Non-Traditional Reclamation of Abandoned Mine Lands (AML) to Support Economic Revitalization and Community Development – Implementation of the 2017 AML Pilot Program in Pennsylvania

May 31, 2019

Tom Wolf, Governor
Patrick McDonnell, Secretary
The 2017 AML Pilot Program was authorized by Congress under the Consolidated Appropriations Act, 2017 (Public Law 115-31) and provides an additional $25 million of US Treasury Funds to PA’s AML Program. The funds are to be used “for the reclamation of abandoned mine lands in conjunction with economic revitalization and community development and reuse goals”
• This is the second year that Pennsylvania has received funding from the AML Pilot Program

• Pennsylvania, along with Kentucky and West Virginia, each received $30 million of AML Pilot Funding in FY2016
“State AML programs, in consultation with state and local economic and community development authorities, must develop a list of eligible projects in Appalachian counties that demonstrate a nexus with AML cleanup and economic and community development.”
“This AML Pilot is an opportunity for local communities and states to return impacted areas to productive reuse, which should be defined by the state in cooperation with local communities, to achieve the economic and community development goals identified for the community and/or region.”
AML Pilot Program Purpose

• Explore ways to return legacy coal sites to productive reuse

• Inform Congress of programmatic impacts of changes to the underlying federal law (SMCRA) such as those included in the proposed RECLAIM Act of 2017 which would accelerate distributions from the AML Trust Fund for similar economic revitalization and community development projects associated with the reclamation of AML sites
Proposed AML Pilot Projects

• PA DEP solicited proposals for AML Pilot projects from other states agencies, county and local governments, NGOs, Watershed Groups, and other AML advocacy groups.

• PA DEP received 26 proposals which were evaluated using the OSMRE AML Pilot Program Guidance and also for project costs and benefits.
• From the proposals PA selected a wide variety of project types with a variety of possible economic or community development benefits and partners

• DEP is targeting 13 proposed AML Pilot Projects (4 Bituminous and 9 Anthracite) which are located in 8 coal field counties

• Additional Pilot Projects may be considered
Vetting documents were submitted to OSMRE for all 13 of the proposed 2017 AML Pilot Projects by November 28, 2017.

OSMRE reviewed the proposed projects during December of 2017 and provided feedback along with requests for additional information for a few of the projects during January of 2018.

OSMRE indicated that the list had been fully vetted and approved by OSMRE Headquarters on March 2, 2018.
• AML Pilot Program Guidance for the 2017 AML Pilot funding was issued by OSMRE on August 11, 2017
• PA submitted its 2017 AML Economic & Community Development Pilot Program Grant Application to OSMRE on October 5, 2017 (to make the funding available for projects)
• PA’s AML Pilot Program Grant Application was approved by OSMRE on November 15, 2017 with a period of performance of November 1, 2017 to October 31, 2020
PA’s Plan for the AML Pilot Funding

- PADEP-BAMR will allocate the majority of the AML Pilot Program funds for the reclamation of Title IV eligible AML & AMD problems.

- Project partners will then work to fund and complete non-AML economic development aspects of the projects.
The 13 AML Pilot Projects include:

- 4 surface mine reclamation projects
- 2 acid mine drainage treatment projects
- 6 coal refuse pile/culm bank removal or remediation projects
- 1 project to remediate a potential subsidence prone area on a college campus
In addition to eliminating a number high-priority AML/AMD features, benefits of the projects include:

• development of a youth sports complex
• creation or expansion of several industrial and/or business parks
• a new housing development
• protection of college campus buildings and surrounding grounds from future mine subsidence issues
Significant Benefits

- reforestation and restoration of public lands
- improved groundwater quality
- significant stream water quality improvement including restored fisheries
- increased tourism through public trail development
- removal of refuse material from a floodplain to prevent stream flooding and to develop a community park
These 13 Proposed AML Pilot Projects have the potential to leverage up to an additional $2.34 for every $1 of AML Pilot Program funding from other AML/AMD funds and/or economic development funds (Both public and private)
## Pennsylvania’s 2017 AML Pilot Projects

