0120-FM-PY0004 Rev. 3/2003

COMMONWEALTH OF PENNSYLVANIA
ENVIRONMENTAL QUALITY BOARD

PETITION FORM

I. PETITIONER INFORMATION

Name: RES Coal LLC

Mailing Address: 51 Airport Road

Clearfield,PA 16830

Telephone Number: (814) 765-7525

Date: August 17, 2021

II. PETITION INFORMATION

A. The petitioner requests the Environmental Quality Board to (check one of the following):

☐ Adopt a regulation

☒ Amend a regulation (Citation 93.91, Drainage list L)

☐ Repeal a regulation (Citation)

Please attach suggested regulatory language if request is to adopt or amend a regulation.

B. Why is the petitioner requesting this action from the Board? (Describe problems encountered under current regulations and the changes being recommended to address the problems. State factual and legal contentions and include supporting documentation that establishes a clear justification for the requested action.)

Saltlick Run drains a 4.94 square mile watershed area wholly within Karthaus Township, Clearfield County. Saltlick Run is classified in Chapter 93, List L, as a high-quality cold water fishery; however almost the entire stream reach and most tributaries are heavily impacted by acid mine drainage (AMD) from pre-1970 abandoned mines and are devoid of aquatic life. A 1972 Scarlift report for the West Branch of the Susquehanna River documents that Saltlick Run is severely impacted by AMD. More recent biological assessments conducted by Trout Unlimited as part of a mine drainage study on the West Branch Susquehanna River (2009, 2017) document that this condition still persists. Saltlick Run meets none of the requirements in 25 Pa. Code 94(b) for designation as high quality or exceptional value. It has been wrongly designated since the inception of Chapter 93. Until recently, this was of no significant adverse environmental and economic consequence. However; recent implementation of in-stream requirements for trace elements such as Se, Ni, Zn, and Cu have precluded direct discharge of mine drainage into Saltlick Run, necessitating non-discharge alternatives or long-distance transport to the West Branch of the Susquehanna River. This has the unintended consequence of eliminating the discharge of cold, alkaline treated mine drainage with low concentrations of Fe, Mn, and Al, directly into Saltlick Run, which would otherwise greatly improve its overall water quality and allow the restoration of an aquatic community. This also may have the unintended consequence of inhibiting reming by increasing expenses for water handling, thereby preventing future restoration of pre-1970 abandoned mined lands which are significantly impairing Saltlick Run.

C. Describe the types of persons, businesses and organizations likely to be impacted by this proposal.

Three coal companies currently opeerate within Saltlick Run, either as permitte (2) or contract operator (1). They stand to benefit from increased flexibility for water handling procedures. Sportsmen and the general public stand to benefit because the proposed regulation change will improve the potential for cold, alkaline water to be directly discharged into Saltlick Run and for possible future remining, which would enhance the potential for restoration of water quality in Saltlick Run.

D. Does the action requested in the petition concern a matter currently in litigation? If yes, please explain.

No

E. For stream redesignation petitions, the following information must be included for the petition to be considered complete. Attach supporting material as necessary.

1. A clear delineation of the watershed or stream segment to be redesignated, both in narrative form and on a map.
2. The current designated use(s) of the watershed or segment.
3. The requested designated use(s) of the watershed or segment.
4. Available technical data on instream conditions for the following: water chemistry, the aquatic community (benthic macroinvertebrates and/or fishes), or instream habitat. If such data are not included, provide a description of the data sources investigated.
5. A description of existing and proposed point and nonpoint source discharges and their impact on water quality and/or the aquatic community. The names, locations, and permit numbers of point source discharges and a description of the types and locations of nonpoint source discharges should be listed.
6. Information regarding any of the qualifiers for designation as high quality waters (HQ) or exceptional value waters (EV) in §93.4b (relating to qualifying as High Quality or Exceptional Value waters) used as a basis for the requested designation.
7. A general description of land use and development patterns in the watershed. Examples include the amount or percentage of public lands (including ownership) and the amount or percentage of various land use types (such as residential, commercial, industrial, agricultural and the like).
8. The names of all municipalities through which the watershed or segment flows, including an official contact name and address.
9. Locational information relevant to items 4-8 (except for contact names and addresses) displayed on a map or maps, if possible.

