Coldwater Conservation Plan

Canoe Run

Cameron County

Prepared by

Cameron County Conservation District.

Funded by

pennsylvania
DEPARTMENT OF CONSERVATION
AND NATURAL RESOURCES

Foundation for Pennsylvania Watersheds

Introduction

Project Objectives:

- Research history of the Canoe Run Watershed
- Conduct stream walks to identify monitoring stations and look for problems
- Conduct water quality analysis that includes water chemistry, habitat assessments, and benthic macroinvertebrate analysis
- Conduct a rod and reel survey to assess the recreational value of the fishery
- Develop a plan for conserving and protecting the Canoe Run watershed.

History

The Canoe Run valley is full of history. It was once a bustling mining town but now is just a ghost town lost to time. Canoe Run was the home of a small town called Bradytown. This is where the Mount Hope Mine was located

Coal was first discovered in the Canoe Run Valley by local landowners. Many of the landowners had private mines that were used for heating purposes. Commercial mining began in 1865 by the Cameron Coal Company. Coal was brought out of the mines and by means of narrow gauge railroad and was then brought down the mountain first by the chute method where a small steam engine would be used as a brake to bring loaded coal cars down the hill and powered the empty cars back up the mountain. Other methods for getting the coal to the railroad were later developed. The 2nd method used at a later time was a cable lift system where the weight of a loaded bucket going down the mountain would bring the empty buckets back up the mountain.

At first much of the coal was shipped off to larger communities but in 1889 coke ovens were built near the banks of the Driftwood. Coke is a product of bituminous coal being heated in an airless chamber to remove the impurities. Coke bears the same relation to coal as charcoal to wood. Coke burned much hotter than regular coal and was used in blast furnaces to create pig iron at the smelting plant in Emporium. The remnants

of the coke ovens are still present and are a local landmark. At one time there were about 100 coke ovens located here.

Coke ovens ruins near the mouth of Canoe Run

During the height of the coal boom, the timber industry was very popular as well. Cameron County was once blanketed with a dense evergreen forest with white pine and hemlock that were straight as an arrow and very tall. White oak was common as well. Much of the forest was cut in the late 1800s and early 1900s to keep up with a growing country. There were numerous sawmills located around Canoe Run. White pine was used as ship mast and it was said that Cameron County was home to some of the best white pines for this purpose. Once most of the white pine was cut, hemlock was next on the chopping block. Much of the hemlock was cut and left to rot in the woods. The bark was peeled off and used in tanneries because of the high concentrations of tannic acid in the bark.

Eventually the coke ovens shut down because most of the accessible coal was gone and it became cheaper to haul coke in from outside sources for smelting than it was to produce it locally. Around the time of the coke ovens shutting down much of

the forest had been stripped in this area as well so logging was nearing completion in the area. This left no means of employment for residents so many of the residents of Bradytown and outlying areas of Canoe Run left and homes soon deteriorated. Now one can barely tell that nearly 50 homes once stood there.

Since then Mother Nature has reclaimed Canoe Run. It is completely reforested and is a beautiful little watershed teaming with brook trout.

Methodology

Stream walks were completed in the spring of 2007 to determine problem areas within the watershed and to set up monitoring locations. 6 sites were identified as monitoring stations.

Monitoring Point	Site Description
CR1	Mouth of Canoe Run
CR2	Below confluence of Left and Right Fork Canoe Run
CR3	Mouth of Right Fork of Canoe Run
CR4	Mouth of Left Fork of Canoe Run
CR5	Above confluence of unnamed tributary
CR6	Near the mouth of unnamed tributary

Table 1: Monitoring Site Locations

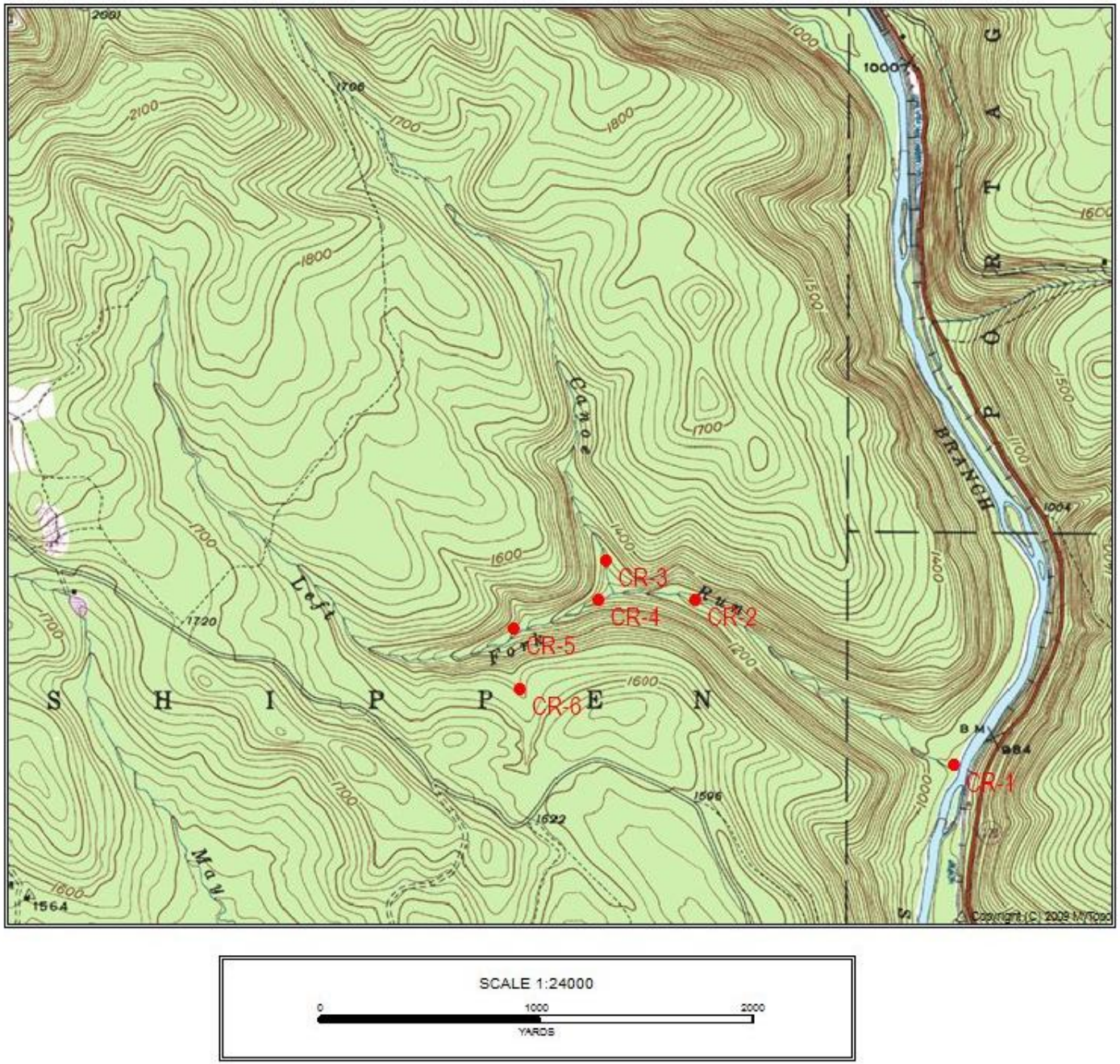


Figure 1: Monitoring Site Location Map

Now that the stations were set up assessment began. Field measurements were taken for flow, pH, conductivity, TDS, and temperature. Water samples were collected and taken to a certified lab where they were tested for pH, conductivity, alkalinity, acidity, iron, manganese, aluminum, sulfates, and total suspended solids.

