

EPCAMR

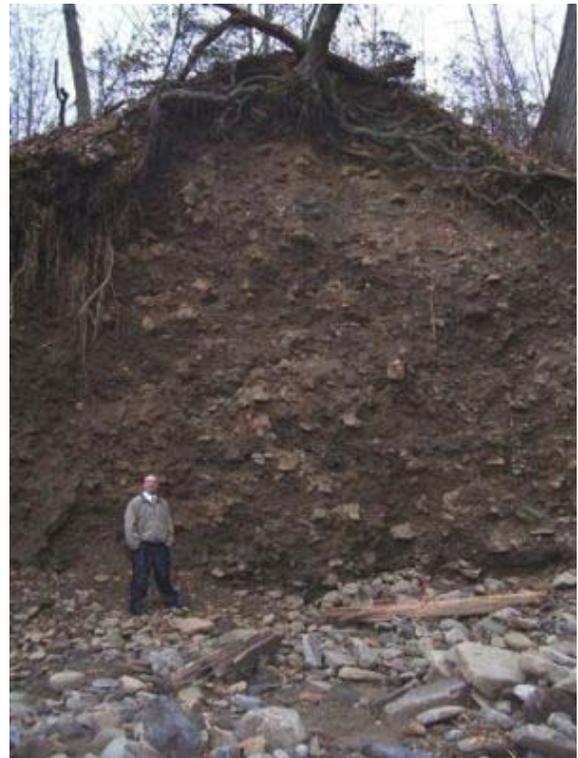


2008 Year in Review for the Eastern Pennsylvania Coalition for Abandoned Mine Reclamation Program

The EPCAMR organization is an extensive network of volunteers, non-profits and supporting agencies at the county, state, local, and federal levels versed in reclaiming abandoned mine lands (AML) and restoring our watersheds impacted by abandoned mine drainage (AMD). We have also developed an exhaustive set of technical, educational, and financial tools and resources that are continually updated on our website, www.OrangeWaterNetwork.org. (Make note of the hyperlinks underlined in blue throughout this document, which will take you to more information).

The EPCAMR program staff is centrally located in the EPCAMR region, housed at the Luzerne Conservation District (LCD), Shavertown, PA. The LCD, our local sponsoring organization, administers and supports our base level grant funding from the PA DEP Section 319 Program.

The Luzerne Conservation District continues to partner with EPCAMR to provide two full time employees through their AMR Program: Executive Director, Robert Hughes and Watershed Outreach Coordinator, Michael Hewitt. Carly Trumann, a full time Office of Surface Mining VISTA Community Development Volunteer Coordinator, also joined the staff for a year. The EPCAMR program staff is always available to answer any questions and concerns or to provide ideas and technical assistance on issues related to AMD / AML in northeastern and north central PA.



Robert Hughes poses in front of a ~30 ft high bank erosion problem along Hicks Creek, Exeter Borough, Luzerne County for scale.

2008 Initiatives:

[FACTS: Funding AMD Chemistry for Treatment Systems & Datashed](#)

Pennsylvania has invested heavily in passive technologies to treat the largest water pollution problem in the Commonwealth: AMD. Regular water sampling and testing is crucial in diagnosing a treatment system's wellbeing and success. The [FACTS program](#), administered by WPCAMR, and promoted by EPCAMR, puts satisfactory monitoring programs within the reach of the volunteer-based groups by covering the cost of laboratory analyses—hundreds of dollars annually for each system. The FACTS Program also streamlines the transfer of test results from laboratories using an Internet repository for water sampling data, called [Datashed](#). Laboratories upload analysis results to Datashed using unique Sample IDs that link each water sample to a specific date, treatment system, and sampling location.

Datashed will store the complete history of a passive treatment system, helping to diagnose problems and allowing researchers to study and evaluate various AMD treatment technologies.