<table>
<thead>
<tr>
<th>No.</th>
<th>AML Pilot Project Name</th>
<th>Project Type</th>
<th>Municipality</th>
<th>County</th>
<th>Total Estimated Project Cost</th>
<th>AML Pilot Funding Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Gladden AMD Treatment Plant and Fishing Run Stream Sealing</td>
<td>AMD Treatment</td>
<td>South Fayette Township</td>
<td>Allegheny</td>
<td>$8,000,000</td>
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<td>2</td>
<td>Stineman Refuse Pile - Path of the Flood Trail</td>
<td>Coal Refuse Pile Reclamation and Trail Development</td>
<td>South Fork Borough and Adams Township</td>
<td>Cambria</td>
<td>$8,000,000</td>
<td>$2,000,000</td>
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<td>3</td>
<td>Quakake Tunnel AMD Treatment - Black Creek Trail</td>
<td>AMD Treatment and Trail Development</td>
<td>Packer Township and Weatherly Borough</td>
<td>Carbon</td>
<td>$8,652,000</td>
<td>$2,000,000</td>
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<td>4</td>
<td>Dickson City Trail</td>
<td>Surface Mine Restoration and Trail Development</td>
<td>Dickson City Borough</td>
<td>Lackawanna</td>
<td>$1,370,000</td>
<td>$400,000</td>
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<td>5</td>
<td>Lackawanna College Subsidence Abatement</td>
<td>Mine Subsidence Control</td>
<td>City of Scranton</td>
<td>Lackawanna</td>
<td>$450,000</td>
<td>$450,000</td>
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<td>6</td>
<td>Can Do – North Park Drive Business Park</td>
<td>Surface Mine Reclamation and Business Park Expansion</td>
<td>Hazle Township</td>
<td>Luzerne</td>
<td>$2,657,900</td>
<td>$2,000,000</td>
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<td>7</td>
<td>Hollars Hill South AML - Cranberry Creek Gateway Project</td>
<td>Surface Mine Restoration and Housing and Mixed Business Development</td>
<td>Hazle Township</td>
<td>Luzerne</td>
<td>$2,700,000</td>
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</table>
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<tbody>
<tr>
<td>8</td>
<td>Earth Conservancy Bliss Bank 3 Business Area</td>
<td>Surface Mine Reclamation and Business Park Expansion</td>
<td>Hanover and Newport Townships</td>
<td>Luzerne</td>
<td>$3,026,835</td>
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<td>9</td>
<td>Swoyersville Refuse Pile - Community Athletic Area</td>
<td>Coal Refuse (Culm) Pile Reclamation and Youth Sports Complex</td>
<td>Swoyersville Borough</td>
<td>Luzerne</td>
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<td>10</td>
<td>The Porter Floodplain Restoration Project</td>
<td>Refuse Removal, Stream Restoration and Trail Development</td>
<td>West Brunswick Township</td>
<td>Schuylkill</td>
<td>$2,853,000</td>
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<td>11</td>
<td>Donaldson Culm Bank Stream Restoration Project</td>
<td>Refuse Removal, Floodplain Restoralion and Community Park Development</td>
<td>Frailey Township</td>
<td>Schuylkill</td>
<td>$8,600,000</td>
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<td>12</td>
<td>TASA Refuse Piles - South Sandy Creek Restoration</td>
<td>Coal Refuse Removal, Groundwater and Stream Restoration, and Agricultural Development</td>
<td>Irwin Township</td>
<td>Venango</td>
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<td>13</td>
<td>Black Dog Hollow Coal Refuse Pile Reclamation Project</td>
<td>Coal Refuse Pile Reclamation, Business Development and Community Greenspace</td>
<td>East Bethlehem Township</td>
<td>Washington</td>
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Gladden AMD Active Treatment Plant and Fishing Run Stream Sealing
The AML pilot funding in combination with other funding will be used to construct an AMD treatment facility to treat the Gladden AMD Discharge and to seal several stream channels to prevent the loss of stream flow into the underlying abandoned mine workings. The treatment plant will restore four (4) miles of Millers Run and be instrumental in restoring over four (4) miles of Chartiers Creek to its confluence with the Ohio River.
Gladden Discharge
Gladden Discharge Channel and Flow Measuring Weir
Gladden Discharge
Flowing into
Millers Run
Gladden Discharge Flowing into Millers Run
Millers Run Below the Gladden Discharge
Aerial View of the Confluence of Millers Run and Chartiers Creek
The Gladden AMD Treatment Plant will restore 4 miles of Miller Run and be instrumental in restoring 4.2 miles of Chartiers Creek to the confluence with the Ohio River.

Miller Run is on the PA Fish & Boat Commission’s trout stocking list upstream of the Gladden Discharge, and the plant will enable the remaining 4 miles of Miller Run to also be stocked with trout.
• This section of Millers Run flows past Morgan Park and through the Newberry Market development, both of which would provide good access points for fishing

• Chartiers Creek flows past Meyer & Middleton Park, which also could serve as a fishing/recreational access for the stream
**Significant Benefits**

- Chartiers Creek is also a common place for canoes and kayaks, with seven boat launches along its banks between Canonsburg Lake and the Ohio River.

- Restoring this section of Miller Run would provide an aesthetically pleasing stream for this development and existing residential areas and provide a stream with a high potential for recreational visitation.
The Gladden AMD treatment plant will be utilized as an educational tool for local schools and universities.

DEP-BAMR has routinely received and accommodated requests from high schools and colleges to tour existing AMD treatment facilities.

