



Pennsylvania's 13th Annual Abandoned Mine Reclamation Conference

"Working Together for Innovation and Success"



**August 4th—6th, 2011
Best Western
Genetti Inn & Suites
Hazleton, PA**

Please visit www.TreatMineWater.com for the presentations and proceedings following the Conference

WELCOME

Dear 2011 Conference Attendees,

Thank you for joining us at our 13th Annual Conference. This year's conference will focus around the theme "*Working Together for Innovation and Success.*"

The Conference will also coincide with celebrating EPCAMR's 15th Anniversary. A dinner/fundraiser event will be held to mark this special occasion on Thursday night. *Come join us* as we celebrate being a State-wide leading environmental organization committed to reclaiming PA's abandoned mine lands, restoring streams impacted by abandoned mine drainage, building coalitions and partnerships to address water quality problems in PA associated with past mining practices.

Thursday will be a pre conference tour of Abandoned Mine Lands and Mine Drainage sites in the Tamaqua / Hazleton area led by a team of local watershed groups. Stops will take tour attendees to AML sites, AMD discharges, and treatment systems in the Catawissa Creek, Nescopeck Creek, and Schuylkill River Watersheds.

Friday, the presentations will begin in the morning, run through the evening, and start up again on Saturday morning through lunch. Twenty-one (21) presentations will be divided into two tracks to run simultaneously and a 1/2-day workshop on Grant Writing and Seeking Community Foundations for Support will run concurrently with the Conference. The PA DEP's Secretary - Michael Krancer, the Director of the Federal OSMRE - Joe Pizarchik, and Renew Growing Greener's Executive Director - Andrew Heath will address the audience as well.

Friday evening, as a part of the conference, there will be a formal dinner where the Mayfly Award will be presented to this year's yet-to-be-announced winner. The Mayfly Award is presented to those individuals who exhibit long-term efforts in addressing mine drainage remediation projects in PA and have contributed greatly towards cleaning up PA's environment from Abandoned Mine Drainage impacts.

~On behalf of the 2011 Conference Planning Committee,



EPCAMRE Executive Director



**Thanks for making the
conference possible!**



Our Sponsors

Pennsylvania Department of Environmental Protection
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**and
all our
Presenters**

2011 PA Conference Planners

- ***Robert Hughes, Michael Hewitt, Wren Dugan & Justyna Sacharzewska**
Eastern PA Coalition for Abandoned Mine Reclamation (Lead Organization)
- ***Andy McAllister and Anne Daymut**
Western PA Coalition for Abandoned Mine Reclamation (Co-Lead)
- ***Arielle Avishai**, US Office of Surface Mining and Reclamation Enforcement,
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- ***Donna Carnahan**, PA DEP 319 Watershed PG, Non-Point Source Section,
Harrisburg
- ***Tom Grote**, PA AMR Conference Committee, Johnstown
- ***Mark Killar**, Western PA Conservancy, Freshwater Conservation Program,
Indiana
- ***Beth Kern**, PA DEP Bureau of District Mining Operations, Ebensburg
- ***Melissa Reckner**, Kiski-Conemaugh Stream Team, Winber
- ***John Stefanko**, PA DEP Mineral Resource Management, Harrisburg

Thursday – Pre Conference Schedule



Thank You to the Tour Subcommittee: Ed Wytovich, Tim Ference, Mike Korb, Todd Wood, Wayne Lehman, Christine Haldeman, and for allowing access James Pagnotti.

Pre-Conference Schedule — Thursday August 4, 2011

10:45— 11:00	Meet in front of Genetti's Presidential Ballrooms to board bus
~ 11:15	Jeddo Tunnel AMD Discharge
~ 12:00	Lunch on the Road
~ 12:45	Oneida #3 AMD Discharge Treatment System
~ 1:30	Green Mountain South AML Reclamation, Shepton Mine Disaster Site
~ 2:15	NEPCO CoGen & van Hoekelen Greenhouse
~ 3:15	Kelayres AML Reclamation
~ 4:15	Jeddo-Highland Coal Co. Active Anthracite Mine Site
4:30— 5:00	Arrive Back at Genetti's — Free Time
5:00— 8:00	EPCAMR 15th Anniversary (Optional) Dinner / Fundraiser (\$50 Regular and \$40 Nonprofit Tickets)

Join us to celebrate our 15th Anniversary **EPCAMR: PARTNERSHIPS, PLACES, & PRIDE** 1st Annual Dinner & Fundraiser

"On behalf of **EPCAMR**, I would like to extend a personal invitation to our partners throughout the coal regions that have played a vital role in assisting us with reclaiming PA's abandoned mine lands, restoring streams and rivers impacted by abandoned mine drainage, educating our youth on becoming active environmental community leaders, and building local capacity to improve our Commonwealth's watersheds through acts of volunteerism."
-Robert E. Hughes, Executive Director

The Evening of Celebration will include:

