



Eastern PA Coalition for Abandoned Mine Reclamation

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June 2023 Progress Report

Highlights:

- EPCAMR staff scanned, georeferenced, mosaicked & digitized mine maps for the **DEP MSI** MMG program. QA/QC checked work.
- EPCAMR staff participated in weekly **PA AML Campaign** calls, a **PA AMR Conference Committee** call, a call with **Tetra Tech** re the AML/AMD Grant Application Comments for Hollywood REE Project, a call with **PA DEP MSI** re MMG award cut, Solar on AML calls with **DEP EPO** and **LaBella**, an **EPCAMR** strategic planning call, and managed registration for the Solar on AML summit, an AMD Treatment Course, and the PA AMR Conference.
- Sampled Askam AMD Treatment System, upstream & downstream on **Nanticoke Cr.** for **EC**; sampled 3 AMD TS, upstream & downstream on **Loyalsock Cr.** for **LCWA** and **SCD**, sampled 27 discharge and instream sites in **Shamokin Cr.** for **SCRA**. Sampled 9 treatment systems for the 2023 **Datashed** Snapshot.
- Created a new version of RAMLIS and added Disadvantaged Communities data.
- Participated in an Askam in Wonderland program for three 5th grade classes at **Heights Murray Middle School** for **DEP EE** and released **TIC** trout into **Harveys Creek** in the name of EE.
- Updated www.PaSolarMinedLands.org, www.TreatMineWater.com and www.EPCAMR.org; administered GobbaDaPile local domain, G Suite for Nonprofits, and social media sites.

Education, Outreach and Admin.:

- Tore out beaver dam for a second day in a row that was overnight.
- Denise had been tracking Solar on AML registrations which were up to 51 attendees by June 1st.
- EPCAMR Management Staff participated in weekly AML Campaign Calls.
- Communicated with Arielle Avashai at OSMRE in Pittsburgh who was tasked with learning vein stratigraphy and minepools associated with Old Forge Borehole. I was able to provide her with some maps. I heard that PA DEP Bureau of Abandoned Mine Reclamation (BAMR) was interested in the prospect of pumping the Duryea Breach discharge to the other side of the river into the Duryea Swamps via the Marcy Shaft. This was also the area planned for treating the Old Forge Borehole.
- Hosted and participated in a strategic planning committee meeting over Zoom to make updates to the strategic plan. We were able to get thru 2 of the 9 goals and the committee set another meeting time to work thru more.
- Found out that Laura Rinehimer, EPCAMR Environmental Education Specialist, was not going to be able to conduct her Askam in Wonderland program that she scheduled in three 5th grade classes at Heights Murray Middle School. She brushed the activity off to Bobby, Denise and me to complete in the last few days of school for Wilkes-Barre Area School District. I loaded up the 3D tour on an additional Oculus headset by factory resetting the device the night before and

using my email address as owner so we could have 3 devices for the classes of 20+ students each. [DEPEE]

