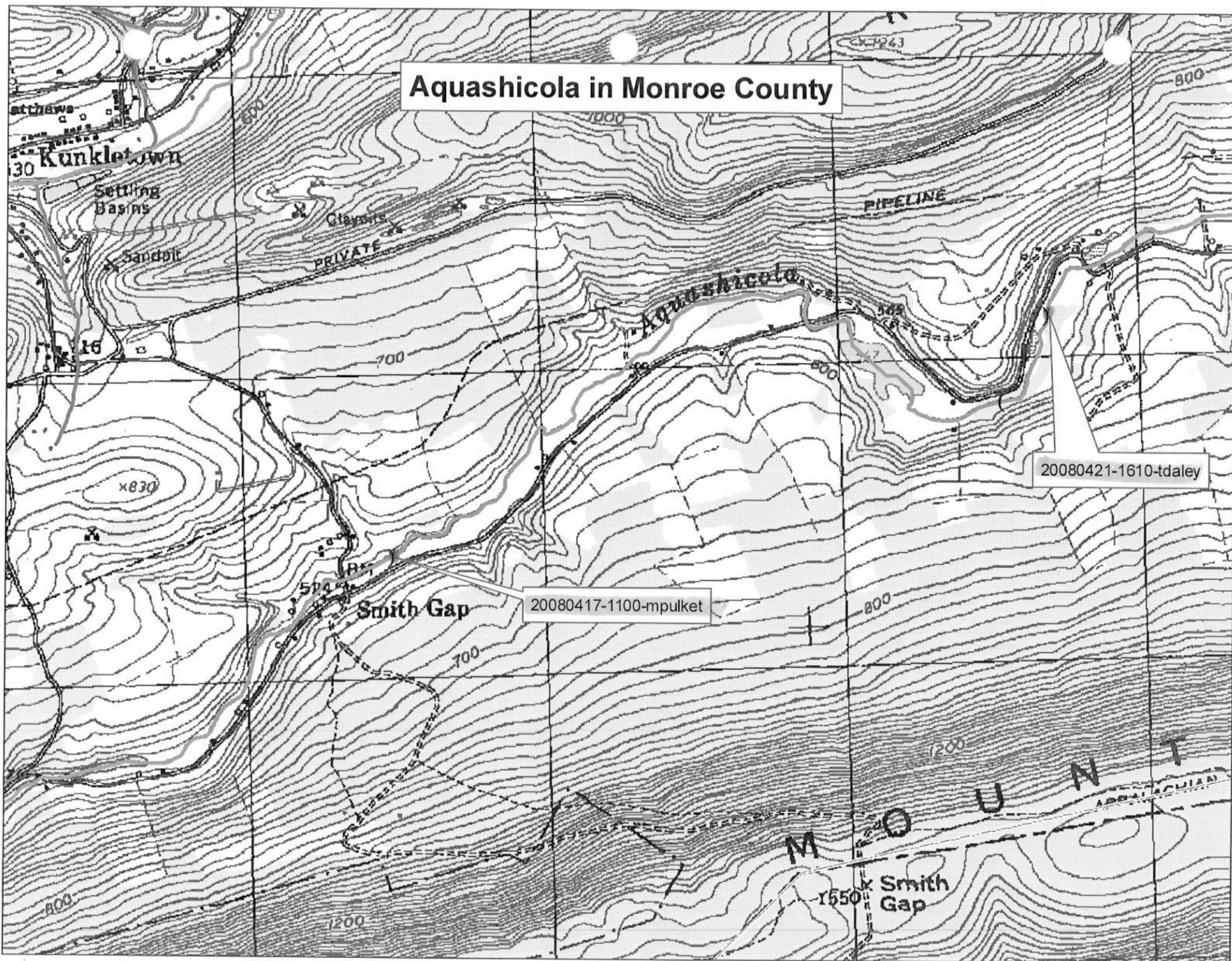


Aquashicola in Monroe County



Benthic macroinvertebrate sample summary

Station ID 20080421-1610-tdaley **Stream Name** Aquashicola Creek (01168358)
Secondary Station ID Aquashicola Creek
Survey ID 58629 **Sample Method** 6-Dframe Composite, 200 subsample
Collection Date 20080421 **Collection Time** 1610 **Latitude** 40.8425285 **Longitude** -75.4066222
HUC8 02040106 Lehigh, Pennsylvania.

