C			6.88	2008	L
<b>G09R-02-PH</b>	Diascund Creek						
Aquatic Life	pH	5C			6.88	2012	L
<b>G09R-03-DO</b>	XAL - Diascund Creek, UT						
Aquatic Life	Oxygen, Dissolved	5C			1.22	2012	L
<b>G09R-03-PH</b>	XAL - Diascund Creek, UT						
Aquatic Life	pH	5C			1.22	2012	L
<b>G09R-04-DO</b>	XAK - Diascund Creek, UT						
Aquatic Life	Oxygen, Dissolved	5C			2.91	2012	L
<b>G09R-05-DO</b>	XAJ - Diascund Creek, UT						
Aquatic Life	Oxygen, Dissolved	5C			2.93	2012	L
<b>G09R-06-DO</b>	XAH - Beaverdam Creek, UT						
Aquatic Life	Oxygen, Dissolved	5A			2.23	2012	L
<b>G09R-07-DO</b>	Wahrani Swamp						
Aquatic Life	Oxygen, Dissolved	5C			3.66	2014	L

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<b>James River Basin</b>								
<b>Cause Group Code</b>	<b>Water Name</b>	<b>Cause</b>	<b>Cause Category</b>	<b>Estuary (Sq. Miles)</b>	<b>Reservoir (Acres)</b>	<b>River (Miles)</b>	<b>Initial List Date</b>	<b>TMDL Dev. Priority</b>
Impaired Use								
<b>G09R-08-DO</b>	<b>XBY - Beaverdam Creek, UT</b>							
Aquatic Life	Oxygen, Dissolved		5A			1.08	2016	L
<b>G10E-05-EBEN</b>	<b>James River (Oligohaline)</b>							
Aquatic Life	Estuarine Bioassessments		5A	26.412			2004	L
	Estuarine Bioassessments		5A	0.578			2012	L
<b>G10R-01-BAC</b>	<b>College Run</b>							
Recreation	Fecal Coliform		5A			2.61	2002	L
<b>G10R-02-BEN</b>	<b>Powhatan Creek</b>							
Aquatic Life	Benthic-Macroinvertebrate Bioassessments		5A			5.36	2002	L
<b>G10R-03-BAC</b>	<b>XHC - Dark Swamp, UT</b>							
Recreation	Escherichia coli		5A			1.30	2012	L
<b>G10R-03-DO</b>	<b>XHC - Dark Swamp, UT</b>							
Aquatic Life	Oxygen, Dissolved		5A			1.30	2010	L
<b>G10R-05-BAC</b>	<b>Dark Swamp</b>							
Recreation	Escherichia coli		5A			3.15	2014	L
<b>G11E-05-EBEN</b>	<b>Chesapeake Bay segment JMSMHa</b>							
Aquatic Life	Estuarine Bioassessments		5A	93.897			2006	L
	Estuarine Bioassessments		5A	4.170			2010	L
	Estuarine Bioassessments		5A	0.070			2018	L
<b>G11E-20-BAC</b>	<b>James River - Hilton Beach Area</b>							
Recreation	Enterococcus		5A	0.110			2012	L
<b>G11E-21-BAC</b>	<b>James River - Huntington Beach Area</b>							
Recreation	Enterococcus		5A	0.008			2006	L
<b>G11E-23-EBEN</b>	<b>Warwick River - Middle-Lower Tidal Portion</b>							
Aquatic Life	Estuarine Bioassessments		5A	0.077			2018	L
<b>G11L-01-CU</b>	<b>Lee Hall Reservoir</b>							
Aquatic Life	Copper		5A		292.14		2004	L
Wildlife	Copper		5A		292.14		2004	L
<b>G11L-01-HG</b>	<b>Lee Hall Reservoir</b>							
Fish Consumption	Mercury in Fish Tissue		5A		292.14		2010	L
<b>G11L-01-PCB</b>	<b>Lee Hall Reservoir</b>							
Fish Consumption	PCB in Fish Tissue		5A		292.14		2010	L
<b>G11L-05-DO</b>	<b>Lee Hall Reservoir</b>							
Aquatic Life	Oxygen, Dissolved		5A		292.14		2008	L
<b>G11L-06-DO</b>	<b>Scotts Factory Pond</b>							
Aquatic Life	Oxygen, Dissolved		5A		14.83		2016	L
<b>G11R-02-BEN</b>	<b>Chuckatuck Creek</b>							
Aquatic Life	Benthic-Macroinvertebrate Bioassessments		5A			1.53	2004	L

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Impaired Use								
<b>G11R-03-BAC</b>	<b>Champion Swamp</b>							
Recreation		Escherichia coli	5A			3.16	2010	L
<b>G12L-01-DO</b>	<b>Lake Cahoon</b>							
Aquatic Life		Oxygen, Dissolved	5A		454.16		2006	L
<b>G12L-02-DO</b>	<b>Lake Meade</b>							
Aquatic Life		Oxygen, Dissolved	5A		489.49		2006	L
<b>G12L-02-TP</b>	<b>Lake Meade</b>							
Aquatic Life		Phosphorus (Total)	5A		489.49		2012	L
<b>G12L-03-CHLA</b>	<b>Speights Run Lake</b>							
Aquatic Life		Chlorophyll-a	5A		120.87		2010	L
<b>G12L-03-DO</b>	<b>Speights Run Lake</b>							
Aquatic Life		Oxygen, Dissolved	5A		120.87		2006	L
<b>G12L-04-DO</b>	<b>Lake Kilby</b>							
Aquatic Life		Oxygen, Dissolved	5A		200.03		2006	L
<b>G12L-04-TP</b>	<b>Lake Kilby</b>							
Aquatic Life		Phosphorus (Total)	5A		200.03		2014	L
<b>G13E-07-PH</b>	<b>Shingle Creek - Tributary to Nansemond R.</b>							
Aquatic Life		pH	5A	0.040			2002	L
<b>G14L-01-DO</b>	<b>Lake Burnt Mills</b>							
Aquatic Life		Oxygen, Dissolved	5A		637.99		2006	L
<b>G14L-02-TP</b>	<b>Western Branch Reservoir</b>							
Aquatic Life		Phosphorus (Total)	5A		1,209.67		2012	L
<b>G14L-03-DO</b>	<b>Lake Prince Reservoir</b>							
Aquatic Life		Oxygen, Dissolved	5A		715.37		2006	L
<b>G14R-01-PH</b>	<b>Carbell Swamp - Upper</b>							
Aquatic Life		pH	5C			2.95	2002	L
<b>G14R-02-DO</b>	<b>Carbell Swamp - Lower</b>							
Aquatic Life		Oxygen, Dissolved	5A			2.88	2008	L
<b>G15E-01-01-EBEN</b>	<b>Deep Creek, Southern Br. Elizabeth R. - Mouth</b>							
Aquatic Life		Estuarine Bioassessments	5A	0.075			2018	L
<b>G15E-01-01-TCDD</b>	<b>Elizabeth River Southern Branch and its tidal tributaries. CBP segment SBEMH.</b>							
Fish Consumption		Dioxin (including 2,3,7,8-TCDD)	5A	3.147			2010	L
<b>G15E-02-04-EBEN</b>	<b>Eastern Branch Elizabeth River, Broad Creek and Unsegmented estuaries in EBEMH</b>							
Aquatic Life		Estuarine Bioassessments	5A	1.763			2004	L
		Estuarine Bioassessments	5A	0.587			2006	L
<b>G15E-03-01-EBEN</b>	<b>Elizabeth River Mainstem</b>							
Aquatic Life		Estuarine Bioassessments	5A	4.473			2004	L
		Estuarine Bioassessments	5A	3.445			2010	L

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Impaired Use								
<b>G15E-03-03-EBEN</b>	<b>Scott Creek</b>							
Aquatic Life	Estuarine Bioassessments		5A	0.194			2016	L
<b>G15E-04-02-EBEN</b>	<b>Western Branch Elizabeth River and Unsegmented estuaries in WBEMH</b>							
Aquatic Life	Estuarine Bioassessments		5A	0.561			2006	L
	Estuarine Bioassessments		5A	2.164			2010	L
<b>G15E-06-01-BAC</b>	<b>James River - King/Lincoln Park Beach Area</b>							
Recreation	Enterococcus		5A	0.009			2006	L
<b>G15E-06-02-BAC</b>	<b>James River - Anderson Park Beach Area</b>							
Recreation	Enterococcus		5A	0.011			2012	L
<b>G15E-06-04-BAC</b>	<b>Willoughby Bay - Beach Area</b>							
Recreation	Enterococcus		5A	0.142			2014	M
<b>G15E-08-EBEN</b>	<b>Willoughby Bay [Less Beach Area]</b>							
Aquatic Life	Estuarine Bioassessments		5A	2.476			2018	L
<b>H01R-01-HG</b>	<b>James River</b>							
Fish Consumption	Mercury in Fish Tissue		5A			15.83	2010	L
<b>H01R-02-BAC</b>	<b>James River</b>							
Recreation	Escherichia coli		5A			7.42	2014	L
<b>H01R-03-BAC</b>	<b>James River</b>							
Recreation	Escherichia coli		5A			5.36	2016	L
<b>H03R-01-BEN</b>	<b>Blackwater Creek</b>							
Aquatic Life	Benthic-Macroinvertebrate Bioassessments		5A			10.54	2010	L
<b>H03R-03-BEN</b>	<b>Ivy Creek</b>							
Aquatic Life	Benthic-Macroinvertebrate Bioassessments		5A			21.44	2010	L
<b>H03R-04-PCB</b>	<b>James River</b>							
Fish Consumption	PCB in Fish Tissue		5A			10.74	2004	H
	PCB in Fish Tissue		5A			158.33	2006	H
	PCB in Fish Tissue		5A			3.89	2008	H
	PCB in Fish Tissue		5A			23.24	2008	H
	PCB in Fish Tissue		5A			3.05	2014	H
<b>H03R-05-BEN</b>	<b>Burton Creek</b>							
Aquatic Life	Benthic-Macroinvertebrate Bioassessments		5A			3.47	2010	L
<b>H03R-06-BEN</b>	<b>Judith Creek</b>							
Aquatic Life	Benthic-Macroinvertebrate Bioassessments		5A			11.08	2010	L
<b>H03R-07-BEN</b>	<b>Tomahawk Creek</b>							
Aquatic Life	Benthic-Macroinvertebrate Bioassessments		5A			6.06	2010	L
<b>H05R-01-BAC</b>	<b>James River</b>							
Recreation	Escherichia coli		5A			15.93	2010	L
<b>H05R-03-BAC</b>	<b>Beaver Creek</b>							
Recreation	Escherichia coli		5A			8.67	2004	L

