

# EPCAMR



## Eastern PA Coalition for Abandoned Mine Reclamation Program March 2009 Progress Report

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### **Highlights:**

- Created 3D grids and a fault model for the Mine Pool Mapping Project. Updated 2 GIS databases and georeferenced 2 maps
- Suggested 3 stream sections equaling ~1.4 miles to be reassessed
- EPCAMR staff attended a Gas Well Tour & Mtg., an SRBC Mtg., an EPCAMR Board Mtg., lead 2 AMR Conference calls and 2 Wilkes-Barre Vo Tech Classes on an AML Tour
- Updated [www.orangewaternet.org](http://www.orangewaternet.org) and <http://2009.treatminewater.com>

### **Education and Outreach:**

- Worked on the conference website to update 5 pages and add 1 page with preliminary information at <http://2009.treatminewater.com>.
- EPCAMR staff met with Wilkes-Barre Vo Tech Horticultural Class to interest them in the Avondale Mine Disaster Site Beautification project. The class agreed to take on the project.
- Sent a reminder to the board about the upcoming EPCAMR quarterly board meeting.
- Created EPCAMR Watershed Outreach Coordinator Monthly report for the month of February, gathered other staff reports, posted them to [www.orangewaternet.org](http://www.orangewaternet.org) and sent to PA DEP 319 program.
- Met with Tim Ference, Friends of the Nescopeck, to make a PDF of the Nescopeck Watershed final newspaper insert. The publication was added the Standard Speaker and was made possible by a grant from the PA League of Women Voters.
- EPCAMR staff attended a tour of gas wells in the Western Bradford County Area as a part of the Pocono Northeast Resource Conservation and Development (RC&D) Council hosted by Fortuna Energy. There is a potential for mine water use in the millions of gallons in the "fracking" process when creating a well. EPCAMR staff asked questions about water quality limitations, and it seems that a lot can be tolerated, but that there is no incentive to the company to use the water yet in place. The Susquehanna River Basin Commission (SRBC) is currently working on a process to provide an incentive to use mine pool water in place of clean water.
- EPCAMR staff led an AMR Conference call. Updated the AMR Conference Planning Committees document, created an agenda and minutes from the last call, updated the budget and speaker list for the AMR Conference planning effort.
- EPCAMR staff attended the SRBC Quarterly Meeting in Scranton to participate in the policy creation discussions, but the mine pool policy was tabled until the next meeting. Robert was awarded the William Jeanes Sr. Environmental Service Award for over 10 years of dedication to working in the Susquehanna River Basin to address AMD, AML, public education and outreach, and community service projects to improve the health of the watershed.

- EPCAMR staff met with Tom Clark, SRBC and Bernie McGurl, Lackawanna River Corridor Association (LRCA) to talk about partnering to increase reclamation and remediation efforts in the Lackawanna River Basin.
- EPCAMR staff led the Wilkes-Barre Vo Tech Woodshop Class on a tour of the Avondale Mine Disaster Site. The class agreed to take on a project to refurbish the #2 Shaft housing adjacent to Route 11.
- EPCAMR staff prepared for and attended the 2<sup>nd</sup> Quarter 2009 EPCAMR Board Meeting at the Earth Conservancy Office. The board was also able to look at the proposed office space that could house EPCAMR staff in the future.
- EPCAMR staff led the Wilkes-Barre Vo Tech Horticultural Class on a tour of the Avondale Mine Disaster Site. The morning class brought equipment to clean and grub the site in preparation for placing the flower beds and other amenities at the Avondale Mine Disaster site. The afternoon class cleaned up and weeded the Avondale Hill Memorial Garden (on the hill).
- EPCAMR staff finished and posted the [2008 EPCAMR Annual Report](#) to [www.orangewaternetwork.org](http://www.orangewaternetwork.org). Added articles to the EC Express NewsFlash and photos to the Photo Gallery.
- EPCAMR staff led an AMR Conference Budget Committee Conference call. Updated the AMR Conference budget with suggestions taken from the call and posted the spreadsheet to the pyritebad list serve.
- EPCAMR staff traveled to Old Forge for a press opportunity associated with the Old Forge Borehole Project. Here's a link to the article: [Projects vie for slice of stimulus funding](#). Also visited the Duryea Outfall and met with the landowner who gave his full permission to go on the site and research the discharge.