[Illegal Dump Site Cleanup and Beautification Initiative:](#)

The Clean our American Lands and Streams (COALS) program, now managed by the PA DEP Bureau of Waste Management, continues to thrive in Northumberland, Schuylkill, Lackawanna and Luzerne counties. EPCAMR received a beautification grant from Keep PA Beautiful to develop the Avondale Hill Mine Disaster site, Plymouth Twp., Luzerne County, into a series of community gardens. Work has begun to clear the site for debris and overgrown invasive plants with the help of the Wilkes-Barre Area Vo-Tech's Horticultural Class. The project was partially managed by 2 EPCAMR volunteer Lake Lehman Jr. Sr. High School students, Eric Bella and Zach Petroski, as a senior project in 2008. Kiosks, benches, and picnic tables made of 100% recycled plastic were purchased through the \$9,500 grant.

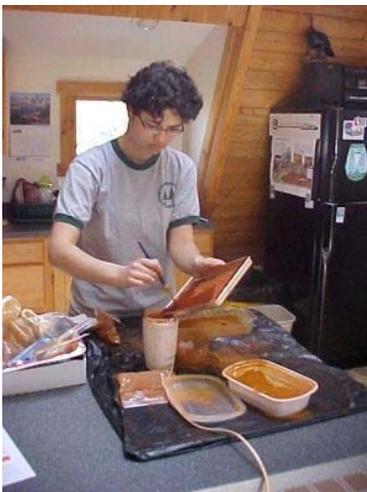


Volunteers cleanup an illegal dump site on the Lackawanna State Forest W. Nanticoke Tract in Plymouth Twp, Luzerne Co.

EPCAMR coordinated 4 separate cleanups in Luzerne County (Plymouth Twp., Newport Twp., and Hanover Twp.) in 2008 removing 556 bags (291,370 pounds) of trash, 4150 pounds of metal and 235 tires were removed from these sites by approximately 106 volunteers from 12 partner organizations.

[RAMLIS GIS Tool Development: Reclaimed Abandoned Mine Land Inventory System](#)

EPCAMR continues to update and distributed the RAMLIS GIS Tool CDs currently at Version 8 to watershed groups, community non-profits, and local governments. The RAMLIS GIS Tool is a conglomeration of statewide and regional GIS Data related to mining, abandoned mines, land use and water quality which aides in gathering statistics and producing maps of mine scarred lands throughout Pennsylvania. Specifically this database shows AML Priority 1, 2 and 3 locations statewide, with information on PA DEP BAMR's plans for reclamation. The project was made possible with funding from the Foundation for PA Watersheds, PA DEP's 319 Program and the use of OSM's ArcGIS License. Updated datasets are produced yearly and EPCAMR is in discussions with the OSM to develop an online ARC IMS System. 4 RAMLIS 7.0 and 25 RAMLIS 8.0 GIS Tool CDs were distributed in 2008. A \$400 Google Earth Grant was awarded to EPCAMR in 2008 to begin developing the tool for use with Google Earth.



Carly Trumann, preparing iron oxide pigment

[Iron Oxide Resource Recovery Initiative for NE PA:](#)

EPCAMR has been the leader in Northeastern Pennsylvania to pioneer the idea of economical recovery of various iron oxides from AMD discharges, and or from AMD Passive Treatment Systems in Eastern PA. Armed with a baseline analysis of 25 large mine discharge metallurgical analysis and loading calculations completed 5 years ago with the help of Hedin Environmental, EPCAMR Staff continue to collect iron oxides from several discharges and innovatively create a reusable green product. The samples are dried, heated to varying temperatures for color gradient changes, ground into a flour-like consistent pigment powder, and then distributed to local artists, watershed groups, elementary schools, and school art programs for use in pigments as paints, stains, tie dying, and the creation of EPCAMR's very own Iron Oxide Chalk. For more information please see out [Iron Oxide Recovery Pamphlet](#)