- Digital Photography Exhibition of **EPCAMR's** 15 years
- Silent Auction of "Anthrascapes," Original Art created with Abandoned Mine Drainage
 - Unveiling of two **EPCAMR** Publicity Collages
 - Honoring Past and Present Partners
- Recognition of the County Conservation Districts, Regional Organizations, State and Federal Partners
 - Letters of Appreciation and Testimonials
- Tales from **EPCAMR's** Greatest Storyteller, Bruno Najaka

Photo by Miguel Angel de la Cuerva, ILCP

Thursday, August 4, 2011
 Best Western
 Genetti Inn & Suites, Hazleton, PA
 Cocktail Reception at 5:00 pm,
 Dinner Program begins 5:30 pm

*
 ** If you would like information on becoming
 ** a Sponsor, Program Booklet Advertising,
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 ** Please Contact: Robert E. Hughes,
 * 570-371-3523 or rhughes@epcamr.org
 **
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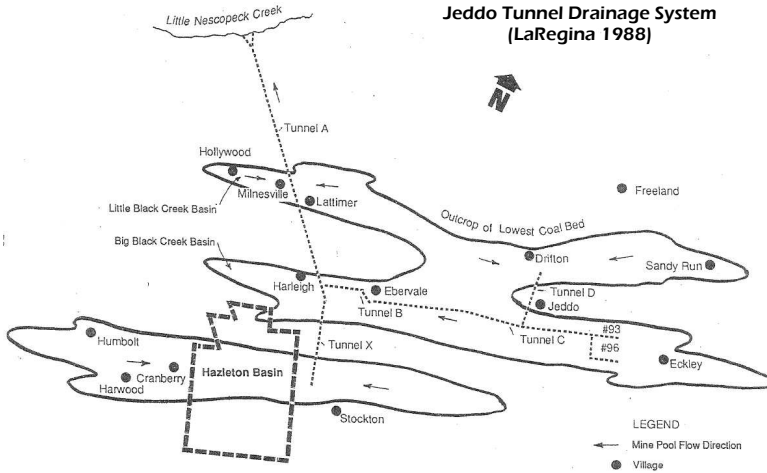
**EPCAMR PARTNERSHIPS
PLACES
& PRIDE**



Eastern PA
Coalition for
Abandoned Mine
Reclamation

www.epcamr.org

Tour Stop Information and Historical Significance



On February 4, 1891 a blast triggered a flood of water pouring from an abandoned mine into a working mine. 13 miners drowned. 4 men were rescued 20 days later. This incident, coined the Jeansville Mine Disaster, along with many stream flooding and infiltration events sparked mining engineers to devise a better way to drain mines in the Eastern Middle Field. 11 Mine Drainage Tunnels were developed to drain the mines.

Jeddo Tunnel

The Jeddo Tunnel is "the largest and probably best known drainage tunnel in the Eastern Middle Field" and the brain child of John Markle, G.B. Markle Co. (LaRegina, 1988). Jeddo consists of tunnels A, B, C, D, X, #93 & #96 which drain an approx. 25 square mile area of coal mines, including Lettimer, Eckley, and Hazleton and 7 more mine systems throughout the region. Crews of nearly 100 men drilled and blasted through hard rock to create tunnels such as the Jeddo Tunnel A (completed 1895), Oneida #1 (completed 1910) and #3 (completed 1913). The average rate of advance was about 10 feet per day (Reed, 1914).

Oneida #3 AMD Discharge Treatment System

The upflow limestone well type system treats the acidic aluminum Oneida #3 AMD Discharge which averages 2,500 gpm. Construction of the tunnel began April 1912 and finished in June, 1913. It provided gravity drainage, eliminating the need for 20 mine pumps in the Green Mountain (Oneida) South Basin. The 7,040 feet tunnel is 7 X 9 ft. and pitches at a 45° angle through hard close-grained dark conglomerate successively to coarse-grained conglomerate bluerock and red shale at the mouth. Oneida #3 discharges to Tomhicken Creek in the Susquehanna watershed (LaRegina, 1988). Nearby, the Oneida #1 Treatment System is an oxalic limestone drain constructed in 2001 to treat the Oneida #1 Discharge (similar chemistry) draining the Green Mountain North Basin.

Oneida West, North Shepton & Green Mountain South Reclamation Projects

Oneida West & Shepton North Project consisted of 37 acres of 50 to 70 feet deep pits and was reclaimed to 3 wetland areas totaling 7 acres, and installed new, concrete culverts beneath School House Road. They also eliminated stormwater runoff, streams and springs flowing into the underground mines to reduce acid mine drainage coming out the Oneida #3 Tunnel. The project was completed in 2000 and cost approximately \$500,000 (SMCRA Title 4). Green Mountain South was a 114 acre project eliminated one hazardous water body, one vertical opening and 13,720 feet of highwall, ranging in depth from 20 to 100 feet. The project involved backfilling and grading approximately 1,427,670 cubic yards of on-site material, the construction of 9 wetlands totaling 5.6 acres, installing 6,370 feet of rock lined channel and installing 6 snake habitats. The work was completed Dec. 2009 by Wolverine Contractors of Quakertown, PA at the bid price of \$1,795,443.50 (SMCRA Title 4 & GG2).