Station Location Comments

Probabilistic SEG 19/SITE 041. 150 m downstream of SR3002 bridge.
 Monroe Co. - Eldred Twp.
 Kunkletown Quad

Biology / Habitat Comments

- several nice brown trout present
 - few and short riffles in this reach

Land Use Comments

Station Impairment Status Comments

Freestone IBI = 73.7
 good mayfly diversity and abundance

Taxa List		# grids from first pan		4	# grids from second pan		15	Subsample Size		234
Taxa Name	Individuals	PTV	FFG	BCG Attribute		any EV indicator taxa names are highlighted				
				(coldwater)	(warmwater)					
Acentrella	5	4	SC	3	3					
Baetis	1	6	CG	4	5					
Epeorus	1	0	SC	2	2					
Stenacron	1	4	SC	4	4					
Maccaffertium	7	3	SC	3	3					
Drunella	20	1	SC	2	2					
Ephemerella	53	1	CG	3	2					
Serratella	6	2	CG	3	3					
Lanthus	1	5	PR	2	2					
Amphinemura	2	3	SH	3	3					
Acroneuria	3	0	PR	3	3					
Nigronia	2	2	PR	3	3					
Chimarra	7	4	FC	4	4					
Diplectrona	2	0	FC	2	2					
Cheumatopsyche	9	6	FC	5	5					
Hydropsyche	9	5	FC	5	5					
Rhyacophila	2	1	PR	2	2					
Protoptila	2	1	SC	2	2					
Neophylax	3	3	SC	3	3					
Psephenus	2	4	SC	4	4					
Optioservus	5	4	SC	4	4					
Oulimnius	2	5	SC	3	2					
Stenelmis	1	5	SC	5	5					
Clinocera	3	6	PR	4	4					
Antocha	7	3	CG	4	4					
Prosimulium	1	2	FC	3	3					
Simulium	6	6	FC	5	5					
Chironomidae	58	6	CG	5	5					
Oligochaeta	12	10	CG	5	5					
Hydracarina	1	7	PR	4	4					

Benthic macroinvertebrate sample summary

Station ID 20080421-1610-tdaley Stream Name Aquashicola Creek (01168358)
 Secondary Station ID Aquashicola Creek
 Survey ID 58629 Sample Method 6-Dframe Composite, 200 subsample
 Collection Date 20080421 Collection Time 1610 Latitude 40.8425285 Longitude -75.4066222
 HUC8 02040106 Lehigh, Pennsylvania.

Metrics and IBI scores

		Standardized Metric Values						
		Freestone Riffle-Run						
Metric Names		Raw Metric Values	2009 small	2009 large	2007	2D100	Multihabitat Pool-Glide	Limestone
Total Richness		30	90.9	90.9	85.7		96.8	162.1
Ephemeroptera Richness		8					133.3	
Trichoptera Richness		7					63.6	
EPT Richness		17			73.9	111.1	100.0	212.5
Trichoptera Richness (PTV 0-4)		5				138.9		
EPT Richness (PTV 0-4)		14	73.7	77.8				
Beck's Index (version 3)		20	52.6	66.7	51.3			
Beck's Index (version 4)		26				130.7	118.2	
FC + PR + SH Richness		13				112.1		
Hilsenhoff Biotic Index		3.79	76.6	82.8	75.6	92.2		98.8
% Intolerant Individuals (PTV 0-3)		47.4	56.1	71.3				180.4
% Intolerant Individuals (PTV 0-5)		61.5			66.5			
% Tolerant Individuals (PTV 7-10)		5.6						95.4
Shannon Diversity		2.58	90.1	91.1	89.0		106.1	134.3
IBI score		73.3	80.1	73.7	98.4	93.4	98.8	
BCG Richness Ratio	1.14	% Ephemeroptera	40.2	% Baetis		0.4	% Chironomidae	24.8
BCG % Individuals Ratio	0.92	% Plecoptera	2.1	% Ephemerella		22.6	% Simuliidae	3.0
EV Indicator Taxa	4	% Trichoptera	14.5	% Dominant Taxon		24.8	% Prosimulium	0.4
Not impaired	Y	Biology impaired	N	Habitat impaired	N	Insufficient data	N	
Rock pick influenced assessment	N		Impact is localized	N		Re-evaluate designated use	N	

Physical Habitat Assessment

Pool-Glide Assessment? N

1. Instream Cover	15	5. Channel Alteration	15	9. Contition of Banks	12
2. Epifaunal Substrate	10	6. Sediment Deposition	14	10. Bank Vegetative Protection	15
3. Embeddedness	14	7. Frequency of Riffles	11	11. Grazing/Disruptive Pressure	15
4. Velocity/Depth Regimes	16	8. Channel Flow Status	18	12. Riparian Vegetative Zone Width	13
Instream Score (1. + 2. + 3. + 6.) = 53		Riparian Score (9. + 10. + 12.) = 40		Total Score = 168	

