

General Project Information

Project Name and or No.: COLD STREAM, Site A: and Site B: PA-054
Location: Municipality and County: Rush Township, Centre County
Watershed: COLD STREAM
USGS Quadrangle: SANDY RIDGE
Latitude and Longitude: 40.866110999999997 -78.215000000000003

Contact Information

Contact Organization: PADEP BAMR
Contact Person: PAM MILAVEC / P. J. SHAH
Contact Address: 286 INDUSTRIAL PARK ROAD
EBENSBURG
PA
15931
Contact Telephone Number: 814-472-1800
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 and False
Organization Name: BAMR Cambria Office and Mashannon DMO
Organization Contact Name: P. J. Shah and Steve Starner
Organization Contact Address: 286 INDUSTRIAL PARK ROAD, EBENSBURG, Pa 15931
Organization Telephone Number: 814-472-1800
Organization Email: pshah@state.pa.us

Site Information

Who owns the property the project is constructed upon?

Property owners for site A:

Frederick A. Barnhart, Rosalie A. Baldessaro & Betty Vail, Jerry L. & Betty Vail, Jesse D. and Anna M. Price, Samuel W. Scaife, Kenneth T. Barnhart Estate, Kenneth A. Reed, Linda E. Grub-Colvin

Property owners for site B:

Jaro Development Company Inc.

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

The site A: is located approximately 1.25 miles south of the town of Philipsburg near the village of Glass City on the eastern side of SR 350 near the intersection of T-600, and along the northern edge of T-600. Site B: is about 1/2 mile on the southern side of T-600 on the top of the hill.

Special instructions for entry to the site (gates, keys, notifications or permissions, etc.):
Both sites have locked gates. These locks can be opened with standard master key # 356.

Is there a perpetual access agreement for monitoring and O&M?

Is the site readily accessible (by 2WD vehicle)?

Was project completed as part of an overall watershed restoration plan?

Is the plan available electronically?

Yes or No
Yes or No
Yes or No
Yes or No

Could you provide the DEP a copy of the plan?
 Is a copy of the plan attached?

Yes or No
 No or No

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

The Cold Stream project is located approximately 1.25 miles south of the town of Phillipsburg near the village of Glass City on the eastern side of SR 350 near the intersection of T-600. The Cold Stream project consists of two separate passive treatment systems designated as Site A and Site B. Each system contains two vertical flow successive alkalinity producing (SAP) units in series.

SITE A

Site A is the larger of the two systems covering a total area of approximately 4 acres. The system is located at the intersection of SR 350 and T-600 just off the eastern edge of SR 350 and along the northern edge of T-600. Site A is surrounded entirely by a chain link fence with an entrance gate along the edge of T-600. This system treats a collapsed deep mine entry discharge, which is the largest source of mine drainage within the Glass City area, and related coal outcrop seeps. These discharges are located along a roadside ditch on the opposite side of T-600 from the system. The discharges are collected by the roadside ditch and directed to a central point where they are piped under T-600 to the treatment system. Site A consists of an initial Stabilization Pond followed by SAP 1, a Sedimentation Pond, an Aerobic Wetland, and SAP 2 as the final system unit. A small seep (approximately 1 to 3 gpm) that was too low in elevation to be directed into the beginning of the system is piped into the Aerobic Wetland prior to the SAP 2 final treatment unit. The final treated system effluent from Site A discharges directly into the Glass City UNT.

SITE B

Site B is located approximately 1/2 mile south of Site A along the side of a forested ridge above Cold Stream approximately 100 feet higher in elevation than Site A. Site B is accessed via a dirt haul road located directly across T-600 from the entrance to Site A. Site B covers an area of approximately 2.25 acres. This system treats a single collapsed deep mine entry discharge which is located on a steep hillside approximately 25 feet higher in elevation from the first unit of the system. The discharge is conveyed by a steep riprap ditch downslope to the system. A chain link safety fence runs along the top of the slope above the discharge. Site B consists of an initial Stabilization Pond, Aerobic Wetland 1, SAP 1, a Sedimentation Pond, Aerobic Wetland 2, SAP 2 and a Sedimentation Pond as the system final unit. The final treated system effluent from Site B discharges into the woods and down over the forested ridge slope towards Cold Stream which is approximately 500 feet away and 120 feet lower in elevation.

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: Flow measurements were estimated

Indicate laboratory that analyzed samples (or whether field kits were used) Most of samples were analyzed by state lab in Harrisburg, Pa.

Could you provide this data to the DEP? Yes or No

Is a copy of the data attached? Yes or No

Files are in Harrisburg, however, the average of all pre-construction sample results are,

----- Site A System Water Quality Averages -----

	Flow gpm	pH	Fe Total mg/l	Fe Ferrous mg/l	Acidity mg/l	Alkalinity mg/l	Al mg/l	Mn mg/l	SO ₄ mg/l
Pre-Construction	48	2.6	52.1		465.7	0	24.5	1.3	












----- Site B System Water Quality Averages -----

	Flow <u>gpm</u>	pH	Fe Total <u>mg/l</u>	Fe Ferrous <u>mg/l</u>	Acidity <u>mg/l</u>	Alkalinity <u>mg/l</u>	Al <u>mg/l</u>	Mn <u>mg/l</u>	SO ₄ <u>mg/l</u>
Pre-Construction	12	2.6	49		362.5	0	23.3	2.3	

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: Flow data is not available
 Indicate laboratory that analyzed samples If there is any, it was analyzed by state lab.

