
Appendix A

Aquatic Life Use Attainment Table

Aquatic life use attainment status for stations sampled in the Salt Creek basin based on data collected June-October 2004 and July-October 2005. *Sites collected in 2004 are in italics.* The Index of Biotic Integrity (IBI), Modified Index of well being (MIwb), and Invertebrate Community Index (ICI) are scores based on the performance of the biotic community. The Qualitative Habitat Evaluation Index (QHEI) is a measure of the ability of the physical habitat to support a biotic community.

River Mile	Fish/Invertebrate	IBI	MIwb ^a	ICI ^b	QHEI	Attainment Status ^c	Causes	Sources/ Comments
Salt Creek								
<i>ECBP Ecoregion - EWH Existing</i>								
42.6 ^H		46 ^{NS}	N/A	MG*	52.0	PARTIAL	Nutrient enrichment, loss of trees in riparian corridor, siltation	Agricultural activities, channel modifications
38.2 ^H /38.3		54	N/A	E	53.0	FULL	Nutrient enrichment, siltation	Agricultural activities, septic systems, driving in stream channel
<i>WAP Ecoregion - EWH Existing</i>								
33.35 ^W /33.2		56	10.2	54	57.5	FULL		
32.3 ^W /32.5		49 ^{NS}	9.8	50	67.0	FULL		
25.9 ^W /26.0		53	9.4	50	56.5	FULL		
23.0 ^W /22.8		52	10.0	46	72.5	FULL		
17.4 ^W		54	9.8	42 ^{NS}	71.5	FULL		
15.2 ^W /15.7		55	9.3 ^{NS}	52	62.0	FULL		
9.9 ^W /9.8		54	9.9	52	78.0	FULL		
5.9 ^W		55	9.9	42 ^{NS}	70.0	FULL		
1.5 ^W		50	10.8	48	72.0	FULL		
Plum Run (Trib to Salt Creek at RM 34.62)								
<i>ECBP Ecoregion - EWH Existing</i>								
0.3 ^H		54	N/A	E	36.0	FULL		2 pt. IBI drop since 1992, six fewer species

River Mile	Fish/Invertebrate	IBI	Mlwb ^a	ICI ^b	QHEI	Attainment Status ^c	Causes	Sources/ Comments
Beech Fork (Trib to Salt Creek at RM 34.12)						<i>ECBP Ecoregion - EWH Existing</i>		
2.3 ^H /2.3		46 ^{NS}	N/A	G*	24.0	PARTIAL	Nutrient enrichment, loss of trees in riparian corridor, siltation	Agricultural activities, channel modifications
1.1 ^H		52	N/A	G*	36.5	PARTIAL	Nutrient enrichment, loss of trees in riparian corridor, siltation	Agricultural activities, channel modifications; 6pt drop in IBI since 1992, 13 fewer species
Bull Creek (Trib to Beech Fork at RM 1.54)						<i>ECBP Ecoregion – WWH Existing</i>		
0.8 ^H /0.6		50	N/A	VG	58.5	FULL		
Laurel Run (Trib to Salt Creek at RM 33.10)						<i>WAP Ecoregion - EWH Existing and CWH Recommended</i>		
9.6 ^H		46 ^{NS}	N/A	F*	63.0	PARTIAL	Siltation, loss of trees in riparian corridor	Channelization
						<i>WAP Ecoregion - EWH Existing</i>		
7.8 ^H		58	N/A	MG*	69.0	PARTIAL	Siltation	Agricultural activities, channel modifications
2.6 ^W /2.4		55	10.0	40*	68.5	PARTIAL	Siltation	Agricultural activities, channel modifications
0.1 ^W		50	9.5	54	58.5	FULL	Loss of trees in riparian corridor, siltation	Channelization
Cola Run (Trib to Laurel Run at RM 9.40)						<i>WAP Ecoregion - WWH Existing /CWH Recommended</i>		
0.1 ^H		48	N/A	G	44.0	FULL		
Middle Fork (Trib to Laurel Run at RM 2.97)						<i>WAP Ecoregion - EWH Existing</i>		
3.7 ^H /3.8		54	N/A	G*	57.0	PARTIAL	Siltation	Unknown
0.1 ^H /0.2		56	N/A	E	75.5	FULL		
Moccasin Creek (Trib to Laurel Run at RM 1.75)						<i>WAP Ecoregion - WWH Existing /CWH Recommended</i>		
4.6 ^H		50	N/A	G	65.0	FULL		
2.5 ^H		42 ^{NS}	N/A	G	60.0	FULL		

