



Eastern PA Coalition for Abandoned Mine Reclamation

Michael A. Hewitt, GISP
Program Manager
101 South Main Street
Ashley, PA 18706
Main Line: (570) 371-3522
E-mail: hardcoal@epcamr.org

November 2019 Progress Report

Highlights:

- Managed EPCAMR staff as they scanned 198 mine maps into TIFF images, 52 georeferenced & digitized mosaic maps for the **PA DEP MSI MMG** program. QA/QC checked work.
- EPCAMR staff participated in weekly **PA AML Campaign** call, traveled to DC for a **HNR Congressional Committee** hearing and hosted an EPCAMR board meeting.
- Coordinated potential work with **Mansfield U., SRI, Kings College, ARIPPA** and **EarthRes**
- Began writing the Mocanaqua Tunnel Mine Pool Consumptive Use Mitigation report for **SRBC**
- Maintained TIC tank for **EPCAMR**. Provided technical assistance to 2 schools (**GNA** and **SHA**) several more through a Facebook forum. Live streamed tank on www.dailymotion.com/epcamr
- Updated www.epcamr.org and www.treatminewater.com; updated items on the EPCAMR online store; administered the EPCAMR Facebook and G Suite for Nonprofit accounts (for NAAML as well); maintained GobbaDaPile in-house domain server and workstation

Education, Outreach and Admin.:

- Began writing the Mocanaqua Tunnel Mine Pool Consumptive Use Report. [SRBC]
- EPCAMR staff had a meeting with American Energy Partners (AEP) about active treatment at the Mocanaqua Tunnel. They will provide us with active treatment quotes to put in the report while we develop passive treatment options using AMDtreat and other resources. [SRBC]
- Summarized water quality results into tables to add to the Mocanaqua Tunnel Report. [SRBC]
- Dr. Brian Mangan, Kings College, requested a GIS training for creating bathymetric maps and calculating water volumes in surface ponds. Coordinated with Jayne Klenner about ArcGIS pro licenses they would need to manipulate field data. We were also notified that EPCAMR staff were featured in the “King’s Today” newsletter for our work last month with the GIS class.
- Was asked by Jennifer Demchak a professor at Mansfield University if there were any maps available in the Fall Brook area. Mansfield University professors are developing a Geoarcheology concentration within their Geosciences Program. The Fall Brook area is of interest because of the abandoned town, fossils, history of mining, and a treatment facility. Provided her with a link to the PA Mine Map Atlas and knowledge of some Operation SCARLIFT reports that were done in that area.
- EPCAMR staff participated in an AML Campaign Call weekly. Robert was asked by the chair to testify before the House Natural Resources (HNR) Congressional Committee regarding AML Reauthorization bill. Several colleagues in the AML campaign provided information. EPCAMR staff worked on the testimony and exhibits to send down prior to the trip.
- Created a spreadsheet of mining bills in the house and senate with information about the bill and co-sponsors. Shared the spreadsheet with the AML Campaign and plan to keep it updated on the Google Drive.

