

WV SAVE OUR STREAMS ADVANCED SURVEY SUMMARY

Stream Monitor(s) Warm Springs Run Level 3 Date(s) May 30, 2017
 Direction(s) Trump, Oaks, Iliff, Wurster, Dean and Swaim
Fairview Drive and River Road Start time 0830
 County Morgan
 RR Miles _____ Station Fairview
 Latitude

39	41	26
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 Longitude

78	10	23
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 Watershed Warm Springs
 Database code _____

WATER CHEMISTRY

	Result	Units		Result	Units		Result	Units
Temp. (°F or °C)	16.5	C	Alkalinity	92		Fecal coliform/E-coli		
pH	8.0		Nitrate/Nitrite	1.0		Iron	.5	
Conductivity			Phosphates			Aluminum		
Dissolved O ₂	125	%	Total Dissolved Solids			Manganese		
Acidity			Turbidity	20	JTU	Other (describe below)		

Describe other conditions analyzed: _____

PHYSICAL CONDITIONS

Water clarity Clear Algae color Brown
 Water color None Algae abundance Scattered
 Water odor None | None Algae texture Even coating
 Streambed color _____ Surface foam slight
 Comments _____

Riffle width _____ Run width 20 Pool width _____

x	
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 Riffle depth _____ Run depth 1 Pool depth _____ Feet Meters
 Indicate units

Estimate

x

 Count

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 Silt/clay Sand Fine gravel Coarse gravel Cobble Entire reach

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 Riffles only

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 Boulder Bedrock Woody debris

	10	20	20	50			
Index	3.40	good	Woody debris adjustment		% Riffles	% Runs	% Pools

HABITAT CONDITIONS

Attachment sites	20	Channel flow status	19	Embeddedness	20
Riffle frequency	19	Channel alterations	14	Bank veg. protection	10 10
Velocity/depth	19	Sediment deposition	15	Bank stability	10 10
Total Score	186	Channel shade	80%	Riparian buffer width	10 10

Integrity Rating Excellent
 Comments _____

BIOLOGICAL CONDITIONS

Richness	Composition	Tolerance
Total Taxa 18	% EPT Abundance 54.5	Biotic Index 4.60
EPT Taxa 7	% Dominance 26.7	% Tolerant 13.4
Other aquatic organisms observed or collected (e.g. fish, salamanders etc.), or additional comments: _____		Stream Score 75.6
		Integrity Rating suboptimal

Discharge (cfs) 24	Water level	Low	Normal	High	No flow
				x	

Current/past weather conditions: Overcast Past three days rain showers

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	m	Trash dumps		
Sub-urban developments			Intensive feedlots		
Urban areas			Pastureland		
Industrial areas			Cropland		
Parking lots, malls etc.			Oil & gas wells		
Bridges	2	s	Logging		
Paved roads	2	s	Mountaintop mining	3	m
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)	
Ephemerelellidae (Spiny-crawler mayfly)		Beatiscidae (Armored mayfly)		Lestidae (Spread-wing damselfly)	
Heptageniidae (Flatheaded mayfly)	26	Caenidae (Square-gilled mayfly)		Libellulidae (Skimmer dragonfly)	
Isonychiidae (Brush-legged mayfly)	7	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)	2	Hydropsychidae (Common netspinner)	50	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)	
Perlidae (Common stonefly)	1	Polycentropodidae (Tube-net caddisfly)		Hydrometridae (Water measurer)	
Perlodidae (Patterned stonefly)		Psychomyiidae (Trumpet-net caddisfly)		Nepidae (Water scorpion)	
Peltoperlidae (Roach-like stonefly)		Pyralidae (Aquatic moth)		Notonectidae (Backswimmer)	

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Pteronarcyidae (Giant stonefly)		Calopterygidae (Broad-wing damselfly)		Ceratopogonidae (Biting midge)	
Taeniopterygidae (Large winter stonefly)		Gomphidae (Clubtail dragonfly)		Chironomidae (Non-biting midge)	
Brachycentridae (Humpless-case caddisfly)	13	Dryopidae (Long-toed beetle)		Culicidae (Mosquito)	
Glossosomatidae (Saddle-case caddisfly)		Elmidae (Riffle beetle)	9	Muscidae (Muscid fly)	
Goeridae (Goerid-case caddisfly)		Gyrinidae (Whirligig beetle)		Psychodidae (Moth fly)	
Helicopsychidae (Snail-case caddisfly)		Sialidae (Alderfly)		Ptychopteridae (Phantom cranefly)	
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)	3	Simuliidae (Black fly)	1	Asellidae (Aquatic sowbug)	5
Rhyacophilidae (Free-living caddisfly)		Tipulidae (Crane fly)	3	Ancylidae (Limpet snail)	
Uenoidae (Uenoid-case caddisfly)		Hydrachnidae (Water mites)		Physidae (Left-handed snail)	
Aeshnidae (Damner dragonfly)		Cambaridae (Crayfish)	2	Planorbidae (Orb snail)	
Cordulegastridae (Spiketail dragonfly)		Gammaridae (Sideswimmer)	13	Hirudinea (Leech)	19
Psephenidae (Water penny)	30	Palaemonidae (Freshwater shrimp)		Nematoda (Round worm)	
Corydalidae (Hellgrammite/Fishfly)		Bithyniidae (Bithynid snail)		Nematomorpha (Horsehair worm)	
Athericidae (Watersnipe fly)		Pleuroceridae (Rock snail)		Oligochaeta (Aquatic worm)	1
Blephariceridae (Net-wing midge)		Viviparidae (Viviparid snail)		Turbellaria (Flatworms)	
Hydrobiidae (Pebble snail)		Corbiculidae (Asian clam)	1	Tolerance unknown	
Unionidae (Mussel)		Sphaeriidae (Pea clam)	1	Hydrozoa (Freshwater jellyfish)	
				Neuroptera (Spongilliflies)	
				Spongilla (Freshwater sponge)	