



Eastern PA Coalition for Abandoned Mine Reclamation

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January 2021 Progress Report

Highlights:

- EPCAMR staff scanned 97, georeferenced, mosaicked & digitized mine maps for the **PA DEP MSI MMG** program. QA/QC checked work.
- Updated EPCAMR Field Sampling Binder circa 2004, updated in 2011 & now for **NFWF QAPP**
- Worked on technical requests from **Elmer Sudds, EC** and **Kings College** separately.
- EPCAMR staff participated in a weekly **PA AML Campaign** call, a **PA AMR Conference** call, a call with **Pine Gate Renewables**, a **RAC** call, & hosted public zoom call for **Huntsville Cr. CHP**
- 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 EPCAMR Program Manager September board report and uploaded several reports to www.epcamr.org.
- Installed WordPress 5.6 and several plugin updates on www.epcamr.org. Updated past board meeting page with 2020 meetings and converted the current year page to 2021 starting with the 1st quarter board meeting.
- Provided a contact for Marx Sheet Metal to Earth Conservancy as they are seeking someone to manufacture a custom stainless-steel weir.
- EPCAMR staff sampled the inflow/outflow of the Askam Treatment System, upstream and downstream (below Espy Confluence) on the Nanticoke Creek for Earth Conservancy (EC). This was a postponed sampling from December. [EC]
- Created the 2021 membership form and posted it to www.epcamr.org. Worked with Denise to send out our annual membership renewals via snail mail.
- While in the office, downloaded and upload NMMR files. [MSI]
- Worked on updating cover page, stream sampling and AMD PTS OM&R data forms for the EPCAMR Field Sampling Binder originally created in 2004, updated in 2011 and now for National Fish and Wildlife Foundation (NFWF) Southern Wyoming Valley Chesapeake Bay Tributary Field Assessments Quality Assurance Project Plan (QAPP) [NFWF]
- Sampled Loyalsock Upstream, Downstream and in/out of 3 treatment systems (Connell B Vein, Connell C Vein and Gutten Drift) for the Sullivan Conservation District (SCD) and Loyalsock Creek Watershed Association. [LCWA]
- Continued updating flow monitoring methods for the EPCAMR Field Sampling Binder. [NFWF]
- Completed and submitted a 319 reimbursement for April to June 2020.
- EPCAMR management staff participated in a Zoom meeting with Pine Gate Renewables, a solar developer interested in large 200-1000 acre sites.

- Continued updating flow monitoring, macro-invertebrate sampling Stream visual assessment methods and references for the EPCAMR Field Sampling Binder. [NFWF]
- Went in office to pick up 319 paperwork from Denise.
- Continued to update flow monitoring methods in EPCAMR Field Binder with bucket and pipe methods. Updated CalcFlow excel spreadsheet with pipe greater than half full calculations. [NFWF]
- EPCAMR staff participated in a Reclaiming Appalachia Coalition (RAC) call to talk about the completion of our Solar on AML GIS tool. Prepared a summary of 18 Solar on AML sites chosen by GIS model.
- Call from Kings Professor of Mechanical Engineering asked if they could automate any process? Submitted an Iron Oxide Processing abstract for the seniors to consider.
- Completed and submitted a 319 reimbursement for July to September 2020.
- EPCAMR management staff participated in weekly PA AML Campaign call.
- Recorded Askam sampling data in spreadsheet and sent results to EC. [EC]
- Completed the EPCAMR Field Sampling Binder with a chemistry section and uploaded the binder to www.epcamr.org. Updated the Stream Monitoring page on www.epcamr.org to reflect the information in the EPCAMR Field Sampling Binder.
- Worked on QAPP for the NFWF Southern Wyoming Valley Stream Habitat monitoring project.
- EPCAMR management staff participated in a PA AMR Conference Call to discuss details for the 2021 conference.
- Ran into work to print EPCAMR Field Binder and get the board meetings folder for the upcoming board meeting next month. Met with Malcolm Ferguson from Somerset Environmental briefly to talk about newer versions of the Maelstrom Oxidizer than what is currently installed at Askam Treatment System. Setup a virtual meeting for the following week.
- Entered Loyalsock sampling results into EPCAMR sampling database.
- Found "nasty" mine drainage photos for Branden Diehl for a Chesapeake Bay Journal Article.
- Worked on Whova a little to get basics completed and agenda exported from 2020 and imported into 2021. Deleted Whova hosted videos and replaced with EPCAMR hosted YouTube videos on 2020 app.
- EPCAMR staff sampled the inflow/outflow of the Askam Treatment System, upstream and downstream (below Espy Confluence) on the Nanticoke Creek for Earth Conservancy. [EC]
- Hosted the Huntsville Creek Coldwater Heritage Plan Zoom call for public participation in the report writing process. 22 people attended. [CHP]
- Corresponded with Jason at EC regarding historic flows from Nanticoke and Newport Creek USGS report.
- Corresponded with Cheryl about the Environmental DIY Mayfly she is building. She is at the point to add cellular capabilities, which is where we stopped with her existing setup installed on the Upper Lackawanna. She has also been working on Lackawanna County Allocation Plan (CAP). Updated her on our idea to snapshot sample nutrients in Luzerne County AMD.
- Went into office to get 3D modeling binder and EPCAMR "How To" documents on the M Drive specifically looking for the one on using the Volume Tools in earthVision and ArcGIS, but the document was incomplete. Asked Steve if he had a write up as well.