Chartiers Valley High School is located along Chartiers Creek, South Fayette High School is located within 5 miles of the proposed Gladden Treatment Plant, and Robert Morris University is located within 20 miles of the plant site.

Tours of the plant and the improved water quality of the streams will provide these schools with excellent educational opportunities.
Project Partners

• South Fayette Conservation Group (SFCG)
• Tetra Tech Consultants
• John Kotsky (Primary Landowner)
• Pennsylvania Department of Environmental Protection
• Office of Surface Mining Reclamation and Enforcement
Current Status

• Proposal from South Fayette Conservation Group to construct Gladden Treatment Plant
• Median flow 750 gallons per minute with 100 parts per million Iron
• Treatment plant will remove 690 pounds per day of iron from Millers Run and hence Chartiers Creek
• Designed primarily as a peroxide treatment plant
• Construction to begin summer 2019
Preliminary Treatment Plant Layout
Stineman Refuse Pile Reclamation –
Path of the Flood Trail Extension
The AML pilot funding will be used to remove coal refuse with fuel value for use in electricity generation at a cogeneration facility and to regrade any remaining refuse material onsite. Alkaline material will be added to neutralize acidity, and the site will be revegetated resulting in improved water quality in the South Fork Little Conemaugh River. The project will also facilitate a 3 mile extension of the Path of the Flood Trail to connect the existing trail in Ehrenfeld Borough to the Johnstown Flood National Memorial.
Stineman Refuse Pile
Path of the Flood Trail

Stineman Refuse Pile

Potential Trail Routes

Connect to the Johnstown Flood National Memorial

Existing Path of the Flood Trail in Ehrenfeld Borough
Project Groundbreaking May 3, 2019
Significant Benefits

- Reclamation of a 20 acre refuse pile
- Improved water quality of the South Fork Little Conemaugh River
- Extension of the Path of the Flood Trail
  - This 3 mile extension will connect the Johnstown Flood National Memorial at the South Fork Dam to the Johnstown Flood Museum in Johnstown following the flood’s path in its entirety
- Potential for trail head and parking lot construction
Significant Benefits

• Path of the Flood race participation is expected to increase (held annually)
• Walking tours of the Path of the Flood
• Interpretative signage planned to be installed along the trail to educate tourists of the history
• Increased tourism to the area
• Local businesses in South Fork will benefit from the sale of soft and hard goods
• Improved opportunities for hiking, biking, kayaking, and sightseeing
Project Partners

- Cambria County Conservation & Recreation Authority (CCCRA)
- Robindale Energy Services
- Al Penn En, Inc (Landowner)
- Cambria County
- Foundation for PA Watersheds
- Pennsylvania Department of Environmental Protection
- Office of Surface Mining Reclamation and Enforcement
• Groundbreaking Ceremony held on 05/03/2019

• As of May 28, 2019, 671 tons of refuse have been removed

• Approximately 4% of the total grant (2.1 million) has been paid out to the Cambria County Conservation Recreation Authority
Quakake Tunnel & Weatherly Borough Trail
The AML Pilot funding, in combination with other funding, will be used to design and construct an active treatment system to treat the Quakake Tunnel discharge. Approximately 8 miles of wild trout stream (Quakake and Black Creeks) will be restored upon the completion and initiation of operation of the treatment system. Funding will also be used to create approximately 5 miles of new trail beginning at the existing Weatherly Borough building and extending into the Lehigh Gorge State Park. The new trail will traverse in close proximity to the restored stream.
Quakake Tunnel & Weatherly Borough Trail

Typical flow: 13 CFS (6,000 GPM)
Low pH and Elevated Metals
– Primarily Aluminum
Black Creek Downstream of Quakake Tunnel
Black Creek Downstream of Weatherly Borough
The Quakake Tunnel & Weatherly Borough Trail will have significant benefits, including:

• 8 miles of wild trout stream restored
• Improved water quality within the Black Creek watershed
• Newly created trail will connect Weatherly Borough to the Lehigh Gorge State Park
• Increased tourism to the area
• Improved opportunities for fishing, hiking, and sightseeing
Project Partners

• Weatherly Borough
• Carbon County Commissioners
• Wildlands Conservancy
• United States Geological Survey (USGS)
• Department of Community & Economic Development (DCED)
• PA Department of Conservation and Natural Resources (DCNR)
• Design of the Quakake Tunnel AMD Treatment Plant has been invoiced to the 35% milestone.

• Closing on the three property parcels for the treatment site is expected to occur in the next month.

• Coordination with the consultant designer is ongoing for necessary geotechnical work and clarifier selection.