All petitions should be submitted to the
Secretary of the Department of Environmental Protection
P.O. Box 2063
Harrisburg, PA 17105-2063

Saltlick Run Redesignation – Petition to EQB

E – Supporting Information

1. The entirety of Saltlick Run, including tributaries, is petitioned for redesignation. Topographic map and USGS stream status report is attached.
2. The current designation is HQ-CWF. There currently are no uses.
3. The requested designation is CWF. There are no designated uses.
4. There are extensive water sampling data from coal mining permit monitoring points – see attached. The earliest report (Sorenson, 1931) indicates that Saltlick Run was heavily polluted by AMD. Also, see attached data from the 1972 Scarlift Report. The Trout Unlimited West Branch Benchmark studies from 2009 and 2017, and a 2017 PFBC unassessed waters stream survey also show severely impaired water quality at the mouth of Saltlick Run. The most recent Trout Unlimited study shows modest recovery at the mouth of Saltlick Run with a few pollution-tolerant macroinvertebrates (chironomids) and very sparse stone fly and caddis. This is likely due to the presence of existing discharges of alkaline mine drainage which is neutralizing AMD and reducing in-stream iron, manganese, and aluminum concentrations. All of these studies document that Saltlick Run was and continues to be heavily impaired by AMD with the absence of aquatic life in the main stem except possibly for the uppermost headwaters and the lowermost reaches. The petitioner photographed monitoring points referenced herein which show heavy precipitate on stream bottom, especially at points MP-2, MP-3, and MP-4, which had no macroinvertebrates present.
5. See inventory of NPDES discharge points attached. River Hill Uzell (PA0176969) and Cataract (PA0611336) are reclaimed with little or no discharge other than surface runoff from reclaimed areas. River Hill McClosky (PA01199334) passively treats a postmining AMD discharge which may be subject to future limits on trace elements. Philip Reese Reese #1 (PA0176969) treats surface runoff and mine drainage which may be subject to future limits on trace elements. River Hill Hemlock (PA0176969) is operated in conjunction with River Hill Pottersdale (PA0219801) which treats surface runoff using conventional sediment ponds and mine drainage from active operations using a non-discharge alternative which may be subject to future limits on trace elements. Current treated discharges are having a positive impact on stream quality because of the addition of cold, alkaline water with relatively low levels of Fe, Mn, and Al, which neutralizes in-stream acidity and reduces in-stream metals. However, the addition of treated wastewater does cause increased sulfates and total dissolved solids (TDS).
6. Saltlick Run does not meet any of the qualifiers in 25 Pa Code 93.4(a) for HQ designation, specifically, it does not support a high-quality aquatic community or wild trout. Also, it does not meet any of the qualifiers in 93.4(b) for Exceptional Value designation.
7. Land use in the watershed consists chiefly of forest land and reclaimed surface mined land to be returned to forest land. Approximate percentages using current Google Earth photography are forested and forested reclaimed mine lands - 60%, reclaimed mine lands predominately in grasses and shrubs - 30%, active mining area 6%, agriculture 4%. There are no state forest lands, game lands or state parks.

8. Saltlick Run is entirely in Karthaus Township, Clearfield County. The contact for Karthaus Township is Karthaus Township 367 Market Street Karthaus, PA 16845 Phone: (814) 263-4419E-mail: karthaustwp@gmail.com

References cited:

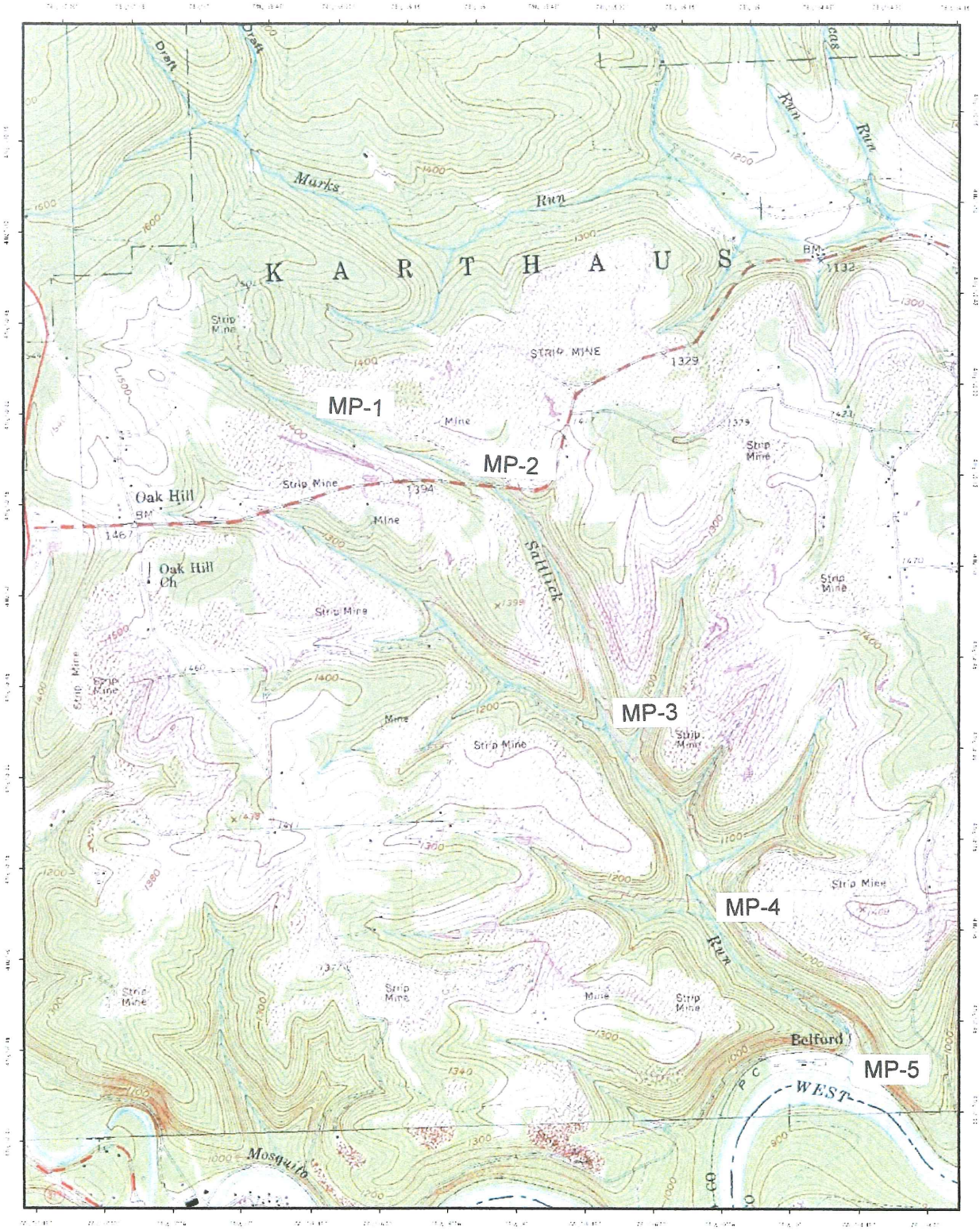
Gwin, Dobson & Foreman, Inc., 1972, Pennsylvania Department of Environmental Resources, Operation Scarlift: West Branch Susquehanna River Mine Drainage Pollution Abatement Project, Appendix B.3..

Pennsylvania Fish and Boat Commission, 2017, Division of Environmental Services, unpublished raw data.

Sorenson, D. 1931. Commonwealth of Pennsylvania Board of Fish Commissioners Stream Survey Report: West Branch Susquehanna River, Clearfield County, Pennsylvania.

Trout Unlimited, 2011, The West Branch Susquehanna Recovery Benchmark Project, A Technical Report by Trout Unlimited, 53p.

Trout Unlimited, 2017, unpublished raw data from 2017 West Branch Survey.



