



Eastern PA Coalition for Abandoned Mine Reclamation

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December 2020 Progress Report

Highlights:

- EPCAMR staff scanned 91, georeferenced 10, mosaicked & digitized mine maps for the **PA DEP MSI MMG** program. QA/QC checked work.
- Created a map and story for **Library Company of Philadelphia's Anthracite Mining Exhibit**.
- EPCAMR staff participated in a weekly **PA AML Campaign** call, a **PA AMR Conference** call, a call with **AC Power**, and a call with **Earth Conservancy**.
- Sampled AMD Treatment Systems on **Nanticoke Cr.** for **EC**, and on **Loyalsock Cr.** for **LCWA**.
- Updated www.treatminewater.com and www.epcamr.org; administered the EPCAMR Facebook and G Suite for Nonprofit accounts (for NAAMLPA as well); maintained GobbaDaPile in-house domain server and workstation.

Education, Outreach and Admin.:

- Completed the Program Manager progress report for the month of May and posted to the EPCAMR website. Started June report while working at office with special permission from Earth Conservancy as I was supervising EPCAMR Intern, Katie VanOrden, as she scanned maps. Surprise visit from Shawnese and Laura to office caused an unprofessional commotion.
- EPCAMR management staff participated in an AMR Conference Call to decide on hosting June 2021 conference virtually or face-to-face. Decided to host virtually and contacted Whova to lock in 2020 pricing. Contacted Ramada to postpone the face-to-face to June 2022.
- Installed the stilling well at Espy Run downstream and evaluated Nanticoke Creek upstream flow sampling point for a retrofit. Created a plywood template to be cut to fit behind the existing weir once the rusted metal plate is removed. [EC]
- Finished Program Manager progress report for June and July reports and posted to epcamr.org.
- Researched Nutrient and AMD co-treatment with John Levitsky, Terry Ostrowski and Jon Dietz.
- Relayed a message to EPCAMR staff from PA DEP regarding the need to submit Mine Mapping Grant (MMG) invoices. Got the message from PA DEP Mine Subsidence Insurance (MSI) program staff that I should submit a reimbursement for July-September. Problem is that I needed information from staff to do so. Most of them started to work from the office again in the summer, but abruptly we were sent back home after Thanksgiving so we were unable to synchronize data to the X Drive. Asked again for georeferenced auxiliary files be sent and progress reported on mosaics and digitizing via email. [MSI]
- Started a MMG reimbursement July-September 2020. [MSI]
- Working with Dave Tissue, PA DEP California DMO IT staffer, to get PHUMMIS access. This was more than just the regular password reset. Found an error that needed to be fixed by DEP central office IT department. [MSI]
- EPCAMR staff participated in a Zoom call about Solar on AML tool with AC power. Follow up with Steve on parcel information.