Sheppton Mine Disaster

On August 13, 1963, three workers in the Sheppton Mine were trapped during a cave in. Henry Throne and David Fellin spent 14 days trapped crawling in the dark more than 300 feet below the surface before being rescued. The third man, Louis Bova, was never found. The disaster caught the attention of the world via international news as new techniques were used to reach the workers these included drilling a 6 inch hole and lowering a microphone to detect if they were still alive. It took several more days to widen the hole to 18 inches and to pull the miners to safety.

Northeast Power Co. Cogeneration Facility and van Hoklen Greenhouses

A power plant built to turn culm and waste coal into energy, the facility consumes 560,000 tons of culm each year and generates 300,000 tons of ash annually, which is used to reclaim an abandoned surface mine nearby. A boiler produces steam for the 7 acre van Hoekelen Greenhouses, a wholesale plant distribution center nearby on Plant Road. NEPCO provides power for PP&L in Eastern PA.

Keylares Reclamation Area

The Kelayres strip mine pit was abandoned when mining stopped in 1962. In 1978, a 10-year old McAdoo boy fell to his death from the edge of the Kelayres pit. The Priority 1 reclamation project was started in Oct. 1989 by the Geupel Construction Company, Inc., of Columbus, Ohio and completed in Oct. 1992 at a total cost of \$9,961,179.77 (SMCRA Title 4). Nearly 12 million cubic yards of material were backfilled and graded to reclaim 265 acres of abandoned strip mined land. The near vertical highwall of the strip pit was 450 feet at its deepest point. On average the highwall depth was 250 feet and the length reclaimed was 6,400 feet, which is slightly more than 21 football fields.

Jeddo Highland Coal Co. Active Anthracite Mine

Today and in the recent past, the Jeddo Highland Coal Co. has been the active operators of the approximately 1/2 sq. mile surface mine site within the Big Black Creek (Jeddo) Basin (drained by the C Tunnel). Now their primary source of raw coal, this site was previously affected by underground and surface mining that began over 100 years ago. The Jeddo-Highland #5 Breaker was built in 1915, closed in 1963, and destroyed in 1986.

Lattimer Massacre

On September 10, 1897, Luzerne County Sheriff's department and a posse of 100 men opened fire on 400 unarmed men and boys who were marching in a strike on a mine owned by Calvin Pardee and in support of the newly formed United Mine Workers union. The marchers were warned to disperse, but continued quietly to the village of Lattimer. Sheriff's deputies were overheard by bystanders making comments about how many men they planned to shoot. At

3:45pm, the posse halted the marchers and tried to take the American flags they held. A scuffle ensued, and the fired on the crowd, killing 19 men and boys and wounding nearly 50. No one was ever convicted for the murders, but it resulted in a huge surge in membership of the UMW, which increased its numbers by 15,000 members in the few months after the incident.



13th Annual PA Abandoned Mine Reclamation Conference

Schedule – Friday August 5, 2011

7:00– 8:30	Registration & Light Breakfast		
8:30– 8:45	W e l c o m e !		
8:45– 9:30	Opening Speaker: PA DEP Secretary Michael Krancer		
Room	Washington	Adams & Monroe	Jefferson
9:30– 10:15	S. McSurdy, Utilizing AMD for Marcellus Shale Activities in PA	M. Korb, The Conowingo Tunnel and the Anthracite Mine Flood-Control Project	K. Totino, Grant & Project Development Workshop Part 1
10:15– 10:45	Break (Exhibit Area)		
10:45– 11:30	A. McAllister, Protecting The Good Samaritan	C. Cravotta, Water Budgets and Volumes for Western Middle Underground Mines	K. Bauman, Grant & Project Development Workshop Part 2
11:30– 12:15	T. Clark, Anthracite Remediation Strategy	T. McDevitt, African American Experience in Coal Mining Communities	B. Diehl, Grant & Project Development Workshop Part 3
12:15– 1:30	Lunch & Speaker: OSMRE Director Joseph Pizarchik		
Room	Washington	Adams & Monroe	
1:30– 2:15	T. Wood, Qualified Hydrologic Unit Process	R. Hedin, Using AMD Solids for Managing Phosphate in Manure	
2:15– 3:00	M. Stuckart, Mitigation Banking used for Restoration of AMD in PA	E. Ricketts, Effort to Nationalize Mines in the Late 19th and Early 20th Century	
3:00– 3:30	Break (Exhibit Area)		
3:30– 4:15	J. Wolff, EXTRACTIVE/ENERGETIC: The Adaptive Reuse of Minescapes	J. Mercer, Effective use of Calcium Reagents in AMD & AML Reclamation	
4:15– 5:00	R. Dunlap, West Branch Susquehanna Recovery Benchmark Project	J. McNelly, Partnerships between Watershed Groups and ARIPPA	* Weather Permitting
5:00– 5:30	Free Time-Networking (Exhibit Area)		
5:30– 6:30	Buffet Dinner & Mayfly Award (Outside Tent*)		
6:30–	"Mother Jones" Theatrical Performance (Outside Tent*)		