- Downloaded the Economic Justice Tool shapefile from Climate and Economic Quality (CEQ) website and added to RAMLIS map in ArcGIS Pro. It was mentioned on an AML Campaign Call that only 7% overlap with PA AMLIS features and only 10% overlap with West Virginia AML features. The Biden Administration's Justice 40 Initiative stipulates that 40% of government funds are to be spent in these areas. This includes AML funding from the Infrastructure Bill. This is concerning to the PA DEP BAMR staff with respect to upcoming reclamation projects.
- Wrote up notes for the Strategic Planning Committee and sent it as a follow up and beginning of a draft 2023 update.
- Updated NTP AMD Passive Treatment Course Registration database and confirmed registration with attendees. There were only 5 spots left at this time.
- Updated www.treatminewater.com with Jeddo Coal Company as a new sponsor. Added approved presentations to the presentations page. Updated the field tour language and set prices to \$40 regular and \$30 non-profit as decided at the last AMR Conference Call. Added links from EPCAMR store to register for the conference, tour and exhibit space. Sent registration info to Amy Berrios, PA DEP, as per her request.
- With only 2 slots left for NTP training, I sent our reminders to Conservation District Managers and Watershed Specialists to register by the Friday deadline. Several responded saying they couldn't go to this training but would like to be considered if there is another training offered. Anne Daymut from WPCAMR and I put them on the waiting list.
- Created and sent February 319 reimbursement to DEP. Checked with Bobby to make sure no Bear Creek reimbursement of time was planned for the months. Got a message from the computer saying my C Drive was almost full. Went thru the computer to delete unused user accounts and uninstall programs not used.
- Worked on Disadvantaged Communities shapefile downloaded from Climate Justice 40 initiative website. Selected only census tracts that were identified as disadvantaged communities from all census tracts to make the layer smaller (27K shapes) for potentially adding the dataset to RAMLIS. Created a buffer of 1/2 mile around each which is the threshold that is still considered a disadvantaged community.
- Created and sent March 319 reimbursement. Checked with Bobby to make sure no Bear Creek reimbursement of time was planned for the months.
- Prepared for meeting with PA DEP MSI staff to review the Mine Mapping Grant (MMG) award. The budget was cut by ~20%. Looked at areas where we could assimilate that cut. This means cutting all the hours for a 3rd full time staff for this project and ~200 part time hours as well as work products (number of maps scanned, georeferenced, mosaicked, digitized and 3D modeled).
- Sent an update on registration for the AML on Solar Summit to DEP and LaBella. With a month to go, there are 70 attendees. Reminded them we only planned for 50. This means we need at least 6 sponsors to cover the food. We have 2 sponsors committed and 3-4 that were interested. [SOLAR]
- EPCAMR Management Staff participated in a call with Tetra Tech to go over the AML/AMD Grant Application Comments for Hollywood REE plant. Searched for water testing data that was done in 1999 by USGS to include some rare earth elements (REE) and critical minerals (CM). Started to download the data from the National Water Information System Mapper for the 41 discharges that were sampled in the Anthracite Region.
- Participated in a call with MSI MMG staff to go over ~20% cut to award. Was instructed to make corrections to a new detailed budget and submit it to them ASAP.
- Edited MMG budget to reduce the 3D modeling section down to 25% of original. Adjusted the amount of work products from 9 down to 2 quadrangles of veins processed. This cut basically equated to one full time position we were planning to hire for the next grant round. Edited the other sections to shift the workload to existing staff and submitted to Patrick.
- Got our first AMR conference registration, but it charged him shipping for the tour. Fixed the mistake on the store by marking it a virtual item so the store knows not to assign it shipping.

Refunded the individual \$12 and explained what happened. I also added a local pickup option to physical products that people can pick up and not have to pay shipping.

- Met with Teichos over MS Teams to discuss potential for partnership as local liaison for Solar on AML sites.
- EPCAMR staff released our Trout In the Classroom (TIC) rainbow trout fingerlings into Harvey's Creek.
- Met with Steve to sort our Solar on AML statistics and how to calculate them for the Summit presentation in July. [SOLAR]
- Finished typing up field notes from the 9 treatment systems we sampled for Dashed Snapshot at the end of July. Sent to Cliff Denholm at SRI and individual treatment system notes to their respective stakeholders. [DSHD4]

Technical Assistance:

