Eastern PA Coalition for Abandoned Mine Reclamation

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August 2019 Progress Report

Highlights:

- Managed EPCAMR staff as they scanned 338 mine maps into TIFF images, georeferenced 5 & digitized mosaic maps for the **PA DEP** MSI MMG program. QA/QC checked work.
- EPCAMR staff participated in a **PA AML Campaign** call and a Water Camp with **LRCA** and **PA American Water**
- Met with **SRBC** to discuss mine pool mapping work completed near **Mocanaqua**, PA
- Checked the flow at the **Askam** treatment system which flows to **Nanticoke Creek**.
- Collected **NAAMLP** registration information from online orders, processed them for **DEP BAMR**
- Began to setup **TIC** trout, aided **GNA** with their tanks and aided in forum for **PA FB&C**
- Updated www.epcamr.org and www.treatminewater.com; updated items on the EPCAMR online store; administered the EPCAMR Facebook and G Suite for Nonprofit accounts (for NAAMLP as well); maintained GobbaDaPile in-house domain server and workstation

Education, Outreach and Admin.:

- Setup 2020.treatminewater.com with the date and location as it had been decided on an AMR Conference call.
- Prepared new hire strategy document for the board personnel committee that was discussed in a brainstorming session with Deming Institute.
- Continued to collect online National Association of Abandoned Mine Land Programs (NAAMLP) conference registrations and pass the info on to PA DEP Bureau of Abandoned Mine Reclamation (BAMR) staff. Fielded calls from all over the country related to registration as we are listed as “customer service” on the EPCAMR online store.
- EPCAMR staff participated in the PA American Water Camp at the Valley Library in Blakely along with staff from the Lackawanna River Conservation Association (LRCA). EPCAMR and LCRA staff lead campers on a hike to the Lackawanna River to kick for macros, identify them and learn a little about the chemistry and general health of the river in the morning and tie-dyed t-shirts with AMD in the afternoon.
- Updated our accounting standard operating procedure document with more practical / less theoretical wording.
- Prepared the Treasurer’s Report, previous meeting minutes and EPCAMR staff hosted the EPCAMR 3rd Quarterly Board meeting.
- EPCAMR staff met with the Susquehanna River Basin Commission (SRBC) to review progress on the Mocanaqua Tunnel Project. Discussed what SRBC would like to see in a final report.
- Played mechanic for the day to add fluids to our overworked GMC Suburban field sampling vehicle.

- Setup three trout in the classroom tanks at Greater Nanticoke Area and assisted the teachers in ordering supplies to supplement supplies that were donated from St. Michaels School in Falls, PA.
- Worked with PA DEP Bureau of Abandoned Mine Reclamation (BAMR) staff to coordinate registrations for the National Association of Abandoned Mine Land Programs (NAAMLP) Conference. Certain registrations were stuck in limbo. Discovered that I needed to manually release conference registrations from the online store that were paid by check. Once registrant paid EPCAMR by check instead of the NAAMLP account. The process to register over 300 people from all over the country is much more difficult than running registration for a PA AMR Conference with a little over 100 attendees.
- Participated on an AML Campaign call to coordinate efforts to educate legislators on AML issues. Emailed Trout Unlimited, one of the organizations on the call, with information about the senate version of the RECLAIM act.

Technical Assistance:

- Added memory to Denise's computer as the "new" computer was running slow.
- Taught staff methods to create 3D mine pool models in ArcGIS to split up and expedite the work for the Mocanaqua Tunnel Project. Wrote up a methods document. Researched the best cloud point to raster interpolation method. Used Inverse distance weighted (IDW) method in the past, but spline method can add break line (fault) data which is important for the Anthracite Region. [SRBC]
- Got a call that folks were unable to purchase NAAMLP registrations at our online store. Discovered that the item was "out of stock" and had to set the stock number higher in Magento.
- EPCAMR staff were working on the Mocanaqua Tunnel 3D model. Each staff member took a different vein to digitize, and model in ArcGIS. [SRBC]
- Fixed a screen brightness issue with Denise's computer by updating the driver. The monitor was replaced in the computer, but it might have been a slightly different model.
- Researched improvements to the Black Creek (Hazleton Area) for the Luzerne Conservation District Watershed Specialist. Although the whole creek is marked as impaired with pH and Metals from AMD, those impairments are closer to the mouth. Most of the causes of impairment in the headwaters are from alterations to the channel when the mining companies re-routed the stream away from mining areas. This caused stream flow loss to the Jeddo Tunnel Mine Complex and sedimentation issues. Several reclamation projects have been completed by the state and active mine companies in the watershed and stream monitoring suggests that the stream is greatly improved near the mouth.
- Visually checked the flow at the Askam Borehole Discharge which was flowing at about ½ pipe full. Typically, by this time of the year the discharge will stop flowing, but being another wet year, the discharge persists. Fixed the Stevens Recorder in the flow monitoring station below the treatment system as it was stuck (spring lock was engaged) and not recording the water stage.
- Finished up the Mocanaqua Tunnel 3D mine pool model with recently digitized 3D multipatch layers, tunnels and faults. Transferred the files to the travel drive for a meeting with SRBC early next week. [SRBC]
- Having issues calculating mine pool volumes from the ArcGIS multipatch. The volumes were "not closed". Attempts to close the multipatch with tools in ArcGIS failed. The issue seemed to be how the model was sliced. Installed AutoCAD 2019 and Carlson software on three of our computers to see if the 3D files could be transferred and volumes could be calculated in AutoCAD. Converted the interpolated clipped spline rasters from ArcGIS to EarthVision 2D grid format and began building a stratigraphic sequence model to calculate volumes in EarthVision. Shawnese explored AutoCAD methods and Steve continued researching fixes in ArcGIS. Thinking that one of the programs should produce results. [SRBC]
- EPCAMR staff calculated mine pool volumes of the Hickory and Bottom Red Ash veins in EarthVision, AutoCAD and ArcGIS to compare volumes and methods. Each program calculated volumes in a different way. ArcGIS multipatch method involved using a TIN grid which squares

off the volumes and adds error. The surface volume tool was used instead to calculate the volume between two interpolated rasters. This method produced numbers closer to EarthVision's instant volumetrics tool which adds clout to the validity of the calculated volumes. Numbers produced by AutoCAD were in the ballpark of the volumes from the other programs, but we discovered that staff would need more training in AutoCAD and Carlson to efficiently work with the programs. We will keep an eye out for Office of Surface Mining Reclamation and Enforcement Technical Innovation and Professional Services (OSMRE TIPS) trainings for future projects. Reported issues to SRBC who decided that we should continue to calculate volumes in EarthVision and use ArcGIS to visualize the data. [SRBC]

- Transferred georeferenced SIDS from March-May from the X drive to the travel drive in preparation to send a reimbursement to the MSI Mine Mapping Grant program. [MSI]

[ ] - Denotes funding source where applicable.