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Impaired Use								
<b>H05R-06-BAC</b>	<b>Little Beaver Creek</b>							
Recreation		Escherichia coli	5A			7.13	2010	L
<b>H05R-08-BAC</b>	<b>Beck Creek</b>							
Recreation		Escherichia coli	5A			6.28	2012	L
<b>H05R-09-BAC</b>	<b>Partridge Creek</b>							
Recreation		Escherichia coli	5A			10.40	2012	L
<b>H05R-10-BAC</b>	<b>Archer Creek</b>							
Recreation		Escherichia coli	5A			7.46	2016	L
<b>H05R-11-BAC</b>	<b>Allens Creek</b>							
Recreation		Escherichia coli	5A			7.18	2016	L
<b>H08R-01-BAC</b>	<b>Davids Creek</b>							
Recreation		Escherichia coli	5A			5.18	2012	L
<b>H09R-01-PH</b>	<b>Montebello Spring Branch</b>							
Aquatic Life		pH	5A			0.13	2004	L
<b>H09R-02-BEN</b>	<b>Hat Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			9.51	2012	H
<b>H09R-04-BEN</b>	<b>Tye River</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			7.70	2012	H
		Benthic-Macroinvertebrate Bioassessments	5A			8.40	2018	H
<b>H09R-05-BEN</b>	<b>Black Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			1.95	2014	H
<b>H11L-01-DO</b>	<b>Stonehouse Creek Reservoir</b>							
Aquatic Life		Oxygen, Dissolved	5A		33.53		2008	L
<b>H11L-01-PH</b>	<b>Stonehouse Creek Reservoir</b>							
Aquatic Life		pH	5A		33.53		2006	L
<b>H11L-02-CHLA</b>	<b>Thrashers Creek Reservoir</b>							
Aquatic Life		Chlorophyll-a	5A		31.95		2014	L
<b>H11L-02-PH</b>	<b>Thrashers Creek Reservoir</b>							
Aquatic Life		pH	5A		31.95		2006	L
<b>H11L-03-PH</b>	<b>Mill Creek Reservoir</b>							
Aquatic Life		pH	5A		186.40		2014	L
<b>H12R-01-BEN</b>	<b>Rutledge Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			3.32	2010	L
<b>H13L-01-DO</b>	<b>Lake Nelson</b>							
Aquatic Life		Oxygen, Dissolved	5A		40.62		2016	L
<b>H13L-02-PH</b>	<b>Lake Nelson</b>							
Aquatic Life		pH	5A		40.62		2018	L

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Impaired Use								
<b>H14R-01-BEN</b>	<b>Mallorys Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			8.75	2016	L
<b>H14R-01-HG</b>	<b>James River</b>							
Fish Consumption		Mercury in Fish Tissue	5A			18.56	2010	L
<b>H15R-03-BEN</b>	<b>Taylor Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			4.99	2008	L
<b>H16R-02-BAC</b>	<b>Beaver Creek</b>							
Recreation		Escherichia coli	5A			7.41	2012	L
<b>H16R-03-BAC</b>	<b>Cove Creek</b>							
Recreation		Escherichia coli	5A			10.46	2012	L
<b>H16R-04-BAC</b>	<b>Rockfish River</b>							
Recreation		Escherichia coli	5A			17.28	2012	L
		Escherichia coli	5A			6.06	2018	L
<b>H16R-05-BAC</b>	<b>Rockfish River UT</b>							
Recreation		Escherichia coli	5A			2.69	2016	L
<b>H17L-01-DO</b>	<b>Totier Creek Reservoir</b>							
Aquatic Life		Oxygen, Dissolved	5A		37.23		2012	L
<b>H17R-02-BAC</b>	<b>James River</b>							
Recreation		Escherichia coli	5A			18.68	2008	L
		Escherichia coli	5A			16.31	2012	L
<b>H17R-05-BEN</b>	<b>Totier Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			0.71	2006	L
<b>H20R-02-BAC</b>	<b>South Creek</b>							
Recreation		Escherichia coli	5A			6.66	2014	L
<b>H21L-01-DO</b>	<b>Troublesome Reservoir</b>							
Aquatic Life		Oxygen, Dissolved	5A		52.68		2010	L
<b>H21R-01-BEN</b>	<b>Horsepen Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			5.86	2014	L
<b>H21R-02-BEN</b>	<b>Walton Fork</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			2.99	2016	L
<b>H23L-01-CHLA</b>	<b>Lake Albemarle</b>							
Aquatic Life		Chlorophyll-a	5A		37.01		2016	L
<b>H23L-01-DO</b>	<b>Lake Albemarle</b>							
Aquatic Life		Oxygen, Dissolved	5A		37.01		2016	L
<b>H23L-01-PH</b>	<b>Lake Albemarle</b>							
Aquatic Life		pH	5A		37.01		2004	L
<b>H23R-01-BEN</b>	<b>Broad Axe Run</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			8.31	2004	H

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<b>Cause Group Code</b>	<b>Water Name</b>	<b>Cause Category</b>	<b>Estuary (Sq. Miles)</b>	<b>Reservoir (Acres)</b>	<b>River (Miles)</b>	<b>Initial List Date</b>	<b>TMDL Dev. Priority</b>
Impaired Use	Cause						
<b>H23R-02-BEN</b>	<b>Lickinghole Creek</b>						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			8.93	2010	H
<b>H23R-03-BEN</b>	<b>Mechums River</b>						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			15.16	2004	H
<b>H23R-04-BEN</b>	<b>Slabtown Branch</b>						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			4.92	2010	H
<b>H23R-06-BEN</b>	<b>Parrott Branch X-trib</b>						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			1.15	2010	H
<b>H23R-07-BEN</b>	<b>Spring Creek</b>						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			3.48	2012	H
<b>H23R-08-BAC</b>	<b>Stockton Creek</b>						
Recreation	Escherichia coli	5A			12.06	2014	L
<b>H24R-01-TEMP</b>	<b>Moormans River North Fork/Pond Ridge Branch</b>						
Aquatic Life	Temperature, water	5A			21.10	2014	L
<b>H24R-02-BEN</b>	<b>X-trib to Doyles River</b>						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			4.74	2012	H
<b>H25R-01-BAC</b>	<b>Buck Mountain Creek</b>						
Recreation	Escherichia coli	5A			10.59	2010	L
<b>H25R-02-BEN</b>	<b>Piney Creek X-trib</b>						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			3.22	2012	H
<b>H26L-01-DO</b>	<b>S. F. Rivanna River Reservoir</b>						
Aquatic Life	Oxygen, Dissolved	5A		398.69		2018	L
<b>H26R-01-BAC</b>	<b>Ivy Creek</b>						
Recreation	Escherichia coli	5A			9.51	2014	H
<b>H26R-02-PH</b>	<b>Ivy Creek</b>						
Aquatic Life	pH	5A			5.49	2006	L
<b>H26R-03-BEN</b>	<b>Ivy Creek</b>						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			6.58	2008	H
	Benthic-Macroinvertebrate Bioassessments	5A			5.49	2010	H
<b>H26R-04-BEN</b>	<b>South Fork Rivanna River</b>						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			3.47	2010	H
<b>H26R-05-BEN</b>	<b>Powell Creek</b>						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			10.36	2010	H
<b>H26R-06-BEN</b>	<b>Naked Creek</b>						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			9.82	2010	H
<b>H26R-07-BEN</b>	<b>South Fork Rivanna River X-trib</b>						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			3.20	2010	H



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<b>James River Basin</b>								
<b>Cause Group Code</b>	<b>Water Name</b>	<b>Cause</b>	<b>Cause Category</b>	<b>Estuary (Sq. Miles)</b>	<b>Reservoir (Acres)</b>	<b>River (Miles)</b>	<b>Initial List Date</b>	<b>TMDL Dev. Priority</b>
Impaired Use								
<b>H26R-08-BEN</b>	<b>Fishing Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			12.53	2012	H
<b>H26R-09-BEN</b>	<b>Little Ivy Creek X-trib</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			4.44	2016	L
<b>H27L-01-DO</b>	<b>Chris Green Lake</b>							
Aquatic Life		Oxygen, Dissolved	5A		57.07		2018	L
<b>H27R-01-BEN</b>	<b>Flat Branch X-trib</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			2.03	2010	H
<b>H27R-02-BAC</b>	<b>Swift Run</b>							
Recreation		Escherichia coli	5A			1.91	2010	H
<b>H27R-02-BEN</b>	<b>Swift Run</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			1.91	2012	H, 2yr
<b>H27R-03-BEN</b>	<b>Preddy Creek North Branch</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			6.24	2010	H, 2yr
<b>H27R-05-BEN</b>	<b>Marsh Run</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			3.65	2010	H
<b>H27R-06-BEN</b>	<b>Blue Run</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			8.72	2012	H
<b>H27R-07-BEN</b>	<b>Stanardsville Run</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			5.70	2014	H
<b>H27R-08-BEN</b>	<b>Preddy Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			7.48	2016	L
<b>H27R-09-BEN</b>	<b>North Fork Rivanna River</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			7.33	2016	L
<b>H27R-10-BEN</b>	<b>Quarter Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			1.58	2016	L
<b>H27R-11-BAC</b>	<b>Foster Branch</b>							
Recreation		Escherichia coli	5A			4.26	2018	L
<b>H28R-02-BEN</b>	<b>Moore's Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			6.32	2008	L
<b>H28R-04-BEN</b>	<b>Moore's Creek X-trib</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			1.66	2006	L
<b>H28R-05-BEN</b>	<b>Meadow Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			4.98	2006	L
<b>H28R-07-BAC</b>	<b>Schenks Branch</b>							
Recreation		Escherichia coli	5A			2.91	2010	L
<b>H28R-07-BEN</b>	<b>Schenks Branch</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			2.91	2008	L