The benthic macroinvertebrate community was assessed 2 times, once in spring and once in fall. A one square meter kicknet was used to collect 2 samples of the aquatic insects at the mouths of Left Fork, Right Fork and Canoe Run and the Unamed Tributary to Left Fork. The Unamed Tributary was void of any aquatic insects. All insects were collected and identified at a later time using a dissecting microscope. Taxa richness, and EPT indexes were calculated for each site.

A stream habitat assessment was done using PA Fish and Boat Commissions Field Habitat Data Sheets. A score of 1 to 200 is obtained by looking at 10 different habitat characteristics; epifaunal substrate/available cover, embeddedness, velocity/depth regime, sediment deposition, channel flow status, channel alteration, frequency of riffles, bank stability, vegetative protection, and riparian vegetative zone width. This was completed during the 1st macroinvertebrate analysis.

A rod and reel survey was conducted to try and assess the health of the current brook trout population. Canoe Run is a Class A Wild Brook Trout Stream according to the PA Fish and Boat Commission.

Results

Water Analysis

Water quality in the Canoe Run watershed is very good for being located in the heart of an old mining town. Really only one problem area was found in the entire watershed for the pollution of AMD into Canoe Run. This stream is an unamed tributary to the Left Fork of Canoe Run. Its headwaters literally are the outflow of an old mineshaft that flows for about 500 yards before entering into the Left Fork of Canoe Run.

Headwaters of unnamed tributary to Left Fork of Canoe Run

This tributary showed low levels of metals but very depressed pH readings. It did not appear to have negative effects on the water chemistry of the Left Fork, as measurements were nearly identical upstream and downstream of the mouth of this unnamed trib. The Left Fork did however show some cases of being net acidic during more low flow events.

Only one other problem area showed up but was not monitored throughout the length of the study. Downstream another mine shaft appeared but really quite a distance from the mainstem of Canoe Run. What appeared to be very poor quality water emanated from the shaft and had a very bright orange cast to it indicating high levels of iron. When field measurements were done it showed that this water had very good pH readings (6.8). The water was iron laden but to our knowledge did not have a

direct discharge into Canoe Run. This seep flowed downhill for a short period of time before entering back into the ground never to reappear. This site was checked numerous times throughout the study to ensure that a discharge was not being overlooked but it always flowed back into the ground. Looking at maps this appears to be the one of the original Mount Hope Mines because it is very close to where the village of Bradytown was located.

Old Mount Hope Mine Shaft

It appears that there are no real water quality issues in the rest of the Canoe Run drainage besides the mine water that runs into the Left Fork. This water does not appear to have adverse effects on that section of the watershed.

Date	4/4/2007	5/17/2007	7/12/2007	8/15/2007	9/19/2007	11/5/2007	1/17/2008	3/14/2008
Flow (gpm)	488	452	315	273	348	418	591	514
Field pH	6.41	6.52	6.57	6.52	6.66	6.31	6.33	6.34
Field Cond.	31	35	26	33	35	36	20	27
Field TDS	16	18	12	17	16	18	10	13
Conductivity	39	42	46	44	49	52	41	33
Temp C	7.2	10.6	13.2	14.9	12.6	8.6	4.2	6.5
pH	6.5	6.4	6.7	6.5	6.6	7.0	6.8	6.4
Alkalinity (mg/L)	8	8	10	11	12	13	7	7
Acidity (mg/L)	2	3	2	3	1	2	6	2
Fe (mg/L)	<.05	<.05	<.05	<.05	<.05	<.05	0.05	<.05
Mn (mg/L)	<.02	<.02	<.02	<.02	<.02	<.02	<.02	<.02
Al (mg/L)	<.05	<.05	<.05	<.05	<.05	<.05	0.06	<.05
SO4 (mg/L)	9	10	9	10	10	10	9	10
TSS (mg/L)	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	<5.0	<5.0

Table 2: CR1 Water Chemistry Data

Date	4/4/2007	5/17/2007	7/12/2007	8/15/2007	9/19/2007	11/5/2007	1/17/2008	3/14/2008
Flow (gpm)	475	426	299	271	340	401	571	487
Field pH	6.28	6.49	6.53	6.51	6.59	6.33	6.29	6.37
Field Cond	22	27	24	28	29	28	18	21
Field TDS	10	14	12	14	14	14	9	10
Conductivity	32	37	3	38	41	43	35	30
Temp C	7.2	10.5	14.2	15.0	11.5	6.4	3.7	3.1
pH	6.5	6.4	6.5	6.6	6.6	6.6	6.4	6.4
Alkalinity (mg/L)	7	8	10	11	12	12	7	6
Acidity (mg/L)	4	2	2	3	4	1	6	4
Fe (mg/L)	<.05	<.05	0.06	0.08	0.16	<.05	0.16	<.05
Mn (mg/L)	<.02	<.02	<.02	<.02	<.02	<.02	<.02	<.02
Al (mg/L)				0.06	0.09	<.05	<.05	<.05
SO4 (mg/L)	8	7	7	8	8	8	8	8
TSS (mg/L)	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0

Table 3: CR2 Water Chemistry Data

Date	4/4/2007	5/17/2007	7/12/2007	8/15/2007	9/19/2007	11/5/2007	1/17/2008	3/14/2008
Flow (gpm)	285	255	179	162	204	241	342	292
Field pH	6.19	6.31	6.33	6.38	6.41	6.09	6.14	6.16
Field Cond	24	25	29	28	32	31	17	22
Field TDS	12	12	15	15	16	15	9	11
Conductivity	34	34	39	41	42	44	36	31
Temp C	6.9	9.6	12.8	13.5	10.8	6.0	4.6	3.0
pH	6.2	6.3	6.5	6.6	6.6	6.7	6.0	6.0
Alkalinity (mg/L)	6	8	11	10	11	12	6	5
Acidity (mg/L)	6	5	3	5	2	5	8	6
Fe (mg/L)	<.05	<.05	<.05	<.05	0.16	<.05	<.05	<.05
Mn (mg/L)	<.02	<.02	<.02	<.02	0.02	<.02	<.02	<.02
Al (mg/L)	<.05	<.05	<.05	<.05	0.13	<.05	<.05	0.05
SO4 (mg/L)	10	10	9	10	9	9	9	10
TSS (mg/L)	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0

Table 4: CR3 Water Chemistry Data

Date	4/4/2007	5/17/2007	7/12/2007	8/15/2007	9/19/2007	11/5/2007	1/17/2008	3/14/2008
Flow (gpm)	190	170	119	108	136	160	228	194
Field pH	6.11	6.13	6.09	6.01	6.17	5.86	6.02	6.08
Field Cond	20	20	20	22	20	18	19	20
Field TDS	9	10	10	11	10	9	9	9
Conductivity	32	33	32	33	33	32	35	31
Temp C	7.0	10.1	14.1	15.1	10.9	5.5	4.3	3.1
pH	5.9	6.2	6.2	6.3	6.3	6.3	5.9	5.8
Alkalinity (mg/L)	6	7	7	7	7	8	5	5
Acidity (mg/L)	6	5	7	6	6	4	10	7
Fe (mg/L)	<.05	<.05	0.18	0.58	0.22	<.05	<.05	<.05
Mn (mg/L)	0.05	0.02	<.02	0.14	0.04	<.02	0.03	0.03
Al (mg/L)	0.12	0.09	0.12	0.16	0.17	<.05	0.09	0.09
SO4 (mg/L)	10	9	9	9	8	8	10	10
TSS (mg/L)	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0

