



Photo by Tom Grote

The 27th Annual

2025

PENNSYLVANIA

Abandoned Mine Reclamation

CONFERENCE

"From Our Roots to the Future"

October 14-16, 2025
Toftrees Golf Resort
State College, PA

www.treatminewater.com

Welcome

On behalf of the PA Abandoned Mine Reclamation Conference Planning Committee, we'd like to welcome you to our 27th Annual Statewide Conference on Abandoned Mine Reclamation. The longest-running conference in PA on our major legacy pollution problem from past mining practices following the enactment of the Surface Mining Control & Reclamation Act of 1977. Our theme this year is "From Our Roots to the Future." One might ask oneself..."What do roots have to do with abandoned mines and abandoned mine drainage (AMD), and how are they connected to the future?"

It's an easy metaphor to explain. Our roots are where we have planted ourselves in our communities. It's where we grow up. It's the places and landmarks on the landscapes that we call home and are the locations in our neighborhoods where we live, work, play, recreate, socialize, make friends, and give back to our communities. We are all interconnected in that way and have a similar common ground that we put both our feet on, and sometimes the polluted water, and in some cases, just the opposite, pristine, clean, trout waters and other fisheries, that we often wade in, doing our collective watershed work. Some of the roots we see are those that are submerged or have become impacted by poor water quality and metal loadings that deposit in the streambeds and channels of our waterways.

Rusted roots is a fitting description of many of our lives living and working passionately in the coalfields as volunteers and in partnership with federal, state, county, local municipal governments, Conservation Districts, community watershed organizations, academia, private sector consulting firms, coal companies, conservancy organizations, economic developers, and Co-Generation plants across the Commonwealth to reclaim and restore our legacy past mining landscapes for future generations.

We planned a great watershed tour for Tuesday in the Moshannon Creek Watershed and the surrounding areas of Clearfield County. A PHREEQ-N-AMDTreat Workshop was from 12-5 PM at the same time as the watershed tour, sponsored by Cravotta Geochemical Consulting. The prestigious Mayfly Award will be announced on Wednesday evening. Our annual cornhole tournament will be held on Wednesday evening as well, sponsored by Kleinfelder, where I will personally strive to make it to the final bracket once again, after my dismal departure in the first-round last year. The networking time you spend as an attendee is just as vital as listening to the presentations, going on the tour, and attending the workshop. Don't forget to check out the exhibitors, our non-profit community watershed organizations, and other vendor and sponsor exhibits. Grab your swag, however, be sure to connect with those manning the exhibits and ask about how they can help you or if they have lessons you can learn to not reinvent the wheel.

Three tracks this year and nearly 30 exhibitors and sponsors combined, are sure to provide everyone with an immersive experience that we hope will allow you to become a part of our PA AMR Community.

Finally, be sure to tune into EPCAMR and WPCAMR's new monthly podcast series called the PA Abandoned Mine Reclamation Chronicles on the first Friday of every month from 12-1PM as Andy McAllister, Anne Daymut, and I interview our community partners from across the Commonwealth who are either community watershed organization volunteers, government officials, consulting firms with experience in abandoned mine land reclamation and AMD remediation, historic preservation leaders, Conservation District leaders, and partners from the co-generation industry. We're trying to grow our audience and listeners and are always looking to fill some commercial advertising spots during each monthly episode.

The first season has been funded by a grant from the Foundation for PA Watersheds, following a joint meeting of the two coalitions after 25 years, where we came together to come up with some very exciting opportunities to work together to advance and advocate for our work and the work of our partners in the realm of abandoned mine land reclamation and AMD cleanup in our watersheds.

The Coalitions and our PA AMR Conference Planning Committee are proud of our roots in both the anthracite and bituminous coal regions. We hope that all of you will continue to look towards a brighter future, where our waterways are cleaner and our landscapes are greener. We still want to support economic revitalization and alternative energy development projects constructed on previously impacted mine lands with benefits planned for our coalfield communities. Enjoy the conference! Meet someone new! Exchange cards! Learn, listen, and laugh with us throughout the conference.

Respectfully,

Bobby Hughes, EPCAMR Executive Director



Bobby Hughes

2025 Mayfly Award

This year's award to be presented
at Wednesday's Banquet Dinner



Mayfly Award 2025 by Michael Bestwick



A gathering of Mayfly Awardees and their sculptures at the 2018 AMR Conference. Left to right (back row): Joe Pizarchik, Andy McAllister (Conference Co-Chair from WPCAMR), Tom Grote, John Dawes, Art Rose, Bob Hedin. (front row): Louise Dunlap, Margaret Dunn, Pam Milavec, Russ Wagner, Dave Mankameyer, Craig Morgan, and Bobby Hughes (Conference Co-Chair from EPCAMR).

