Publicly Funded Mine Drainage Treatment or Abatement Project Information Sheet

General Project Information

Project Name and or No.: ROCKY RIDGE SOUTH ROARING RUN (JOLLER) PA-055

Location: Municipality and County: HUNTINGDON

Watershed: ROARING RUN

USGS Quadrangle: SALTILLO

Latitude and Longitude: 40.20333300000001 -78.068055999999999

Contact Information

Contact Organization: PADEP BAMR

Contact Person: PAM MILAVEC and P. J. Shah

Contact Address: 286 INDUSTRIAL PARK ROAD
EBENSBURG
PA
15931

Contact Telephone Number: 8144721800

Contact Email: pmilavec@state.pa.us / pshah@state.pa.us

Organization Currently Responsible For Project Operations, Monitoring and Maintenance

Is this organization different from Contact Organization? True

Organization Name: Huntingdon County Conservation District and PA Game Commission

Organization Contact Name: Andy Petterson

Organization Contact Address: 10605 Raystown Road, Huntingdon, PA 16652

Organization Telephone Number: 814-627-1626 *114

Organization Email: hccd@papower.net

Site Information

Who owns the property the project is constructed upon?

- PA Game Commission and a very small portion owned by the East Broadtop Railroad and Coal Company.

Driving Directions to the Project Site (from an easily identifiable reference point):

From Ebensburg, Pa. Take 22 East, I-99 south, take exit for Roaring Spring and take state route 36 south, state route 26 north, state route 994 east and drive 14.2 miles and the site is on the right. There is a locked gate and you need a key from Game Commission to open the gate. The site is about ¼ of a mile on the left.

Special instructions for entry to the site (gates, keys, notifications or permissions, etc.):

There is a locked gate and you need a key from Game Commission to open the gate. The site is about ¼ of a mile on the left.

Is there a perpetual access agreement for monitoring and O&M?	Yes	or No
Is the site readily accessible (by 2WD vehicle)?	Yes	or No
Was project completed as part of an overall watershed restoration plan?	Yes	or No
Is the plan available electronically?	Yes	or No

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Could you provide the DEP a copy of the plan? Yes or No
Is a copy of the plan attached? Yes or No

Project Description (Describe the treatment system including each individual component):

- A treatment system schematic is shown in Appendixes A and B.
- The AMD discharge from the sealed deep mine entry is collected in Pond No. 1. The raw AMD discharge is sampled at the end of the mine drain pipe (a 15 inch diameter smooth lined corrugated polyethylene (SLCPE) pipe).
- Pond 1 outflow is conveyed by Pipe No. 1 (a 15 inch diameter SLCPE pipe) approximately 390 linear feet to an eight feet diameter manhole. The manhole divides the raw AMD flow between SAP 1A and SAP 1B via Pipe No. 2 and Pipe No. 3 (eight inch (8") diameter Schedule 40 PVC pipes) and also has an emergency overflow to prevent overloading the SAPS units.
- The influent flow to the SAPS units can be measured at the outlet end of Pipe No. 2 and Pipe No. 3. Total system inflow consists of adding the flow from Pipe No.'s 2 and 3 and any overflow from the manhole.
- SAP 1A and SAP 1B both drain into Pond 2 via six inch diameter perforated Schedule 40 PVC pipes that feed into eight inch diameter Schedule 40 PVC drain pipes with in-line flow control structures. The SAPS discharge flows can be measured and sampled at the outlet ends of the drain pipes.
- The emergency spillway for Pond 2 discharges into SAP 3. SAP3 inflow is sampled at the emergency spillway for Pond 2.
- SAP 3 drains into Abandoned Wetland No. 3 via six inch diameter perforated Schedule 40 PVC pipes that feed into an eight inch diameter Schedule 40 PVC drain pipe with an in-line flow control structure. SAP 3 discharge flow can be measured and sampled at the outlet end of the drain pipe.
- Abandoned Wetland No. 3 collects mine drainage from up to three different areas: treated AMD from SAP 3; any raw AMD overflow from the manhole; and the raw AMD discharge from the second deep mined area discovered during construction.
- Abandoned Wetland No. 3 discharges into a rip-rap channel to Pond 3. The treatment system discharge flow can be measured and sampled at the outlet end of the riser pipe spillway in Pond 3.

