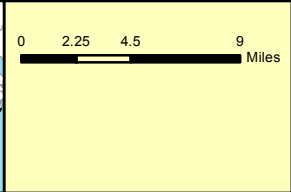
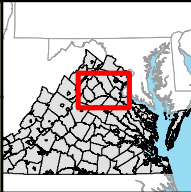


US Army Corps of Engineers
Norfolk District

Rappahannock River Basin Gauging Analysis

303(d) Listed Impaired Waters



— <all other values>
IMP_CAUSE

— Streams and Rivers


Projection:
Virginia State Plane
North Zone - NAD 83
U.S. Survey Feet

Basemap:
Esri ArcGIS Online
National Geographic

Project Manager: Holly Carpenter
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Prepared by: Jason O'Neal
Geospatial Section

Map File: Impaired_303d_Waters.mxd
Map Date: 11 February 2013





2012 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. Date
E01R-01-BEN Aquatic Life	Thumb Run, East Branch Benthic-Macroinvertebrate Bioassessments	5A			5.88	2012	2024
E02R-01-BEN Aquatic Life	Great Run Benthic-Macroinvertebrate Bioassessments	5A			4.12	2010	2022
	Benthic-Macroinvertebrate Bioassessments	5A			2.75	2012	2024
E03R-01-TEMP Aquatic Life	Hughes River Temperature, water	5A			3.11	2008	2020
E06R-02-BEN Aquatic Life	Battle Run Benthic-Macroinvertebrate Bioassessments	5A			2.15	2012	2024
E08R-01-BEN Aquatic Life	Marsh Run Benthic-Macroinvertebrate Bioassessments	5A			5.87	2012	2024
E08R-02-DO Aquatic Life	Browns Run Oxygen, Dissolved	5A			2.38	2008	2020
E09R-01-BEN Aquatic Life	Mountain Run Benthic-Macroinvertebrate Bioassessments	5A			19.33	2008	2020
E09R-01-PCB Fish Consumption	Mountain Run PCB in Fish Tissue	5A			19.33	2006	2018
E09R-02-BEN Aquatic Life	Jonas Run Benthic-Macroinvertebrate Bioassessments	5A			3.71	2012	2024
E10R-01-BEN Aquatic Life	Sumerduck Run Benthic-Macroinvertebrate Bioassessments	5A			1.78	2012	2024
E10R-02-BAC Recreation	Sumerduck Run Escherichia coli	5A			3.55	2008	2020
E11R-01-BEN Aquatic Life	Conway River Benthic-Macroinvertebrate Bioassessments	5A			2.90	2010	2022
E13R-01-BEN Aquatic Life	Beautiful Run Benthic-Macroinvertebrate Bioassessments	5A			2.35	2012	2024
E14R-01-TEMP Aquatic Life	Robinson River Temperature, water	5A			2.92	2004	2016
E14R-02-TEMP Aquatic Life	Rose River Temperature, water	5A			2.46	2006	2018
E15R-01-BEN Aquatic Life	Great Run Benthic-Macroinvertebrate Bioassessments	5A			8.41	2012	2024
E17R-01-BEN Aquatic Life	Brook Run Benthic-Macroinvertebrate Bioassessments	5A			2.45	2012	2024
E18R-01-HG Fish Consumption	Rapidan River Mercury in Fish Tissue	5A			10.26	2010	2022