2025 Planning Committee

- * Andy McAllister & Anne Daymut
Western PA Coalition for Abandoned Mine Reclamation
- * Bobby Hughes & Michael Hewitt
Eastern PA Coalition for Abandoned Mine Reclamation
- * Arielle Avishai, US Office of Surface Mining Reclamation & Enforcement
- * Cliff Denholm, Stream Restoration Incorporated
- * Amy Berrios, PA DEP
- * Tom Grote, Volunteer
- * Cristy Sweeney, ARIPPA
- * Carla Ruddock, Mountain Watershed Association

Tuesday - Field Tour Highlights

Leslie Tipple

Located on the banks of the Moshannon Creek, Leslie is a historic, yet state-of-the-art, tipple that was previously owned by Philipsburg Coal & Land Company and later by Power Operating Company. After Power filed for bankruptcy in 1998, Leslie was damaged and looted by vandals. The site was so badly polluted with waste coal and inoperable equipment, it was considered an environmental superfund site. Around 2000, Junior Coal purchased the majority of Power's assets, including Leslie Tipple. Junior Coal invested approximately \$10 million rebuilding and upgrading Leslie and cleaning up the site. Hundreds of thousands of tons of coal refuse were removed from adjacent sediment ponds, cleaned in Leslie Tipple, and sold to market. Today, Leslie Tipple can process and clean coal using advanced technologies previously unavailable. Coal that would not be suitable for market can now be cleaned to low sulfur and ash content and high BTUs.



Rushton Mine Treatment System



The Rushton Mine Coal Mining Activity Permit (CMAP) is operated by Pennsylvania Mines, LLC and was originally issued in 1985 for 121.1 acres of surface area (Support Area) and 5,912.0 acres of subsurface area (underground mine) which mined the

Clarion coal (A seam). Rushton Mine underground mining ended in June 1991 and the CMAP was renewed for reclamation only activities on July 22, 1992. The permittee is required to maintain the level of the Rushton Mine A seam underground mine pool below 1,420 feet mean sea level (ft. msl) by pumping the mine pool water to eliminate the potential for post-mining discharges and to create a point source discharge that can be treated and monitored. In practice, the permittee maintains a mine pool elevation at 1,390 ft. msl.

Cold Stream Passive Treatment Systems, Moshannon Creek

In 2020, the Moshannon Creek Watershed Association formed and entered into an agreement with the PA Game Commission to assume O&M of six unmaintained passive systems on game lands near Cold Stream, tributary to Moshannon. Using monthly volunteer work sessions and carefully selected projects with small to mid sized grants, MCWA has restored system

flow through all, fully rehabilitated two, and has funding lined up to rebuild a third. MCWA is currently encouraging the Centre County Conservation District to sponsor a project on another. MCWA will then address the remaining systems over the next 2-3 years. This tour will include Mine Drift (pictured), a system working very well, Stump and Stump Junior, systems with middling output, and Chiller, a system that needs redesign and total rebuild.

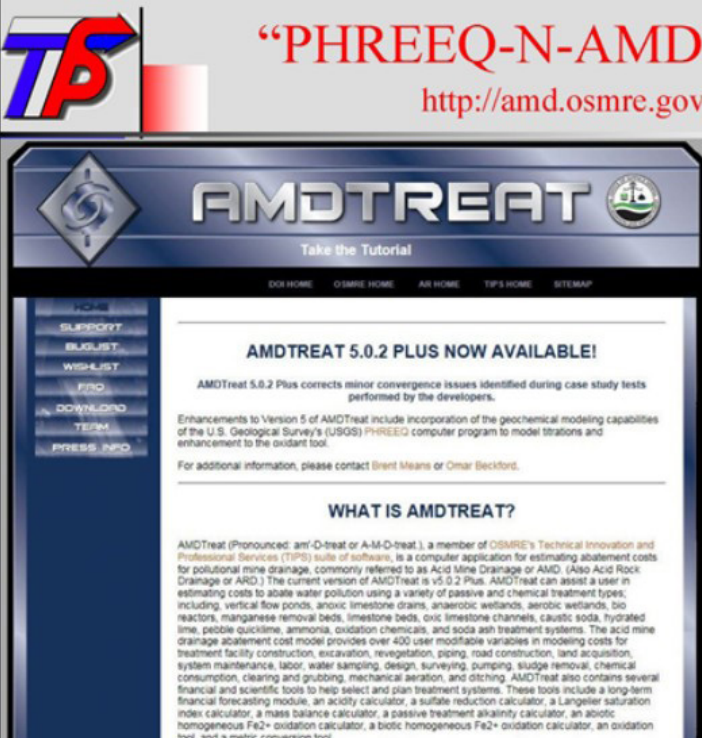


Extra Activities

Tuesday Afternoon / Wednesday Evening

AMDTreat and PHREEQ Refresher Course, Tue., Oct 14, 12-5pm

AMDTreat & PHREEQ Course



AMDTreat is a computer application for estimating abatement costs for AMD (acidic or alkaline mine drainage).

AMDTreat is maintained by OSMRE.

The current version of AMDTreat 5.0+ is being recoded from FoxPro to C++ to facilitate its use on computer systems running Windows 10. The PHREEQC geochemical models described below will be incorporated to run with the recoded program.