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<b>James River Basin</b>								
<b>Cause Group Code</b>	<b>Water Name</b>	<b>Cause</b>	<b>Cause Category</b>	<b>Estuary (Sq. Miles)</b>	<b>Reservoir (Acres)</b>	<b>River (Miles)</b>	<b>Initial List Date</b>	<b>TMDL Dev. Priority</b>
Impaired Use								
<b>H28R-08-BEN</b>	<b>Biscuit Run</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			6.59	2010	L
<b>H28R-09-BEN</b>	<b>Morey Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			2.93	2010	L
<b>H28R-10-BEN</b>	<b>Town Branch</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			1.19	2010	L
<b>H28R-11-BEN</b>	<b>Meadow Creek X-trib</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			1.78	2010	L
<b>H28R-12-BEN</b>	<b>X-trib to Moores Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			2.23	2012	L
<b>H28R-13-BEN</b>	<b>X-trib above Ragged Mountain Reservoir</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			0.29	2018	L
<b>H28R-14-BEN</b>	<b>UT to Meadow Creek X-trib</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			0.41	2018	L
<b>H28R-15-BEN</b>	<b>Cow Branch</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			2.47	2018	L
<b>H29R-03-BAC</b>	<b>Buck Island Creek</b>							
Recreation		Escherichia coli	5A			9.16	2008	L
<b>H29R-03-BEN</b>	<b>Buck Island Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			2.65	2010	L
<b>H29R-04-BEN</b>	<b>Carroll Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			18.45	2010	L
<b>H30R-01-BEN</b>	<b>Mechunk Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			3.04	2012	L
<b>H30R-02-BEN</b>	<b>East Prong Beaverdam Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			4.69	2012	L
<b>H30R-03-BEN</b>	<b>Jacks Branch</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			7.16	2012	L
<b>H31R-02-BEN</b>	<b>Carys Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			1.79	2010	L
<b>H31R-03-BEN</b>	<b>X-trib to Boston Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			2.29	2010	L
<b>H31R-04-BEN</b>	<b>X-trib to Rivanna River</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			1.00	2010	L
<b>H31R-05-BAC</b>	<b>Rivanna River</b>							
Recreation		Escherichia coli	5A			8.38	2016	L
<b>H32L-01-DO</b>	<b>Fluvanna Ruritan Lake</b>							
Aquatic Life		Oxygen, Dissolved	5A		51.13		2012	L

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<b>James River Basin</b>								
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Impaired Use								
<b>H32L-01-PH</b>	<b>Fluvanna Ruritan Lake</b>							
Aquatic Life		pH	5A		51.13		2006	L
<b>H32R-02-BAC</b>	<b>Middle Fork Cunningham Creek</b>							
Recreation		Escherichia coli	5A			3.40	2006	H, 2yr
		Escherichia coli	5A			4.02	2008	H, 2yr
<b>H32R-02-BEN</b>	<b>Middle Fork Cunningham Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			3.40	2010	H, 2yr
<b>H32R-03-BAC</b>	<b>Middle Fork Cunningham Creek X-trib</b>							
Recreation		Escherichia coli	5A			3.77	2008	H, 2yr
<b>H32R-04-BEN</b>	<b>X-trib to North Fork Cunningham Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			0.59	2010	L
<b>H32R-05-BEN</b>	<b>Cunningham Creek North Fork</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			4.18	2012	L
<b>H32R-06-BEN</b>	<b>Cunningham Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			5.62	2012	L
<b>H32R-07-BEN</b>	<b>South Fork Cunningham Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			1.58	2018	L
<b>H33L-01-CHLA</b>	<b>Powhatan Lake</b>							
Aquatic Life		Chlorophyll-a	5A		61.36		2014	L
<b>H33L-01-DO</b>	<b>Powhatan Lake</b>							
Aquatic Life		Oxygen, Dissolved	5A		61.36		2012	L
<b>H33R-02-DO</b>	<b>Deep Creek</b>							
Aquatic Life		Oxygen, Dissolved	5C			0.37	2008	L
<b>H33R-07-DO</b>	<b>Muddy Creek</b>							
Aquatic Life		Oxygen, Dissolved	5C			3.58	2018	L
<b>H34R-04-BEN</b>	<b>Phils Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			6.69	2016	L
<b>H36R-02-BEN</b>	<b>Randolph Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			11.80	2008	L
<b>H36R-03-BEN</b>	<b>Buffalo Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			7.10	2016	L
<b>H36R-05-BEN</b>	<b>Reynolds Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			6.84	2014	L
<b>H36R-06-BEN</b>	<b>Bigger Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			4.43	2016	L
<b>H36R-07-BEN</b>	<b>Bonbrook Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			7.69	2018	L

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<b>James River Basin</b>								
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Impaired Use								
<b>H36R-08-DO</b>	<b>Bear Creek</b>							
Aquatic Life		Oxygen, Dissolved	5C			3.67	2018	L
<b>H38R-07-DO</b>	<b>Branch Creek</b>							
Aquatic Life		Oxygen, Dissolved	5C			5.51	2008	L
<b>H39R-01-PH</b>	<b>Broad Branch</b>							
Aquatic Life		pH	5A			2.63	2006	L
<b>H39R-05-BEN</b>	<b>Powwhite Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			8.13	2008	L
<b>H39R-06-PH</b>	<b>Reedy Creek</b>							
Aquatic Life		pH	5A			0.35	2010	L
<b>H39R-08-DO</b>	<b>XAB - Salles Creek, UT</b>							
Aquatic Life		Oxygen, Dissolved	5A			0.10	2010	L
<b>H39R-08-PH</b>	<b>XAB - Salles Creek, UT</b>							
Aquatic Life		pH	5A			0.10	2010	L
<b>H39R-09-DO</b>	<b>James River - South Channel</b>							
Aquatic Life		Oxygen, Dissolved	5A			0.94	2012	L
<b>H39R-10-DO</b>	<b>Bernards Creek</b>							
Aquatic Life		Oxygen, Dissolved	5A			8.12	2014	L
<b>H39R-11-HG</b>	<b>James River</b>							
Fish Consumption		Mercury in Fish Tissue	5A			4.37	2010	L
<b>H39R-13-BEN</b>	<b>Stony Run</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			1.01	2008	M
<b>H39R-14-BEN</b>	<b>Jones Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			8.19	2008	L
<b>H39R-15-BEN</b>	<b>XYT - Stony Run, UT</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			1.27	2008	M
<b>H39R-16-HG</b>	<b>James River</b>							
Fish Consumption		Mercury in Fish Tissue	5A			3.88	2010	L
<b>H39R-17-CDANE</b>	<b>James River</b>							
Fish Consumption		Chlordane	5A			3.88	2010	L
<b>H39R-17-DDE</b>	<b>James River</b>							
Fish Consumption		DDE	5A			3.88	2010	L
<b>H39R-17-DDT</b>	<b>James River</b>							
Fish Consumption		DDT	5A			3.88	2010	L
<b>H39R-19-DO</b>	<b>Deep Run</b>							
Aquatic Life		Oxygen, Dissolved	5C			1.49	2012	L
<b>H39R-27-BEN</b>	<b>Deep Run</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			4.16	2016	M

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Impaired Use								
<b>H39R-28-BEN</b>	<b>Stony Run</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			1.35	2016	L
<b>H39R-29-DO</b>	<b>XBH - Reedy Creek, UT</b>							
Aquatic Life		Oxygen, Dissolved	5A			0.11	2016	L
<b>H39R-30-DO</b>	<b>Dover Creek</b>							
Aquatic Life		Oxygen, Dissolved	5A			0.93	2018	L
<b>I01R-01-TEMP</b>	<b>Jackson River</b>							
Aquatic Life		Temperature, water	5C			13.49	2004	L
		Temperature, water	5C			15.37	2010	L
<b>I01R-02-TEMP</b>	<b>Bolar Run</b>							
Aquatic Life		Temperature, water	5C			2.09	2006	L
<b>I01R-03-BAC</b>	<b>Jackson River</b>							
Recreation		Escherichia coli	5A			13.49	2018	L
<b>I02R-02-BAC</b>	<b>Back Creek</b>							
Recreation		Escherichia coli	5A			15.05	2010	L
<b>I04R-01-BAC</b>	<b>Falling Spring</b>							
Recreation		Escherichia coli	5A			5.10	2008	H
<b>I09R-01-BAC</b>	<b>Smith Creek</b>							
Recreation		Fecal Coliform	5A			1.21	2004	H
<b>I09R-01-DO</b>	<b>Jackson River</b>							
Aquatic Life		Oxygen, Dissolved	5A			11.36	1996	H
<b>I09R-01-PCB</b>	<b>Jackson River</b>							
Fish Consumption		PCB in Fish Tissue	5A			12.63	2008	L
<b>I09R-02-BAC</b>	<b>Jackson River</b>							
Recreation		Escherichia coli	5A			3.40	2008	H
		Escherichia coli	5A			9.23	2010	H
<b>I09R-02-TEMP</b>	<b>Wilson Creek</b>							
Aquatic Life		Temperature, water	5C			6.74	2004	L
<b>I10R-01-TEMP</b>	<b>Potts Creek</b>							
Aquatic Life		Temperature, water	5C			5.66	2006	L
<b>I11R-01-BAC</b>	<b>Potts Creek</b>							
Recreation		Escherichia coli	5A			5.09	2018	L
<b>I12R-01-BAC</b>	<b>Cowpasture River</b>							
Recreation		Escherichia coli	5A			8.30	2016	L
<b>I13R-01-BAC</b>	<b>Bullpasture River</b>							
Recreation		Escherichia coli	5A			11.94	2006	H, 2yr
<b>I13R-02-TEMP</b>	<b>Bullpasture River</b>							
Aquatic Life		Temperature, water	5A			11.94	2012	L

