



Eastern PA Coalition for Abandoned Mine Reclamation

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June 2020 Progress Report

Highlights:

- Managed EPCAMR staff as they worked from home to georeference 8 & 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, a video presentation with **Luzerne Fdn. YAC**, a call with **ACOE**, promoted the **NEPA Day of Giving**, and a released our **TIC** trout into **Harveys Creek**.
- Sampled the Askam TS along **Nanticoke Cr.** for **EC** and worked on the **DIY Mayfly** for **Lackawanna CD**.
- Updated www.treatminewater.com and www.epcamr.org; administered the EPCAMR Facebook and G Suite for Nonprofit accounts; maintained GobbaDaPile in-house domain server and workstation.

Education, Outreach and Admin.:

- Updated the ARIPPA AMR Awards page on www.epcamr.org to include the new deadline of July 31 for proposals. Sent out a MailChimp Campaign to notify groups to submit projects.
- Reviewed and suggested comments to EPCAMR COVID19 policy for when we return to work.
- Picked up paper copy October thru December 2019 timesheets from office to complete a MSI Reimbursement.
- Received updated Ramada contract for the AMR Conference in October. Reviewed it with Robert and signed it as per recommendation from the AMR Conference Committee. The number of rooms were lowered and COVID 19 language was added as per request of the conference committee.
- Connected intern Kyle to the X and M drive and sent railroad shapefile for the Coldwater Heritage Plan (CHP) mapping he is working on.
- Spoke with John Levitsky, Luzerne Conservation District Watershed Specialist, about best place to release trout on Harvey's Creek. He consulted with a colleague from the PA Fish and Boat Commission (PFBC) and got back to us with a suggestion.
- Started October thru December MSI reimbursement.
- Reviewed SRBC summary of the Mocanaqua Tunnel Project and made corrections / suggestions.
- Sent an email via MailChimp letting folks know the 2020 AMR Conference was postponed. Spoke with Anne and Robert about potentially hosting a virtual conference and started getting quotes from different video conference services.
- EPCAMR staff promoted NEPA Giving Day on social media and sent out emails to meet our goal to raise \$1K.
- Released the trout fingerlings we raised into Harveys Creek delayed harvest area with John Levitsky, John Coleman (PFBC) and EPCAMR staff and interns. Followed CDC social distancing guidelines and used PPE.

- Setup Magento 2 on <https://store.epcamr.org> and started bringing information over from the Magento 1 store. This seemed to be a good time to do it as I had shut down the ability to purchase most items requiring delivery due to our inability to be in the office. We had been getting warnings that Magento 1 will come to the end of support at the end of the month.
- EPCAMR staff participated in a conference call with a representative from Whova to talk about the virtual conference platform and pricing. Typed up notes and sent to AMR Conference committee for their review and recommendations.
- Purchased TechSoup Boost which includes QuickBooks and a few other programs for free. It also gave us access to deeper discounted pricing on services like Zoom. It was worth the \$79 annual fee.
- EPCAMR staff participated in a video call with AC Power and Reclaiming Appalachia Coalition (Downstream Strategies and Appalachian Voices) to talk about our grant award and starting the GIS Mapping tool work soon.
- Compiled a list of 45 projects related to mining impacts from Coldwater Heritage Plans (CHP) and Mine Pool Mapping (MPM) reports in the Susquehanna River Watershed to send to the Army Corps of Engineers (ACOE) for funding consideration. Added 10 more projects to the list from the Solomon Creek CHP report, SRBC reports and other our MPM reports for the Western Middle and Southern Anthracite Coal Fields.
- EPCAMR management staff participated in weekly AML Campaign Calls.
- Went to office to reboot the M drive, fill trout tank and add snails to get rid of algae. Picked up jugs to get more water and office diagram. Scanned office diagram and use paint shop to add in furniture and 9 people with 6-foot bubbles. Figured out a plan with Robert to rearrange a few desks to come into CDC/PA Dept of Health guidelines.
- Participated in AML campaign call, learned about Barrasso-Enzo AML Reauthorization bill in the Senate which is in competition with the Manchin bill, campaign is looking at numbers.
- EPCAMR staff met, masked and socially distanced, behind office at the garden to talk about field work for next week as we heard from Earth Conservancy that we could go back to the office on July 6th if we complied with certain safety policies. Handed out the EPCAMR COVID 19 policy to staff and all staff signed a page to acknowledge their compliance. Executive director and I moved a desks and rearranged equipment to comply with the 6-foot social distancing regulations passed by EPCAMR Executive Committee.
- Wrote up an introduction to Whova and it's capabilities for the AMR Conference Committee. EPCAMR staff and Anne had been sitting through demos and evaluating several options for a virtual conference. Some of this information was very technical, heavy in marketing and superfluous so I took the time to summarize the tools I thought we would use in Whova for the committee as they decide to take this step into the unknown.
- Updated Cheryl Nolan on our progress with the DIY Mayfly monitoring station. Steve had been working on the station over quarantine and he thought he had it programmed to communicate with the CTD sensor. We were waiting on the Turbidity sensor. He took the pelican box to assemble that part of it and was confident that we could install it in the field soon. Cheryl setup a call with Trout Unlimited and the Susquehanna County Conservation District Watershed Specialist.
- EPCAMR Management staff developed a workplan for OSMRE VISTA Kyle Argenziano.
- EPCAMR staff sampled the Askam Treatment System and one downstream point (below Espy Confluence). Added an upstream point with Earth Conservancy staff to show water quality entering the system from above the discharge since all of Nanticoke Creek flows through the treatment system.

