

WV SAVE OUR STREAMS ADVANCED SURVEY SUMMARY

Stream Monitor(s) Warm Springs Run Level 3 Date(s) 9/11/15
 Direction Trump, Iliff, Lehman, Wurster, Dean, Swaim
Fairview Drive near River Road. Start time 9:00 AM
 County Morgan
 RR Miles _____ Station Fairview Drive
 Latitude

39	24	52
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 Longitude

75	6	14
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 Watershed Warm Springs
 Database code _____

WATER CHEMISTRY

	Result	Units		Result	Units		Result	Units
Temp. (°F or °C)	17	c	Alkalinity	124		Fecal coliform/E-coli		
pH	7		Nitrate/Nitrite	2		Iron	.75	
Conductivity			Phosphates			Aluminum		
Dissolved O ₂	15	Mg/l	Total Dissolved Solids			Manganese		
Acidity			Turbidity			Other (describe below)		

Describe other conditions analyzed: _____

PHYSICAL CONDITIONS

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

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

Rifle width _____ Run width 8 Pool width _____

x	
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 Rifle depth _____ Run depth 0.62 Pool depth _____ Feet Meter
 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

Index	8	25	35	60	14	14	
			Woody debris adjustment		% Riffles	% Runs	% Pools

HABITAT CONDITIONS

Attachment sites	16	Channel flow status	5	Embeddedness	18
Riffle frequency	12	Channel alterations	12	Bank veg. protection	8 9
Velocity/depth	10	Sediment deposition	17	Bank stability	8 9
Total Score	138	Channel shade	60-80%	Riparian buffer	4 10

Integrity Rating

 width

Comments _____

BIOLOGICAL CONDITIONS

Richness	Composition	Tolerance			
Total Taxa <table border="1" style="display: inline-table;"><tr><td style="text-align: center;">14</td></tr></table>	14	% EPT Abundance <table border="1" style="display: inline-table;"><tr><td style="text-align: center;">70.3</td></tr></table>	70.3	Biotic Index <table border="1" style="display: inline-table;"><tr><td style="text-align: center;">4.22</td></tr></table>	4.22
14					
70.3					
4.22					
EPT Taxa <table border="1" style="display: inline-table;"><tr><td style="text-align: center;">5</td></tr></table>	5	% Dominance <table border="1" style="display: inline-table;"><tr><td style="text-align: center;">56.8</td></tr></table>	56.8	% Tolerant <table border="1" style="display: inline-table;"><tr><td style="text-align: center;">9</td></tr></table>	9
5					
56.8					
9					
Other aquatic organisms observed or collected (e.g. fish, salamanders etc.), or additional comments: _____					
		Stream Score <table border="1" style="display: inline-table;"><tr><td style="text-align: center;">68.3</td></tr></table>	68.3		
68.3					
		Integrity Rating <table border="1" style="display: inline-table;"><tr><td style="text-align: center;">suboptimal</td></tr></table>	suboptimal		
suboptimal					

Discharge (cfs)

0.31

 Water level

Low	Normal	High	No flow
x			

Current/past weather conditions: Sunny Past 0.20 inches of rain 9/10/15

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	1	w			
Industrial areas			Cropland	1	w			
Parking lots, malls etc.			Oil & gas wells					
Bridges	1	s	Logging	1	w			
Paved roads	1	s	Mountaintop mining					
Unpaved roads			Abandoned mining					
Active construction			Deep mining					
Parks, trails etc			Quarries					
Other recreation			Other (describe)					
Landfills								
Comments: _____			Pipes? <table border="1" style="display: inline-table;"><tr><td> </td></tr></table> Yes <table border="1" style="display: inline-table;"><tr><td style="text-align: center;">x</td></tr></table> No <table border="1" style="display: inline-table;"><tr><td> </td></tr></table>		x			
x								

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)	1
Ephemereleidae (Spiny-crawler mayfly)		Beatiscidae (Armored mayfly)		Lestidae (Spread-wing damselfly)	
Heptageniidae (Flatheaded mayfly)	8	Caenidae (Square-gilled mayfly)		Libellulidae (Skimmer dragonfly)	
Isonychiidae (Brush-legged mayfly)	14	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)		Halipilidae (Crawling water beetle)	
Capniidae (Small winter stonefly)		Hydropsychidae (Common netspinner)	25	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)	5
Perlidae (Common stonefly)		Polycentropodidae (Tube-net caddisfly)		Hydrometridae (Water measurer)	
Perlodidae (Patterned stonefly)		Psychomiidae (Trumpet-net caddisfly)		Nepidae (Water scorpion)	

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Peltoperlidae (Roach-like stonefly)		Pyrilidae (Aquatic moth)		Notonectidae (Backswimmer)	
Pteronarcyidae (Giant stonefly)		Calopterygidae (Broad-wing damselfly)	1	Ceratopogonidae (Biting midge)	
Taeniopterygidae (Large winter stonefly)		Gomphidae (Clubtail dragonfly)		Chironomidae (Non-biting midge)	1
Brachycentridae (Humpless-case caddisfly)		Dryopidae (Long-toed beetle)		Culicidae (Mosquito)	
Glossosomatidae (Saddle-case caddisfly)	1	Elmidae (Riffle beetle)	27	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)	201	Simuliidae (Black fly)		Asellidae (Aquatic sowbug)	
Rhyacophilidae (Free-living caddisfly)		Tipulidae (Crane fly)		Ancylidae (Limpet snail)	
Uenoidae (Uenoid-case caddisfly)		Hydrachnidae (Water mites)		Physidae (Left-handed snail)	
Aeshnidae (Damner dragonfly)	1	Cambaridae (Crayfish)		Planorbidae (Orb snail)	
Cordulegastridae (Spiketail dragonfly)		Gammaridae (Sideswimmer)	3	Hirudinea (Leech)	
Psephenidae (Water penny)	41	Palaemonidae (Freshwater shrimp)		Nematoda (Round worm)	
Corydalidae (Hellgrammite/Fishfly)		Bithyniidae (Bithynid snail)		Nematomorpha (Horsehair worm)	
Athericidae (Watersnipe fly)		Pleuroceridae (Rock snail)		Oligochaeta (Aquatic worm)	
Blephariceridae (Net-wing midge)		Viviparidae (Viviparid snail)		Turbellaria (Flatworms)	25
Hydrobiidae (Pebble snail)		Corbiculidae (Asian clam)		Tolerance unknown	
Unionidae (Mussel)		Sphaeriidae (Pea clam)		Hydrozoa (Freshwater jellyfish)	
				Neuroptera (Spongilliflies)	
				Spongilla (Freshwater sponge)	