2012 Impaired Waters - 303(d) List

Category 5 - Waters needing Total Maximum Daily Load Study

Rappahannock River Basin

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E19L-01-HG Fish Consumption	Motts Run Reservoir Mercury in Fish Tissue	5A		137.17		2008	2020
E20E-03-PCB Fish Consumption	Rappahannock River PCB in Fish Tissue	5A	0.136			2002	2018
	PCB in Fish Tissue	5A	3.758		8.59	2004	2016
	PCB in Fish Tissue	5A	124.928			2006	2018
	PCB in Fish Tissue	5A	0.044			2008	2018
E20R-01-BEN Aquatic Life	Falls Run Benthic-Macroinvertebrate Bioassessments	5A			6.98	2012	2024
E20R-02-BEN Aquatic Life	Hazel Run Benthic-Macroinvertebrate Bioassessments	5A			4.38	2012	2024
E20R-03-PH Aquatic Life	Massaponax Creek pH	5A			4.93	2006	2018
E20R-04-PH Aquatic Life	Deep Run pH	5A			1.51	2012	2024
E21R-01-BEN Aquatic Life	Muddy Creek Benthic-Macroinvertebrate Bioassessments	5A			3.39	2010	2022
E21R-02-BEN Aquatic Life	Ware Creek Benthic-Macroinvertebrate Bioassessments	5A			2.94	2008	2020
E21R-02-PH Aquatic Life	Ware Creek pH	5C			2.94	2004	2016
	pH	5C			4.16	2008	2020
E21R-03-BAC Recreation	Gingoteague Creek Escherichia coli	5A			1.38	2008	2020
E21R-03-BEN Aquatic Life	Gingoteague Creek Benthic-Macroinvertebrate Bioassessments	5A			1.38	2012	2024
E21R-03-PH Aquatic Life	Gingoteague Creek pH	5C			1.38	2008	2020
E21R-04-BEN Aquatic Life	Mill Creek Benthic-Macroinvertebrate Bioassessments	5A			3.38	2008	2020
E21R-05-PH Aquatic Life	Mount Creek pH	5C			3.98	2008	2020
E21R-07-BAC Recreation	Mill Creek Escherichia coli	5A			4.17	2008	2020
E21R-07-PH Aquatic Life	Mill Creek pH	5C			4.17	2008	2020
E21R-08-DO Aquatic Life	Goldenvale Creek Oxygen, Dissolved	5C			4.89	2008	2020



2012 Impaired Waters - 303(d) List

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E21R-08-PH Aquatic Life	Goldenvale Creek pH	5C			4.89	2008	2020
E21R-09-PH Aquatic Life	Hugh Run pH	5C			2.29	2010	2022
E21R-10-BAC Recreation	Jetts Creek Escherichia coli	5A			1.84	2010	2022
E21R-11-BAC Recreation	Portobago Creek Escherichia coli	5A			6.66	2010	2022
E21R-11-DO Aquatic Life	Portobago Creek Oxygen, Dissolved	5C			6.66	2010	2022
E22E-01-EBEN Aquatic Life	Rappahannock River Estuarine Bioassessments	5A	6.281			2010	2022
E22E-02-EBEN Aquatic Life	Rappahannock River Estuarine Bioassessments	5A	110.154			2006	2018
	Estuarine Bioassessments	5A	0.015			2008	2016
	Estuarine Bioassessments	5A	0.029			2008	2018
E22E-08-CHLR Aquatic Life Wildlife	Rappahannock River Chloride	5C	5.121			2004	2016
	Chloride	5C	5.121			2004	2016
E22R-02-DO Aquatic Life	Farmers Hall Creek Oxygen, Dissolved	5C			4.00	2012	2024
E22R-02-PH Aquatic Life	Farmers Hall Creek pH	5C			4.00	2006	2018
E22R-03-MIREX Aquatic Life Wildlife	Occupacia Creek and Tributaries Mirex	5A			49.05	2010	2022
	Mirex	5A			49.05	2010	2022
E22R-04-PH Aquatic Life	Elmwood Creek pH	5C			5.03	2006	2018
E22R-05-BAC Recreation	Baylors Creek Escherichia coli	5A			5.10	2008	2020
E22R-05-DO Aquatic Life	Baylors Creek Oxygen, Dissolved	5C			5.10	2008	2020
E22R-05-PH Aquatic Life	Baylors Creek pH	5C			5.10	2008	2020
E22R-06-BAC Recreation	Peedee Creek Escherichia coli	5A			3.31	2008	2020
E22R-06-DO Aquatic Life	Peedee Creek Oxygen, Dissolved	5C			3.31	2010	2022