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Impaired Use	Cause						
<b>I14R-04-PH</b>	Laurel Run						
Aquatic Life	pH	5A			2.03	2006	L
<b>I15R-01-BAC</b>	Stuart Run						
Recreation	Escherichia coli	5A			18.30	2018	L
<b>I16R-01-PH</b>	Porters Mill Creek						
Aquatic Life	pH	5A			4.85	2006	L
<b>I18R-03-BAC</b>	Sinking Creek						
Recreation	Escherichia coli	5A			6.42	2014	H, 2yr
<b>I19R-01-BAC</b>	Craig Creek						
Recreation	Escherichia coli	5A			7.90	2004	H, 2yr
<b>I22R-01-BAC</b>	Barbours Creek						
Recreation	Fecal Coliform	5A			7.15	2004	H, 2yr
<b>I22R-01-PH</b>	Mill Creek						
Aquatic Life	pH	5A			4.24	2012	L
<b>I22R-01-TEMP</b>	Barbours Creek						
Aquatic Life	Temperature, water	5C			7.15	2002	L
<b>I22R-02-BAC</b>	Craig Creek						
Recreation	Escherichia coli	5A			11.43	2012	H, 2yr
<b>I22R-04-BAC</b>	Little Patterson Creek						
Recreation	Escherichia coli	5A			4.24	2012	H, 2yr
<b>I22R-05-BAC</b>	Craig Creek						
Recreation	Escherichia coli	5A			16.86	2016	L
	Escherichia coli	5A			10.70	2016	L
<b>I24R-01-BAC</b>	Lapsley Run						
Recreation	Escherichia coli	5A			9.01	2008	H, 2yr
<b>I25R-01-BAC</b>	Catawba Creek						
Recreation	Escherichia coli	5A			13.46	2010	H, 2yr
<b>I25R-01-BEN</b>	Catawba Creek						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			3.23	2008	H, 2yr
<b>I26R-01-BEN</b>	Mill Creek, UT (XUL)						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			5.37	2010	L
<b>I27R-01-BAC</b>	James River						
Recreation	Escherichia coli	5A			7.15	2014	L
	Escherichia coli	5A			9.52	2016	L
<b>I28R-02-BAC</b>	Elk Creek						
Recreation	Escherichia coli	5A			3.98	2014	L
<b>I29R-01-TEMP</b>	Ramseys Draft						
Aquatic Life	Temperature, water	5A			10.29	2016	L

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Impaired Use								
<b>I30R-01-BAC</b>	<b>Calfpasture River</b>							
Recreation		Escherichia coli	5A			2.83	2006	L
<b>I30R-03-BAC</b>	<b>Hamilton Branch</b>							
Recreation		Escherichia coli	5A			6.28	2016	L
<b>I30R-03-PH</b>	<b>Piney Branch</b>							
Aquatic Life		pH	5A			2.33	2006	L
<b>I31R-01-TEMP</b>	<b>Gochenour Branch</b>							
Aquatic Life		Temperature, water	5A			4.31	2018	L
<b>I32R-03-BAC</b>	<b>Little Calfpasture River</b>							
Recreation		Fecal Coliform	5A			12.35	2004	L
		Escherichia coli	5A			12.35	2010	L
<b>I35R-02-BEN</b>	<b>Mill Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			9.13	2016	L
<b>I35R-03-BEN</b>	<b>Woods Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			6.05	2008	H
<b>I36R-02-BEN</b>	<b>Moore's Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			9.09	2006	L
<b>I36R-03-PH</b>	<b>Saint Marys River</b>							
Aquatic Life		pH	5A			1.97	2006	L
<b>I36R-03-TEMP</b>	<b>Saint Marys River</b>							
Aquatic Life		Temperature, water	5A			1.97	2010	L
<b>I36R-05-BEN</b>	<b>Marl Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			7.74	2012	L
<b>I36R-07-PH</b>	<b>South River</b>							
Aquatic Life		pH	5A			6.33	2018	L
<b>I37R-02-PCB</b>	<b>Maury River</b>							
Fish Consumption		PCB in Fish Tissue	5A			4.58	2004	H
		PCB in Fish Tissue	5A			12.34	2006	H
<b>I38L-01-PH</b>	<b>Lexington Reservoir</b>							
Aquatic Life		pH	5A		22.60		2010	L
<b>J01R-02-BEN</b>	<b>Horsepen Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			4.00	2016	L
<b>J01R-09-BEN</b>	<b>Crane Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			5.18	2010	M, 2yr
<b>J03L-01-DO</b>	<b>Prince Edward Lake</b>							
Aquatic Life		Oxygen, Dissolved	5C		26.37		2018	L
<b>J03R-06-BEN</b>	<b>Sandy River</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			4.08	2014	L

# 2018 Impaired Waters - 303(d) List

## Category 5 - Waters needing Total Maximum Daily Load Study

<b>James River Basin</b>								
<b>Cause Group Code</b>	<b>Water Name</b>	<b>Cause</b>	<b>Cause Category</b>	<b>Estuary (Sq. Miles)</b>	<b>Reservoir (Acres)</b>	<b>River (Miles)</b>	<b>Initial List Date</b>	<b>TMDL Dev. Priority</b>
Impaired Use								
<b>J04R-01-BEN</b>	<b>Bush River</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			11.48	2010	L
<b>J04R-02-BEN</b>	<b>Mountain Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			8.97	2010	M, 2yr
<b>J05R-01-BEN</b>	<b>Briery Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			10.48	2008	M, 2yr
<b>J05R-03-BEN</b>	<b>Rice Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			4.59	2014	L
<b>J06R-03-BEN</b>	<b>Horsepen Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			3.99	2014	L
<b>J07L-01-PH</b>	<b>Amelia Lake</b>							
Aquatic Life		pH	5C		98.31		2014	L
<b>J09R-04-BEN</b>	<b>Nibbs Creek South Branch</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			5.86	2014	L
<b>J10R-01-BEN</b>	<b>UT to Appomattox River</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			1.49	2008	L
<b>J10R-02-DO</b>	<b>Goodes Creek</b>							
Aquatic Life		Oxygen, Dissolved	5C			2.91	2010	L
<b>J10R-03-DO</b>	<b>Smacks Creek</b>							
Aquatic Life		Oxygen, Dissolved	5C			9.06	2012	L
<b>J11R-03-DO</b>	<b>Bland Creek</b>							
Aquatic Life		Oxygen, Dissolved	5C			6.51	2010	L
<b>J11R-04-DO</b>	<b>Cellar Creek</b>							
Aquatic Life		Oxygen, Dissolved	5C			2.70	2012	L
<b>J12R-01-BEN</b>	<b>Winticomack Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			4.07	2010	L
<b>J12R-06-DO</b>	<b>Horsepen Branch</b>							
Aquatic Life		Oxygen, Dissolved	5C			4.44	2006	L
<b>J12R-06-PH</b>	<b>Horsepen Branch</b>							
Aquatic Life		pH	5C			4.44	2006	L
<b>J13R-01-DO</b>	<b>Namozine Creek</b>							
Aquatic Life		Oxygen, Dissolved	5C			12.91	2016	L
<b>J13R-01-PH</b>	<b>Namozine Creek</b>							
Aquatic Life		pH	5C			12.91	2018	L
<b>J14R-02-PH</b>	<b>Stoney Creek</b>							
Aquatic Life		pH	5C			2.59	2010	L
<b>J14R-03-DO</b>	<b>Whipponock Creek</b>							
Aquatic Life		Oxygen, Dissolved	5C			6.82	2016	L



# 2018 Impaired Waters - 303(d) List

## Category 5 - Waters needing Total Maximum Daily Load Study

<b>James River Basin</b>								
<b>Cause Group Code</b>	<b>Water Name</b>	<b>Cause</b>	<b>Cause Category</b>	<b>Estuary (Sq. Miles)</b>	<b>Reservoir (Acres)</b>	<b>River (Miles)</b>	<b>Initial List Date</b>	<b>TMDL Dev. Priority</b>
Impaired Use								
<b>J15R-02-BEN</b>	<b>Oldtown Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			4.22	2010	M
<b>J15R-05-BEN</b>	<b>Rohoic Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			13.45	2012	L
<b>J15R-08-BEN</b>	<b>Oldtown Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			6.22	2018	L
<b>J15R-08-DO</b>	<b>Oldtown Creek</b>							
Aquatic Life		Oxygen, Dissolved	5C			6.22	2018	L
<b>J15R-08-PH</b>	<b>Oldtown Creek</b>							
Aquatic Life		pH	5C			6.22	2010	L
<b>J16R-02-DO</b>	<b>Blackman Creek</b>							
Aquatic Life		Oxygen, Dissolved	5C			4.56	2004	L
<b>J16R-03-pH</b>	<b>Horsepen Creek</b>							
Aquatic Life		pH	5C			3.57	2018	L
<b>J17L-01-DO</b>	<b>Swift Creek Lake</b>							
Aquatic Life		Oxygen, Dissolved	5A		107.74		2006	L
<b>J17R-01-BEN</b>	<b>Swift Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			7.25	2010	L
<b>J17R-01-DO</b>	<b>Swift Creek</b>							
Aquatic Life		Oxygen, Dissolved	5A			7.25	2002	L
<b>J17R-05-PH</b>	<b>Church Branch</b>							
Aquatic Life		pH	5C			2.64	2010	L
<b>J17R-06-BEN</b>	<b>Nuttree Branch</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			5.58	2012	L
<b>J17R-06-DO</b>	<b>Nuttree Branch</b>							
Aquatic Life		Oxygen, Dissolved	5C			5.58	2010	L
<b>J17R-07-PH</b>	<b>Second Branch</b>							
Aquatic Life		pH	5C			6.22	2010	L
<b>J17R-08-DO</b>	<b>Swift Creek</b>							
Aquatic Life		Oxygen, Dissolved	5A			3.78	2010	L
<b>J17R-09-BEN</b>	<b>Swift Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5C			2.88	2010	L
<b>J17R-11-DO</b>	<b>Long Swamp</b>							
Aquatic Life		Oxygen, Dissolved	5C			3.72	2016	L
<b>J17R-11-PH</b>	<b>Long Swamp</b>							
Aquatic Life		pH	5C			3.72	2010	L

# 2018 Impaired Waters - 303(d) List

## Category 5 - Waters needing Total Maximum Daily Load Study

### James River Basin

Cause Group Code	Water Name	Cause	Estuary	Reservoir	River	Initial	TMDL
Impaired Use	Cause	Category	(Sq. Miles)	(Acres)	(Miles)	List Date	Dev. Priority

VA DEQ is transitioning from Fecal Coliform bacteria to Escherichia coli (fresh water) and Enterococci (salt water) for assessing the Recreation Use.

