



Planning and Implementation of the 2018 AML Pilot Program in Pennsylvania

Tom Wolf, Governor

Patrick McDonnell, Secretary

AML Pilot Program Background

- The 2018 AML Pilot Program was authorized by Congress under the Consolidated Appropriations Act, 2018 (Public Law 115-141) and provides an additional \$25 million of U.S. Treasury Funds to PA's AML Program
- The funds are to be used “to accelerate the remediation of AML sites with economic and community development end uses”

Continuation of the AML Pilot Program

- This is the third year that Pennsylvania has received funding from the AML Pilot Program
- In FY2018 Pennsylvania along with Kentucky and West Virginia, each received \$25 million of AML Pilot Funding; Ohio, Alabama, and Virginia each received \$10 million; and the Hopi, Navajo, and Crow Indian Tribes each received \$3.33 million
- In FY2017 Pennsylvania along with Kentucky and West Virginia, each received \$25 million of AML Pilot Funding, and Ohio, Alabama, and Virginia each received \$10 million
- In FY2016 Pennsylvania, along with Kentucky and West Virginia, also each received \$30 million of AML Pilot Funding

Language from OSMRE Guidance for the 2018 AML Pilot Program

“State/Tribal AML Programs, in consultation with State/Tribal, local economic and community development authorities, must develop eligible projects that demonstrate a nexus with AML land and water reclamation, and economic and community development.”

Language from OSMRE Guidance for the 2018 AML Pilot Program

- “The AML Pilot Program offers a non-traditional approach to the reclamation of impacted mine lands. A uniform approach is not expected in every State/Tribe.”
- “The AML Pilot offers States, Tribes, and local communities flexibility in deciding which projects offer the greatest opportunities within their communities.”

Use of AML Pilot Program Funds

- States, Tribes, and local communities have the flexibility to use AML Pilot funds for both the reclamation of impacted lands and waters and brick and mortar needs related to the end-use development project
- The Pilot Program offers maximum flexibility in this regard, letting States, Tribes, and local communities balance the needs of an individual project with the ability to fund other priority Pilot projects

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 29 proposals which were evaluated using the OSMRE 2018 AML Pilot Program Guidance and also for project costs and benefits

Proposed AML Pilot Projects

- From the proposals PA selected a wide variety of project types with a variety of possible economic or community development benefits and partners
- DEP initially targeted 15 proposed AML Pilot Projects (nine Bituminous and six Anthracite) which are located in 16 coal field counties (Note: 2 of the projects are located in multiple counties)
- Two (2) contingent projects were also identified should any of the primary projects experience issues or delays (Update: These projects have been funded due to two projects being suspended)

AML Pilot Program Proposed Projects

- Vetting documents were submitted to OSMRE for all 15 of the initially proposed 2018 AML Pilot Projects by January 18, 2019
- OSMRE reviewed the proposed projects during February 2019 and provided feedback along with requests for additional information for a few of the projects during February and March of 2019
- OSMRE indicated that the list had been fully vetted and approved on May 29, 2019

AML Pilot Program Proposed Projects

- Due to issues with project partners, two (2) of the original fifteen (15) approved AML Pilot projects had to be suspended
- As a result, documentation for the two (2) contingent projects was submitted to OSMRE for vetting approval on May 3, 2019
- OSMRE indicated that the two additional projects had been fully vetted and approved on July 30, 2019

AML Pilot Program Guidelines and Grant Application Timelines

- AML Pilot Program Guidance for the 2018 AML Pilot funding was issued by OSMRE on September 14, 2018
- PA submitted its 2018 AML Economic & Community Development Pilot Program Grant Application to OSMRE on November 1, 2018 (to make the funding available for projects)
- PA's AML Pilot Program Grant Application was approved by OSMRE on November 19, 2018 with a period of performance of December 1, 2018 to November 30, 2021

PA's Plan for the AML Pilot Funding

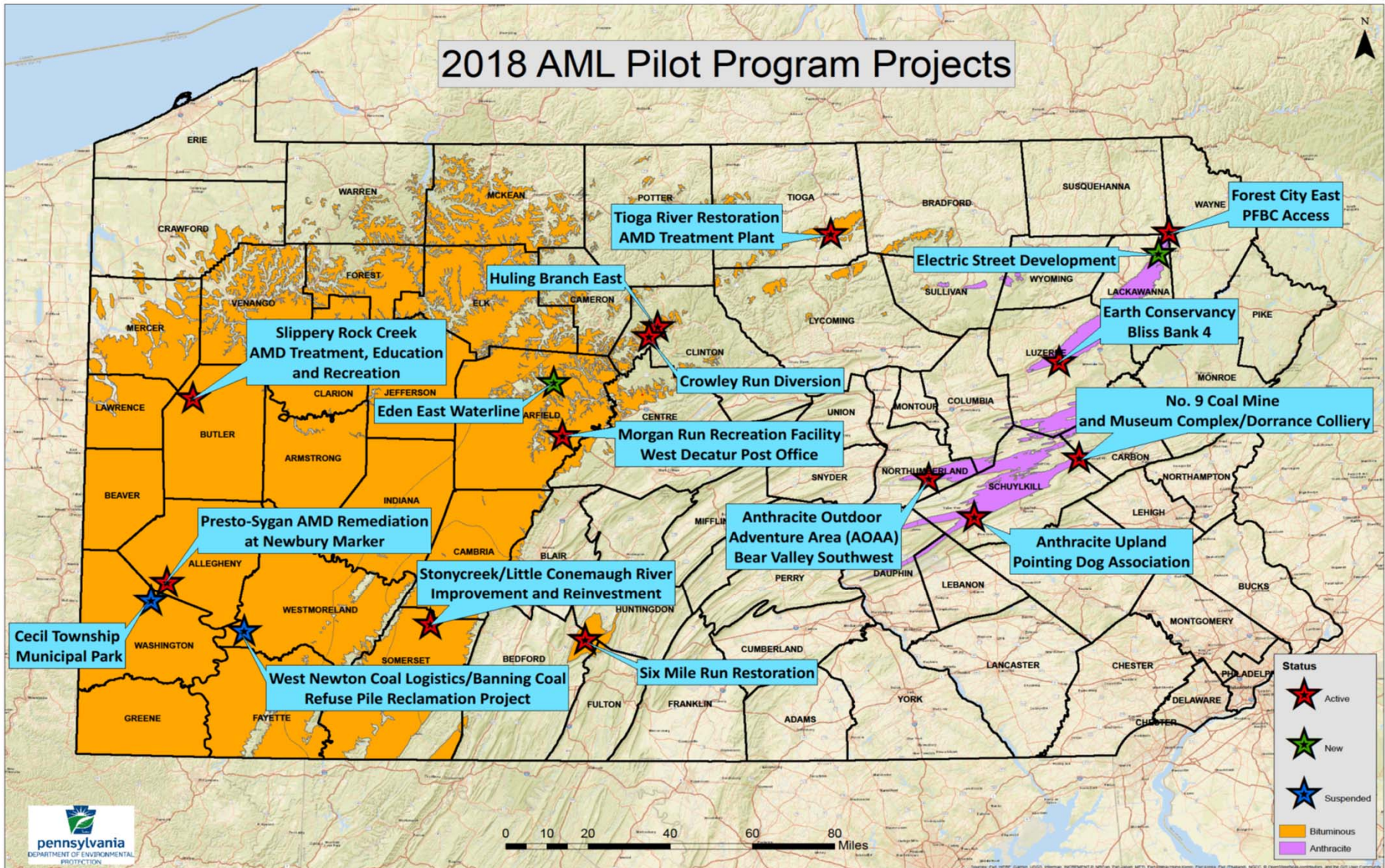
- PADEP-BAMR will allocate the majority of the AML Pilot Program funds for the reclamation of SMCRA Title IV eligible AML and AMD problems
- Project partners will then work to fund and complete non-AML economic development aspects of the projects

AML Pilot Project Types

The 15 AML Pilot Projects being funded include:

- 5 surface mine reclamation projects
- 6 AMD treatment or remediation projects
- 2 coal refuse/culm bank remediation projects
- 1 water supply replacement project
- 1 historic mining preservation project to move two historic mine fans and other artifacts to a mine museum

2018 AML Pilot Projects Location Map



Significant Benefits

In addition to eliminating a number high-priority AML/AMD features, benefits of the projects include:

- Reforestation and restoration of public lands
- Construction of ATV Trails on public lands
- Significant stream thermal and water quality improvement including restored fisheries
- Expansion of an existing industrial/business park
- Restoration of a historic one-room schoolhouse for environmental education and eco-tourism
- Creation of a hunting dog skills competition facility including wild bird habitat restoration

Significant Benefits

- Increased tourism through construction of a boat access and public trail development
- Extension of a municipal waterline to provide potable water service to 38 households
- Creation of a unique recreational opportunity through construction of an extreme jeep crawling trail to enhance a large public outdoor recreation area
- Expansion of a local mine museum complex through preservation and display of two unique and historic mine fans and associated components.

Leveraging of Funds

These 15 proposed AML Pilot Projects have the potential to leverage up to an additional \$2.50 for every \$1 of AML Pilot Program funding from other AML/AMD funds and/or economic development funds (both public and private).

Pennsylvania's 2018 AML Pilot Projects

Project Name	Primary AML or AMD Project Type	Municipality	County	Estimated Cost	2018 AML Pilot Funding
Presto-Sygan AMD Remediation at Newbury Market	AMD Treatment or Remediation	South Fayette Township	Allegheny	\$5,000,000	\$1,492,000
Six Mile Run Restoration	AMD Treatment or Remediation	Broad Top Township	Bedford	\$380,000	\$350,000
Slippery Rock Watershed: AMD Treatment, Education and Recreation Project	AMD Treatment or Remediation	Brady, Venango and Washinton Townships	Butler	\$1,403,215	\$1,077,000
No. 9 Coal Mine and Museum Complex/Dorrance Colliery	Mining History Preservation	Borough of Lansford	Carbon	\$2,000,000	\$1,000,000
Eden East Waterline	Municipal Waterline Extension	Goshen and Girard Townships	Clearfield	\$4,300,000	\$2,660,440
Morgan Run Recreational Facility - West Decatur PO	Surface Mine Reclamation	Boggs Township	Clearfield	\$500,000	\$500,000
Crowley Run Diversion	AMD Treatment or Remediation	Noyes Township	Clinton	\$2,000,000	\$1,000,000
Huling Branch East	Surface Mine Reclamation	Leidy and Noyes Townships	Clinton	\$5,000,000	\$3,000,000

Pennsylvania's 2018 AML Pilot Projects

Project Name	Primary AML or AMD Project Type	Municipality	County	Estimated Cost	2018 AML Pilot Funding
Electric Street Development	Surface Mine and Culm Bank Reclamation	Carbondale Township and City of Carbondale	Lackawanna	\$3,000,000	\$1,500,000
Earth Conservancy Bliss Bank 4	Surface Mine Reclamation	City of Nanticoke and Hanover Township	Luzerne	\$2,500,000	\$2,500,000
Anthracite Outdoor Adventure Area (AOAA) / Bear Valley SW	Surface Mine Reclamation	Coal Township	Northumberland	\$12,000,000	\$2,500,000
Anthracite Upland Pointing Dog Association	Surface Mine Reclamation	Tremont Borough	Schuylkill	\$1,000,000	\$450,000
Stonycreek Little Conemaugh River Improvement and Reinvestment Project	AMD Treatment or Remediation	Shade, Jenner, Quemahoming, and Jackson Townships, Central City Borough, City of Johnstown, and South Fork Borough	Somerset and Cambria	\$10,000,000	\$1,895,000
Forest City East - PFBC Access	Surface Mine and Culm Bank Reclamation	Forest City Borough and Clinton Township	Susquehanna and Wayne	\$2,000,000	\$1,500,000
Tioga River Restoration/AMD Treatment Plant	AMD Treatment or Remediation	Hamilton Township	Tioga	\$12,000,000	\$4,000,000

Presto-Sygan AMD Remediation at Newbury Market



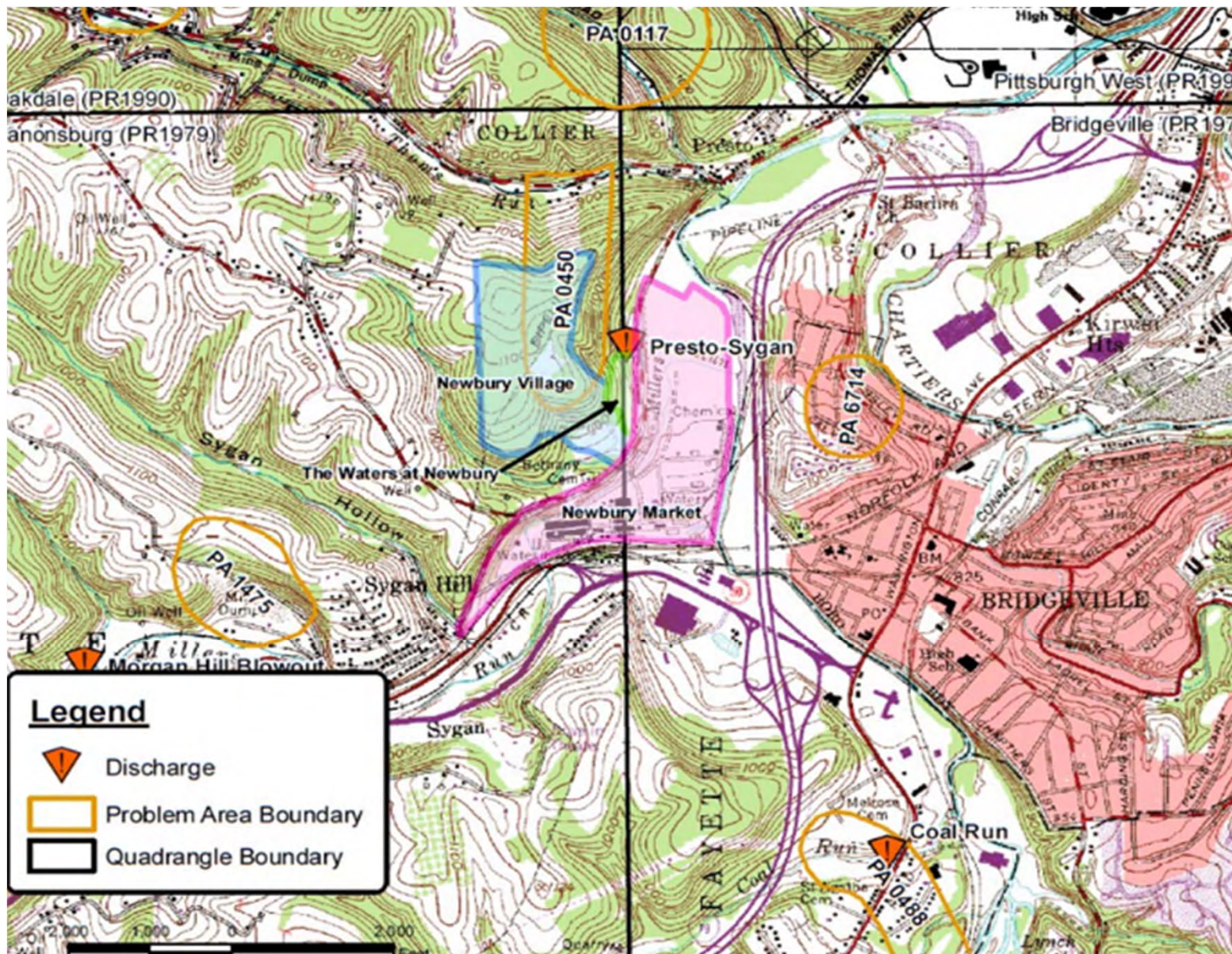
Presto-Sygan AMD Remediation at Newbury Market

- The Presto-Sygan discharge is one of the most pollutive discharges in Chartiers Creek Watershed. The mine water is contaminated with aluminum hydroxide giving it a white, milky look. This suggests that low-pH, Al-contaminated waters are mixing with flows of alkaline water within the mine near the discharge point.
- Compared to the other discharges in the watershed, Presto Sygan was the most variable in flow, 175 -775 gpm, and chemistry; acidity of 19-261 mg/L and Aluminum of 8 – 19 mg/L. The iron and manganese content of the mine drainage is somewhat more stable but averages 40 mg/L of iron and 1.4 mg/L of manganese.

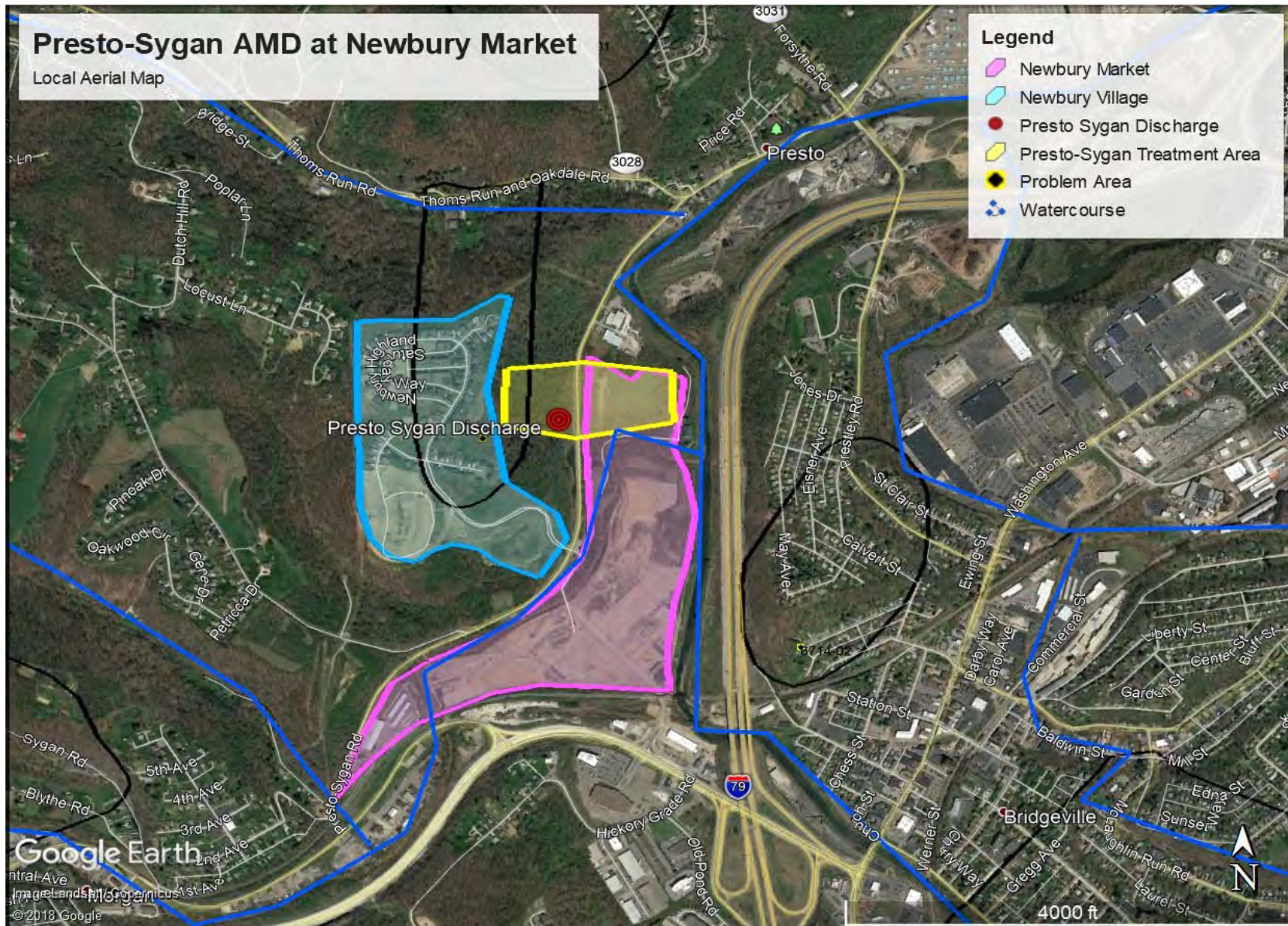
Presto-Sygan AMD Remediation at Newbury Market