Table 5: CR4 Water Chemistry Data

Date	4/4/2007	5/17/2007	7/12/2007	8/15/2007	9/19/2007	11/5/2007	1/17/2008	3/14/2008
Flow (gpm)	182	161	104	98	131	148	216	187
Field pH	6.01	6.07	6.11	6.08	5.82	5.75	5.93	5.98
Field Cond	19	19	21	20	23	18	17	18
Field TDS	10	9	11	10	12	9	9	9
Conductivity	31	30	32	31	31	32	34	30
Temp C	6.9	10.5	14	14.9	11.1	6.3	4.9	3.1
pH	6.0	6.2	6.2	6.3	6.4	6.3	6.0	5.9
Alkalinity (mg/L)	5	7	7	8	8	8	6	5
Acidity (mg/L)	7	6	4	5	4	4	8	6
Fe (mg/L)	<.05	<.05	<.05	0.07	<.05	<.05	0.15	<.05
Mn (mg/L)	<.02	<.02	<.02	<.02	<.02	<.02	0.03	0.02
Al (mg/L)	0.08	<.05	<.05	0.09	<.05	<.05	0.09	0.09
SO4 (mg/L)	9	7	7	9	7	7	9	10
TSS (mg/L)	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	<5.0

Table 6: CR5 Water Chemistry Data

Date	4/4/2007	5/17/2007	7/12/2007	8/15/2007	9/19/2007	11/5/2007	1/17/2008	3/14/2008
Flow (gpm)	26	21	15	12	10	14	35	30
Field pH	4.11	3.95	3.50	3.45	3.38	3.43	4.27	4.21
Field Cond	115	156	200	261	279	271	62	86
Field TDS	56	78	99	130	140	136	31	42
Conductivity	86	142	204	277	298	267	77	71
Temp C	4.6	8.1	12.9	15.0	11.0	6.1	4.3	2.1
pH	4.1	3.8	3.4	3.5	3.4	3.4	4.2	4.2
Alkalinity (mg/L)	1	0	0	0	0	0	2	2
Acidity (mg/L)	17	24	25	31	33	31	14	11
Fe (mg/L)	0.63	0.98	1.35	1.33	2.37	1.79	0.46	0.37
Mn (mg/L)	0.56	0.74	0.77	0.81	0.90	1.31	0.22	0.19
Al (mg/L)	0.35	0.38	0.57	0.68	0.65	0.93	0.26	0.28
SO4 (mg/L)	29	34	61	70	70	78	21	21
TSS (mg/L)	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0

Table 7: CR6 Water Chemistry Data

Benthic Macroinvertebrate Study

Macroinvertebrate communities were rather strong throughout Canoe Run. The Left Fork of Canoe Run had slightly lower levels than the rest of the watershed. Aquatic insects found in the surveys were numerous families of mayflies, stoneflies and caddis. Dragonflies, midges, crayfish, water pennies, and hellgrammites were also found at the stations. Macro stations were done at the mouth of Canoe Run, the mouth of the Right Fork, the mouth of the Left Fork, and the mouth of the unnamed trib to Left Fork. No aquatic insects were found in samples at the mouth of the unnamed trib. Water quality is to poor and the substrate is less than desirable for macroinvertebrates.

It appears that there is a healthy community of the EPT (*Ephemeroptera, Plecoptera, Trichoptera*) families of macroinvertebrates. These insects are the mayflies, stoneflies, and caddis. These insects are good indicators of a healthy watershed. The EPT index is a measure of the proportion of mayflies, stoneflies, and caddis familes compared to the total number of families in the samples. The higher the percentage, the better indicator of good water quality.

EPT levels were anywhere from high 50 percent to 80 percent at the sampling stations. This shows a high incidence of pollution intolerant species of aquatic insects. The following tables show the sampling results for each station during both the spring and fall.

Spring

FAMILY	TYPE
Ephemerellidae	Mayfly
Heptageniidae	Mayfly
Baetidae	Mayfly
Isonychidae	Mayfly
Caenidae	Mayfly
Leptophlebidae	Mayfly
Limnephillidae	Caddis
Philopotomidae	Caddis
Hydropsychidae	Caddis
Polycentropidae	Caddis
Rhyacophillidae	Caddis
Perlidae	Stonefly
Peltoperlidae	Stonefly
Capnidae	Stonefly
Pteronarcydae	Stonefly
Chironomidae	Midge
Psephenidae	Water Penny
Camberidae	Crayfish
Corydalidae	Hellgramite
Taxa Richness	20
EPT Index	75%

Fall

FAMILY	TYPE
Ephemerellidae	Mayfly
Heptageniidae	Mayfly
Isonychidae	Mayfly
Caenidae	Mayfly
Leptophlebidae	Mayfly
Limnephillidae	Caddis
Hydropsychidae	Caddis
Polycentropidae	Caddis
Rhyacophillidae	Caddis
Perlidae	Stonefly
Peltoperlidae	Stonefly
Capnidae	Stonefly
Gomphidae	Dragonfly
Chironomidae	Midge
Camberidae	Crayfish
Taxa Richness	15
EPT Index	80%

Table 8 & 9: Macroinvertebrate Sampling Results for Mouth of Canoe Run

Spring

FAMILY	TYPE
Heptageniidae	Mayfly
Isonychidae	Mayfly
Leptophlebidae	Mayfly
Limnephillidae	Caddis
Hydropsychidae	Caddis
Polycentropidae	Caddis
Rhyacophillidae	Caddis
Perlidae	Stonefly
Pteronarcydae	Stonefly
Peltoperlidae	Stonefly
Capnidae	Stonefly
Gomphidae	Dragonfly
Chironomidae	Midge
Camberidae	Crayfish
Psephenidae	Water Penny
Corydalidae	Hellgramite
Taxa Richness	16
EPT Index	69%

Fall

FAMILY	TYPE
Heptageniidae	Mayfly
Isonychidae	Mayfly
Ephemerellidae	Mayfly
Leptophlebidae	Mayfly
Limnephillidae	Caddis
Hydropsychidae	Caddis
Polycentropidae	Caddis
Rhyacophillidae	Caddis
Perlidae	Stonefly
Pteronarcydae	Stonefly
Peltoperlidae	Stonefly
Capnidae	Stonefly
Gomphidae	Dragonfly
Chironomidae	Midge
Ceratopogonidae	Midge
Camberidae	Crayfish
Psephenidae	Water Penny
Corydalidae	Hellgramite
Taxa Richness	18
EPT Index	66%

Tables 10 & 11: Macroinvertebrate Sampling Results for Mouth of Right Fork Canoe Run

Spring

FAMILY	TYPE
Heptageniidae	Mayfly
Leptophlebidae	Mayfly
Caenidae	Mayfly
Baetidae	Mayfly
Hydropsychidae	Caddis
Rhyacophillidae	Caddis
Limnephillidae	Caddis
Perlidae	Stonefly
Peltoperlidae	Stonefly
Chironomidae	Midge
Ceratopogonidae	Midge
Tipulidae	Cranefly
Camberidae	Crayfish
Psephenidae	Water Penny
Taxa Richness	14
EPT Index	64%

Fall

FAMILY	TYPE
Heptageniidae	Mayfly
Caenidae	Mayfly
Baetidae	Mayfly
Hydropsychidae	Caddis
Rhyacophillidae	Caddis
Limnephillidae	Caddis
Perlidae	Stonefly
Peltoperlidae	Stonefly
Chironomidae	Midge
Ceratopogonidae	Midge
Tipulidae	Cranefly
Camberidae	Crayfish
Psephenidae	Water Penny
Corydalidae	Hellgramite
Taxa Richness	14
EPT Index	57

Tables 12 & 13: Macroinvertebrate Sampling Results for Mouth of Left Fork Canoe Run

Habitat Assessments

The Canoe Run watershed is full of wonderful habitat. It contains lots of riffles, plunge pools, and runs along with a high quantity of large woody debris. It has a completely forested canopy which keeps it running cool year round. It is essentially the ideal habitat for brook trout.