Pre-Construction Discharge Flow and Monitoring Data

Is data available electronically? Yes or No
In what format? Microsoft Excel ___ Access Database ___ Other(specify) N/A
Indicate how flow was measured: _____
Indicate laboratory that analyzed samples (or whether field kits were used)

_____

_____

Could you provide this data to the DEP? Yes or No
Is a copy of the data attached? Yes or No

Pre-Construction Receiving Stream Flow and Monitoring Data

Is data available electronically? Yes or No
In what format? Microsoft Excel ___ Access Database ___ Other(specify) _____
Indicate how flow was measured: _____
Indicate laboratory that analyzed samples

_____

_____

Were any biological or fish surveys completed? Yes or No

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Could you provide this data to the DEP? Yes or No
Is a copy of the data attached? Yes or No

Treatment System Design Information and Criteria

Who or what firm completed project design? (Include name, address, phone, email and contact person, if available): DAN SAMMARCO
PADEP BAMR
8144721800

Are digital photographs of the site before, during and/or after construction available? Yes or No
Was there a Specific Restoration or Treatment Goal for this treatment system? Yes or No
If yes, please describe the goal:

What is the Design Flow Rate? About 80 GPM
Other design criteria (retention time, acidity loading or removal rate, metals loading or removal rate, alkalinity generation rate, etc.)

PROJECT DESIGN INFORMATION:

- The passive treatment system consists of three (3) wetlands or SAPS units and three (3) ponds.
- Design life of twenty (20) years with a design flow rate of 150 gallons per minute (gpm)
- Influent pH ranges from 2.9 to 3.3
- Influent flow ranges from 9 to 425 gpm
- Influent acidity concentration ranges from 140 to 290 mg/l
- Influent iron concentration ranges from 8 to 87 mg/l
- Influent aluminum concentration ranges from 8 to 19 mg/l

Does the treatment system take all of the flow or is some of the flow bypassed?
Some of the flow is by-passed in a open lime stone channel.

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Plans and Specifications:

As-Bid Project Drawings and Technical Specifications

Is this information available electronically?	Yes	or	No
Could you provide the DEP a copy of the plan?	Yes	or	No
Is a copy attached? Bid document	Yes	or	No

As-Built Drawings

Is this information available electronically?	Yes	or	No
Could you provide the DEP a copy of the plan?	Yes	or	No
Is a copy attached?	Yes	or	No

Construction and Project Funding Information

What year was the project constructed? 1999

When (specific date) did project construction begin? May 5, 1998

When (specific date) was project construction completed? October 8, 1999

Who was the Construction Contractor? (Name, Address, Phone, email, contact person)

E. M. Brown, Inc., P. O. Box 767, Clearfield, PA. 16830

When (specific date) did the treatment system go on-line? October 8, 1999

Primary Funding Partners, and funding provided:

Source	True or false	Amount
Title IV, Appalachian Clean Streams	False	$ .00
PADEP Growing Greener	False	$ .00
10% AMD Set Aside Funds	True	$731,564.00
EPA Section 319	False	$ .00
OSM Watershed Cooperative Assistance Program	False	$ .00
NRCS	False	$ .00
EPA Watershed Protection	False	$ .00
USCOE	False	$ .00
University	False	$ .00
Private/Foundation	False	$ .00

How or by whom was treatment system construction funded or other funding not included in the table?