River Mile	Fish/Invertebrate	IBI	MIwb ^a	ICI ^b	QHEI	Attainment Status ^c	Causes	Sources/ Comments
Brimstone Creek (Trib to Salt Creek at RM 32.25)						<i>WAP Ecoregion - WWH Existing</i>		
0.35 ^H (Ust. WWTP)		50	N/A	G	65.5	FULL		
0.3(Mix Zone)		31	N/A	-	-	N/A	Avoidance occurs	
0.1 ^H /0.15(Dst WWTP)		53	N/A	G	41.0	FULL	Siltation	Gravel removal from stream
Sams Creek (Trib to Salt Creek at RM 29.4)						<i>WAP Ecoregion - WWH Existing / EWH Recommended</i>		
0.3 ^H		56/56		E/E	45.0	FULL/FULL		
Pine Creek (Trib to Salt Creek at RM 28.04)						<i>WAP Ecoregion - WWH Existing / CWH Recommended</i>		
12.5 ^H		50	N/A	G	66.5	FULL		
11.2 ^H		50	N/A	MG ^{NS}	71.5	FULL		
8.8 ^H		42 ^{NS}	N/A	F*	72.5	PARTIAL	Siltation	
2.0 ^W		47	7.9 ^{NS}	48	66.5	FULL		
Little Pine Creek (Trib to Pine Creek at RM 1.34)						<i>WAP Ecoregion - WWH Existing /CWH Recommended</i>		
1.9 ^H /2.2		44	N/A	G	60.0	FULL		
						<i>WAP Ecoregion - WWH Existing</i>		
0.6 ^H		54	N/A	G	53.0	FULL		
Queer Creek (Trib to Salt Creek at RM 25.40)						<i>WAP Ecoregion - EWH Existing and CWH Recommended</i>		
4.4 ^H		54	N/A	E	65.0	FULL		
						<i>WAP Ecoregion - EWH Existing</i>		
0.8 ^W		58	10.0	E	74.0	FULL		
East Fork (Trib to Queer Creek at RM 2.57)						<i>WAP Ecoregion - EWH Existing and CWH Recommended</i>		
3.9 ^H		52	N/A	E	52.5	FULL		
1.7 ^H		54	N/A	44 ^{NS}	72.5	FULL		

River Mile	Fish/Invertebrate	IBI	Mlwb ^a	ICI ^b	QHEI	Attainment Status ^c	Causes	Sources/ Comments
Trib to East Fork Queer Creek at RM 3.95						<i>WAP Ecoregion - Undesignated / CWH Recommended</i>		
0.9 ^H		54	N/A	G	53.5	FULL		
Goose Creek (Trib to Queer Creek at RM 2.35)						<i>WAP Ecoregion - WWH Existing / EWH and CWH Recommended</i>		
0.4 ^H		56/56	N/A	G/G*	69.5	FULL/ PARTIAL	Unknown (natural)	
Pretty Run (Trib to Salt Creek at RM 18.55)						<i>WAP Ecoregion - EWH Existing and CWH Recommended</i>		
3.5 ^H /3.8		46 ^{NS}	N/A	VG ^{NS}	45.0	FULL		
0.7 ^H		54	N/A	VG ^{NS}	60.0	FULL	Siltation, loss of trees in riparian corridor	Channelization, driving in stream channel
North Branch (Trib to Pretty Run at RM 2.35)						<i>WAP Ecoregion - WWH Existing / CWH Recommended</i>		
0.4 ^H		54/54	N/A	MG ^{NS} / MG ^{NS}	56.5	FULL/FULL	Siltation	
Pike Run (Trib to Salt Creek at RM 14.09)						<i>WAP Ecoregion - WWH Existing / EWH Recommended</i>		
5.7 ^H		54/54	N/A	G/G*	63.0	FULL/ PARTIAL	Unknown	
4.5 ^H		50/50	N/A	VG/ VG ^{NS}	63.0	FULL/FULL		
East Fork (Trib to Pike Run at RM 5.60)						<i>WAP Ecoregion - WWH Existing</i>		
0.2 ^H		52	N/A	G	58.5	FULL		
Poe Run (Trib to Salt Creek at RM 11.51)						<i>WAP Ecoregion - EWH Existing</i>		
2.1 ^H /2.2		--	--	F*	-	-	Interstitial flow	Gravel removal from stream downstream from site
Mulgee Run (Trib to Salt Creek at RM 5.55)						<i>WAP Ecoregion - Undesignated / WWH Recommended</i>		
0.1 ^H		46	N/A	G	68.0	FULL		