Wednesday, October 15, 8pm on the Lawn, Weather Permitting

Cornhole Tournament



2023 Inaugural Cornhole Tournament Champions

For the third year in a row, Kleinfelder will be sponsoring a night of networking around a very competitive Corn Hole Tournament that will add names to The Anthracite Rock of Champions.

Come sign up at Kleinfelder's booth on Tuesday and Wednesday for the Wednesday evening after-dinner event. A random selection of teams will then compete for that championship and an array of prizes.

May the best Corn Hole'ers win!

Wednesday - Schedule

Wednesday

7:00 - 8:55	Registration (Foyer) Breakfast On Your Own	
9:00 - 9:15	Welcome (Ballroom)	
9:15 - 9:30	Keynote Address: Nate Houtz, PA DEP, Deputy Secretary for Active and Abandoned Mine Operations (Ballroom)	
9:30 - 10:10	Congressman Glenn (GT) Thompson Video Address (Ballroom)	
10:15 - 10:25	Break (The Aspen Room)	
Track	Track 1 (Maple I Ballroom)	Track 2 (White Oak Library)
10:30 - 11:10	Fireside Chat with PA's Community Watershed Leaders: Part 1	"Benefits of AMLER Project Partnerships" - Jim Panaro, Robindale Energy
11:15 - 11:55	Fireside Chat with PA's Community Watershed Leaders: Part 2	No presentation
12:00 - 12:55	Lunch (Ballroom)	
1:00 - 1:40	"Proactive Mine Pool Management: Implementing a Remote Telemetry Monitoring Network in Pennsylvania's Bituminous District" - Scot May, PA DEP BAMR	No presentation
1:45 - 2:25	"Blacklick Creek: Death and Resurrection of a Watershed" - Jon Smoyer and Ryan Farabaugh, PA DEP BAMR	"Waste Gas Capture from Abandoned Mines" - Brent Bobsein, CNX Resources
2:30 - 2:40	Break (The Aspen Room)	
2:45 - 3:25	"The Economic Effects of Restoring Mine-Impaired Waterways" - Jeremy Weber, University of Pittsburgh	"EPA ROAR Research Project, Sampling for Critical Rare Earth Metals in Acid Mine Drainage" - Bette Conway, EPA Region 3
3:30 - 4:10	"Strategic Investments using Grant Funding for Environmental Improvements", Carl DeLuca, PA DEP (Maple I Ballroom)	
4:15 - 5:00	Free Time	
5:00 - 6:00	Cash Bar & Networking (The Aspen Room)	
6:00 - 8:00	Mayfly Award Presentation and Banquet Dinner (Ballroom)	

Wednesday - Schedule

Registration (Foyer) Breakfast On Your Own	7:00 - 8:55
Welcome (Ballroom)	9:00 - 9:15
Keynote Address: Nate Houtz, PA DEP, Deputy Secretary for Active and Abandoned Mine Operations (Ballroom)	9:15 - 9:30
Congressman Glenn (GT) Thompson Video Address (Ballroom)	9:30 - 10:10
Break (The Aspen Room)	10:15 - 10:25
Track 3 (Maple II Ballroom)	Track
"Rare Earth Element Recovery from Acid Mine Drainage Using a Sequential Treatment Process" - Travis Tasker, Saint Francis University	10:30 - 11:10
"BAMR Accomplishments and Future Priorities" - Joe Sassaman, PA DEP	11:15 - 11:55
Lunch (Ballroom)	12:00 - 12:55
"A Guide to Prevailing Wage and Responsible Bidding for Watershed Organizations and Other Non Profits" - James Kunz, III, Pennsylvania Foundation for Fair Contracting	1:00 - 1:40
"Clicking Through the Culm: Online Stories of Environment, Resilience, and Decline from Pennsylvania's Anthracite Coal Country" - Melissa Meade, Seton Hall University	1:45 - 2:25
Break (The Aspen Room)	2:30 - 2:40
"Scaling Up Mined Land Reforestation in Appalachia" - Eric Oliver, Green Forests Work	2:45 - 3:25
"Strategic Investments using Grant Funding for Environmental Improvements", Carl DeLuca, PA DEP (Maple I Ballroom)	3:30 - 4:10
Free Time	4:15 - 5:00
Cash Bar & Networking (The Aspen Room)	5:00 - 6:00
Mayfly Award Presentation and Banquet Dinner (Ballroom)	6:00 - 8:00

Visit the conference website www.treatminewater.com for abstracts and biographies.

