

EPCAMR



Eastern PA Coalition for Abandoned Mine Reclamation

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June 2013 Progress Report

Highlights:

- Attended the **Lackawanna** RiverFest, Participated in an AMR Conference Call
- EPCAMR and WPCAMR staff coordinated ARIPPA Reclamation Presentations and Fundraiser and attended a **Luzerne Co.** Council Meeting to benefit AMD Cleanup in **Lackawanna River**.
- Downloaded transducer data 2x for the OFB discharge and continued to process cross section data for Lower Lackawanna Mine Pool Model. Processed cross sections under **Pottsville** in preparation for a **Heckscherville Valley** Mine Pool Model.
- Sampled one treatment system in the **Wyoming Valley**.
- Created 8 maps and accompanying statistics for EPCAMR partners.
- Updated www.epcamr.org, www.treatminewater.com and administered the EPCAMR facebook and Google Apps for Nonprofits accounts.

Education and Outreach:

- Attended the Lackawanna RiverFest hosted near the Olive Street Bridge on a very hot day in Scranton by the Lackawanna River Corridor Association (LRCA). Lots of events were happening at once, like the canoe race, the duck derby, live music, a visit from the RailRiders mascot, environmental exhibits and folks selling art. Several food trucks were available to provide attendees with all sorts of delectable eats. I am glad I was finally able to attend and report back as a civilian what a great event it is.
- Updated www.treatminewater.com with speakers, presentation titles and blurbs on the Presentations page. Embedded a video into Lunch Speaker - Peter Stern's Article on the site, which shows a preview of some of his flights as a teaser toward his presentation. Edited the homepage and other pages to make some of the wording clearer to the average reader.
- EPCAMR staff coordinated the ARIPPA Reclamation Presentations and Fundraiser with WPCAMR staff just outside of State College at a golf lodge owned by the Ramada Conference Center attended by co-generation industry representatives. The afternoon lead to a golf outing fundraiser for the CAMRs.
- As there are only 2 months until the annual AMR Conference, registrations started trickling in. Created a database to manage the registrations and notified registrants with a confirmation of their online payment (or how to send in a mail in payment). The new EPCAMR ShopperPress online store is functioning better than expected and has increased efficiency of this task.
- Reviewed Nockley Tributary Cleanup Site Plan and suggested logistics like placement of the chipper, dumpster and easiest haul routes related to terrain. Also learned that I was delegated lead on the cleanup with Wilkes Students on July 1st due to a scheduling conflict with Executive Directors vacation. Continued to coordinate cleanup with EPCAMR intern and Luzerne Conservation District Watershed Specialist. Met on site to take video of the site before and

schedule a meeting with the landowner, St. Peters Lutheran Church elders. A follow up phone call indicated Pastor Zedo would represent their interests.

- Prepared a bulk order of Iron Oxide (12 oz.) and sent it to a Volunteer In Service to America (VISTA) in Colorado for an Iron Oxide Tie Dye Workshop she was organizing.
- Created EPCAMR Program Manager monthly report for the previous month, gathered other staff reports, posted them to www.epcamr.org and sent to PA Department of Environmental Protection (DEP) 319 Nonpoint source (NPS) program staff. EPCAMR Staff prepared monthly reimbursement paperwork to send along as well.
- Participated in an Abandoned Mine Reclamation (AMR) Conference Call in preparation for the 2013 PA AMR Conference which will be hosted by the PA AMR Conference Committee at the Ramada Inn and Conference Center in State College from August 8-10, 2013. Reported progress made by EPCAMR staff on specific tasks that were assigned at last conference call.
- Worked with EPCAMR intern to get some past AMR Conference Mayfly Award Winners to fill out watershed hero cards and be entered into the cash award for their favorite watershed association.
- EPCAMR staff attended a Luzerne County Council Meeting with LRCA Executive Director, Bernie McGurl, to get a resolution passed in support of an Act 13 Grant Application regarding a plan to remediate the Old Forge Borehole discharge.

Technical Assistance:

- Created several maps and statistics from US Census Data related to income and home worth meshed with the abandoned mine land inventory system (AMLIS) using ArcGIS. The maps and data showed a strong correlation with poverty and lower income being prevalent in areas of Pennsylvania where AMLIS features were located. Also there was a strong correlation to lower home worth being prevalent in areas where AMLIS features were located. This work was a special request from the Foundation for Pennsylvania Watersheds, pro bono, for all of the support that they have given EPCAMR over the years.
- Instructed EPCAMR Volunteer Coordinator on how to process mine map cross sections for digitizing and eventual incorporation into a 3D mine pool model. Continued to process some of the more difficult cross sections, format, post process and merge data into common vein horizons. Most data was askew down by 500 or 1000 feet. Devised a mathematical calculation to adjust the data in Open Office Calc. Some digitized sections came in as mirror images since the perspective was "looking downstream" instead of the standard "looking upstream". If the cross section happened to be digitized in the old script method it was easier to start over and digitize in the new heads-up digitizing method and "flip" the 4DVX file. Devised a mathematical calculation to "flip" the 4DVX file. 4DVX files can also be adjusted up or down slightly to match spot elevations marked on the cross section. The heads-up digitizing method saves time and increase the reliability of the resulting model. [SRBC]
- Aided Office of Surface Mining (OSM) Technical Innovation and Professional Service (TIPS) representative, Mike Dunn, assess a situation which turned out to be a software license server outage. This outage was stopping authorized TIPS users from access to ArcGIS, AutoCAD and earthVision software licenses. The result was to copy the licenses from the server in the eastern US to the one in western US and make a redundant pathway to the licenses for users in case one server goes down.
- Researched the Porter Tunnel Disaster Account and replied findings to Tom Clark, Susquehanna River Basin Commission (SRBC) and Todd Wood, PA Department of Environmental Protection (DEP) Bureau of Conservation and Restoration (BCR). When the Porter Tunnel was mined in 1977, an inrush of mine water killed 9 miners. The water apparently came from an old bootleg mine when they were working in the south dip west skidmore vein. There was concern that water from the Brookside Mine may have caused this disaster. Up until this point it was thought that the barrier between the Brookside and Porter