Vicinity Map Index Map

mytopo
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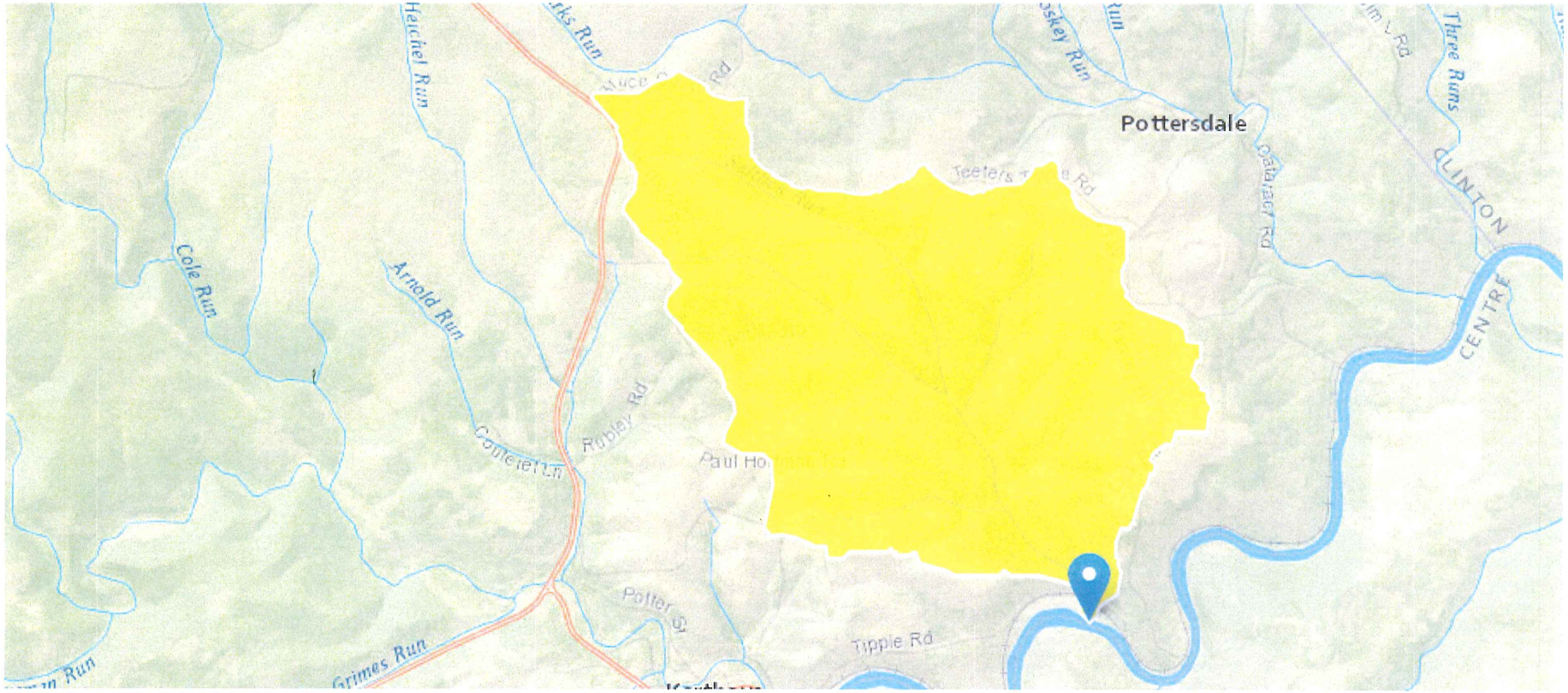
[Close window]

StreamStats Report

Region ID: PA
Workspace ID: PA20210705195721433000
Clicked Point (Latitude, Longitude): 41.12592, -78.07945
Time: 2021-07-05 15:57:40 -0400



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	4.94	square miles
STORAGE	Percentage of area of storage (lakes ponds reservoirs wetlands)	0.23	percent
ELEV	Mean Basin Elevation	1340	feet
PRECIP	Mean Annual Precipitation	40	inches

Peak-Flow Statistics Parameters [Peak Flow Region 2 SIR 2019 5094]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	4.94	square miles	0.92	1160
STORAGE	Percent Storage	0.23	percent	0	8.9