Old Forge Borehole Innovative AMD Treatment Project

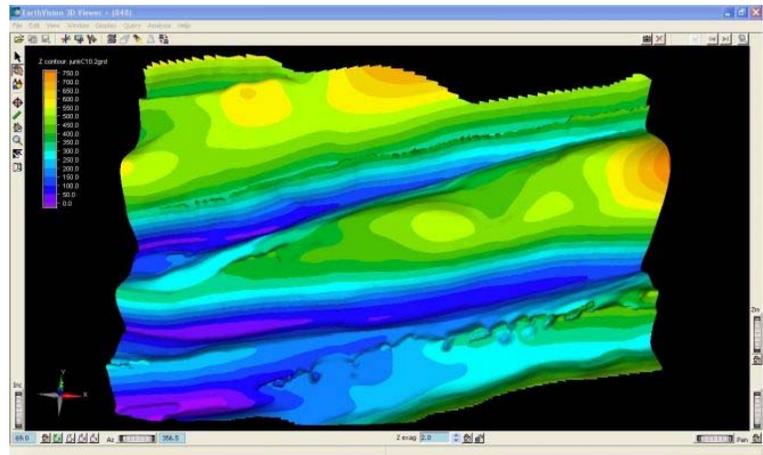
Lackawanna Co. – Duryea Borough received approximately ~\$784,000 from the PA Department of Community and Economic Development through the gaming funds to work with Solution Mining, Inc., Lackawanna River Corridor Association, EPCAMR, HDR, and other partners to demonstrate a new treatment technology for the Old Forge Borehole and to acquire the land to construct the final AMD Treatment facility. The Old Forge Borehole discharges ~50 million gallons per day and is the largest AMD discharge (based on flow) in Pennsylvania. The new treatment technology does not use chemicals; rather it uses physical properties of increased surface area, and gravity-fed aeration, to settle out and collect iron solids for reuse. Other green technologies such as micro hydro power generators, carbon sequestration, aquaculture, water banking, consumptive use credits, and geothermal heating are all being explored in the final design.

Hicks Creek Natural Stream Channel Restoration Project:

EPCAMR was awarded a Growing Greener Grant for the Hicks Creek Stream Restoration Project in the winter of 2006. Contracts were awarded to Skelly & Loy and Borton Lawson Engineering following the receipt of a fully executed contract grant agreement from the PA DEP in 2008 with on-site meetings held by EPCAMR's partners, the Hicks Creek Watershed Association, Exeter Borough, and the PA DEP BAMR. EPCAMR Staff completed the wetland identification and delineation report in 2007 and found no wetlands present in the already disturbed stream channel. Construction and placement of Fluvial Geomorphologic (FGM) structures along the almost 2,000 linear foot stretch will begin in 2009 with a major goal to stabilize bank erosion from a highly erodible abandoned mine problem feature, provide a low flow channel and slow high flow surges through the area to mitigate flooding downstream. A secondary goal will be to restore flow to the creek which currently loses approximately 450 gallons per minute of water to the underground mines. With the arbitrary loss of \$100,000 from the original tight budget of \$550,000 submitted, additional construction funds may be needed to be applied for in a second phase to complete the project.

Mine Pool Mapping Initiative:

EPCAMR received a Growing Greener Grant of \$150,000 to compile, update and fill in data gaps on location of mine pools in the Anthracite Region's Western Middle and Southern Coal Fields, with an emphasis on studying the economic benefits of reusing mine pool water and possibly reducing or eliminating discharges. New GIS layers are being developed based on Surface Mine Permit Files, Operation Scarlift, Bureau of Mines Reports, the 2nd Geologic Survey and historical mining maps with the help of the Pottsville District Mining Office, the Wilkes-Barre BAMR Office, the USGS PA Field Office, the OSM Pittsburg Field Office and other partners.