2012 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. Date
E22R-06-PH Aquatic Life	Peedee Creek pH	5C			3.31	2008	2020
E22R-07-DO Aquatic Life	Occupacia Creek, UT - XGI Oxygen, Dissolved	5C			1.96	2010	2020
E22R-07-PH Aquatic Life	Occupacia Creek, UT - XGI pH	5C			1.96	2010	2020
E23L-01-HG Fish Consumption	Chandlers Millpond Mercury in Fish Tissue	5A		51.87		2008	2020
E23R-12-DO Aquatic Life	Mussell Swamp Oxygen, Dissolved	5C			5.16	2006	2018
E23R-16-BEN Aquatic Life	Church Swamp Benthic-Macroinvertebrate Bioassessments	5A			3.24	2008	2020
E24E-02-EBTOX Aquatic Life	Totuskey Creek Sediment Bioassays for Estuarine and Marine Water	5A	1.068			2006	2018
E24E-05-PH Aquatic Life	Little Totuskey Creek pH	5C	0.055			2012	2022
E24R-01-DO Aquatic Life	Bookers Mill Stream Oxygen, Dissolved	5C			6.53	2012	2024
E24R-03-PH Aquatic Life	Muddy Gut pH	5C			2.63	2008	2020
E24R-05-PH Aquatic Life	Branham Mill Swamp pH	5C			3.66	2012	2024
E24R-06-DO Aquatic Life	Richardson Creek and Tributaries Oxygen, Dissolved	5C			10.71	2012	2024
E24R-06-PH Aquatic Life	Richardson Creek and Tributaries pH	5C			10.71	2012	2024
E24R-08-PH Aquatic Life	XHL - Bookers Mill Stream, UT pH	5C			2.01	2012	2024
E24R-09-DO Aquatic Life	Marshy Swamp Oxygen, Dissolved	5C			9.63	2012	2024
E25E-10-SF2 Shellfishing	Deep Creek Fecal Coliform	5B	0.140			2002	2014
E25E-11-SF2 Shellfishing	Lancaster Creek Fecal Coliform	5B	0.120			2002	2014
E25E-12-SF Shellfishing	Morattico Creek Fecal Coliform	5B	0.138			2002	2014



2012 Impaired Waters - 303(d) List

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Rappahannock River Basin

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E25E-22-SF Shellfishing	Robinson Creek Fecal Coliform	5B	0.060			2006	2018
E25E-25-SF Shellfishing	Mulberry Creek Fecal Coliform	5B	0.008			2008	2020
E25E-27-SF Shellfishing	Parrotts Creek Fecal Coliform	5B	0.011			2008	2020
E25E-28-SF Shellfishing	Paynes Creek Fecal Coliform	5B	0.049			2008	2020
E25E-29-SF Shellfishing	Greenvale Creek Fecal Coliform	5B	0.013			2012	2024
E25R-01-PH Aquatic Life	Mud Creek pH	5C	0.205			2004	2016
E25R-02-DO Aquatic Life	Lagrange Creek Oxygen, Dissolved	5C			2.48	2010	2022
E25R-04-DO Aquatic Life	South Branch Lagrange Creek Oxygen, Dissolved	5A			0.40	2012	2024
E25R-17-DO Aquatic Life	Masons Mill Swamp Oxygen, Dissolved	5C			3.36	2006	2018
E26E-18-SF Shellfishing	Myer Creek Fecal Coliform	5B	0.003			2012	2024
E26E-22-SF Shellfishing	Windmill Point Creek Fecal Coliform	5B	0.081			2012	2024
E26E-24-BAC Recreation	Whiting Creek Enterococcus	5A	0.193			2012	2024
E26E-31-SF Shellfishing	Myer Creek, UT Fecal Coliform	5B	0.042			2002	2014
E26E-33-SF Shellfishing	Whitehouse Creek Fecal Coliform	5B	0.050			2002	2014
E26E-35-SF Shellfishing	Davis Creek Fecal Coliform	5B	0.043			2002	2014
E26E-36-SF Shellfishing	Myer Creek Fecal Coliform	5B	0.017			2004	2016
E26E-41-SF Shellfishing	Woods Creek Fecal Coliform	5B	0.038			2008	2020
E26E-42-SF Shellfishing	Hunting Creek Fecal Coliform	5B	0.019			2008	2020



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Rappahannock River Basin

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E26E-46-SF Shellfishing	Eastern Branch Carter Creek Fecal Coliform	5B	0.031			2002	2014
E26E-49-SF Shellfishing	Moran Creek Fecal Coliform	5B	0.049			2008	2020
E26E-50-SF Shellfishing	Ewells Prong Fecal Coliform	5B	0.012			2008	2020
E26E-51-SF Shellfishing	Eastern Branch Corrotoman River, UT Fecal Coliform	5B	0.011			2008	2020
E26E-53-SF Shellfishing	John Creek Fecal Coliform	5B	0.036			2008	2020
E26E-54-SF Shellfishing	Lowrey Creek Fecal Coliform	5B	0.028			2008	2020
E26R-02-DO Aquatic Life	UT to Western Branch Corrotoman River Oxygen, Dissolved	5C			3.27	2008	2020
E26R-02-PH Aquatic Life	UT to Western Branch Corrotoman River pH	5C			3.27	2006	2018
E26R-03-DO Aquatic Life	Norris Prong Oxygen, Dissolved	5C			2.41	2008	2020
E26R-04-DO Aquatic Life	Browns Creek Oxygen, Dissolved	5C			2.60	2008	2020

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

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