- Georeferenced and added EPCAMR_15193-01&02 to cover 1:400 Maps in Forest City Lower Red Ash (aka. Clifford or Dunmore No 2) vein mosaic. Added 15189-01&02 and 15190-01&02 to cover 1:400 Maps in Forest City Middle Red Ash (aka. Top Clifford or Dunmore No 3) vein mosaic. Added 15198-03,05,07,&09 and 15199-01&02 to cover 1:400 Maps in Forest City Upper Red Ash (aka Ring or Dunmore No 1) vein mosaic. Applied grayscale raster function fix to blue maps error. Figured out how to adjust the brightness, contrast, and gamma of a mosaic image. Reducing the gamma seems to sharpen those small elevation point numbers. It makes the color maps pretty unreadable, so I will make sure to reset before sharing the mosaic. Also, zooming and panning seems to be make everything black or white, but resetting before moving seems to stop that glitch. The Forest City Mosaics were then ready to submit to DEP. [MSI]
- Uploaded MSI MMG grant work for January to March 2023 to DEP's SharePoint folder. This included 45 georeferenced SID images from January, 35 from February, and 1 from March then 1 Kingston and 10 Forest City quadrangle mosaics. Printed a map of the Kingston Quadrangle showing the colliery boundaries and fault lines. Recorded elevations on the Kingston Quad Lower Red Ash mosaic on either side of colliery boundaries. It seems that Kingston, Raub, Harry E, and Henry are all +500 feet above Gaylord, Loree, Woodward, Black Diamond, E. Boston, Pettibone are all at the same true mean sea level elevation. While Dorrance and Prospect are +1500 above these collieries. Also, it seems that they called the Red Ash vein the Ross vein in some collieries. All this makes it difficult to know which maps go in which veins for QA/QC. I will continue to use this method on other veins to be sure we are using the right maps in the right mosaics. [MSI]
- Downloaded the newest AML points, polygons and sites from PASDA and added to RAMLIS Tool for 2023. Recreated a map for the wall with 2023 AMLIS and AMD Impaired Streams data that was originally printed in 2005 and had faded over time.
- Replaced an 8-foot light bulb in the one of the antiquated overhead light fixtures in our office.
- Continued drawing schematics to match elevations in Kingston Quadrangle Upper Red Ash, Ross, and Upper Ross to confirm the elevation offsets and potentially find more maps. Looked at Maltby NMMR maps, but jpegs only. [MSI]
- Sampled Loyalsock Upstream, Downstream, & in/out of 3 treatment systems (Connell B Vein, Connell C Vein and Gutten Drift). Recorded data in a database for reporting to the SCD & Loyalsock Creek Watershed Association. [LCWA]
- Updates to Askam in Wonderland 3d virtual tour. Made a version for the VR headsets with local videos (uploaded to the memory on the headset) and one for web with YouTube videos. This makes the VR headsets standalone viewers. Therefore, we can take them to watershed festivals/schools with no need for a WiFi connection. [DEPEE]
- Tried to prepare headsets for school presentation the following day but had several issues. Determined that the 3D VR app can only be installed on one headset at a time per account. Searched the Facebook user group to find that the makers of the program are only allowing an account to run the program on the first headset it is installed on. Apparently, this is a new stipulation that others are complaining about. I tried to setup a second account on headset to fix the issue but cannot access that second account storage from my computer to upload the files. Only the owner account can access the storage on the VR headset. I must have to set them up

with different accounts each with a different owner for the app to run on all 3 headsets? That would require a factory reset to register the headset to a new owner. Instead, I setup an iPad to run the web version, but the gyroscope motion did not initially work on the iPad. Eventually found the setting to allow it. This allowed us to have 2 devices to show the classes.