- Call from Cheryl Nolan regarding Lackawanna County Action Plan (CAP) and missing nutrient polluted streams on the 2020 Integrated Waters List. I looked at RAMLIS, created a snapshot of the map and exported a CSV table to confirm that the 2019 integrated list layer had mostly municipal Point Source discharges, urban runoff/storm sewer, combined sewer overflow, and source unknown for pathogens, low DO, and organic enrichment. I advised her to start looking at those stream segments for potential nutrient pollution because these causes often go hand-in-hand with nutrients. She sent me a toolbox that was given to her from the Chesapeake Bay Program and there are data sources I was unfamiliar with so I began to research them.
- EPCAMR management staff participated in weekly PA AML Campaign call.
- Helped Laura with DEP EE grant proposal as it was due. We were confused about where to find ZIP codes for Environmental Justice (EJ) communities which are census blocks in the GIS map included with proposal guidance. Asked Frank for help as he is more experienced with census data from his community GIS data work.
- Sampled Loyalsock Upstream, Downstream and in/out of 3 treatment systems (Connell B Vein, Connell C Vein and Gutten Drift). Entered Loyalsock sampling data into the EPCAMR Sampling database. Sent photos and explanation to Executive Director who forwarded them on to partners. Sullivan Conservation District (SCD) responded back with concerns about plugging in Connell B Vein Treatment System. [LCWA]
- Ordered sampling supplies and renewed ArcGIS annual subscription for 4 licenses.
- Took off the morning to dig out from a snow storm then finished up MSI reimbursement for July-September 2020 processed time sheets from staff but waiting on georeferenced files to send it. [MSI]
- Looked into Commissioner's Lake near Mt. Carmel for Solar potential as per request from landowner, looked at RAMLIS for mine inspector comments and asked Steve to investigate. Site is pretty infamous for bush parties, dumping and a few drownings. The landowner wants to back fill it and put solar panels on it. Steve said the site, if reclaimed, had a relatively good potential for solar based on the modeling. Followed up with the landowner to see if he had any dealings with BAMR for the Priority 1 HWB. He said because there wasn't enough on-site material. But there have been a few drownings and one person drove their car into the pit. Contacted PA DEP BAMR and Shamokin Creek Restoration Alliance (SCRA) to find out if they have any history with the site or landowner. SCRA confirmed the hazardous conditions and supported it's cleanup. DEP BAMR Wilkes-Barre Office replied that they were unable to get a clear plan to completely fill the pit in a timely manner from the landowner and could not move forward but continue to remain open for a potential reclamation project.
- Received 5 georeferenced files from Shawnese for August to October 2020. Sent the MSI Reimbursement. Went to office to get PHUMMIS laptop to check on the status of the cataloging. Checked PHUMMIS against the files on the X Drive and the files for September were done, but August and July scans were not cataloged. Discovered 61 and 37 NMMRs were georeferenced and cataloged for those months respectively. Went back to office to upload and download files to the X Drive. [MSI]
- Hosted a Zoom meeting with Earth Conservancy to talk about flow/water level monitoring of the Truesdale-Bliss mine pool and Nanticoke watershed, then chemistry results of the Espy Run and Askam Treatment Systems. Followed up with historic Espy Run TS sampling results, how to find precipitation data from weather underground and potential methods/equipment to automatically monitor precipitation.
- Ordered Zobell Solution to calibrate ORP sensor on the YSI Pro Plus probe.
- Created footprint shapefiles of Upper Baltimore, Forge, Cooper, Bottom Hillman Nanticoke Quadrangle Mosaics and sent to Mara and Patrick at DEP California DMO. Updated excel table of mosaics submitted. [MSI]
- Created an email that asks for work monthly from staff in an effort to reimburse the MSI program more regularly. Staff will be asked at the end of the month to submit data and will have till the middle of the following month to deliver the data to the Program Manager. [MSI]
- Went into the office to drop off supplies delivered at home, picked up the travel drive from Denise and mailed the drive to DEP. [MSI]
- Completed August Program Manager report and caught up on time sheets

- Had a conversation with John Levitsky, Luzerne County Watershed Specialist, and EPCAMR Executive Director about potentially using ARIPPA funds to gather preliminary data on nutrients in AMD in Luzerne County. This could make a case for lab sampling from of the sites later.

Technical Assistance:

- Fixed weir calculations in the calcfow excel spreadsheet with info from OpenFlowChannel.com.
- Followed up with Marx Sheet Metal in Wilkes-Barre and Rickly Hydro out of Ohio to inquire about getting a weir fabricated. A representative from Rickly said they have local fabricators they use, but the shipping would be cost prohibitive.
- All websites were locked by Host Gator because of a CPU over-usage violation. Determined the EPCAMR Online store Magento 1 CMS was the culprit and contacted tech support to find out what changes had to be made to resolve the issue. Reported back to Host Gator Tech support that the changes were made and asked that they unlock my account. Need to research an alternative CMS, perhaps WordPress with an online store plugin.
- Researched WooCommerce plugin for WordPress which I had evaluated years before, but it was limited. It seems there has been progress and those limitations were addressed.
- Found that our sites were unlocked by HostGator after about a day. Friends of the Nescopeck (FON) noticed the outage and I explained what had happened.
- Sent sampling results to Earth Conservancy from 11/30 after flow meter dried out. Calculated a 4X flow from flow exiting the treatment system, but it had rained hard that morning from 9am to 11am as we were sampling and may have finally had time to reach the downstream site which also included Espy Run flows. Setup a WordPress website for the EPCAMR store with WooCommerce plugin. Uploaded 3 PA AML Campaign Videos to our EPCAMR YouTube site.
- Entered OFBH lab results from Hawk Mtn Labs into EPCAMR Sampling Data Spreadsheet. Created graphs for episodic sampling which showed the expected dilution results as flow rose, iron concentrations and conductivity dropped, but pH decreased as flow decreased which could be an artifact of the hold time and other chemical reactions happening in that time period.
- Entered Stanton Borehole readings from 2013-2017 into borehole database and reported a best guess at the mine pool elevation to Pagnotti Enterprises as requested.
- Asked by Andrea Krupp, Library Company of Philadelphia for help with displaying a specific terrain map for her exhibit. Georeferenced BMSA_1625, a Panther Valley surface mine map. She wanted to use ArcGIS Online, but I explained that AGOL might not be the avenue for displaying this over a DEM terrain basemap as she has been showing me. Did not realize that the example images she has been showing me were from the PA Mine Map Atlas. Figured out how to share the interactive mapping website on another website (using Iframe) and in AGOL story maps. This was going to work nicely for her exhibit instead. Updated the After Anthracite Story Map started by Rachael and Abbie when they were EPCAMR VISTAs and as a result found a glitch in PHUMMIS/PA Mine Map Atlas interaction and notified the DEP MMG team.
- Quality assured and controlled (QA/QC) mine map mosaics in the Nanticoke Quadrangle. Removed BLUE_TRU-09-07 and BLUE_TRU-13-07 (Bliss Forge) from Upper Baltimore mosaic because it was a worse copy of the maps in Forge mosaic. Removed BMSA_4951-007 (Alden Hillman) from Cooper added it's better copy BMSA_0047 into Bottom Hillman mosaic. Removed BMSA_0046 (Alden Cooper) from Forge and added to Cooper mosaic. Removed BMSA_0044 (Alden Bennett) from Upper Baltimore and added to Forge mosaic. Removed BMSA_3687-001, 3676-001, 5936-027, 5936-026, 5936-004 (Wanamie Bottom Hillman) from Forge mosaic added better copies BLUE_WAN-06-07-01, BLUE_WAN-05-07, BLUE_WAN-02-07, BMSA_5936-026, and BMSA_5936-004 to Cooper mosaic. Removed BMSA_3674-01, BLUE_WAN-05-06-01, 04-06, 02-06 (Wanamie Middle Hillman) from Cooper and added to Bottom Hillman mosaic. Removed EPCAMR 010735-01 to 03 (Glen Nan Forge), BMSA_6163-001 (Stearns Forge), BLUE_WAN-01-08, 04-08, 06-08, 07-08, 08-08, BMSA_6236-001, 3688-001, 3662-001 (Wanamie Upper Baltimore), and BMSA_6863, WBDO_059-17-02 and WBDO_059-04 (Glen Lyon Cooper) from the Upper Baltimore and added to the Forge mosaic. [MSI]
- Continued to QA/QC mine map mosaics in the Nanticoke Quadrangle. Removed BMSA_6156-001 (Stearns Hillman) from Cooper and added it to Bottom Hillman mosaic. Removed