Field Measurements

Lab samples

Temperature (°C)	14.8	Dissolved Oxygen (mg/L)	10.7	Flow (CFS)	0
pH	7.79	Total Alkalinity (mg/L as CaCO3)	60	Conductivity (uS/cm)	118

Use Assessment Status for Stream Reach

Designated Use Existing Use

Aquatic Life Attaining (20080319-1021-tdaley)

Fish Consumption**Potable Water Supply****Recreation****TMDL Information** (if any)

Begin Date Meeting Date End Date Draft Date Final Date

Benthic macroinvertebrate sample summary

Station ID 20080417-1100-mpulket **Stream Name** Aquashicola Creek (01168358)
Secondary Station ID Multihabitat Special Protection Development
Survey ID 58810 **Sample Method** Multihabitat: 10 Jabs, 200 subsample (with replicate)
Collection Date 20080417 **Collection Time** 1100 **Latitude** 40.8358085 **Longitude** -75.4327246
HUC8 02040106 Lehigh, Pennsylvania.

Station Location Comments

100 yards upstream of Chestnut Ridge Rd. crossing. Started sampling above mowed area.

Biology / Habitat Comments

ABR Inc. identified the macros. Riparian bushes overhung the stream. There were some very deep pools.

Land Use Comments

Station Impairment Status Comments

Taxa List	# grids from first pan	4	# grids from second pan	26	Subsample Size	236
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Taxa Name	Individuals	PTV	FFG	BCG Attribute		any EV indicator taxa names are highlighted
				(coldwater)	(warmwater)	
Siphonurus	1	7	CG	0	0	
Maccaffertium	9	3	SC	3	3	
Drunella	6	1	SC	2	2	
Ephemerella	54	1	CG	3	2	
Eurylophella	4	4	SC	3	2	
Serratella	26	2	CG	3	3	
Ophiogomphus	1	1	PR	3	3	
Amphinemura	12	3	SH	3	3	
Leuctra	1	0	SH	2	2	
Perlesta	1	4	PR	3	3	
Isoperla	1	2	PR	2	2	
Corixidae	1	8	PR	5	5	
Psychomyia	1	2	CG	3	3	
Polycentropus	1	6	FC	4	4	
Cheumatopsyche	1	6	FC	5	5	
Hydropsyche	5	5	FC	5	5	
Micrasema	1	2	SH	3	3	
Lepidostoma	1	1	SH	2	2	
Pycnopsyche	2	4	SH	3	3	
Trienodes	1	6	SH	3	3	
Psephenus	1	4	SC	4	4	
Dubiraphia	6	6	SC	4	4	
Promoresia	1	2	SC	3	2	
Hemerodromia	1	6	PR	4	4	
Neoplaista	2	6	PR	0	0	
Antocha	2	3	CG	4	4	
Simulium	4	6	FC	5	5	
Chironomidae	68	6	CG	5	5	
Nemertea	2	6	PR	4	4	
Physidae	1	8	SC	5	5	
Sphaeriidae	1	8	FC	0	0	
Oligochaeta	2	10	CG	5	5	
Hydracarina	15	7	PR	4	4	

Benthic macroinvertebrate sample summary

Station ID 20080417-1100-mpulket **Stream Name** Aquashicola Creek (01168358)
Secondary Station ID Multihabitat Special Protection Development
Survey ID 58810 **Sample Method** Multihabitat: 10 Jabs, 200 subsample (with replicate)
Collection Date 20080417 **Collection Time** 1100 **Latitude** 40.8358085 **Longitude** -75.4327246
HUC8 02040106 Lehigh, Pennsylvania.