• Weatherly Borough indicates that the trail is still under design.
The Lackawanna Heritage Valley Authority (LHVA) 
Dickson City Trail Project

The AML pilot funding will be used to reclaim and stabilize approximately seven (7) acres of Abandoned Mine Land Spoil Area (SA) directly above the Lackawanna River in Dickson City Borough. The Lackawanna Heritage Valley Authority (LHVA) will, as part of the project, construct one (1) mile of trail along the river that consists of a 12’ paved trail with a 6’ gravel shoulder. The trail’s easement varies between 45’ to 80’ wide and will be planted with a combination of grass and trees.
The Lackawanna River Heritage Trail (LRHT) is part of a seventy mile multi-purpose trail system that follows the Lackawanna River.

The LRHT begins at the confluence of the Lackawanna & Susquehanna Rivers in Pittston and continues north where it connects with the Delaware & Hudson Rail Trail.
2. Dickson City to Archbald

The Mid Valley section of trail includes Dickson City, Throop, Olyphant, Blakely, Jessup and Archbald. In Archbald, remnants of a shifting shanty, fan house and oil house from the Gravity Slope Gallery serve as reminders of this area's industrial past, while an abundance of nature and wildlife are prevalent. River otter and beaver habitats are common in this area, and American bald eagles nest along this stretch of trail. The Lackawanna River, an Exceptional Value Watershed, attracts fishermen from across the country. The Laurel Street Trailhead in Archbald features a fishing pier, and this section of trail is a popular launch point for kayaks.

Dickson City AML Pilot Project Area
The Lackawanna Heritage Valley Authority (LHVA)
Dickson City Trail Project
The goal of the LHVA is to transform the entire length of the Lackawanna River into a recreation area by constructing the “Lackawanna River Heritage Trail” that eventually will connect with the Delaware and Lehigh (D&L) Trail in Wilkes Barre.

The LHVA currently has 13 miles of the “Lackawanna River Heritage Trail” constructed with another 4 miles of trail under design and/or construction.
Project Funding Splits

- PA DEP (AML Pilot Funding) $400,000
- PA DCNR: $500,000
- PA DOT: $470,000

Total Project Cost $1,370,000
A 2017 study performed by the LHVA shows that there are approximately 315,000 people that use the existing portions of the “Lackawanna River Heritage Trail” annually.

People that use these LVHA Recreational Facilities will be using local services for everything from food, to gas for vehicles, to some retail services for items that are needed when hiking/biking along trails.

As additional miles of trails are opened for recreational use, and the Lackawanna River Area becomes more of a destination location, it is reasonable to expect businesses like “Bed and Breakfasts” to open.
Project Partners

- Lackawanna Heritage Valley Authority (LHVA) *(Non-Profit)*
- D&L Realty
- Pennsylvania Department of Conservation and Natural Resources (DCNR)
- PennDOT Engineering District 4
- Office of Surface Mining Reclamation and Enforcement (OSMRE)
- Pennsylvania Department of Environmental Protection (PA DEP)
• The trail project is a multi-agency project with the Pennsylvania Department of Transportation (PennDOT) serving as the lead agency.

• The project partners are currently waiting for PennDOT to Bid Project.
Lackawanna College Subsidence Abatement

Lackawanna College acquired several vacant buildings in downtown Scranton to expand the campus as part of their Cornerstone Commons Project. It was subsequently determined that the buildings were undermined and required abatement work to prevent mine subsidence. The College completed a project to address mine voids under a 2-story building and a central courtyard area at 409 Adams Avenue. The AML Pilot Funding will be used for a second phase of the project to address mine voids under a 6-story building at 401 Adams Avenue by drilling and injecting grout into the abandoned underground mine voids.
Lackawanna College Subsidence Abatement

Building and Courtyard Area Stabilized under Phase 1 of the Subsidence Control Project
Lackawanna College Subsidence Abatement

Six Story Building Located at 401 Adams Avenue
Lackawanna College Subsidence Abatement
Welcome to Lackawanna College

Our main campus, located in downtown Scranton, is home to the Seeley Memorial Library, the College’s three student dormitories, the Student Union, and much more. The surrounding attractions in the city offer a wide variety of cultural experiences for our students to enjoy.

Start your college career at Lackawanna and find your future today. Email questions@lackawanna.edu for details.

Map key

A: ANGELO HALL
501 VINE ST., SCRANTON

Ground floor
Admissions
Bookstore
Community Concerts
Forensic classroom
First floor
Administrative offices
Business Office
Developmental Education
Learning Disability Services

Maintenance
Public Safety
Theater offices
Falcon’s Nest

B: WARD HALL
406 N. WASHINGTON AVE., SCRANTON

First floor
Resident Director
Cell

Second floor
Continuing Education
Computer lab

C: HEALEY HALL
415 N. WASHINGTON AVE., SCRANTON

Ground floor
Admissions
Bookstore
Community Concerts
Forensic classroom
First floor
Administrative offices
Business Office
Developmental Education
Learning Disability Services

