

WV SAVE OUR STREAMS ADVANCED SURVEY SUMMARY

Stream Monitor(s) Warm Spring Run Level 3 Date(s) 3 July 2014
 Direction Lehman, Swain, Orr and Dean
Next to Widmeyer School Start time 8:AM
 County Morgan
 RR Miles _____ Station Widmeyer
 Latitude

39	36	42
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 Longitude

78	14	15
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 Watershed Warm Spring Run
 Database code _____

WATER CHEMISTRY

	Result	Units		Result	Units		Result	Units
Temp. (°F or °C)	75	F	Alkalinity	120	Ppm	Fecal coliform/E-coli		
pH	7.5		Nitrate/Nitrite	1	Ppm	Iron	0	
Conductivity	527	Us	Phosphates			Aluminum		
Dissolved O ₂	50	%	Total Dissolved Solids	360	Ppm	Manganese		
Acidity			Turbidity	60	Jtu	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 Algae texture Even coating
 Streambed color Brown Surface foam Slight
 Comments _____

Riffle width _____ Run width _____ Pool width _____
 Riffle depth _____ Run depth _____ Pool depth _____
 Feet Meter
 Indicate units

Estimate

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 Count

Yes

 Silt/clay Sand Fine gravel Coarse gravel Cobble Entire reach

yes

 Riffles only

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 Boulder Bedrock Woody debris

	19%	22%	33%	24%			
Index			Woody debris adjustment		% Riffles	% Runs	% Pools

HABITAT CONDITIONS

Attachment sites	8	Channel flow status	9	Embeddedness	10
Riffle frequency	4	Channel alterations	19	Bank veg. protection	5 5
Velocity/depth	4	Sediment deposition	5	Bank stability	5 5

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Total Score

99

Channel shade

80%

Riparian buffer width

10

10

Integrity Rating

Marginal

Comments

BIOLOGICAL CONDITIONS

Richness

Total Taxa
EPT Taxa

69
3

Composition

% EPT Abundance
% Dominance

46.4
33.3

Tolerance

Biotic Index
% Tolerant
Stream Score
Integrity Rating

4.35
4.3
62.9
Marginal

Other aquatic organisms observed or collected (e.g. fish, salamanders etc.), or additional comments:

Two Northern lined salamander

Discharge (cfs)

Water level

Low	Normal	High	No flow
	yes		

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
Single family residences	1	W
Sub-urban developments	1	W
Urban areas		
Industrial areas		
Parking lots, malls etc.		
Bridges	2	S
Paved roads	2	S
Unpaved roads		
Active construction		
Parks, trails etc		
Other recreation		
Landfills		

	Impact	Location
Trash dumps		
Intensive feedlots		
Pastureland	2	W
Cropland		
Oil & gas wells		
Logging	1	W
Mountaintop mining		
Abandoned mining		
Deep mining		
Quarries		
Other (describe)		

Comments:

Pipes? Yes no 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)	1	Caenidae (Square-gilled mayfly)		Libellulidae (Skimmer dragonfly)	2
Isonychiidae (Brush-legged mayfly)		Ephemeraeidae (Burrowing mayfly)		Chrysomelidae (Reed beetle)	
Leptophlebiidae (Prong-gilled mayfly)		Potamanthidae (Hackle-gilled mayfly)		Dytiscidae (Predacious diving beetle)	1
Siphonuridae (Primitive minnow mayfly)		Tricorythidae (Stout-crawler mayfly)		Haliplidae (Crawling water beetle)	
Capniidae (Small winter stonefly)		Hydropsychidae (Common netspinner)	19	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)	1
Perlidae (Common stonefly)		Polycentropodidae (Tube-net caddisfly)		Hydrometridae (Water measurer)	

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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)		Chironomidae (Non-biting midge)	
Brachycentridae (Humpless-case caddisfly)		Dryopidae (Long-toed beetle)		Culicidae (Mosquito)	
Glossosomatidae (Saddle-case caddisfly)		Elmidae (Riffle beetle)	23	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)	12	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)		Cambaridae (Crayfish)	1	Planorbidae (Orb snail)	
Cordulegastridae (Spiketail dragonfly)		Gammaridae (Sideswimmer)		Hirudinea (Leech)	
Psephenidae (Water penny)	9	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)	
Hydrobiidae (Pebble snail)		Corbiculidae (Asian clam)		Tolerance unknown	
Unionidae (Mussel)		Sphaeriidae (Pea clam)		Hydrozoa (Freshwater jellyfish)	
				Neuroptera (Spongilliflies)	
				Spongilla (Freshwater sponge)	