- The AML Pilot funding, in combination with other funding, will be used to complete the Presto-Sygan Passive Treatment System (PTS).
- Designed with two 8,500 ton auto-flushing limestone only vertical flow ponds (VFP's), a settling pond, and a large aerobic wetland. The total project cost of constructing the treatment system is \$1,556,944 in which \$64,944 has already been provided by other grants and money sources. Leaving the grant amount at \$1,492,000.
- The construction of the PTS is being paired with the development of the Newbury Market, a \$500 million, multi-use redevelopment of a former industrial facility that was in operation from 1928 to 1995

Presto-Sygan AMD Remediation at Newbury Market



Presto-Sygan AMD Remediation at Newbury Market

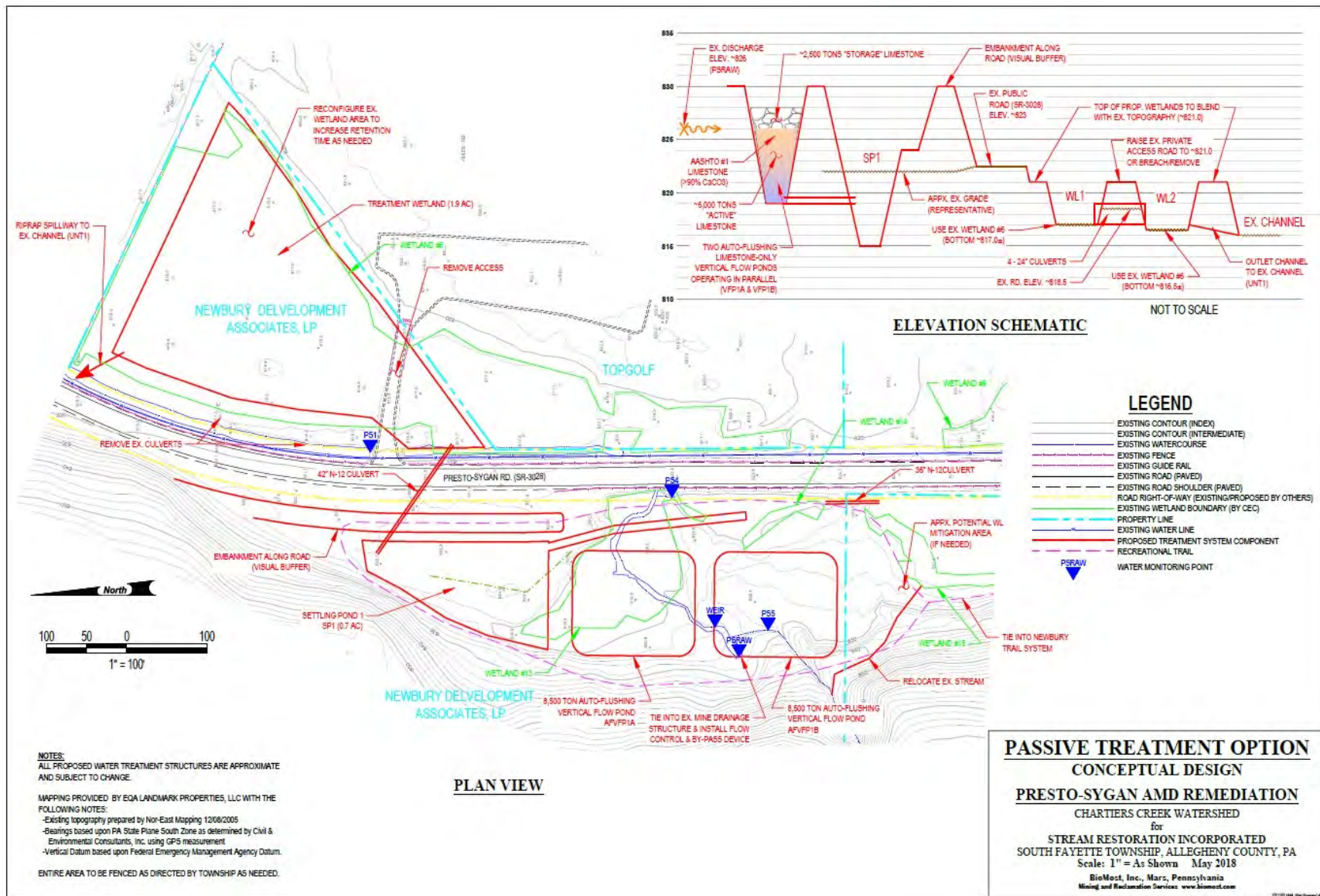


Presto-Sygan AMD Remediation at Newbury Market



Presto-Sygan Discharge: 650 gpm, 5.5 field pH, 38 mg/L Total Fe, 13 mg/L Total Al

Presto-Sygan AMD Remediation at Newbury Market



Significant Benefits

- The removal of the Presto-Sygan discharge is an integral and necessary part of restoring the quality of the Chartiers Creek watershed. Aluminum is particularly toxic to aquatic wildlife and the concentrations emanating from this deep mine are more than enough to cause dead zones within Chartiers Creek.
- The area in which the project is proposed is currently not used for any type of public use or recreation and remains unused for any specific purpose. However, with the construction of the passive treatment system a hiking trail will be maintained to enhance recreational opportunities at the development site.

Significant Benefits

- Seven (7) miles of new local roads, including several new bridges are to be constructed.
- Over 10,000 linear feet of new sanitary sewer mains.
- Over 12,000 linear feet of new water and gas mains.
- \$10 million+ worth of improvements to the existing local and state highway infrastructure.
- **Generation of jobs!** Approximately 5,800 full time and 630 permanent jobs indirectly created through support/supplier industries and approximately 820 non-permanent jobs directly created through construction jobs. With the creation of these jobs the tax generation is estimated to be over \$64 million.

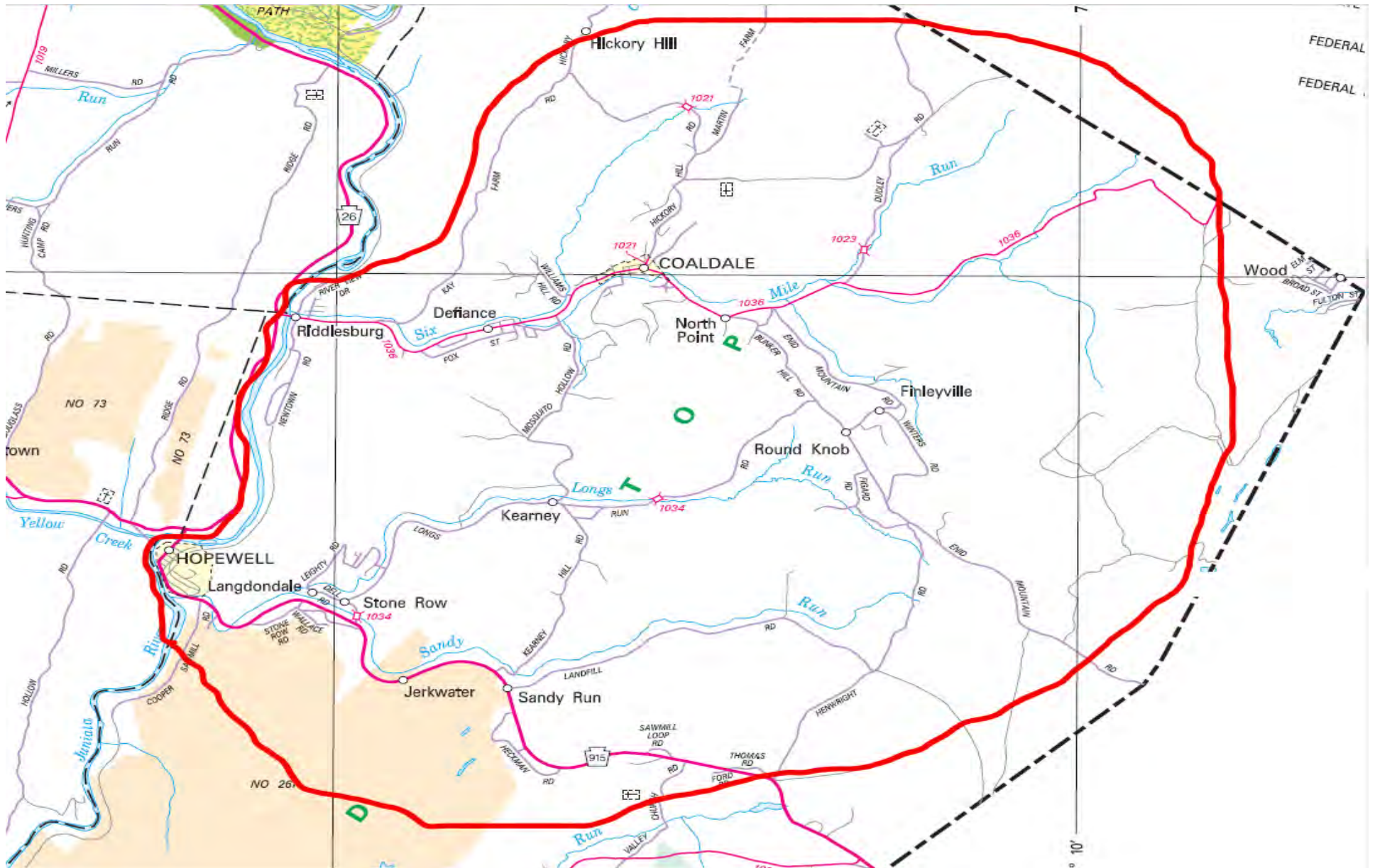
Project Partners

- Stream Restoration, Inc.
- BioMost, Inc.
- Newbury Development Associates
- Chartiers Nature Conservancy
- Quality Aggregates, Inc.
- Office of Surface Mining Reclamation and Enforcement
- PA Department of Environmental Protection

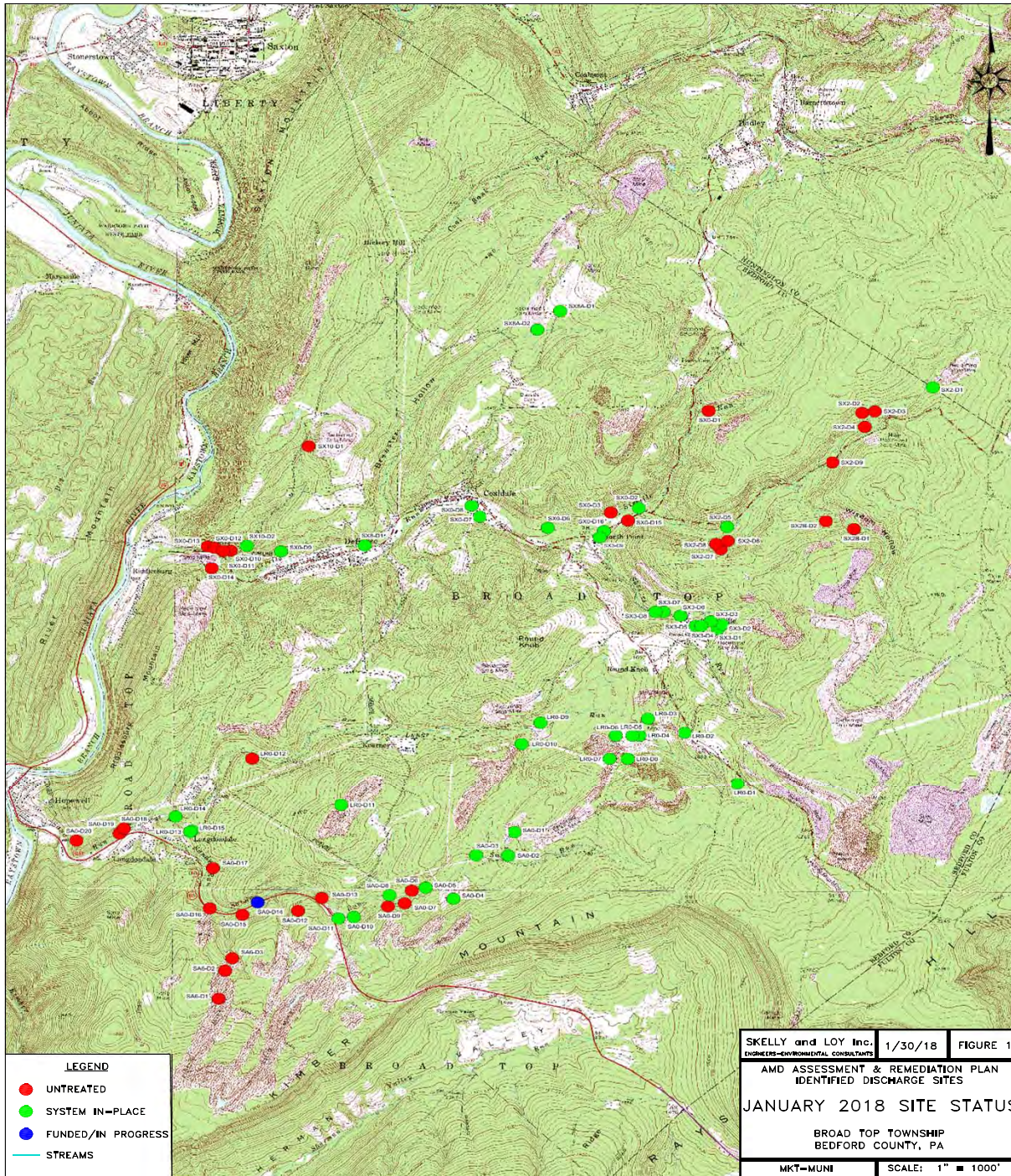
Six Mile, Longs Run/Sandy Run Watersheds

The AML Pilot Funding, in combination with Match Money, will be used to perform crucial maintenance on 35 existing passive treatment systems located in Broad Top Township, Bedford County. Combined, the existing passive treatment systems remove 222 pounds per day of iron, 207 pounds per day of aluminum, and 2,145 pounds per day of acidity. They have restored 14.5 miles of stream to warm water fisheries – migratory fishes with young of the year trout now present in Six Mile Run. The project will sustain three full-time employee positions.

Six Mile, Longs Run/Sandy Run Watersheds



Broad Top Township Passive Treatment Systems



Existing AMD Discharge on Six Mile Run



Passive Treatment System SX 10D2



Passive Treatment SX 10D2 Settling Pond



Significant Benefits

- Sustains over 14.5 miles of stream which have been restored to WWF-MF fishery.
- Supports three full-time positions.
- Sustains Longs Run removal from the 303(d) list in 2014.
- Moves Six Mile Run Watershed closer to delisting.
- Restored streams provide \$581,900.00 in economic benefit through recreation.

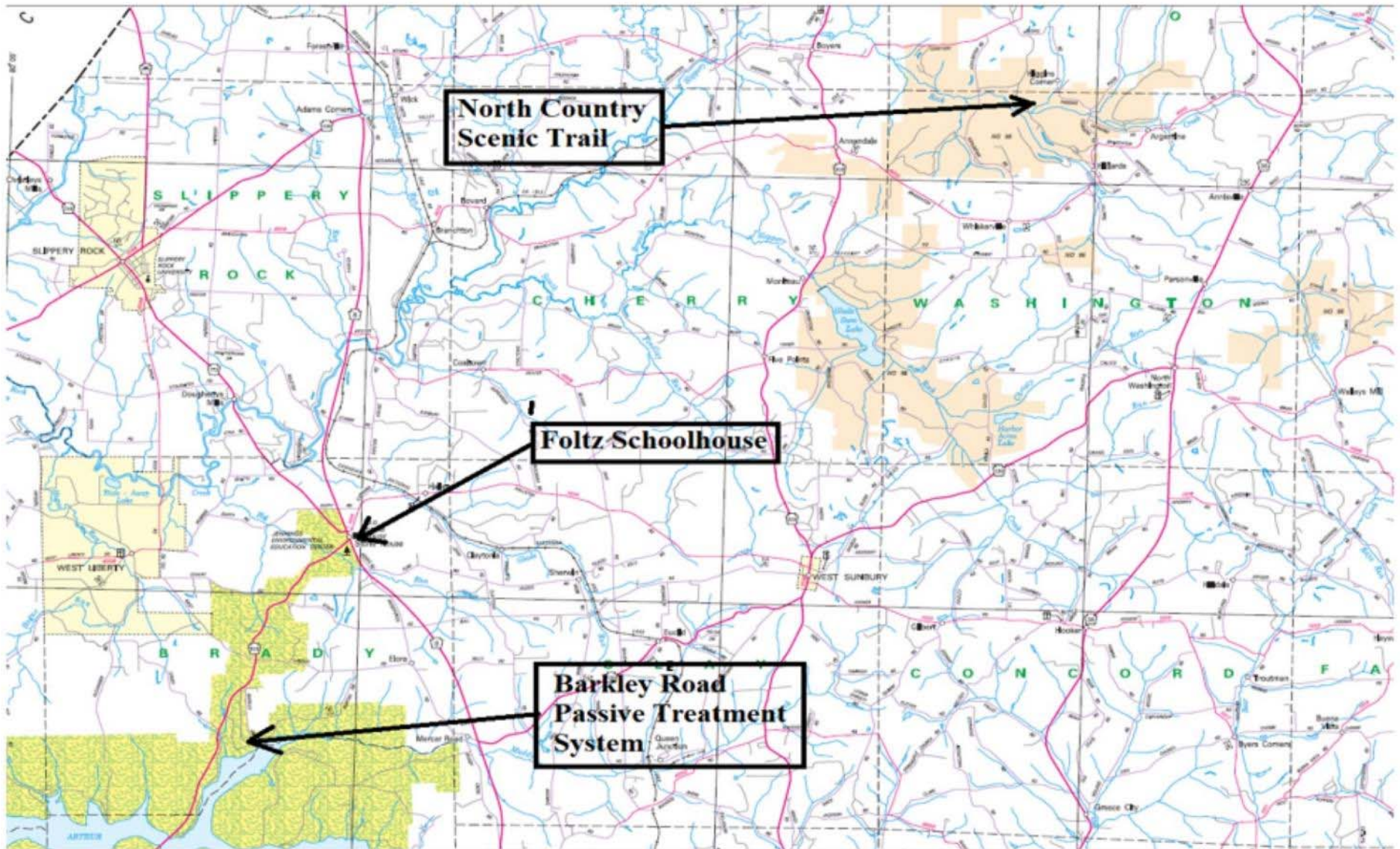
Project Partners

- Six Mile Run Watershed Committee
- Bedford County Conservation District
- Broad Top Township
- S. Alleghenies Planning & Development Commission
- Skelly and Loy, Inc.
- Bedford County Commissioners
- Trout Unlimited
- Office of Surface Mining, Reclamation and Enforcement
- PA Department of Environmental Protection