A 3D view of Mine Pools in the Western Middle Anthracite Field

We are in our 2nd year of this study and are on the cutting edge of developing digital mining maps in 3D for the entire Anthracite Coal Region that has not been done before. So far, 5 layers are in development representing mine drainage tunnels, mine pool / basin boundaries, barrier pillars, mine water flow paths, old workings (before 1900), anticlines and infiltration points to learn about the underground effects of mining and potential for water storage in the Anthracite Region. Mike Hewitt has been working with a technical support member from Dynamic Graphics, the makers of Earth Vision, to develop a work flow that would allow EPCAMR to create 3D layers out of cross-sections on OSM

Mine Maps Folios and USGS Miscellaneous Investigation Reports. Creating these 3D layers can lead to better predictions of mine water volume held in the mine pools.

Also in the Shamokin Creek, studies continue to evaluate the Scott Ridge Overflow and Colbert Mine Breach (Sites 19 and 20) for possible treatment and reuse for the expanding industrial park as an alternative to the expensive public water. A hydrology study was completed for Big Mountain Discharge (Site 23) by Miser and Earle, Inc. which concluded that the Sterling and Big Mountain mine pools are somewhat interconnected as proven by a spike in pH and increased flow at certain times of the year coming from a fracture in the barrier pillar that was believed to completely separate the two.

Technical Assistance Summary:

The EPCAMR Staff continue to provide mapping assistance and gather statistics for various partners using GIS technologies through a Memorandum of Understanding with the Office of Surface Mining’s Appalachian Region Technology Transfer Team. EPCAMR produced approximately **45** maps or datasets from GIS layers for partners in 2008. In addition, EPCAMR staff provides technical grant writing assistance to our regional partners; **21** grants were submitted with EPCAMR assistance totaling approximately **\$1,000,000** for projects in the EPCAMR Region.

Treatment System Operation, Maintenance and Replacement (OM&R) Matters:



Michael Hewitt, Watershed Outreach Coordinator & Carly Trumann, EPCAMR OSM/VISTA volunteer taking water quality samples of the Plainsville Borehole, Luzerne County

Operation and Maintenance of existing systems is an ongoing concern with watershed groups and development of maintenance manuals are key to smooth operation and continual funding. WPCAMR continues to maintain an OM&R Quick Response fund through a Growing Greener grant where groups statewide can apply to quickly repair a treatment system. Several prerequisites must be met including the existence of an OM&R Manual details and examples can be found at the [Datashed](#) website. EPCAMR promotes this funding mechanism to all of the watershed groups with treatment systems in northeastern and north central PA.

In Schuylkill County, work continued on the Audenreid Treatment System to repair the system with FEMA Grant (work was completed by July 2008). The system was damaged related to

flooding events in 2006 when the tunnel and hillside above collapsed clogging the intake system. 2 low head dams were constructed to stop the sediment and debris from clogging up the intake. Additional funding from a “Restoring Brook Trout” Grant awarded to replace \$40K worth of limestone. The EMARR Inc. Energy Harvest Grant (\$280K) was transferred to this project to place micro-hydro turbines on the outlet of treatment tanks to generate power for flushing mechanisms.

The Babb Creek Watershed Association received a \$21,835 Growing Greener grant to rehabilitate an acid mine discharge treatment system and convert it to a settling pond and an open limestone ramp.

The Dauphin County Conservation District received for \$40,000 from the WPCAMR Quick Response grant to repair a blow out at the Bear Creek Phase 1 AMD treatment system caused by an overwhelming amount of stormwater encountered during the spring thaw in 2008.

Keeping Track of the Numbers – New Mine Drainage Treatment Projects:

OSM continues to host its AMD Treatment System Database online. The inventory provides vital statistics on about 400 Acid Mine Drainage (AMD) treatment projects. To date, 258 of those are in

Pennsylvania costing over \$77 Million to construct with an additional \$3 Million in rehabilitation costs spent since 1994. The searchable database is available at <http://amd.osmre.gov/passtreat/>. EPCAMR, WPCAMR and the PA DEP Bureau of Abandoned Mine Reclamation continue to submit updates and corrections as they are discovered and constructed.