Canoe Run lies entirely within the Elk State Forest with no alterations to the landscape except for a forest service road that crosses both the Left Fork and Right Fork of Canoe Run in their headwaters. There is evidence of an old narrow guage railroad bed that was used to haul coal. It follows Canoe Run but it is elevated above the stream. It is barely visible and poses no threats. It is mainly used by hikers, fisherman, and hunters.

Because of this the watershed has basically been left to Mother Nature and is almost perfect. Habitat assessments were done using the Habitat Assessment Field Data Sheets used by Pennsylvania Fish and Boat Commission. All 3 sites were assessed during the time of the 1st macroinvertebrate analysis at the same locations. The 3 sites all scored very high with scores at 186 for Canoe Run, 182 for the Left Fork, and 189 for the Right Fork. The following figures show the field data sheets used during assessment.

Habitat Assessment Field Data Sheet – High Gradient Streams (side 1)

Stream Name: Canoe Run	Location: Near Camcron
Station #: 1 Rivermile:	Basin/Sub-basin: Driftwood / Agency: Camcron CD
Lat: 41.467 Long: 78.198	Date: 5-14-07 Time: 9 (am) pm / Reason for Survey: CHP
Investigators: Todd Deluccia	**TOTAL SCORE:** 186

Habitat Parameter	Condition Category			
	Optimal	**Suboptimal**	**Marginal**	**Poor**
1. Epifaunal Substrate/ Available Cover	Greater than 70% of substrate favorable for epifaunal colonization & fish cover; mix of snags submerged logs, undercut banks, cobble or other stable habitat and at stage to allow full colonization potential (logs/snags that are not new fall and not transient	40-70% mix of stable habitat; well suited for full colonization potential; adequate habitat for maintenance of populations; presence of additional substrate in the form of newfall, but not yet prepared for colonization (may rate at high end of scale.	20-40% mix of stable habitat; habitat availability less than desirable; substrate frequently disturbed or removed.	Less than 20% stable habitat; lack of habitat is obvious; substrate unstable or lacking
SCORE:	20 19 (18) 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
2. Embeddedness	Gravel, cobble and boulder particles are 0-25% surrounded by fine sediment. Layering of cobble provides diversity of niche space.	Gravel, cobble and boulder particles are 25-50% surrounded by fine sediment.	Gravel, cobble and boulder particles are 50-75% surrounded by fine sediment.	Gravel, cobble and boulder particles are more than 75% surrounded by fine sediment.
SCORE:	20 (19) 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
3. Velocity/Depth Regime Note: Deep = > 18"	All four velocity/depth regimes present (slow-deep, slow-shallow, fast-deep, fast-shallow) (Slow is <0.3 m/s, deep is > 0.5 m).	Only 3 of the 4 regimes present (if fast-shallow is missing, score lower than if missing other regimes).	Only 2 of the 4 habitat regimes present (if fast-shallow or slow-shallow are missing, score low).	Dominated by 1 velocity/depth regime (usually slow-deep).
SCORE:	20 19 18 17 (16)	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
4. Sediment Deposition	Little or no enlargement of islands or point bars and < 5% of the bottom affected by sediment deposition.	Some new increase in bar formation, mostly from gravel, sand or fine sediment; 5-30% of the bottom affected; slight deposition in pools.	Moderate deposition of new gravel, sand or fine sediment on old and new bars; 30-50% of the bottom affected; sediment deposits at obstructions, constrictions and bends; moderate deposition of pools prevalent.	Heavy deposits of fine material, increased bar development; more than 50% of the bottom changing frequently; pools almost absent due to substantial sediment deposition.
SCORE:	20 (19) 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
5. Channel Flow Status	Water reaches base of both lower banks and minimal amount of channel substrate is exposed.	Water fills > 75% of the available channel; or < 25% of channel substrate is exposed.	Water fills 25-75% of the available channel, and/or riffle substrates are mostly exposed.	Very little water in channel and mostly present as standing pools.
SCORE:	20 19 (18) 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0

High Gradient Streams (side 2)

Habitat Parameter	Condition Category			
	Optimal	**Suboptimal**	**Marginal**	**Poor**
6. Channel Alteration	Channelization or dredging absent or minimal; stream with normal pattern.	Some channelization present, usually in areas of bridge abutments; evidence of past channelization i.e., dredging (greater than past 20 years) may be present, but recent channelization is not present.	Channelization may be extensive; embankments or shoring structures present on both banks; and 40-80% of stream reach channelized and disrupted.	Banks shored with gabion or cement; over 80% of the stream reach channelized and disrupted. Instream habitat greatly altered or removed entirely.
SCORE:	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
7. Frequency of Riffles (or bends)	Occurrence of riffles relatively frequent; ratio of distance between riffles divided by width of the stream < 7:1 (generally 5 to 7); variety of habitat is key in streams where riffles are continuous, placement of boulders or other large natural obstruction is important.	Occurrence of riffles infrequent; distance between riffles divided by the width of the stream is between 7 to 15.	Occasional riffle or bend; bottom contours provide habitat; distance between riffles divided by the width of the stream is between 15 to 25.	Generally all flat water or shallow riffles; poor habitat; distance between riffles divided by the width of the stream is a ratio of > 25.
SCORE:	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
8. Bank Stability Note: Determine left & right banks by facing downstream.	Banks stable; evidence of erosion or bank failure absent or minimal; little potential for future problems. < 5% of bank affected.	Moderately stable; infrequent, small areas of erosion mostly healed over. 5 – 30 % of bank in reach has areas of erosion.	Moderately unstable; 30 – 60 % of bank in reach has areas of erosion; high erosion potential during floods.	Unstable; many eroded areas; raw areas frequent along straight sections and bends; obvious bank sloughing; 60 – 100 % of bank has erosional scars.
Score (LB):	10 9	8 7 6	5 4 3	2 1 0
Score (RB):	10 9	8 7 6	5 4 3	2 1 0
9. Vegetative Protection	More than 90% of the stream bank surfaces and immediate riparian zone covered by native vegetation, including trees, understory shrubs, or non-woody macrophytes; vegetative disruption through grazing or mowing minimal or not evident; almost all plants allowed to grow naturally.	70 – 90% of the stream bank surfaces covered by native vegetation, but one class of plants is not well represented; disruption evident but not affecting full plant growth potential to any great extent; more than one-half of the potential plant stubble height remaining.	50 – 70% of the stream bank surfaces covered by vegetation; disruption obvious; patches of bare soil or closely cropped vegetation common; less than one-half of the potential plant stubble height remaining.	Less than 50% of the stream bank surfaces covered by vegetation; disruption of stream bank vegetation is very high; vegetation has been removed to 5 centimeters or less in average stubble height.
Score (LB):	10 9	8 7 6	5 4 3	2 1 0
Score (RB):	10 9	8 7 6	5 4 3	2 1 0
10. Riparian Vegetative Zone Width	Width of riparian zone > 18 meters (58"); human activities (parking lots, roadbeds, clearcuts, lawns or crops) have not impacted zone.	Width of riparian zone 12 – 18 meters (39'-58'); human activities have impacted zone only minimally.	Width of riparian zone 6 – 12 meters (20'-39'); human activities have impacted zone a great deal.	Width of riparian zone < 6 meters (20'); little or no riparian vegetation due to human activities.
Score (LB):	10 9	8 7 6	5 4 3	2 1 0
Score (RB):	10 9	8 7 6	5 4 3	2 1 0