Maintenance
Public Safety
Theater offices
Falcon’s Nest

D: MCKENZIE HALL
440 WYOMING AVE., SCRANTON

Residence Life
Dorm
Director’s office

E: STUDENTS UNION
500 JEFFERSON AVE., SCRANTON

Athletics offices
Lounge
Fitness center
Student lounge
Gym
Training room

F: TOBIN HALL
VINE ST. AND MADISON AVE., SCRANTON

First floor
Housing
Dorm
Advisor’s office

Second floor
Weight Center for Graduate Medical Education

Rear of building
Student parking

G: CORNERSTONE COMMONS
401 ADAMS AVE., SCRANTON

Coming soon!
Cornerstone Pavilion
Alumni Courtyard

H: CULINARY COMPLEX
109 ADAMS AVE., SCRANTON

Coming soon!
Student dining
New Culinary Arts program home

Indicates local landmark
**Students to be Served Annually in New 401 Complex**

<table>
<thead>
<tr>
<th>Program</th>
<th>Students</th>
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</thead>
<tbody>
<tr>
<td>Main Dining Hall</td>
<td>1,625</td>
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<tr>
<td>School of Culinary and Hospitality</td>
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<tr>
<td>School of Engineering Technology</td>
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<td>Degree Programs Related to Ancillary Industry Growth</td>
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<td>Vocational Technology &amp; Certificates</td>
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<td>Information Technology &amp; Other Related Programs</td>
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<td>Petroleum &amp; Natural Gas</td>
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<td>Continuing Education Institute</td>
<td>820</td>
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<td><strong>Total</strong></td>
<td><strong>3,596</strong></td>
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</table>
This overall expansion by Lackawanna College will create:

- Permanent Full-Time jobs-69
- Permanent Part-Time jobs- 21
- Non- permanent construction jobs- 110
- Indirect positions will also be created-265
- Increasing State Tax base
- Increase student population
Project Partners

- Lackawanna College
- Pennsylvania Department of Environmental Protection
- Office of Surface Mining Reclamation and Enforcement
• The project design is complete.
• The project has been awarded.
• Grouting under the building and common area was scheduled to begin the week of June 3, 2019.
• Project should be completed by the end of June.
CAN DO – North Park Drive Business Park
The AML pilot funding will be used to regrade an area previously impacted by both coal and non-coal mining. A total of 129 acres of previously disturbed area will be regraded to its approximate pre-mining condition for the creation of 7 property parcels to be developed in the CAN DO Industrial Park. It is anticipated that 70-140 permanent full time positions will be created.
OSM 40(0263) 102.1 Can Do North Park Drive 2017 Pilot Project
Hazle Township, Luzerne County

Project Area
198 Acres

Fill Area
Approx. 53 acres

Borrow Area
Approx. 76 acres
Project Location
Significant Benefits

• Development of 7 property parcels on currently unproductive land.
• Creation of up to 140 permanent full time positions.
• Reduction of hazards associated with previous mining.
• Expansion of industrial development to an economically depressed region in the anthracite coal fields.
Project Partners

• Pennsylvania Department of Environmental Protection.
• CAN DO Inc.
• Office of Surface Mining Reclamation and Enforcement.
• Private Landowner.
The design is expected to be completed by June 15, 2019.

Bid documents are also being finalized, and it is anticipated that the project will be advertised for bids on July 8, 2019.

Bid opening and award should occur in early August with construction to begin shortly thereafter.
The AML pilot funding and Title IV AML funding, will be used to reclaim 150 acres, with 650 feet of dangerous highwall acres of dangerous mine spoil pile acres of industrial/residential waste, a mine shaft, and five (5) hazardous structures. A 30-acre portion of the overall project lies within CAN DO, Inc.’s future Cranberry Creek Gateway Project. On this 30-acre portion, the shaft will be backfilled and the hazardous structures will be demolished. Clean fill debris from the demolition work will be placed in a former coal silt basin and covered with mine spoil and topsoil to prepare for the future development of a community ballfield complex.
Hollars Hill South AML-Cranberry Creek Gateway Project

Wash House

Concrete Structures

Future Cranberry Creek Gateway Park
Hollars Hill South AML-Cranberry Creek Gateway Project

Dangerous Highwall with Unauthorized Dumping

Dangerous Pile & Embankment
Hollars Hill South AML-Cranberry Creek Gateway Project
Hollars Hill South AML-Cranberry Creek Gateway Project
Significant Benefits

- Reclamation of 150 acres of Abandoned Mine Land (AML).
- Elimination of dangerous AML features
- The future community ballfield complex
- Creating job and housing opportunities with the development of the remainder of the proposed 366-acre Cranberry Creek Gateway
Project Partners

• Greater Hazleton CAN DO, Inc.
• Pagnotti Enterprises Inc.
• Office of Surface Mining Reclamation and Enforcement
• Pennsylvania Department of Environmental Protection
Project Partners

• Greater Hazleton CAN DO, Inc.