### **Technical Assistance:**

- Visited the proposed office space at the Earth Conservancy to take measurements and work up some cost estimates for fixing up the space for the EPCAMR board.
- Received word from Skip Pack about the EarthVision workflow scripts that he had been developing to create 3D fault block models and horizons from maps with cross sections. He produced scatter data of the combined files from files that I had georeferenced and vectorized from the I 689 B, C & D faults and horizons of the Buck Mountain and Bottom Split Mammoth coal veins.
- Reviewed and commented on a Willary Foundation Proposal that the LRCA submitted to get additional funding to develop a Surface Mining and Reclamation Act (SMCRA) Title 4 qualified Hydrologic Unit Plan (HUP) for the Lackawanna River Watershed. This needs to be completed before PA DEP Bureau of Abandoned Mine Reclamation (BAMR) can do any Title 4 set aside (Priority 3) reclamation work in the watershed.
- Created a 3D grid of the horizon files and learned how to use the work flow manager to make the fault block model in EarthVision. In addition to renaming some of the column names in the scatter data, a new attribute needed to be added to correlate faults between the sections called 'featureid'. Care was taken to name the faults properly from the original raster map. The model looks perfect except for an anomaly shows up between sections C & D which pushes the edge of the vein under the mountain, which is incorrect. The pottchunk fault also breaks in the same place where it should be continuous. Enlisted Mike Dunn and EarthVision tech support in searching for a fix.
- Lined up OSM Folio N-6I-00 (Old Forge Area) to help line up Bureau of Mines mine pool maps for the Wyoming and Lackawanna Basins in the northern anthracite field.
- Fixed "DEP 104 Majorsheds" GIS layer to include the number-letter identifier (ex. 5B) given to the watersheds. This was never a part of the database, nor was the name. This fix will make it easier to identify what watershed a project is in when applying for grants or making proposals to foundations. Also used spatial join to add the Act 167 watershed name and DEP 104 Majorshed identifier to the "DEP Smallshed" GIS layer and then clipped to Pennsylvania

boundaries. These watershed and sub-watershed files had not been updated since the late 1990's, but were still useful. Added these files to RAMLIS 9.0.

- Received EarthVision workflow scripts from Skip Pack and tried them out. Digitized faults and Buck Mountain and Bottom Split Mammoth vein horizons from the additional cross sections A, E, F & G from the I 689 map and ran them through the scripts. Associated fault names to 'featureid' and created a fault block model of the entire map area. The anomaly between C & D is corrected, but the pottchuck fault still breaks in that area. Another anomaly appears between sections F & G probably because very complex over 90 degree thrust geology which dips below what is drawn on the cross section (missing data points). The cross section stops at -1000 feet below mean sea level. This should not be a problem when calculating void space and mine pool volumes. Only the upper portions of the mines will be taken into consideration. It is physically impossible to mine coal at those levels and the pools will not be connected unless there is a rock tunnel or another vein connecting one side to the other.
- Peter Haentjens, Eastern Middle Anthracite Region Recovery Inc. (EMARR), inquired about the availability of Digital Terrain Mapping for the area around Audenried Treatment System. I sent him to the Schuylkill Conservation District (SCD) and Rettew staff to obtain the "as built" design plans. The request was connected to the placement of micro hydro turbines on the system.
- Received reports from the PA Fish and Boat Commission Comments and Recommendations about 2 streams in Schuylkill County: Silver Creek and Big Creek. The reports divided the streams into sections and described the physical habitat, chemical and physical parameters of the water and macro-invertebrate/fish studies performed on the stream reaches. Evidence in these documents support the removal of about 1.4 miles of the Silver Creek to be removed from the integrated waters non-attaining use list (the old 303(d) list). Submitted the stream for reassessment to the PA DEP Bureau of Watershed Management.
- Worked on Chapter 4 – Methods for the Mine Pool Mapping Report and prepared a narrative and estimate of time spent in the 1<sup>st</sup> Quarter 2009 for inclusion in the quarterly report to DEP.