- Prepped 27 sets of bottles and sampling sheet for Shamokin Sampling the following Monday and Tuesday. [SCRA]
- Sampled 5 Shamokin Watershed AMD discharges from Richard's Shaft to Corbin Mine Drift with upstream and downstream sites. Didn't sample Scott Ridge Tunnel SL19 Upstream (SRT19U) because there was no water upstream of the discharges. Brought back samples and only had to relabel two where we forgot the packing tape. Brandon Zimmerman from PA DEP BAMR met up with us both days to help. [SCRA]
- Sampled 4 Shamokin Watershed AMD discharges from Big Mountain to the Cameron Discharges. Met a Northumberland County Conservation District employee in Paxinos by 3PM as planned to drop off the coolers. They kept them on ice and called the DEP lab courier to pick up the samples the following day. [SCRA]
- Corrected Shamokin Sampling sheets and sent to NCCD and Matt Caccese at PA DEP BAMR. Denise and I created and sent May sampling invoice to Heather Trexler at Tetra Tech. [SCRA]
- Helped Denise sort out maps that need to be rescanned in the KAGE collection bags we brought back last week. Shawnese was in and was digitizing. I relayed tip about adjusting brightness, contrast and gamma was helping us to see elevation points better. [MSI]
- Spoke with Cliff Denholm at SRI about our upcoming Datashed Snapshot sampling toward the end of June. We planned to visit upwards of 10 sites over 3 days. Contacted G&C lab to order bottles for 20 monitoring points. Spoke with TJ Matinas of BAMR about one site in particular, Aylesworth Creek PTS, that visited in 2021 coincidentally the same day they were there to monitor the system. They mentioned something about monitoring to remove it as per request from the Army Corps of Engineers since no one was maintaining it. Contacted Lackawanna County Department of Parks and Recreation director to find out that they have taken over responsibility for some routine maintenance (cleaning the intake screen and removal of beaver dams), but the forebay needs to be cleaned and they may be looking for funding to hire an operator to muck out the sticks and leaves that have come down from the unnamed trib. to Aylesworth Creek. EPCAMR to follow up and suggest WPCAMR Quick Response Grant and SRI TAG grant (which was used in 2011 for the same problem). [DSHD4]
- Discussion with Jason Tarnowski about beavers at Espy Run Treatment System and now at Askam. Sent him info on a presentation at our 2022 AMR Conference and research on the Beaver Deceiver device that siphons water from a different caged area in the pond thru the beaver dam.
- Spoke with John Green at BAMR to update him on sites we plan to visit for a Datashed Snapshot sampling toward the end of June. Added Heather Makal to 10 project pages related to Shamokin Creek on Datashed.org. Contacted Cliff to give me privileges on 6 of the sites which were actually stream monitoring projects for the sub-watersheds. Updated some photos, locations, and details on all 10 sites. Updated description on Aylesworth Creek Passive Treatment page as well. [DSHD4]
- Worked with Shawnese to resolve an issue where she is occasionally unable to save data entered into the table of her Forest City Digitizing Geodatabase. Exported features to a new File Geodatabase and this allowed editing in the table again. Somehow it was corrupted. Sent the new GDB back to her to continue working on. [MSI]
- Ordered Sodium Hydroxide 0.01 N Solution for the HACH CO2 test kit and YSI Nitrate replacement Nitricol reagent for water sampling projects.
- Started drawing schematics and matching elevations in Kingston Lo Skidmore and then tried to match to Pittston Lo Pittston (next Pittston Quad vein) but elevations were not matching. Discovered that there were several Mosaics missing from the Pittston Quadrangle based on CSV snapshots that were provided to me by Shawnese and Steve. Rebuilt Pittston Skidmore Mosaic from a CSV to match Kingston Lo Skidmore. Uploaded Maltby NMMR maps to MMG SharePoint for Patrick to turn into SID images as these are missing from several Kingston and Pittston Quadrangle Mosaics. [MSI]

- Started drawing schematics and comparing elevations in maps in Pittston Quadrangle that could be Upper or Middle Red Ash as identified in CSVs, but no mosaics were made by staff. Made 2 more mosaics and added the maps and adjusted footprint boundaries. May combine these into one mosaic at a later time. [MSI]
- Downloaded Maltby NMMR SIDs from MMG SharePoint. Started by georeferencing EPCAMR_012942-02, EPCAMR_012943-01,02&03, EPCAMR_012944-01, 02,&04, EPCAMR_012945-02 and EPCAMR_012947-01&02 to fill in gaps in the Upper Ross, Lo Skidmore and Up Skidmore Mosaics in the Kingston Quad. [MSI]
- Conducted sampling for Datashed Snapshot Day 1 along with regular sampling of the Askam Treatment System and Nanticoke Creek instream for Earth Conservancy. Collected field parameters and lab samples at Askam, Espy, and Aylesworth treatment systems with Steve Cornia and Frank Sindaco.
- Conducted sampling for Datashed Snapshot Day 2. Collected field parameters and lab samples at Plainsville, Lausanne, and Oneida #3 treatment systems with Steve Cornia and Frank Sindaco.
- Conducted sampling for Datashed Snapshot Day 3 along with regular sampling of the Loyalsock Creek Treatment systems for Loyalsock Creek Watershed Association and Sullivan County Conservation District. Collected field parameters and lab samples at White Ash #3 Tunnel B (Connell B), White Ash #3 Tunnel C (Connell C), and Lewis treatment systems. Packed up with ice packs and shipped samples to G&C Coal Analysis lab via UPS.
- Worked on re-projecting the downloaded MMG SID files from NAD 1983 UTM Zone 18 North to PA State Plane South Feet projection to answer a question asked by a colleague wanting to use them in AutoCAD. It can be done in ArcGIS Pro by using the Reproject Raster Tool, but you cannot save it in the SID format. You have to pick JPEG or JPEG2000 format instead. The JPEG format actually creates the smaller file size. It also rectifies the image so it creates a black collar around the image which can be filtered out in ArcGIS Pro.

[] - Denotes funding source where applicable.