Michael Krancer was a Judge on the Pennsylvania Environmental Hearing Board (EHB), until he was nominated by Governor Tom Corbett to be Pennsylvania's Secretary of the DEP. He was first nominated to serve as a Judge on the EHB by Pennsylvania Governor Tom Ridge in October 1999. In February 2003, Judge Krancer was named Chief Judge and Chairman. Before becoming a Judge, Mr. Krancer was a litigation partner at the Dilworth and Blank Rome law firms in Philadelphia. Judge Krancer stepped down from the EHB in April 2007 to devote full time to his candidacy for Justice of the Pennsylvania Supreme Court. Secretary Krancer became an Assistant General Counsel for the Exelon Corporation in June 2008. While with Exelon he provided legal counsel in the areas of environmental, health and safety compliance and litigation. He was asked by Governor Rendell to return to the EHB as a Judge in 2009.

Grant Seeking, Writing and Project Management Workshop

Friday Morning – Jefferson Room



Joseph Pizarchik is the 10th Director of the U.S. Department of the Interior's Office of Surface Mining Reclamation and Enforcement. Prior to joining OSMRE, Mr. Pizarchik served more than 17 years with the PADEP, rising to Assistant Director in the Bureau of Regulatory Counsel before his appointment as Director of the Bureau of Mining and Reclamation. While at PADEP, he co-authored Pennsylvania's Environmental Good Samaritan Act, helped develop PA's program for volunteers to clean up abandoned coal refuse sites and provided key legal support in the development of PA's program for mine operators to establish trust funds to meet their financial obligation to perpetually treat the discharges caused by their mining. Mr. Pizarchik is also credited with helping clear the way for the sale of private mining property to the Families of Flight 93 to enable the construction of the memorial.

The Prestigious *Mayfly Award* will be presented to a very deserving individual at Dinner

Friday Evening

Mary Harris "Mother Jones" and the Great Strike of 1902
Presented by the Eckley Players

Pray for the dead
and fight like hell
for the Living.

Mary Harris "Mother" Jones
1857-1930

Details – Friday August 5, 2011

<p>9:30 — 10:15</p>	<p>Utilizing AMD for Marcellus Shale Activities in Pennsylvania Sandra McSurdy, U.S. Department of Energy, National Energy Technology Lab.</p> <p>Researchers at the University of Pitt., Carnegie Mellon U., and the US DOE are examining uses for AMD relating to water management in the Marcellus Shale Play. AMD is being considered for use as make-up water at well sites, reducing the amount of freshwater needed along with trucking costs. Preliminary lab tests have also shown that barium, strontium and calcium can be removed from flowback water when it is mixed with sulfate and carbonate ions that are often found in AMD.</p>
<p>10:45 — 11:30</p>	<p>The Conowingo Tunnel and the Anthracite Mine Flood-Control Project Michael C. Korb, P.E., PA DEP Bureau of Abandoned Mine Reclamation</p> <p>A Historical Perspective on a “Solution” to the Anthracite Mine Drainage Problem 57 years ago, Pennsylvania’s Anthracite Mine Drainage Commission recommended that the Conowingo Tunnel, an expensive long-range solution to the Anthracite Mine Drainage problem, be tabled, and that a cheaper, short-range “job-stimulus” project be implemented instead.</p>
<p>11:30 — 12:15</p>	<p>Protecting The Good Samaritan Andy McAllister, Western PA Coalition for Abandoned Mine Reclamation</p> <p>The decision by US District Judge Irene Keeley, in what is known as the “Highlands” case, along with the decision by the Fourth Circuit Court of Appeals in fall 2010, has created concern about the possibility of NPDES permits being required for AMD treatment systems. Those court decisions bring up lot of good questions on the intent of the Clean Water Act. One possible solution is the creation of a Federal Environmental Good Samaritan Act, but is this the only solution?</p>
<p>12:15 — 1:30</p>	<p>Water Budgets and Volumes for Western Middle Underground Mines Charles A Cravotta III, Ph.D. P.G. , USGS Pennsylvania Water Science Center</p> <p>This report, prepared in cooperation with the PA DEP, EPCAMR, and the Dauphin County Conservation District, provides estimates of water budgets and groundwater volumes stored in abandoned underground mines in the Western Middle Anthracite Coalfield, which encompasses an area of 120 square miles in eastern PA. The estimates are based on preliminary simulations using a groundwater-flow model and an associated GIS that integrates data on the mining features, hydrogeology, and streamflow in the study area.</p>
<p>1:30 — 2:15</p>	<p>Anthracite Remediation Strategy Tom Clark, Susquehanna River Basin Commission</p> <p>In 2008, the SRBC, in partnership with Trout Unlimited and the PA DEP and PA DCNR, completed the West Branch Susquehanna Subbasin AMD Remediation Strategy. That strategy is now being utilized to guide AMD treatment and AML reclamation projects in the 7,000 sq. mi. West Branch Susquehanna River Subbasin. Due to the success of that strategy, SRBC decided to fund a similar effort for the 517 sq. mi. Anthracite Region.</p>
<p>2:15 — 3:00</p>	<p>African American Experience in Coal Mining Communities Theresa McDevitt, PhD, Indiana University of Pennsylvania</p> <p>African Americans played a large part in the story of mining in the United States, though this part of history is often neglected in the telling of the miners’ story. This presentation will provide a brief overview of the history of Blacks in American coal mining and a closer look at Black’s experience in the coal mining towns of one Western Pennsylvania county in the early part of the 20th century.</p>
<p>3:00 — 3:30</p>	<p>Qualified Hydrologic Unit Process Todd M. Wood, P.E., PA DEP Bureau of Abandoned Mine Reclamation</p> <p>In 1990 an amendment was made to the federal Surface Mining Control and Reclamation Act of 1977 (SMCRA). The amendment allowed states and tribes to deposit up to ten percent of their grant into an AMD Abatement and Treatment Fund. Pennsylvania titled this fund the Ten Percent Set-Aside Fund. This fund was used to comprehensively abate the causes and treatment of AMD.</p>

