



Eastern PA Coalition for Abandoned Mine Reclamation

Robert E. Hughes
EPCAMR Executive Director
101 South Main Street
Ashley, PA 18706
Phone: (570) 371-3523
rhughes@epcamr.org
Website: www.epcamr.org

The Honorable Paul Gosar
Chairman on the Subcommittee on Energy and Mineral Resources
Committee on Natural Resources
United States House of Representatives
Washington, D.C, 20515

The Honorable Alan Lowenthal
Ranking Member, Subcommittee on Energy and Mineral Resources
Committee on Natural Resources
United States House of Representatives
Washington, D.C, 20515

RE: Legislative Hearing Testimony/Comments on H.R. 1731 (RECLAIM Act)

Dear Chairman Gosar and Ranking Member Lowenthal:

EPCAMR is a non-profit coalition representative of County Conservation Districts in NorthCentral and Northeastern PA's Bituminous & Anthracite Coal Region, along with community watershed organizations, land reclamation groups, historic preservation societies, environmental professionals, the Anthracite industry, and Co-Generation plants, that supports the reclamation of abandoned mine lands and rivers and streams polluted by abandoned mine drainage (AMD). Our regional board consists of 25 members, covering 16 counties and dozens of watersheds impacted by past mining practices. The majority of the coalfield communities that we work in are located in the headwaters of both the Chesapeake Bay, Schuylkill, and Delaware Rivers. EPCAMR is also a member of the Choose Clean Water Coalition (CCWC) and the Delaware River Watershed Coalition. We would like to offer our testimony on support of the RECLAIM Act (HR 1731).

EPCAMR's goals cannot be realized without continuing to make critical clean water investments in our coalfield communities. It means infrastructure needs in our cities and towns that are located in watersheds impacted by abandoned mine lands need to prevent stormwater from running off our streets and parking lots and washing pollutants downstream and across abandoned mine lands. Clean water from mountain streams above mining impacted areas often enters abandoned mines through interfaces with the coal measures that have been mined out where that water becomes an

additional pollution source that creates AMD. Reclamation of the land needs to occur to prevent fines and silts from entering our rivers and streams, creating AMD and pollution problems downstream and locally within our communities. Reclamation of abandoned mine lands need to be marketed to create economic redevelopment opportunities that lead to new jobs and a just transition to new economies in our often underserved and underrepresented coalfields. Public funding along with private investments need to go hand in hand to reclaim our abandoned mine lands and to create opportunities to reuse our polluted mine water sources of pollution.

EPCAMR is asking our Members of Congress to continue to support funding for programs that provide critical support to the states, local governments, non-profits, and communities throughout our Region.

RECLAIM Act ([HR 1731](#)) Passage – The \$1 billion bill to turn abandoned coal mine cleanup into an economic booster for struggling coalfield communities. EPCAMR hopes that the House Natural Resources Subcommittee on Energy and Mineral Resources supports the passage of this bill known as the "***Revitalizing the Economy of Coal Communities by Leveraging Local Activities and Investing More Act***", sponsored by Congressman Hal Rogers, Kentucky, supported by many Appalachian communities.

EPCAMR doesn't read that there any restriction of final land use or any distinction that the money may only be used for the traditional reclamation as opposed to site preparation for building pads. On Page 3, line 9-14, Paragraph (c) is reworded to clearly state that money can be used on SMCRA Title IV priority 1 and 2 sites with no restriction, but if it is used on priority 3 (environmental degradation and AMD), then it must meet the economic or community development requirement. Page 6, line 18, starts the changes to the "rolling average" language to the "proportion of reclamation fees paid during the period of fiscal years 2012 through 2016". This makes it easier to calculate today how much each state will get as opposed to waiting to see where the market takes us. Page 14 talks about the requirements for the Secretary's report to Congress. EPCAMR believes it clarifies the reporting requirements and adds a 4th paragraph to quantify the reduction in the Inventory since the previous report. This shows accountability for how the funds have been spent. OSMRE has standardized many of these attributes now in eAMLIS, which is a step in the right direction.

EPCAMR is supportive of moving funds more quickly from the Abandoned Mine Land Trust Fund that is owed to certain states, for much needed reclamation, job creation, water treatment of polluted AMD, and economic redevelopment. EPCAMR also hopes to supports a broader infrastructure package will emerge from the President later this year to compliment the bill. Senate Majority Leader Mitch McConnell, Kentucky, introduced the companion, [S 728](#).