Peak-Flow Statistics Flow Report [Peak Flow Region 2 SIR 2019 5094]

PII: Prediction Interval-Lower, Plu: Prediction Interval-Upper, SEp: Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	SEp
50-percent AEP flood	241	ft^3/s	26.1
20-percent AEP flood	389	ft^3/s	27
10-percent AEP flood	506	ft^3/s	28.9
4-percent AEP flood	675	ft^3/s	31.6
2-percent AEP flood	814	ft^3/s	34.8
1-percent AEP flood	967	ft^3/s	37.8
0.5-percent AEP flood	1140	ft^3/s	41.6

Statistic	Value	Unit	SEp
0.2-percent AEP flood	1380	ft^3/s	46.1

Peak-Flow Statistics Citations

Roland, M.A., and Stuckey, M.H.,2019, Development of regression equations for the estimation of flood flows at ungaged streams in Pennsylvania: U.S. Geological Survey Scientific Investigations Report 2019–5094, 36 p. (https:// doi.org/10.3133 /sir20195094)

Low-Flow Statistics Parameters [Low Flow Region 3]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	4.94	square miles	2.33	1720
ELEV	Mean Basin Elevation	1340	feet	898	2700
PRECIP	Mean Annual Precipitation	40	inches	38.7	47.9

Low-Flow Statistics Flow Report [Low Flow Region 3]

PII: Prediction Interval-Lower, PIu: Prediction Interval-Upper, SEp: Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	SE	SEp
7 Day 2 Year Low Flow	0.386	ft^3/s	43	43
30 Day 2 Year Low Flow	0.554	ft^3/s	38	38
7 Day 10 Year Low Flow	0.147	ft^3/s	54	54
30 Day 10 Year Low Flow	0.218	ft^3/s	49	49
90 Day 10 Year Low Flow	0.329	ft^3/s	41	41

Low-Flow Statistics Citations

Stuckey, M.H.,2006, Low-flow, base-flow, and mean-flow regression equations for Pennsylvania streams: U.S. Geological Survey Scientific Investigations Report 2006-5130, 84 p. (http://pubs.usgs.gov/sir/2006/5130/)

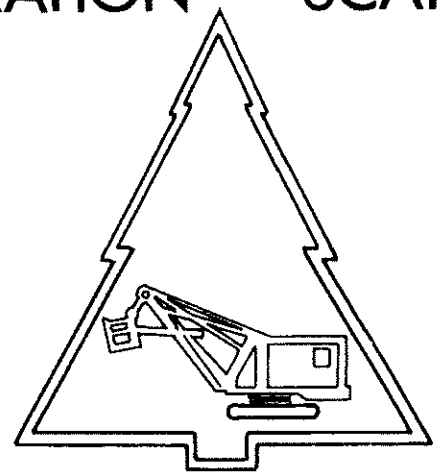
Application Version: 4.5.3

StreamStats Services Version: 1.2.22

NSS Services Version: 2.1.2

WEST BRANCH SUSQUEHANNA RIVER MINE DRAINAGE POLLUTION ABATEMENT PROJECT

OPERATION SCARLIFT



COMMONWEALTH OF PENNSYLVANIA
Milton J. Shapp, Governor
Department of Environmental Resources
Maurice K. Goddard, Secretary