Habitat Assessment Field Data Sheet – High Gradient Streams (side 1)

Stream Name: Left Fork Canoe Run		Location: Near Camcron	
Station #: 2	Rivermile:	Basin/Sub-basin: Driftwood	Agency: Camcron CD
Lat: 41.473	Long: 78.21C	Date: 5-14-07 Time: 9:55 am pm	Reason for Survey: CHP
Investigators: Todd Deluccia		**TOTAL SCORE:** 182	

Habitat Parameter	Condition Category			
	Optimal	**Suboptimal**	**Marginal**	**Poor**
1. Epifaunal Substrate/ Available Cover	Greater than 70% of substrate favorable for epifaunal colonization & fish cover; mix of snags submerged logs, undercut banks, cobble or other stable habitat and at stage to allow full colonization potential (logs/snags that are not new fall and not transient	40-70% mix of stable habitat; well suited for full colonization potential; adequate habitat for maintenance of populations; presence of additional substrate in the form of newfall, but not yet prepared for colonization (may rate at high end of scale.	20-40% mix of stable habitat; habitat availability less than desirable; substrate frequently disturbed or removed.	Less than 20% stable habitat; lack of habitat is obvious; substrate unstable or lacking
SCORE:	20 19 (18) 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
2. Embeddedness	Gravel, cobble and boulder particles are 0-25% surrounded by fine sediment. Layering of cobble provides diversity of niche space.	Gravel, cobble and boulder particles are 25-50% surrounded by fine sediment.	Gravel, cobble and boulder particles are 50-75% surrounded by fine sediment.	Gravel, cobble and boulder particles are more than 75% surrounded by fine sediment.
SCORE:	20 19 18 17 (16)	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
3. Velocity/Depth Regime Note: Deep = > 18"	All four velocity/depth regimes present (slow-deep, slow-shallow, fast-deep, fast-shallow) (Slow is <0.3 m/s, deep is > 0.5 m).	Only 3 of the 4 regimes present (if fast-shallow is missing, score lower than if missing other regimes).	Only 2 of the 4 habitat regimes present (if fast-shallow or slow-shallow are missing, score low).	Dominated by 1 velocity/depth regime (usually slow-deep).
SCORE:	20 19 18 17 (16)	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
4. Sediment Deposition	Little or no enlargement of islands or point bars and < 5% of the bottom affected by sediment deposition.	Some new increase in bar formation, mostly from gravel, sand or fine sediment; 5-30% of the bottom affected; slight deposition in pools.	Moderate deposition of new gravel, sand or fine sediment on old and new bars; 30-50% of the bottom affected; sediment deposits at obstructions, constrictions and bends; moderate deposition of pools prevalent.	Heavy deposits of fine material, increased bar development; more than 50% of the bottom changing frequently; pools almost absent due to substantial sediment deposition.
SCORE:	20 19 (18) 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
5. Channel Flow Status	Water reaches base of both lower banks and minimal amount of channel substrate is exposed.	Water fills > 75% of the available channel; or < 25% of channel substrate is exposed.	Water fills 25-75% of the available channel, and/or riffle substrates are mostly exposed.	Very little water in channel and mostly present as standing pools.
SCORE:	20 19 18 (17) 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0

High Gradient Streams (side 2)

Habitat Parameter	Condition Category			
	Optimal	**Suboptimal**	**Marginal**	**Poor**
6. Channel Alteration	Channelization or dredging absent or minimal; stream with normal pattern.	Some channelization present, usually in areas of bridge abutments; evidence of past channelization i.e., dredging (greater than past 20 years) may be present, but recent channelization is not present.	Channelization may be extensive; embankments or shoring structures present on both banks; and 40-80% of stream reach channelized and disrupted.	Banks shored with gabion or cement; over 80% of the stream reach channelized and disrupted. Instream habitat greatly altered or removed entirely.
SCORE:	(20) 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
7. Frequency of Riffles (or bends)	Occurrence of riffles relatively frequent; ratio of distance between riffles divided by width of the stream < 7:1 (generally 5 to 7); variety of habitat is key in streams where riffles are continuous, placement of boulders or other large natural obstruction is important.	Occurrence of riffles infrequent; distance between riffles divided by the width of the stream is between 7 to 15.	Occasional riffle or bend; bottom contours provide habitat; distance between riffles divided by the width of the stream is between 15 to 25.	Generally all flat water or shallow riffles; poor habitat; distance between riffles divided by the width of the stream is a ratio of > 25.
SCORE:	20 19 18 (17) 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
8. Bank Stability Note: Determine left & right banks by facing downstream.	Banks stable; evidence of erosion or bank failure absent or minimal; little potential for future problems. < 5% of bank affected.	Moderately stable; infrequent, small areas of erosion mostly healed over. 5 – 30 % of bank in reach has areas of erosion.	Moderately unstable; 30 – 60 % of bank in reach has areas of erosion; high erosion potential during floods.	Unstable; many eroded areas; raw areas frequent along straight sections and bends; obvious bank sloughing; 60 – 100 % of bank has erosional scars.
Score (LB):	(10) 9	8 7 6	5 4 3	2 1 0
Score (RB):	(10) 9	8 7 6	5 4 3	2 1 0
9. Vegetative Protection	More than 90% of the stream bank surfaces and immediate riparian zone covered by native vegetation, including trees, understory shrubs, or non-woody macrophytes; vegetative disruption through grazing or mowing minimal or not evident; almost all plants allowed to grow naturally.	70 – 90% of the stream bank surfaces covered by native vegetation, but one class of plants is not well represented; disruption evident but not affecting full plant growth potential to any great extent; more than one-half of the potential plant stubble height remaining.	50 – 70% of the stream bank surfaces covered by vegetation; disruption obvious; patches of bare soil or closely cropped vegetation common; less than one-half of the potential plant stubble height remaining.	Less than 50% of the stream bank surfaces covered by vegetation; disruption of stream bank vegetation is very high; vegetation has been removed to 5 centimeters or less in average stubble height.
Score (LB):	(10) 9	8 7 6	5 4 3	2 1 0
Score (RB):	(10) 9	8 7 6	5 4 3	2 1 0
10. Riparian Vegetative Zone Width	Width of riparian zone > 18 meters (58"); human activities (parking lots, roadbeds, clearcuts, lawns or crops) have not impacted zone.	Width of riparian zone 12 – 18 meters (39'-58'); human activities have impacted zone only minimally.	Width of riparian zone 6 – 12 meters (20'-39'); human activities have impacted zone a great deal.	Width of riparian zone < 6 meters (20'); little or no riparian vegetation due to human activities.
Score (LB):	(10) 9	8 7 6	5 4 3	2 1 0
Score (RB):	(10) 9	8 7 6	5 4 3	2 1 0