Metrics and IBI scores

Standardized Metric Values								
Metric Names		Raw Metric Values	Freestone Riffle-Run				Limestone	
			6D200		2007	2D100		Multihabitat Pool-Glide
			2009 small	2009 large				
Total Richness		33	100.0	100.0	94.3		106.5	178.3
Ephemeroptera Richness		6					100.0	
Trichoptera Richness		8					72.7	
EPT Richness		18			78.3	117.6	105.9	225.0
Trichoptera Richness (PTV 0-4)		4				111.1		
EPT Richness (PTV 0-4)		13	68.4	72.2				
Beck's Index (version 3)		16	42.1	53.3	41.0			
Beck's Index (version 4)		22				110.6	100.0	
FC + PR + SH Richness		19				163.8		
Hilsenhoff Biotic Index		3.90	75.2	81.4	74.2	90.5		97.0
% Inolerant Individuals (PTV 0-3)		49.2	58.2	73.9				186.9
% Intolerant Individuals (PTV 0-5)		54.7			59.1			
% Tolerant Individuals (PTV 7-10)		8.9						92.0
Shannon Diversity		2.39	83.6	84.5	82.6		98.5	124.6
IBI score			71.3	77.6	71.6	98.1	95.2	97.8
BCG Richness Ratio	1.14	% Ephemeroptera	42.4	% Baetis		0.0	% Chironomidae	28.8
BCG % Individuals Ratio	1.11	% Plecoptera	6.4	% Ephemerella		22.9	% Simuliidae	1.7
EV Indicator Taxa	1	% Trichoptera	5.5	% Dominant Taxon		28.8	% Prosimulium	0.0
Not impaired	N	Biology impaired	N	Habitat impaired	N	Insufficient data	Y	
Rock pick influenced assessment	N		Impact is localized	N		Re-evaluate designated use	N	

Physical Habitat Assessment

				Pool-Glide Assessment?	
1. Instream Cover	0	5. Channel Alteration	0	9. Contition of Banks	0
2. Epifaunal Substrate	0	6. Sediment Deposition	0	10. Bank Vegetative Protection	0
3. Embeddedness	0	7. Frequency of Riffles	0	11. Grazing/Disruptive Pressure	0
4. Velocity/Depth Regimes	0	8. Channel Flow Status	0	12. Riparian Vegetative Zone Width	0
Instream Score (1. + 2. + 3. + 6.) = 0		Riparian Score (9. + 10. + 12.) = 0		Total Score = 0	

Field Measurements

Temperature (°C)	10.9	Dissolved Oxygen (mg/L)	11.3	Flow (CFS)	0
pH	7.92	Total Alkalinity (mg/L as CaCO3)	68	Conductivity (uS/cm)	143

