

WV SAVE OUR STREAMS ADVANCED SURVEY SUMMARY

Stream Monitor(s) Warm Spring Run Level 3 Date May 27, 2013
 Direction Lehman and Dean
Intersection of Fairview Drive and River Road Start time _____
 County Morgan
 RR Miles _____ Station Fairview
 Latitude

39	24	52
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 Longitude

78	6	14
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 Watershed Warm Spring Run
 Database code _____

WATER CHEMISTRY

	Result	Units		Result	Units		Result	Units
Temp. (°F or °C)	14	C	Alkalinity	140	Ppm	Fecal coliform/E-coli		
pH	8.5		Nitrate/Nitrite			Iron		
Conductivity			Phosphates			Aluminum		
Dissolved O ₂	9	ppm	Total Dissolved Solids			Manganese		
Acidity			Turbidity	0	jtu	Other (describe below)		

Describe other conditions analyzed: _____

PHYSICAL CONDITIONS

Water clarity	<u>Clear</u>	Algae color	<u>Brown</u>
Water color	<u>None</u>	Algae abundance	<u>Scattered</u>
Water/Sediment odor	<u>None</u>	Algae texture	<u>Matted</u>
Streambed color	<u>Brown</u>	Surface foam	<u>slight</u>

Comments _____

Riffle width	<u>11</u>	Run width	<u>13</u>	Pool width	<u>x</u>	
Riffle depth		Run depth	<u>0.73</u>	Pool depth		
					Feet	Meters
					Indicate units	

Estimate	<u></u>	Count	<u>x</u>	Entire reach	<u>x</u>	Riffles only	<u></u>
Silt/clay		Sand		Boulder		Bedrock	
		Fine gravel		Coarse gravel		Woody debris	

Index	<u>8</u>	<u>14</u>	<u>24</u>	<u>34</u>	<u>20</u>		
			Woody debris adjustment		% Riffles	% Runs	% Pools

HABITAT CONDITIONS

Attachment sites	<u>19</u>	Channel flow status	<u>14</u>	Embeddedness	<u>19</u>
Riffle frequency	<u>15</u>	Channel alterations	<u>14</u>	Bank veg. protection	<u>10</u> <u>10</u>
Velocity/depth	<u>15</u>	Sediment deposition	<u>10</u>	Bank stability	<u>9</u> <u>9</u>
Total Score	<u>163</u>	Channel shade	<u>80%</u>	Riparian buffer	<u>10</u> <u>9</u>

Integrity Rating

 width

Comments _____

BIOLOGICAL CONDITIONS

Richness		Composition		Tolerance	
Total Taxa	12	% EPT Abundance	51.1	Biotic Index	5.96
EPT Taxa	5	% Dominance	41	% Tolerant	31.4
Other aquatic organisms observed or collected (e.g. fish, salamanders etc.), or additional comments: _____				Stream Score	58.5
				Integrity Rating	marginal

Discharge (cfs)	4.74	Water level	Low	Normal	High	No flow
					x	

Current/past weather conditions: _____

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	1	w	Intensive feedlots		
Urban areas			Pastureland		
Industrial areas	1	w	Cropland		
Parking lots, malls etc.	1	w	Oil & gas wells		
Bridges			Logging	1	m
Paved roads	1	m	Mountaintop mining	1	w
Unpaved roads	1	s	Abandoned mining		
Active construction	1	w	Deep mining		
Parks, trails etc			Quarries		
Other recreation			Other (describe)		
Landfills					

Comments: _____ Pipes?

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 Yes

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 NO

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 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)	6	Caenidae (Square-gilled mayfly)		Libellulidae (Skimmer dragonfly)	
Isonychiidae (Brush-legged mayfly)	6	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)	77	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)	2	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)		Ceratopogonidae (Biting midge)	
Taeniopterygidae (Large winter stonefly)		Gomphidae (Clubtail dragonfly)		Chironomidae (Non-biting midge)	52
Brachycentridae (Humpless-case caddisfly)		Dryopidae (Long-toed beetle)		Culicidae (Mosquito)	
Glossosomatidae (Saddle-case caddisfly)		Elmidae (Riffle beetle)	6	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)	5	Simuliidae (Black fly)	3	Asellidae (Aquatic sowbug)	
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)		Planorbidae (Orb snail)	
Cordulegastridae (Spiketail dragonfly)		Gammaridae (Sideswimmer)	10	Hirudinea (Leech)	
Psephenidae (Water penny)	11	Palaemonidae (Freshwater shrimp)		Nematoda (Round worm)	
Corydalidae (Hellgrammite/Fishfly)		Bithyniidae (Bithynid snail)		Nematomorpha (Horsehair worm)	
Athericidae (Watersnipe fly)		Pleuroceridae (Rock snail)		Oligochaeta (Aquatic worm)	7
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)	