TMDL Development Priorities are: H (High) = formal EPA priority to be addressed with a plan by 2022; M (Medium) = DEQ priority that may be addressed with a plan by 2022; or L (Low) = not prioritized to be addressed with a plan by 2022. Within the H or M priority there may be "2yr" noted which means the priority is to be addressed within the next two years.

Multiple listings are due to the same impairments for different uses and/or different initial listing dates for adjacent waters.

# 2018 Impaired Waters - 303(d) List

## Category 5 - Waters needing Total Maximum Daily Load Study

### Rappahannock River Basin

Cause Group Code Impaired Use	Water Name Cause	Cause Category	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)	Initial List Date	TMDL Dev. Priority
<b>E01R-01-BEN</b>	<b>Thumb Run, East Branch</b>						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			6.59	2012	L
<b>E01R-02-BEN</b>	<b>Unnamed Tributary to Thumb Run, West Branch</b>						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			0.80	2014	L
<b>E02R-01-BEN</b>	<b>Great Run</b>						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			4.38	2010	L
	Benthic-Macroinvertebrate Bioassessments	5A			2.81	2012	L
<b>E03R-01-BEN</b>	<b>Popham Run</b>						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			2.21	2018	L
<b>E03R-01-TEMP</b>	<b>Hughes River</b>						
Aquatic Life	Temperature, water	5A			3.21	2008	L
<b>E04R-01-TEMP</b>	<b>Hazel River</b>						
Aquatic Life	Temperature, water	5A			3.63	2016	L
	Temperature, water	5A			6.78	2018	L
<b>E05R-01-BEN</b>	<b>Thornton River</b>						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			0.86	2010	L
<b>E08R-01-BEN</b>	<b>Marsh Run</b>						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			6.01	2012	L
<b>E09L-01-TP</b>	<b>Lake Pelham</b>						
Aquatic Life	Phosphorus (Total)	5A		249.70		2018	L
<b>E09R-01-BEN</b>	<b>Mountain Run</b>						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			19.90	2008	M
<b>E09R-01-PCB</b>	<b>Mountain Run</b>						
Fish Consumption	PCB in Fish Tissue	5A			19.90	2006	H, 2yr
	PCB in Water Column	5A			6.65	2018	H, 2yr
<b>E09R-02-BEN</b>	<b>Jonas Run</b>						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			3.78	2012	M
<b>E09R-02-PCB</b>	<b>Mountain Run</b>						
Fish Consumption	PCB in Fish Tissue	5A			4.63	2016	L
	PCB in Water Column	5A			4.63	2018	L
<b>E10R-01-BEN</b>	<b>Sumerduck Run</b>						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			1.85	2012	M
<b>E10R-04-BAC</b>	<b>Sumerduck Run</b>						
Recreation	Escherichia coli	5A			1.85	2016	L
<b>E11R-01-BEN</b>	<b>Conway River</b>						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			2.99	2010	L
<b>E11R-01-TEMP</b>	<b>Garth Run</b>						
Aquatic Life	Temperature, water	5A			5.82	2018	L

# 2018 Impaired Waters - 303(d) List

## Category 5 - Waters needing Total Maximum Daily Load Study

<b>Rappahannock River Basin</b>							
<b>Cause Group Code</b>	<b>Water Name</b>	<b>Cause Category</b>	<b>Estuary (Sq. Miles)</b>	<b>Reservoir (Acres)</b>	<b>River (Miles)</b>	<b>Initial List Date</b>	<b>TMDL Dev. Priority</b>
Impaired Use	Cause						
<b>E12R-01-BEN</b>	<b>Rippin Run</b>						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			0.60	2012	L
<b>E13R-01-BEN</b>	<b>Beautiful Run</b>						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			2.50	2012	L
<b>E14R-01-BEN</b>	<b>White Oak Run</b>						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			3.19	2018	L
<b>E14R-01-TEMP</b>	<b>Robinson River</b>						
Aquatic Life	Temperature, water	5A			3.00	2004	L
<b>E14R-02-TEMP</b>	<b>Rose River</b>						
Aquatic Life	Temperature, water	5A			2.58	2006	L
<b>E15R-02-BEN</b>	<b>Deep Run</b>						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			2.47	2018	L
<b>E15R-03-BEN</b>	<b>Great Run</b>						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			9.31	2012	L
<b>E16R-01-BEN</b>	<b>Cedar Run</b>						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			2.25	2018	L
<b>E17R-01-BEN</b>	<b>Brook Run</b>						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			2.51	2012	L
<b>E17R-02-BEN</b>	<b>Mountain Run</b>						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			10.10	2018	L
<b>E18R-01-HG</b>	<b>Rapidan River</b>						
Fish Consumption	Mercury in Fish Tissue	5A			9.79	2010	L
<b>E19L-01-HG</b>	<b>Motts Run Reservoir</b>						
Fish Consumption	Mercury in Fish Tissue	5A		137.17		2008	L
<b>E19R-01-BAC</b>	<b>Horsepen Run</b>						
Recreation	Escherichia coli	5A			5.70	2014	L
<b>E19R-02-BAC</b>	<b>Mine Run</b>						
Recreation	Escherichia coli	5A			4.01	2014	L
<b>E20E-03-PCB</b>	<b>Rappahannock River</b>						
Fish Consumption	PCB in Fish Tissue	5A	0.139			2002	L
	PCB in Fish Tissue	5A	3.766			2004	L
	PCB in Fish Tissue	5A	124.983		9.24	2006	L
	PCB in Fish Tissue	5A	0.042			2008	L
	PCB in Fish Tissue	5A			3.31	2018	L
<b>E20R-01-BEN</b>	<b>Falls Run</b>						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			7.35	2012	L
<b>E20R-02-BEN</b>	<b>Hazel Run</b>						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			4.72	2012	L

# 2018 Impaired Waters - 303(d) List

## Category 5 - Waters needing Total Maximum Daily Load Study

<b>Rappahannock River Basin</b>								
<b>Cause Group Code</b>	<b>Water Name</b>		<b>Cause Category</b>	<b>Estuary (Sq. Miles)</b>	<b>Reservoir (Acres)</b>	<b>River (Miles)</b>	<b>Initial List Date</b>	<b>TMDL Dev. Priority</b>
Impaired Use	Cause							
<b>E20R-03-BEN</b>	<b>Little Falls Run</b>							
Aquatic Life	Benthic-Macroinvertebrate Bioassessments		5A			4.92	2016	L
<b>E20R-04-PH</b>	<b>Deep Run</b>							
Aquatic Life	pH		5A			1.56	2012	L
<b>E20R-05-PH</b>	<b>Unnamed tributary to Massaponax Creek</b>							
Aquatic Life	pH		5A			1.27	2016	L
<b>E21R-01-BEN</b>	<b>Muddy Creek</b>							
Aquatic Life	Benthic-Macroinvertebrate Bioassessments		5A			3.58	2010	L
<b>E21R-02-BEN</b>	<b>Ware Creek</b>							
Aquatic Life	Benthic-Macroinvertebrate Bioassessments		5A			3.06	2008	L
<b>E21R-02-PH</b>	<b>Ware Creek</b>							
Aquatic Life	pH		5C			3.06	2004	L
	pH		5C			4.50	2008	L
<b>E21R-03-BAC</b>	<b>Gingoteague Creek</b>							
Recreation	Escherichia coli		5A			1.49	2008	L
<b>E21R-03-BEN</b>	<b>Gingoteague Creek</b>							
Aquatic Life	Benthic-Macroinvertebrate Bioassessments		5A			1.49	2012	L
<b>E21R-03-PH</b>	<b>Gingoteague Creek</b>							
Aquatic Life	pH		5C			1.49	2008	L
<b>E21R-04-BEN</b>	<b>Mill Creek</b>							
Aquatic Life	Benthic-Macroinvertebrate Bioassessments		5A			3.59	2008	L
<b>E21R-05-BEN</b>	<b>White Oak Run</b>							
Aquatic Life	Benthic-Macroinvertebrate Bioassessments		5A			6.51	2014	L
<b>E21R-05-PH</b>	<b>Mount Creek</b>							
Aquatic Life	pH		5C			4.46	2008	L
<b>E21R-07-BAC</b>	<b>Mill Creek</b>							
Recreation	Escherichia coli		5A			4.58	2008	L
<b>E21R-08-PH</b>	<b>Goldenvale Creek</b>							
Aquatic Life	pH		5C			5.31	2008	L
<b>E21R-10-BAC</b>	<b>Jetts Creek</b>							
Recreation	Escherichia coli		5A			1.85	2010	L
<b>E21R-10-PH</b>	<b>White Oak Run</b>							
Aquatic Life	pH		5C			6.51	2014	L
<b>E21R-11-BAC</b>	<b>Portobago Creek</b>							
Recreation	Escherichia coli		5A			7.00	2010	L
<b>E21R-11-DO</b>	<b>Portobago Creek</b>							
Aquatic Life	Oxygen, Dissolved		5C			7.00	2010	L

