



Eastern PA Coalition for Abandoned Mine Reclamation

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February 2020 Progress Report

Highlights:

- Managed EPCAMR staff as they scanned 41 mine maps into TIFF images, 29 georeferenced & digitized mosaic maps for the **PA DEP MSI MMG** program. QA/QC checked work.
- EPCAMR staff participated a weekly **PA AML Campaign** call, a call about a DIY datalogger setup on the **Upper Lackawanna River**, a meeting with **Wyoming Seminary** teacher and students, an EWT workshop and a tour with **EC**. EPCAMR staff hosted an EPCAMR strategic planning session and board meeting at **Nescopeck State Park**.
- Aided **Geisinger Environmental Health Institute** update a **Johns Hopkins University** study with GIS data. Researched how to sample TSS.
- Maintained **TIC** tank for EPCAMR. Provided technical assistance to **GNASD**, **SHASD** and several more through a Facebook forum. Live streamed tank on www.dailymotion.com/epcamr
- Updated www.schuylkillheadwaters.org, and www.epcamr.org; tested out EPCAMR's **AGOL** account; 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.:

- EPCAMR staff participated in the Environmental Workforce Training (EWT) tour and workshop hosted by Earth Conservancy. EPCAMR staff co-led the tour with Earth Conservancy staff of several abandoned mine lands (AML), mine reclamation and mine drainage (AMD) sites in Luzerne County. EPCAMR staff also led a GIS and map reading workshop.
- Welcomed Frank Sindaco to the EPCAMR team. Setup a computer, email account, Microsoft account and ESRI account for him.
- Spoke with Schuylkill Headwaters Association (SHA) about updating their website at www.schuylkillheadwaters.org.
- Research the EnviroDIY Mayfly datalogger for the Lackawanna County Conservation District (LCCD). EPCAMR was asked by Watershed Specialist, Cheryl Nolan, to look into the station that would test Turbidity, Conductivity, Temperature and Depth at a set interval and report to MonitorMyWatershed.org by Stroud Water Research Center.
- Created a Gantt Chart of EPCAMR projects in preparation for the Strategic Planning Session at the upcoming EPCAMR Quarterly Board Meeting. Created a PowerPoint presentation to help guide the Strategic Planning Session.
- Took ink cartridges to Office Max to be recycled and received a credit to be applied to future purchases.
- Aided the Earth Conservancy with identifying mapping programs they should purchase.
- Changed 40% of the water in the Trout in the Classroom (TIC) tank which reduced the Nitrate Levels from 130 ppm to 10 ppm. Recorded water quality results on Google Forms. The 124 rainbow trout continue to grow along with a mat of algae on the front of the tank. Continued to live stream the TIC tank on daily motion.

- EPCAMR staff hosted an EPCAMR Board Meeting and Strategic Planning Session with EPCAMR board members at the Nescopeck State Park Environmental Education Center.
- EPCAMR staff took E3 Environmental staff on a tour of AMD discharges. As discussed in previous months they had a stormwater technology that could be applied to AMD sites.
- EPCAMR staff participated in a call with LCCD staff and Trout Unlimited (TU) Lackawanna Valley Chapter representative about the feasibility of the EnviroDIY Mayfly Datalogger. We decided to go ahead. LCCD will order the parts and EPCAMR will build it and install it.
- Prepared a proposal to sample the Askam Treatment System in 2020 for the Earth Conservancy.
- Created an Appalachian Tree Planting page on the www.epcamr.org website with a form for volunteers to sign up. Taught Laura to edit the page in WordPress.
- Created a parts list with prices and stores for Cheryl Nolan to purchase parts for the EnviroDIY Mayfly Datalogger.
- Aided Geisinger Health Systems Environmental Health Institute with Abandoned Mine Land Inventory System (AMLIS) and Impaired Streams data. They are working on updating the Johns Hopkins University study that Anne Lieu did almost a decade ago relating health issues with AML and AMD features.
- Met with Wyoming Seminary Upper School Maslow STEM School Students that were interested in a Geothermal competition sponsored by the Department of Energy (DOE) and Idaho National Laboratory.
- EPCAMR management staff participated in an AML Campaign Call.

Technical Assistance:

- Quality assured and controlled the Nanticoke Quadrangle Chauncey, Upper Red Ash, Lower Red Ash and A Vein Mosaics for the PA DEP Mine Subsidence Insurance (MSI) Mine Mapping Grant (MMG). Removed maps in the Chauncey Mosaic and added to the Upper Red Ash to match elevations of neighboring maps. Removed surface map fillers from each mosaic. [MSI]
- Georeferenced three National Mine Map Repository (NMMR) maps and added West End Colliery Hickory Vein maps to the A Vein mosaic. It is actually part of the Lower Red Ash vein (not the Baltimore as referenced in a United States Geologic Service (USGS) Black Creek Report) but added it to the A Vein mosaic because of an overlap caused by a fault. [MSI]
- Georeferenced NMMR Ross Vein Maps for the Stanton-Empire and Hollenback Collieries for the Wilkes-Barre West and East Quadrangles. [MSI]
- Aided the Citizens Coal Council (CCC) with GIS data obtained from the PA DEP. They were using Global Mapper and were trying to convert the geodatabase layers to a shapefile format (which requires an ArcGIS license).
- Researched mine pool locations for a geothermal application in the McAdoo Industrial Park.
- Contacted MSI MMG project manager, Patrick Jaquay, to notify him that the Pennsylvania Historic Underground Mine Map Inventory System (PHUMMIS) external site was not working. He notified their Internet Technology (IT) team. Patrick notified us that he found a duplicate map name added to PHUMMIS. He changed it and had us change the file name in our files. [MSI]
- Re-georeferenced three NMMR surface maps (12207, 12208 and 12212) for the Wilkes-Barre West and East Quadrangles. Added twelve maps to complete the Ross Vein Mosaic for the Wilkes-Barre West Quadrangle. Sent 47 aux.xml files of georeferenced maps in mosaics to Mara Evans at DEP California District Mining Office (DMO) to quality control check. [MSI]
- Taught Frank how to build mosaics and assigned him the Hillman Vein of the Nanticoke Quadrangle. [MSI]
- EPCAMR staff reviewed and scanned maps dropped off by Ed Wytovich. Added several maps to the MSI MMG inventory. [MSI]
- Received a review of the most recent MSI travel drive sent to Patrick at the PA DEP California DMO. Had to re-georeference two maps and enter a few maps into PHUMMIS. The PHUMMIS External site was still down which hinders our work trying to find mine maps for mosaics. [MSI]

- Researched how to sample Total Suspended Solids. A probe is typically used, but we could measure Turbidity with our YSI photometer. No reagents are needed, but we need to order a TSS filter paper with less than 1.5 micron pores that will fit our Buchner funnel.
- Transferred converted NMMR SIDs to the X Drive and made a spreadsheet for the Stearns Colliery maps. The spreadsheets are typically created for each colliery in the NMMR collection by the Office of Surface Mining Control and Reclamation (OSMRE) Pittsburgh Field Office. The veins are incorrect and is updated as we georeference the maps. These spreadsheets will help when we add them to PHUMMIS.

[] - Denotes funding source where applicable.