Senator Joe Manchin, West Virginia, is also the lead co-sponsor of the Senate Democrats own "RECLAIM Act", [S 738](#), which is identical to last year's bill prepared by Rogers.

Passage of either would inject **\$200** million a year for the next five years into "promoting economic revitalization, diversification, and development in economically distressed communities through the reclamation and restoration of land and water resources adversely affected by coal mining carried out before August 3, 1977". Since 1977, \$10.9 billion in fees has been collected, \$151 million alone in 2016. OSMRE estimates that roughly **\$10** billion of cleanup remains left.

The AML Fund currently has **\$2.5** billion unappropriated — unused, but reserved for use in particular states. "RECLAIM" would simply accelerate payments to those states. Of the extra money annually, **\$195** million would be reserved for uncertified states, those with outstanding high-priority coal sites left to clean up, including Pennsylvania. The remaining **\$5** million would be set aside for certified states, namely Wyoming, whose congressional delegation has long been among the chief opponents of the proposal.

All funding under the Democrats' proposal would be based on how much coal a state mined in 1977, as states with more coal mining then are likely to have more eligible sites, including PA. Under the GOP bill, **80%** of funding would be based on that calculation, with **20** percent distributed based on how much a state or tribe paid in reclamation fees between 2012 and 2016. It only applies to the "economic development nexus", Priority 1 and 2 sites — those posing a threat to public health, safety and property — would be eligible, which comprise roughly **75%** of the remaining abandoned mines, by cost, in the official AML Inventory managed by OSMRE. While preferred, only Priority 3 sites, environmental restoration, would have to prove their economic impact, including AMD cleanup and watershed restoration. PA could be at a disadvantage here because of not being able to reach the criteria of economic nexus and therefore could lose out on funds. EPCAMR believes that it should be up to PA and the States to determine whether or not Priority 1 and Priority 2 sites meet the economic nexus and not be legislated by the Federal government.

AMD treatment plants can create long-term opportunities for job creation that will cleanup PA's **5,500** miles of polluted streams and put people in the coal regions to work. No longer can passive mine drainage treatment be the norm. Active mine water treatment plants that are very similar to wastewater treatment plants are necessary to restore our watersheds. There are **288** AMD Treatment systems in operation across PA (Datashed, 2017), according to www.datashed.org, a database where EPCAMR helps Stream Restoration Incorporated to populate it with water quality data results and improvements, as well as photos, operation, maintenance, rehabilitation, replacement manuals, and

design and construction plans. **71,369,254,463** (gal/yr) of AMD have been treated. **17,084,443** (lb/yr) of iron, **3,090,050** (lb/yr) of aluminum, **1,486,466** (lb/yr) of manganese, **and 8,123,596** (lb/yr) of acidity have been removed PA waterways.

Eligible communities would qualify based on local employment data, per-capita income and other economic indicators as well as a demonstrated reliance historically on coal. The Republican bill should prioritize economic development, include a jobs creation package, and require community engagement for project proposals, which EPCAMR believes should happen to encourage local involvement and prioritization led by citizens who are impacted the most. **5.5** million people live within **1** mile of an abandoned mine land, nationally. **2,723,932** million people live within **1** mile of an abandoned mine in PA, alone (**17.66%** of the US Census (2010)).

APPALACHIAN REGIONAL COMMISSION SUPPORT

EPCAMR noticed that the Republicans also added a provision that would move the headquarters of the Appalachian Regional Commission (ARC) out of Washington, D.C. to save operating costs. EPCAMR agrees that relocating ARC to a more affordable location within the Appalachian Region is a positive step. The independent agency, created in 1965 to help historically impoverished mountain counties in **13** Eastern states, invested **\$73** million last year in coal-affected areas. **25** million Americans live in the Appalachian Region who need the support of this program. EPCAMR believes that there is an additional need to look in to adding additional counties in NE PA to the ARC covered counties and that other States may feel the same way. In 52 years, ARC projects totaled **\$3.8** billion, resulting in nearly **312,000** jobs and **\$10** billion in increased earnings. Are they talking about a 50/50 cost share grants for transitional counties, 80/20 for distressed and 70/30 for at-risk counties? It says any source and EPCAMR wonders where those funds would come from.