Habitat Assessment Field Data Sheet – High Gradient Streams (side 1)

Stream Name: Right Fork Canoe Run		Location: Near Camron	
Station #: 3	Rivermile:	Basin/Sub-basin: Driftwood	Agency: Camron CD
Lat: 41.474	Long: 78.316	Date: 5-14-07 Time: 11:05 am pm	Reason for Survey: CHP
Investigators: Todd Deluccia		**TOTAL SCORE:** 189	

Habitat Parameter	Condition Category			
	Optimal	**Suboptimal**	**Marginal**	**Poor**
1. Epifaunal Substrate/ Available Cover	Greater than 70% of substrate favorable for epifaunal colonization & fish cover; mix of snags submerged logs, undercut banks, cobble or other stable habitat and at stage to allow full colonization potential (logs/snags that are not new fall and not transient	40-70% mix of stable habitat; well suited for full colonization potential; adequate habitat for maintenance of populations; presence of additional substrate in the form of newfall, but not yet prepared for colonization (may rate at high end of scale.	20-40% mix of stable habitat; habitat availability less than desirable; substrate frequently disturbed or removed.	Less than 20% stable habitat; lack of habitat is obvious; substrate unstable or lacking
SCORE:	20 (19) 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
2. Embeddedness	Gravel, cobble and boulder particles are 0-25% surrounded by fine sediment. Layering of cobble provides diversity of niche space.	Gravel, cobble and boulder particles are 25-50% surrounded by fine sediment.	Gravel, cobble and boulder particles are 50-75% surrounded by fine sediment.	Gravel, cobble and boulder particles are more than 75% surrounded by fine sediment.
SCORE:	20 (19) 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
3. Velocity/Depth Regime Note: Deep = > 18"	All four velocity/depth regimes present (slow-deep, slow-shallow, fast-deep, fast-shallow) (Slow is <0.3 m/s, deep is > 0.5 m).	Only 3 of the 4 regimes present (if fast-shallow is missing, score lower than if missing other regimes).	Only 2 of the 4 habitat regimes present (if fast-shallow or slow-shallow are missing, score low).	Dominated by 1 velocity/depth regime (usually slow-deep).
SCORE:	20 19 (18) 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
4. Sediment Deposition	Little or no enlargement of islands or point bars and < 5% of the bottom affected by sediment deposition.	Some new increase in bar formation, mostly from gravel, sand or fine sediment; 5-30% of the bottom affected; slight deposition in pools.	Moderate deposition of new gravel, sand or fine sediment on old and new bars; 30-50% of the bottom affected; sediment deposits at obstructions, constrictions and bends; moderate deposition of pools prevalent.	Heavy deposits of fine material, increased bar development; more than 50% of the bottom changing frequently; pools almost absent due to substantial sediment deposition.
SCORE:	20 (19) 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
5. Channel Flow Status	Water reaches base of both lower banks and minimal amount of channel substrate is exposed.	Water fills > 75% of the available channel; or < 25% of channel substrate is exposed.	Water fills 25-75% of the available channel, and/or riffle substrates are mostly exposed.	Very little water in channel and mostly present as standing pools.
SCORE:	20 19 (18) 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0

High Gradient Streams (side 2)

Habitat Parameter	Condition Category			
	Optimal	**Suboptimal**	**Marginal**	**Poor**
6. Channel Alteration	Channelization or dredging absent or minimal; stream with normal pattern.	Some channelization present, usually in areas of bridge abutments; evidence of past channelization i.e., dredging (greater than past 20 years) may be present, but recent channelization is not present.	Channelization may be extensive; embankments or shoring structures present on both banks; and 40-80% of stream reach channelized and disrupted.	Banks shored with gabion or cement; over 80% of the stream reach channelized and disrupted. Instream habitat greatly altered or removed entirely.
SCORE:	(20) 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
7. Frequency of Riffles (or bends)	Occurrence of riffles relatively frequent; ratio of distance between riffles divided by width of the stream < 7:1 (generally 5 to 7); variety of habitat is key in streams where riffles are continuous, placement of boulders or other large natural obstruction is important.	Occurrence of riffles infrequent; distance between riffles divided by the width of the stream is between 7 to 15.	Occasional riffle or bend; bottom contours provide habitat; distance between riffles divided by the width of the stream is between 15 to 25.	Generally all flat water or shallow riffles; poor habitat; distance between riffles divided by the width of the stream is a ratio of > 25.
SCORE:	20 19 18 17 (16)	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1 0
8. Bank Stability Note: Determine left & right banks by facing downstream.	Banks stable; evidence of erosion or bank failure absent or minimal; little potential for future problems. < 5% of bank affected.	Moderately stable; infrequent, small areas of erosion mostly healed over. 5 – 30 % of bank in reach has areas of erosion.	Moderately unstable; 30 – 60 % of bank in reach has areas of erosion; high erosion potential during floods.	Unstable; many eroded areas; raw areas frequent along straight sections and bends; obvious bank sloughing; 60 – 100 % of bank has erosional scars.
Score (LB):	(10) 9	8 7 6	5 4 3	2 1 0
Score (RB):	(10) 9	8 7 6	5 4 3	2 1 0
9. Vegetative Protection	More than 90% of the stream bank surfaces and immediate riparian zone covered by native vegetation, including trees, understory shrubs, or non-woody macrophytes; vegetative disruption through grazing or mowing minimal or not evident; almost all plants allowed to grow naturally.	70 – 90% of the stream bank surfaces covered by native vegetation, but one class of plants is not well represented; disruption evident but not affecting full plant growth potential to any great extent; more than one-half of the potential plant stubble height remaining.	50 – 70% of the stream bank surfaces covered by vegetation; disruption obvious; patches of bare soil or closely cropped vegetation common; less than one-half of the potential plant stubble height remaining.	Less than 50% of the stream bank surfaces covered by vegetation; disruption of stream bank vegetation is very high; vegetation has been removed to 5 centimeters or less in average stubble height.
Score (LB):	(10) 9	8 7 6	5 4 3	2 1 0
Score (RB):	(10) 9	8 7 6	5 4 3	2 1 0
10. Riparian Vegetative Zone Width	Width of riparian zone > 18 meters (58"); human activities (parking lots, roadbeds, clearcuts, lawns or crops) have not impacted zone.	Width of riparian zone 12 – 18 meters (39'-58'); human activities have impacted zone only minimally.	Width of riparian zone 6 – 12 meters (20'-39'); human activities have impacted zone a great deal.	Width of riparian zone < 6 meters (20'); little or no riparian vegetation due to human activities.
Score (LB):	(10) 9	8 7 6	5 4 3	2 1 0
Score (RB):	(10) 9	8 7 6	5 4 3	2 1 0

Rod and Reel Survey

The Conservation District was unable to attain the correct equipment (DC backpack shocker) to do a true fish population analysis. Instead a more primitive method was used. Volunteers actively pursued brook trout with rod and reel to get a grasp of the recreational opportunities available in Canoe Run.