Wednesday

Thursday - Schedule

Thursday

7:30 - 9:25	Registration (Foyer) Breakfast On Your Own	
9:30 - 10:15	"Challenges and Opportunities for AML Reclamation in the 119th Congress" - Tom Clarke, IMCC (Ballroom)	
10:15 - 10:25	Break (The Aspen Room)	
Track	Track 1 (Maple I Ballroom)	Track 2 (White Oak Library)
10:30 - 11:10	"How Many Discharge Flows are Enough?" - Tom Clark, Kleinfelder	"Project Background, Development and Design for the Little Conemaugh Mine Drainage Treatment Plant Project, Cambria County, PA" - Eric Cavazza, Tetra Tech
11:15 - 11:55	"Economic & Environmental Benefits of the PA Coal Refuse Reclamation to Energy Industry" - Jaret Gibbons, ARIPPA	"Abandoned to Active: Navigating Past and Present Coal Mining Impacts" - Stacey Magda, Mountain Watershed Association
12:00 - 12:55	Lunch (Ballroom)	
Track	Track 1 (Maple I Ballroom)	Track 2 (White Oak Library)
1:00 - 1:40	"New Grant Opportunities and Mentorship Programs" - Deb Nardone, Foundation for Pennsylvania Watersheds	No presentation
1:45 - 2:25	"Critical Mineral Recovery from Acid Mine Drainage: A Path to Supply Chain Resilience" - Mohammad Rezaee, The Pennsylvania State University	No presentation
2:30 - 2:40	Break (The Aspen Room)	
2:45 - 3:25	"Answering the FAQs of PA DEP's AML/AMD Grant Program: Part 1" - Cindy Wolfe, PA DEP BAMR	"A Checkup for Your Limestone Bed: Measuring Your Limestone Bed's Vitals via Porosity and Tracer Tests" - Olivia Weaver, Hedin Environmental
3:30 - 4:10	"Answering the FAQs of PA DEP's AML/AMD Grant Program: Part 2" - Cindy Wolfe, PA DEP BAMR (Ballroom)	
4:15 - 5:00	End of Conference & Take Down Exhibits	

13

14

15

Thursday - Schedule

Registration (Foyer) Breakfast On Your Own	7:30 - 9:25
"Challenges and Opportunities for AML Reclamation in the 119th Congress" - Tom Clarke, IMCC (Ballroom)	9:30 - 10:25
Break (The Aspen Room)	10:15 - 10:25
Track 3 (Maple II Ballroom)	Track
13 "BMP Conversion for AMD Refurbishment" - Tim Denicola, Civil & Environmental Consultants, Inc.	10:30 - 11:10
"Abandoned to Active: Navigating Past and Present Coal Mining Impacts" - Stacey Magda, Mountain Watershed Association	11:15 - 11:55
Lunch (Ballroom)	12:00 - 12:55
Track 3 (Maple II Ballroom)	Track
14 "Mosquito Creek Watershed Restoration: A Model for Acidic Stream and Watershed Restoration in the Pennsylvania Anthracite Coal Region" - Brian C. Bonner, P.E. & Jacob E. Smith, E.I.T., ARM Group LLC	1:00 - 1:40
"Paying it Forward: Community Benefit Agreements as a Tool for AML Projects" - Jordi Comas, PA DEP	1:45 - 2:25
Break (The Aspen Room)	2:30 - 2:40
"Upper Shamokin Creek Watershed Investigation and Conceptual Restoration Plan" - Bill Burgos, Tetra Tech	2:45 - 3:25
15 "PA DEP's AML/AMD Grant Program Overview: Part 2" - Cindy Wolfe, PA DEP BAMR (Ballroom)	3:30 - 4:10
End of Conference & Take Down Exhibits	4:15 - 5:00

Thursday

Wednesday - Synopses

Wednesday

9:15 - 9:30	Keynote Address: Nate Houtz, PA DEP, Deputy Secretary for Active and Abandoned Mine Operations (Ballroom) Nathan Houtz serves as the Deputy Secretary for Active and Abandoned Mine Operations. As Deputy Secretary, he oversees the Bureaus of Mining Programs, Abandoned Mine Reclamation, Mine Safety, and District Mining Operations. Nathan began his career with the Department in 2002 as a Professional Geologist with the Pottsville District Mining Office. He continued his career in Pottsville as the Environmental Group Manager supervising the permitting section from 2007 to 2017. He then moved to the Moshannon District Mining Office as the District Mining Manager from 2017 to 2022. From there, he moved to Harrisburg and served as the Director of the Bureau of Mining Programs from 2022 to 2024. Nathan has a Bachelor of Science Degree in Geology from Bloomsburg University of Pennsylvania. Nathan's first involvement with the Department was as an intern with the Bureau of Abandoned Mine Reclamation during the summers of 1994 and 1995. Upon graduation from Bloomsburg, Nate worked for a private consulting firm for 6 years before joining the Department.
9:30 - 10:10	Congressman Glenn (GT) Thompson Video Address (Ballroom) A life-long resident of Howard, Pa., Congressman Glenn 'GT' Thompson represents Pennsylvania's Fifteenth District in the U.S. House of Representatives, which is not only PA's largest Congressional District, but it is also the District with the largest AML inventory in the entire nation. Congressman Thompson has been a perennial champion in AML efforts during his service, being instrumental in the reauthorization of the collection fees associated with SMCRA in 2006 and again in 2021.
10:30 - 11:10	Fireside Chat with PA's Community Watershed Leaders: Part 1 Larry Hutchinson, Shade Creek Watershed Association; Ed Wytovich, Catawissa Creek Restoration Association; Carla Ruddock, Mountain Watershed Association; Steve Motyka, Shamokin Creek Restoration Alliance To celebrate this year's conference theme of "From Our Roots to the Future," Part 1 of the fireside panel will consist of short presentations on each panelists' environmental non-profit's origins and successes.
	"Benefits of AMLER Project Partnerships" - Jim Panaro, Robindale Energy Summary overview of AMLER projects Robindale has completed or has currently in progress and lessons learned in process with BAMR and other project partners. These projects include Stineman in Cambria County, Kerbaugh Road in Blair County, Thompsontown in Clearfield County, Tide in Indiana County, and additional projects time permitting.
	"Rare Earth Element Recovery from Acid Mine Drainage Using a Sequential Treatment Process" - Travis Tasker, Saint Francis University Acid mine drainage (AMD) treatment solids and coal mine waste are a potential source of rare earth elements (REE). However, an ongoing challenge is to develop economical and environmentally friendly methods for extracting REE from these wastes. During mine drainage treatment, REE and associated aqueous complexes may form surface complexes (i.e., adsorption) with hydrous ferric oxides (Hfo), hydrous aluminum oxides (Hao), and hydrous manganese (III-IV) oxides (Hmo), yielding treatment solids with dilute REE concentrations. The work herein describes laboratory experiments and computations used to explain these reactions and how they could influence strategies for recovering REE from mine drainage.

