

Publicly Funded Mine Drainage Treatment or Abatement Project Information Sheet
General Project Information

PA-300

Project Name and or No.: Strattanville (Phase 2) BF 445-202.1
Location: Municipality and County: Clarion Twp. Clarion Co.
Watershed: Mill Creek/Lower Clarion River Watershed - 17B
USGS Quadrangle: Strattanville
Latitude and Longitude: 41.2163889 -79.3141667

Contact Information

Contact Organization: PADEP BAMR
Contact Person: David J. Fromell, P.E.
Contact Address: 5th Floor, Rachel Carson State Office Building
400 Market Street
Harrisburg, PA 17101
Contact Telephone Number: 717-783-5646
Contact Email: dfromell@state.pa.us

Organization Currently Responsible For Project Operations, Monitoring and Maintenance

Is this organization different from Contact Organization? Same
Organization Name: _____
Organization Contact Name: _____
Organization Contact Address: _____

Organization Telephone Number: _____
Organization Email: _____

Site Information

Who owns the property the project is constructed upon?
Commonwealth of Pennsylvania, Pennsylvania Game Commission, C/O William Capouillez, 2001
Elmerton Ave., Harrisburg, PA 17110, (717) 787-6818

Driving Directions to the Project Site (from an easily identifiable reference point):
Project is located approximately 1.0 mile north of the Borough of Strattanville & the intersection of US
Route 322 & SR 1011, on the east side of Township road T-572 (Millcreek Road), in Clarion Township,
Clarion County

Special instructions for entry to the site (gates, keys, notifications or permissions, etc.):
Site is gated. Keys to lock can be obtained from PA Game Commission or DEP BAMR Staff

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

Project Description (Describe the treatment system including each individual component):
9-acre passive treatment system to collect & treat AMD discharges from the reclaimed Glacial Minerals,
Inc., Strattanville Mine site. The project consists of: Limestone Upflow Pond (LUP), Sediment Pond #1,
Limestone Buffered Organic Substrate Pond (LBOS), Sediment Pond #2, Limestone Bed, Flush Pond.

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Other construction work included metal building & caustic storage tank removal, alkaline recharge pond, ditching, road-work, existing AMD sludge disposal, & grading.

Pre-Construction Discharge Flow and Monitoring Data

Is data available electronically? ☒ Yes ☐ No
In what format? Microsoft Excel ☒ Access Database ☐ Other (specify) _____
Indicate how flow was measured: V-notch Weirs and bucket & stop watch
Indicate laboratory that analyzed samples (or whether field kits were used)
DEP Labs (Pre-construction SIS Project ID's: STRATTAN and BF445101.2).
Could you provide this data to the DEP? ☒ Yes ☐ No
Is a copy of the data attached? ☐ Yes ☒ No

Pre-Construction Receiving Stream Flow and Monitoring Data

Is data available electronically? ☒ Yes ☐ No
In what format? Microsoft Excel ☒ Access Database ☐ Other (specify) Whites Run TMDL, and Water Quality only (DEP labs)
Indicate how flow was measured: Receiving stream (Whites Run) flow not being measured, but water quality monitoring is being done.
Indicate laboratory that analyzed samples
DEP Labs (Pre-construction SIS Project ID's: STRATTAN and BF445101.2).
Were any biological or fish surveys completed? ☐ Yes ☒ No
Could you provide this data to the DEP? ☐ Yes ☒ No
Is a copy of the data attached? ☐ Yes ☒ No