In Schuylkill County, Phase 2 of the Bell Colliery Treatment System was completed with money from the Delaware River Basin Commission and Exelon, creating an additional 1 acre wetland to aid in settling of flushed metals from the Phase I Anoxic Limestone Drain (ALD). The Reevesdale and Otto Treatment Systems were also improved with these funds in the fall of 2007. Schuylkill Headwaters Association completed two (2) treatment systems in the Schuylkill River Watershed, Schuylkill County, PA. The Mary D AMD Treatment Wetlands was dedicated along with a new Mary D Fire Company Sports Complex by local, state and federal legislators in May of 2008. The new sports complex replaced a small sports field that was destroyed to construct the AMD Treatment System. This 5 acre wetland, built on a rundown ball field, will treat over 2,000 gallons per minute (gpm) of AMD flowing from the Mary D Overflow and the give the community a new recreation complex complete with baseball and soccer fields, bleachers, a parking lot, and an ice-skating pond.

Schuylkill Conservation District received a \$433,189 Growing Greener grant to evaluate surface and ground water interactions and possible consequences of acid mine discharge remediation, stream restoration and mine pool utilization. Also in Schuylkill Co., Trout Unlimited, Doc Fritchey Chapter received a \$25,000 Growing Greener grant for an acid mine discharge treatment project on mine discharges that flow to Rausch Creek and Stoney Creek. The treatment systems would replace the diversion wells that have been maintained on Stoney Creek since 1986.

In the Shamokin Creek Watershed, Northumberland County, an [Activated Iron Sludge](#) pilot project was set up on the Scott Overflow by Iron Oxide Technologies LLC. This was part of a \$79,000 Growing Greener grant that the Northumberland County Conservation District received to conduct a feasibility study to treat Quaker Run which is heavily impacted by acid mine discharge from three sources. The test was run on the discharge for several months to gather water and sludge quality results. This discharge was selected due to its proximity to an industrial park in need of water in order to expand. Results showed that mine pool water could be cleaned up and supplied in a more cost effective manner than conventional supplies.



AIS Pilot Project treating water from the Scott Overflow, Northumberland Co.

In the Lackawanna River Watershed (Lackawanna County) another treatment system was “discovered.” This 2-3 acre wetland based treatment system is treating several seeps that popped up along the west bound lanes of the new Casey Highway (US Rte. 6) between the PA 107 and Archbald exits. The construction was completed by the Pennsylvania Department of Transportation as a part of the construction of the highway, and was thought only to function as holding ponds for storm water, but test results show the water quality and quantity are more consistent with AMD discharge parameters. The treated water discharges back into Ayeslworth Creek below the Army Corps of Engineers Dam.

The Schrader Creek Watershed Association (Bradford Co.) received a \$129,985 Growing Greener grant to build a passive acid mine discharge treatment system on Coal Run, a tributary to Schrader Creek.

The Dauphin County Conservation District received a \$256,790 Growing Greener grant for construction of a second passive treatment system (Phase 2) for discharges polluting Bear Creek and Wiconisco Creek.

Columbia County Conservation District received a \$40,000 Growing Greener grant for acid mine discharge treatment on Heberly Run, a tributary of Fishing Creek in Sullivan Co. The stream is mainly impacted by acid from atmospheric deposition and the treatment will remove this acidity.

The Babb Creek Watershed Association (Tioga Co.) received a \$290,000 Growing Greener grant for two limestone bed passive treatment systems for acid mine discharge on Rock Run, a tributary of Babb Creek.