SL 163-3

1972

GWIN, DOBSON & FOREMAN, INC.
Consulting Engineers
ALTOONA PENNSYLVANIA

MINE DRAINAGE REPORT

WEST BRANCH SUSQUEHANNA RIVER AND TRIBUTARIES

WATER QUALITY DATA 1970-71 SURVEY

STATION NUMBER	NAME AND LOCATION OF SAMPLING STATION	DATE SAMPLED	DISCHARGE cfs	pH	ALK ppm	ACD ppm	T.Fe ppm	SO_4 ppm
220	Loop Run Near Coalman Siding, Pa.	Nov. 17, 1970	14	4.2	0	64	1.0	326
221	Lower Three Runs Near Pottersdale, Pa.	Nov. 17, 1970	25	5.5	6	7	0.2	38
222	Upper Three Runs Near Pottersdale, Pa.	Nov. 17, 1970	50	5.6	4	6	0.2	77
223	Saltlick Run Near Karthaus, Pa.	Nov. 17, 1970	20	4.0	0	126	4.1	557
224	Laurel Run Near Karthaus, Pa.	Nov. 17, 1970	15	5.1	6	14	0.3	58
225	Mosquito Creek At Karthaus, Pa.	Oct. 28, 1970	95	5.4	6	7	0.3	58
226	West Branch Susquehanna River At Karthaus, Pa.	Oct. 28, 1970	1,076	4.2	0	30	1.1	182
		Nov. 19, 1970	-----	4.3	2	34	2.3	154
		Nov. 22, 1970	-----	3.9	0	56	8.8	192
227	Moshannon Creek Near Moshannon, Pa.	Oct. 28, 1970	211	3.5	0	82	4.6	211
		Nov. 17, 1970		4.0	0	66	10.4	163
228	Rupley Run Near Coopers Settlement, Pa.	Nov. 17, 1970	8	4.7	4	40	0.2	96

West Branch Susquehanna Recovery Benchmark Project

Parameter	18-May-09	20-Jul-09	17-May-17	19-Jul-17
Acidity mg/l	-43	-29	-93	-127
Alkalinity mg/l	68	70	120	152
Al (tot) mg/l	2.32	3.8	1.61	1.23
Ca (tot) mg/l	215	217	na	na
Cl (dis) mg/l	5.1	5.2	4.2	3.6
Spec cond umhos/cm	1810	>2000	1790	2250
Cu (tot) mg/l	<0.005	<0.005	<.005	<.005
Fe (tot) mg/l	4.21	8.74	1.69	2.18
Mg (tot) mg/l	142	190	na	na
Mn (tot) mg/l	5.26	8.32	3.08	3.57
Ni (tot) mg/l	0.129	0.205	0.088	0.088
pH (field)	7.11	7.53	7.7	8
pH (lab)	7.6	7.0	na	na
SO4 mg/l)	1031	1218	1259	1399
TDS (mg/l)	1515	1833	1561	2184
TSS (mg/l)	23	25	17	15
Zn (tot) mg/l	0.182	0.284	0.143	0.124
Flow (cfs)	5.205	2.856	10.201	na

Saltlick Run Benthic Macroinvertebrates

Order/Family	Genus species	2009	2017
Tubificida	*Enchytraeidae*	1	3
Diptera	*Bezzia/Palpomyia sp.*	1	
Diptera	*Tipulidae*	1	
Chironomidae	*Limnophyes sp.*	2	
Chironomidae	*Platysmittia bilyji*	1	
Chironomidae	*Chaetocladias sp.*		5
Chironomidae	*Eakiefferiella claripennis*		1
Chironomidae	*Parametriocnemus sp.*		1
Chironomidae	*Paraphaenocladius sp.*		1
Chironomidae	*Polypedilumillinoense*		2
Plecoptera	*Amphinemura sp.*		1
Plecoptera	*Ostrocerca sp.*		1
Trichoptera	*Hydropsyche bettenia*		1
Total Individuals		6	16

Table n. Chemistries collected from Saltlick Run at site rivermile 0.11 with Site Latitude 410739 Longitude 780446 DMS or 410739780446. Site established 7/4/2017 by PA Scientific Collector Permittee. This site is currently located within Section Number 1, 08D.

Air Temperature (°C): Not Collected
General Chemistries Sample Time of Day: 1015
Site Secchi Disk Depth Reading: Not Collected
Secchi Disk Sample Time of Day: Not Collected
Dissolved Oxygen Test: Not Collected
Alkalinity Test: Not Collected
Hardness Test: Not Collected
pH Test: pH Field Electrometric

Depth (m)	Temp (°C)	D.O. (mg/l)	Alk. (mg/l)	Hard. (mg/l)	Sp Cond. (umhos/cm@25°C)	pH (su)
0	16				2.08 mmhos/cm = 2,080 umhos	8

No Additional Chemistries Collected

Saltlick Run Monitoring Points

Monitoring Point1. Uppermost headwaters of Saltlick Run just above post-1970 mining. Slightly impaired water quality. Sparse macroinvertebrate population.