EARTH CONSERVANCY

EPCAMR has included a letter from the Earth Conservancy, another regional reclamation partner in Northeastern PA, (www.earthconservancy.org), on their accomplishments and a list of Waste Coal Material Processed on Earth Conservancy Projects from 1995 to 2016. **8,053,000** Tons of coal waste were processed and recovered for electricity usage that improved **570** acres on **7** projects alone. At a **40%** recovery rate, **20** million Tons of culm and coal waste have been processed. Future work on the West End Bank, another **3,500,000** Tons remain to be processed and reclaimed on

300 acres of abandoned mine lands that lay surrounded by the Pinchot State Forest overlooking the Susquehanna River, in the Northern Field.

ARIPPA

In PA's inventory of waste coal piles sites maintained by the PA DEP's Bureau of Abandoned Mine Reclamation (BAMR), approximately **820** waste coal banks covering **9,500** acres still remain unreclaimed. **50** of them are burning and on fire, like the well known mine fire in Centralia, PA. The estimated volume of waste coal in these banks is over **224,000,000** cubic yards of material, suitable for burning in a co-generation plant, like those of the ARIPPA trade association (www.arippa.org). Over **5,000** acres of mine-scarred lands were reclaimed by the ARIPPA plants across PA, by private mine operators, at no cost to PA. Land that has been reclaimed is either contoured, planted, revegetated, or converted to another commercial or industrial use that ceates additional jobs. Streams recover, property values increase, and the reclaimed land is available for higher uses and can often become taxable parcels, bringing in much needed, local taxes to coalfield communities with a stagnant tax base. EPCAMR is very supportive of ARIPPA's efforts and has been a long time supporter of their reclamation plans. In October 2016, ARIPPA released a report prepared by Econsult Solutions, an economic consulting firm, that analyzed the economic and environmental benefits of the **14** plants comprising the PA coal refuse to energy industry. (<http://arippa.org/wp-content/uploads/2016/12/Summary-of-Benefits-of-the-Coal-Refuse-to-Energy-Industry-as-of-Feb.-2017.pdf>; **See Attached**)

To see the amount of material that has been excavated, backfilled, seeded, and mulched, on dozens of reclamation sites over the last two decades is simply amazing and truly a testament to the land reclamation efforts of the waste coal industry. Fuels managers, machine operators, plant operators, and heavy equipment operators and their fuel supply companies, like Northampton Fuel Supply, Inc., who just won the National Association of Abandoned Mine Lands Reclamation Award for the extensive land reclamation efforts that has had to occur on the "Loomis Bank Operation", Hanover Township, Luzerne County, PA to backfill, regrade, create surface contours and conveyances to control stormwater, and to keep surface water from entering the underground abandoned mine pool in the lower Wyoming Valley that would have ultimately continued to contribute to the formation of abandoned mine drainage (AMD) that would have ended up discharging into the Nanticoke Creek Watershed, had they not reclaimed the site. Because of the amount of land reclamation completed on the Loomis Site, it can now be considered for future business development which will provide economic development opportunities to the Southern part of the Wyoming Valley, and can add taxable income

and revenue streams to the local school district, the local township, and Luzerne County, in terms of future taxes to improve the local economy of Hanover Township and the surrounding coalfield communities. A good example of an opportunity for a RECLAIM Project for the future.

What stands out the most is the lack of the mountainous black banks of waste coal, culm, slate rock, and burnt clinkers of coal that dominated the regional landscape historically. There is no longer the smell of burning mine fires with its sulfur gas dispersing into the air as prevalent as it was 20 years ago. The greening of the landscape and topography, along with the surface features that have been reclaimed now dominate hundreds of reclamation sites. Land reclamation has significantly reduced the environmental damage that had historically been a problem across the Coal Region. Ambient air quality has no doubt improved since there is no more smell of sulfurous gas coming from extinguished mine fires, dust suppression is no longer necessary due to the light finer coals that once sat in the processing and siltation ponds, elimination of secluded illegal dumping grounds for litter and tires occurs, and water has been restored to the surface and does not percolate down into the mine spoils any longer creating AMD. The work of the waste coal industry has improved thousands of acres of trees, grasses, and wildflowers that have now been reestablished on sites with lush vegetative growth and ground cover that has reduced sediment and erosion into the local waterways.