Reclamation to reduce AMD:

Deep mine drainage is produced when clean water, either ground water or surface water, infiltrates voids in underground mines and meets up with pollution producing materials. Not much can be done to stop ground water from entering underground mines, but surface water can often be diverted from known infiltration points on abandoned mine lands and reconnected to headwater streams. Several abandoned mine reclamation / active re-mining projects are not only reducing health and safety problems, but also keeping clean water on the surface in the EPCAMR Region.

Four (4) AML reclamation projects were completed in the EPCAMR Region by the PA DEP Bureau of Abandoned Mine Reclamation (BAMR): Eddy Creek Problem Area (PA) 2078 (Olyphant Twp., Lackawanna Co.), Hollars Hill PA 3725 (Hazle Twp., Luzerne Co.), Cranberry Ridge PA 3212 (City of Hazleton, Luzerne Co.) and North Slope Sharp Mtn. PA 2024 (City of Pottsville, Schuylkill Co.) costing an estimated total of **\$8,268,846**. Twelve (12) projects were in process in the EPCAMR Region by the PA DEP Bureau of Abandoned Mine Reclamation (BAMR): Grassy Island Creek PA 1524 (Archbald Twp., Lackawanna Co.), Southwest Carbondale, Carbondale Northeast & Fall Run Problem Areas 1519, 2087, 2088 (Carbondale Twp. and Borough, Lackawanna Co.), Sterry Creek South PA 2080 - Dolph Colliery Mine Fire (Olyphant Boro., Lackawanna Co.), Interchange 56 South PA 4190 (City of Scranton, Lackawanna Co.), Fern Glen PA 3044 (Black Creek Twp., Luzerne Co.), Humboldt South West PA 1372, 1374 (Hazle Twp., Luzerne Co.), Newport North PA 2152 (Newport Twp., Luzerne Co.), Pittston Plaza Mall PA 1333 (City of Pittston, Luzerne Co.), Curry Hill – Avondale PA 2138 (Plymouth Twp., Luzerne Co.), Little Wolf Creek PA 4666 (East Norwegian Twp., Schuylkill Co.), Green Mountain South PA 3046 (East Union Twp., Schuylkill Co.), and Branch Dale East PA 3639 (Reilly Twp., Schuylkill Co.) costing an estimated total of **\$37,932,882**.

Lackawanna County - In the Lackawanna Watershed, 3 projects on streams were completed with Lackawanna Watershed 2000 Grant money from the EPA. The Borough of Taylor received \$704,127 for channel restoration and culvert construction on the Colliery Property. Approximately 5,000 feet of St. Johns Creek was rebuilt. More channel restoration and culvert construction is expected to occur in 2009. Powderly Creek was dredged near Carbondale to relieve flooding due to siltation buildup from eroding spoil piles and a drift outfall nearby was rechanneled. Lastly, surface grading was completed along Leggett's Creek in Scranton and a reclamation project is in the design and permitting phase.

Sullivan County - Working with the PA DEP Moshannon District Mining Office, the Sullivan County Conservation District and EPCAMR supported a very cost effective biosolids backfilling operation at the Bernice Landfill. Kyler Environmental contractors were topping the 500 acre AML Site with 60 – 80 tons per acre of biosolids from New York City Certified Plants. The biosolids are treated with lime to pH of 7 then again in onsite processing which raises pH to 11. Cherry Twp. gets a \$1 per ton fee (\$6K in checks were received as of Fall 2008). Contractors on site used smell suppression techniques including sawdust and almond scented atomizers. The project has expedited the backfilling process since it was going to be costly to import topsoil (this is free) and the company is reseeding the site for free. Small contractors are now able to apply for the backfilling portion boosting the local economy.

In the face of the energy crisis that spanned this fiscal year, the coal mining industry saw increases as the country searched for alternative sources of energy. 26 active mining companies renewed or started mining coal in the EPCAMR Region in this fiscal year according to [eFACTS](#). 6 of these SMP's (surface mine permits) included refuse reprocessing operations in Luzerne, Carbon and Sullivan Counties.