• Office of Surface Mining Reclamation and Enforcement

• Pennsylvania Department of Environmental Protection
Current Status (as of May 22, 2019)

- In house design progressing
- Original project cost estimate: $5.1 million ($1.0 million AML Pilot program Funding)
- Current project cost estimate: $7.2 million ($2.9 million AML Pilot Project Funding)
- Only part of the original project was eligible for AML Pilot Funding. A developer is finalizing the purchase of the entire property and working with the municipality to change zoning of the site which would make the project 100% eligible for AML Pilot Funding. Additional cost due to compaction requirement to support post-reclamation development.
- Anticipate that project will be bid in winter 2019/20.
The AML Pilot Funding, in combination with other funding, will be used to complete the Bliss Bank 3 Project (55 acres) and will bring natural gas, water, and sanitary sewer services to the entire Earth Conservancy Bliss Bank Development (+220 acres). Bliss Bank 3 will abate 1,200’ of dangerous highwalls and spoil areas. NorthPoint Development is working with Earth Conservancy to market the site and estimate this project will result in over 1,000 permanent full time positions.
Earth Conservancy Bliss Bank 3 Business Park

HANOVER RIDGE // Masterplan

- LEASED: 2,000,000 SF
- JOBS: 2,100 - 2,600

Under Negotiation with Large National Companies
Highwall to be backfilled as part of the Bliss Bank 3 Project
One of the spoil areas to be used to reclaim the dangerous highwall
Significant Benefits

• Reclamation of 55 acres of AML, of the overall 220-acre Bliss Bank project, which allows the site to be developed
• Nationwide companies potentially coming to the area
• Creation of over 1,000 permanent full-time positions
• Provides reclamation for a section of Espy Creek.
Project Partners

• Earth Conservancy (Land owner, Non-profit)
• NorthPoint Development Real Estate
• Office of Surface Mining Reclamation and Enforcement
• Pennsylvania Department of Environmental Protection
• The project is under construction (work began in mid-May)
• Two invoices have been paid totalling $97,698.45 (3.2%)
Project Construction – Clearing and Grubbing
Project Construction – Clearing and Grubbing
The Swoyersville coal refuse pile is an abandoned coal refuse pile and associated coal silt basins from the long-abandoned Harry E colliery and coal breaker. The entire Swoyersville refuse site encompasses approximately 55 acres containing approximately 4 million +/- cubic yards of coal refuse and waste rock material. Approximately 2.8 million +/- cubic yards of the refuse material is anticipated to be usable as fuel for electric cogeneration facilities that utilize waste coal. The project proposed for funding with AML Pilot Program funding will result in the complete reclamation of 7.5 acres of AML at the Swoyersville refuse pile site. 7.5 acres will be transferred to Swoyersville Borough for the development of community recreational facilities.
Keystone Reclamation Fuel Management LLC has long range plans to reclaim the entire Swoyersville coal refuse pile which would ultimately restore 55 acres of AML which could all be used for industrial/commercial/recreational development within Swoyersville Borough. The coal material will be removed from the site using a Government Financed Construction Contract (GFCC). The overall project will also help to improve water quality in the Abrahams Creek Watershed and reduce flooding by restoring/improving areas of floodplain along Abrahams Creek. The community recreational facilities will provide for recreational opportunities for all residents of Swoyersville and the surrounding area.
Swoyersville Refuse Pile – Future Reclamation and Development Area
Significant Benefits

• 7.5 acres of developable recreation property for Swoyersville Borough
• Reclamation of high priority AML features
• Removal of the coal material may decrease Acid Mine Water Drainage from onsite
• Development of the sports complex will draw more people to the Borough and surrounding area to positively impact the community
• Ability for the Borough to host multiple sports activities for different organizations at the same time
Project Partners

- Keystone Reclamation Fuel Management LLC (Olympus Power/Northampton Fuel)
- Swoyersville Borough
- Pagnotti Enterprises Inc.
- Foundation for PA Watersheds
- Office of Surface Mining Reclamation and Enforcement
- PA. Department of Environmental Protection
Current Status (as of May 28, 2019)

- Grant awarded to the Eastern Pennsylvania Coalition for Abandoned Mine Reclamation (EPCAMR).
- Project Start Date: October, 2018
- Scheduled Project Completion Date: October 31, 2023
- Current Status: Under construction, two invoices paid to date totaling $202,136.85 (about 5% of the grant)
Project Construction
Loader loading a Triaxle with Refuse Material
The AML Pilot funding, in combination with other funding, will be used to remove 90,000 cubic yards of coal silt on approximately 10 acres clogged stream land. The coal silt material will be transported to Stoudt’s Ferry Preparation Company’s Auburn facility where it will be processed and sold. Funding will also be used to create a missing portion of trail within the Schuylkill River Trail Network involving the reconditioning of an abandoned railroad bridge and the conversion of access roads into trails.
Porter Floodplain Restoration Project Location
Porter Floodplain Restoration Project