Were any biological or fish surveys completed? or No
 Could you provide this data to the DEP? or No
 Is a copy of the data attached? or No

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 Water
 2000-table.doc (32 KB)
- 
 Insects
 2-2000.doc (46 KB)
- 
 Water
 2002-table.doc (3:25-2002.doc (48 KB)
- 
 Insects
 25-2002.doc (40 KB)
- 
 Water
 29-2004.doc (44 KB)
- 
 Insects
 29-2004.doc (44 KB)
- 
 Water
 1-2005-table.doc (3:31-2005.doc (45 KB)
- 
 Insects
 31-2005.doc (45 KB)
- 
 water-5-31-2005.d
 oc (35 KB)
- 
 Macroinvertebrate
 metric Summa...
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 Cold Stream
 Macroinvertebrate ..

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
814-472-1800

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

PROJECT GOALS:

Cold Stream Dam is a popular recreational facility located in the town of Philipsburg. The dam and its water supply source, Cold Stream, are both heavily used trout stocked fisheries. In the 1970's Scarlift Project 70 constructed a dike and channel system along the eastern flank of Cold Stream, as far as topography would allow, to intercept and divert contaminated drainage from abandoned mines for a length of almost two miles downstream and around Cold Stream Dam. This project improved water quality and allowed for the trout stocked fishery in Cold Stream and Cold Stream Dam. The headwaters of Cold Stream support reproducing brook trout populations. The first significant degradation of Cold Stream occurs at the confluence of an unnamed tributary (UNT) conveying AMD from the Glass City area. This tributary is on the opposite side of Cold Stream and approximately one mile upstream from the Project 70 channel which was unable to intercept this discharge. The Wood Duck Chapter of Trout Unlimited has initiated an effort to address the Glass City UNT and a few

other remaining sources of AMD that were beyond the scope of Scarlift Project 70. The Wood Duck Chapter submitted an application for assistance from BAMR's Set Aside Program which proposed an extension of the Scarlift Project 70 dike and channel system. For the same issues of topography and geology which limited the extent of the original project, BAMR decided against the proposal to extend the Scarlift Project 70 dike and channel system. BAMR instead agreed to address the Glass City discharges through the Cold Stream passive treatment project with the goal of improving water quality in the one mile section of Cold Stream beyond the extent of the Project 70 channel and for further improvement of water quality in the two stream miles and Cold Stream Dam below.

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

See the pre-construction data.

Does the treatment system take all of the flow or is some of the flow bypassed?

Some of the flow by-pass.

Specifications:

As-Bid Project Drawings and Technical Specifications

- Is this information available electronically?
- Could you provide the DEP a copy of the plan?
- Is a copy attached?

or No
 or No
 or No

As-Built Drawings

- Is this information available electronically?
- Could you provide the DEP a copy of the plan?
- Is a copy attached?

or No
 or No
 or No

Construction and Project Funding Information

What year was the project constructed? 1998
 When (specific date) did project construction begin? Late 1997
 When (specific date) was project construction completed? Final inspection was on 9/24/98
 Who was the Construction Contractor? (Name, Address, Phone, email, contact person)

Kukurin Contracting, Inc., RD 2, Route 286, Export, PA 15632

When (specific date) did the treatment system go on-line? September 1998

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	\$394,072.00
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
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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

Sampling of monitoring points are done every two months. Flushing of VFPs

Are done every month

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?

Mashannon DMO staff and P. J. Shah of BAMR Cambria Office

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

96 Man hours per year.

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

By Harrisburg Lab

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

Project ID is COLD STREAM and SIS monitoring ID is PA0850

Is there an Operation and Maintenance Plan? Yes or No

We flush VFPs once a month

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? Yes or No

Comments on the treatment system:

With regular maintenance, the system is working fine. Bio assessment shows the improvement in the stream

Post- Construction Discharge Flow and Monitoring Data

Is the data available electronically? Yes or No

In what format? Microsoft Excel Yes Access Database ___ Other(specify) _____

Indicate how flow was measured: system A: with 90 degree weir and on system B with bucket and stop watch

Could you provide the DEP a copy of this information? Yes or No

Is a copy of the information attached? 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

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.

- Constructing a weir to measure flow on system A
- Compost removal from VFP2 on system A
- Lowering 4 feet of dirt from VFP2 on system A
- Fixing erosion and sedimentation after two hurricanes
- Fixing pond liners on VFP1 on system A
- Replaced 75% of all stop logs on both systems
- Planning to replace flow control box on VFP 1 on system A

Unfortunately, I do not have record of exact dates when we completed these activities or actual cost for the work performed.

please list the date of rehabilitation. 0

If yes, please list the rehabilitation cost. \$.00

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

How was maintenance work funded?

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

May face the problem with new land owners. May have to replace all flow control boxes because of corrosion.

Other Comments

Two separate systems on two separate discharges

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

P. J. Shah, P.E., Permit Chief, BAMR Cambria Office, 286, Industrial Park Road,

Ebensburg, PA 15931

Email address: pshah@state.pa.us

Date completed this report: January 16, 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):

Same as above contact.