Use Assessment Status for Stream Reach

Aquatic Life Attaining (20080319-1021-tdaley) Designated Use Existing Use

Fish Consumption

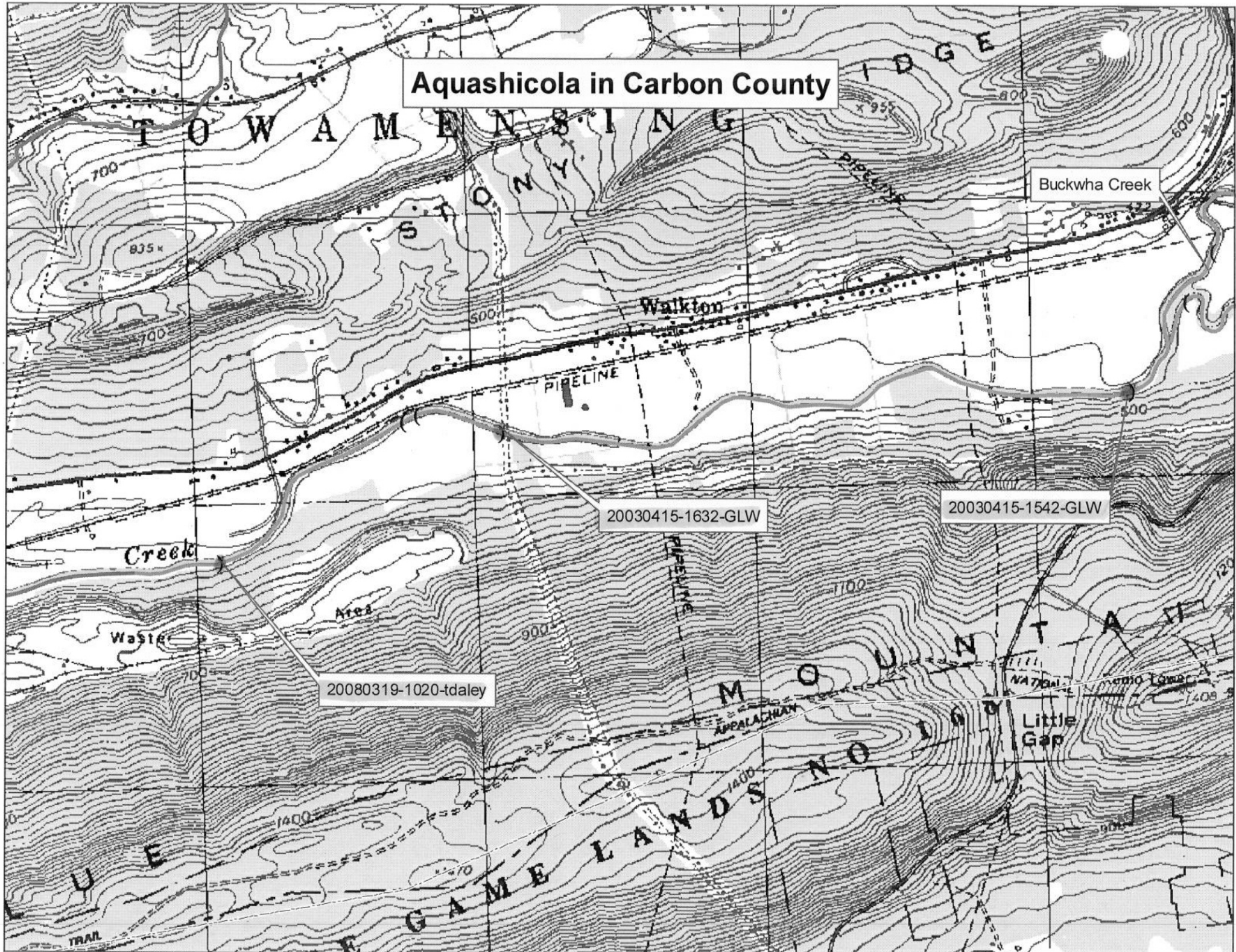
Potable Water Supply

Recreation

TMDL Information (if any)

Begin Date Meeting Date End Date Draft Date Final Date

Aquashicola in Carbon County



Benthic macroinvertebrate sample summary

Station ID 20030415-1542-GLW

Stream Name Aquashicola Creek (01168358)

Secondary Station ID

Survey ID 51073

Sample Method 6-Dframe Composite, 200 subsample

Collection Date

Collection Time

Latitude 40.8165073

Longitude -75.5290251

HUC8 02040106 Lehigh, Pennsylvania.

Station Location Comments

Biology / Habitat Comments

Land Use Comments

Station Impairment Status Comments

Taxa List	# grids from first pan	# grids from second pan	Subsample Size
			189

Taxa Name	Individuals	PTV	FFG	BCG Attribute		any EV indicator taxa names are highlighted
				(coldwater)	(warmwater)	
Isonychia	1	3	CG	3	3	
Epeorus	1	0	SC	2	2	
Stenonema(old genu	1	3	SC	3	3	
Drunella	22	1	SC	2	2	
Ephemerella	29	1	CG	3	2	
Eurylophella	1	4	SC	3	2	
Caenis	8	7	CG	5	5	
Ophiogomphus	1	1	PR	3	3	
Amphinemura	1	3	SH	3	3	
Prostoia	1	2	SH	3	3	
Psychomyia	3	2	CG	3	3	
Cheumatopsyche	4	6	FC	5	5	
Hydropsyche	27	5	FC	5	5	
Rhyacophila	2	1	PR	2	2	
Protoptila	2	1	SC	2	2	
Leucotrichia	1	6	SC	4	4	
Neophylax	8	3	SC	3	3	
Psephenus	17	4	SC	4	4	
Optioservus	7	4	SC	4	4	
Oulimnius	2	5	SC	3	2	
Promoresia	5	2	SC	3	2	
Clinocera	9	6	PR	4	4	
Hemerodromia	2	6	PR	4	4	
Tipula	1	4	SH	5	5	
Antocha	4	3	CG	4	4	
Chironomidae	14	6	CG	5	5	
Turbellaria	2	9	PR	5	5	
Nematoda	5	9	CG	0	0	
Planorbidae	1	6	SC	5	5	
Ancylidae	1	7	SC	4	4	
Sphaeriidae	1	8	FC	0	0	
Oligochaeta	3	10	CG	5	5	
Hydracarina	2	7	PR	4	4	

Benthic macroinvertebrate sample summary

Station ID 20030415-1542-GLW Stream Name Aquashicola Creek (01168358)

Secondary Station ID

Survey ID 51073 Sample Method 6-Dframe Composite, 200 subsample

Collection Date Collection Time Latitude 40.8165073 Longitude -75.5290251

HUC8 02040106 Lehigh, Pennsylvania.