Wednesday - Synopses

11:15 - 11:55

Fireside Chat with PA's Community Watershed Leaders: Part 2

Larry Hutchinson, Shade Creek Watershed Association; Ed Wytovich, Catawissa Creek Restoration Association; Carla Ruddock, Mountain Watershed Association; Steve Motyka, Shamokin Creek Restoration Alliance

To celebrate this year's conference theme of "From Our Roots to the Future," Part 2 of the fireside panel will consist of an emceed Q&A with our panelists.

"BAMR Accomplishments and Future Priorities" - Joe Sassaman, PA DEP

Presentation will highlight significant reclamation projects from 2024 and discuss future reclamation priorities of the bureau.

1:00 - 1:40

"Proactive Mine Pool Management: Implementing a Remote Telemetry Monitoring Network in Pennsylvania's Bituminous District" - Scot May, PA DEP BAMR

The Pennsylvania Department of Environmental Protection's Bureau of Abandoned Mine Reclamation (DEP BAMR) is currently initiating a long-term monitoring program to address the challenges posed by deep mine pools in the bituminous district of Pennsylvania. These mine pools, remnants of extensive historical coal mining, present significant risks of blowouts, subsidence, and other adverse environmental impacts if left unmanaged. To enhance proactive readiness and improve mitigation strategies, DEP BAMR is establishing an innovative network of monitoring wells equipped with remote telemetry systems. This technology will provide real-time data on water levels, pressure changes, and other critical parameters, enabling immediate response to fluctuations indicative of potential hazards. The program aims to develop a robust dataset to predict trends and model behaviors within the interconnected mine pool systems. By integrating these monitoring efforts with geospatial analysis and predictive modeling, the initiative seeks to bolster the state's ability to anticipate and prevent catastrophic events. This presentation will outline the program's design, early implementation steps, and the broader implications for mine pool management in Pennsylvania and beyond. Attendees will gain insights into leveraging advanced telemetry for sustainable reclamation practices and enhancing community and environmental resilience in areas impacted by legacy mining activities.

"A Guide to Prevailing Wage and Responsible Bidding for Watershed Organizations and Other Non Profits" - James Kunz, III, Pennsylvania Foundation for Fair Contracting

In this presentation non-government entities, such as watershed organizations, will be introduced to prevailing wage and responsible bidding concepts. Many private organizations receive funding through state or federal grants/loans/etc. to pay for construction projects, including abandoned mine reclamation work. Those funding sources often require that the organization comply with the requirements of the PA Prevailing Wage Act/Davis-Bacon Act. This presentation will server as a primer to what those requirements are, how to navigate compliance, as well as ensure the contractors they employ are in compliance as well. The presentation will also discuss strategies to encourage that bidders are responsible, high road contactors. This will help ensure those contractors will respect environmental, safety, and wage and hour laws while completing the project on time and on budget.

Wednesday



The Abandoned Mine Reclamation Chronicles is a one-of-a-kind podcast that converses with passionate Abandoned Mine Reclamation partners, highlights outstanding work, showcases stream improvement successes, and shares emerging ideas and technologies.

Tune in the first Friday of each month at 12 noon on WPCAMR's YouTube Channel, EPCAMR's YouTube Channel, or any of EPCAMR's Facebook accounts.

Thank you to the Foundation for Pennsylvania Watersheds, thefpw.org, for underwriting our first 12 episodes.



youtube.com
**The Abandoned Mine Reclamation
Chronicles: A Podcast**

Wednesday - Synopses

Wednesday

1:45 - 2:25

“Blacklick Creek: Death and Resurrection of a Watershed” - Jon Smoyer and Ryan Farabaugh, PA DEP BAMR

In keeping with the conference theme, a review of the history of the coal mining in Vintondale and Wehrum and how it set the stage for the pollution and recovery of the Blacklick Creek will be presented. BAMR’s \$28 million AMD Treatment Plant that began running in the spring of 2025 will be highlighted along with the beginnings of post treatment water quality data.

