

Summary of Review of WV Streams 'Overlisted' by EPA - considered for addition to 2014 303(d) list for Bio-Impairment

WV Code	Waterbody Name	Length (mi)	DEP Recommendation	Stressor ID Comments	Stressor ID	TMDLs Developed	TMDL Surrogate comment
WVKE-76-L	Powell Creek	5.5	Surrogate	Mats of algae. Heavy green algae. Periphyton abundance rated high or extreme 6 times. Five of 13 Fecal coli >400. RBP sed dep score rated marginal 6 times. Kick sample area 75% gravel and 15% sand. Signatures of organic enrichment and sedimentation in benthic sample - only one stonefly, and riffle beetles abundant.	organic enrichment/sediment	fe, fc	Approved TMDLs are appropriate surrogates for identified stressors
WVMT-12-C-2	Little Raccoon Creek	2.6	Surrogate	Periphyton abundance rated moderate 3 times. Five of 10 Fecal coli >400. RBP sed dep score rated marginal 6 times. Sand deposits rated moderate 6 times and fine gravel moderate 9 times. Signatures of organic enrichment and sediment in benthic sample - only two stonefly taxa (2 individuals). Hydropsychidae, Chironomidae, and Simuliidae combined are high percentage of sample.	organic enrichment/sediment	fe, fc	Approved TMDLs are appropriate surrogates for identified stressors
WVMT-12-G	Fields Creek	6.9	Surrogate	Two pH readings in the lower 5's at mile point 0. Concurrent evidence of elevated dissolved metals. Two total Fe concentrations >1.5. Three Fecal colii >400. Periphyton abundance rated high 2 times and filamentous rated high 1 time. RBP sed dep score rated marginal 3 times. Sand deposits rated moderate 8 times and fine gravel moderate 11 times. Fe hydroxides rated high 2 times and moderate 5 times. Signature of organic enrichment and sedimentation in benthic samples with high Chironomidae abundances and low stonefly numbers. ph/metals stress also indicated by only 3 mayfly genera in Baetidae.	organic enrichment/sediment/ph/dissolved metals	fe, fc, pH, Al(d)	Approved TMDLs are appropriate surrogates for identified stressors
WVMT-20	Big Cove Run	5.8	Surrogate	Periphyton abundance rated high 1 time and moderate 4 times. Filamentous rated moderate 2 times. Three Fecal coli >400. Sand deposits rated moderate 5 times and fine gravel moderate 4 times. Benthic kick area 50% gravel, 10% sand, 5% silt. Benthic Dirty Reference model has organic enrichment and sediment indicated as stressors.	organic enrichment/sediment	fe, fc	Approved TMDLs are appropriate surrogates for identified stressors
WVMT-23-B	Raccoon Creek	6.8	Surrogate	Five moderate periphyton ratings. Six of 16 Fecal coli results >400. One RBP sed dep rating of marginal. Silt rated moderate 1 time. Sand deposits rated high 1 time and moderate 6 times. Fine gravel rated moderate 8 times. Signatures of organic enrichment and sediment in benthic sample based on Dirty Reference model.	organic enrichment/sediment	fe, fc	Approved TMDLs are appropriate surrogates for identified stressors
WVMT-23-C	Brushy Fork	8.4	Surrogate	Periphyton abundance rated high 1 time and moderate 6 times. Five Fecal coli >400. Silt deposits rated moderate 2 times, sand 3 times, and fine gravel 2 times. Dirty Reference model with signatures of organic enrichment and sedimentation. No stoneflies, and riffle beetles relatively common.	organic enrichment/sediment	fe, fc	Approved TMDLs are appropriate surrogates for identified stressors
WVMT-23-G	Jimmy Run	3.1	Surrogate	Eight pH readings <6. Sand deposits rated moderate 7 times and fine gravel rated moderate 6 times. Benthic sample indicates pH - abundance of Amphinemura and low mayfly richness and abundance.	pH/sediment	fe, pH	Approved TMDLs are appropriate surrogates for identified stressors
WVMT-24-A	Frost Run	2.0	Surrogate	Periphyton abundance rated high 2 times and moderate 3 times. Three Fecal coli >400. RBP sed dep score rated marginal 8 times. Silt deposits rated moderate 4 times, sand deposits rated moderate 10 times, and fine gravel high 3 times. Benthic sample indicates organic enrichment and sediment with >50% of sample Chironomids/Simulium.	organic enrichment/sediment	fe, fc	Approved TMDLs are appropriate surrogates for identified stressors
WVMT-24-C-2	Bills Creek	5.5	Surrogate	Periphyton abundance rated moderate 2 times. Green algae rated moderate 1 time. Sand and FG rated high 1 time and moderate 7 times, respectively. Benthic sample with signatures of organic/sed. Almost 50% of sample are Cheumatopsyche and midges. Only 1 stonefly individual.	organic enrichment/sediment	fe	Bills Creek has a TMDL completed for iron which adequately addresses sedimentation stress. It does not have a specific fecal coliform TMDL developed to address organic enrichment stress. However, it is a tributary to Sugar Creek (WVMT-24-C) that has a FC TMDL developed. Bills Creek is model subwatershed 2059 of the Sugar Creek TMDL and has significant bacteria reductions prescribed for failing onsite systems (100%) and pasture (92%). The livestock exclusion necessary to implement the Bills Creek iron and Sugar Creek fecal coliform TMDLs, and the correction of failing onsites prescribed by the Sugar Creek fecal coliform TMDL will address the organic enrichment stress in Bills Creek.