# 2018 Impaired Waters - 303(d) List

## Category 5 - Waters needing Total Maximum Daily Load Study

<b>Rappahannock River Basin</b>								
<b>Cause Group Code</b>	<b>Water Name</b>		<b>Cause Category</b>	<b>Estuary (Sq. Miles)</b>	<b>Reservoir (Acres)</b>	<b>River (Miles)</b>	<b>Initial List Date</b>	<b>TMDL Dev. Priority</b>
Impaired Use	Cause							
<b>E22E-01-EBEN</b>	<b>Rappahannock River</b>							
Aquatic Life	Estuarine Bioassessments		5A	6.302			2010	L
<b>E22E-02-EBEN</b>	<b>Rappahannock River</b>							
Aquatic Life	Estuarine Bioassessments		5A	110.179			2006	L
	Estuarine Bioassessments		5A	0.014			2008	L
	Estuarine Bioassessments		5A	0.028			2008	L
<b>E22E-03-BAC</b>	<b>Peedee Creek</b>							
Recreation	Enterococcus		5A	0.150			2014	H, 2yr
<b>E22E-05-BAC</b>	<b>Rappahannock River</b>							
Recreation	Enterococcus		5A	1.344			2014	L
<b>E22E-08-CHLR</b>	<b>Rappahannock River</b>							
Aquatic Life	Chloride		5C	5.133			2004	L
Wildlife	Chloride		5C	5.133			2004	L
<b>E22R-02-DO</b>	<b>Farmers Hall Creek</b>							
Aquatic Life	Oxygen, Dissolved		5C			4.00	2012	L
<b>E22R-02-PH</b>	<b>Farmers Hall Creek</b>							
Aquatic Life	pH		5C			4.00	2006	L
<b>E22R-03-MIREX</b>	<b>Occupacia Creek and Tributaries</b>							
Aquatic Life	Mirex		5A			74.69	2010	L
Wildlife	Mirex		5A			74.69	2010	L
<b>E22R-04-BAC</b>	<b>Elmwood Creek and Tributary XHY</b>							
Recreation	Escherichia coli		5A			9.07	2014	H, 2yr
<b>E22R-04-DO</b>	<b>Elmwood Creek and Tributary XHY</b>							
Aquatic Life	Oxygen, Dissolved		5C			9.07	2014	L
<b>E22R-04-PH</b>	<b>Elmwood Creek and Tributary XHY</b>							
Aquatic Life	pH		5C			9.07	2006	L
<b>E22R-05-BAC</b>	<b>Baylors Creek</b>							
Recreation	Escherichia coli		5A			5.89	2008	H, 2yr
<b>E22R-05-PH</b>	<b>Baylors Creek</b>							
Aquatic Life	pH		5C			5.89	2008	L
<b>E22R-06-DO</b>	<b>Peedee Creek</b>							
Aquatic Life	Oxygen, Dissolved		5C			3.29	2010	L
<b>E22R-06-PH</b>	<b>Peedee Creek</b>							
Aquatic Life	pH		5C			3.29	2008	L
<b>E22R-08-BAC</b>	<b>Stillwater Creek</b>							
Recreation	Escherichia coli		5A			3.52	2014	H, 2yr
<b>E22R-08-DO</b>	<b>Stillwater Creek</b>							
Aquatic Life	Oxygen, Dissolved		5C			3.52	2014	L

# 2018 Impaired Waters - 303(d) List

## Category 5 - Waters needing Total Maximum Daily Load Study

### Rappahannock River Basin

Cause Group Code Impaired Use	Water Name Cause	Cause Category	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)	Initial List Date	TMDL Dev. Priority
<b>E22R-08-PH</b> Aquatic Life	Stillwater Creek pH	5C			3.52	2014	L
<b>E22R-09-BAC</b> Recreation	XHW - UT to Peedee Creek, UT (XHV) Escherichia coli	5A			0.48	2014	H, 2yr
<b>E22R-10-PH</b> Aquatic Life	Mill Swamp pH	5C			0.72	2014	L
<b>E22R-11-DO</b> Aquatic Life	Smoots Mill Run, UT Oxygen, Dissolved	5C			1.67	2014	L
<b>E22R-11-PH</b> Aquatic Life	Smoots Mill Run, UT pH	5C			1.67	2014	L
<b>E23L-01-HG</b> Fish Consumption	Chandlers Millpond Mercury in Fish Tissue	5A		47.99		2008	L
<b>E23R-07-BEN</b> Aquatic Life	Ruin Branch Benthic-Macroinvertebrate Bioassessments	5A			2.53	2014	L
<b>E23R-12-DO</b> Aquatic Life	Mussell Swamp Oxygen, Dissolved	5C			5.13	2006	L
<b>E23R-16-BEN</b> Aquatic Life	Church Swamp Benthic-Macroinvertebrate Bioassessments	5A			3.24	2008	L
<b>E23R-20-DO</b> Aquatic Life	Scates Millstream Oxygen, Dissolved	5C			2.89	2014	L
<b>E23R-20-PH</b> Aquatic Life	Scates Millstream pH	5C			2.89	2014	L
<b>E24E-02-EBTOX</b> Aquatic Life	Totuskey Creek Sediment Bioassays for Estuarine and Marine Water	5A	1.068			2006	L
<b>E24E-05-PH</b> Aquatic Life	Little Totuskey Creek pH	5C	0.055			2012	L
<b>E24R-01-DO</b> Aquatic Life	Bookers Mill Stream Oxygen, Dissolved	5C			6.53	2012	L
<b>E24R-03-PH</b> Aquatic Life	Muddy Gut pH	5C			2.63	2008	L
<b>E24R-05-PH</b> Aquatic Life	Branham Mill Swamp pH	5C			3.66	2012	L
<b>E24R-06-DO</b> Aquatic Life	Richardson Creek and Tributaries Oxygen, Dissolved	5C			17.21	2012	L
<b>E24R-06-PH</b> Aquatic Life	Richardson Creek and Tributaries pH	5C			17.21	2012	L
<b>E24R-08-PH</b> Aquatic Life	XHL - Bookers Mill Stream, UT pH	5C			2.01	2012	L

# 2018 Impaired Waters - 303(d) List

## Category 5 - Waters needing Total Maximum Daily Load Study

### Rappahannock River Basin

Cause Group Code Impaired Use	Water Name Cause	Cause Category	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)	Initial List Date	TMDL Dev. Priority
<b>E24R-09-DO</b> Aquatic Life	<b>Marshy Swamp</b> Oxygen, Dissolved	5C			9.53	2012	L
<b>E25R-02-DO</b> Aquatic Life	<b>Lagrange Creek</b> Oxygen, Dissolved	5C			2.49	2010	L
<b>E25R-04-DO</b> Aquatic Life	<b>South Branch Lagrange Creek</b> Oxygen, Dissolved	5A			0.40	2012	L
<b>E25R-17-DO</b> Aquatic Life	<b>Masons Mill Swamp</b> Oxygen, Dissolved	5C			3.37	2008	L
<b>E26E-04-EBEN</b> Aquatic Life	<b>Corrotoman River</b> Estuarine Bioassessments	5A	6.953			2014	L
<b>E26E-24-BAC</b> Recreation	<b>Whiting Creek</b> Enterococcus	5A	0.195			2012	L
<b>E26R-03-DO</b> Aquatic Life	<b>Norris Prong</b> Oxygen, Dissolved	5C			2.47	2008	L
<b>E26R-04-DO</b> Aquatic Life	<b>Browns Creek</b> Oxygen, Dissolved	5C			2.58	2008	L

VA DEQ is transitioning from Fecal Coliform bacteria to Escherichia coli (fresh water) and Enterococci (salt water) for assessing the Recreation Use.

TMDL Development Priorities are: H (High) = formal EPA priority to be addressed with a plan by 2022; M (Medium) = DEQ priority that may be addressed with a plan by 2022; or L (Low) = not prioritized to be addressed with a plan by 2022. Within the H or M priority there may be "2yr" noted which means the priority is to be addressed within the next two years.

Multiple listings are due to the same impairments for different uses and/or different initial listing dates for adjacent waters.