- Auburn Borough
- Auburn Trail Head
- AML Pilot Funding Proposed Trail
- Hamburg Trail Head
- Porter Floodplain Restoration Project Location
- Stoudt's Ferry Processing Facility
• The Schuylkill River Trail (SRT) attracts over 2.0 million hikers, bikers, and other pedestrians every year to southeastern Pennsylvania for recreational and commuting purposes

• Approximately 65,000 people annually use the SRT in Schuylkill County
Abandoned Railroad Bridge to be Restored
The Porter Floodplain Project will have significant benefits, including:

- Reclamation of 10 acres of AML facilitating the extension of the Schuylkill River Trail Network by creating the missing section of trail between the Auburn and Hamburg Trail heads
- Improved/restored water quality in the Schuylkill River
- Improved opportunities for fishing, hiking, and sightseeing
- Increased tourism to the area
Economic Benefits

• According to an independent study, the Schuylkill River Greenway generates $589.9 million in economic impact, supports 6,154 jobs, and generates $37.7 million in tax revenue, mostly through tourism.

• The 2009 annual economic benefit of the entire Schuylkill River Trail was $7,313,000 million, the year following the Great Recession's beginning.

• SRT expansion will continue to increase this economic benefit.
Economic Benefits

• Economic studies show that properties values adjacent to and in the vicinity of trails significantly increase once a trail is installed, and especially when that trail is connected to a greater trail system.

• Trail users spend an average $273 per year on hard goods (bikes, shoes, clothes) plus an additional $16.30 on food and drinks per visit.
Connecting the Schuylkill River Trail between Schuylkill County and Berks County will generate considerable revenue for the local economy, providing economic benefit to a region still trying to recover from the loss of its major manufacturers, a 24.3% unemployment rate for ages 20-24, and a decrease in the use of the County's native product, coal.
Project Partners

- Kenneth & Jeanne Porter (Landowners)
- Schuylkill River Headwaters Association
- Schuylkill River Greenways National Heritage Area
- County of Schuylkill
- Foundation for PA Watersheds
- Stoudt’s Ferry Preparation Company
- Reading Blue Mountain & Northern Railroad
- William Penn Foundation
- Exelon Corporation
- PA DCNR
• Work on excavating and hauling coal refuse from the site began in the winter of 2018.
• The contractor has invoiced $120,000 for the excavation and hauling of the coal refuse.
• The contractor estimates the excavation and hauling portion of the project is 15% completed.
• Easements for the trail have been completed.
• Trail design contracts have been executed.
• OSMRE completed a site inspection of the project on May 16, 2019.
Project Construction
Donaldson Culm Bank Stream Restoration
The AML Pilot funding, in combination with other funding, will be used to remove coal waste along Good Spring Creek that is designated as a clogged stream land. This restoration project will create a more natural, sinuous 4,600 feet long stream channel and constructing nearly 18 acres of floodplain and wetlands. Usable coal material will be transported to a local power generation plant. Poor quality material will be placed into nearby AML mining pits. The restored site will be utilized as a environmental park by the local township.
Donaldson Culm Bank along Good Spring Creek
Donaldson Culm Bank Stream Restoration

Donaldson Culm Bank Project Limits

Village of Donaldson

Good Spring Creek
Donaldson Culm Bank Stream Restoration

Conceptual Plan

Approach:
- Minimize flood induction, sediment capture and water quality benefits by avoiding continuous riparian floodplain
- Minimize flood induction and sediment trapping within the project area, channelling water and solvents into the wetland. Avoiding uncontrolled water and solvents within the project area.
- Minimize flood induction within the project area.

Floodplain Restoration Masterplan - Concept #2
March 2013
Tinicum, PA

Floodplain Restoration Masterplan - Concept #2

Devil's Hole

Floodplain Restoration Masterplan - Concept #2
March 2013
Tinicum, PA

102 North Street, | Tinicum, PA 18274 | www.landstudies.com

Section View A

Scale: 1" = 0'0'0'
The Donaldson Culm Bank Stream Restoration project will have significant benefits, including:

• Improved water quality in Good Spring Creek
• The filled strip pits can be utilized for future commercial businesses
• Higher quality coal will be used as a source of energy at a local power generation plant
• Nature trails will be implemented after construction is finished
• Significantly reduce the potential of downstream flooding during high water events
Project Partners

- Schuylkill County Conservation District
- Frailey Township
- Natural Coal Company
- YZ-05, Inc.
- Schuylkill Economic Development Corporation
- Foundation for PA Watersheds
- Rausch Creek Lands LP
- Rausch Creek Generation
- Williams Companies, Inc.
- PA Department of Community and Economic Development
- PA DEP and OSMRE
The Phase 1 construction contract of the project funded by Growing Greener and the Commonwealth Financing Authority has been completed. This phase restored the floodplain in the eastern section of the overall culm bank.