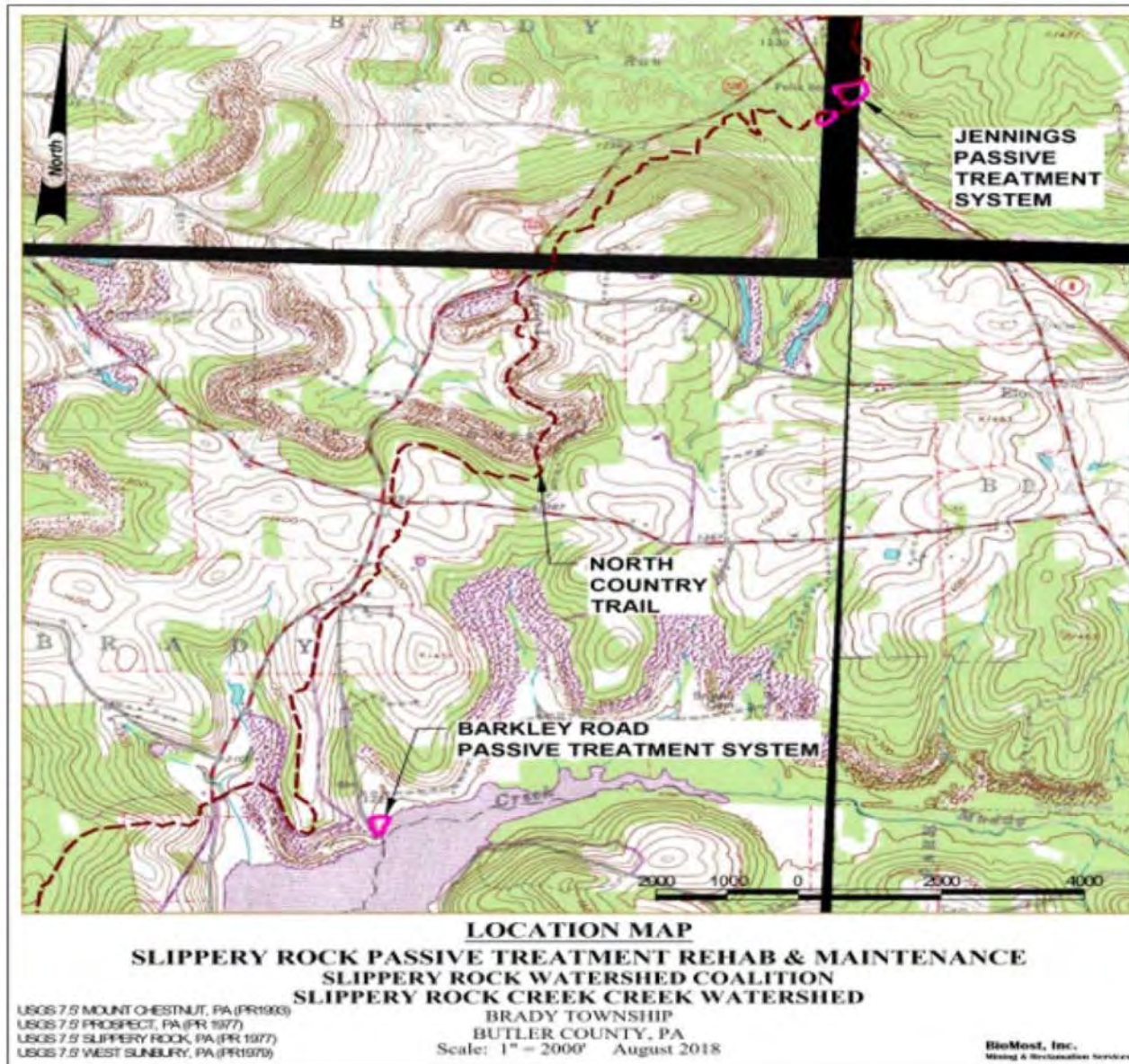
Slippery Rock Watershed Project

The AML Pilot Funding, in combination with Growing Greener and Match Money, will be used to perform crucial maintenance on five existing passive treatment systems located in Brady and Washington Townships, Butler County. Additionally, the project will enhance educational, recreational, and tourism activities by restoring the Foltz Schoolhouse (part of the Jennings Environmental Educational Center) and provide significant repairs to bridges and trails on the North Country National Scenic Trail System.

Slippery Rock Watershed Projects



Slippery Rock Watershed Project



Jennings Environmental Ed. Center



Foltz Schoolhouse Restoration



s, a



North Country Scenic Trail Maintenance



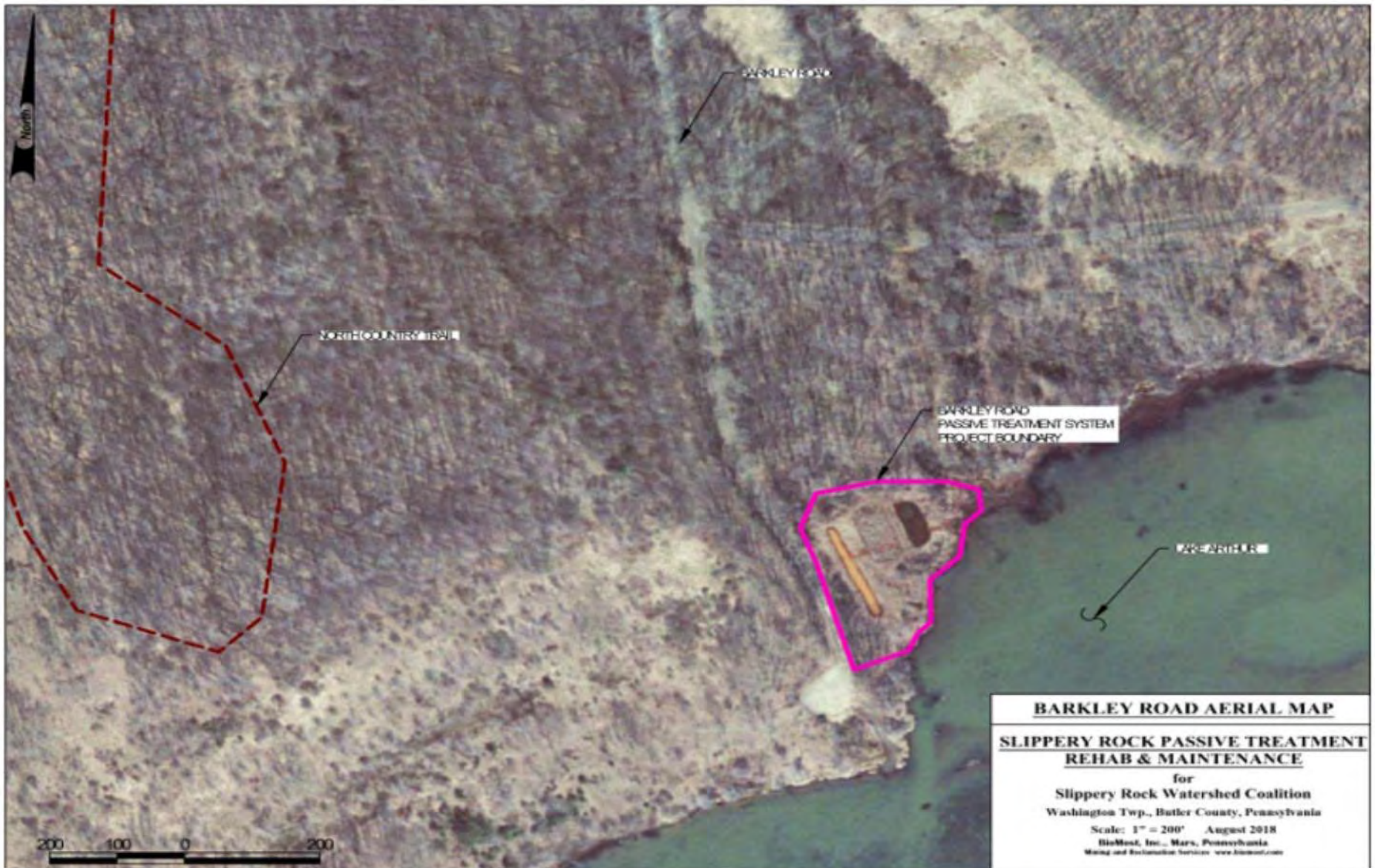
Barkley Road Passive Treatment Rehab



Project Maps, Plans, and/or Photos



Barkley Road Passive Treatment Rehab



Significant Benefits

- Continuation or improved treatment of 500 million gallons per year of AMD.
- Five (5) miles of stream water quality maintained.
- The restored streams are projected to provide \$553,830/year in economic benefit through recreation.
- The abandoned Foltz Schoolhouse will be restored.
- Enhanced educational opportunity for over 5,000 students per year at the Jennings Environmental Education Center.

Project Partners

- Moraine, McConnells Mill, and Jennings Commission (3MJC)
- Butler County Chapter of North Country Trail Association
- PA Department of Conservation and Natural Resources
- Slippery Rock Watershed Coalition
- Stream Restoration, Inc.
- Office of Surface Mining Reclamation and Enforcement
- PA Department of Environmental Protection

No. 9 Mine and Museum Complex/Dorrance Colliery



No. 9 Mine and Museum Complex/Dorrance Colliery

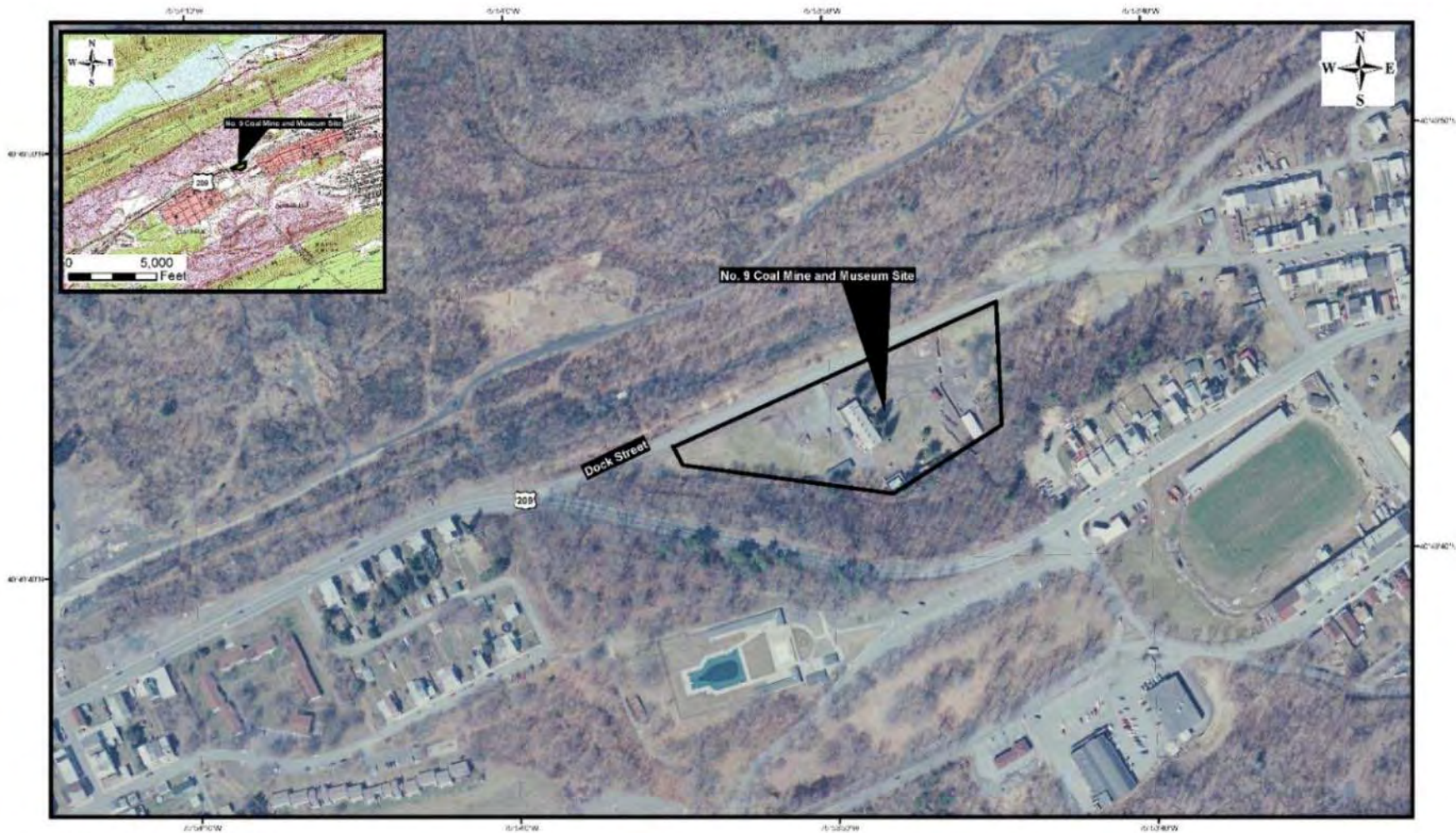
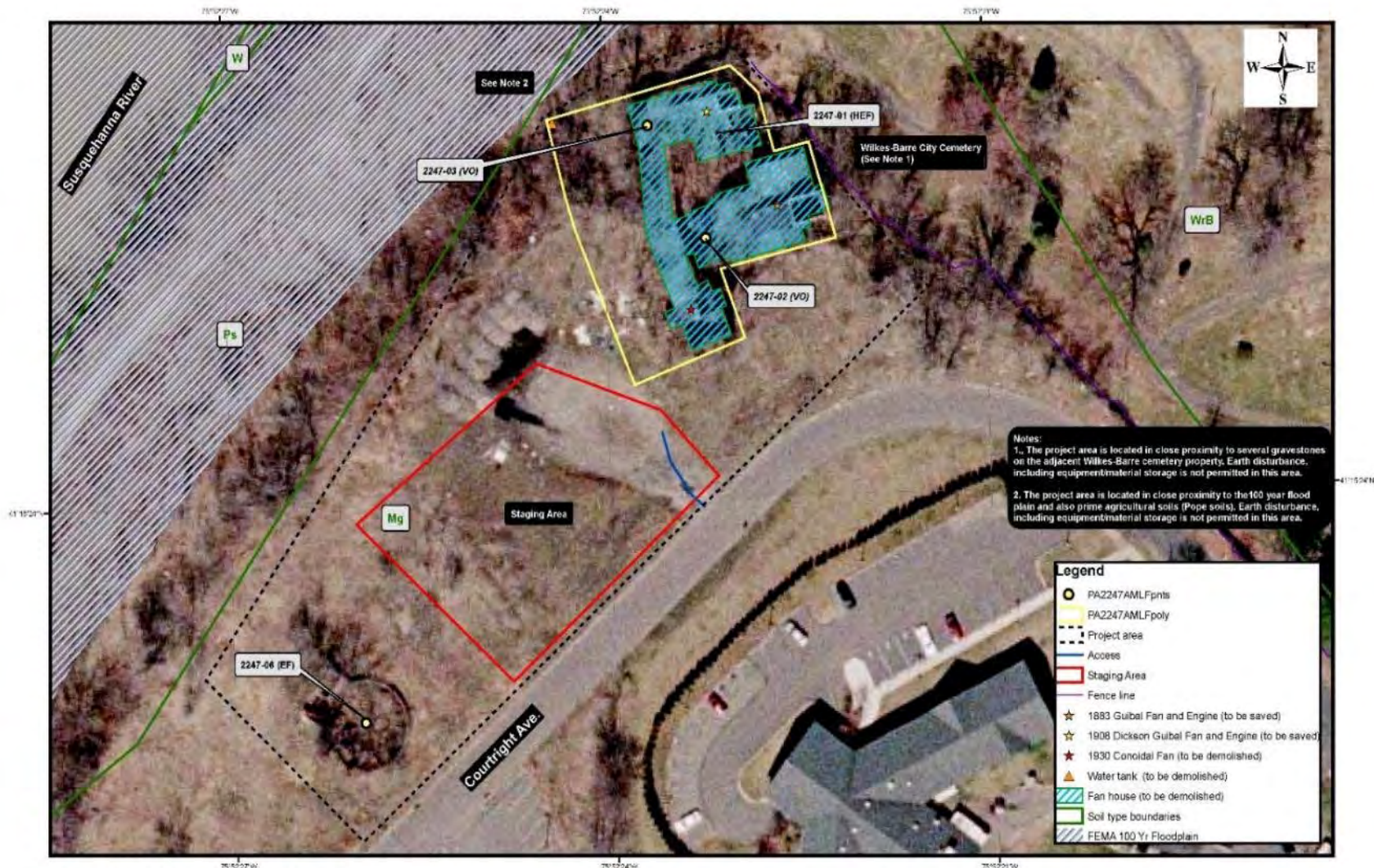


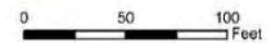
EXHIBIT D - No. 9 Coal Mine Site Map
Memorandum of Agreement
Tamaqua PA 7.5' USGS Quad
OSM 40(2247)101.1 - Dorrance Colliery Fan Complex
Lansford, Carbon County, PA



No. 9 Mine and Museum Complex/Dorrance Colliery



Project Area Map-Dorrance Colliery Fan Complex Site
 Pittston, Kingston PA 7.5' USGS Quads
 OSM 40(2247)101.1 - Dorrance Colliery Fan Complex
 Wilkes-Barre City, Luzerne County, PA



No. 9 Mine and Museum Complex/Dorrance Colliery

The No. 9 Coal Mine and Museum Complex will identify and mark equipment components from the two historically significant ventilation fans, submit a transportation plan for approval to BAMR and PHMC, temporarily brace equipment, disassemble as necessary and extract equipment from the Dorrance Colliery Complex, and transport the equipment to the No. 9 Coal Mine and Museum Complex where the equipment will be refurbished (including replacing broken/lost parts for the fans), reassembled and incorporated the equipment into displays constructed under this project at the Museum Complex. This project will allow the OSM 40(2247)101.1 project (that will abate the P-1 Hazardous Equipment & Facilities) to move forward by completing the historic mitigation requirements of Section 106 of the National Historic Preservation Act for the historic equipment that exists at the site.

No. 9 Mine and Museum Complex/Dorrance Colliery

The equipment to be transported from the Dorrance Colliery to the No. 9 Coal mine and Museum is identified in the “Stipulations” of the April 2014 Memorandum of Agreement between the Office of Surface Mining Reclamation and Enforcement, the PA State Historic Preservation Office, the PA Department of Environmental Protection, and the No. 9 Coal Mine Museum. The equipment consists of the 1883 cast iron and wood 35-foot diameter Guibal Fan and matching 1883 Pittston horizontal slide valve steam engine and the 1908 28-foot diameter Dickson-Guibal Fan and matching Corliss steam engine. The work will also include salvaging the chamber doors of the Dorrance Colliery Complex where feasible.