<p>1:30 — 2:15</p>	<p>Using AMD solids for managing Phosphate in Manure Robert Hedin, Iron Oxide Recovery, Inc.</p> <p>Mine drainage treatment solids have high contents of Fe, Al, and Ca. These metals react readily with phosphate, a common nutrient pollutant in agricultural operations. Trout Unlimited and IOR recently completed a project that investigated the potential for using mine drainage residual solids (MDR) for lessening the potential for phosphorus pollution from dairy and swine manure operations.</p>
<p>2:15 — 3:00</p>	<p>Mitigation Banking used for Restoration of AMD in PA Margaret Stuckart, Lyons Run Watershed Association</p> <p>Monies for mine drainage abatement in Appalachia have dwindled in recent years requiring innovative approaches to dealing with mine drainage contaminated waters. One possible avenue is to utilize private funds generated through development and associated environmental impacts, to provide the (nonprofit private foundation) funding necessary to remediate mine water contaminated streams through an established mitigation bank.</p> <p>Effort to Nationalize Mines in the Late 19th and Early 20th Century Elizabeth A. Ricketts Ph.D. , Indiana University of Pennsylvania</p> <p>Well into the 20th Century, labor unions often had at least nominally socialist programs, even in the notoriously conservative United States. In Europe they routinely organized labor parties which competed in elections, and sometimes won, though rarely implementing more than a few of their more modest goals, such as nationalizing railroads, mines, and some other industries.</p>
<p>3:30 — 4:15</p>	<p>EXTRACTIVE/ENERGETIC: The Adaptive Reuse of Minescapes Jessica Wolff, MLA, BLA, LEED AP, Harvard Graduate School of Design</p> <p>In the realm of extractive landscapes, coal mining towns and their corresponding “minescapes” have been some of the hardest hit. What were once vessels of production and fruitful resources are now sites of exhaustion, depleting surrounding ecologies and economies. A century of industrial processes has forever changed the landscapes, leaving behind literal holes below ground and heaps above ground, as well as structures which embody the hard labor of previous generations.</p> <p>Effective use of Calcium Reagents In AMD & AML Reclamation Julia K. Mercer, Carmeuse Lime & Stone Co.</p> <p>“Lime” is a generic term applied to a variety of calcium-based reagents. This presentation will discuss application methods for calcium reagents, the effect preparation and mixing has on utilization efficiency of the reagent, as well as the reagent’s suitability for use in abandoned mine drainage treatment and abandoned mine land reclamation.</p>
<p>4:15 — 5:00</p>	<p>The West Branch Susquehanna Recovery Benchmark Project Rebecca Dunlap, Eastern AML Program Manager, Trout Unlimited</p> <p>Over the last 25 years, numerous AMD remediation projects have been implemented in the West Branch Susquehanna to improve water quality and biological conditions. In 2009 TU developed the West Branch Recovery Benchmark Project to quantify the effects of these remediation projects, provide sufficient water quality data for the integrated database and model created as part of the Strategy, and provide a benchmark to compare future assessments of remediation efforts.</p> <p>AML-AMD Partnership between Watershed Groups and ARIPPA Jeff McNelly, ARIPPA</p> <p>Thirty years ago, the most visible signs of the coal mining industry were the tall, dilapidated breakers and their attendant coal refuse piles. Most of the breakers are gone, removed by the coal operators as liabilities or under the AML Program as hazards. The coal refuse piles have also been disappearing, mainly due to 2 US federal law passed in the 1970’s together with circulating fluidized bed (CFB) technology and private/public investors created non-utility alternative energy generation power plants that have proven to be environmentally beneficial.</p>

7:00 — 8:30	Registration & Light Breakfast	
8:30 — 8:45	W e l c o m e !	
8:45 — 9:30	Opening Speaker: Renew Growing Greener Coalition Executive Director, Andrew Heath	
Rooms	Jefferson	Adams & Monroe
9:30 — 10:15	A. Daymut, Making Good Decisions in AMD Treatment: A Video Presentation	C. Denholm & S. Busler, Datashed.org Workshop Part 1
10:15 — 10:45	Break (Exhibit Area)	
10:45 — 11:30	A. Wolfe, How Trout Unlimited's Free AMD Technical Assistance Program Can Help You	C. Denholm & S. Busler, Datashed.org Workshop Part 2
11:30 — 12:15	J. Fehr, Effective Strategies for Engaging Rural Volunteers in AML Reclamation	C. Denholm & S. Busler, Datashed.org Workshop Part 3
12:15 —	End of Conference (Pick up your Boxed Lunch to Go!)	