Technical Assistance:

- Answered questions about the Gravity Slope mine pool for Martin Gilgallon, a local geologist that has been very helpful with our projects in the Lackawanna Watershed over the decades.
- Calibrated the new oxidation reduction potential (ORP) aka "redox" sensor on our YSI Pro Plus probe using a Zobell Solution Standard with Steve.
- Pulled Solar on AML sites from Google Earth into a document to add notes with Robert as we were requested to do some landowner recon for AC Power. Noticed some landowner information was missing for Lackawanna County sites. Asked for Lackawanna County parcels from the GIS department.
- Communication with Chuck Cravotta at USGS to confirm method to collect flow at Nanticoke Upstream site while we work on replacing weir. He called it a "stage-discharge rating for

estimating continuous flow" aka regression curve. He also sent along a calculating excel spreadsheet for the combination weir.

- Checked out new monitoring site for Espy Run downstream of Bliss Banks Reclamation Project with EC in a pool above Espy Street bridge with a goal to determine flow restored to the surface by this project once completed. We decided to leave the other downstream site by the Espy Treatment System to measure Espy Run before its confluence with Nanticoke Creek.
- Rebuilt Nanticoke Cooper, Forge and Hillman mosaic geodatabases from submitted and PA DEP reviewed footprints since they were empty. Repaired data sources since the Wilkes-Barre East mosaics footprints were showing but the SID maps images did not show up. Attempted to synchronize, build pyramids and statistics, and analyze the mosaics but nothing worked. Finally, removed and re-added the mosaics from ArcGIS and the map images showed up. Will keep this ArcGIS glitch in mind before doing previous steps. [MSI]
- Looked at the mines under Elmer Sudds as the owner was concerned and called asking about the potential instability of the building. Found and reported back through Robert that the open mine voids are more than 100 feet below and instability is likely not caused by underground mines, but there could be other issues to investigate.
- Optimized several Appendix PDFs for the Huntsville/Lower Toby Creek CHP total size was reduced to 374 from 511 MB. [CHP]
- Added geor_BMSA-0248-003 & 004 (Bliss Twin), EPCAMR_010909-07 (Susquehanna Bottom Twin) and BLUE_AVO-06-08-01 (Avondale Forge) maps to Wilkes-Barre West Baltimore vein mosaic. Georeferenced BLUE_AVO-06-09 & 05-09-02 (Avondale Bennett) and added to Wilkes-Barre West Five Foot vein mosaic. [MSI]
- Installed transducers at Nanticoke Headwaters and Askam below treatment system took first flow to calibrate regression curve between stage height and flow.
- Edited the Packer and Keystone NMMR map excel tables. Packer maps were SIDed by PA DEP, but Keystone were not. Compared Keystone maps to ones in PHUMMIS (WBDO_092s) and most were available in the existing state and private digital collections. This work should help Steve in creating mosaics for these collieries. [MSI]
- Received bathymetric data from Dr. Brian Mangan who wants EPCAMR to teach his students how to process the data in ArcGIS to calculate 1-foot volumes. Processed data and developed a teachable method for Kings College Dr Mangan's students.

[] - Denotes funding source where applicable.