BMSA_1950-001 (Stearns Cooper) from Hillman and added it to Cooper mosaic. Moved BLUE_WAN_09-07 (Glen Nan Bottom Hillman) from Bottom Hillman to Cooper mosaic (to match Stearns and Wanamie). Added BLUE_WAN_02-06, 04-06, 05-06-01, and 06-06 (Wanamie Middle Hillman) to Bottom Hillman mosaic (Glen Alden vein cipher suggests that Wanamie veins are off by one relative to neighboring collieries). RE-georeferenced BMSA_0047 (Alden Hillman) and added it to Bottom Hillman mosaic. [MSI]

- Continued to QA/QC mine map mosaics in the Nanticoke Quadrangle. Removed BMSA_6156-001 (Stearns Hillman), WBDO_082-07-03, 07-02, 07-04, 07-01 and BMSA_6721-001 (Wanamie Middle Hillman) from Middle Hillman mosaic because better copies were placed in Cooper (Wanamie veins are off, same note as above). Removed WBDO_136-18-12 (Glen Lyon Hillman) from Middle Hillman mosaic and placed in Bottom Hillman mosaic. Removed it's worse copy WBDO_059-03 from Cooper Mosaic. The individual mosaics seem to match up better colliery by colliery now. Nanticoke Mosaics: Upper Baltimore, Forge, Cooper, Bottom Hillman are ready to go. [MSI]
- Continued to QA/QC mine map mosaics in the Nanticoke Quadrangle. Repaired data paths for Wilkes-Barre West mosaics to compare edge to Nanticoke mosaics. Removed two 400 scale maps from Nanticoke Mid Hillman mosaic (WBDO_091-15-05 and another one) that crossed into the Wilkes-Barre West quad and there were better maps (BLUE_TRU-09-05 and BLUE_TRU-13-05) already in Hillman mosaic. Added these maps instead. Re-georeference WBDO_138-05 (Susquehanna Hillman) and BLUE_WAN-09-06-01.sid (Glen Nan Middle Hillman) then added to the Nanticoke Mid Hillman as well. Added EPCAMR_010900-03 to WBW Hillman mosaic.
- Re-re-georeferenced 2 SID image files BMSA_6561-003 and geor_WBDO_134-21-01 (Pittston Surface) submitted by Shawnese from July that were missing control points after asking her to fix them and getting no response. One had been georeferenced with a world file (SDW) the other's control points were probably not saved before closing georeferencing. Checked the other 3 submitted for September and they had AUX files. Submitted these files to DEP via the travel drive.

[] - Denotes funding source where applicable.