One can tell based on the water chemistry, habitat and the cold temperatures of Canoe Run that it would be an excellent fishery. It is considered a Class A Wild Brook Trout Stream according to the Pennsylvania Fish and Boat Commission.

Fishing commenced on 3 different days with each day being dedicated to each distinct section of the watershed (Canoe Run, Left Fork, and Right Fork). Fishing time was 4 hours each section and all 3 sections were fished in the early morning to ensure conditions were consistent each day. Fish were not measured to ensure they were not handled too much for fear of mortality.

Canoe Run showed very high numbers of brook trout being caught. Many of these fish were quality specimens. Brook trout were caught in every likely area as long as they were not spooked ahead of time. Where fish were not caught it was often the case to see several brook trout dart off to one of the great pieces of cover throughout the stream corridor. This part of the stream is the lower gradient portion of the stream but still hosted plenty of plunge pools and woody debris. Most fish averaged 6 to 7 inches but some specimens were found to be in the 9 to 10 inch range. A total of 57 trout were caught between 2 volunteers in the 4 hour period.

The Right Fork of Canoe Run also showed a high incidence of quality brook trout. This section of the stream is beautiful with habitat. The Right Fork has a higher gradient than the rest of Canoe Run. It flows out of an area called Sand Springs where it flows through a small meadow for a brief time before it enters into a heavily forested section with large plunge pools. Some of the holes in this section of the stream were 5 to 6 feet deep. The meadow section of the stream had good depth to it and although it lacked the forested canopy provided throughout the rest of the stream, there are wonderful cutbanks. Many fish

were caught in both the forested and the meadow section of Right Fork. 64 brook trout were caught between 2 anglers in the 4 hour period.

In the investigator's opinion the Left Fork is the lesser quality of the 3 branches of Canoe Run. This section of the stream still has excellent habitat but it appears that the little bit of AMD that does enter here may have miniscule effects on the Left Fork. Although metals were low in sampling it appears that at some periods during the investigation the stream was showing net acidic conditions. Fish still thrive here but may move in and out during certain periods. 35 brook trout were caught in the Left Fork between 2 anglers.

Canoe Run presents an excellent angling opportunity for the more dedicated trout fisherman. It is smaller and lots of overhanging cover but that is what makes it such a good fishery.

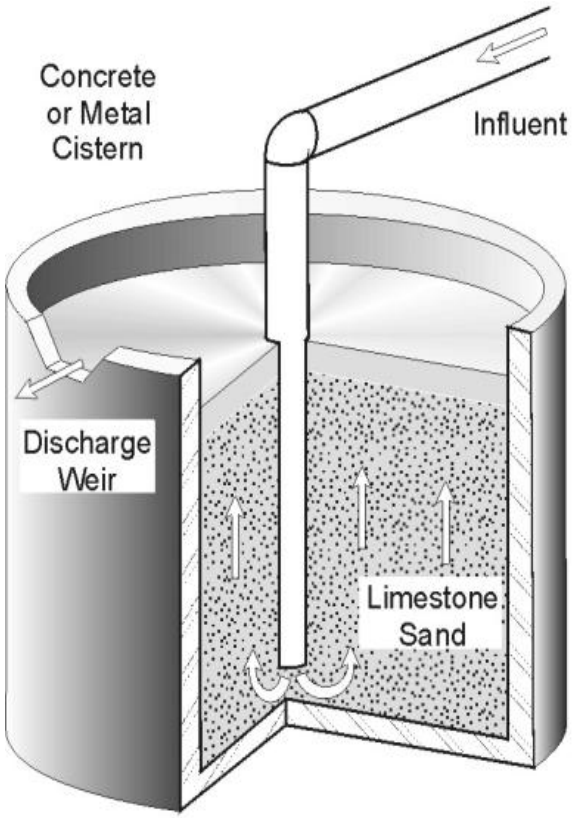
Specimens of Brook Trout Collected During Rod and Reel Survey

Management Recommendations

Treatment of AMD

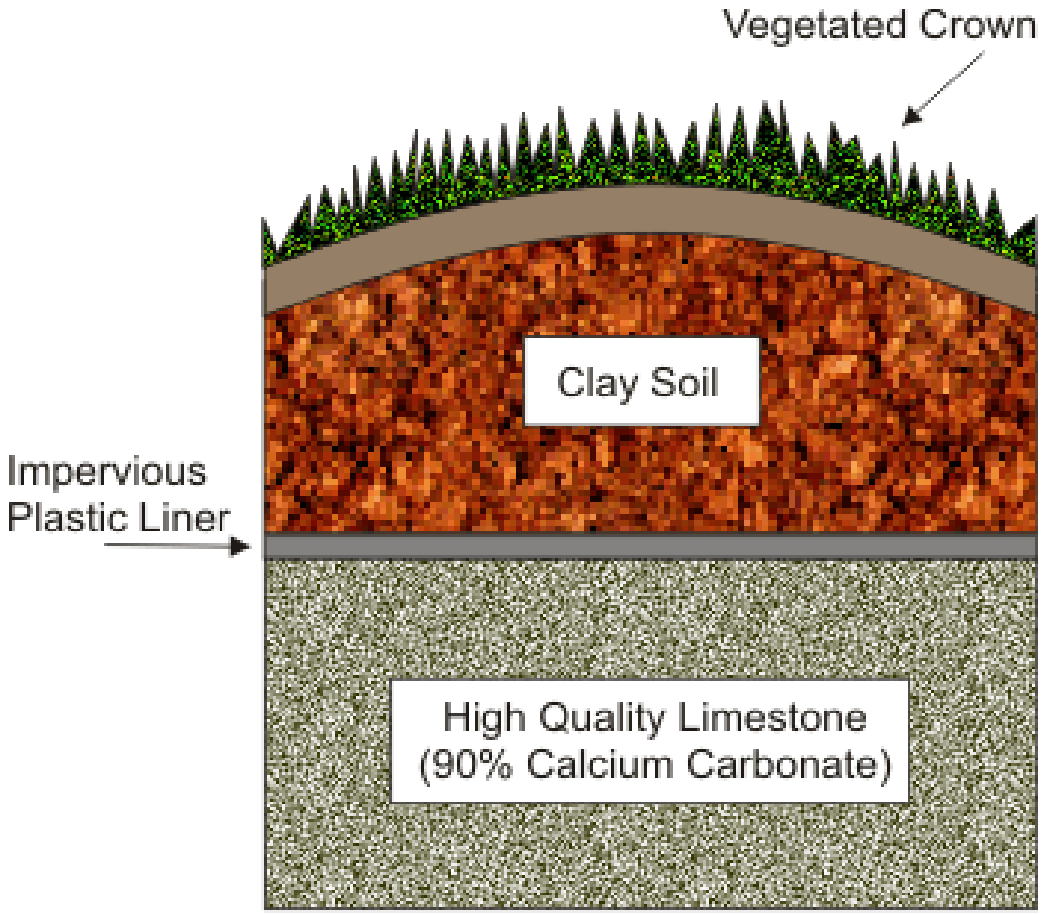
One major option for the Canoe Run watershed is the treatment of the only major source of AMD entering Canoe Run. The unnamed tributary to the Left Fork of Canoe Run has moderate AMD that does not appear to have adverse effects on the Left Fork probably due to the limited flow coming out of the deep mine. Although water quality issues are not real prominent it may be affecting the aquatic community to some extent. There are several options to treat this AMD.