Source	Amount
	$ .00
	$ .00

Post Construction Operation, Monitoring and Maintenance

Is there a Sampling and Monitoring Plan?	Yes	or	No
Is the plan available electronically?	Yes	or	No
Is a copy of the plan attached?	Yes	or	No
Is treatment system currently being sampled and monitored?	Yes	or	No

If so, by whom? _____

Approximately how many hours per year are spent doing O,M&M for this system? _____

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Where are samples being analyzed? (Name, Address, Phone, email, contact person)

_____

_____

If DEP Lab is being used, what is the project ID and the Sample Information System (SIS) monitoring point IDs?

_____

_____

_____

Is there an Operation and Maintenance Plan?	Yes or No
Is the plan available electronically?	Yes or No
Could you provide the DEP a copy of this information?	Yes or No
Is a copy of the information attached? Maintenance Agreement	Yes or No

Comments on the treatment system: _____

- Water Quality Trends and System Performance:
  1. After 2001, data collection for this site is poor and incomplete making it impossible to do a meaningful system analysis. Thirty-two (32) sample dates are shown over nine years from 1/31/1999 to 12/20/2007. On some of these sampling dates, various sampling points of the system were not sampled. During this same time period (from 1999 to 2007), only six (6) flow measurements and two (2) estimated flows of the system influent are recorded from 3/15/2000 to 8/14/2003 on a system that had leakage problems from the start. The last recorded system influent flow measurement was more than seven (7) years ago on 8/22/2001.
  2. Influent water quality appears to have improved over time since the reclamation of Area B and construction of the mine seal (see Appendixes H and I).
  3. System performance appears to have decreased after 2001-2002 time frame but without flow measurements, one has no way of knowing how much of the system influent is being lost. The system effluent being sampled may consist entirely of the lower mine discharge that is not being treated. The system effluent pH has decreased from a high of 7.7 on 5/23/2000 down to 3.1 on 12/20/2007.

Post-Construction Discharge Flow and Monitoring Data

Is the data available electronically? Appendix C for monitoring points	Yes or No
In what format? Microsoft Excel yes Access Database ___ Other(specify) _____	
Indicate how flow was measured: Bucket and stop watch	
Could you provide the DEP a copy of this information?	Yes or No
Is a copy of the information attached? Roaring Run Monitoring	Yes or No

Post-Construction Receiving Stream Flow and Monitoring Data

Is the data available electronically?	Yes or No
In what format? Microsoft Excel ___ Access Database ___ Other(specify) _____	
Indicate how flow was measured: _____	
Could you provide the DEP a copy of this information?	Yes or No
Is a copy of the information attached?	Yes or No
Were any biological or fish surveys that were completed on the receiving stream?	Yes or No

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Treatment System Maintenance and/or Rehabilitation

Has rehabilitation work been performed at the site? Yes or No

True(yes) or false(no): False

If yes, please list the rehabilitation activity. 2005 EPA 319 grant to evaluate performance design rehab project

If yes, please list the date of rehabilitation. N/A

If yes please list the rehabilitation cost. $ .00

What routine or non-routine maintenance issues have arisen since system was put online?

See the attached report

How was maintenance work funded?

What routine or non-routine maintenance is currently needed or anticipated in the next 1-3 years?

Other Comments

Person(s) Completing this Form (Name, Address, Phone, email, Date Completed):

P. J. Shah, P. E., Permit Chief,
Bureau of Abandoned Mine Reclamation, Cambria Office
286 Industrial Park Road, Ebensburg, PA 15931
Phone: 814-472-1800, E-mail: pshah@state.pa.us
Date completed: February 12, 2009

Is there any other person, company or organization that should be contacted for information about this treatment system or the information requested in this form? (Include Name, Address, Phone, email, etc):

Yes. BAMR Cambria task force group, headed by Jeff Westrick, P. E.

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Appendix A.doc


Appendix B.doc


Bid document.pdf


Maintenance Agreement.doc


Roaring Run Monitoring .xls


ROCKY RIDGE REPORT prelim.doc


Appendix C.doc