ARIPPA facilities remove and utilize coal refuse from both past and current mining activities, thereby abating acid mine drainage from coal refuse stockpiles. The facilities also utilize the ash by-product in a beneficial, highly regulated, manner to reclaim damaged abandoned mines lands and streams all at no cost to taxpayers. By converting coal refuse into alternative energy, ARIPPA members are removing one of the principal sources of contamination to surface and ground water in legacy coal mining regions. Until the commercial development of the circulating fluidized bed boiler, there was no significant use for this low BTU-value coal refuse, fuel/material. Now this fuel/material can be put to good use in the production of clean alternative energy.

To date over **214** million tons of coal refuse have been converted into alternative energy by member ARIPPA plants. Circulating Fluidized Bed (CFB) technology, one of the cleanest methods available today, has been used to convert coal refuse into electricity and an alkaline-rich ash by-product utilized for decades in a highly regulated, safe, and beneficial manner to fill and reclaim unsafe, abandoned mine lands; to remediate streams damaged by acid mine drainage; amend soil at mining sites, and serve as an additive in concrete/asphalt for construction and roadways. The unique nature of ARIPPA's environmental efforts combined with the desire to coordinate these efforts with "hands on" environmentally oriented groups, like EPCAMR, and governmental agencies symbolizes its commitment to improving our Commonwealth's landscape and environment at no expense to the taxpayer.

ARIPPA's member facilities constitute the overwhelming majority of the coal refuse power production industry in the world generating approximately 10% of the total electricity in the Pennsylvania/West Virginia region. It is a unique and beneficial industry to Pennsylvania, given the need for the plants to assist our coalfield residents and communities in cleaning up our abandoned mine problems throughout Pennsylvania. Hundreds to thousands of citizen-workers, who are directly or indirectly employed by the ARIPPA industry, live, along with their children, families, and extended families, in communities within close proximity of the ARIPPA alternative energy plants. These communities and nearby lands and streams have experienced vast environmental and economic improvements due mainly to the decades of hard work and dedication, these workers, and the ARIPPA industry has provided. One only has to look at the recently published and released ***Economic and Environmental Analysis of PA's Coal Refuse Industry Final Report***, dated September 8, 2016, produced for ARIPPA, by Econsult Solutions, Inc. to see the true value and public benefits of the waste coal industry.

Another example of a potential RECLAIM Project is as follows. EPCAMR is currently facilitating discussions, field meetings, meetings with local, County, and State government officials, Pagnotti Enterprises, Abrahams Creek Watershed Association Swoyersville Borough residents, and the waste coal industry leaders from Olympus Power, LLC, Panther Creek Partners, Northampton Energy Services, PA DEP Pottsville District Mining Office and the PA DEP Bureau of Abandoned Mine Reclamation, State Representative Aaron Kaufer's Office in the 120th Legislative District, to discuss funding options, a government financed construction contract, and incentives to reclaim an estimated 4 Million cubic yards of abandoned waste culm from the former Harry E. Breaker Colliery grounds, located in Swoyersville Borough, Wyoming Valley, Luzerne County. The potential land use development of the site once reclaimed is being considered for a high-end housing development that could bring in new families, new tax dollars, trade jobs, trucking, hauling, and other ripple effect boosts to the surrounding local economy.

Throughout the country, watershed groups and local governments, are playing an increasingly prominent role in environmental management. With their local focus and community base, watershed groups and Coalitions like EPCAMR, are building consensus and expanding participation within communities across Pennsylvania. It is not uncommon for organizations to operate on an annual unrestricted budget of less than \$5,000, while at the same time implementing \$100,000 projects that directly benefit communities and the environment.

Abandoned mine land projects in particular, are costly and are long-term endeavors, often taken on by non-profit organizations that operate through grant and foundation funds. According to the Pennsylvania Department of Environmental Protection (PA DEP) Mining Reclamation Advisory Board (MRAB), of which, I am a member, the average cost of an AML project falls in a range of \$8,000 to \$20,000 per acre. If AMD is present on those lands, the cost could be

even higher. Pennsylvania organizations have relied heavily on Growing Greener funds, which have dwindled in recent years, making it more difficult to fund projects. PA DEP Bureau of Abandoned Mine Reclamation (BAMR) staffing levels are down and more attrition is expected as more staff retire in upcoming years. Funds are necessary to assist with administering the funding that would come down to the States.

