

WV SAVE OUR STREAMS ADVANCED SURVEY SUMMARY

Stream Monitor(s) Warm Springs Run Level 3 Date(s) June 18, 2016
 Direction Swaim, Iliff, Dean, Lehmen and Oakis
Near Widmyer School Start time 9:00
 County Morgan
 RR Miles _____ Station _____
 Latitude

39	36	15
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 Longitude

78	14	13
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 Database code Widmyer

WATER CHEMISTRY

	Result	Units		Result	Units		Result	Units
Temp. (°F or °C)	17		Alkalinity			Fecal coliform/E-coli		
pH	7.5		Nitrate/Nitrite			Iron		
Conductivity			Phosphates			Aluminum		
Dissolved O ₂	61		Total Dissolved Solids			Manganese		
Acidity			Turbidity	20	JTUS	Other (describe below)		

Describe other conditions analyzed: _____

PHYSICAL CONDITIONS

Water clarity Clear Algae color Brown
 Water color None Algae abundance Moderate
 Water/Sediment odor

None	None
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 Algae texture Even coating
 Streambed color Brown Surface foam none
 Comments _____

Riffle width _____ Run width 14 Pool width _____

x	
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 Riffle depth _____ Run depth 0.23 Pool depth _____ Feet Meters
 Indicate units

Estimate

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 Count

x

 Silt/clay Sand Fine gravel Coarse gravel Cobble Entire reach

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 Riffles only

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 Boulder Bedrock Woody debris

	1	22	28	29	20		
Index	3.68	good	Woody debris adjustment		% Riffles	% Runs	% Pools

HABITAT CONDITIONS

Attachment sites	20	Channel flow status	9	Embeddedness	15
Riffle frequency	9	Channel alterations	20	Bank veg. protection	2 2
Velocity/depth	15	Sediment	5	Bank stability	2 2

Total Score		deposition		Riparian buffer width		
	121	Channel shade	80%		10	10
	good					

Integrity Rating Comments

BIOLOGICAL CONDITIONS

Richness		Composition		Tolerance	
Total Taxa	13	% EPT Abundance	50.6	Biotic Index	4.69
EPT Taxa	5	% Dominance	36.9	% Tolerant	9.0
Other aquatic organisms observed or collected (e.g. fish, salamanders etc.), or additional comments:				Stream Score	66.9
				Integrity Rating	suboptimal

Discharge (cfs)	1.47	Water level	Low	Normal	High	No flow
					x	

Current/past weather conditions: sunny

LAND USE IMPACTS: Indicate the types of land uses that affect your stream reach and their approximate location using the code: (S) streamside, (M) within ¼ mile, and (W) within the watershed. Also estimate the level of impact with the numeric codes (1) slight, (2) moderate, or (3) for high impacts.

	Impact	Location		Impact	Location
Single family residences	1	s	Trash dumps		
Sub-urban developments	1	s	Intensive feedlots		
Urban areas			Pastureland	1	m
Industrial areas			Cropland	1	m
Parking lots, malls etc.	1	w	Oil & gas wells		
Bridges			Logging		
Paved roads	1	m	Mountaintop mining		
Unpaved roads			Abandoned mining		
Active construction			Deep mining		
Parks, trails etc			Quarries		
Other recreation			Other (describe)		
Landfills					

Comments: Pipes? Yes x No

BENTHIC MACROINVERTEBRATES: Record the total number of each macroinvertebrate collected. Note: In the VAD the macroinvertebrates are recorded in three columns based upon their tolerance rating.