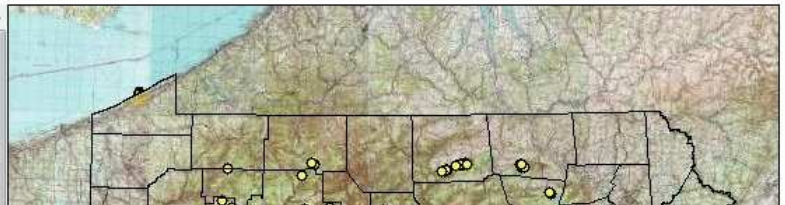
Layers Tools Info ?

Data Sets

Passive Treatment Sys

Boundaries

- Cities
- Boroughs
- PlaceNames
- Counties



Datashed .org Workshop

A hands-on training workshop will be provided free-of-charge to those interested in learning more about using the website Datashed (www.datashed.org). Datashed was developed through a partnership effort to provide an open and easy-to-use repository of information related to passive treatment systems and abandoned mine land projects.

Saturday Morning — Adams & Monroe Room

9:30 — 12:15



Building of the Intake of the Audenreid AMD Treatment System—A project funded by Growing Greener

Andrew Heath is the Executive Director of the Renew Growing Greener Coalition, the state's largest coalition of recreation, conservation and environmental organizations. Andrew has a rich history of working with both non-profits and political campaigns. Prior to holding this position, he worked for Jonas and Anne Beiler, founders of Auntie Anne's Soft Pretzels, where he served as the Executive Director of the Beiler Family Office. Andrew has also worked on numerous campaigns on both a state and local level. Andrew is a graduate of Messiah College and lives in Lancaster, Pennsylvania.

<p>9:30 — 10:15</p>	<p>Making Good Decisions in AMD Treatment: A Video Presentation A. Daymut, Western PA Coalition for Abandoned Mine Reclamation</p> <p>WPCAMR will present the latest in their series of AMD education videos, AMD Treatment Option Selection. Because the selection and implementation of AMD treatment options should ultimately be in the hands of trained professionals, the video focuses on the kinds of considerations used in selecting a treatment strategy appropriate for a particular discharge. Watershed groups armed with this knowledge will be better able to interact with the professionals they employ.</p>
<p>10:45 — 11:30</p>	<p>How Trout Unlimited's Free AMD Tech. Assistance Program Can Help You Amy Wolfe, Eastern Abandoned Mine Program Director, Trout Unlimited</p> <p>Since 2005, Trout Unlimited has provided free technical assistance to watershed organizations, Trout Unlimited chapters, county conservation districts, municipalities, and other groups and agencies across the Commonwealth on more than 70 AMD-related projects. Technical assistance ranges from conceptual treatment design plans, evaluations of and recommendations for improving treatment system performance, and rapid AMD watershed assessments to biological surveys and more.</p>
<p>11:30 — 12:15</p>	<p>Effective Strategies for Engaging Rural Volunteers in AML Reclamation Jenna Fehr, Appalachian Coal Country Team</p> <p>Volunteers are an essential component in reclaiming abandoned mine lands in many rural communities. Recruiting and effectively supporting volunteers, however, is often a challenge for groups in our nation's most under-resourced and environmentally damaged communities. Effective volunteer recruitment and management strategies that have been analyzed across a network of rural watershed organizations will be presented in this session, bringing careful, tested research and specific examples from Appalachian coal country and the Western hardrock mining region to participants.</p>

Speaker Biographies

Shaun Busler is a certified GIS Professional and Biologist with Stream Restoration Incorporated and BioMost, Inc. He is involved in the restoration of watersheds affected by abandoned mine drainage and the permitting and mitigation of wetlands. He is an active participant in the Slippery Rock Watershed Coalition and Aultman Watershed Association for Restoring the Environment (AWARE). Shaun graduated from Grove City College with a BS in Biology.

Thomas J. Clark obtained a BS in Biology, with an emphasis in Terrestrial Ecology, from the University of Pittsburgh at Johnstown. He obtained a MS in Biology, with an emphasis in Aquatic Ecology and Water Pollution Control from the California University of PA. He worked as a contracted water consultant from 2000-2007. Major clients included the Indiana County Conservation District, serving as their Watershed Specialist, and the Paint Creek Regional Watershed Association, serving as their Grant Writer and Project Manager. In 2007, he obtained the Mine Drainage Program Coordinator position with the Susquehanna River Basin Commission and serves in that position currently.