Mini-Grant Program Expansion Possible by EPCAMR and Others

The ARIPPA AML/AMD Reclamation Mini-grant Program developed and administered by EPCAMR and our western counterpart, was created in partnership with ARIPPA, in 2010, to help environmental organizations and Conservation Districts secure extra match and leverage additional funds from other State, Federal, County, or Local sources. The waste coal industry has also provided donations over the last 6 years to EPCAMR and a similar organization to ours in Western PA to support land and water reclamation projects, community projects, stream restoration projects, education and outreach programs to underserved coalfield communities, and AMD monitoring, operation, repair, and treatment. Watershed protection is one of the fastest growing areas of community-based collaboration. EPCAMR redistributes the entire amount of the donation back out to the community groups and reclamation partners across our region each year. To date, ARIPPA has donated **\$30,000** to EPCAMR alone, and another **\$30,000** to our western counterpart, to support abandoned mine land reclamation projects across PA.

In 2016, ARIPPA donated \$5,000 (\$2500 to each of the Coalitions) to fund even more projects throughout the state including:

Newport Township CrimeWatch Organization—\$500 towards hauling, proper electronics waste disposal, dumpster, and cleanup supplies for a planned 2017 Spring Cleanup (between April and May 2017), on an abandoned mine land area in Newport Township, Luzerne County, PA where up to 40 tires will be removed and 10-12,000 pounds of illegally dumped trash, discarded furniture, construction waste, and household wastes will be removed, in partnership with Newport Township, Newport Township Community Organization, Greater Nanticoke Area Community Garden, Newport Township Police Department, Nanticoke Conservation Club, EPCAMR, and the Spooky Off-Road Club. 50 volunteers are expected to participate. EPCAMR will administer the grant on behalf of the NTCO.

Mehoopany Creek Watershed Association—\$800 towards the purchase of lime to be placed on food plots on State Game Lands #57, adjacent to the Mehoopany Creek, Wyoming County, PA in partnership with the Whitetails Unlimited, PA Game Commission, who will be donating machinery to spread the lime, and EPCAMR. During rain events, lime will

eventually reach the stream, having already benefited the food plots, and will increase the pH of the acid mine water entering the watershed. The liming will occur in the Fall of 2016.

Luzerne Conservation District—\$700 towards a pressure transducer that will be installed at the Plainsville AMD Borehole in Plains Township, Luzerne County, PA to obtain real-time data that will allow for the Luzerne Conservation District, Plains Township, EPCAMR, and the landowner, Mr. Greg Price, to gain a better understanding of the actual flows, chemical loadings of iron and other trace metals reaching the Susquehanna River, and to help learn more about the underground mine pool complex in that area of the Wyoming Valley. EPCAMR and the Luzerne Conservation District will be taking the lead on the monitoring of the Plainsville AMD Borehole discharge and have developed a feasibility study that they are going to be submitting for grants to perform the necessary background data collection to begin looking at AMD Treatment options and finding ways to improve the water quality of the Susquehanna River.

EPCAMR—\$500 towards the cost of hauling trash to the landfill to cover the tipping fees and for supplies to assist with the third cleanup of Centralia on September 24, 2016, led by EPCAMR Staff, former and current residents of Centralia, Pagnotti Enterprises, Centralia Hose Company No. 1, Wicked Jeeps of Central PA, Keystone Off-Road Vehicle Association, PEC NE Office, Keep PA Beautiful, Centralia.org, Joe Sapienza, II, and nearly two dozen other contributors of funds to support the annual cleanup on the abandoned mine lands, roads, and streets throughout the Borough. **60** volunteers attended. **6** Tons of trash were collected in **3** hours.

In 2015, ARIPPA donated \$5,000, (\$2500 to each of the Coalitions) via the AML/AMD Reclamation Award Program, funding several projects throughout the state including:

Huntingdon County Conservation District: \$750 for Limestone Dosing of Shoup's Run.

Elk County Conservation District: \$1,250 for West Creek Headwaters AML Analysis.

Allegheny Land Trust: \$500 for Sign Replacement at Wingfield Pines AMD TS.

Mehoopany Creek Watershed Association: \$800 for the purchase of lime sand for dosing.

Earth Conservancy: \$1,200 for Askam Borehole TS Wayside Environmental Education Exhibit.

McGlynn Learning Center: \$500 for 2 Build-a-Birdhouse Workshops in partnership with HOME DEPOT and with underserved youth from low-income housing complexes within the City of Wilkes-Barre to place on abandoned mine lands for wildlife habitat.

