Eastern PA Coalition for Abandoned Mine Reclamation

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October 2018 Progress Report

Highlights:

- Managed EPCAMR staff as they scanned 75 mine maps into TIFF images, georeferenced 80 & digitized mosaic maps for the **PA DEP** MSI MMG program. QA/QC checked work.
- Started scanning and georeferencing maps for the **Luzerne County Rail Corporation**.
- EPCAMR staff participated in an AMR Conference Call, and a project update call with **SRBC**
- EPCAMR staff sampled minepool monitoring stations near **Mocanaqua** for the **SRBC** and 2 AMD treatment systems along the **Loyalsock Creek** for the **Sullivan Conservation District**.
- Updated www.epcamr.org; 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 workstations.

Education, Outreach and Admin.:

- Filled 2 iron oxide orders in the month.
- Prepared the Program Manager progress report for the month of July and submitted reimbursement paperwork to the PA DEP 319 program.
- Clean Trout in the Classroom (TIC) tank in preparation for eggs to be sent by the PA Fish and Boat Commission (PA FBC) next month. We maintained the bacterial community in the tank over the summer with snails.
- Aided staff in the preparation of the Abrahams Creek Coldwater Heritage Plan. [ABE]
- Cleaned and restocked YSI photometer after a hefty fall sampling regiment.
- Drop off maps at the PA DEP Franklin Warehouse as these maps were copies separated from unique maps. [MSI]
- Harry E Culm Pile Removal Project meeting with DEP regarding Facebook posts by the Swoyersville community collected by EPCAMR. DEP reports that environmental assessment addresses most of the concerns and will work on getting us a copy. Questions and comments should go through Colleen Connolly. [SWOY]
- Searched for deals on suplhates and aluminum reagents for the YSI photometer. Found a new company, TEquipment.net and setup a tax exempt account with them.
- Began billing for 3rd quarter work and sent reimbursements to DEP for 319 work. Completed time sheets and generally organized in preparation for jury duty next week.
- Aide in iron oxide processing with new intern, Conal B. Heron.
- Update items in store related to NAAMLP Registration after a trial purchase and recommendations from PA DEP.
- Reported for Jury Duty and was released the same day.
- Replied to a question from a board member about “citizen science” efforts in our region. Watershed groups are heading this up in their respective watersheds. Other regional initiatives like RSVP (Retired Seniors Volunteer Program), ALLARM (Alliance for Aquatic Resource Monitoring) and POWR (Pennsylvania Organization for Watersheds and Rivers) have all been

programs we have participated in over the years. EPCAMR maintains a volunteer monitoring program for individuals to join and borrow equipment. Interest in these programs comes in waves and droughts.
- Participated in an AMR Conference Call regarding scholarships in preparation for a NAAMLP Conference meeting with DEP.

Technical Assistance:

- Helped scan Luzerne County Rail Corporation maps, batch processed several of those TIFF maps to a lower quality JPEG format for georeferencing. Georeferenced several railroad maps and explained the process to staff. [LuzRR]
- Determined the location of the inside of Mocanaqua Tunnel from maps and the 3D model. Sent location to Tom Clark at the Susquehanna River Basin Commission (SRBC). Also determined the elevation of new boreholes via LiDAR surface contours and GPS locations taken in the field with AcGIS. [SRBC]
- EPCAMR staff participated in a conference call with Susquehanna River Basin Commission (SRBC) and American Energy Solutions (AES) staff to discuss progress in the Mocanaqua Tunnel Minepool Project. [SRBC]
- Downloaded transducer data from phone and normalized with barologger data using the Solinst program. Sent data to SRBC via EPCAMR Executive Director. [SRBC]
- Quality assured and quality control (QA/QC) checked scanning and georeferencing work for the months of July, August and September. Reconciled records in PHUMMIS with files on the X drive. Reported errors to staff so they could fix them. Sent the reimbursement paperwork and drive to DEP California District Mining Office. [MSI]
- Worked with Rachael to create maps and statistics regarding AMD impacted stream miles by basin and sent them to Branden Diehl at the Foundation for PA Watersheds. [FPW]
- Sampled water in a bottle from Solomon Boreholes in preparation for a video shoot next month. Temperature was 68 Fahrenheit, pH was 5.86 su, dissolved oxygen was 2.53 milligrams per liter (mg/L), total aluminum was .28 mg/L, total iron was 26.4 mg/L, alkalinity was 180 mg/L, sulfates were 316 mg/l, total dissolved solids were 574 mg/L, electric conductivity was 1150 micro Siemens, and the oxidative reductive potential was -69.8 millivolts. Flow was not taken, but the average flow is approximately 15,000 gallons per minute (GPM) or 23 million gallons per day (MGD). That flow will fill 35 olympic sized swimming pools per day. At an average of 21 milligrams per liter concentration the discharge spits out 3,300 lbs or 1.5 tons of iron per day.
- QA/QC checked completed mosaics. Searched PHUMMIS and drive for maps to fill in existing mosaics and relayed information to staff member working on that particular mosaic. Found more numbered veins, snake island and abbot maps and added them to WBW mosaics. Georeferenced approximately 10 BMSA maps as needed for mosaics. Updated google sheet.
- Abrahams Creek CHP Novicki Tributary flow. Couldn't do fish shocking because of torrential downpours from Hurricane Michael, but shocked lower portion a few days later.
- Field sampled flow and chemistry at 2 sites along the Black Creek for the Mocanaqua Mine Pool Project. Collected water samples at the tunnel discharge and sent them to Hawk Mountain Labs for analysis. Took water levels and transducer readings at 3 strip pits, and 4 boreholes and 3 water quality monitoring sites. Recorded results in a google spreadsheet shared with the SRBC. [SRBC]
- Installed transducers in new boreholes at the Mocanaqua Mine Pool Project site. Boreholes were recently drilled to monitor water levels in and outside the West End #3 (Priscilla Lee) minepool. [SRBC]
- Sampled flow and chemistry on 2 treatment systems (WALA Connel B and C Tunnel AMD treatment systems), upstream and downstream on the Loyalsock Creek to judge the effectiveness of the upgrades to the Connel B Tunnel AMD treatment system. [LCWA]
- Georeferenced several more railroad maps for the Luzerne County Rail Corporation. [LuzRR]

[ ] - Denotes funding source where applicable.