Building housing the 35 foot diameter Guibal Fan



35 foot Guibal Fan



Building for the 28 foot Dickson-Guibal Fan



28 foot Dickson-Guibal Fan



1883 Pittston Steam Driven Motor



1883 Pittston Steam Driven Motor



Corliss Steam Driven Motor



▶ Air Control Doors between the Guibal Fan and Air Tunnel



No. 9 Mine and Museum Fan Display Location



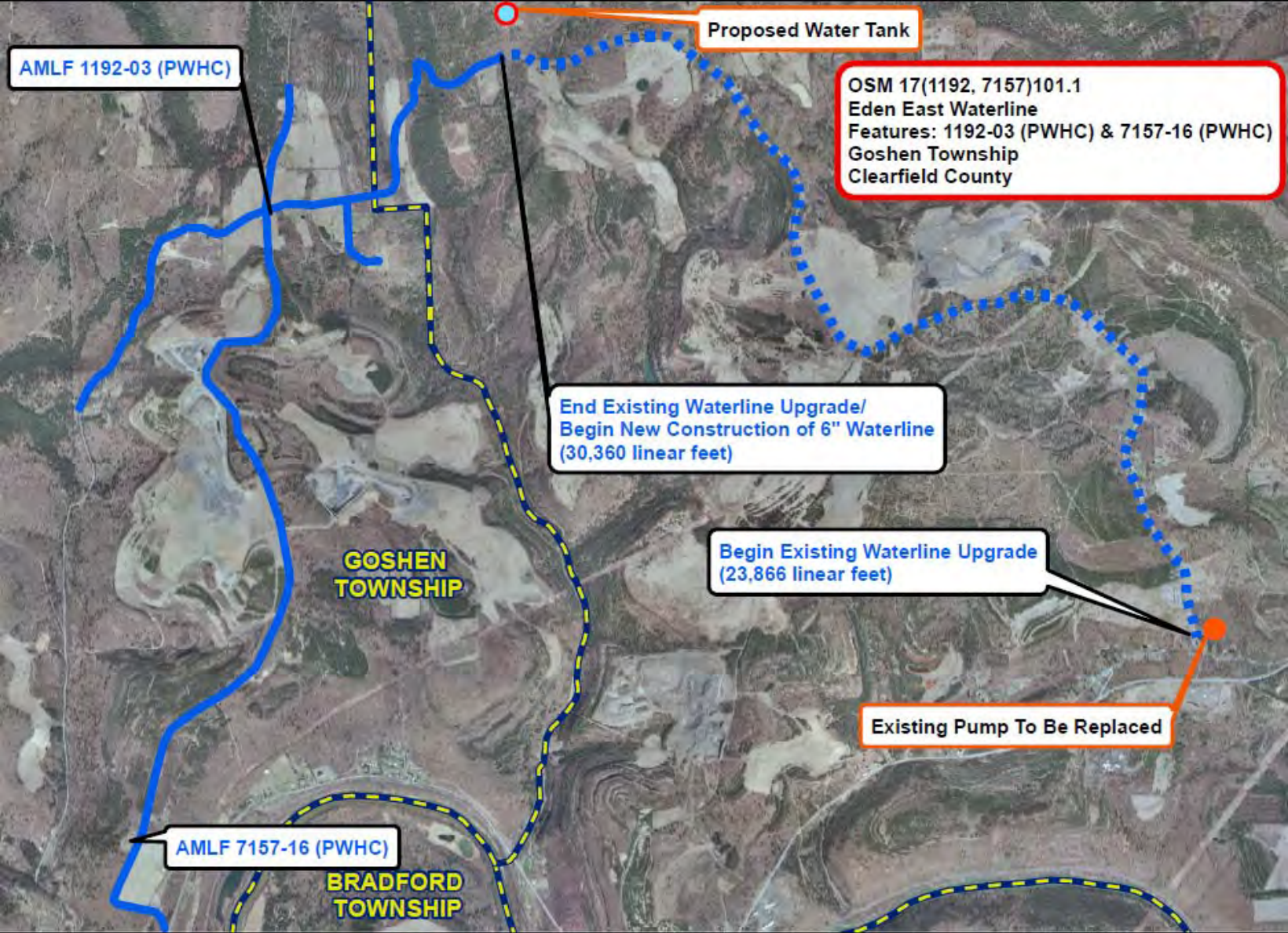
Significant Benefits

- Significantly expand the No. 9 Mine and Museum Complex
- Preserve unique pieces of coal mining history
- Strengthen the presence of historic sites in the coal mining area
- Development of the new display is expected to increase the visitation by 15 to 20% at the No. 9 Coal Mine Museum
- Increased utilization of all types of personal visitor services in the vicinity of Lansford, Tamaqua and Jim Thorpe

Project Partners

- Panther Creek Valley Foundation
- Pagnotti Enterprises Inc.
- Office of Surface Mining Reclamation and Enforcement
- PA Department of Environmental Protection

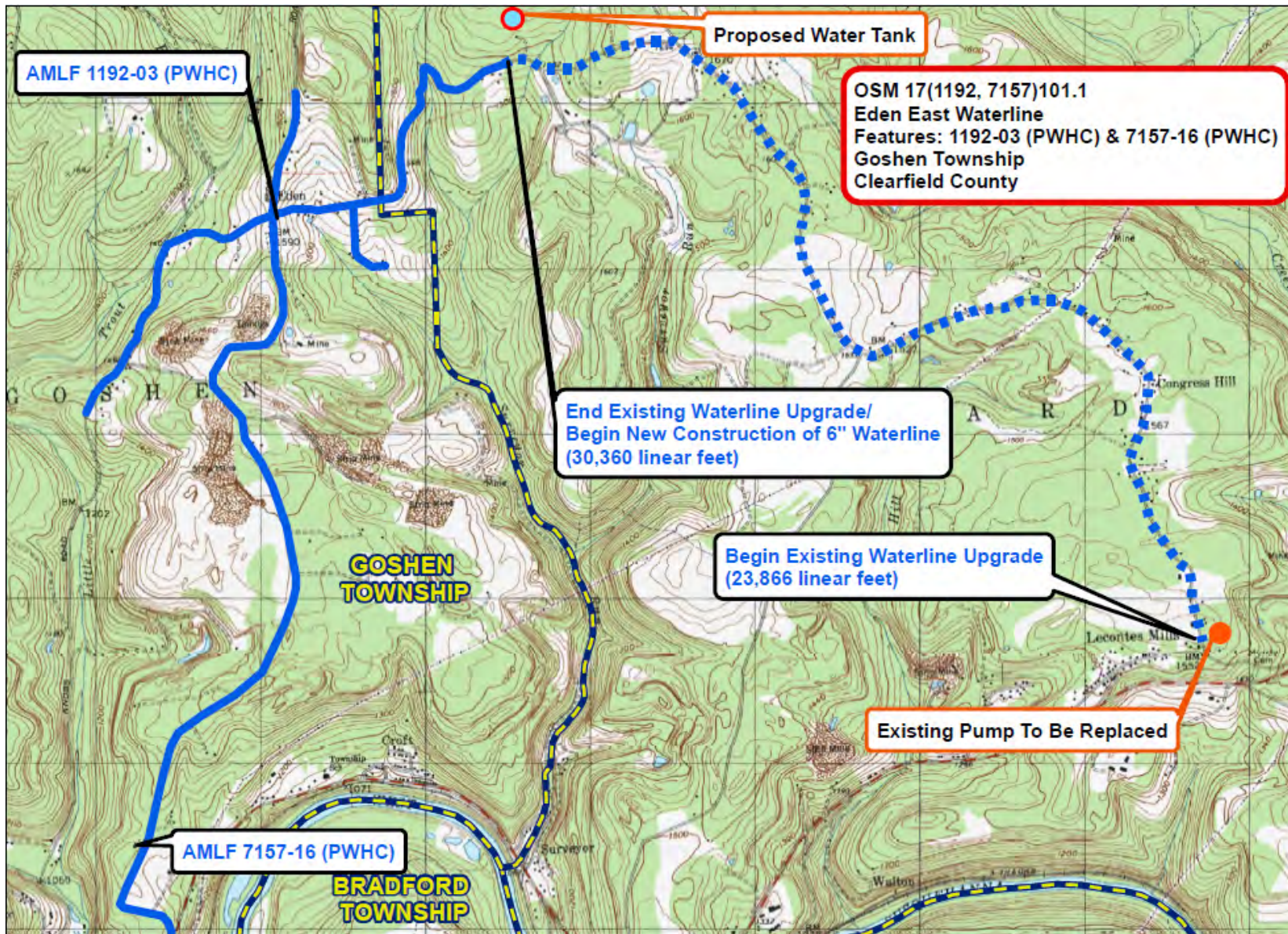
Eden East Waterline



Eden East Waterline

The AML Pilot Funding, in combination with other funding, will be used to extend a public waterline approximately 30,300 linear feet & also to upgrade an existing 3-inch line to a 6-inch line, approximately 23,900 linear feet, in order to provide enough water supply to extend the waterline to the twenty-five (25) eligible homes in Eden. The combined total of infrastructure upgrade and new waterline installation is approximately 54,200 linear feet or 10 miles of waterline constructed as part of this project.

Eden East Waterline



Eden East Waterline



Proposed Tank Location

Eden East Waterline



Existing Pump Station

Eden East Waterline



Typical existing location of waterline installation.

Significant Benefits

- Reclamation of 2 PWHC^{WC1} features.
- 25 AML impacted homes will have reliable water.
- 13 non-AML impacted homes will also benefit from waterline upgrade/extension.
- CKGAA will receive increased revenue.
- Potential future residential & commercial development.

Slide 70

WC1

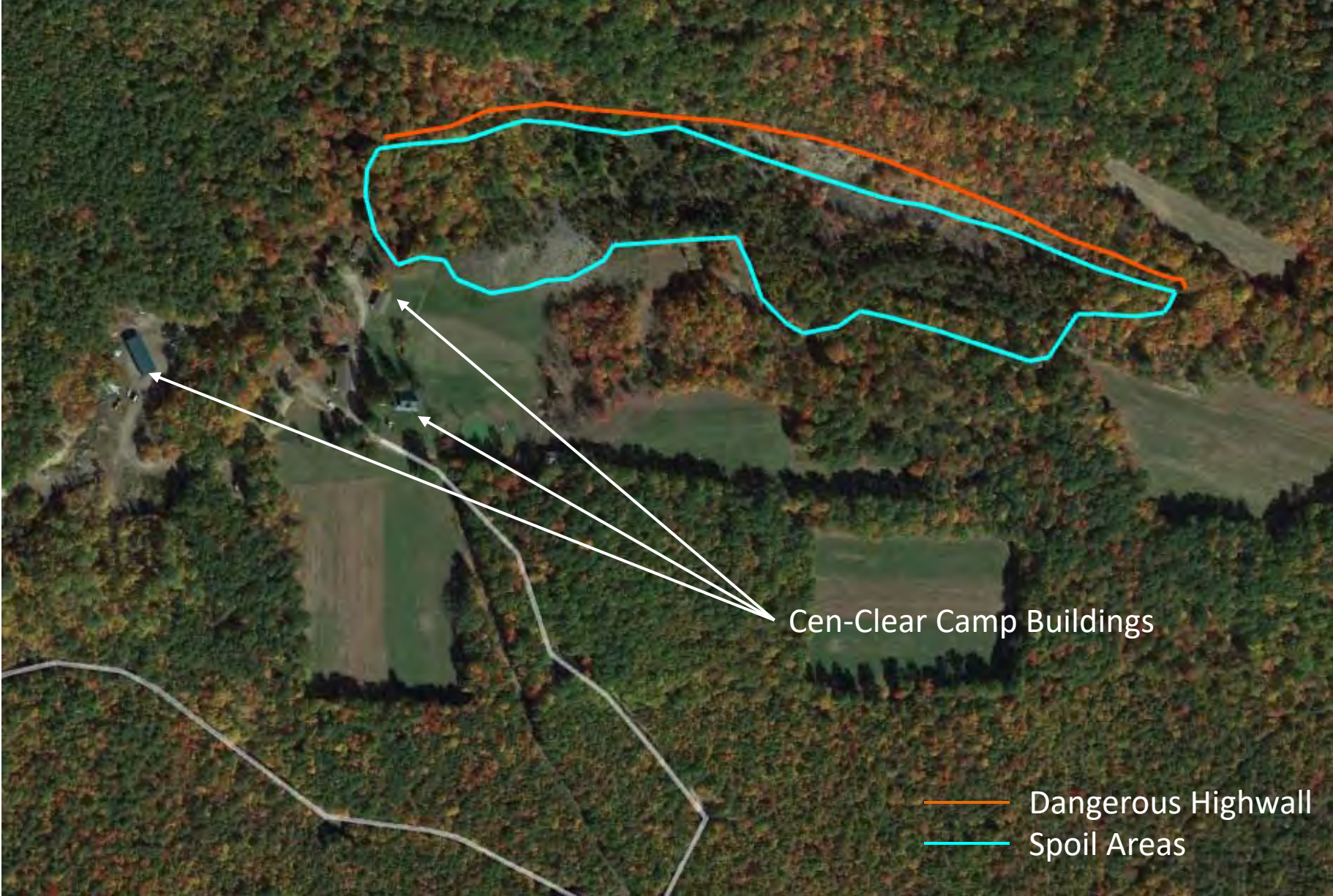
What does PWHC stand for? Could we write out this acronym?

Wolfe, Cynthia, 10/24/2019

Project Partners

- Covington Karthaus Girard Area Authority (CKGAA)
- Office of Surface Mining Reclamation and Enforcement
- PA Department of Environmental Protection

Morgan Run Rec Facility - West Decatur Post Office



Morgan Run Rec Facility - West Decatur Post Office

The AML Pilot Funding will be used to complete the West Decatur Post Office Project and will construct approximately ½ mile of multi-use recreational trails, a parking lot and amphitheater on the property. West Decatur Post Office will abate 1,800 linear feet of dangerous highwall and 12.4 acres of spoil area. This project will enable Cen-Clear Child Services, LLC. to continue to promote and expand use at the site.

Morgan Run Rec Facility - West Decatur Post Office



Morgan Run Rec Facility - West Decatur Post Office



Morgan Run Rec Facility - West Decatur Post Office



Morgan Run Rec Facility - West Decatur Post Office



Significant Benefits

- Reclamation of 1,800 linear feet of dangerous highwall and 12.4 acres of spoil area
- Expanded use of the facilities for CenClear and other local organizations
- ½ mile of multi-use recreational trail
- Parking Lot and Amphitheatre for public using the facility
- Increase of jobs for CenClear

Project Partners

- Cen-Clear Child Services, LLC
- Office of Surface Mining Reclamation and Enforcement
- PA Department of Environmental Protection

Crowley Hollow Diversion Channel

Cooks Run is designated as a High Quality Cold Water Fishery above the confluence with Crowley Hollow. Crowley Hollow is severely degraded by Acid Mine Drainage (AMD). Below the confluence of Crowley Hollow and Cooks Run, Cooks Run is severely impacted and virtually void of aquatic life. Above the confluence, Cooks Run has a population of Native Brook Trout and Wild Brown Trout as well as a variety of aquatic invertebrates.

Milligan Run discharges directly into the West Branch of the Susquehanna River and is severely degraded by AMD.

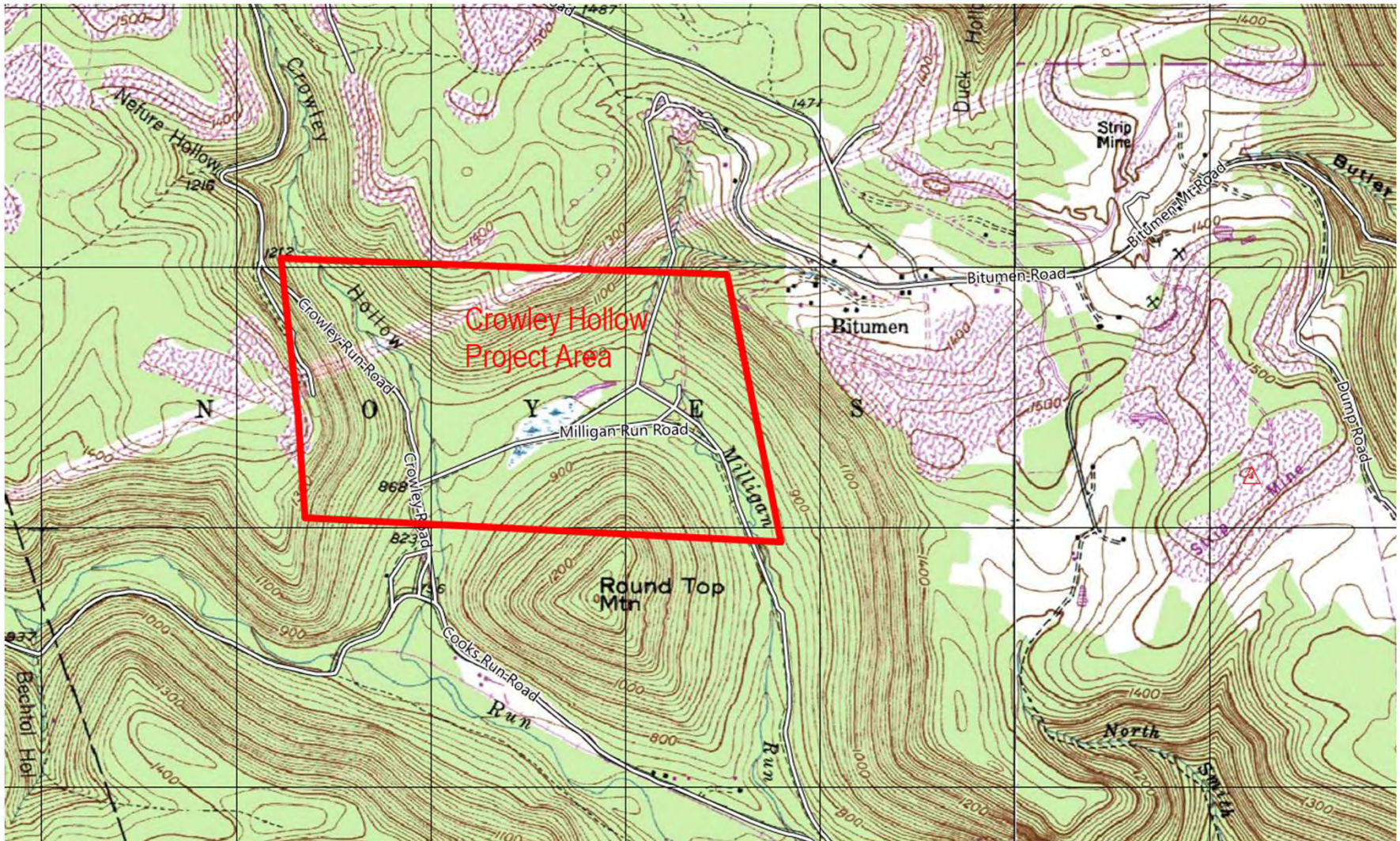
Crowley Hollow Diversion Channel

The proposed project will divert Crowley Hollow away from Cooks Run and into Milligan Run, eliminating the AMD pollution entering Cooks Run. An estimated 1,230 pounds of acid, 70 pounds of aluminum, 120 pounds of iron, and 30 pounds of manganese per day will be eliminated from entering Cooks Run.

The AML Pilot funding, in combination with other funding, will be used to complete the Crowley Hollow Diversion Channel.

An approximately 5,000 foot channel will be constructed to divert Crowley Hollow into Milligan Run. The total project cost is estimated at \$2,000,000.

Crowley Hollow Diversion Channel



Crowley Hollow Diversion Channel



View of Crowley Hollow at Milligan Run Road, looking upstream.

Crowley Hollow Diversion Channel



View of the confluence of Cooks Run (left) and Crowley Hollow (right).

Significant Benefits

- The removal of Crowley Hollow is an integral and necessary part of restoring the quality of the Cooks Run watershed. Totals of 1,230 pounds per day of acid, 70 pounds of aluminum, 120 pounds of iron, and 30 pounds of manganese will be removed from Cooks Run when the project is completed.
- The project is located within the Sproul State Forest and is open to the public. The project will help bring back the land and water to its natural state to be enjoyed by all the citizens that enjoy hunting, fishing, hiking, camping, ATV riding, and sightseeing, which will attract increased tourism to the area.