Tunnel Collieries was intact and each had their own discharge to the surface. After investigation into the mine maps of the area, it seems that there was a colliery, the Tower City Colliery, which existed above and stretched across the barrier between the 2 collieries. It is still inconclusive if the Brookside and Porter Tunnel Collieries (which only exist in deep coal veins below the Lewellen formation) are connected. It was reported that the water came up from the floor of the mine at the furthest extent of the tunnel inward which points to a connection to lower Brookside Mine as opposed to the upper Tower City Mine, but the outlet to the Brookside Mine, the Valley View Tunnel, is at 905', about 100' lower than the elevation of the Porter Tunnel Discharge. Also the chemistry is slightly different from one discharge to the other indicating the sources are divided. Further investigation is warranted as this underground resource is considered for development. [SRBC]

- Downloaded from the TIPS server and installed a new version of earthVision 8.2 on EPCAMR computers. This new version boasts many new features and enhancements to existing features. Discovered an error when opening newly created 4DVX files on other computers. The connected images come up blank and make heads-up digitizing impossible. Reported glitch to TIPS and Dynamic Graphics Inc. (DGI), the makers of the software. DGI reported that the error had to do more with the make and model of the graphic card installed in a particular computer. It seems Radeon Make graphics cards handle the connection better than Nvidia Make cards. They proposed defining the problem in more detail and making a list of suitable graphics cards that would handle specific size image and 4DVX file combinations. [SRBC]
- Began adding Second Pennsylvania Geologic Survey Data (Aka. Ashburner Series) for the Lower Lackawanna River to the completed OSM Mine Map Folio Cross Section data to fill in gaps in the raw cross section data. Began to compare data, adjust and delete duplicate data. Elevations from different sources that is too close together and off slightly can cause problems with the earthVision modeling software. When data was deleted, the newer OSM Mine Map Folio data was always kept over the older more cursory Ashburner Series data. [SRBC]
- Created maps of the Lackawanna Susquehanna Rivers Confluence Area for John Dziak of the Greater Pittston Historical Society. Modified a cultural and historical points of interest shapefile to include Campbell's Ledge (aka Dial Rock) and the center of the Twin Shaft Disaster. One map contained a recent aerial photo and the other contained a topographic map from the Second Geologic Survey as background. The Twin Shaft was located in Pittston Junction on the south side of the Lackawanna and Susquehanna Rivers Confluence, but the center of the disaster was on the north side of the confluence. The entire confluence area was believed in historical reports to drop approximately 10-20 feet after the disaster. The second geologic survey map, produced before the multi coal vein pancake collapse, seems to support that hypothesis when compared to more current topographic maps.
- Worked with EPCAMR Volunteer Coordinator to process mine map cross sections under Pottsville, known as the U. S. Geologic Survey Coal Investigation Series section I-681 maps. These cross sections made into 4DVX files and coupled with the original basemap proved to be pretty spectacular looking in the earthVision 3D viewer, therefore I created a video as I panned around the files. Shared the video on Facebook and sent it to PA DEP Pottsville District Mining Office (DMO) staff.
- Updated the OSM Folio Georeferencing Log in excel for the Lackawanna Valley and added several Wyoming Valley folios to begin assessing those that contain cross section maps. Also added Mauch Chunk and various limestone veins to the stratigraphy of the Anthracite vein nomenclature figures that we have been using in-house to figure out common veins of coal for the 3D mine pool models. [SRBC]
- Met with LRCA Executive Director after downloading the transducer data from the Old Forge Borehole and changing the desiccant in the probe. Also delivered the Lackawanna Susquehanna Rivers Confluence area maps to the Greater Pittston Historical Society on the way back.

- Sampled the Espy Run Treatment System in several locations to determine the effectiveness of the system for Earth Conservancy (EC). Samples were taken in 7 places in, out, and between components to determine a load reduction of Iron and Acidity to Espy Run. Cleaned out the half pipe distribution to the new ponds, which was completely plugging the system only a month after the previous cleaning. Closed the intake diversion valve that was left open since last month. It seems that only about ½ of the intake flow can be diverted with this pipe from going to the new treatment ponds. Aided Earth conservancy staff in submitting a Quick Response Grant to WPCAMR to implement many of the fixes that have been mulled over the past few months. [EC]

[] - Denotes funding source where applicable.