- Created an infographic to show AMD Passive Treatment Systems in the Susquehanna River Basin with statistics about flow treated and metals loadings retained in the basin and statewide.
- EPCAMR program manager and executive director traveled to Washington DC so Robert could testify before the HNR Congressional Committee hearing.
- Participated in a cleanup of several illegal dump cleanup sites in Hanover Township coordinated by PEC. It is strange for a cleanup this late into the fall, but the weather was good and several volunteers from the Nanticoke Conservation Club and New Roots Recovery Center.
- Attempted to log on to bibme.org which was used in the past to catalog and write citations for previous mine pool mapping reports. The site was free to use, but somewhere along the line it became a \$9.99/month pay account and all our information was now essentially hijacked unless we paid for it. You could save the information out in a very limited format for free. Converted bibliography citations from Bibme.org to EEOWWW.com a free site using the limited format. Then exported them to Mybib.com which is also free but less limited than the other sites. Made a backup of the citations on my computer in RTF format. [SRBC]
- Sent information to a colleague from EarthRes who was interested in developing a mine pool project in the Donaldson area and wanted to know if the mine pools were defined for the particular area. Unfortunately, the specific site was not thoroughly mapped. Offered some preliminary maps of mine pools historically identified in the area and cross-sectional data that showed we could develop a 3D mine pool model for that area if need.
- Worked on the intro and geology sections of the Mocanaqua Tunnel Mine Pool Consumptive Use Report. Created a few tables of coal veins and related geology. [SRBC]
- Worked on the 2020 EPCAMR annual budget with bookkeeper and executive director in preparation for the board meeting. Also created the agenda, minutes from the last meeting and the treasurer's report.
- EPCAMR staff hosted the 4th quarter EPCAMR Board meeting. The 2020 annual budget was approved among other actions. Ed Wytovich, past president, brought a chest of maps from his father-in-law who owned a coal company.
- Updated EPCAMR's profile on Guidestar.org to maintain our platinum status.
- Answered questions from Stream Restoration Inc (SRI) about duplicate Oneida 1 sites in Datashed. Confirmed that there are 2 similar treatment systems treating similar chemistry in the headwaters of the Catawissa Creek watershed: Oneida #1 and Oneida #3, but there seems to be an Oneida #1 assessment plan entry separate from the treatment system. The error was fixed.
- Created a working draft of the Mocanaqua Tunnel Mine Pool Consumptive Use Report and sent it around for comments from colleagues working on the project. Incorporated comments into the draft. [SRBC]
- Attempted to aide Schuylkill Haven Area School District teacher with her dwindling population of rainbow trout in her Trout in the Classroom (TIC) tank. After review of chemistry readings over time we determined that ammonia and nitrites would rise to toxic levels causing her to change out the water, but some fish would die. It was a classic case of an inhibited nitrogen cycle. When that happens, we look at the source water among other things. Something in her tap water would not support the nitrification cycle bacteria so we suggested that she switch over to spring water. Unfortunately, she had to purchase it from the store. We attempted to find a local spring water source that would be free, but with no luck. The pH was also low, and I suggested that she order crushed coral to slowly buffer the pH.

Technical Assistance:

- Used ArcGIS to estimate the best path for a water pipeline that would take treated water from a pumped borehole in the headwaters of Black Creek to the Susquehanna River and bypass the underground infiltration into the mines that causes mine drainage out the Mocanaqua Tunnel. The idea is to calculate a length of pipeline needed and to make sure the water flows by gravity downhill. Encountered issues with y-axis units from ArcGIS in the resulting profile graph.

Discovered that we could not use ESRI provided topographic data but had to use LAS data from the PA DCNR PA Map program via PASDA.

- Purchased reagents to test for Nitrates, Phosphates and Total Suspended Solids following a recommendation from a board member. The Nitrates reagents arrived, and we wanted to see how the test worked. Tested the Trout in the Classroom (TIC) tank with master freshwater test kit (color drop tests) and compared to the YSI photometer results. The tests were close with readings in the 40 parts per million range. It confirmed that Nitrates are down without doing water tests. Possibly the addition of watercress and/or the denitrification process is keeping the levels down.
- Found a handy Windows application called File Renamer to rename the NMMR aperture card scan map images for the Pennsylvania Historic Underground Mine Mapping Inventory System (PHUMMIS) as they needed to be in a particular format. Also, used the batch function in Photoshop to convert the grayscale images to 24-bit RGB color mode before sending them to the PA DEP California District Mining Office (DMO) for processing into MrSID format. [MSI]
- Completed a Reclaimed Abandoned Mine Land Inventory System (RAMLIS) investigation in the Loyasock Creek Watershed to find out about a spoil pile for White Ash Land Association (WALA) the landowner and ARIPPA.

[] - Denotes funding source where applicable.