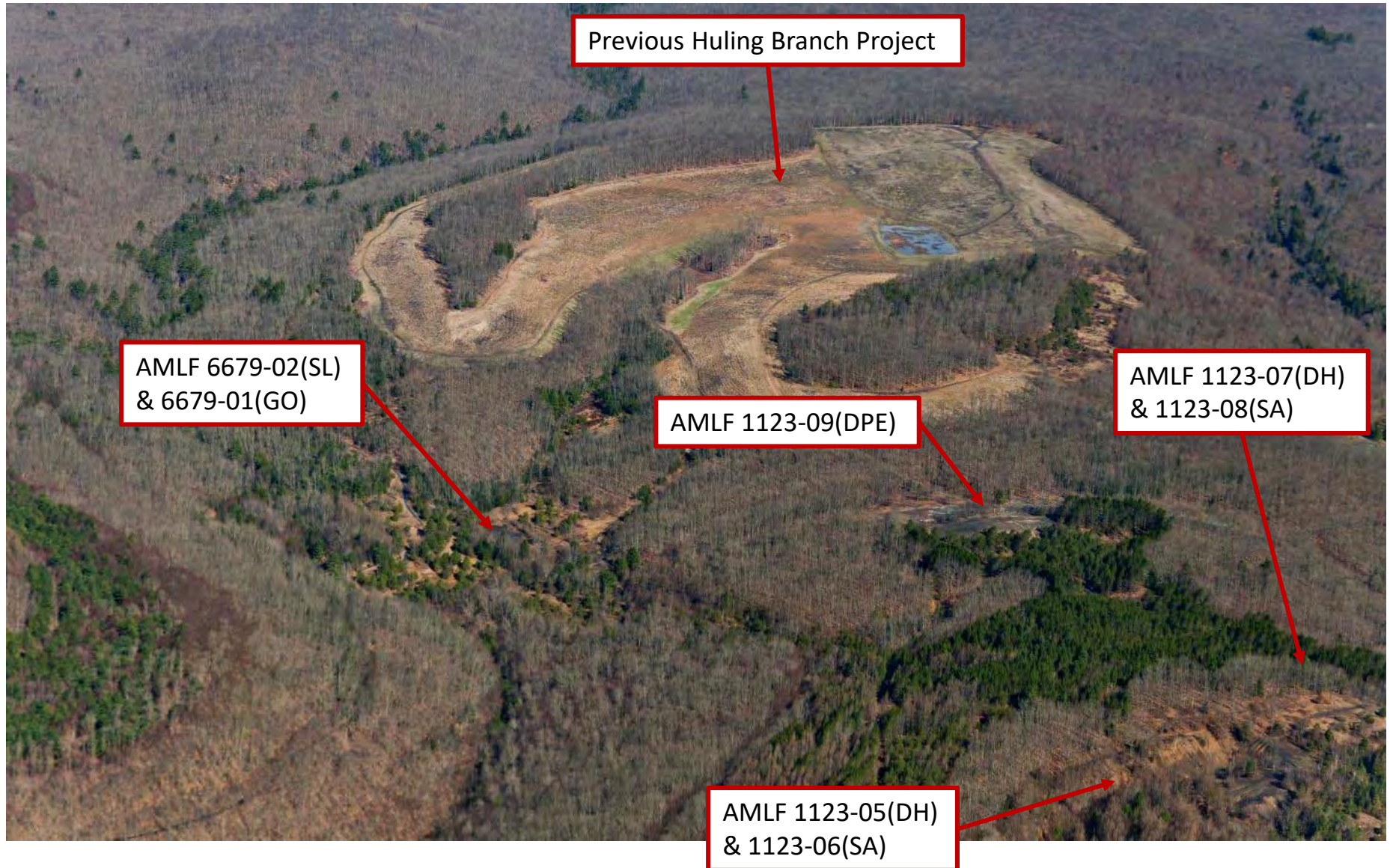
Significant Benefits

- Using the PA Fish and Boat Commission formula for calculating the value of a Cold Water Fishery (1,100 fishing trips per year X \$78.02 spent per fishing trip X stream miles), the value for the 1.1 miles of impacted stream on Cooks Run is approximately \$94,400 in lost revenue for the local economy per year.
- The short term gain in employment, of approximately 30 jobs, during the approximate two-year construction period will benefit the local economy by providing work. The project will need materials such as clay, stone, pipe, and seeding from local suppliers, which will help sustain the local economy during the construction period.

Project Partners

- Lock Haven University
- PA Fish and Boat Commission
- Penn State University – Hazelton
- Clinton County Conservation District
- PA Department of Conservation and Natural Resources
- PA Department of Environmental Protection

Huling Branch East



Huling Branch East

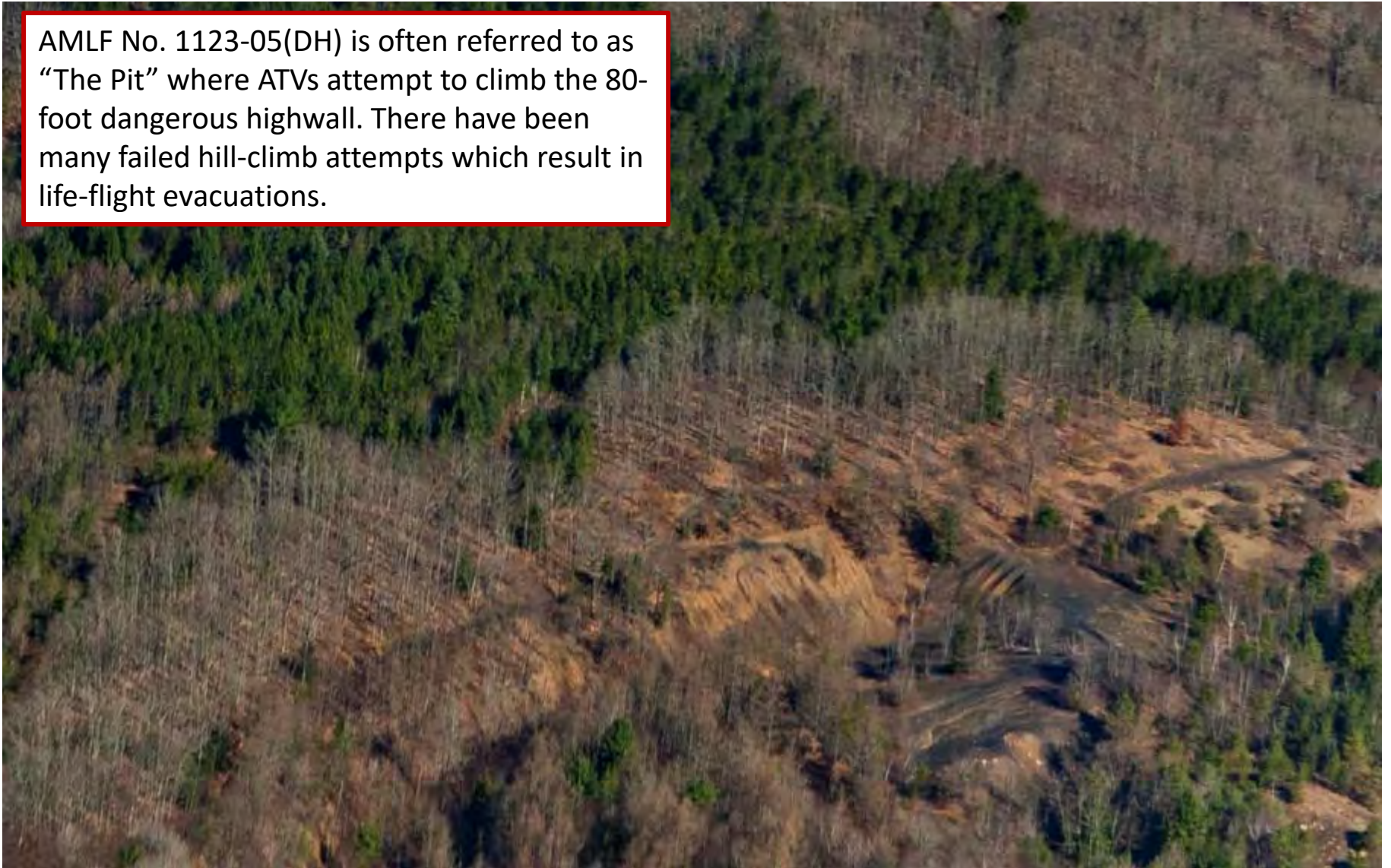
The AML Pilot Funding, in combination with other funding, will be used to reclaim 3,000 linear feet (LF) of dangerous highwall using 21.5 acres of associated spoil material.

A 10-acre dangerous pile and embankment will be regraded onsite to construct a parking area and an emergency evacuation area. Alkaline material will be added to neutralize acidity and improve watershed quality. Discharges from the previous Huling Branch project will be collected through anoxic limestone trenches and treated in an abandoned slurry pond, which will be converted into a polishing pond used primarily for the treatment of AMD, and also serve as fire protection and a source of water for wildlife.

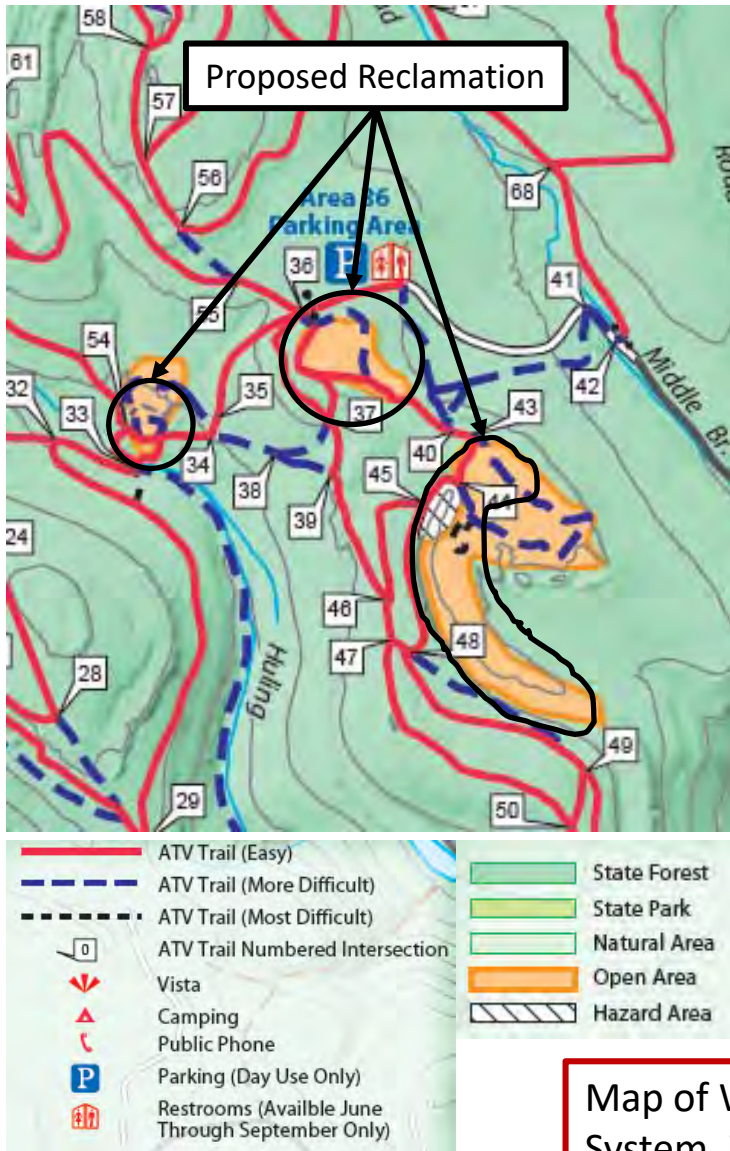
This project will also construct 5,000 feet of recreational ATV trails within Sproul State Forest.

Huling Branch East

AMLF No. 1123-05(DH) is often referred to as “The Pit” where ATVs attempt to climb the 80-foot dangerous highwall. There have been many failed hill-climb attempts which result in life-flight evacuations.



Huling Branch East



Camping Allowed



Hazard Area is start of 1123-05(DH).

Map of Whiskey Springs Trail System in Sproul State Forest

Significant Benefits

- Reclamation of 3,000 LF of dangerous highwalls, 21.5 acres of spoil material, a 10-acre dangerous pile and embankment consisting of acid-forming shale, and a 0.5-acre slurry pond
- Construction of 5,000 feet of recreational ATV trails within Sproul State Forest
- Construction of a grass parking area and an emergency evacuation area
- Promote outdoor recreation and tourism
- Improve watershed quality

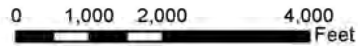
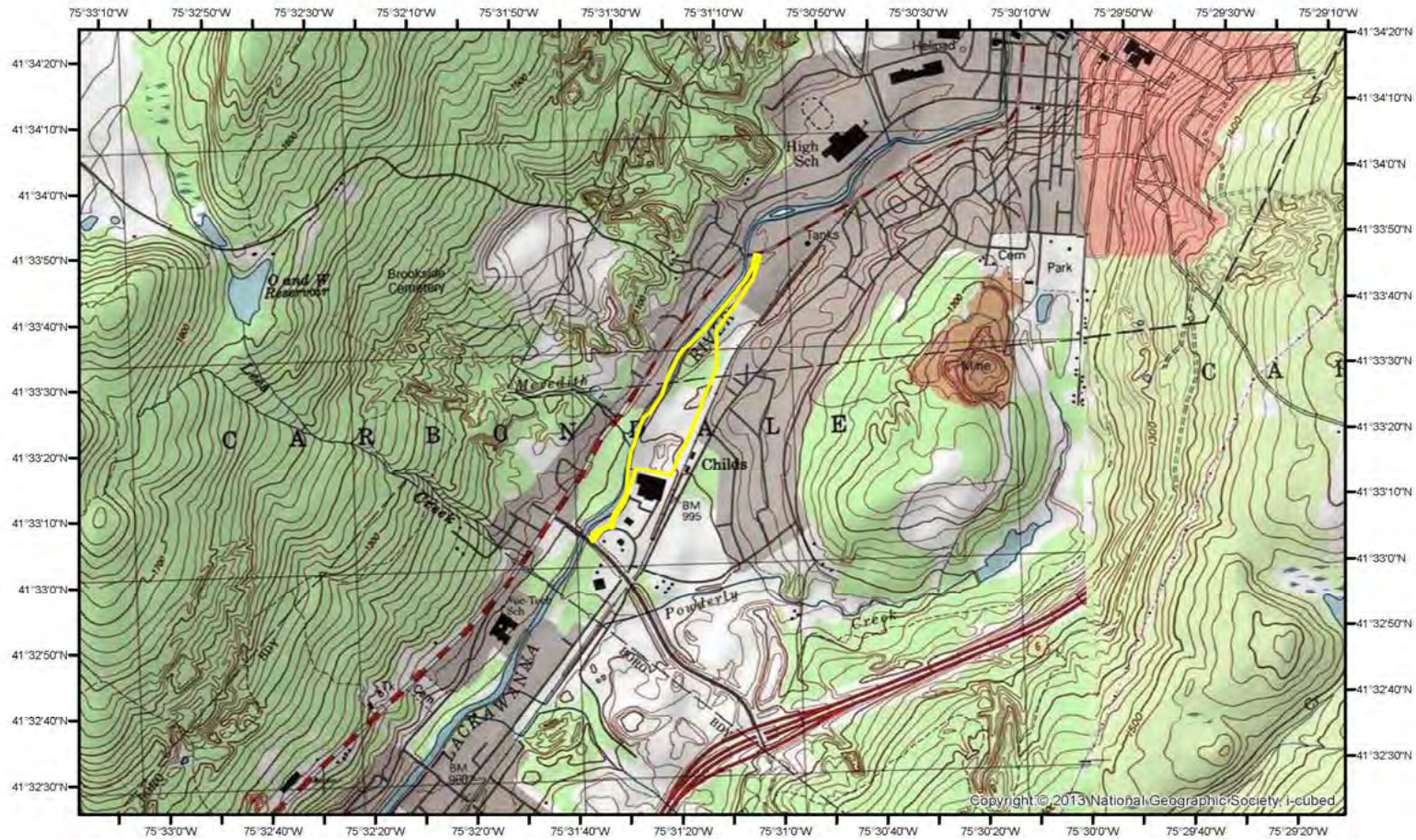
Significant Benefits

- Improvement of Huling Branch and Twomile Run which are Trout Stocking Fisheries (TSF)
- Local campgrounds, hotels, and businesses would see increase in tourists and revenue
- Elk are starting to migrate towards the area and reclamation would promote a more natural environment
- Annual events include Relay for Life's Cruise for a Cure & the National Rattlesnake Enduro Race


Project Partners

- PA Department of Conservation and Natural Resources
- American Chestnut Foundation
- Office of Surface Mining Reclamation and Enforcement
- PA Department of Environmental Protection

Electric Street Development



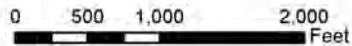
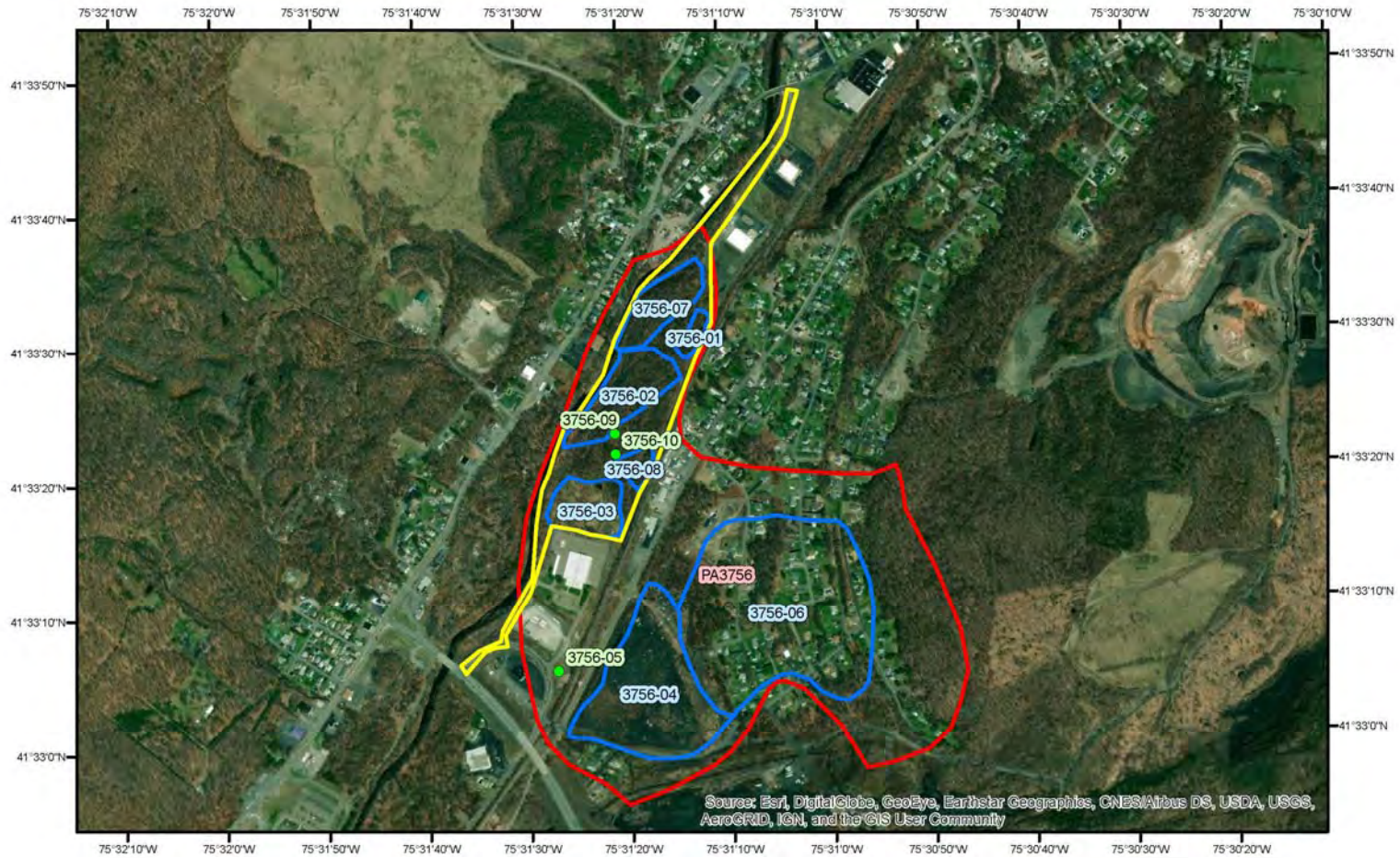
OSM 35(3756)101.1
Electric Street Development
Carbondale Township & City of Carbondale
Lackawanna County

 OSM35(3756)101.1_Project_Area

Electric Street Development

The Abandoned Mine Land (AML) Pilot Project funding, in combination with AML Title IV funding, will be used to complete the Electric Street Development Project (37 acres) and will bring a river access to the Lackawanna River and 4,700 feet of walking trails along the river. Electric Street Development will abate five acres of Dangerous Pile and Embankment, two acres of Pits, six acres of Spoil Area, and three each of Hazardous Equipment and Facilities. D & L Realty, the property owner, will deed the river access to Lackawanna Heritage Valley Authority (LHVA). D & L Realty is also actively marketing this area for industrial development.