Metrics and IBI scores

Metric Names		Standardized Metric Values					
		Freestone Riffle-Run			2D100	Multihabitat Pool-Glide	Limestone
		Raw Metric Values	6D200 small	6D200 large	2007		
Total Richness	33		100.0	100.0	94.3	106.5	178.3
Ephemeroptera Richness	7					116.7	
Trichoptera Richness	7					63.6	
EPT Richness	16				69.6	104.6	200.0
Trichoptera Richness (PTV 0-4)	4				111.1		
EPT Richness (PTV 0-4)	12		63.2	66.7			
Beck's Index (version 3)	16		42.1	53.3	41.0		
Beck's Index (version 4)	24				120.6	109.1	
FC + PR + SH Richness	12				103.4		
Hilsenhoff Biotic Index	3.87		75.5	81.7	74.5	90.9	97.4
% Inolerant Individuals (PTV 0-3)	42.9		50.7	64.4			163.0
% Intolerant Individuals (PTV 0-5)	72.0				77.8		
% Tolerant Individuals (PTV 7-10)	11.6						89.3
Shannon Diversity	2.87		100.2	101.4	99.0	118.1	149.4
IBI score			71.9	77.7	76.0	98.2	93.0
BCG Richness Ratio	0.94	% Ephemeroptera	33.3	% Baetis	0.0	% Chironomidae	7.4
BCG % Individuals Ratio	0.78	% Plecoptera	1.1	% Ephemerella	15.3	% Simuliidae	0.0
EV Indicator Taxa	3	% Trichoptera	24.9	% Dominant Taxon	15.3	% Prosimulium	0.0
Not impaired	Biologically impaired	Habitat impaired		Insufficient data			
Rock pick influenced assessment		Impact is localized		Re-evaluate designated use			

Physical Habitat Assessment

				Pool-Glide Assessment?		N
1. Instream Cover	18	5. Channel Alteration	19	9. Contition of Banks		20
2. Epifaunal Substrate	18	6. Sediment Deposition	17	10. Bank Vegetative Protection		18
3. Embeddedness	16	7. Frequency of Riffles	18	11. Grazing/Disruptive Pressure		19
4. Velocity/Depth Regimes	16	8. Channel Flow Status	20	12. Riparian Vegetative Zone Width		19
Instream Score (1. + 2. + 3. + 6.) = 69		Riparian Score (9. + 10. + 12.) = 57		Total Score = 218		

Field Measurements

		Lab samples	
Temperature (°C)	12.9	Dissolved Oxygen (mg/L)	Flow (CFS)
pH	7.6	Total Alkalinity (mg/L as CaCO3)	Conductivity (uS/cm)

Use Assessment Status for Stream Reach

	Designated Use	Existing Use
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Aquatic Life Attaining (20080319-1021-tdaley)

Fish Consumption

Potable Water Supply

Recreation

TMDL Information (if any)

Begin Date	Meeting Date	End Date	Draft Date	Final Date
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Benthic macroinvertebrate sample summary**Station ID** 20030415-1632-GLW **Stream Name** Aquashicola Creek (01168358)**Secondary Station ID****Survey ID** 51075 **Sample Method** 6-Dframe Composite, 200 subsample**Collection Date** **Collection Time** **Latitude** 40.8157055 **Longitude** -75.5556703**HUC8** 02040106 Lehigh, Pennsylvania.**Station Location Comments****Biology / Habitat Comments****Land Use Comments****Station Impairment Status Comments****Taxa List** # grids from first pan # grids from second pan **Subsample Size** 220

Taxa Name	Individuals	PTV	FFG	BCG Attribute		<i>any EV indicator taxa names are highlighted</i>
				(coldwater)	(warmwater)	
Isonychia	7	3	CG	3	3	
Stenacron	1	4	SC	4	4	
Stenonema(old genu	3	3	SC	3	3	
Drunella	21	1	SC	2	2	
Ephemerella	37	1	CG	3	2	
Eurylophella	2	4	SC	3	2	
Caenis	5	7	CG	5	5	
Stylogomphus	1	4	PR	4	4	
Sweltsa	1	0	PR	3	3	
Chimarra	1	4	FC	4	4	
Psychomyia	16	2	CG	3	3	
Cheumatopsyche	26	6	FC	5	5	
Hydropsyche	32	5	FC	5	5	
Rhyacophila	1	1	PR	2	2	
Neophylax	7	3	SC	3	3	
Petrophila	6	5	SC	5	5	
Psephenus	3	4	SC	4	4	
Dubiraphia	1	6	SC	4	4	
Macronychus	1	2	SC	4	4	
Optioservus	4	4	SC	4	4	
Oulimnius	1	5	SC	3	2	
Clinocera	14	6	PR	4	4	
Antocha	1	3	CG	4	4	
Chironomidae	21	6	CG	5	5	
Nematoda	2	9	CG	0	0	
Oligochaeta	5	10	CG	5	5	

Benthic macroinvertebrate sample summary

Station ID 20030415-1632-GLW

Stream Name Aquashicola Creek (01168358)

Secondary Station ID

Survey ID 51075

Sample Method 6-Dframe Composite, 200 subsample

Collection Date

Collection Time

Latitude 40.8157055

Longitude -75.5556703

HUC8 02040106 Lehigh, Pennsylvania.