A diversion well would work well for this site. This is where water is piped into a container holding a slurry of limestone sand. Water flows through the limestone and comes out with a high pH. These systems work fairly well but require a lot of maintenance and long term funding to continually add limestone. This type of treatment is called active treatment. A better option is that of the passive treatment.



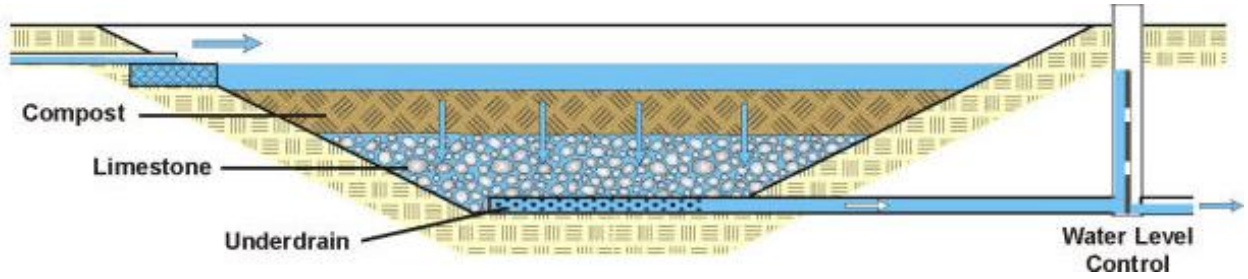
Cutaway View

An anoxic limestone drain (ALD) is a passive treatment system and is a good option for this site. ALD systems are not good for every situation. An anoxic limestone drain is essentially a treatment system containing high calcium limestone which is constructed underground into the bank where the discharge emanates. Water from the mine runs through the limestone, raising the pH of the water to a more acceptable level for aquatic life. The issue with ALD systems is when there are high levels of metals in the water. When high levels of metal are present, the iron, aluminum, or manganese can armor the limestone within the system and clog up. This discharge in Canoe Run does not have high levels of metal and would likely be a fairly cost effective measure to treating this AMD.

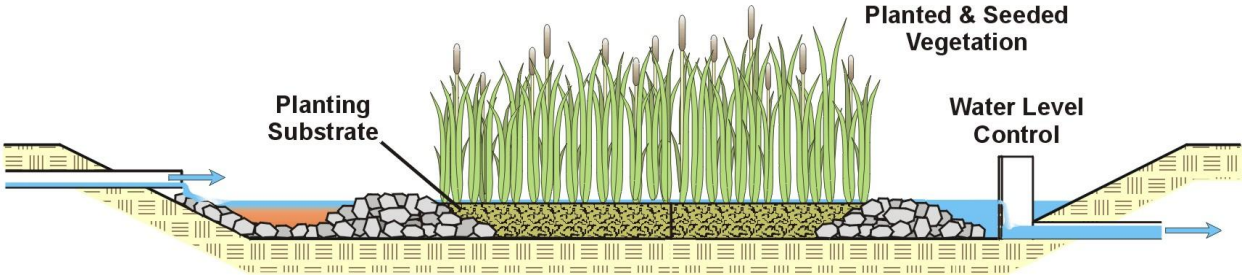


Cross Section of an
Anoxic Limestone Drain

Another passive option is a small vertical flow wetland (VFW). The limiting factor with these systems is topography and having the room to place a system. In this site there probably is just enough room to create a vertical flow wetland. A VFW is a constructed wetland that consists of a layer of mushroom compost, on top of high calcium limestone, on top of perforated pipe. The mushroom compost helps remove sulfates and removes the oxygen from the water so that when the pH of the water rises from the limestone it does not clog the system. The water then goes through the perforated pipe and oxygen is then reincorporated back into the water. Sometimes to help polish off any remaining pollution, a surface flow wetland is constructed below the VFW. This essentially is just a man made wetland and works much like a natural wetland. This type of system is much more costly than an anoxic limestone drain.



Cross Section of a Vertical Flow Wetland



Cross Section of a Surface Flow Wetland

Petition for Upgrade

Currently the Canoe Run Watershed is protected under Title 25, Chapter 93 of the Pennsylvania State Code as a High Quality-Cold Water Fishery (HQ-CWF). Streams designated HQ-CWF can only have their water quality lowered by a permitted discharge if the discharge is the result of necessary social or economic development, the water quality criteria are met, and all existing uses of the stream are protected. However, Canoe Run would experience even more protection under the Title 25, Chapter 93 designation of Exceptional Value (EV) status. EV waters must be protected at their existing quality; their water quality cannot be lowered for any reason.

Local conservation groups may want to consider petitioning the Pennsylvania State Environmental Quality Board to upgrade the status of Canoe Run to Exceptional Value. Any person, agency, group, organization, municipality, or industry may submit a rulemaking petition to the Environmental Quality Board (EQB) to request a stream redesignation. An EV designation would provide even more protection to the Canoe Run Watershed against activities that could possibly degrade the stream. Canoe Run currently is an exceptional wild trout fishery. The Canoe Run Watershed lies entirely within the Elk State Forest with portions of the lower watershed lying within the Bucktail State Park Natural Area, making the entire watershed open to public fishing access. Considering these things and the productivity of the Canoe Run fishery, it would be warranted to seek a petition to upgrade the classification of Canoe Run from a HQ-CWF to an EV stream.

Another option of citizens is to petition that the Canoe Run Watershed be classified as Unsuitable for Mining (UFM). Because of the history of mining in this watershed, it is obvious that there is coal in this valley. Just over the ridge is the Sterling Run drainage which has been heavily mined in the past. It is also being currently remined. This UFM upgrade would potentially stop the mining from coming over into the Canoe Run drainage. There are two distinct criteria for UFMs. The 1st is Mandatory Criteria. A UFM Mandatory requires designation in the event it can be demonstrated that reclamation of an area is not technologically and economically feasible.

This is used in areas where in all certainty any acid mine drainage would cause environmental degradation. The 2nd criteria are Discretionary. There are four discretionary criteria, relating to coal mining operations that may: (1) be incompatible with land use plans; (2) affect fragile or historic lands; (3) affect renewable resource lands with loss or reduction of water supply or of food or fiber products; or (4) affect natural hazard lands where surface mining operations could endanger life or property. This option would mostly likely benefit the Canoe Run watershed the most.

Concluding Remarks

The Cameron County Conservation District is dedicated to keeping the waters of Cameron County healthy. We are also dedicated to improving upon what is already there. The Canoe Run drainage is a beautiful area with minimal environmental scarring. Although not much is needed to make this area almost perfect, it is important to try. It is the hope of the Conservation District that through this study and conservation plan, that citizens become involved to attain the same goal as the Conservation District not only in Canoe Run but in all of Pennsylvania. We encourage local citizens to become a part of local conservation organizations. Many good things are often taken for granted until they have been degraded. Only then do citizens realize what a special thing they had; but by then it is too late, their resource has been destroyed. May this Coldwater Conservation Plan move the sportsmen and citizens who use the waters of Cameron County to take action to protect and improve this important aquatic resource.

Concerned citizens can become involved in these organizations to help protect the beautiful resources of Cameron County.

- **Bucktail Watershed Association**
  - **814-486-9354**
- **Jim Zwald Chapter of Trout Unlimited**
  - **814-486-1955**
- **Sinnemahoning Sportsman Club**
  - **814-546-2835**
- **Bennett's Branch Watershed Association**
  - **814-787-8787**
- **Bucktail Rod and Gun Club**
  - **814-486-0941**