Charles Cravotta III, PhD, PG is a Research Hydrologist at the US Geological Survey PA Water Sciences Center and adjunct Assistant Professor of Environmental Engineering at Penn State Harrisburg. He received his BA in Environmental Sciences from the University of Virginia and his MS and PhD in Geochemistry and Mineralogy from the Pennsylvania State University. His research emphasizes field and laboratory applications of geochemical and hydrological methods for the characterization and treatment of drainage from coal mines.

Anne Daymut has been working with WPCAMR for 1 year. Previously she was the Indiana County Conservation District Watershed Specialist and an OSM VISTA for Blackleggs Creek Watershed Association. Anne has a Master's from Duquesne University, Bachelor's from Indiana University of PA, and is currently a student at University of Pittsburgh and taking classes at Pittsburgh Filmmakers.

Branden S. Diehl has served as a Grant and Project Consultant to Foundation for Pennsylvania Watersheds (FPW) since 2001. He has a BS in Geology, Environmental Studies, and Surface Water Hydrology, with an additional minor in Politics. He is a 2001 Juniata College graduate. Prior to joining FPW as a consultant, Branden was a project manager for an environmental nonprofit. He assists FPW with grant procurement, grant reporting, and project development services. Branden provides FPW grantees with information for accessing funds outside of the philanthropic community.

Cliff Denholm is an Environmental Scientist with Stream Restoration Incorporated and BioMost, Inc. as well as an active participant with the Slippery Rock Watershed Coalition. Cliff is involved in the conceptual design, monitoring, evaluation, and operation & maintenance of passive systems and continues to be involved in various education/outreach activities.

Rebecca Dunlap serves as Manager for National Trout Unlimited's Eastern Abandoned Mine Program which focuses on the conservation, protection, and restoration of coldwater fisheries and watershed that have been impacted by historic coal mining throughout the Appalachian region. Her work has been primarily focused in the West Branch Susquehanna in Pennsylvania where TU is the lead catalyst working toward the comprehensive and coordinated cleanup of abandoned mine drainage. Becky has her BS and MS in Biology with a focus on Aquatic Ecology.

Jenna Fehr is currently serving as an Office of Surface Mining/AmeriCorps*VISTA Volunteer with the Appalachian Coal Country Team in Beckley, WV. She serves as Project Researcher for the "Volunteers for Rural Watersheds" project led by Dr. T Allan Comp across 7 Appalachian and 2 Rocky Mountain states. The goal of this research is to learn about rural volunteers and existing volunteer management practices to develop resources and a toolkit for rural watershed groups. Jenna is a native of Schuylkill County, PA, and holds a BS in Environmental Resource Management from Penn State University.

Bob Hedin is an Ecologist who has been working on mine drainage for 25 years. Hedin Environmental, a small firm based in Pittsburgh, has designed forty passive treatment systems that treat a wide range of PA's AMD. Bob has also been involved in research recovery through Iron Oxide Recovery, a small company that has sold 3,000 tons of iron oxide in the last decade. Because the amount of sludge currently exceeds the amount the market can consume, IOR is constantly looking for new values and markets. This project addresses a possible use that could greatly increase demand for mine drainage solids.

Michael C. Korb, PE, is currently the Environmental Program Manager for the Pennsylvania Department of Environmental Protection's Bureau of Abandoned Mine Reclamation Wilkes-Barre District Office. Mike is a Mining Engineering graduate of the Missouri School of Mines (now Missouri University of Science and Technology), Rolla Missouri. He has more than 40 years' management, executive, professional, supervisory, consulting, technical, and administrative jobs in the mining industry before moving to the "dark side" at the state. He also worked in bituminous coal, iron ore, limestone, industrial sand, and slag as well as more than 20 years in anthracite.

Andy McAllister holds over 25 years of professional experience in the fields of Benthic Ecology (ecology of bottom-dwelling critters), Water Pollution Control, and Abandoned Mine Drainage abatement, Andy has worked throughout the eastern half of the U.S. and abroad. Andy has worked in the private sector as well in academia and government examining how aquatic life in marine, estuarine, and freshwater ecosystems react to and recover from many forms of pollution. Andy joined WPCAMR in 2006 as the Watershed Coordinator and then became the WPCAMR Regional Coordinator in February 2010.

Theresa McDevitt, PhD is a Librarian and Humanities and Social Sciences Bibliographer at Indiana University of Pennsylvania. She has a PhD in American History with a specialization in the history of African Americans and was the project director of a PHMC oral history grant which documented the experience of Blacks in Indiana, PA.

Jeff McNelly currently serves as the Executive Director of ARIPPA, a trade association based in Camp Hill PA that represents independent, non-utility electric power generation plants located in the anthracite and bituminous coal regions of the United States. ARIPPA is unique among co-generation associations given that its sustaining plant members operate environmentally beneficial coal refuse to alternative energy power plants utilizing Circulating Fluidized Bed technology.