Metrics and IBI scores

		Standardized Metric Values						
		Freestone Riffle-Run						
Metric Names		Raw Metric Values	6D200			2D100	Multihabitat Pool-Glide	Limestone
			2009 small	2009 large	2007			
Total Richness		26	78.8	78.8	74.3		83.9	140.5
Ephemeroptera Richness		7					116.7	
Trichoptera Richness		6					54.5	
EPT Richness		14			60.9	91.5	82.4	175.0
Trichoptera Richness (PTV 0-4)		4				111.1		
EPT Richness (PTV 0-4)		11	57.9	61.1				
Beck's Index (version 3)		11	28.9	36.7	28.2			
Beck's Index (version 4)		20				100.5	90.9	
FC + PR + SH Richness		7				60.3		
Hilsenhoff Biotic Index		3.93	74.8	80.9	73.8	90.0		96.5
% Intolerant Individuals (PTV 0-3)		43.2	51.1	64.9				164.2
% Intolerant Individuals (PTV 0-5)		66.4			71.7			
% Tolerant Individuals (PTV 7-10)		5.5						95.5
Shannon Diversity		2.63	92.0	93.0	90.9		108.3	137.1
IBI score			63.9	69.2	66.6	88.4	85.3	98.4
BCG Richness Ratio	0.67	% Ephemeroptera	34.5	% Baetis		0.0	% Chironomidae	9.5
BCG % Individuals Ratio	0.79	% Plecoptera	0.5	% Ephemerella		16.8	% Simuliidae	0.0
EV Indicator Taxa	2	% Trichoptera	37.7	% Dominant Taxon		16.8	% Prosimulium	0.0
Not impaired		Biology impaired		Habitat impaired		Insufficient data		
Rock pick influenced assessment				Impact is localized		Re-evaluate designated use		

Physical Habitat Assessment

Pool-Glide Assessment? N

1. Instream Cover	18	5. Channel Alteration	17	9. Contition of Banks	18
2. Epifaunal Substrate	16	6. Sediment Deposition	16	10. Bank Vegetative Protection	15
3. Embeddedness	16	7. Frequency of Riffles	18	11. Grazing/Disruptive Pressure	8
4. Velocity/Depth Regimes	17	8. Channel Flow Status	20	12. Riparian Vegetative Zone Width	16
Instream Score (1. + 2. + 3. + 6.) = 66		Riparian Score (9. + 10. + 12.) = 49		Total Score = 195	

Field Measurements

Lab samples

Temperature (°C)	13.4	Dissolved Oxygen (mg/L)		Flow (CFS)	
pH	7.64	Total Alkalinity (mg/L as CaCO3)		Conductivity (uS/cm)	

Use Assessment Status for Stream Reach

Designated Use

Existing Use

Aquatic Life Attaining (20080319-1021-tdaley)

Fish Consumption

Potable Water Supply

Recreation

TMDL Information (if any)

Begin Date

Meeting Date

End Date

Draft Date

Final Date

Benthic macroinvertebrate sample summary**Station ID** 20080319-1020-tdaley **Stream Name** Aquashicola Creek (01168358)**Secondary Station ID** Aquashicola Creek**Survey ID** 58631 **Sample Method** 6-Dframe Composite, 200 subsample**Collection Date** 20080319 **Collection Time** 1020 **Latitude** 40.8117745 **Longitude** -75.5676829**HUC8** 02040106 Lehigh, Pennsylvania.**Station Location Comments**

Probabilistic SEG 51/SITE 015. Behing PPL substation.
Carbon Co. - Lower Towamensing Twp.
Palmertown Quad

Biology / Habitat Comments

- high water, difficult to sample- riffes short, fast, and deep

Land Use Comments**Station Impairment Status Comments**

Freestone IBI = 58.5

not impaired, should resurvey in reach with better riffle/run habitat and lower flows