# 2018 Impaired Waters - 303(d) List

## Category 5 - Waters needing Total Maximum Daily Load Study

### Roanoke and Yadkin River Basins

Cause Group Code Impaired Use	Water Name Cause	Cause Category	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)	Initial List Date	TMDL Dev. Priority
<b>L01R-01-TEMP</b>	<b>Roanoke River, South Fork</b>						
Aquatic Life	Temperature, water	5C			6.27	2004	L
	Temperature, water	5C			6.43	2010	L
	Temperature, water	5C			4.61	2012	L
<b>L01R-02-TEMP</b>	<b>Bottom Creek</b>						
Aquatic Life	Temperature, water	5C			4.49	2008	L
<b>L02R-01-PH</b>	<b>Bradshaw Creek</b>						
Aquatic Life	pH	5C			10.36	2010	L
<b>L03R-01-TEMP</b>	<b>Roanoke River</b>						
Aquatic Life	Temperature, water	5C			13.09	2002	L
<b>L04R-01-HG</b>	<b>Roanoke River</b>						
Fish Consumption	Mercury in Fish Tissue	5A			10.28	2010	L
<b>L04R-03-BEN</b>	<b>Roanoke River</b>						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			3.16	2008	H, 2yr
<b>L04R-10-BEN</b>	<b>Wolf Creek</b>						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			4.50	2018	L
<b>L05R-01-BEN</b>	<b>Tinker Creek</b>						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			5.37	2010	H, 2yr
	Benthic-Macroinvertebrate Bioassessments	5A			6.50	2018	H, 2yr
<b>L05R-01-TEMP</b>	<b>Tinker Creek</b>						
Aquatic Life	Temperature, water	5C			11.87	2002	L
<b>L05R-02-BEN</b>	<b>Deer Branch</b>						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			1.38	2014	H, 2yr
<b>L06R-01-BEN</b>	<b>Back Creek</b>						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			6.92	2014	H, 2yr
<b>L07L-01-PH</b>	<b>Beaverdam Reservoir</b>						
Aquatic Life	pH	5C		66.93		2012	L
<b>L07R-01-BEN</b>	<b>Beaverdam Creek</b>						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			10.33	2010	M
<b>L07R-02-BEN</b>	<b>Merriman Run, UT (XUO)</b>						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			0.88	2010	M
<b>L08R-01-TEMP</b>	<b>Green Creek</b>						
Aquatic Life	Temperature, water	5C			4.09	2012	L
<b>L08R-02-TEMP</b>	<b>Blackwater River, South Fork</b>						
Aquatic Life	Temperature, water	5C			6.20	2016	L
<b>L08R-05-BEN</b>	<b>Little Creek</b>						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			7.85	2002	M
<b>L08R-06-BEN</b>	<b>Teels Creek</b>						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			4.76	2002	M

# 2018 Impaired Waters - 303(d) List

## Category 5 - Waters needing Total Maximum Daily Load Study

### Roanoke and Yadkin River Basins

Cause Group Code Impaired Use	Water Name Cause	Cause Category	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)	Initial List Date	TMDL Dev. Priority
<b>L08R-07-BEN</b> Aquatic Life	<b>Buck Run</b> Benthic-Macroinvertebrate Bioassessments	5A			3.77	2008	M
<b>L09R-01-BEN</b> Aquatic Life	<b>Maggodee Creek</b> Benthic-Macroinvertebrate Bioassessments	5A			7.47	2002	M
<b>L09R-01-TEMP</b> Aquatic Life	<b>Maggodee Creek</b> Temperature, water	5C			4.43	2008	L
<b>L09R-02-BEN</b> Aquatic Life	<b>Maggodee Creek</b> Benthic-Macroinvertebrate Bioassessments	5A			5.42	2016	L
<b>L10L-01-HG</b> Fish Consumption	<b>Blackwater River</b> Mercury in Fish Tissue	5A		524.78	8.21	2010	L
<b>L10L-05-BAC</b> Recreation	<b>Smith Mountain Lake - Crazy Horse Camp Ground</b> Escherichia coli	5A		30.27		2004	L
<b>L10R-01-BEN</b> Aquatic Life	<b>Blackwater River</b> Benthic-Macroinvertebrate Bioassessments	5A			8.21	2008	M
<b>L12L-01-HG</b> Fish Consumption	<b>Smith Mountain Lake</b> Mercury in Fish Tissue	5A		6,480.10		2010	L
<b>L12R-01-BAC</b> Recreation	<b>Craddock Creek (XME)</b> Escherichia coli	5A			1.23	2012	M
<b>L14R-01-BEN</b> Aquatic Life	<b>Pigg River</b> Benthic-Macroinvertebrate Bioassessments	5A			4.43	2012	M
<b>L14R-02-BEN</b> Aquatic Life	<b>Storey Creek</b> Benthic-Macroinvertebrate Bioassessments	5A			9.82	2016	L
<b>L17R-01-BEN</b> Aquatic Life	<b>Poplar Branch</b> Benthic-Macroinvertebrate Bioassessments	5A			2.56	2008	M
<b>L18R-01-BEN</b> Aquatic Life	<b>Fryingpan Creek</b> Benthic-Macroinvertebrate Bioassessments	5A			2.56	2006	M
<b>L19R-01-HG</b> Fish Consumption	<b>Roanoke (Staunton) River, Cub Creek, Kerr Reservoir</b> Mercury in Fish Tissue Mercury in Fish Tissue	5A 5A		31,884.59	97.39 9.87	2008 2018	L L
<b>L19R-02-BEN</b> Aquatic Life	<b>Lynch Creek</b> Benthic-Macroinvertebrate Bioassessments	5A			3.90	2010	M
<b>L19R-03-BEN</b> Aquatic Life	<b>Reed Creek</b> Benthic-Macroinvertebrate Bioassessments	5A			8.90	2010	M
<b>L19R-04-BEN</b> Aquatic Life	<b>Roanoke (Staunton) River, Unnamed tributary</b> Benthic-Macroinvertebrate Bioassessments	5A			4.10	2010	M
<b>L21R-01-BEN</b> Aquatic Life	<b>Wolf Creek</b> Benthic-Macroinvertebrate Bioassessments	5A			7.13	2012	M

# 2018 Impaired Waters - 303(d) List

## Category 5 - Waters needing Total Maximum Daily Load Study

### Roanoke and Yadkin River Basins

Cause Group Code Impaired Use	Water Name Cause	Cause Category	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)	Initial List Date	TMDL Dev. Priority
<b>L21R-02-BEN</b> Aquatic Life	<b>Bore Auger Creek</b> Benthic-Macroinvertebrate Bioassessments	5A			5.73	2014	M
<b>L26R-01-HG</b> Fish Consumption	<b>Little Otter River</b> Mercury in Fish Tissue	5A			14.61	2010	L
<b>L29R-01-BEN</b> Aquatic Life	<b>Flat Creek</b> Benthic-Macroinvertebrate Bioassessments	5A			8.21	2010	L
<b>L31R-01-BEN</b> Aquatic Life	<b>East Little Seneca Creek, Unnamed Tributary</b> Benthic-Macroinvertebrate Bioassessments	5A			1.50	2008	L
<b>L34R-07-BEN</b> Aquatic Life	<b>Entry Creek, Unnamed Tributary</b> Benthic-Macroinvertebrate Bioassessments	5A			1.69	2012	L
<b>L35R-01-BEN</b> Aquatic Life	<b>Mollys Creek</b> Benthic-Macroinvertebrate Bioassessments	5A			1.99	2010	L
<b>L36R-04-BEN</b> Aquatic Life	<b>Armistead Branch</b> Benthic-Macroinvertebrate Bioassessments	5A			3.20	2014	L
<b>L38L-01-DO</b> Aquatic Life	<b>Conner Lake</b> Oxygen, Dissolved	5A		101.92		2018	L
<b>L38L-01-HG</b> Fish Consumption	<b>Conner Lake</b> Mercury in Fish Tissue	5A		101.92		2010	L
<b>L39R-03-BEN</b> Aquatic Life	<b>Horsepen Creek</b> Benthic-Macroinvertebrate Bioassessments	5A			5.32	2008	M
<b>L39R-05-HG</b> Fish Consumption	<b>Roanoke Creek</b> Mercury in Fish Tissue	5A			10.50	2010	L
<b>L39R-07-BEN</b> Aquatic Life	<b>Little Roanoke Creek</b> Benthic-Macroinvertebrate Bioassessments	5A			10.15	2010	M
<b>L39R-08-BEN</b> Aquatic Life	<b>Bush Ford Branch</b> Benthic-Macroinvertebrate Bioassessments	5A			3.09	2010	M
<b>L39R-09-BEN</b> Aquatic Life	<b>UT, Spencer Creek</b> Benthic-Macroinvertebrate Bioassessments	5A			2.90	2014	M
<b>L40R-01-BEN</b> Aquatic Life	<b>Berles Creek</b> Benthic-Macroinvertebrate Bioassessments	5A			2.28	2016	L
<b>L40R-06-BEN</b> Aquatic Life	<b>Buffalo Creek</b> Benthic-Macroinvertebrate Bioassessments	5A			2.35	2014	L
<b>L42L-01-HG</b> Fish Consumption	<b>Talbott Reservoir</b> Mercury in Fish Tissue	5A		140.51		2010	L
<b>L42L-06-PH</b> Aquatic Life	<b>Townes Reservoir</b> pH	5A		28.12		2018	L

# 2018 Impaired Waters - 303(d) List

## Category 5 - Waters needing Total Maximum Daily Load Study

### Roanoke and Yadkin River Basins

Cause Group Code Impaired Use	Water Name Cause	Cause Category	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)	Initial List Date	TMDL Dev. Priority
<b>L42R-01-TEMP</b>	<b>Dan River</b>						
Aquatic Life	Temperature, water	5C			9.66	2002	L
	Temperature, water	5C			5.81	2008	L
<b>L42R-06-TEMP</b>	<b>Little Dan River</b>						
Aquatic Life	Temperature, water	5C			7.26	2018	L
<b>L43R-01-TEMP</b>	<b>South Mayo River</b>						
Aquatic Life	Temperature, water	5C			4.73	2010	L
<b>L45R-01-HG</b>	<b>South Mayo River</b>						
Fish Consumption	Mercury in Fish Tissue	5A			10.97	2010	L
<b>L47R-01-BEN</b>	<b>Horse Pasture Creek</b>						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			7.44	2010	L
<b>L50R-01-TEMP</b>	<b>Smith River</b>						
Aquatic Life	Temperature, water	5C			9.48	2002	L
	Temperature, water	5C			1.45	2018	L
<b>L51L-01-HG</b>	<b>Philpott Reservoir</b>						
Fish Consumption	Mercury in Fish Tissue	5A		2,813.52		2010	L
<b>L51R-01-HG</b>	<b>Goblintown Creek</b>						
Fish Consumption	Mercury in Fish Tissue	5A			6.80	2010	L
<b>L51R-01-TEMP</b>	<b>Rennet Bag Creek</b>						
Aquatic Life	Temperature, water	5C			11.54	2002	L
<b>L51R-02-TEMP</b>	<b>Shooting Creek</b>						
Aquatic Life	Temperature, water	5C			7.32	2008	L
<b>L51R-03-TEMP</b>	<b>Smith River</b>						
Aquatic Life	Temperature, water	5C			6.43	2016	L
<b>L53R-01-TEMP</b>	<b>Smith River</b>						
Aquatic Life	Temperature, water	5A			6.50	2016	L
<b>L53R-03-BEN</b>	<b>Beaver Creek</b>						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			6.97	2008	L
<b>L53R-04-BEN</b>	<b>Jones Creek, UT (XMP)</b>						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			2.00	2006	L
<b>L53R-05-BEN</b>	<b>Beaver Creek</b>						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			5.30	2016	L
<b>L53R-06-BEN</b>	<b>Daniels Creek</b>						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			3.99	2016	L
<b>L53R-07-BEN</b>	<b>Jones Creek</b>						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			2.36	2016	L
<b>L54R-02-BEN</b>	<b>Machine Branch</b>						
Aquatic Life	Benthic-Macroinvertebrate Bioassessments	5A			0.68	2010	L