Treatment System Design Information and Criteria

Who or what firm completed project design? (Include name, address, phone, email and contact person, if available): Daniel R. Helfrich, P.E.
PADEP BAMR
Rachel Carson State Office Building, 400 Market Street, Harrisburg, PA 17101
717-783-5642, email: dhelfrich@state.pa.us
Are digital photographs of the site before, during and/or after construction available? ☒ Yes ☐ No
Was there a Specific Restoration or Treatment Goal for this treatment system? ☐ Yes ☒ No
If yes, please describe the goal: Treatment was part of the Bond Forfeiture reclamation requirements.
No specific goal, other than to improve the water quality of the AMD discharge.
What is the Design Flow Rate? 200 gpm
Other design criteria (retention time, acidity loading or removal rate, metals loading or removal rate, alkalinity generation rate, etc.) Joe Schueck Design - LUP design based on 21.5-hr retention time. LBOS design based directly upon the 2002 doctoral research of Dr. Robert Carl Thomas, "Passive Treatment of Low pH, Ferric Iron-Dominated Acid Rock Drainage". Estimated lifespan > 10 years. Key component: fine limestone particles uniformly distributed within an organic matrix.
Does the treatment system take all of the flow or is some of the flow bypassed?
All of the flow that could be intercepted is being treated.

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

PA DEP Labs

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

SIS Project ID (post-construction): BF445-202.1; Monitoring Point ID's: RAW1, RAW2, SP1OUT, LBOS1, LBOS2, LBOS3, SP2OUT, Flume, WUS, WDS

Is there an Operation and Maintenance Plan?

☒ Yes ☐ No

Is the plan available electronically?

☒ Yes ☐ No

Could you provide the DEP a copy of this information?

☒ Yes ☐ No

Is a copy of the information attached?

☐ Yes ☒ No

Comments on the treatment system: Operating very well as of 12/22/2008.

Post- Construction Discharge Flow and Monitoring Data

Is the data available electronically?

☒ Yes ☐ No

In what format? Microsoft Excel ☒ Access Database ☐ Other(specify) _____

Indicate how flow was measured: Flume

Could you provide the DEP a copy of this information?

☒ Yes ☐ No

Is a copy of the information attached?

☐ Yes ☒ No

Post-Construction Receiving Stream Flow and Monitoring Data

Is the data available electronically?

☒ Yes ☐ No

In what format? Microsoft Excel ☒ Access Database ☐ Other(specify) Water Quality only (DEP labs).

Indicate how flow was measured: Receiving stream (Whites Run) flow not being measured, but water quality monitoring is being done.

Could you provide the DEP a copy of this information?

☒ Yes ☐ No

Is a copy of the information attached?

☐ Yes ☒ No

Were any biological or fish surveys that were completed on the receiving stream? ☐ Yes ☒ No

Treatment System Maintenance and/or Rehabilitation

Has rehabilitation work been performed at the site?

☒ Yes ☐ No

True(yes) or false(no): Yes

If yes, please list the rehabilitation activity. Phase 2 rehabilitated the LUP constructed as part of Phase 1, & added several more treatment ponds. Phase 1 consisted mainly of a subsurface drainage & collection system, Limestone Upflow Pond, & 2 Alkaline Recharge Ponds (one at the Reed site), at a cost of \$470,729.09. The Phase 1 LUP plugged completely after approximately 1 1/2 years of operation (this was after numerous flushing attempts by the BD crew under Phase 1).

If yes, please list the date of rehabilitation. Numerous dates for Phase 1 (contact Dean Baker). Phase 2 construction date listed above.

If yes, please list the rehabilitation cost. Contact Dean Baker for Phase 1 rehab costs. Phase 2 costs listed above.

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

Phase 2: Leaking holding pond repair, stuck gate valve repair, AgriDrain Smart System maintenance, water monitoring.

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How was maintenance work funded?

AML non-water. Also Cambria Office staff (contact Dean Baker).

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

AgriDrain maintenance, pipe flusing, water monitoring.

Other Comments

Electronic Link to treatment system information:

\\Epencofs02\BAMR\Active Project WS\HBG CO\Dan Helfrichs Share\DesignProjects\Treatment Evaluations\BF445 202.1

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

Daniel R. Helfrich, P.E.

5th Floor, Rachel Carson State Office Building, 400 Market Street, Harrisburg, PA 17101

771-783-5642

dhelfrich@state.pa.us

Form completed 01/06/2009

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):

Dan Helfrich or Dave Fromell