Phase 2 of the project funded by AML Pilot Program funding has been invoiced for $14,210.79 for the installation of a gate and township road shoulder improvements.

The grantee has advertised for bids for the excavation and hauling of the refuse material (Phase 2 – AML Pilot Project Phase) with a bid opening date of June 11, 2019.

OSMRE completed a site inspection on April 10, 2019.
The AML Pilot funding will be used for a pass-through grant to South Sandy Creek Watershed Association to excavate 200,000 tons of acid forming material consisting of coal refuse & coal fines. The excavated material will be transported to Scrubgrass Generating Plant, an 85-megawatt generating facility fueled by bituminous waste coal. A portion of the resulting alkaline flyash byproduct will be returned to the site, blended with existing on-site soil & used to remediate the site.
Scrubgrass Generating Station

- 87 megawatt generating facility
- Fueled by bituminous waste coal
- Electricity sold to Pennsylvania Electric Co. (Penelec)
- Generating plant employs over 50 people
- Contributes more than $6.5 million per year to the local economy through payroll and purchases of local goods and services
- Entered commercial service in June 1993
TASA Refuse Piles (Venango #1) Reclamation Plan

- Acid forming material to be removed
- UNT Williams Run
- Limestone drain
- UNT South
- Sandy Creek
Significant Benefits

- A major source of AMD pollution to unnamed tributaries to South Sandy Creek & Williams Run will be eliminated, resulting in approximately 13 miles of stream improvement.
- Scrubgrass Generating Plant will receive an economic boost that will enable the company to employ over 100 individuals & continue to reclaim additional refuse piles in Pennsylvania.
• Landowners will be able to lease reclaimed land for agricultural use.
• 5 hazardous abandoned mine structures will be removed from the site.
• Long-term improvement of the regional groundwater table will improve the water chemistry for two residential drinking water wells.
Project Partners

- South Sandy Creek Watershed Association
- Scrubgrass Generating Plant
- Tom Anderton, landowner
- Leftover Fuels, Inc., landowner
- Pennsylvania Department of Environmental Protection
- Office of Surface Mining Reclamation and Enforcement
Current Status (as of May 29, 2019)

• Project Start Date: June 4, 2018

• Approximately 55,000 tons of material removed to date.

• $1,018,579.69 paid out to date.
Black Dog Hollow/Fredericktown Coal Refuse Pile Reclamation Project
The AML pilot funding, along with other funding sources, will be used to complete reclamation of the abandoned Fredericktown Coal Refuse Pile which is located within 500 feet of sixty homes. The 45 acre coal refuse pile, which is 90 feet high with steep, unstable slopes and severely eroded channels, will be regraded to create more stable slopes, compacted, and capped with clean alkaline fill to allow for successful revegetation and future development of the site.
Black Dog Hollow/Fredericktown Coal Refuse Pile Reclamation Project
Significant Benefits

• Elimination of the health and safety hazards and environmental impacts of this coal refuse pile including:
  – Severe on-site erosion and off-site sedimentation issues in the Village of Fredericktown and the Monongahela River Watershed
  – Reduced acid mine drainage laden runoff
  – Slope stability and hazardous erosion gullies
  – Unauthorized recreational use by ATVs
  – Elimination of several hazardous facilities situated on the refuse pile
Significant Benefits

- Restoration of 45 acres of barren undevelopable land situated in the Village of Fredericktown in East Bethlehem Township
- Recreational development through construction of recreational and greenspace public park
- Improved quality of life for local residents
- Improved recreational opportunities
- Increased tourism
- Possible future industrial development
- Water quality improvement
Project Partners

- East Bethlehem Township
- Landowner, Hobo Ventures, Inc.
- Pennsylvania Department of Environmental Protection
- Office of Surface Mining Reclamation and Enforcement
10-05-2018 – Project Design Completed.
10-19-2018 – Advertised for Bids.
11-16-2018 – Bids Opened. Bid range: $4,797,879 to $6,792,280.
12-06-2018 – Construction contract awarded to Earthmovers Unlimited, Inc. of Kylertown, PA at their total bid amount of $4,797,879.
01-18-2019 – Official Notice to Proceed sent to the contractor.
02-01-2019 – Preconstruction job conference held at the Fredericktown fire hall.
02-02-2019 – Official start of construction date. The contractor has 600 calendar days to complete all reclamation work.
05-20-2019 – NPDES Construction Stormwater Permit application submitted by the contractor.
For more information about the AML Pilot Program in Pennsylvania, visit: www.pa.gov/AML