# 2018 Impaired Waters - 303(d) List

## Category 5 - Waters needing Total Maximum Daily Load Study

### Roanoke and Yadkin River Basins

Cause Group Code	Water Name	Cause	Cause Category	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)	Initial List Date	TMDL Dev. Priority
<b>L54R-03-BEN</b>	<b>Mulberry Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			2.60	2010	L
<b>L60R-01-HG</b>	<b>Dan River, Banister River and Hyco River</b>							
Fish Consumption		Mercury in Fish Tissue	5A		1,655.18	57.41	2008	L
		Mercury in Fish Tissue	5A			5.44	2010	L
<b>L60R-01-PCB</b>	<b>Dan River, Banister River and Hyco River</b>							
Fish Consumption		PCB in Fish Tissue	5A		1,655.18	34.13	2002	L
		PCB in Fish Tissue	5A			12.44	2004	L
		PCB in Fish Tissue	5A			2.33	2004	L
		PCB in Fish Tissue	5A			8.51	2006	L
		PCB in Fish Tissue	5A			4.27	2010	L
		PCB in Fish Tissue	5A			1.17	2010	L
		PCB in Fish Tissue	5A			17.48	2018	L
<b>L60R-02-BEN</b>	<b>Pumpkin Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			4.28	2012	L
<b>L60R-03-BEN</b>	<b>Cane Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			12.25	2012	L
<b>L60R-04-BEN</b>	<b>Rutledge Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			4.37	2012	L
<b>L61R-01-BEN</b>	<b>Fall Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			11.97	2014	L
<b>L61R-01-HG</b>	<b>Fall Creek</b>							
Fish Consumption		Mercury in Fish Tissue	5A			11.97	2010	L
<b>L61R-02-BEN</b>	<b>Lawless Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			4.71	2018	L
<b>L62R-07-BEN</b>	<b>Wolfe Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			2.86	2008	L
<b>L62R-10-BEN</b>	<b>Sandy Creek, Unnamed Tributary</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			2.29	2016	L
<b>L63R-01-BEN</b>	<b>Birch Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			20.15	2016	L
<b>L64R-01-DO</b>	<b>Lawsons Creek</b>							
Aquatic Life		Oxygen, Dissolved	5A			8.26	2010	L
<b>L64R-03-BEN</b>	<b>Grassy Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			0.83	2008	M
<b>L64R-04-BEN</b>	<b>Poplar Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			4.04	2010	M
<b>L64R-05-BEN</b>	<b>Reedy Creek</b>							
Aquatic Life		Benthic-Macroinvertebrate Bioassessments	5A			2.92	2010	M

# 2018 Impaired Waters - 303(d) List

## Category 5 - Waters needing Total Maximum Daily Load Study

### Roanoke and Yadkin River Basins

Cause Group Code Impaired Use	Water Name Cause	Cause Category	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)	Initial List Date	TMDL Dev. Priority
<b>L65R-02-BEN</b> Aquatic Life	<b>Bearskin Creek</b> Benthic-Macroinvertebrate Bioassessments	5A			9.57	2010	L
<b>L65R-04-BEN</b> Aquatic Life	<b>Strawberry Creek</b> Benthic-Macroinvertebrate Bioassessments	5A			5.96	2014	L
<b>L66L-01-DO</b> Aquatic Life	<b>Cherrystone Reservoir</b> Oxygen, Dissolved	5A		104.27		2010	L
<b>L66L-02-DO</b> Aquatic Life	<b>Roaring Fork Reservoir</b> Oxygen, Dissolved	5A		19.58		2008	L
<b>L66L-02-PH</b> Aquatic Life	<b>Roaring Fork Reservoir</b> pH	5A		19.58		2016	L
<b>L67R-03-BEN</b> Aquatic Life	<b>Elkhorn Creek</b> Benthic-Macroinvertebrate Bioassessments	5A			12.90	2010	L
<b>L67R-04-BEN</b> Aquatic Life	<b>Bradley Creek</b> Benthic-Macroinvertebrate Bioassessments	5A			6.46	2016	L
<b>L68R-01-BEN</b> Aquatic Life	<b>Whitehorn Creek</b> Benthic-Macroinvertebrate Bioassessments	5A			15.10	2016	L
<b>L70R-02-BEN</b> Aquatic Life	<b>Sweden Fork</b> Benthic-Macroinvertebrate Bioassessments	5A			8.63	2014	L
<b>L70R-03-BEN</b> Aquatic Life	<b>Bar Branch</b> Benthic-Macroinvertebrate Bioassessments	5A			4.03	2016	L
<b>L71R-05-BEN</b> Aquatic Life	<b>Polecat Creek</b> Benthic-Macroinvertebrate Bioassessments	5A			9.70	2016	L
<b>L72R-01-BAC</b> Recreation	<b>Terrible Creek</b> Escherichia coli	5A			4.82	2014	L
<b>L72R-01-BEN</b> Aquatic Life	<b>Terrible Creek</b> Benthic-Macroinvertebrate Bioassessments	5A			4.82	2014	L
<b>L73R-03-DO</b> Aquatic Life	<b>Peter Creek</b> Oxygen, Dissolved	5A			6.61	2016	L
<b>L74R-03-DO</b> Aquatic Life	<b>Coleman Creek</b> Oxygen, Dissolved	5A			8.48	2014	L
<b>L74R-04-DO</b> Aquatic Life	<b>Big Bluewing Creek</b> Oxygen, Dissolved	5A			11.23	2008	L
<b>L74R-05-BEN</b> Aquatic Life	<b>Bowes Branch</b> Benthic-Macroinvertebrate Bioassessments	5A			1.44	2008	L
<b>L74R-08-BEN</b> Aquatic Life	<b>Little Bluewing Creek</b> Benthic-Macroinvertebrate Bioassessments	5A			7.92	2018	L
<b>L75L-01-PCB</b> Fish Consumption	<b>Kerr Reservoir</b> PCB in Fish Tissue	5A		31,884.59		2002	L

# 2018 Impaired Waters - 303(d) List

## Category 5 - Waters needing Total Maximum Daily Load Study

### Roanoke and Yadkin River Basins

Cause Group Code Impaired Use	Water Name Cause	Cause Category	Estuary (Sq. Miles)	Reservoir (Acres)	River (Miles)	Initial List Date	TMDL Dev. Priority
<b>L75R-03-BEN</b> Aquatic Life	<b>Beech Creek</b> Benthic-Macroinvertebrate Bioassessments	5A			4.69	2016	L
<b>L76R-01-BEN</b> Aquatic Life	<b>Little Buffalo Creek</b> Benthic-Macroinvertebrate Bioassessments	5A			2.51	2012	L
<b>L76R-02-BAC</b> Recreation	<b>Buffalo Creek</b> Escherichia coli	5A			5.68	2018	L
<b>L76R-02-BEN</b> Aquatic Life	<b>Buffalo Creek</b> Benthic-Macroinvertebrate Bioassessments	5A			5.68	2018	L
<b>L77R-01-BAC</b> Recreation	<b>Little Bluestone Creek</b> Escherichia coli	5A			9.38	2006	L
<b>L77R-02-BAC</b> Recreation	<b>Bluestone Creek</b> Escherichia coli	5A			8.25	2006	L
<b>L77R-02-BEN</b> Aquatic Life	<b>Bluestone Creek</b> Benthic-Macroinvertebrate Bioassessments	5A			13.73	2014	L
<b>L78R-02-BAC</b> Recreation	<b>Unnamed Tributary to Allen Creek</b> Fecal Coliform	5A			1.27	2004	L
<b>L78R-03-BAC</b> Recreation	<b>Allen Creek</b> Escherichia coli Escherichia coli	5A 5A			8.97 15.27	2006 2012	L L
<b>L78R-03-BEN</b> Aquatic Life	<b>Allen Creek</b> Benthic-Macroinvertebrate Bioassessments	5A			15.27	2016	L
<b>L78R-04-BEN</b> Aquatic Life	<b>Cox Creek</b> Benthic-Macroinvertebrate Bioassessments	5A			10.80	2008	M
<b>L78R-04-DO</b> Aquatic Life	<b>Cox Creek</b> Oxygen, Dissolved	5A			10.80	2004	M
<b>L78R-04-PH</b> Aquatic Life	<b>Cox Creek</b> pH	5A			10.80	2006	M
<b>L78R-05-BAC</b> Recreation	<b>Cotton Creek</b> Escherichia coli	5A			4.39	2008	L
<b>L78R-06-BAC</b> Recreation	<b>Layton Creek</b> Escherichia coli	5A			8.64	2012	L
<b>L78R-06-BEN</b> Aquatic Life	<b>Layton Creek</b> Benthic-Macroinvertebrate Bioassessments	5A			8.64	2012	M
<b>L78R-07-BAC</b> Recreation	<b>Kettles Creek</b> Escherichia coli	5A			5.48	2012	L
<b>L78R-07-DO</b> Aquatic Life	<b>Kettles Creek</b> Oxygen, Dissolved	5A			5.48	2012	M









































