Removing Miles of Streams from the List of Impaired Waters:

EPCAMR and WPCAMR staff have been charged with the mission to assist the PA DEP Bureau of Watershed Management Section 319 Program with reassessing streams and removing improved streams from the from the 303(d) list of impaired waters and the Non Attaining Streams on the Integrated List of Waters. 63 formerly AMD Impaired stream segments have been removed in the EPCAMR Region from 1998 – 2004. As a continuation of this work in 2008, EPCAMR submitted Aylesworth Creek at East Jermyn, Lackawanna County, Carbondale Quadrangle, Stream Code 28566 to the PA DEP Improved Streams for Reconnaissance Survey list and is going through the removal process. The segments in question are approximately 1.5 miles in length and include improvements to Aylesworth Lake because of the Anoxic Limestone Drain Treatment System that was installed.



A part of the process to remove a stretch of stream from “the list” is to prepare a Total Maximum Daily Load Study to show the amount of pollution that needs to be removed to put that stream back attaining it’s use. The following are a list of TMDL Plans that are close to completion in the EPCAMR Region by the PA DEP (unless noted):

- Newport Creek, Luzerne County TMDL was proposed on September 20, 2008 by the SRBC.
- Buck Mountain Creek in Luzerne & Carbon Counties TMDL was proposed on September 8, 2008.
- Pond Creek, Sandy Run and UNT 04226 Sandy Run, Luzerne County TMDL were proposed on September 8, 2008.
- Pine Creek in Schuylkill and Dauphin Counties TMDL was proposed on July 30, 2008.
- Nesquehoning Creek in Schuylkill & Carbon Counties TMDL was proposed on August 30, 2008.

Outreach Summary:

EPCAMR and WPCAMR both have developed and continue to maintain very informative and up-to-date websites to disseminate information to the World Wide Web. EPCAMR’s www.OrangeWaterNetwork.org and WPCAMR’s www.AMRClearinghouse.org are excellent conduits for distributing information and news in a cost effective, paperless way. As a part of these websites, AMD/AML related news is distributed through EPCAMR’s “*EC Express*” and WPCAMR’s “*AML Posts*” to readers statewide and beyond. EPCAMR has also developed in 2008 an interactive and up-to-date “*Calendar of Events*” on our homepage where events, volunteer opportunities, conferences, workshops, coordinating meetings, and trainings can be listed at any time and a [Volunteer Opportunities](#) webpage for community volunteers who are interested in working with us and students who are interested in potential internships or work study programs. EPCAMR is also now registered with the Volunteer Action Center and Volunteer Match for upcoming community service projects; (<http://www.1-800-volunteer.org/1800Vol/UWWB> and www.volunteermatch.org)

EPCAMR was awarded a grant from the Scranton Area Foundation and the PA Council on the Arts to create costume designs for our **AMD Avengers vs. Pollution Posse Activity Book** on abandoned mines and to work with local art groups and artists such as Arts YOUiverse and Costumes by Barbara to develop skits, improve, and create props for the educational activities. Work continues on the design of the costumes and skits that will be introduced in the fall 2009 school year.

EPCAMR was also awarded a grant from the Lackawanna Valley Heritage Authority to create boxes for our recycled iron oxide chalk. EPCAMR Staff will be going into the schools to put on programs to create iron oxide chalk for their classroom and outdoor recess recreational use Lackawanna and Luzerne Counties.



A shot of the crowd at the ESRI International User Conference, San Diego, CA

EPCAMR staff presented at the [2008 ESRI International User Conference](#) in San Diego, CA and the OSM 2008 GeoSpatial Conference in Atlanta, GA as a part of the Office of Surface Mining's National Geo-Spatial Data Standards Team. The presentation focused on the RAMLIS GIS Tool and an intro to the 3D Mine Pool Mapping Project. A follow up article in [Arc News](#) also featured the work that EPCAMR has been doing using GIS. Robert has been traveling with the OSM National Team throughout the year to develop National data standards for coal mining and abandoned mine land reclamation data sets according to the rigorous ASTM International Data Standards that will be utilized by the National Map in the future. EPCAMR Staff also co-presented at the Water & Environment Symposium on

EPCAMR's RAMLIS GIS Mapping Tool at the request of the PA Council of Professional Geologists, in Camp Hill, PA.