WVMT-40	Big Laurel Run	5.4	Surrogate	RBP sed dep score rated marginal 2 times. Sand and fine gravel rated moderate 10 and 9 times, respectively. Benthic sample kick area was 55% gravel.	sediment	fe	Approved TMDLs are appropriate surrogates for identified stressors
WVMT-42-B	Flatbush Fork	5.1	Surrogate	All pH's <6 and many in 4's. Multiple dissolved Al >0.750mg/L. RBP sed dep score rated poor 4 times and marginal 11 times. Sand deposits rated extreme 4 times and high 13 times. Fe hydroxides rated high 2 times and moderate 6 times. Al hydroxide rated moderate 1 time. Low mayfly diversity and density.	pH/dissolved metals/sediment	fe, pH, Al(d)	Approved TMDLs are appropriate surrogates for identified stressors

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WVMT-42-B-1	UNT/Flatbush Fork RM 1.80	1.5	Surrogate	All pH's <6 and most in 4's. All dissolved Al >0.750mg/L. RBP sed dep rating poor 2 times and marginal 2 times. One high rating for silt, and one extreme rating for sand. One high rating for Fe hydroxides. Benthic sample indicates pH and metals with high abundances of Amphinemura and Leuctra. Only 2 mayfly taxa.	pH/dissolved metals/sediment	fe, pH, Al(d)	Approved TMDLs are appropriate surrogates for identified stressors
WVMT-42-E	UNT/Roaring Creek RM 11.0	1.1	Surrogate	All pH readings in the 4's. One poor and one marginal RBP sed dep rating. Two high sand deposit ratings. One high fine gravel rating. Benthic sample has signatures of pH with high abundance of the stoneflies Amphinemura and Leuctra.	pH/sediment	pH	UNT/Roaring RM 11.0 has a pH TMDL completed. It does not have a specific iron TMDL to address sedimentation stress. However, it is tributary to Roaring Creek (WVMT-42) that has an iron TMDL developed. This stream is model subwatershed 5048 of the Roaring Creek Fe TMDL and has prescribed iron reductions for all land disturbance nonpoint sources to a value consistent with 100 mg/l TSS (a TSS concentration found to resolve sedimentation stress in other TMDL allocation efforts) There are no point source discharges or legacy mining seeps or land uses in the watershed of the UNT and streambanks were characterized as nonproblematic. The prescribed reductions for land disturbance nonpoint sources of the Roaring Creek iron TMDL and the alkalinity addition prescribed by the UNT pH TMDL are expected to resolve the biological stress.