“Waste Gas Capture from Abandoned Mines” - Brent Bobsein, CNX Resources

Mines necessarily vent methane out of the workings for safety purposes, but little is being done to capture this resource and utilize it. CNX has pioneered a project to capture waste methane from abandoned mines, and bring it to market as Remediated Mine Gas, or RMG, one of just three such RMG operations in the US. If leveraged correctly, RMG projects can lead to additional energy infrastructure being built out, getting a reliably dispatchable fuel to market, improving grid resilience, lowering greenhouse gas emissions, and driving manufacturing and AI investment to these underserved areas.

“Clicking Through the Culm: Online Stories of Environment, Resilience, and Decline from Pennsylvania’s Anthracite Coal Country” - Melissa Meade, Seton Hall University

This talk explores how people in Pennsylvania’s Anthracite Coal Region make sense of their history and landscape, especially the towering black culm piles left behind by coal mining. Instead of focusing on archives, the project looks at an online community where residents share local photos, postcards, art, and artifacts connected to the Coal Region. The talk shows how everyday people use digital spaces to reflect on their past, their landscape, their identity, and what it means to live in the Coal Region today.

2:45 - 3:25

“The Economic Effects of Restoring Mine-Impaired Waterways” - Jeremy Weber, University of Pittsburgh

This presentation will provide initial findings from a research project on the broader community economic benefits from restoration of mine-impaired waterways in Pennsylvania. This will include quantitative analysis of economic trends over 1990-2020 for communities (Census tracts) with low, medium, and high initial levels of impairment as well as for communities that have had substantial restoration over the 30-year period. The presentation will also cover perspectives gleaned from interviews with stakeholders in six watersheds across Pennsylvania.

“EPA ROAR Research Project, Sampling for Critical Rare Earth Metals in Acid Mine Drainage” - Bette Conway, EPA Region 3, Bette Conway, EPA Region 3

The goals of the Region 3 Shamokin Project were to identify quantities of rare earth elements (REEs) in acid mine drainage (AMD) and coal refuse; evaluate AMD data using USGS water-quality model * to identify optimal REE extraction/treatment strategies, and OSMRE’s model * for treatment cost analysis of long term operations and maintenance (O&M); develop a publicly available toolkit for optimal REE extraction/treatment strategies; and establish best practices for evaluation of treatment technologies for dual AMD/REE extraction facilities. This project could be a model for AMD treatment/CREMs extraction projects throughout Region 3 and other Regions affected by AMD and coal refuse.

“Scaling Up Mined Land Reforestation in Appalachia” - Eric Oliver, Green Forests Work

Green Forests Work (GFW) has been awarded a grant from NFWF to perform an inventory of mined land throughout Appalachia where an opportunity remains for reforestation. This presentation will discuss the planning and process that is taking place to determine the sites from northern Alabama to the PA/NY border. It will also outline the deliverables of the grant that will be publicly available for other agencies and organizations to help them find projects in their area of concern.

3:30 - 4:10

“Strategic Investments using Grant Funding for Environmental Improvements”, Carl DeLuca, PA DEP (Maple I Ballroom)

Presentation on how Pennsylvania’s Growing Greener and Section 319 Nonpoint Source grant programs empower communities to restore and protect their local water resources. It will highlight successful projects funded through these programs—showcasing how strategic investments have led to measurable environmental improvements. Attendees will gain insight into the application process, funding obligations, and the importance of partnerships between local governments, nonprofits, and landowners. By examining real-world examples, we’ll demonstrate how collaborative efforts, and responsible stewardship can transform grant dollars into lasting ecological change.

Thursday - Synopses

9:30 - 10:15

"Challenges and Opportunities for AML Reclamation in the 119th Congress" - Tom Clarke, IMCC

Just five years ago, the future of the nation's coal AML programs appeared to have been secured with adoption of the Infrastructure Investment and Jobs Act (IIJA). In today's political environment, however, maintaining the gains made in the IIJA has become the challenge. Despite the real challenges facing coal AML, there is reason for optimism for the perpetually underfunded hardrock AML program.

10:30 - 11:10

"How Many Discharge Flows are Enough?" - Tom Clark, Kleinfelder

When treatment systems fail, the primary cause is usually under sizing due to not having a large enough flow dataset. For many years, 12-flows over a given hydrologic year was always the minimum desired to design from, but is that enough? Kleinfelder's work on the Shade Creek Active Treatment Plant Development Project is a good example of that amount not being enough, and, in actuality, it isn't close. Shade Creek's historical discharge flow data, which is immense compared to nearly every other discharge in the Commonwealth, will be used to demonstrate how even seemingly enormous flow datasets can still not be enough for adequate sizing and how transducers installed over 2025 capturing flows around the clock, helped select the correct size of ATP for the real discharge flow statistics.

