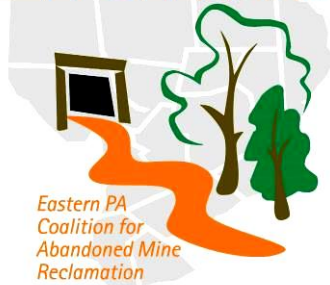


EPCAMR



Eastern PA Coalition for Abandoned Mine Reclamation

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July 2014 Progress Report

Highlights:

- EPCAMR staff submitted 3 Growing Greener Grants totaling approximately ¾ Million dollars
- EPCAMR staff participated in a wrap-up call regarding the AMR Conference with the Planning Committee and a Consumptive Use Mitigation Proposal to the SRBC.
- Continued processing 604 TIFF files and digitized features for 85 maps for the MSI Mine Map Processing Grant in July. Finished processing Wilkes-Barre and started Pottsville collection.
- Sampled flow and setup stream gauges on 2 **Wyoming Valley** discharges to monitor a possible mine pool connection; Downloaded transducer data in the **Lackawanna Watershed**.
- Calculated volumes for 12 new mine pools and wrote a draft final report for the **Northern and Southern Anthracite Coal Fields**; Provided maps and statistics to 3 EPCAMR partners.
- Updated www.epcamr.org, www.treatminewater.com, and administered the EPCAMR Facebook and Google Apps for Nonprofits accounts.

Education and Outreach:

- Calculated gross receipts for the Silent Auction at the AMR Conference, applied expenses, and found a net donation of \$1,164 to split between EPCAMR and WPCAMR.
- Reconciled cash and checks collected at the conference for registrations. Provided refunds to John Dawes, who was a sponsor and did not need to pay the registration and Aaron Stredny who notified us ahead of time he was not going to make it due to a job change.
- Worked with staff to upload all conference PowerPoint presentations to Slideshare.com and then link them to www.treatminewater.com.
- EPCAMR staff participated in a wrap up AMR Conference call to evaluate the effectiveness of this year's conference.
- Drop off and pickup the last set of maps (shelves 1-7) at the PA DEP Bureau of Abandoned Mine Reclamation (BAMR) Wilkes-Barre Office. [MSI]
- First meeting and pickup of maps at the Pottsville District Mining Office (DMO) Bureau of Mine Safety Administration (BMSA). EPCAMR staff were oriented to the layout and procedures in the map room, then maps were removed from the shelves, inventoried and taken in bags back to the EPCAMR office for scanning. [MSI]
- Dropped off the last set of maps at the PA DEP Wilkes-Barre Office [MSI].
- EPCAMR staff traveled to Harrisburg with partners in Susquehanna Mining Solution (SMS), LLC, to plead a case to the in the Susquehanna River Basin Commission (SRBC) manipulating the Old Forge Borehole, Duryea Breach and connected mine pools to make up for the consumptive use in the Susquehanna River Basin.

Technical Assistance:

- Sampled the Askam Treatment System for flow and chemistry 3x in the beginning of the month to ascertain how well the treatment system was working. The iron going into the system was 18 mg/L and the iron exiting the system was less than 1 mg/L. The pH going in was 6.2 and the same coming out of the treatment system. The system seemed to be functioning properly and was removing over 99% of the iron. When the oxidizers were off (a week later), samples showed 22 mg/L iron going in and 8 mg/L coming out (63% efficiency). The pH stayed the same around 6.2. Sent result to Earth Conservancy. [EC]
- Created a template letter of support for the Limestone Tank Treatment System Research grant to Growing Greener to gain support for the project which will directly benefit both the Babbs Creek and Catawissa Creek watersheds. The project was conceived by EPCAMR Past President, Ed Wytovich, who was involved in the construction of three treatment systems using limestone to treat acidic aluminum laden mine drainage. Two of the three systems were placed in tanks in theory to reduce maintenance over time, but other issues arose due to the distribution of water. The Audenreid Treatment System, one of the largest passive treatment systems in the state, has had more than its share of problems with plugging and flushing. It is in need of rehabilitation and possibly a new plumbing system. The Mitchell Tank in the Babb Creek Watershed is a smaller scale of this treatment system and also in need of rehabilitation. The grant proposal intends to allow Hedin Environmental to manipulate the Mitchell Tank System plumbing to ascertain which regime was better for what reasons: up-flow or down-flow. Hedin Environmental was chosen for their experience in building these types of treatment systems. The study will produce recommendations which can be applied to other Limestone Tank Systems throughout the state including the ones in the Catawissa Creek Watershed.
- Aided in the preparation of 2 other Growing Greener Grant Applications: one regarding flow monitoring of large anthracite discharges and another dealing with Municipal Separate Storm Sewer Systems monitoring in Newport and Nanticoke Creek Watersheds.
- Searched for cross sections in the Dickson City area for PA Tectonics to aide them in a project. The area of the Cayuga and Storrs mines were fairly devoid of cross sectional data, but areas around them were available. When modeling the area in EarthVision, the 3D programming was able to extrapolate across these areas and cross sections could be produced.
- Picked up another hard drive at Best Buy to supplement storage up to 14 TB for the Mine Map Processing Initiative. Server was acting up, so spent some time giving it a little TLC in the way of updates and scanning for errors. Also dealt with an outage in access to ArcGIS through TIPS (seems that the recent storms impacted the internet on the east coast and it would take a few days to get it back to normal). [MSI]
- Met with EPCAMR President 2x this month to sign checks and on the way back downloaded transducer data and checked the desiccant at the Old Forge Borehole Discharge.
- Converted several shapefiles related to mine pool mapping (barrier pillars, discharges, limit of coal, and etc.) to EarthVision formats, patched holes in the model and prepared snapshots of the Mine Pool Model in the Heckscherville Valley and Brookside/Markson Mines for the Northern and Southern Anthracite Coal Fields Mine Pool Mapping report. Submitted a draft of the final report to the Susquehanna River Basin Commission (SRBC) for review. [SRBC]
- EPCAMR sat in on a conference call with Dan Suma, Keystone Pure Water Tech, Inc. His water treatment technology (borrowed from the land fill leachate water treatment technology) seems promising for mine drainage treatment, but thus far it has only been used to treat smaller flows of water. Dan would like to partner in a grant to scale up the technology to treat larger flow of AMD.
- Followed up with an issue with on the Inventory Control sheet as compared to filenames on the hard drive shipped to the California DMO. As a result some duplicates were entered into the Pennsylvania Historic Mine Map Inventory System (PHUMMIS) and needed to be overwritten (deleting them is not yet available in the current version of the online database). [MSI]

- Patching holes in the Wyoming Valley mine pool model and merged the Wyoming Valley and Lower Lackawanna Valley raw cross sectional data to better represent the mines in the Pittston Area. The new model needed a new surface grid, downloaded from U. S. Geologic Survey (USGS) using Global Mapper, however the 10 meter resolution was creating a file that was too large for EarthVision to handle. Toyed with the resolution from 10 to 200 meters and landed on 30 meter resolution, which is 3 times less sharp than 10 meter resolution, but good enough for a regional model. More detailed models can be produced if needed. [SRBC]
- Calculated volumes for 12 mine pools in the Wyoming Valley, took snapshots of each and placed them in the Northern and Southern Mine Pool Mapping report. Microsoft Word crashed during report writing and recovered the report file improperly. Had to export the document in a HTML web format and import it back into Word to stop the crashing, but duplication errors were injected into the photo captions and other text boxes, slowing down progress in report writing. [SRBC]
- Purchased equipment and designed stream gauge installations for EPCAMR staff and SRBC intern to place in the field. [EC]
- Recreated a map that has been hanging on my wall for a while depicting mine pools in the Lackawanna River Basin when EPCAMR staff first started to understand the interconnections. It was marked up to show strength of barrier pillars and current mine pool elevations. Several other maps were made for the Upper Lackawanna, Lower Lackawanna and Greater Pittston Area for the Lackawanna Watershed Restoration Action Plan, but this one was taken to presentations and individuals requested an updated copy. Printed copies and sent to a Historical Society near Carbondale and for Susquehanna Mining Solutions (SMS), LLC.
- Estimated the Askam Boreholes to be flowing at less than 100 gallons per minute toward the end of the month, over the summer the discharge dries up and very little water flows downstream from Nanticoke Creek. This is good news for the Earth Conservancy, who can shut down the Maelstrom Oxidizers and save on power consumption in a time of the year when power capacity is heavily used by others. [EC]

[] - Denotes funding source where applicable.