WVMT-43	Leading Creek	21.5	Surrogate	Three moderate periphyton ratings. Seven Fecal coli >400. RBP sed dep rated poor 1 time and marginal 3 times. Silt and sand rated high 1 time each and moderate 6 and 8 times, respectively. Benthic sample with signatures of organic enrichment with no stoneflies and Chironomids relatively common, as well as the presence of Tubificids. Dirty Reference model suggests organic and sediment.	organic enrichment/sediment	fe, fc	Approved TMDLs are appropriate surrogates for identified stressors
WVMT-43-O	Laurel Run	3.2	Surrogate	One moderate periphyton rating. Four Fecal coli >400. One marginal sed dep rating. Sand deposits rated moderate 8 times. Fine gravel rated moderate 10 times. Dirty Reference model for benthic sample with signatures of organic enrichment and sediment.	organic enrichment/sediment	fe, fc	Approved TMDLs are appropriate surrogates for identified stressors
WVMT-48	Kings Run	4.4	Surrogate	Periphyton abundance rated high 1 time and moderate 4 times. Four Fecal coli >400. RBP sed dep rated marginal 1 time. Silt deposits rated moderate 7 times. Sand deposits rated moderate 4 times. Benthic sample with signatures of organic enrichment - high abundance of Chironomidae.	organic enrichment/sediment	fe, fc	Approved TMDLs are appropriate surrogates for identified stressors
WVMT-64-A	Right Fork/Mill Creek	6.1	Surrogate	Periphyton abundance rated high 1 time and moderate 4 times. Five Fecal coli >400. Silt deposits rated moderate 4 times, sand 4 times, and fine gravel 8 times. Benthic sample with signature of organic enrichment and sediment with only 1 stonefly and riffle beetles common.	organic enrichment/sediment	fe, fc	Approved TMDLs are appropriate surrogates for identified stressors
WVMTB-24	Laurel Run/Buckhannon River	2.5	Surrogate	Periphyton rated moderate 10 times. Four Fecal coli >400. RBP sed dep rated marginal 2 times. Silt deposits rated high 1 time and moderate 4 times. Sand rated high 2 times and moderate 8 times. Only 4 individuals of stoneflies, and Chironomidae abundant. Riffle beetles relatively common.	organic enrichment/sediment	fe, fc	Approved TMDLs are appropriate surrogates for identified stressors
WVMTB-30	Herods Run	2.7	Surrogate	All six pH readings <5. Sand deposits rated moderate 6 times and fine gravel rated moderate 6 times. Fe hydroxide rated present/low 2 times. High abundance of Leuctra indicate low pH.	pH/sediment	fe, pH	Approved TMDLs are appropriate surrogates for identified stressors
WVMTB-7	Sand Run	13.6	Surrogate	Periphyton abundance rated high 1 time and moderate 15 times. Six Fecal coli >400. RBP sed dep rated marginal 1 time. Silt rated high 1 time and moderate 6 times. Sand rated high 3 times and moderate 16 times. Organic enrichment signatures in benthic sample with high combined abundance of Chironomidae and Simulium.	organic enrichment/sediment	fe, fc	Approved TMDLs are appropriate surrogates for identified stressors
WVMTM-10	Laurel Creek/Middle Fork River	5.4	Surrogate	Periphyton abundance rated moderate 4 times. Filamentous rated moderate 1 time. Two Fecal coli >400. RBP sed dep rated marginal 1 time. Sand deposits rated high 5 times and moderate 6 times. Dirty Reference model for benthic samples with signatures of organic and sed dep.	organic enrichment/sediment	fe, fc	Approved TMDLs are appropriate surrogates for identified stressors
WVMTM-13	Long Run	7.8	Surrogate	RBP sed dep rated poor 1 time and marginal 9 times. Sand rated high 14 times and moderate 18 times. Dirty Reference model for benthic sample with strong signature for sed dep.	sediment	fe	Approved TMDLs are appropriate surrogates for identified stressors
WVMTM-8	White Oak Run	1.7	Surrogate	Ten pH readings <6 and one <5. RBP sed dep rated poor 12 times. Sand rated extreme 8 times and high 9 times. Signatures of sediment and low pH in benthic sample with very low densities and some acid tolerant taxa.	pH/sediment	fe, pH	Approved TMDLs are appropriate surrogates for identified stressors

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WVPSB-18-A	Mudlick Run	8.2	Surrogate	Periphyton abundance rated high 5 times and moderate 15 times. Filamentous algae rated high 1 time and moderate 14 times. Fecal coli >400 18 times. Anaerobic odors detected 2 times. RBP sed dep rated marginal 23 times. Silt deposits rated moderate 17 times and sand rated moderate 23 times. Signatures of organic enrichment in benthic sample with high abundances of Chironomidae and Simulium.	organic enrichment/sediment	fe, fc	Approved TMDLs are appropriate surrogates for identified stressors
WVPSB-18-A-0.8	UNT/Mudlick Run RM 2.88	5.3	Surrogate	Periphyton abundance rated moderate 10 times. Filamentous algae rate moderate 2 times. Fecal coli >400 8 times. RBP sed dep rated marginal 7 times. Silt deposits rated high 1 time and moderate 8 times. Sand rated high 1 time and moderate 11 times. Dirty Reference model for benthic sample with signatures of organic enrichment and sediment. Chironomidae abundance relatively high.	organic enrichment/sediment	fe, fc	Approved TMDLs are appropriate surrogates for identified stressors
WVPSB-18-A-0.8-B	UNT/UNT RM 1.62/Mudlick Run RM 2.88	1.9	Surrogate	Periphyton abundance rated moderate 3 times. Fecal coli >400 3 times. RBP sed dep rated poor 1 time and marginal 8 times. Silt deposits rated high 3 times and moderate 6 times. Sand rated high 5 times. Dirty Reference model for benthic sample with signatures of organic enrichment and sediment. Chironomidae abundance relatively high. Riffle beetle abundance relatively high.	organic enrichment/sediment	fc	This stream has a TMDL completed for fecal coliform which adequately addresses organic enrichment stress. It does not have a specific iron TMDL developed to address sedimentation stress. This stream is model subwatershed 1109 of a downstream iron TMDL developed for UNT/Mudlick Run RM 2.88. The downstream TMDL prescribed iron reductions for all land disturbance nonpoint sources in sws 1109 to a value consistent with 100 mg/l TSS (a TSS concentration found to resolve sedimentation stress in other TMDL allocation efforts). A 99% streambank erosion reduction is also prescribed for sws 1109. Implementation of the downstream iron TMDL will address the sedimentation stress in this stream.