"Project Background, Development and Design for the Little Conemaugh Mine Drainage Treatment Plant Project, Cambria County, PA" - Eric Cavazza, Tetra Tech

The Little Conemaugh River Watershed is significantly impaired by drainage from abandoned coal mining operations. The Pennsylvania Department of Environmental Protection (PA DEP) in partnership with several other federal, state, and local government entities and non-governmental organizations began efforts in 2016 to restore the Little Conemaugh River from its headwaters to its confluence with the Stonycreek River in downtown Johnstown - a distance of approximately 15 stream miles. PA DEP awarded FPW an Infrastructure Investment and Jobs Act (IIJA) funded AMD Grant in September 2023 to complete the design and permitting of a mine drainage treatment plant. Tetra Tech has been working since 2024 to develop the design.

"BMP Conversion for AMD Refurbishment" - Tim Deicola, Civil & Environmental Consultants, Inc.

In the mid-1990's an acid mine drainage (AMD) treatment project was constructed to remediate hundreds of gallons per minute of mine water utilizing anoxic limestone drains and compost-limestone beds. The treatment footprint was approximately 3.5 acres. After 20+ years of operation the system required refurbishment and the landowner desired the land be returned to a usable condition. CEC proposed an oxic treatment system having smaller footprint to achieve the desired treatment effect. CEC performed calculations to assess heterogeneous iron oxidization rates under fluctuating temperature, pH, and dissolved oxygen conditions. Calculations estimated volume of precipitated sludge. The detailed calculations allowed the project team to appropriately size a series of alkalinity generating and oxidation inducing treatment practices in series while managing precipitated solids along the treatment path, and provided the client an estimate of treatment performance under varying climatic and site conditions. The project was constructed during 2024-2025 and is currently achieving similar contaminate reductions in an approximate 0.5 acre footprint.

11:15 - 11:55

"Economic & Environmental Benefits of the PA Coal Refuse Reclamation to Energy Industry" - Jaret Gibbons, ARIPPA

In 2025, ARIPPA will be releasing an updated report prepared by Econsult Solutions, a Philadelphia-based economic consulting firm, analyzing the economic and environmental benefits of the coal refuse reclamation to energy facilities in Pennsylvania. The new report incorporates recently conducted research on the air emissions reductions realized by the industry. This presentation will focus on the results of the soon to be released study.

"Abandoned to Active: Navigating Past and Present Coal Mining Impacts" - Stacey Magda, Mountain Watershed Association

Join Mountain Watershed managing community organizer, Stacey Magda, to explore the world of leading conversations that focus on the value of water, community impacts, extensive mine reclamation while dealing with ongoing and expanding current coal mining activity. We will dive deep into the history of coal mining in the Indian Creek watershed where over 119 mine discharges are occurring, three decades of multi-million dollar remediation, and the mechanisms we've used to leverage our work with new coal mining in the area.

Thursday

Thursday - Synopses

Thursday

1:00 - 1:40

“New Grant Opportunities and Mentorship Programs” - Deb Nardone, Foundation for Pennsylvania Watersheds

The funding scene has changed quite dramatically over the past few years. Record investments for water quality improvements is now available to non-profits to solve complicated pollution problems once thought too expensive to fix. These funds also come with increased reporting, sometimes complicated and confusing mandates, and ever changing requirements as agencies face mandates from the federal government. The Foundation for PA Watersheds (FPW) will present a few new grant opportunities and available training and mentorship programs to help local communities succeed in project implementation and leveraging large grants.

“Mosquito Creek Watershed Restoration: A Model for Acidic Stream and Watershed Restoration in the Pennsylvania Anthracite Coal Region” - Brian C. Bonner, P.E. & Jacob E. Smith, E.I.T., ARM Group LLC

This presentation will cover the design, implementation, maintenance, and monitoring of passive treatment systems for acidified stream conditions. It will focus on the combined effects of acidic deposition and unconsolidated mine discharges within the upper Swatara Creek watershed in Schuylkill County. Additionally, it will discuss stream restoration strategies in Pennsylvania’s coal regions prone to chronic and episodic acidification, while sharing key lessons learned and practical advice for professionals working in acid-impaired watersheds.

“Critical Mineral Recovery from Acid Mine Drainage: A Path to Supply Chain Resilience” - Mohammad Rezaee, The Pennsylvania State University

The selective recovery of critical minerals during the AMD neutralization process is strongly influenced by solution chemistry, available ligands, and element concentrations. At Penn State, we have developed a patented staged-precipitation process that enables the selective recovery of these valuable elements while ensuring environmental compliance. This presentation will provide an in-depth discussion of the process, including optimization and kinetics, along with progress toward scaling up to a 1,000-gallon-per-day treatment system.

1:45 - 2:25

“Understanding Barriers to Remediation of the Beech Creek Watershed - A Transdisciplinary Approach” - Grace Lewis & Mobashira Tasnim, The Pennsylvania State University

What perceptions do residents and recreationists of an AMD impacted watershed hold toward AMD remediation strategies? What is the potential for an educational, outreach-based ArcGIS platform to enhance participation and involvement in AMD solutions? In this presentation, Penn State graduate students will share their findings from a semester-long research project featuring the land, water, and people of the Beech Creek Watershed that took place in the spring of 2025.