In 2014, ARIPPA donated \$5,000 (\$2500 to each of the Coalitions), ultimately funding several projects throughout the state including:

Evergreen Conservancy: \$1,250 to purchase rechargeable batteries at the Tanoma Renewable Energy AMD Treatment System.

Altman Watershed Association for Restoring the Environment (AWARE): \$1,250 for construction activities associated with an AMD treatment system built in partnership with Robindale Energy.

Babb Creek Watershed Association: \$1,300 for replacement parts for the Antrim AMD Treatment System.

Mehoopany Creek Watershed Association: \$500 for the purchase of lime sand for dosing.

Centralia Illegal Dump Site Cleanup: \$700 for the purchase of supplies and hauling of trash.

In 2013, ARIPPA donated \$5,000, (\$2500 to each of the Coalitions), ultimately funding several projects throughout the state including:

Allegheny Valley Land Trust: for the construction of a system to collect sediment from a spoil pile along the Allegheny River.

Evergreen Conservancy: to purchase and install a new water turbine at Tanoma Wetlands, a passive mine drainage treatment system at the headwaters of Crooked Creek, a tributary of the Allegheny River. Combined with a wind turbine and solar panels installed previously, the system will be aerated 24/7.

Luzerne Conservation District: \$500 for the removal of heavy sedimentation and woody debris dams within the tributary and to repair severely eroded stream banks and storm water outlets flowing into Knockley's Tributary to Solomon Creek, Wilkes-Barre.

Mehoopany Creek Watershed Association: \$1,000 for 50 Tons of limestone sand that was applied to the South Branch of Mehoopany Creek to increase the pH levels in the stream, improving the fishery habitat and water quality in the creek; historically impaired by acidity.

Plymouth Historical Society: \$500 to clean up illegally dumped garbage at the historic Avondale Mine Disaster Site where EPCAMR completed several historic preservation projects in the past; located in Plymouth Township, Luzerne County, PA.

Lackawanna River Corridor Association: \$500 for a real estate appraisal on abandoned mine lands hoped to be secured to by their partner, the Lackawanna Valley Conservancy, in an effort to use for future AMD treatment of the Old Forge AMD Borehole, on the border of Luzerne and Lackawanna County.

In 2012, ARIPPA donated \$10,000 (\$5000 to each of the Coalitions), ultimately funding several projects throughout the state including:

Sewickley Creek Watershed Association: \$2,500 for Iron sludge recovery in the Marchand AMD Treatment System.

Chestnut Ridge Chapter of Trout Unlimited: \$2,500 for lime dosing.

Babb Creek Watershed Association: \$1,000 offset cost of micro-hydroelectric turbines that utilize 2 billion gal/day of the Antrim AMD to generate electricity.

Eastern Middle Anthracite Region Recovery, Inc.: \$1,000 for refurbishment of hydroelectric components on the Audenried AMD Treatment System.

Loyalsock Creek Watershed Association: \$2,500 to purchase and apply limestone to continue the treatment of a large AMD seep at WALA Lake.

Shamokin Creek Restoration Alliance: \$500 to restore roadway, remove silt from pond 2, block entrances, and install signs at Carbon Run Site 42 AMD Treatment System.

In 2011, ARIPPA donated \$10,000 (\$5000 to each of the Coalitions), ultimately funding several projects throughout the state including:

Blackleggs Creek Watershed Association: \$2,500 for the construction of a concrete pad for a lime dosing silo in the Bear Run Treatment Complex.

Stream Restoration, Inc.: \$2,500 for project costs associated with removing waste coal refuse to be used in energy production and the construction of an AMD treatment system.

Schuylkill Headwaters Association: \$3,000 for the Wagner Run Restoration project to keep water in the stream channel, reducing the volume of the Pine Knot AMD discharge.

Huber Breaker Preservation Society (HBPS): \$1,000 for the Huber Memorial Park pedestrian access gate project to place a gate in a wrought iron fence surrounding the property.

Eastern Middle Anthracite Region Recovery, Inc.: \$1,000 for the Audenreid Micro-Hydro AMD Treatment System raw water intake project to provide reliable flow to the system.

In 2010, ARIPPA celebrated its 20th Anniversary by awarding \$20,000 via the AML/AMD Reclamation Mini-grant Program, funding several projects throughout the state including:

Clearfield Creek Watershed Association: \$8,000 for Swank 13 AMD Passive Treatment.