Low	Total	Moderate	Total	High	Total
Ameletidae (Ameletid minnow mayfly)		Baetidae (Small minnow mayfly)		Coenagrionidae (Narrow-wing damselfly)	
Ephemereleidae (Spiny-crawler mayfly)		Beatiscidae (Armored mayfly)		Lestidae (Spread-wing damselfly)	
Heptageniidae (Flatheaded mayfly)	5	Caenidae (Square-gilled mayfly)		Libellulidae (Skimmer dragonfly)	
Isonychiidae (Brush-legged mayfly)		Ephemeraeidae (Burrowing mayfly)		Chrysomelidae (Reed beetle)	
Leptophlebiidae (Prong-gilled mayfly)		Potamanthidae (Hackle-gilled mayfly)		Dytiscidae (Predacious diving beetle)	
Siphonuridae (Primitive minnow mayfly)		Tricorythidae (Stout-crawler mayfly)		Haliplidae (Crawling water beetle)	
Capniidae (Small winter stonefly)		Hydropsychidae (Common netspinner)	94	Hydrophilidae (Water scavenger beetle)	
Chloroperlidae (Green stonefly)		Hydroptilidae (Purse-case caddisfly)		Belostomatidae (Giant water bug)	
Leuctridae (Rolled-wing stonefly)		Molannidae (Hooded-case caddisfly)		Corixidae (Water boatman)	
Nemouridae (Little brown stonefly)		Phryganeidae (Giant-case caddisfly)		Gerridae/Veliidae (Water striders)	

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Perlidae (Common stonefly)	2	Polycentropodidae (Tube-net caddisfly)		Hydrometridae (Water measurer)	
Perlodidae (Patterned stonefly)		Psychomiidae (Trumpet-net caddisfly)		Nepidae (Water scorpion)	
Peltoperlidae (Roach-like stonefly)		Pyralidae (Aquatic moth)		Notonectidae (Backswimmer)	
Pteronarcyidae (Giant stonefly)		Calopterygidae (Broad-wing damselfly)		Ceratopogonidae (Biting midge)	
Taeniopterygidae (Large winter stonefly)		Gomphidae (Clubtail dragonfly)	8	Chironomidae (Non-biting midge)	7
Brachycentridae (Humpless-case caddisfly)		Dryopidae (Long-toed beetle)		Culicidae (Mosquito)	
Glossosomatidae (Saddle-case caddisfly)	2	Elmidae (Riffle beetle)	40	Muscidae (Muscid fly)	
Goeridae (Goerid-case caddisfly)		Gyrinidae (Whirligig beetle)		Psychodidae (Moth fly)	
Helicopsychidae (Snail-case caddisfly)		Sialidae (Alderfly)		Ptychopteridae (Phantom crane fly)	
Lepidostomatidae (Case-maker caddisfly)		Entomobryidae (Springtail)		Stratiomyidae (Soldier fly)	
Leptoceridae (Longhorn-case caddisfly)		Dixidae (Dixid midge)		Syrphidae (Rat-tailed maggot)	
Limnephilidae (Northern-case caddisfly)		Empididae (Dance fly)		Tabanidae (Horse fly)	
Philopotamidae (Finger-net caddisfly)	26	Simuliidae (Black fly)	1	Asellidae (Aquatic sowbug)	
Rhyacophilidae (Free-living caddisfly)		Tipulidae (Crane fly)	4	Ancylidae (Limpet snail)	
Uenoidae (Uenoid-case caddisfly)		Hydrachnidae (Water mites)		Physidae (Left-handed snail)	
Aeshnidae (Damner dragonfly)		Cambaridae (Crayfish)	1	Planorbidae (Orb snail)	
Cordulegastridae (Spiketail dragonfly)		Gammaridae (Sideswimmer)		Hirudinea (Leech)	
Psephenidae (Water penny)	49	Palaemonidae (Freshwater shrimp)		Nematoda (Round worm)	
Corydalidae (Hellgrammite/Fishfly)		Bithyniidae (Bithynid snail)		Nematomorpha (Horsehair worm)	
Athericidae (Watersnipe fly)		Pleuroceridae (Rock snail)		Oligochaeta (Aquatic worm)	16
Blephariceridae (Net-wing midge)		Viviparidae (Viviparid snail)		Turbellaria (Flatworms)	
Hydrobiidae (Pebble snail)		Corbiculidae (Asian clam)		Tolerance unknown	
Unionidae (Mussel)		Sphaeriidae (Pea clam)		Hydrozoa (Freshwater jellyfish)	
				Neuroptera (Spongilliflies)	
				Spongilla (Freshwater sponge)	