Electric Street Development



OSM 35(3756)101.1
 Electric Street Development
 Carbondale Township & City of Carbondale
 Lackawanna County

- OSM35(3756)101.1_Project_Area
- + PA3756AMLFPnts
- PA3756AMLFPoly
- PA3756ProbArea

Electric Street Development



AML Feature 3756-02: Looking southwest at the spoil area

Electric Street Development



AML Feature 3756-09: Looking west at one of the equipment and facilities

Electric Street Development



AML Feature 3756-07: Looking northwest at the dangerous pile and embankment

Significant Benefits

- Reclamation of 37 acres of AML
- Lackawanna River Access which will further the goal of the LHVA transforming the entire length of the river into a comprehensive recreational area
- Creation of 20-30 permanent full-time positions
- Construction of the trail will bring people to the area and also allow a portion of the Steamtown Marathon to move from a narrow very congested portion of Route 6.

Project Partners

- D & L Realty
- Lackawanna Heritage Valley Authority
- Office of Surface Mining Reclamation & Enforcement
- PA Department of Environmental Protection

Earth Conservancy Bliss Bank 4



Earth Conservancy Bliss Bank 4

The Abandoned Mine Land (AML) Pilot Project funding, in combination with AML Title IV funding, will be used to complete the Bliss Bank 4 Project (31 acres) and will bring natural gas, water, and sanitary sewer services to the entire Earth Conservancy (EC) Bliss Bank Development (+220 acres). Bliss Bank 4 will abate two acres of dangerous piles and embankments. EC and NorthPoint Development are working on the Bliss Bank Development. NorthPoint Development calculates this project will sustain over 1,000 permanent full time positions.

Earth Conservancy Bliss Bank 4



AML Feature 3747-02: Looking south at the base of the DPE

Earth Conservancy Bliss Bank 4



AML Feature 3747-03: Looking west at the base of the DPE

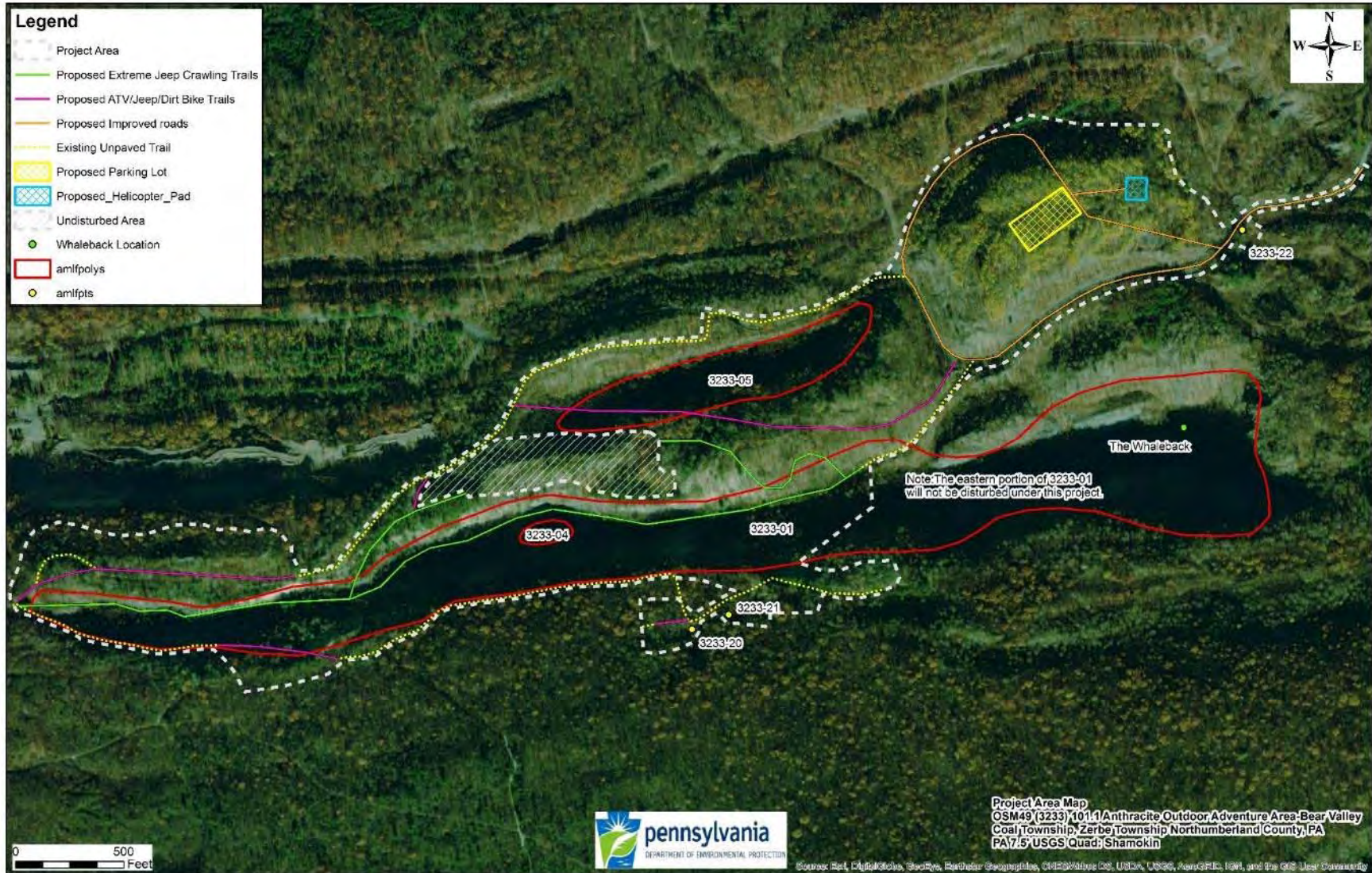
Significant Benefits

- Reclamation of 31 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
- NorthPoint Development Real Estate
- Office of Surface Mining Reclamation & Enforcement
- PA Department of Environmental Protection

Anthracite Outdoor Adventure Area



Anthracite Outdoor Adventure Area

The Abandoned Mine Land (AML) Pilot Project funding, in combination with AML Title IV funding, will be used to complete the Anthracite Outdoor Adventure Area (AOAA) project (88 acres). This project will reclaim approximately 5,000 feet of Dangerous Highwall, one Hazardous Water Body, two Vertical Openings and one Hazardous Equipment & Facilities. In addition, the AOAA trails will be expanded to include approximately 6,600 feet of extreme Jeep crawling trails and re-establishing and/or constructing approximately 4,370 feet of Jeep/ATV/dirt bike trails, which would be owned and operated by the AOAA staff. A parking lot (150' x 300'), excavation area (100'x100'), and approximately 4,900 feet of improved roads passable by two-wheel drive vehicles will also be constructed.

Anthracite Outdoor Adventure Area

- Contract Qualified Low Bid Amount: \$9,675,287.50
- Notice to Proceed Date: 8/5/2019
- Contract Award and Official Start Date: 8/15/2019
- Contractor: Morgan's Excavating, LLC

Anthracite Outdoor Adventure Area



AML Feature 3233-01: Looking north at the Dangerous Highwall

Anthracite Outdoor Adventure Area



AML Feature 3233-04: Looking west at the Hazardous Waterbody

Anthracite Outdoor Adventure Area



AML Feature 3233-20: Looking north at the vertical opening

Anthracite Outdoor Adventure Area



AML Feature 3233-22: Looking southeast at the building to be demolished

Significant Benefits

- Reclamation of 88 acres of Abandoned Mine Land with over 5,000 linear feet of Dangerous Highwalls and other hazardous features
- Creation of a new recreational attraction for public use.
- Extreme jeep rock crawling and jeep/ATV/dirt bike trails.
- Parking lot in close proximity to the geological formation called the "Whaleback"
- Will boost local economy - i.e. local gas stations, restaurants, bed & breakfasts etc.

Project Partners

- Northumberland County Anthracite Outdoor Adventure Area (AOAA) Authority
- Office of Surface Mining Reclamation & Enforcement
- PA Department of Environmental Protection

Anthracite Upland Pointing Dog Association



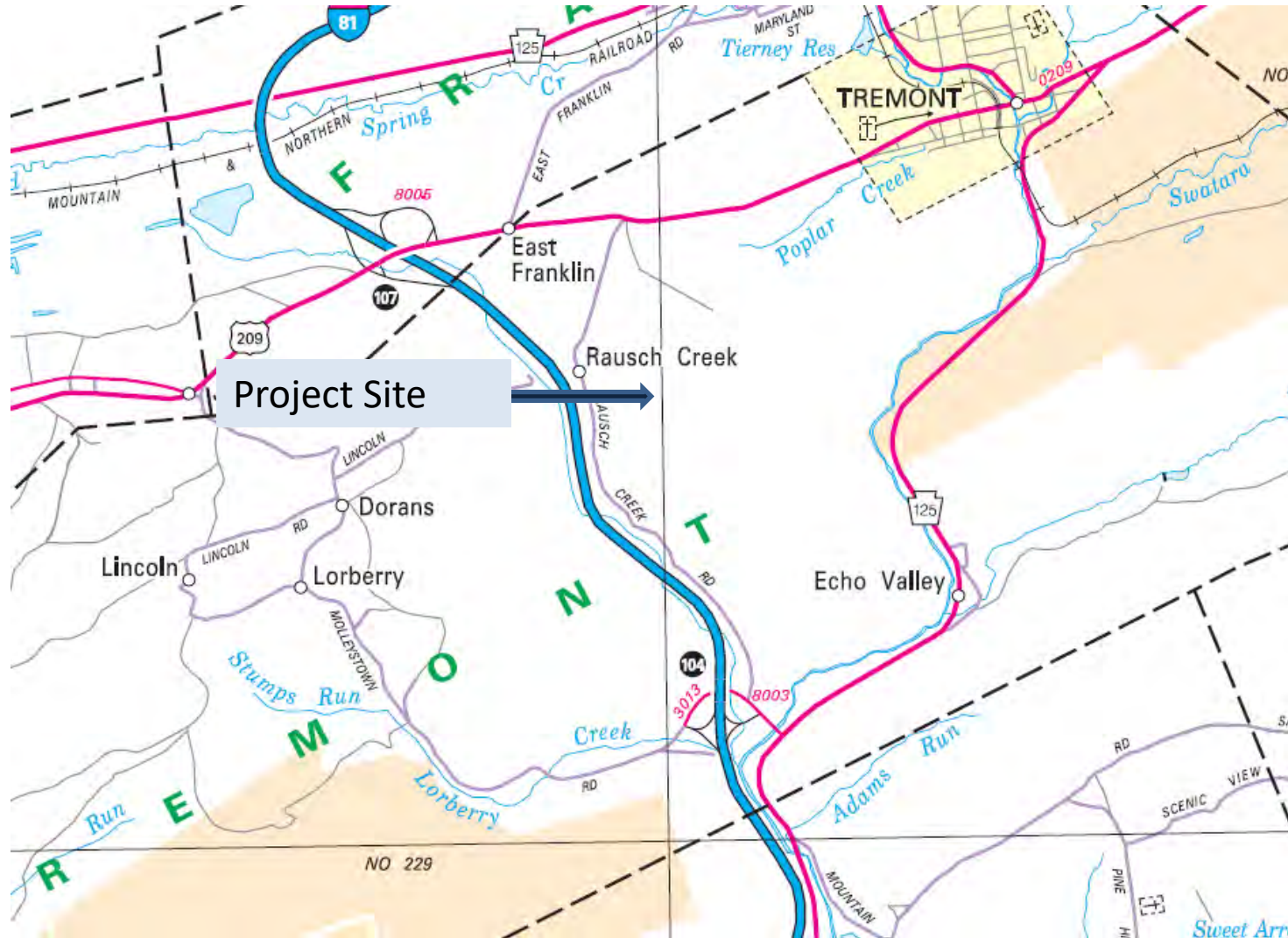
▶ Anthracite Upland Pointing Dog Association



Anthracite Upland Pointing Dog Association

The AML pilot funding will be used to reclaim nine acres of abandoned surface mine features. The AML features include 560 feet of dangerous highwall and 4.5 acres of spoil. The reclamation will enable the Anthracite Upland Pointing Dog Association to hold competitive hunting dog skills events and educational outreach to local schools. An additional 18.3 acres will be planted in a wildlife bird mix to promote use of the property by game birds. A total of 27.3 acres will be improved and it is anticipated that over 600 people will use the property each year.

▶ Anthracite Upland Pointing Dog Association



Anthracite Upland Pointing Dog Association



▶ Anthracite Upland Pointing Dog Association



Significant Benefits

- Provide a completely reclaimed area to be used for dog competitions and educational outreach. This project will complement the previous reclamation in the area and the current Donaldson 2017 Pilot Project.
- Over 350 people per year are anticipated to use the property per year for dog events and over 250 students per year are expected for educational programs.
- Elimination of dangerous mine openings.
- Creation of wild bird habitat.
- Improved eligibility for hosting the North American Versatile Hunting Dog Association annual competition.

Project Partners

- Schuylkill County Conservation District
- PA Game Commission
- Ruffed Grouse Society
- PA Department of Environmental Protection
- Pheasants Forever
- North American Versatile Hunting Dog Association
- Office of Surface Mining Reclamation & Enforcement
- American Kennel Club

Stonycreek and Little Conemaugh River Improvement and Reinvestment Project

AML Pilot Funding, in combination with other funding sources, will be used to complete multiple projects within the adjoining Stonycreek and Little Conemaugh River Watersheds. This includes design, redesign and maintenance work on existing Passive Treatment Systems (PTS) to include the Greater Johnstown Water Authority (GJWA) PTS, Mineral Point PTS, and the Oven Run Sites A and D). Including work to improve the thermal component of Quemahoning Creek, enhancement of bike trails, (Quemahoning and Incline Plane Park - The Sliver) and the tailwater fishery below the Quemahoning Reservoir. **These projects leverage upon the stream improvements realized to-date and those anticipated and will sustain and build upon the economic and community development benefits realized as a result of this on-going work.**

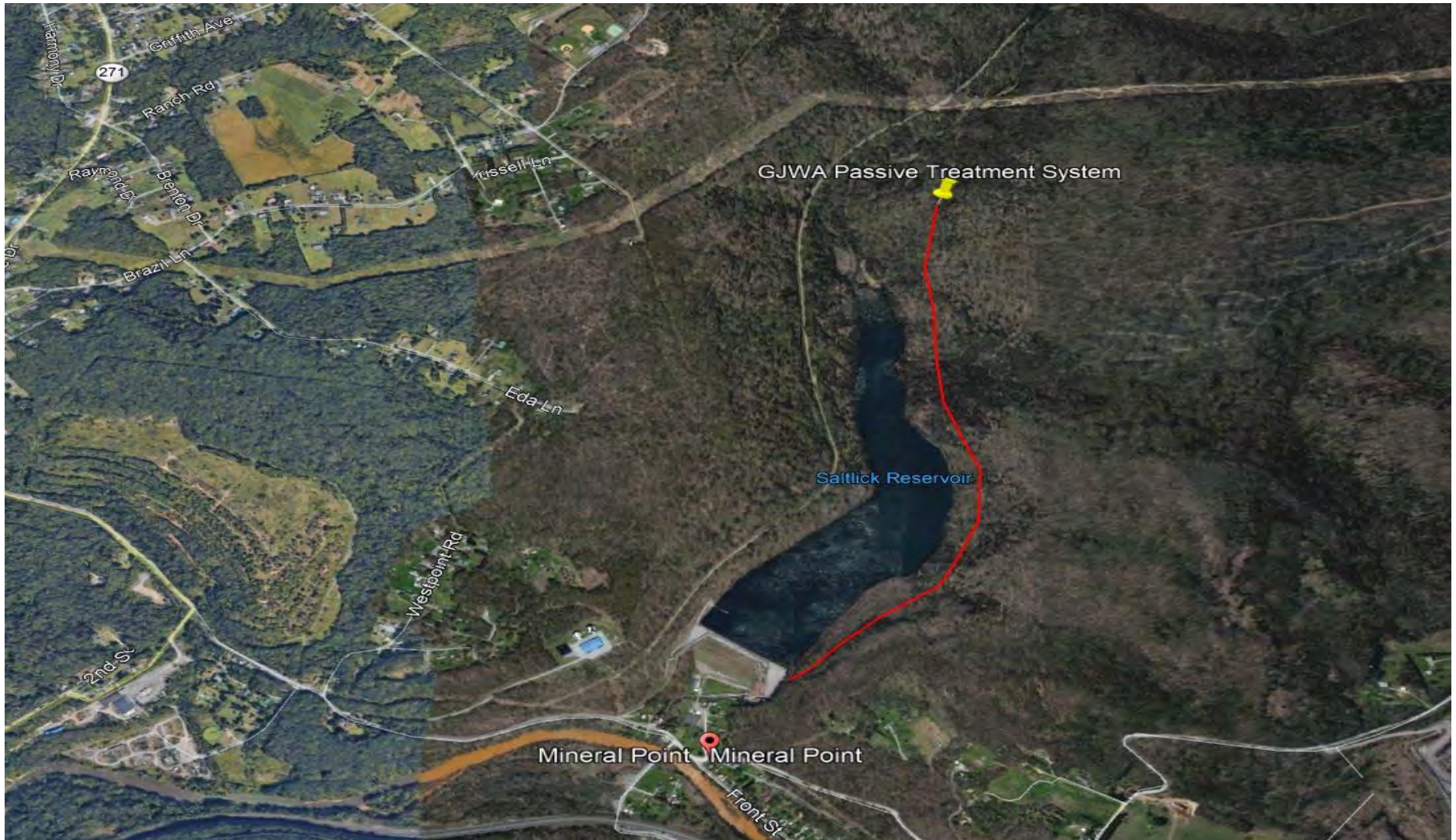
Stonycreek and Little Conemaugh River Improvement and Reinvestment Project



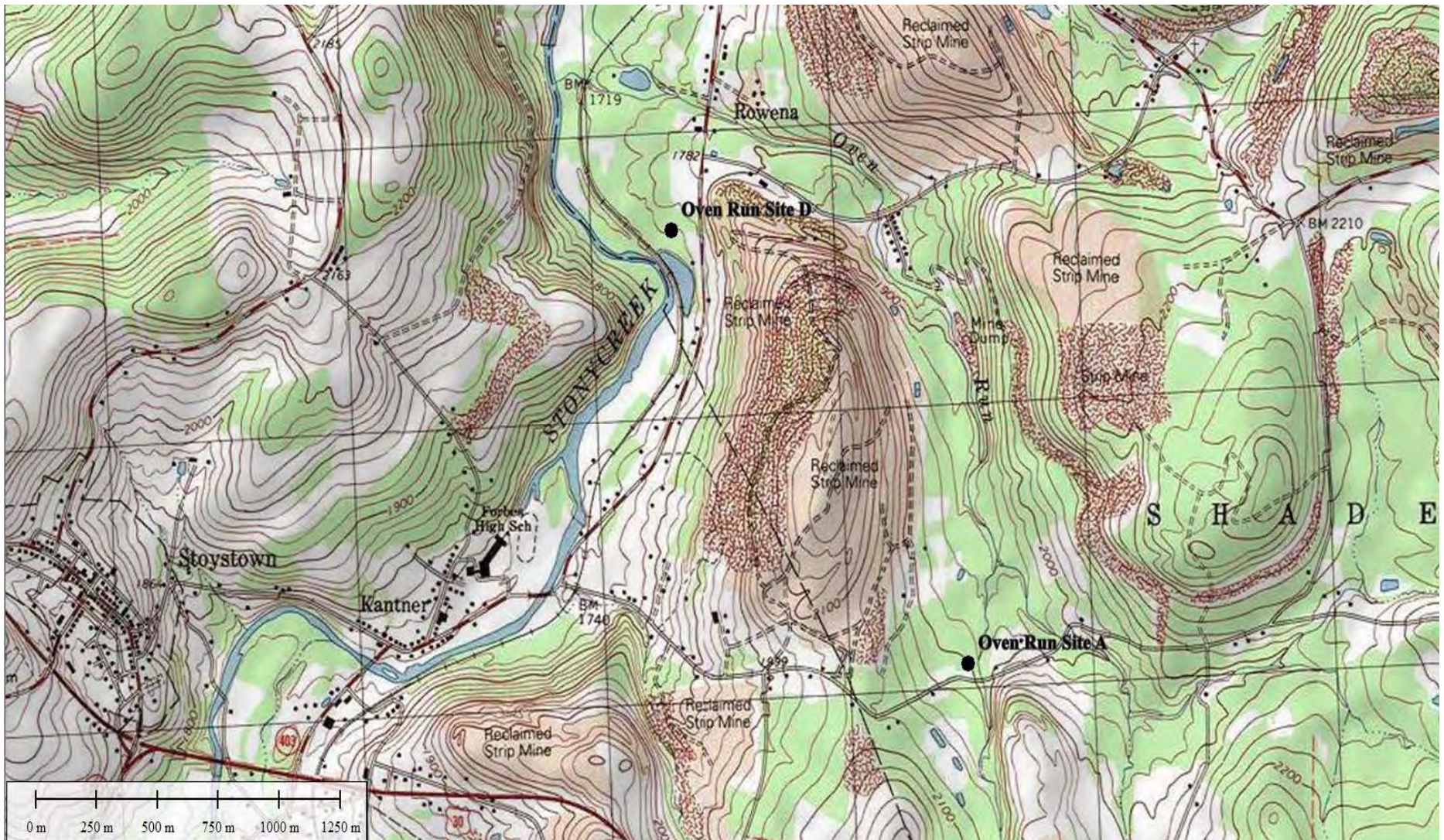
Stonycreek and Little Conemaugh River Improvement and Reinvestment Project