Technical Assistance:

- Continued to QA/QC review Nanticoke Mine Map Mosaics completed by staff. Added National Mine Map Repository (NMMR) EPCAMR_010362-01, EPCAMR_010362-02 and EPCAMR_010363-00 maps to Nanticoke Chauncey Mosaic. Discovered that the Chauncey Vein doesn't exist (or wasn't mined) in the West End Colliery Priscilla Lee Basin. Re-georeferenced BMSA_4931-025 (Chauncey), BMSA_6509-003 (Chauncey), BMSA_4931-009

(Bottom Ross), BMSA_1081-001 (Bottom Ross), and EPCAMR_01025-01 to 04 (Bottom Ross). [MSI]

- Discovered that georeferenced maps not "sticking" because of ArcGIS Pro bug, this explains a lot of the trouble we have been having with different versions of georeferenced maps in mosaics. Researched a work around with staff and communicated our issues to ESRI technical support (who weren't much help). Discovered we need to be very specific about removing all instances of a map out of ArcGIS Pro contents pane (including if it was used in a mosaic) then delete the SDWX "world file" manually from the folder in windows explorer before restarting ArcGIS Pro and adding the map back in to start re-georeferencing. We were also exporting the control points to a text file (in case it decides to revert back) before closing georeferencing. [MSI]
- Organized and emailed the Nanticoke Chauncey Mosaic and related files for Frank to begin digitizing this mosaic. [MSI]
- Review Frank's Digitizing work and suggested that he send it in ESRI's Layer Package format instead of ZIP because I don't think I am getting all his work. [MSI]
- Touched base with Frank on a zoom call to iron out the mosaic "twitching" issues. The Nanticoke Chauncey Mosaic is showing up with the old georeferenced locations for him as a viewer of the data. Not good. We looked at Nanticoke Chauncey together via share screen and reviewed the steps to get the new re-re-georeferenced map position. He followed them so it must be something the mosaic is "remembering". Reported to ESRI via support ticket. Hopefully, it is a setting we can change and not another bug we have to wait for a new version for them to fix. [MSI]
- QA/QC checked Frank's digitizing of coal elevation points off the Shickshinny Mosaic Baltimore vein and recorded comments in Google Doc that he started. The google doc was easier to track comments and changes to specific methods than doing it over email. [MSI]
- Toyed around with Synchronize Mosaic tool in ArcGIS Pro and Desktop, as suggested by ESRI technical support, to find the right combination of options and cache clearing that results in re-georeferenced maps not "twitching" in the mosaic footprints. Discovered that deleting the shape attribute from the list of "fields to update" preserves the footprints and unchecking update cell size ranges from "mosaic post processing" options keeps the Max PS settings we have to manually input. We needed to get rid of the affected mosaic and all other traces of the old georeferenced map from map document then clear cache on ArcGIS Pro to get rid of the twitching bug. Sent Synchronize mosaics tool settings to staff. [MSI]
- Worked on a reimbursement to the Mine Mapping Grant to catch us up to the end of 2019 by the end of the month. Working from home put a hamper on progress, but the end of the fiscal year was approaching quickly, and the state was switching access to the PHUMMIS database. Updated Abbie's old computer to get it ready for the new state VPN to access PHUMMIS which required Windows 10. [MSI]
- Worked with Shawnese to get into the old state VPN to catalog maps in PHUMMIS for October, November, and December. Working toward getting the new VPN setup for PHUMMIS, but encountered technical problems and referred them to DEP IT support.
- Continued to work with Shawnese to get into the old VPN to catalog maps in PHUMMIS for October to December.
- Question from Office of Surface Mining Reclamation and Enforcement (OSMRE) about a well drilling planned in Kingston. Researched the depth to the mine pool, maps and borehole readings in that immediate area then sent a response. The most recent data for these wells was collected between November 2016 and November 2017 with the closest monitoring well approximately 3/4 of a mile away. The closest well's average depth below ground surface is ~16.5 feet and fluctuated between ~13.4 feet and ~19.3 feet below ground surface throughout the year. Surface discharges exist within the area (less than 5 miles) and due to differences in the ground elevation/geology at the site you are drilling, the underlying mine pool elevation could be vastly different than what the boreholes indicate. In my opinion, drilling a "well" in this location could produce an AMD unwanted discharge on this property and once uncorked it might be difficult to close off. OSMRE followed up with the landowner to relay our concerns. I also pushed the fact that these monitoring boreholes are constantly under threat of being paved