Monitoring Point 2. Saltlick Run at Pottersdale Road. Heavily impacted by acid mine drainage from abandoned mine lands showing dense iron precipitation on stream bed. No aquatic life present.

Monitoring Point 3. Just above confluence with tributary approx. 1 mile downstream of Pottersdale Road. Heavily impacted by Fe precipitation. No aquatic life evident..

Monitoring Point 4. Above confluence with western tributary approx. 1 mile above West Branch Susquehanna. No aquatic life.

Monitoring Point 5. Saltlick just above confluence with West Branch Susquehanna. Limited aquatic life present due to influence of alkaline treated mine discharges.

Monitoring Point 1 (MWS-13)

Date	Flow (gpm)	pH (field)	pH (lab)	Spec. Cond. uMhos	Acidity mg/l	Alkalinity mg/l	Fe (total) mg/l	Mn (total) mg/l	Al (total) mg/l	Sulfate mg/l	TSS mg/l	TDS mg/l
3/2/2019	150	5.7	5.4	88	4.9	2	0.11	0.31	0.19	24	3	45
5/15/2019	275	5.9	5.9	62	14.7	2	0.82	0.44	0.26	14	12	38
7/8/2019	145	7.4	6.3	63	18.5	6	1.16	0.51	0.24	11	5	41
10/21/2019	0											
2/1/2020	200	5.7	5.6	55	5.8	2	0.13	0.1	0.11	13	<2	33
4/6/2020	100	6.2	5.7	82	10.5	2	0.23	0.25	0.2	20	7	48
8/24/2020	0											
10/26/2020	0											
3/5/2021	75	5.8	5.8	53	2.9	2	0.11	0.09	0.08	10	<2	32
4/19/2021	100	6.2	6.46	45	12.1	<20	<0.2	0.12	0.1	14.1	<0.8	<20

Monitoring Point 2 (MWS-3)

Date	Flow (gpm)	pH (field)	pH (lab)	Spec. Cond. uMhos	Acidity mg/l	Alkalinity mg/l	Fe (total) mg/l	Mn (total) mg/l	Al (total) mg/l	Sulfate mg/l	TSS mg/l	TDS mg/l
3/2/2019	75	4	3.8	1750	58	0	1.06	4.61	5.41	1015	5	1474
5/15/2019	350	4.5	4.4	366	27	0	0.85	2.39	1.75	151	3	216
7/8/2019	200	4	3.9	968	75	0	2.46	8.74	7.12	489	<2	778
10/21/2019	50	3.4	3.4	1290	99	0	4.78	10.30	7.18	661	12	970
2/1/2020	250	4.2	4.4	472	35	0	1.07	3.55	2.9	226	4	295
4/6/2020	200	4.1	4.2	769	47	0	1.22	5.37	4.65	375	8	546
8/24/2020	8	3.3	3.4	1320	94	0	6.80	10.78	7.79	607	5	927
10/26/2020	25	3.4	3.4	1330	106	0	8.62	13.11	7.82	695	<2	1011
3/5/2021	200	4.7	4.6	289	24	0	0.94	1.39	1.25	108	2	165
4/19/2021	180	4.1	3.93	451	30	<20	1.49	3.54	3.49	228	1	332

Saltlick Run NPDES Discharge Inventory

Permittee	Site Name	NPDES Permit No.	Sub Facility ID	Reclamation Status
River Hill Coal Co.	McClosky	PA0119334	17793044	reclaimed passive trt.
River Hill Coal Co.	Uzell	PA0176969	17803045	reclamation complete
Philip Reese Coal Co.	Reese #1	PA0609501	17814033	active
River Hill Coal Co.	Cataract	PA0611336	17820160	reclamation complete
River Hill Coal Co.	Hemlock	PA0176969	17840123	Stage I regraded
River Hill Coal Co.	Pottersdale	PA0219801	17940107	active