River Mile	Fish/Invertebrate	IBI	Mlwb ^a	ICI ^b	QHEI	Attainment Status ^c	Causes	Sources/ Comments
Salt Lick Creek (Trib to Salt Creek at RM 4.5)						<i>WAP Ecoregion - WWH Existing</i>		
27.9 ^H		<u>12</u> *	N/A	<u>P</u> *	23.5	NON	Channelization Loss of trees in riparian corridor Siltation	Row crop (Agriculture)
26.8 ^H /27.0		34*	N/A	30*	52	NON	Channelization Siltation Nutrient/organic enrichment	Row crop (Agriculture) Livestock access to stream
22.6 ^W /22.5		46	8.6	F*	66	PARTIAL	Nutrient/organic enrichment	Failing sewage collection system (City of Jackson) Run-off from OSCO, possible toxic sediment
22.1 ^W		46	8.7	22*	61	PARTIAL	Nutrient/organic enrichment	Failing sewage collection system (City of Jackson)
20.6 ^W		45	7.2*	36	62.5	PARTIAL	Nutrient/organic enrichment	Failing sewage collection system (City of Jackson)
20.4 ^W		44	7.8*	30*	62.5	PARTIAL	Nutrient/organic enrichment	Failing sewage collection system (City of Jackson)
19.5 ^W		49	8.3 ^{NS}	40	65.5	FULL		
18.2 ^W		48	8.6	42	76.5	FULL		
16.7 ^W /16.8		45	8.7	40	62.0	FULL		Historic Fish kills (IBI swing between passes)
14.7 ^W /14.0		42 ^{NS}	8.1 ^{NS}	38	64.5	FULL		
7.2 ^W /7.4		53	9.0	36	75.0	FULL		
--/0.5		--	--	36	55.5	(FULL)		

River Mile	Fish/Invertebrate	IBI	Mlwb ^a	ICI ^b	QHEI	Attainment Status ^c	Causes	Sources/ Comments
Four Mile Creek (Trib to Salt Lick Creek at RM 27.67)						<i>WAP Ecoregion - WWH Existing</i>		
3.1 ^H		34*	N/A	F*	50.0	NON	Siltation Nutrient enrichment	Agriculture - Livestock
Sugar Run (Trib to Salt Lick Creek at RM 23.36)						<i>WAP Ecoregion - Undesignated / WWH Recommended</i>		
0.4 ^H /--		28*	N/A	F*	40.5	NON	Stormwater run-off	Urbanization
Horse Run (Trib to Salt Lick Creek at RM 22.80)						<i>WAP Ecoregion - Undesignated / WWH Recommended</i>		
2.3 ^H /3.1		34*	N/A	F*	45.5	NON	Siltation	Residential run-off
Trib to Salt Lick Creek at RM 22.55 (Jisco Lake Tributary)						<i>WAP Ecoregion - EWH Existing / WWH Recommended</i>		
--/0.8		--	--	F*	49.5	-	Historic channelization Urban run-off	Urbanization SSO
Buckeye Creek (Trib to Salt Lick Creek at RM 21.28)						<i>WAP Ecoregion - EWH Existing / WWH Recommended</i>		
3.8 ^H		34*/34*	N/A	G*/G	47.5	NON/ PARTIAL	Loss of trees in riparian corridor	Agriculture
0.42 ^H		44*/44	N/A	F*/F*	60.5	NON/ PARTIAL	Siltation Urban run-off	Urbanization
Sour Run (Trib to Salt Lick Creek at RM 13.10)						<i>WAP Ecoregion - Undesignated / WWH Recommended</i>		
0.2 ^H		44	N/A	MG ^{ns}	56.5	FULL		
Big Run (Trib to Pigeon Creek at RM 6.02)						<i>WAP Ecoregion - WWH Existing</i>		
2.1 ^H		46	N/A	F*	59.0	PARTIAL	Low to interstitial flow Sedimentation	Agriculture Historical Mining
2.0 ^H		52	N/A	F*	59.5	PARTIAL	Siltation Nutrient/organic enrichment	Livestock access to tributary stream
Poplar Creek (Trib to Pigeon Creek at RM 4.78)						<i>WAP Ecoregion - WWH Existing</i>		
0.2 ^H		46	N/A	--	56.5	(FULL)		