over by local road departments and EPCAMR is attempting to notify them of this fact with really no legal standing.

- Sent MSI reimbursement for October – December work. Wrote up notes to Patrick and prepared drive with October to March scans and georeferenced maps to send since we are unsure of when we will be able to send the drive again.
- Worked with Magento 2 to see what had to be done to update the online store. Kept on getting error messages like “Link URL's domain is not in list of downloadable_domains in env.php.” Discovered that updates have to be done in a command line program, there was a web tool that did updates like WordPress, but that is disabled when Adobe bought the company. Downloaded PuTTY to command line edit the file as suggested. Spoke with Host Gator who showed me how to access Command Line editing and is planning to update our server's PHP to 7.1 (currently 5.4). Was able to directly edit the env.php file to add epcamr.org as a downloadable domain and was able to test order the RAMLIS CD from the store.
- Added iron oxide products to the new online store with photos. Still figuring out new settings one allows different colors of a single item, but that also makes new items and has the original item as "configurable" status. Better to add options like the old system allowed. Tried to figure out how to edit right-side column settings but gave up and wrote Customer Service info into footer. Also, cannot get rid of original links in the footer. The store works, but I am concerned with being able to update it.
- Adjusted Glen Lyon and West End Anthracite Grids to match the surface maps better. Added them to the newest MSI geodatabase. [MSI]
- Found a Nanticoke Top Twin Mosaic (Susquehanna Only) might be Upper Baltimore which means maps in Upper Baltimore, Forge and Cooper need to be shifted up a mosaic (needs more research). Began to sort out Nanticoke Cooper through Abbott mosaics for QA/QC. Deleted older working copies of mosaics. Drew footprint for Nanticoke Middle Hillman (a map or two needs to be re-georeferenced to fit better). Georeferenced EPCAMR_010892-05 to add to Nanticoke Abbott Mosaic. Veins on geor_BMSA-1947-001 does not extend all the way to the northeast corner, this map also needs to be re-georeferenced. [MSI]
- Moved maps in Nanticoke Mosaics from Susquehanna and Glen Nan Collieries up one mosaic to fit Top Twin into Upper Baltimore and replaced maps in sequence upward to Mid Hillman based on elevations. Surrounding collieries were also checked for consistency. [MSI]
- Quality checked Frank's digitizing work of the Shickshinny Quadrangle Mosaics. Split the digitizing geodatabase into quadrangles. Provided comments in google docs and edits in the way of a layer package.
- Created a Nanticoke Quadrangle digitizing geodatabase by clipping the full geodatabase to the Nanticoke Quadrangle. Reduced 125 total vein names in the symbology in the original to 36 for just the Nanticoke and saved a layer file. Organized these veins by their stratigraphic sequence in the “CommentStatus” field. Ran the sort tool to get them to display lowest (typically larger area) to highest (typically smaller area). This number should reduce further to the number of veins in the particular quadrangle as editing of the digitized information continues.
- Checked over Frank's layer package of digitized data, but data was missing. Troubleshooted the issues and had him resubmit the data after ascertaining that some data was selected at the time of layer package creation. This ArcGIS tool is certainly quirky.
- Obtained access to PHUMMIS through new Cisco VPN. The connection seems more secure and easier to use. Conducted a PHUMMIS “Drive Jive” for October to make sure that data recorded on PHUMMIS matched what we had submitted on the travel drive. Asked Patrick about adding NMMR geos to PHUMMIS. He said the whole record had to be completed, referenced to the NMMR map, but when scanned data is added it needs to be noted that EPCAMR did not scan the map, but recorded the data. This will add substantial time to cataloging. [MSI]

[] - Denotes funding source where applicable.