



Eastern PA Coalition for Abandoned Mine Reclamation

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February 2019 Progress Report

Highlights:

- Managed EPCAMR staff as they scanned 46 mine maps into TIFF images, georeferenced 24 & digitized mosaic maps for the **PA DEP** MSI MMG program. QA/QC checked work.
- Worked on building vein nomenclature lists with EPCAMR volunteer for MSI program.
- Continued creating a 3D model in ArcGIS format for mine pools near **Mocanaqua** for **SRBC**.
- Continued scanning, georeferencing and began digitizing maps for the **Luzerne Co. Rail Corp.**
- EPCAMR staff participated in a **NAAML**P meeting, hosted an EPCAMR quarterly meeting, met with **SRBC** to show progress, and created AMD TS statistics/maps for the **PA AML Campaign**
- Raised **TIC** trout and aided in forum for **PA FB&C**; livestreamed tank at www.dailymotion.com
- EPCAMR staff sampled minepool monitoring stations near **Mocanaqua** for the **SRBC** and 2 AMD treatment systems along the **Loyalsock Creek** for the **Sullivan Conservation District**.
- Updated www.epcamr.org; updated items on the EPCAMR online store; administered the EPCAMR Facebook and G Suite for Nonprofit accounts (for NAAML

Education, Outreach and Admin.:

- Ordered some supplies related to field work and calibrated the YSI multi-parameter meter in an effort to gear up for spring testing. Unfortunately, winter testing proved to be rough on some of the equipment as we broke the “cup on a stick” and the Solinst App Reader connector.
- Another larger piece of equipment that needed a tune up after the rough winter sampling was “Ron Burgundy”, our GMC Suburban. Took it to 2 shops to diagnose and fix the startup and stutter issues. Turns out the fuel pump needed to be replaced.
- Administered the Schuylkill Headwaters Association website and provided some technical assistance.
- Sent Andrea Nerozzi, Wyoming Seminary, the OSM Mine Map Folio under the Solomon Creek for her curriculum on coal mining in the Wyoming Valley.
- Continued stocking the TIC tank with watercress seeds to help control nitrate levels. Sprouted the seeds in a dish of tank water then added them to the floating redd baskets at the top of the tank. Changed 40% of the water in the tank to reduce the nitrate levels in the meantime.
- Took recyclables collected from both EPCAMR and Earth Conservancy to Mascaros. This is something we do monthly, but usually never report it. Found a smartphone app to estimate how many pounds of paper and plastics were recycled. This year we have already recycled 300 lbs of paper, 100 lbs of plastics and saved 625 kWh of energy.
- Wrote up minutes for the previous board meeting as well as the treasurer’s report with Denise.
- Participated in a NAAML

document to indicate efforts done by the board and staff in 2016-2017. Posted it to the web along with the last board meeting minutes.

- Updated website plugins, themes and fixed the hyperlink color on EPCAMR.org.
- EPCAMR staff hosted the 1st quarter meeting of the EPCAMR Board at the Earth Conservancy conference room. Added a post on EPCAMR.org that contained the opposition letter to the Governor's Budget. The budget included cuts to the Environmental Stewardship Fund (Growing Greener) to fund state employee salaries that work at DEP.
- Got your first National Association of Abandoned Mine Land Program (NAAML) conference registration online. Seemed to work well after all the testing.
- Changed 40% of the water in the Trout in the Classroom (TIC) tank water for a second time this month because of a high nitrates and pH of 8.2. Measured the chemistry a day later and the nitrates were at the same levels while the pH dropped to 7.8.
- Aided Shawnese Taylor with her application to the Community Aid Grant Program.
- EPCAMR management staff met with ARIPPA staff to talk about how the two organizations could better collaborate.

Technical Assistance:

- Continued to copy coal vein boundaries from the MSI Underground Mine Areas (UMA) into the UMA for the Mocanaqua Mine Pools. Georeferenced and digitized some newly discovered maps for the Hickory Vein (Bottom Red Ash) in the Hawk Basin. Updated underground mine entries (UME), tunnels and barrier pillars in Glen Lyon and West End collieries. [MOC]
- Continued to aide Conal Herron, EPCAMR Volunteer, as he reviewed OSM Folios and created vein nomenclature tables for the Western Middle Anthracite Coal Field. Folios are incomplete for this field so we supplemented with National Mine Map Repository (NMMR) and Pennsylvania Historic Mine Map Inventory System (PHUMMIS) map collections. [MSI]
- Completed a quality assurance and quality control (QA/QC) of work done for October, November, December and January for the mine mapping grant (MMG) by comparing records on PHUMMIS to the files on the X drive. Began reimbursement paperwork. [MSI]
- Taught Conal Herron, EPCAMR Volunteer, to scan with several maps rescued from spring cleaning of the Earth Conservancy storage room. [MSI]
- Responded to an email from Mike Korb about the availability of mine pool maps. EPCAMR has completed several mine pool reports. The first report in 2011 Mine Water Resources for the Anthracite Coal Fields of Eastern Pennsylvania for the PA DEP was a broad brushstroke of mine pools levels and connectivity in the Western Middle and Southern Coal Fields. ArcGIS was used to map and earthVision was used to model the mine pools in the southern coalfields. The US Geologic Survey (USGS) calculated a water volume range for the Western Middle Field with MODFLOW-2000. This report is entirely available. The second report Anthracite Minepool Mapping for the Southern and Northern Coalfields covers the Hecksherville Valley and the Rausch Creek Valley (Donaldson Basin) of the Southern Coalfield and the entire Northern Coalfield. ArcGIS was used to map and earthVision was used to model the coal fields and calculated water volumes. This report was commissioned by the Susquehanna River Basin Commission (SRBC) and is owned by them. They grant permission for pieces, but not the whole dataset, on a case by case basis.
- Encountered an issue with my "Q Drive" not working. Had ordered the case for this external drive months ago and it came with foam strips. Being a Chinese product it did not come with instructions, so I was unsure what they were for so I set them aside. Placed the strips in the case and it started working again. Apparently the foam secures the drive in place against the connector. Wrote up a review in Amazon, where I purchased the drive, to let others know.
- Convert Railroad TIFF scans into JPEG to be georeferenced. [LuzRR]
- Field sampled flow and chemistry at 2 sites along the Black Creek for the Mocanaqua Mine Pool Project. Collected water samples at the tunnel discharge and sent them to Hawk Mountain Labs for analysis. Took water levels and transducer readings at 3 strip pits, and 4 boreholes and 3 water quality monitoring sites. Recorded results in a google spreadsheet shared with the Susquehanna River Basin Commission. [SRBC]

- Sampled flow and chemistry on 2 treatment systems (WALA Connel B and C Tunnel AMD treatment systems), upstream and downstream on the Loyalsock Creek to judge the effectiveness of the upgrades to the Connel B Tunnel AMD treatment system. [LCWA]
- Downloaded data from Datashed to produce AMD PTS stats and maps for former OSMRE Director Joe Pizarchik, who is now working with the PA AML Campaign. Quality controlled the data before handing it over to be used by Gavin. One huge problem that showed up is that the money was not consistent between the various source categories in several treatment systems. For example, sometimes the capital costs were more than the total cost which was bizarre. The other issue was that some of the systems were calculating negative loadings. Sent an outliers report to Stream Restoration Inc. (SRI), removed negative loadings in shapefile and ignored the monetary values in the statistical work.

[] - Denotes funding source where applicable.