“Paying it Forward: Community Benefit Agreements as a Tool for AML Projects” - Jordi Comas, PA DEP

Community benefit agreements are a proven tool in a variety of development situations where communities can secure a binding agreement for concrete benefits before ground is broken. Benefits is broadly defined ranging from hours of operation to direct financial support. The presentation will review best practices for community benefit agreements in any sector with an emphasis in uses in mining contexts across the country. It will include a scenario to do a hands-on session on how a community benefit process can unfold.

Gold Sponsor



CHEMSTREAM

Thursday - Synopses

2:45 - 3:25

"Answering the FAQs of PA DEP's AML/AMD Grant Program: Part 1" - Cindy Wolfe, PA DEP BAMR

These sessions will review the Abandoned Mine Land and Abandoned Mine Drainage Grant Program Guidance and answer frequently asked questions regarding the Program, the Program Goals, funding, and more. Anyone interested in learning more and digging into the guts of the AML/AMD Grant Program should plan to attend.

"A Checkup for Your Limestone Bed: Measuring Your Limestone Bed's Vitals via Porosity and Tracer Tests" - Olivia Weaver, Hedin Environmental

From 2022 to 2024, Hedin Environmental oversaw and evaluated the cleaning of 36,000 tons of limestone aggregate at 18 passive treatment system limestone beds to test different aggregate cleaning methods. To evaluate these cleaning methods, we measured water quality and conducted tracer tests, porosity tests, and potential alkalinity generation tests before and after cleaning. In this talk, we will discuss the methods we developed to evaluate limestone beds, lessons learned, and how to determine the health of your limestone bed.

"Upper Shamokin Creek Watershed Investigation and Conceptual Restoration Plan" - Bill Burgos, Tetra Tech

The Upper Shamokin Creek watershed is underlain by the Western Middle Anthracite Coalfield and severely impacted by abandoned mine drainage (AMD) from coal mining operations. Tetra Tech was retained by Shamokin Creek Restoration Alliance to complete a watershed assessment and conceptual restoration plan for this watershed.

3:30 - 4:10

"Answering the FAQs of PA DEP's AML/AMD Grant Program: Part 2" - Cindy Wolfe, PA DEP BAMR

These sessions will review the Abandoned Mine Land and Abandoned Mine Drainage Grant Program Guidance and answer frequently asked questions regarding the Program, the Program Goals, funding, and more. Anyone interested in learning more and digging into the guts of the AML/AMD Grant Program should plan to attend.

Thursday

Silver Sponsor



**Architecture
Engineering &
Consulting**

Silver Sponsor



ARM Group
Engineers and Scientists

Precise. Responsive. Solutions.

Thanks to Our Sponsors

Gold Sponsor

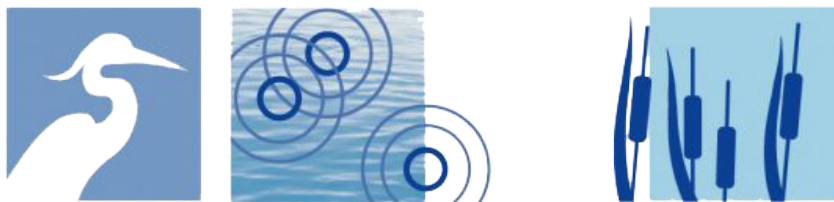


Gold Sponsor



Civil & Environmental
Consultants, Inc.

Gold Sponsor



Foundation for Pennsylvania Watersheds

Gold Sponsor



TETRA TECH

Silver Sponsor



**Earth
Conservancy**

Silver Sponsor



ceg

Silver Sponsor

**CDM
Smith®**

Silver Sponsor

Silver Sponsor



Silver Sponsor



"From Our Roots to the Future"

Our 27th Anniversary

Platinum Sponsor



Robindale



BEFORE



DURING



AFTER

In the heart of Western Pennsylvania, where remnants from past decades of mining have scarred the land, Robindale stands as a beacon of environmental stewardship. These refuse coal piles, once deemed eyesores and environmental hazards, are meticulously removed and repurposed by Robindale. The company employs innovative technologies and sustainable practices to not only mitigate the environmental impact but also to turn this waste material into a resource.

**Powering Our World,
Restoring Our Environment.**



DEP's Bureau of Abandoned Mine Reclamation

Welcomes Attendees of the Annual Pennsylvania AMR Conference

Platinum Sponsor



Two Field Offices to Serve You:

2 Public Square
Wilkes-Barre, PA 18701
Phone: 570-826-2371
Fax: 570-826-2441

286 Industrial Park Road
Ebensburg, PA 15931
Phone: 814-472-1800
Fax: 814-472-1839



Pennsylvania
**Department of
Environmental Protection**

Jessica Shirley, Secretary

Bureau of Abandoned Mine Reclamation
Rachel Carson State Office Building
P.O. Box 8461
Harrisburg, PA 17105
Phone: 717-783-2267
Fax: 717-783-7442