Sandra McSurdy has 21 years of federal service working with both the U.S. Department of Energy (DOE) and the former U.S. Bureau of Mines in Pittsburgh, PA. She is currently a Physical Scientist at the U.S. DOE National Energy Technology Laboratory, Pittsburgh, PA, where she is a project manager for the DOE Oil and Gas program. She has spent the majority of her career researching environmental and energy issues including AMD treatment. Ms. McSurdy received her BS in Chemistry from the University of Pittsburgh.

Julia Mercer is a Technical Specialist in Environmental Markets with Carmeuse Lime and Stone. She earned her Bachelor's Degree from Youngstown State in Chemical Engineering and is currently pursuing a Master's Degree at the University of Pittsburgh in Environmental Engineering. Julia is responsible for technical customer support in environmental industries such as drinking water treatment, waste water treatment, abandoned mine drainage, abandoned mine land reclamation and remediation. She also performs research projects in these areas.

Elizabeth A. Ricketts, PhD received her PhD from Emory University. An assistant professor of history at IUP, she teaches courses in labor, African-American, and women's history. Her research and publications focus on the social, labor, and political history of coal miners in western Pennsylvania. She is currently engaged in co-authoring a book on 19th century work in America.

Margaret Stuckart has been the Executive Director of the Lyons Run Watershed Association since February 2009 and is working to create a stream and wetland mitigation bank in Western Pennsylvania. An honors graduate of the University of Pittsburgh with an Earth and Environmental Sciences Degree, Ms. Stuckart has worked in the development field for over 27 years. She has provided consulting services to local communities and governments, private business, not for profit organizations, industrial development agencies, schools, regional and state-wide special interest groups and private individuals in the state of New York and Pennsylvania and with the Seneca Nation. Her consulting business has been employed to secure financial resources including extensive grant writing and administration; creation and implementation of demonstration projects; industrial and commercial facility development; industrial retention and expansion programming; human resource policy development; employment and industry matchmaking; short line rail development; various environmental initiatives and legislative support.

Amy Wolfe is the Eastern Abandoned Mine Program Director for Trout Unlimited. She joined Trout Unlimited in 1999 as the coordinator for the Kettle Creek Home Rivers Initiative where she was responsible for the completion of numerous fish habitat and abandoned mine drainage remediation projects, restoration plans, and landowner stewardship and educational trainings and projects. In 2004, Amy led TU into launching the West Branch Susquehanna Restoration Initiative and now, as Director of TU's Eastern Abandoned Mine Program, Amy continues to expand TU's efforts to restore trout and their watersheds that are impacted as a result of abandoned coal mines.

Jessica Wolff recently graduated from the Harvard Graduate School of Design with a masters in landscape architecture. Prior to this she worked as a landscape designer and planner for EDAA/AECOM in Alexandria, Virginia. Her thesis focused on the adaptive reuse of former mine sites into renewable energy sites in the anthracite coal mining region of northeastern Pennsylvania. She has a bachelors in landscape architecture from Pennsylvania State University. Wolff has strong personal connections to the NEPA region as her mother is originally from Conyngham, PA.

Todd Wood, PE is a Mining Engineer with the DEP Bureau of Abandoned Mine Reclamation in Wilkes-Barre. He has been working for the Bureau since 1994. Prior to his work experience with DEP, Mr. Wood worked for Pennoni Engineering in Camp Hill as a bridge designer along with some surveying work. Mr. Wood Attended Penn State and received an Associate Degree in Surveying and a Bachelor of Science Degree in Structural Design and Construction Engineering Technology. Mr. Wood has been an active licensed professional engineer in Pennsylvania since 1997.

Surrounding Attractions

Special Pricing for Conference Attendees

Although these sites are not stops on the August 4th tour, please feel free to stop by these attractions at your own leisure (on the way home on Saturday Afternoon).



No. 9 COAL MINE & MUSEUM
9 DOCK STREET, LANSFORD, PA 18232
PHONE: 570-645-7074

The **No. 9 Mine & Museum Tour** in Lansford, PA is offering a \$2.00 discount on their regular admission to those who mention they are with the "PA AMR Conference".

Join us for an unforgettable experience as we travel underground to explore the world's oldest continuously operated anthracite coal mine! (1855 – 1972)



The **Pioneer Tunnel** Coal Mine Tour and Steam Train in Ashland, PA is offering a 10% discount off the price of a ticket for both the Coal Mine Tour and/or the Steam Train Ride if you mention you are with "PA AMR Conference".

"Tour a real Anthracite Coal Mine and take a ride on an old fashioned narrow gauge Steam Train."



Eckley Miners' Village

Eckley Miners' Village is an example of a planned nineteenth century industrial coal mining town. Mention you are with the "AMR Conference" and get a 50% discount (\$3.00) for the museum and video. The walking tour is an additional\$1.50. Access to buildings are only available through walking tours. Tours are dependent upon weather and staff availability. We suggest you call ahead to see when tours are scheduled.

"Eckley Miners' Village represents the lives of immigrant anthracite coal miners and their families as they lived through the industrial revolution."