



Eastern PA Coalition for Abandoned Mine Reclamation

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April 2020 Progress Report

Highlights:

- Managed EPCAMR staff as they worked from home to georeference 92 & digitize mosaic maps for the **PA DEP** MSI MMG program. No scanning was allowed. QA/QC checked work.
- EPCAMR staff participated in a weekly **PA AML Campaign** call, a **PA AMR Conference** call, calls with **TetraTech** and **Little Leaf Farms** regarding a proposal for work, calls with **AC Power** in preparation for a **RAC grant**.
- Maintained **TIC** tank for EPCAMR. Live streamed tank on www.dailymotion.com/epcamr
- Updated www.treatminewater.com and www.epcamr.org; added to EPCAMR's **AGOL** account; 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.:

- Worked from home all month with a few minimal visits to the office while no one else was there to quickly gather files needed to complete tasks from home. Stayed connected with staff through Google chat and a weekly email.
- Submitted the EPCAMR 319 reimbursement for November.
- EPCAMR management staff participated in weekly AML Campaign calls to remain updated on the status of AML bills in the US House and Senate.
- Calculated 2020-2021 billable rates, posted to the M Drive and sent to staff for grant writing.
- Finished EPCAMR Program Manager December progress report, posted it to www.epcamr.org and sent the EPCAMR 319 reimbursement December.
- EPCAMR management staff participated in a conference call with AC Power to talk about solar energy potential on AML.
- Created a board member list and uploaded the EPCAMR 990s to the online National Fish and Wildlife Federation (NFWF) proposal.
- EPCAMR management staff participated in an AMR Conference Call. Updated www.treatminewater.com with details the committee decided on the call.
- Worked on a proposal to map the mine pool in Beaver Brook Colliery with Tetra Tech for Little Leaf Farms who wants to use the mine pool for geothermal heating/cooling of massive greenhouses (30 acres).
- Changed the water in the Trout in the Classroom (TIC) tank to drop Nitrates. Continued to monitor the TIC tank via the live stream from home.
- Received the CTD (conductivity, temperature and depth) probe in the mail and took it to Steve who is building the DIY Mayfly monitoring station at home for Lackawanna County Conservation District (LCD).
- Exported the AML Campaign list from Google Groups and sent it to Louise Dunlap following an AML Campaign call.

- Finished draft proposal to map mine pool in the Beaver Brook Colliery and sent to Robert for comments. Finalized the proposal over Google Meet and sent it to Tetra Tech.
- Prepared coal production, price per ton, fees and transportation statistics from EIA and other websites and sent a quick synopsis to AML Campaign.
- Received feedback about Little Leaf Farms proposal for mapping the Beaver Brook Mine Pool. EPCAMR management staff participated in a zoom meeting with Little Leaf Farms to discuss proposal.
- Aided Robert in NFWF grant preparation with maps, statistics, and content.
- Sent Askam AMD Treatment System sampling results to Borton Lawson who were asked to review them by Earth Conservancy (EC).
- Helped Robert over Google Meet with final preparations to submit the NFWF grant.
- Steve sent more Kingston Quad Mosaics (up to Five Foot vein) over email. Patched the data sources to see progress as the maps were pointing to places on his travel drive.
- EPCAMR Management staff participated in a call with AC Power on to inform them of a newly discovered Reclaiming Appalachia Coalition (RAC) request for grant proposals due May 1. We decided even though it was short notice to go ahead and apply for a grant to help determine suitable sites for solar power development on AML using GIS.
- Updated our board contact list on MailChimp and helped Robert draft an email over Google Meet to cancel the board meeting on May 21 due to COVID restrictions on gathering in groups. The agenda was light anyway.
- Worked on RAC grant proposal and sent blurb to AC Power for a letter of support.

Technical Assistance:

- Edited the Nanticoke Lower Ross mosaic due to issues with Glen Lyon, Glen Nan and Stearns calling the Red Ash vein Ross instead. Ross is Twin for them as well. These maps were placed in the wrong mosaics as a result for the Mine Subsidence Insurance (MSI) Mine Mapping Grant. [MSI]
- Re-georeferenced geor_WBDO-138-0-04 as it was done in 2014 and had a world file instead of an auxiliary file which is needed for the MMG. Deleted control points and started again. Sad those don't convert over easily. Finished quality assurance and quality control (QA/QC) on Nanticoke Bottom Ross vein mosaic and started with the Top Ross. [MSI]
- Found out Shawnese was working on the Top and Middle Ross, I stopped QA/QC. Sent staff working on the MMG the 36 georeferenced AUX files of maps I was working on and the Bottom Ross Nanticoke Mosaic Footprint shapefile. Moved on to complete QA/QC of Wilkes-Barre West and East mosaics and worked on communication efforts with staff to make sure our work isn't overlapping... a complication of working from home... [MSI]
- Made a shapefile of watersheds in the southern Wyoming Valley where we planned to work for the NFWF proposal and uploaded them to the NFWF ArcGIS online (AGOL) website. Attempted to create the watersheds with tools on the AGOL site, but it is not refined enough to pick specific watersheds in the valley as another referenced sites dealing with Native Trout and Black Duck habitat. The shapefile option ended up being the best way to deliver the data.
- Looked at the code of the AUX XML files to attempt to fix georeferencing error. Shawnese was taking coding classes and was learning this particular computer language. Continued to save the control points to text file format until a fix can be determined. Elevated the submitted ESRI support case with the new information. [MSI]
- Worked on the Wilkes-Barre East Hillman vein mosaic as it was unfinished from a previous employee. [MSI]
- Downloaded from email and patched in 20+ georeferenced AUX files from Shawnese from the Cooper, Forge, Top Baltimore, Bottom Baltimore and Top Ross veins and snapshots of the Forge and Top Baltimore Mosaics in the Nanticoke Quadrangle to assess her progress. Aided Frank with Nanticoke Hillman Mosaic. Steve was working colliery by colliery in Kingston Quad. Found an image of the vein nomenclature chart that hangs on Steve's Door, updated it with notes on my paper copy and turned into a PDF to share with the MMG team. [MSI]

- Went to office to get X Drive remote access figured out. Success! Started looking at Baltimore Colliery NMMR for "missing" 5 foot vein maps. [MSI]
- Shawnese discovered that if you delete the SDWX file before starting to re-georeference a SID map that the AUX file would save properly. Reported that georeferencing bug was fixed by Shawnese to ESRI Tech Support. ESRI Tech Support reported that the issue is a known bug related to ESRI's version of the TIFF world file (.tfwx) but were unaware of it for SID (.sdwx). They explained that georeferencing is a difficult tool to keep error free as there were so many ways to store the data over the years. There is a tradeoff with backward compatibility if they simply discontinue use of one method.
- Correspondence with MSI team on progress and next direction for each of them. Patched Digitizing files (Coal Vein Elevations, Underground Mine Entries, Underground Mine Areas) with a backup GDB from July 2018. Needed to get an updated one from the X Drive.
- Began to download NMMR maps for the USGS quadrangles in the Wyoming Valley from the X Drive, but the transfer speed was really slow. Decided to go into office to download them and get the geodatabase instead. Updated the catalogs (excel spreadsheets) for each colliery in the NMMR collection as I discovered vein portrayed in each map. [MSI]
- Finished QA/QC and delivered Five Foot Vein Mosaic Wilkes-Barre East quad to Mara. [MSI]
- Looked at the most recent MSI Digitizing Geodatabase data to assess what was done previously and marked the work in the Completed Mosaics spreadsheet. Backed up the MSI Digitizing database in preparation for creating digitizing files by quadrangle.
- Exported the blue coal grids as a shapefile and sent it to Earth Conservancy to help them find maps we scanned and cataloged. Passed along a naming cypher document as well to explain how we used the grids to organize and name the maps.
- Updated MSI workflow instructions from 2018 contract, specifically the portions that pertain to digitizing, based on conversations with Patrick since we started making the mine map mosaics. The digitizing work will now be completed based off the mosaics. Placed the updated instructions in the "EPCAMR How To" folder on the M Drive. [MSI]
- Split the MSI Digitizing Geodatabase into several files based on quadrangle coverage. Created a Shickshinny Digitizing Geodatabase and sent it to Frank along with the completed Bottom Red Ash Vein mosaic for the Shickshinny Quadrangle so he could begin digitizing and testing the method. [MSI]
- Updated 5 Shickshinny Vein mosaics from DEP edits, found out we never made the Upper Ross vein mosaic (made it quickly, literally 1 map, and sent it to Mara for QA/QC evaluation) and sent all 6 geodatabases to Frank for digitizing. Downloaded Steve's work from the previous week and created the Kingston Quad Abbott Mosaic from the footprint and georeferenced maps to check out his work. [MSI]
- Patched more Kingston Quad Mosaics from Kidney up to Lower Ross vein from Steve. He began to run into collieries where he could not find maps in the MSI collection. Asked Patrick about converting NMMR to SID format. He suggested we convert the TIFF to a lower quality and georeference them to add to mosaics for the time being. I suggested JPEG format and maybe the georeferenced aux.xml files would convert over the SID when he gets a chance to convert them for us when he returns to his office. [MSI]

[] - Denotes funding source where applicable.