Taxa List		# grids from first pan		4	# grids from second pan		10	Subsample Size	202
Taxa Name	Individuals	PTV	FFG	BCG Attribute					
				(coldwater)	(warmwater)				
Baetis	13	6	CG	4	5				
Isonychia	7	3	CG	3	3				
Epeorus	1	0	SC	2	2				
Maccaffertium	1	3	SC	3	3				
Drunella	1	1	SC	2	2				
Ephemerella	3	1	CG	3	2				
Lanthus	1	5	PR	2	2				
Argia	1	6	PR	4	4				
Tallaperla	1	0	SH	1	1				
Taenionema	1	3	SH	1	1				
Agnetina	1	2	PR	3	3				
Sweltsa	1	0	PR	3	3				
Nigronia	1	2	PR	3	3				
Cheumatopsyche	41	6	FC	5	5				
Hydropsyche	11	5	FC	5	5				
Micrasema	1	2	SH	3	3				
Neophylax	6	3	SC	3	3				
Psephenus	1	4	SC	4	4				
Optioservus	6	4	SC	4	4				
Oulimnius	3	5	SC	3	2				
Chelifera	1	6	PR	4	4				
Antocha	1	3	CG	4	4				
Prosimulium	20	2	FC	3	3				
Simulium	2	6	FC	5	5				
Chironomidae	75	6	CG	5	5				
Planorbidae	1	6	SC	5	5				

Benthic macroinvertebrate sample summary

Station ID 20080319-1020-tdaley Stream Name Aquashicola Creek (01168358)
 Secondary Station ID Aquashicola Creek
 Survey ID 58631 Sample Method 6-Dframe Composite, 200 subsample
 Collection Date 20080319 Collection Time 1020 Latitude 40.8117745 Longitude -75.5676829
 HUC8 02040106 Lehigh, Pennsylvania.

Metrics and IBI scores

		Standardized Metric Values					
		Freestone Riffle-Run			2D100	Multihabitat Pool-Glide	Limestone
Metric Names	Raw Metric Values	2009 small	2009 large	2007			
Total Richness	26	78.8	78.8	74.3		83.9	140.5
Ephemeroptera Richness	6					100.0	
Trichoptera Richness	4					36.4	
EPT Richness	14			60.9	91.5	82.4	175.0
Trichoptera Richness (PTV 0-4)	2				55.6		
EPT Richness (PTV 0-4)	11	57.9	61.1				
Beck's Index (version 3)	17	44.7	56.7	43.6			
Beck's Index (version 4)	21				105.5	95.5	
FC + PR + SH Richness	13				112.1		
Hilsenhoff Biotic Index	4.98	62.0	67.0	61.1	74.6		79.9
% Intolerant Individuals (PTV 0-3)	22.8	26.9	34.2				86.6
% Intolerant Individuals (PTV 0-5)	33.7			36.4			
% Tolerant Individuals (PTV 7-10)	0.0						101.0
Shannon Diversity	2.15	75.0	75.8	74.1		88.3	111.8
IBI score		57.5	62.3	58.4	84.3	81.1	93.3
BCG Richness Ratio	1.36	% Ephemeroptera	12.9	% Baetis	6.4	% Chironomidae	37.1
BCG % Individuals Ratio	0.32	% Plecoptera	2.0	% Ephemerella	1.5	% Simuliidae	10.9
EV Indicator Taxa	4	% Trichoptera	29.2	% Dominant Taxon	37.1	% Prosimulium	9.9
Not impaired	Y	Biology impaired	N	Habitat impaired	N	Insufficient data	N
Rock pick influenced assessment	N		Impact is localized	N		Re-evaluate designated use	N

Physical Habitat Assessment

Pool-Glide Assessment? N

1. Instream Cover	11	5. Channel Alteration	18	9. Condition of Banks	11
2. Epifaunal Substrate	10	6. Sediment Deposition	10	10. Bank Vegetative Protection	8
3. Embeddedness	14	7. Frequency of Riffles	10	11. Grazing/Disruptive Pressure	10
4. Velocity/Depth Regimes	14	8. Channel Flow Status	20	12. Riparian Vegetative Zone Width	9
Instream Score (1. + 2. + 3. + 6.) = 45		Riparian Score (9. + 10. + 12.) = 28		Total Score = 145	

Field Measurements

Lab samples

Temperature (°C)	6	Dissolved Oxygen (mg/L)	11.3	Flow (CFS)	0
pH	7.37	Total Alkalinity (mg/L as CaCO3)	35	Conductivity (uS/cm)	84.5

Use Assessment Status for Stream Reach

Designated Use Existing Use

Aquatic Life Attaining (20080319-1021-tdaley)

Fish Consumption**Potable Water Supply****Recreation****TMDL Information** (if any)

Begin Date Meeting Date End Date Draft Date Final Date