[2008 PA Statewide Conference on Abandoned Mine Reclamation:](#) The Annual Pennsylvania Conference on Abandoned Mine Reclamation was 10 years old in 2008 and was held August 12 - 14, 2008 at the Ramada Inn in State College. In addition to providing learning, sharing, and networking opportunities for those involved in Abandoned Mine Reclamation work, the planning commission added a new component focusing on Coal Mining Heritage and its preservation. There were over **200** attendees and **45** presentations in 3 tracks. The conference lasted 3 days. $\frac{1}{2}$ was dedicated to AMR and the other $\frac{1}{2}$ was dedicated to coal mining heritage and history.

Anthracite Heritage Alliance (AHA) OSM/VISTA Appalachian Coal Country Watershed Team Partnership: EPCAMR assisted in the facilitation of the creation of an Anthracite Region OSM/VISTA Team that is now sponsoring to 8 OSM/VISTAs for northeastern PA to work on community projects in the Anthracite Coalfields. EPCAMR played a key role in coordinating meetings between OSM, Delaware & Lehigh National Heritage Corridor Commission, Schuylkill National Heritage Corridor Commission, Lackawanna Heritage Valley Authority, Lackawanna River Corridor Association, Eastern Middle Anthracite Regional Recovery Inc., Greater Hazleton Area Civic Partnership, Schuylkill River Greenway Association, Schuylkill Conservation District, PA DCNR Nescopeck State Park, Friends of the Nescopeck, Lackawanna County Conservation District, Preservation Action, and PA DEP BAMR to get the team infused into the Region. The Delaware & Lehigh National Heritage Corridor Commission is now serving as the coordinating entity for the AHA OSM/VISTA Team.

West Branch Susquehanna River Symposium IV: The 4th Annual West Branch Symposium was held July 18th & 19th, 2008 at the Nittany Lion Inn, State College, PA. The purpose of the West Branch Susquehanna Restoration Symposium is to promote the West Branch Susquehanna Restoration Initiative, which is aimed at the cleanup of abandoned mine drainage throughout the West Branch Susquehanna watershed. This event serves as a forum for the exchange of ideas regarding abandoned mine drainage abatement in the region and provides an excellent opportunity for networking among volunteers, technical experts, students, and others interested in restoring land and water impacted by abandoned mine drainage. A field tour to the Bennett Branch AMD Projects was also available to attendees.

The AML Campaign succeeded in working with lawmakers to reauthorize the Surface Mining Control and Reclamation Act in December 2006 Amendments to Title IV. EPCAMR and other members continued participation in this fiscal year by attending specific meetings to deal with issues that arose in the public comment sessions. These special topic meetings included discussions on landowner access, 30% set aside and AMD remediation. As a response to this legislation the Office of Surface

Mining passed a set of guidelines in late summer 2008. The group responded to the lengthy document in interests of PA Coal communities in August 2008.

Congressman Carney's Office partnered with EPCAMR to organize stakeholder's meetings for Northumberland and Lackawanna Counties, in 2008. Meeting and update meetings included tour of several sites, several presenters and a brainstorm session. Goals and objectives for AMD cleanup were determined for each county. EPCAMR involved with mapping and OSM Priority and land ownership of individual sites.

EPCAMR also conducted over **20** informative presentations on AMD/AML issues to schools and colleges. Several of these also included outdoor field tours to show students what problems are in their community or hands on AMD Tie Dye activities where students use recovered iron oxides to make art. These tours, presentations and workshops literally reached thousands of students in 2008.

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