River Mile	Fish/Invertebrate	IBI	Mlwb ^a	ICI ^b	QHEI	Attainment Status ^c	Causes	Sources/ Comments
Pigeon Creek (Trib to Salt Lick Creek at RM 6.35)						<i>WAP Ecoregion - Undesignated / WWH Recommended</i>		
6.5 ^H /7.0		56	N/A	G	52.5	FULL		
6.4 ^H		44	N/A	VG	59.5	FULL		
0.9 ^W		46	8.6	G	70.5	FULL		
Middle Fork Salt Creek (Trib to Salt Lick Creek at RM 1.25)						<i>WAP Ecoregion - WWH Existing</i>		
22.0 ^H		42 ^{NS}	N/A	G	50.0	FULL	Interstitial flow	2 nd pass fish indicated interstitial conditions (8pt. drop between passes) Sig. drop in scores since 1997, 1988 Gravel mining
19.7 ^H		44	N/A	E	63.5	FULL		Gravel mining
18.0 ^W		45	8.7	VG	65.5	FULL	Interstitial flow	
14.9 ^W /14.7		47	9.3	48	65.0	FULL		
4.7 ^W /4.9		54	9.5	28*	61.0	PARTIAL	Impounded stream conditions at RM 4.9, enrichment, low flow, siltation	Refuse from bridge demolition acting as impoundment at about RM 4.8, open pasture ust., channel modifications
0.3 ^W		54	9.3	40	73.5	FULL	Siltation	
Tributary to Middle Fork Salt Creek at RM 20.62						<i>WAP Ecoregion - Undesignated / WWH Recommended</i>		
0.1 ^H		46	N/A	-	41.5	(FULL)	Siltation Substrate disturbance	Gravel mining
Riley Run (Trib Middle Fork Salt Creek at RM 18.1)						<i>WAP Ecoregion - WWH Existing</i>		
0.3 ^H		32*	N/A	F*	60.0	NON	Interstitial flow, siltation	Unknown
Kelly Branch (Trib to Middle Fork Salt Creek at RM 15.73)						<i>WAP Ecoregion - WWH Existing / EWH and CWH Recommended</i>		
1.5 ^H		52/52	N/A	VG/ VG ^{NS}	57.5	FULL/FULL		

River Mile	Fish/Invertebrate	IBI	MIwb ^a	ICI ^b	QHEI	Attainment Status ^c	Causes	Sources/ Comments
Trib to Middle Fork Salt Creek at RM 13.00						<i>WAP Ecoregion - Undesignated / WWH Recommended</i>		
0.6 ^H		42 ^{NS}	N/A	G	25.0	FULL	Loss of trees in riparian corridor	Agricultural activities (crop field)
Pigeon Creek (Trib Middle Fork Salt Creek at RM 4.37)						<i>WAP Ecoregion - WWH Existing</i>		
13.1 ^H		42 ^{NS}	N/A	F*	35.5	PARTIAL	Siltation, nutrient/organic enrichment, loss of trees in riparian corridor	Cows in stream, channelization Coalton WWTP/Glen Roy
12.3 ^H		44	N/A	G	52.0	FULL	Siltation, nutrient enrichment, loss of trees in riparian corridor	
8.0 ^H /7.8		44	N/A	G	62.0	FULL		
4.7 ^W /4.6		49	9.0	42	60.5	FULL		
Trib to Pigeon Creek at RM 7.32						<i>WAP Ecoregion - Undesignated / WWH Recommended</i>		
2.4 ^H		30*	N/A	MG ^{NS}	58.0	PARTIAL	Low to interstitial flow, siltation	Gravel mining
0.1 ^H		30*	N/A	P*	45.0	NON	Siltation, channel modifications	Cows in stream, channelization
Skunk Hollow Creek (Trib to Pigeon Creek at RM 6.66)						<i>WAP Ecoregion - Undesignated / WWH Recommended</i>		
0.1 ^H		42 ^{NS}	N/A	G	63.5	FULL	Low flow, siltation	
Long Branch (Trib to Pigeon Creek at RM 3.16)						<i>WAP Ecoregion - WWH Existing</i>		
0.1 ^H		46	N/A	G	59.0	FULL	Low flow, channel modifications	

Ecoregion Biocriteria: Eastern Corn Belt Plain

Site Type	IBI			Mlwb			ICI		
	WWH	EWH	MWH	WWH	EWH	MWH	WWH	EWH	MWH
Headwaters	40	50	24	N/A	N/A	N/A	36	46	22
Wading	40	50	24	8.3	9.4	4.0	36	46	22
Boat	42	48	24	8.5	9.6	4.0	36	46	22

Ecoregion Biocriteria: Western Allegheny Plateau

Site Type	IBI			Mlwb			ICI		
	WWH	EWH	MWH	WWH	EWH	MWH	WWH	EWH	MWH
Headwaters	44	50	24	N/A	N/A	N/A	36	46	22
Wading	44	50	24	8.4	9.4	4.0	36	46	22
Boat	40	48	24	8.6	9.6	4.0	36	46	22

H Headwater site.

W Wading site.

B Boat site.

a Mlwb is not applicable to headwater streams with drainage areas ≤ 20 mi².

b A narrative evaluation of the qualitative sample based on attributes such as EPT taxa richness, number of sensitive taxa, and community composition was used when quantitative data were not available or considered unreliable due to sampling constraints. VP=Very Poor, P=Poor, LF=Low Fair, F=Fair, MG=Marginally Good, G=Good, VG=Very Good, E=Exceptional

c Attainment status is given for both existing and proposed use designations.

ns Nonsignificant departure from biocriteria (≤ 4 IBI or ICI units, or ≤ 0.5 Mlwb units).

* Indicates significant departure from applicable biocriteria (> 4 IBI or ICI units, or > 0.5 Mlwb units). Underlined scores are in the Poor or Very Poor range.

N/A Not applicable.