Evergreen Conservancy: \$2,000 for alternative energy development at Tanoma Wetlands.

Earth Conservancy: \$460 to replace informational signage on the Mocanaqua Loop Trail developed on abandoned mine lands.

Schuylkill Headwaters Association: \$4,770 to repair the Glendower Breech which will return a stream back to its original channel avoiding contact with coal sediment.

Eastern Middle Anthracite Region Recovery, Inc.: \$4,770 for construction of a raw water intake on the Audenreid Treatment System to increase flow to the micro-hydro turbines.

I have collaborated with many coalitions and partners, community activists, active environmentalists, conservation organizations, community and economic development organizations, educational and research interest groups, colleges and universities, multiple energy production interest groups, public utility groups, and governmental interests at all levels, to improve the quality of life for our region, here in Northeastern and NorthCentral Pennsylvania particularly, but across the Commonwealth as well. During the last 25 years, I have learned and gained an understanding of the many facets and intricacies in our Commonwealth related to our environmental issues, economic struggles, environmental science and research, as well as a great understanding and appreciation for our environmental resources and indigenous resources that we so often take for granted.

The Wyoming Valley area, where I was born and raised, is located in and adjacent to, environmental justice areas and we need to ensure that the Commonwealth is reaching out to its most vulnerable citizens. If one looks at the locations of where the environmental justice communities and areas are throughout the Commonwealth, you will find that a large majority of them are located in the coalfields of Pennsylvania, where coal-fired plants exist. These coal-fired plants are not to be confused with the Co-Generation Plants, that have more suitable clean air technology best management practices that are in use to benefit the surrounding communities that they operate in, who reclaim the former mine-scarred lands, remediate streams impacted by past mining pollution, and plant trees, vegetation, and grasses that also are positive contributions to the carbon sequestration cycle in the environment. Millions of tons of culm banks, coal refuse, and waste rock are being converted to alternative forms of electricity through the production goals of the ARIPPA plants across the Commonwealth.

This is one area that EPCAMR feels gets overlooked by the Commonwealth. The sheer acreage of abandoned mine lands that formerly had been devoid of trees, grasses, vegetation, and often times, detrimental air quality emissions that had come from abandoned mine fires, that are now reclaimed, green, revegetated, had been previously bonded and released, are now often in a state of succession and forest ecology transition that should be given some credit towards reaching Pennsylvania's carbon reduction.

We need to bring together the collective minds that will bring creative and imaginative solutions to the table, innovative technologies, new designs, new alternative energy systems, a balanced use of our natural and extractive industry resources, and regional community-focused economic redevelopment opportunities related to the investment in clean energy production, conservation by design, smart growth, low-impact designs, and smart infrastructure and transportation systems.

EPCAMR recently supported the SENSE Act to continue to help the industry remain a valuable partner and ally in abandoned mine reclamation across PA and an important part of our regional communities, providing jobs, economic redevelopment opportunities, land reclamation, cleanup of our land and waterways, and alternative energy to our region.

Lastly, another energy renewable source that is dormant in Pennsylvania and needs attention and public and private investment is the use of underground abandoned mine pool complexes of water for geothermal heat capture and or cooling systems coupled with gas turbine generation. This could provide tremendous opportunities for institutional, business, residential, commercial, and or industrial heating and cooling. One only has to look at what Marywood University, Lackawanna County, PA did to install and build a geothermal heating and ventilation system into the underground Scranton-Metro Mine Pool Complex to heat and cool some buildings in Scranton. Wind and solar sources coupled with mine pool geothermal recovery have great potential as well and the local applications of these sources in distributed energy systems need to be promoted and invested in. EPCAMR has done a great deal of work in mapping these underground abandoned mine resources, mine pool complexes, regional mine pool boundaries, and worked on many projects and research in this area and would be very interested in being a part of future projects and or facilitating the start-up partnerships necessary to incubate private investment and businesses into our area with our waste coal partners. Our efforts could use some infusion of grant funds to support our work as well to help reclaim additional abandoned mine lands and restore streams impacted by abandoned mine water pollution.

Respectfully submitted,

A handwritten signature in black ink that reads "Robert E. Hughes". The signature is written in a cursive, flowing style with a long horizontal stroke at the end.

Robert E. Hughes
EPCAMR Executive Director