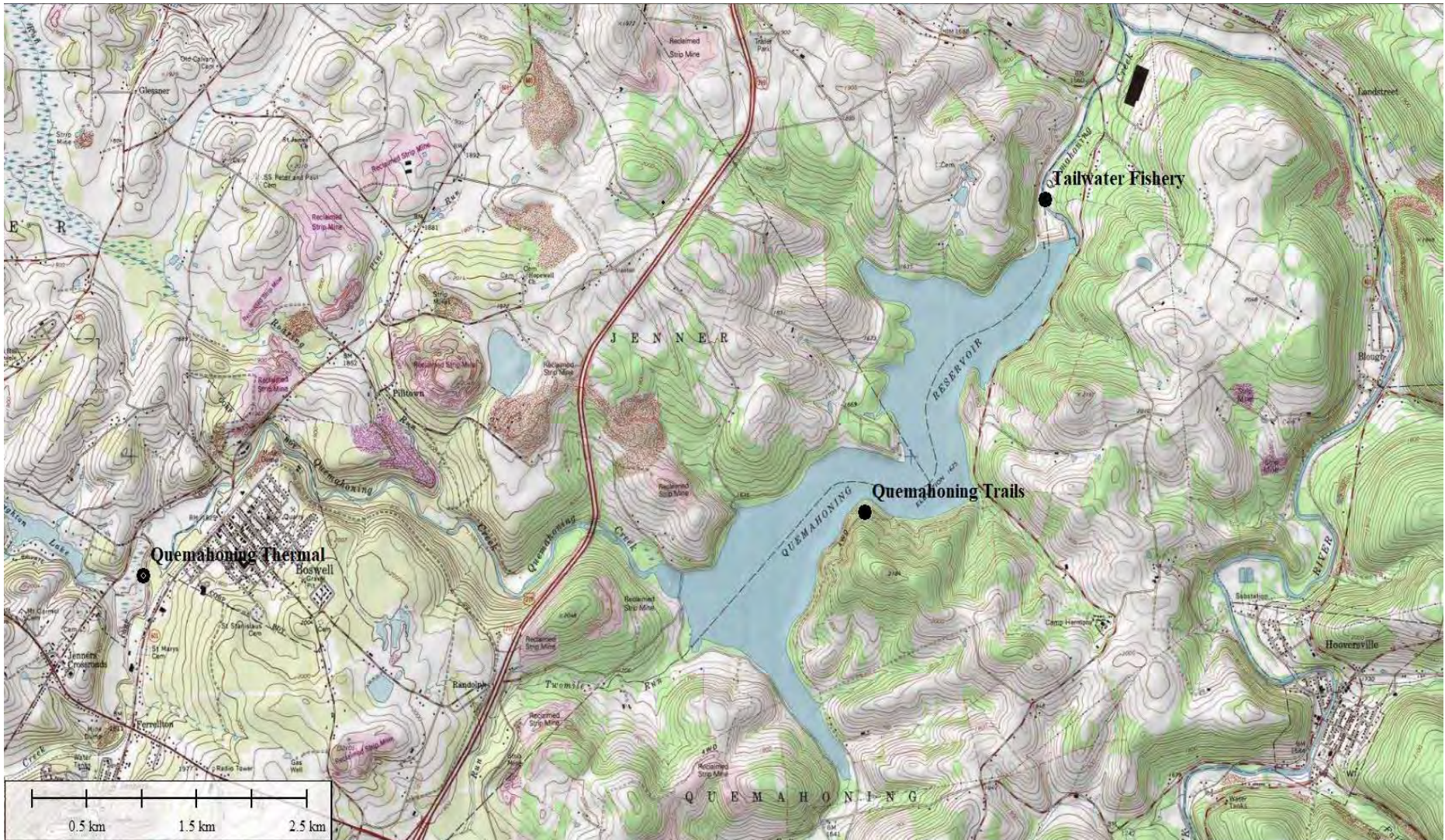
Stonycreek and Little Conemaugh River Improvement and Reinvestment Project



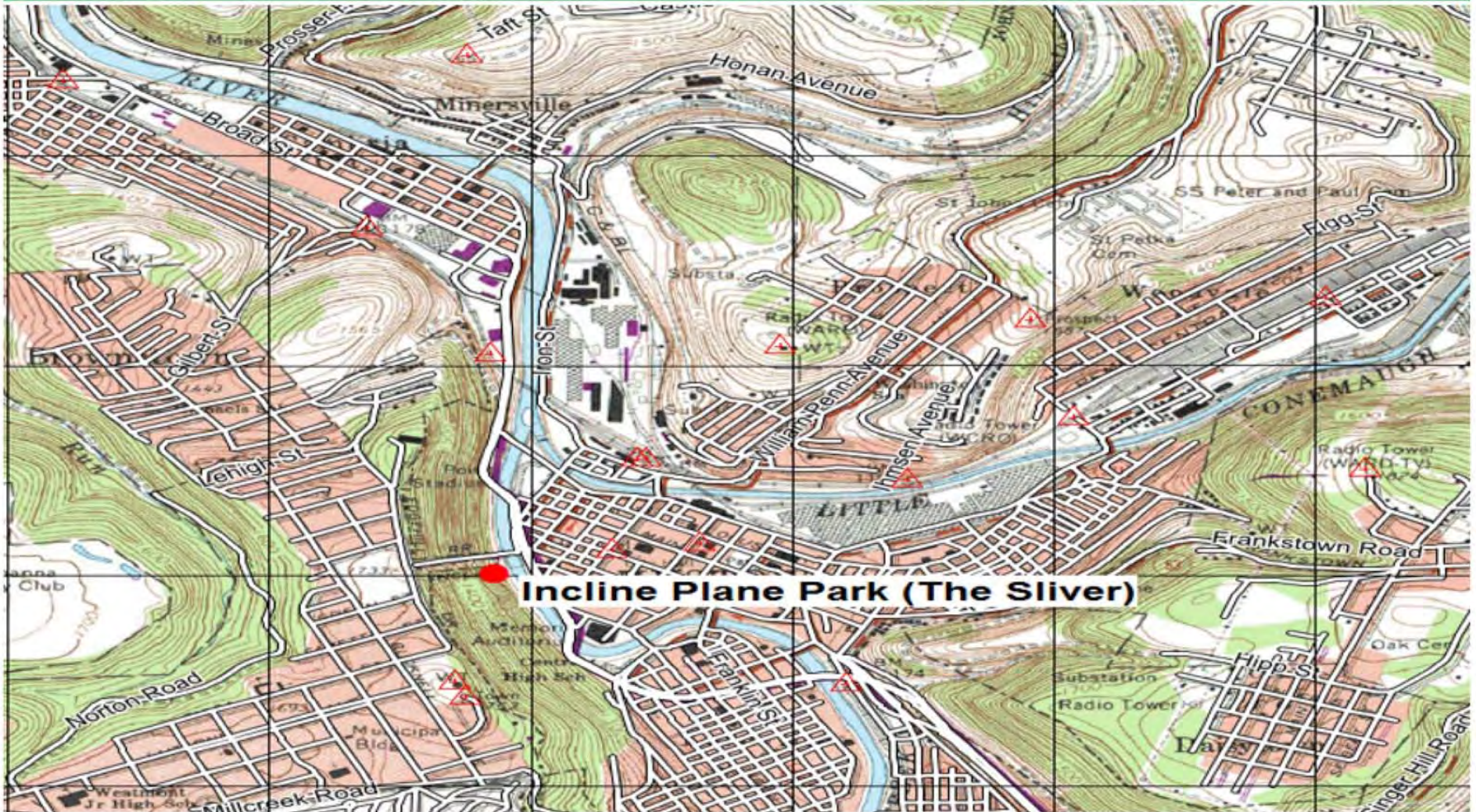
Stonycreek and Little Conemaugh River Improvement and Reinvestment Project



Stonycreek and Little Conemaugh River Improvement and Reinvestment Project



Stonycreek and Little Conemaugh River Improvement and Reinvestment Project



Stonycreek and Little Conemaugh River Improvement and Reinvestment Project

“The Sliver” Inclined Plane Riverside Park

“The Sliver” is envisioned as the City of Johnstown’s first public riverfront park, intertwined with the historic Inclined Plane, river and hillside recreation, waterfront access, and urban ecology.

The park is aligned with significant planning efforts currently underway to enhance public access, recreation, and economic activity along Johnstown’s rivers.

Project partners hope that The Sliver initiates broad investment in riverfront development and awareness of local river issues.



Significant Benefits

- Rehabilitation of Oven Run Systems A and D: Protection and further enhancement of water quality in 15 miles of the Stonycreek River
- Approximately \$100,000 in Family Use Income
- Approximately \$500,000 in economic activity through the Quemahoning Bike Trail
- More than \$500,000 in water related recreational activities in Stonycreek River

Significant Benefits

- More than \$950,000 of economic impact to the Cambria Somerset Authority
- Incline Plane Park (The Sliver): More than \$500,000 in recreational activities related to bike trails around Johnstown.
- Saltlick Reservoir: Improved water service to the Greater Johnstown Water Authority residential and industrial customers with ability to expand.

Significant Benefits

- General Economic Impact from Visitors (Source: FPW Economic Impact Analysis)
 - 92,260 out-of-town visitors
 - \$6.2 million in spending
 - 84 permanent jobs
 - \$1.9 million in labor income
 - \$3.1 million in property value increases
 - \$4.6 million in economic output
 - More than \$850,000 in taxes annually.

Project Partners

- The Foundation for PA Watersheds
- Somerset County Conservation District
- Cambria Somerset Authority
- Coal Tubin'
- Johnstown Wire Technologies
- The Greater Johnstown Water Authority
- Vision 2025
- The City of Johnstown
- Cambria County Conservation & Recreation Authority
- Office of Surface Mining Reclamation & Enforcement
- PA Department of Environmental Protection

Forest City East - PA Fish & Boat Commission Access



Concrete Structures



Dangerous Pile & Embankment

Forest City East - PA Fish & Boat Commission Access



Eroded Stream Channel Diversion

Forest City East - PA Fish & Boat Commission Access



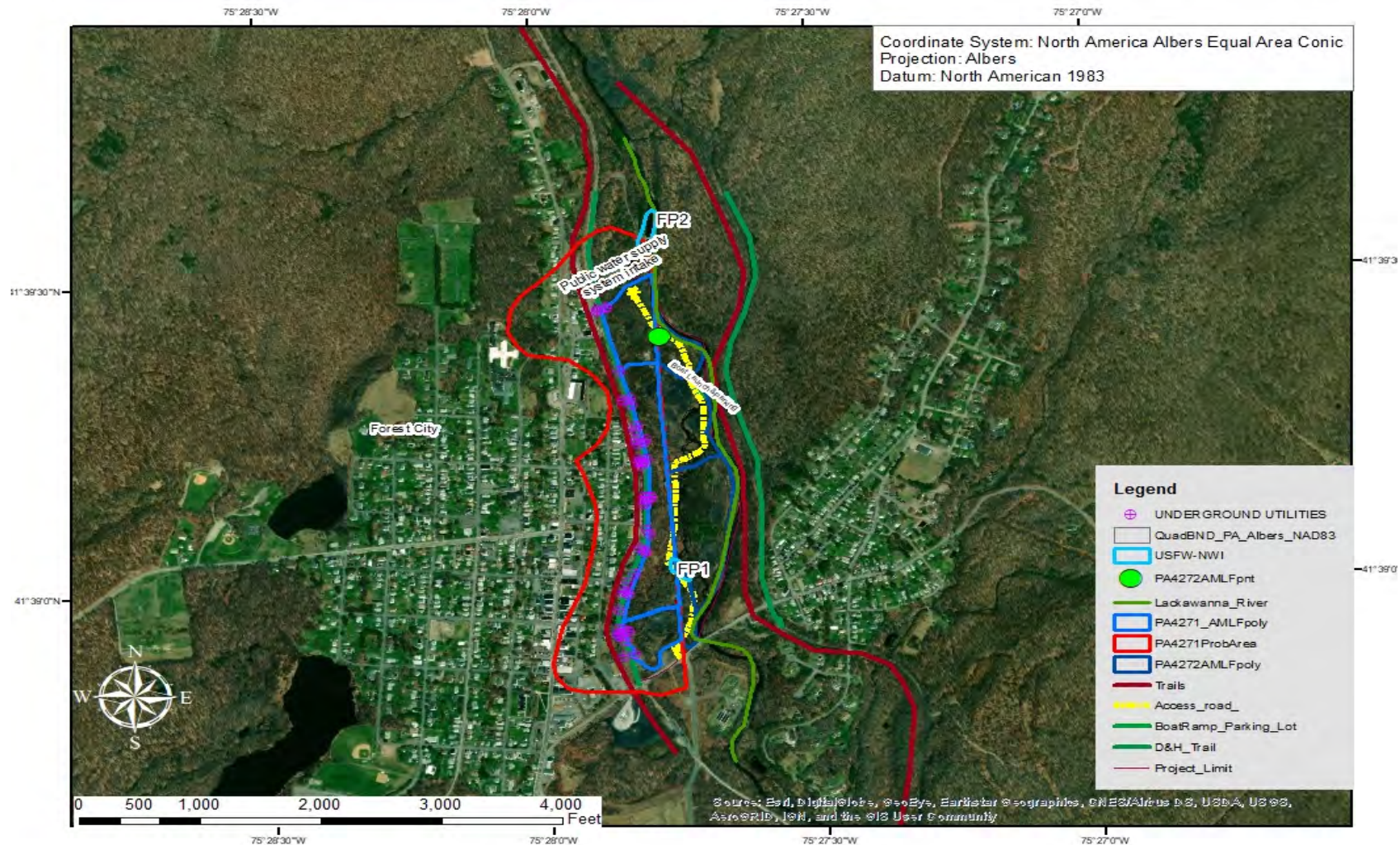
Gob Area

Forest City East - PA Fish & Boat Commission Access

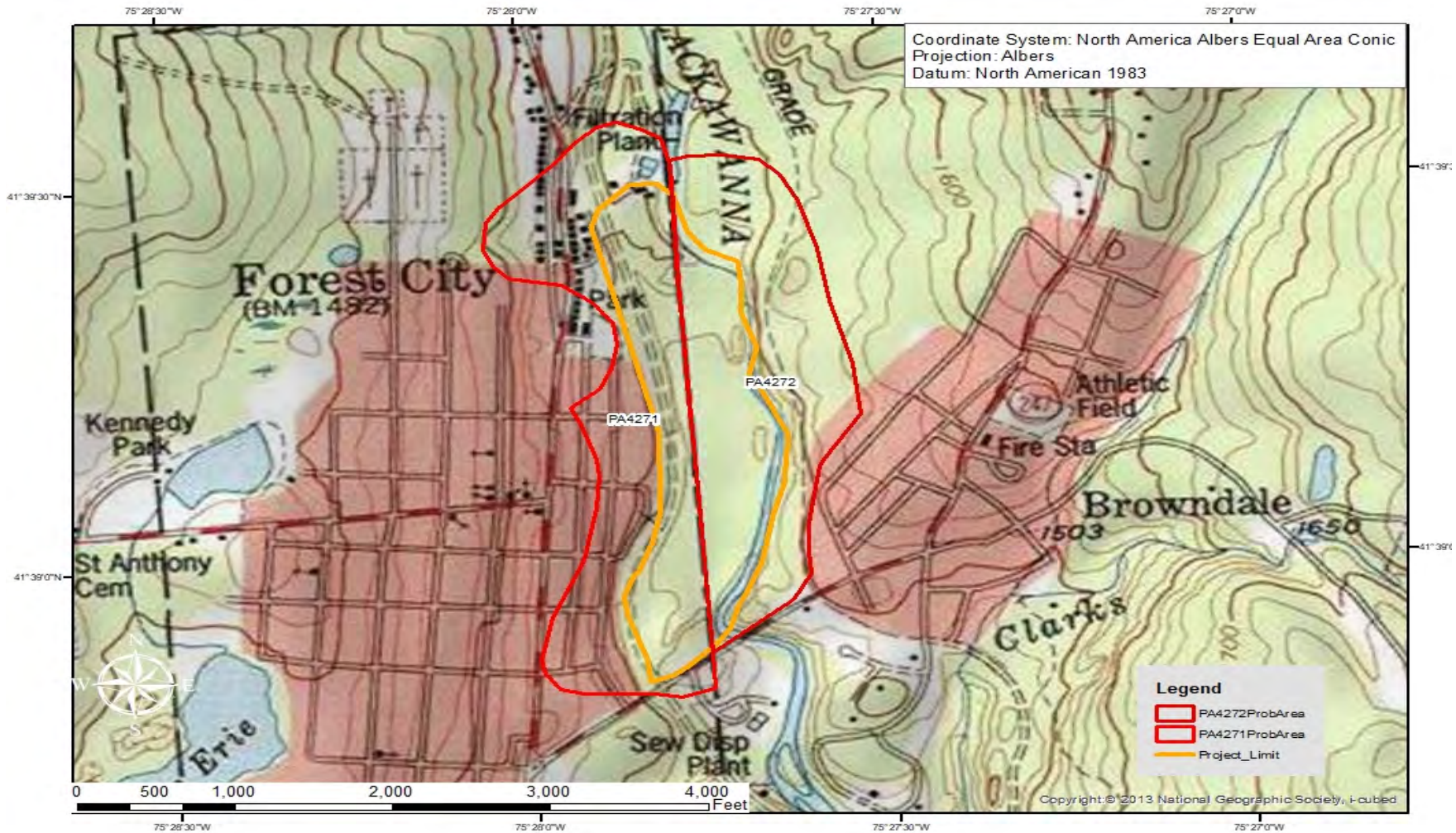


Northern view drone photo showing project site detail

Forest City East - PA Fish & Boat Commission Access



Forest City East - PA Fish & Boat Commission Access



Forest City East - PA Fish & Boat Commission Access

The AML pilot funding and Title IV AML funding, will be used to eliminate 16.2 acres of dangerous piles and embankment, and 34.5 acres of gob, removal of one each hazardous Equipment and Facility and the restorations of the eroded section of riverbank measuring approximately 4,000 feet along the Lackawanna River, stabilizing highly erodible material along the riverbank. An easement agreement between the property owner and the PA Fish & Boat Commission (PFBC) will provide for fishing and canoe access to the Lackawanna River. An access trail/road with a parking area will be constructed.