WVPSB-18-A-1	Turnmill Run	3.9	Surrogate	Periphyton abundance rated moderate 5 times. Fecal coli >400 5 times. Sand deposits rated moderate 6 times. Fine gravel rated moderate 9 times. Signatures of organic enrichment and sediment in benthic sample with relatively high abundances of Chironomidae and riffle beetles the highest abundance in sample.	organic enrichment/sediment	fe, fc	Approved TMDLs are appropriate surrogates for identified stressors
WVPSB-18-B	Walnut Bottom Run	5.5	Surrogate	Periphyton abundance rated high 1 time and moderate 8 times. Filamentous algae rated moderate 4 times. Fecal coli >400 5 times. RBP sed dep rated marginal 4 times. Silt rated moderate 7 times and sand rated moderate 6 times. Fine gravel rated high 1 time. Signature of organic enrichment in benthic sample with no stoneflies and Chironomidae common. Sediment stress indicated by high abundance of riffle beetles.	organic enrichment/sediment	fe, fc	Approved TMDLs are appropriate surrogates for identified stressors
WVPSB-21.5-G	UNT/UNT RM 4.07/South Branch Potomac River RM 59.19	1.9	Surrogate	Periphyton abundance rated high 1 time and moderate 6 times. Fecal coli >400 2 times. RBP sed dep rated marginal 3 times. Silt deposits rated moderate 2 times. Sand deposits rated moderate 8 times.	organic enrichment/sediment	fc	This stream has a TMDL completed for fecal coliform which adequately addresses organic enrichment stress. It does not have a specific iron TMDL developed to address sedimentation stress. This stream is model subwatershed 1149 of a downstream iron TMDL developed for UNT/South Branch Potomac River RM 59.19. The downstream TMDL prescribed iron reductions for all land disturbance nonpoint sources in sws 1149 to a value consistent with 100 mg/l TSS (a TSS concentration found to resolve sedimentation stress in other TMDL allocation efforts). A 90% streambank erosion reduction is also prescribed for sws 1149. Implementation of the downstream iron TMDL will address the sedimentation stress in this stream.
WVPSB-25-B	North Mill Creek	13.4	Surrogate	Periphyton abundance rated high 5 times. Filamentous algae rated moderate 10 times. Fecal coli >400 8 times. RBP sed dep rated marginal 2 times. Silt deposits rated high 1 time and moderate 16 times. Sand rated high 1 time and moderate 26 times. Dirty Reference model for benthic sample has signatures of organic enrichment and sediment.	organic enrichment/sediment	fe, fc	Approved TMDLs are appropriate surrogates for identified stressors
WVPSB-35	Deer Run	8.3	Surrogate	Periphyton abundance rated high 6 times. Filamentous algae rated extreme 1 time and high 2 times. Seven Fecal coli >400. RBP sed dep rated marginal 3 times. Silt deposits rated moderate 9 times. Sand deposits rated high 2 times and moderate 18 times. Dirty Reference model for benthic sample has signatures of organic enrichment and sediment. High abundance of Chironomidae and only 1 stonefly.	organic enrichment/sediment	fe, fc	Approved TMDLs are appropriate surrogates for identified stressors
WVSNF-1-A	UNT/Capon Run RM 4.49	2.1	Surrogate	Periphyton abundance rated high 1 time and moderate 6 times. Filamentous algae rated moderate 1 time. Three Fecal coli >400. RBP sed dep score rated marginal 2 times. Silt deposits rated moderate 6 times and sand rated moderate 16 times. Fine gravel rated high 3 times. Organic enrichment signatures with only 3 stonefly taxa representing 14 individuals, and Family Hydropsychidae and Chironomidae dominate the sample.	organic enrichment	fe, fc	Approved TMDLs are appropriate surrogates for identified stressors

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WWSNF-2	Crab Run	2.8	Surrogate	<p>Periphyton abundance rated high 6 times. Filamentous algae rated high 1 time and moderate 10 times. Five Fecal coli >400. Sand deposits rated moderate 14 times. Fine gravel rated high 1 time. Dirty Reference model for benthic sample has signatures of organic enrichment and sediment. High abundances of Chironomidae and Hydropsychidae.</p>	fe, fc	Approved TMDLs are appropriate surrogates for identified stressors
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