Forest City East - PA Fish & Boat Commission Access

The Forest City East Project is expected to promote increased visitation to the area and benefit the local economy. The PFBC Access will be an attraction bringing fishing and canoe/kayaking sports people to the area, it's anticipated that the PFBC Access will attract 500-600 fishing enthusiasts and an average of 15-20 boats/canoes/kayaks per day during highwater season. The Lackawanna Conservation River Association and the American Canoe Association host non-profit fundraising events twice a year attracting hundreds of visitors.

Forest City East - PA Fish & Boat Commission Access

Approximately 200 visitors enjoy the Canoe-A-Thon, a regatta, which includes paddling demonstrations, music, food, crafts and outdoor fun for the whole family along the Lackawanna River banks. The visitors will be using local facilities such as gas stations, restaurants, and hotels. There are seasonal Class 3 and 4 whitewater rapids just downstream of this location.

Significant Benefits

- Reclamation of 55 acres of Abandoned Mine Land
- Elimination of dangerous AML features
- Future community Attraction/Fishing & Canoeing Hot Spot
- Creating job and development opportunities

Project Partners

- Linde Corporation
- Forest City Partnership LLC
- PA Fish & Boat Commission
- Office of Surface Mining Reclamation and Enforcement
- PA Department of Environmental Protection

Morris Run AMD Treatment Plant

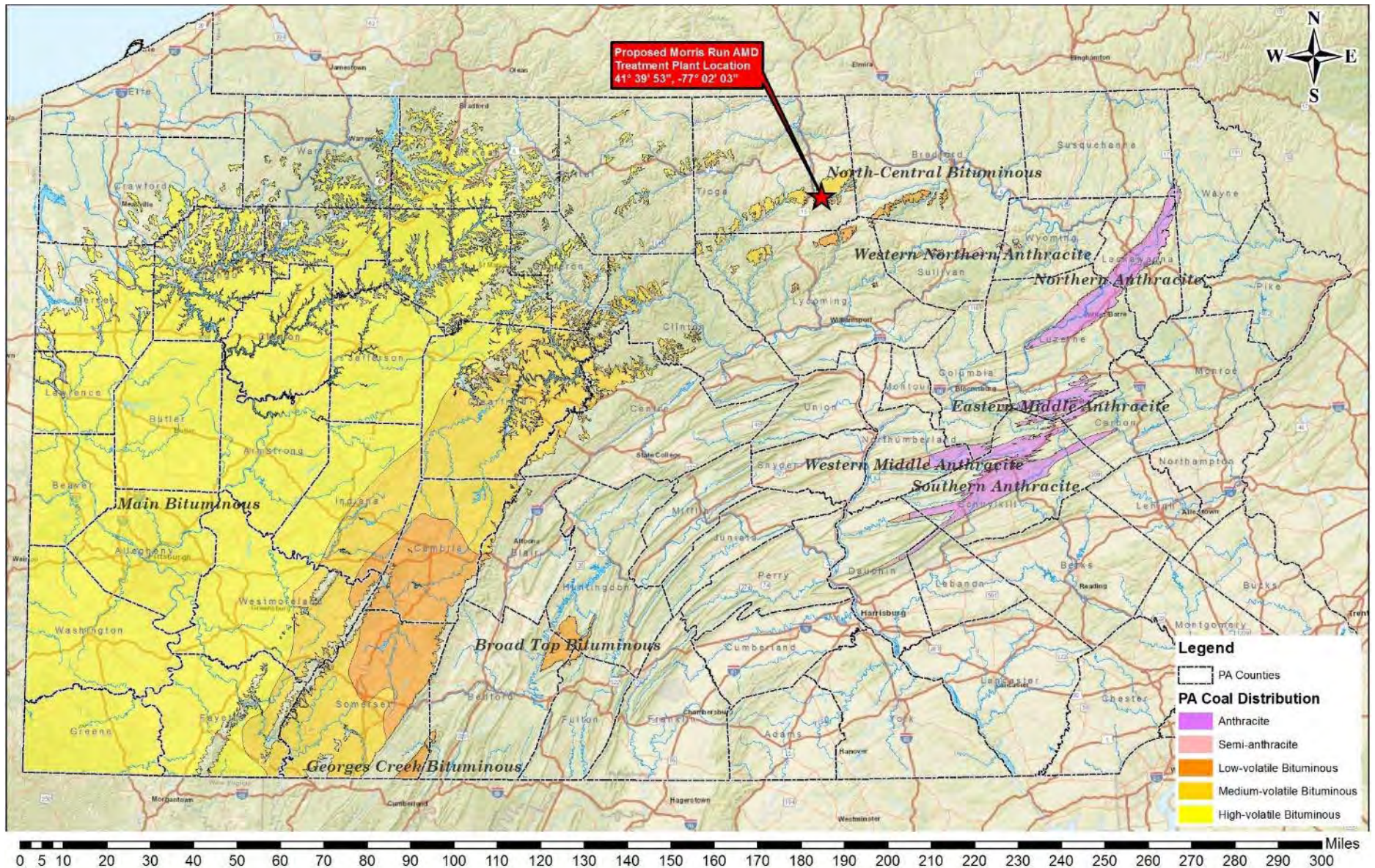


Tioga River at Blossburg, PA – Photo shows severe impact from acid mine drainage. There is little to no aquatic life in the river.

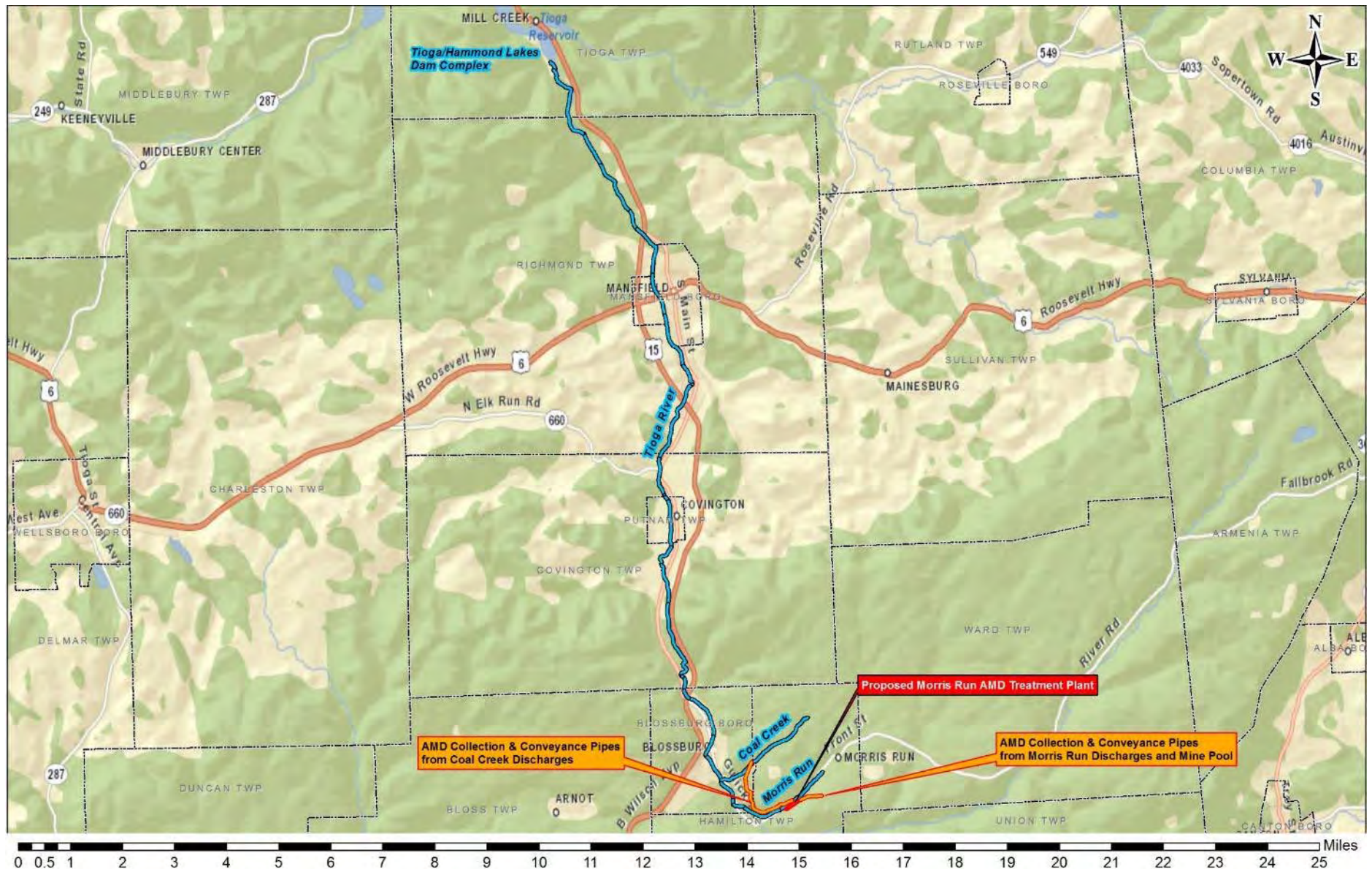
Morris Run AMD Treatment Plant

AML Pilot funding will be used to design and construct an active AMD treatment system with the intent of restoring the Tioga River. The Tioga River is impaired due to low pH and high concentrations of metals. AMD will be collected from discharges along Morris Run, Coal Creek and adjacent mine pools via directional-drilled pipes then conveyed to a centralized treatment plant near Morris Run.

Morris Run AMD Treatment Plant



Morris Run AMD Treatment Plant



Morris Run AMD Treatment Plant



The East Mine Discharge along Morris Run is a continuous AMD discharge from a mine opening with an average flow of 300 GPM. Average water chemistry values are: pH=2.9, Al=40 mg/l, Fe=10 mg/l, Mn=30 mg/l, acidity=400 mg/l, alkalinity=0 mg/l.

Morris Run AMD Treatment Plant



The Coal Creek Discharge is the largest volume discharge within the Tioga River Watershed and is responsible for 45% of the total acidity load to the Tioga River.

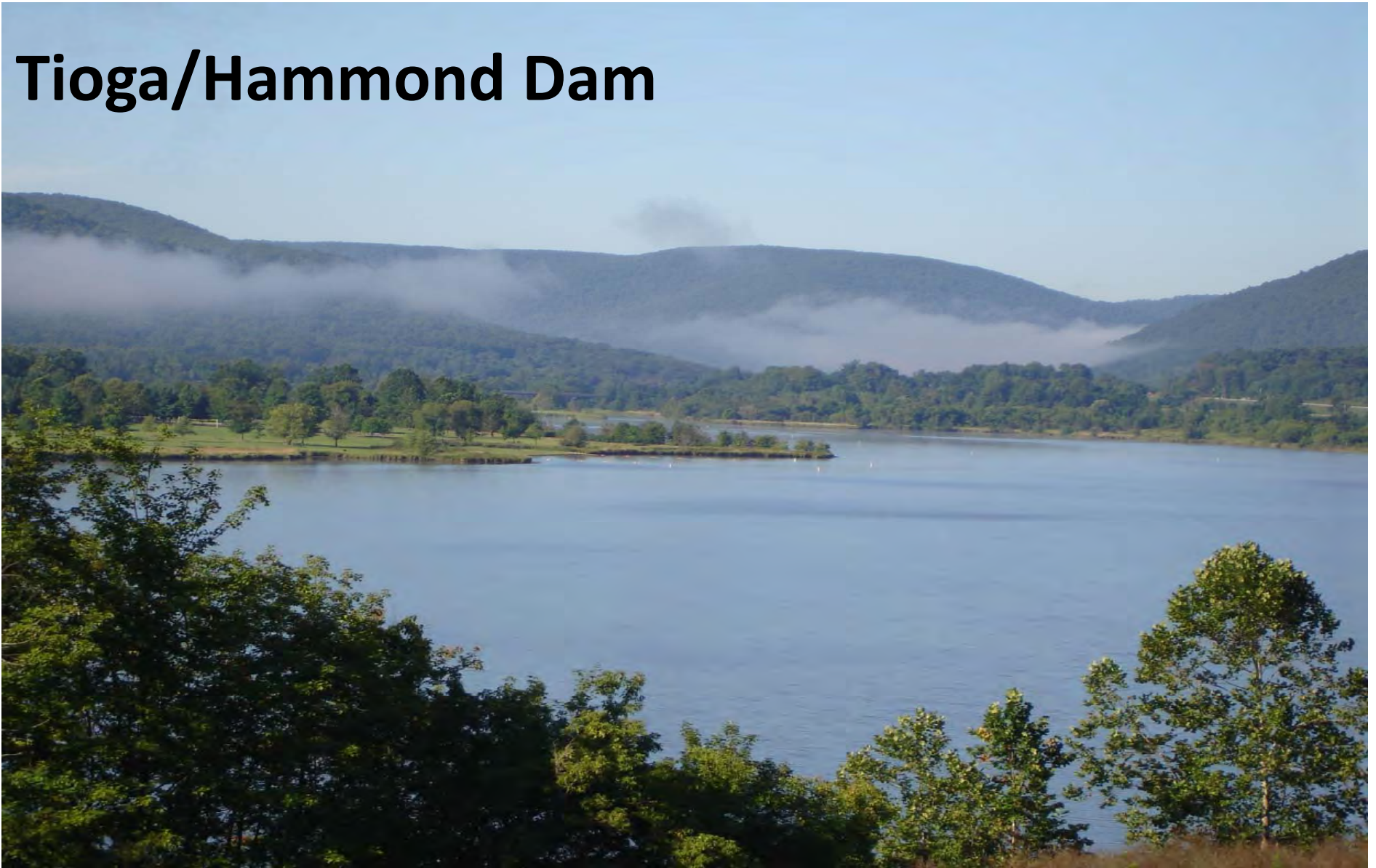
Morris Run AMD Treatment Plant



AMD discharge from the Lake Mine Complex. Average flow is 1,300 GPM.
Average water chemistry values: pH=3.2, Al=20 mg/l, Fe=8 mg/l, Mn=25 mg/l,
acidity=230 mg/l, alkalinity=0 mg/l.

Morris Run AMD Treatment Plant

Tioga/Hammond Dam



Significant Benefits

- Restore a total of twenty (20) miles of streams back to a natural state as a wild trout and stocked trout fishery
- Improve water quality within 500-acre Tioga Lake and ultimately the entire 1,200-acre Tioga/Hammond Dam Complex; only half of the complex is good water quality
- Produce positive economic benefits to the Tioga/ Hammond Dam Complex recreation area

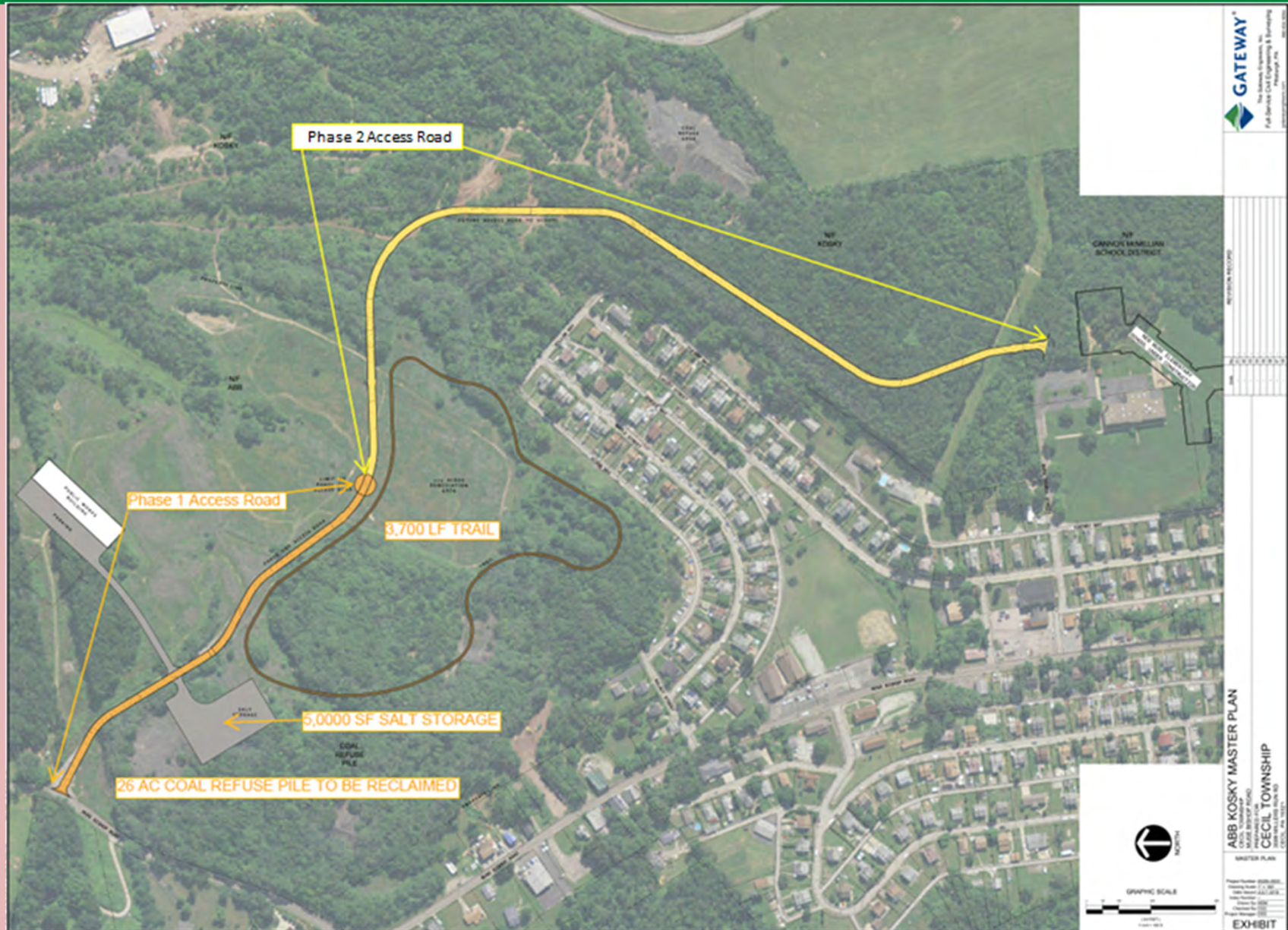
Project Partners

- PA Department of Conservation and Natural Resources
- Susquehanna River Basin Commission
- Tioga County Conservation District
- Tioga County Concerned Citizens Committee
- Office of Surface Mining Reclamation and Enforcement
- PA Department of Environmental Protection

Suspended Projects

- Cecil Township Municipal Park
 - Cecil Township, Washington County
- West Newton Coal Logistics/Banning Coal Refuse Embankment Stabilization Project
 - Rostraver Township, Westmoreland County

Cecil Township Municipal Park



Cecil Township Municipal Park

The project would have involved grading several large refuse piles (up to 60 feet high) to remediate existing hazardous slopes. The refuse piles were to be blended with alkaline materials, topped with a two-foot earthen cap, and re-vegetated. Cecil Township had planned to build a public works facility including a 5,000 SF. salt storage building and a 3,700 LF. walking trail on the refuse pile. The new public works building was to be constructed adjacent to the refuse pile. This was the preferred location due to its proximity and access to public roads. Project has been suspended due to change in Township Supervisors.

West Newton Coal Logistics Refuse Embankment Stabilization Project



West Newton Coal Logistics Refuse Embankment Stabilization Project

The AML pilot funding was to be used to stabilize and regrade low-hazard dams previously created for permitted, coal refuse disposal purposes. Approximately 100 acres of disturbed area was to be regraded to a much more stable configuration for the possible post-reclamation uses of alternative energy generation or recreation. It was anticipated that three permanent full time positions would have been created or maintained. Project has been suspended due to very high cost.



For more information about the AML Pilot Program in Pennsylvania, visit:

www.pa.gov/AML

Tom Wolf, Governor

Patrick McDonnell, Secretary