



## Eastern PA Coalition for Abandoned Mine Reclamation

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### November 2017 Progress Report

#### Highlights:

- Managed EPCAMR staff as they scanned 241 mine maps into TIFF images, georeferenced 48 & digitized mosaic maps for the MSI Mine Mapping Grant. QA/QC checked work.
- EPCAMR staff hosted 2 EE tours for **WBASD Plains Solomon School** and an AML tour for an **OSMRE AmeriCorps Member**. Participated in an AMR Conference call, a NAAMLPL conference call and a meeting related to the Harry E Banks project in **Swoyersville**. Raised brook trout from eggs in TIC tank and livestreamed them on YouTube all in the name of EE.
- Updated [www.epcamr.org](http://www.epcamr.org). Administered the EPCAMR Facebook and G Suite for Nonprofit accounts. Maintained GobbaDaPile in-house domain server and workstations.

#### Education, Outreach and Admin.:

- Placed trout eggs in the Trout in the Classroom (TIC) tank in our office actually, but we have a live stream camera that allows YouTube viewers to watch as well. We have encouraged schools, especially those who cannot host tanks of their own.
- Sent Survey Monkey results from EPCAMR Board Members to strategic planning committee and follow up about how to proceed with presenting the results to the board / incorporating them into update our strategic plan.
- EPCAMR staff finished up 2 environmental education field days at the Plainsville Borehole. Middle School aged students from Wilkes-Barre Area School District moved between 4 different stations to learn about the chemistry of the mine drainage and ecosystem that surrounds and is affected by the former topsoil pits.
- Filled an iron oxide order that came in from the EPCAMR Online Store.
- Completed EPCAMR Program Manager annual self-evaluation and reviewed other staff evaluations.
- Spent time with the EPCAMR intern, Llewellyn, to teach him to sample pH, temperature, Ammonia, Nitrites, and Nitrates in the TIC tank. Explained their importance and what levels were good for trout. Nitrate levels were high at about 80 ppm, and pH was a little low, but other levels were within tolerance. Added special blend to make sure the nitrification and denitrification bacteria were maintained. Added baking soda to boost the pH from 5.5 to 7.5.
- Continued to move the trout camera from mainly viewing the fry in their redds to the top of the tank so YouTube viewers could watch as we were doing maintenance and taking tests.
- Threw in the YSI probe to compare pH readings from the kit test and read dissolved oxygen in the TIC tank. It seems that the test kits read pH about ½ a standard unit above the YSI meter and the dissolved oxygen readings are above saturated (12 ppm). After calibration, the dissolved oxygen reading was still super saturated. Researched and discovered that even though trout require higher dissolved oxygen levels than most other fish, the level might be too high to sustain denitrifying bacteria and could cause nitrates to build up in the tank. Elevated nitrates can cause nitrate poisoning which can kill young trout over an extended time.

- Completed the Program Manager's report to the EPCAMR board for the months of August, September and October.
- Discouraged outreach staff from putting a proposal to Western Pennsylvania Conservancy's Dominion Environmental Education Mini-Grant since we are required to travel to the far corners of western PA to receive the \$500 award and the money can only be spent in a few of our northwestern most counties. We spend about \$500 in travel alone get the award. It is not a "break even" program. I suggested instead that we apply directly to Dominion for the larger grants with \$5K limits per school or \$50K limits for non-profit organizations.
- Worked with bookkeeper to make sure that billing was up-to-date and prepared the treasurer's report with QuickBooks.
- EPCAMR staff prepared for and hosted the 4<sup>th</sup> quarter 2017 EPCAMR board meeting. Distributed board packets prior to the meeting including: agenda, minutes from the last meeting, treasurer's report.
- Worked with Corey Richmond from Sullivan County Conservation District to attempt to remedy a situation where EPCAMR quarterly board meeting reminders are not getting through his office email. Spoke directly with an IT person at Sullivan County to get our email on a whitelist.
- Getting reports from EPCAMR intern on sampling results of the TIC tank every few days and watching the nitrate levels rise, which was concerning. Changed the 20% of the water in the tank in an attempt to drop the nitrate levels. Trout started swimming up on the 17<sup>th</sup> so we started to test feed them.
- Provided advice to the Shamokin Creek Restoration Alliance who recently installed an informational board at their Site 15 AMD treatment system. It is great to post chemical and flow parameters, but to the general public these numbers are not comparable. Loadings on the other hand are a combination of chemistry and flow which are represented in pounds per day. People can better understand how many pounds of iron is being trapped in the pond per day or tons per year.
- Answered a question about the Quakeake Tunnel chemistry for a local news reporter from the Hazleton Standard Speaker.
- EPCAMR management staff participated in a 2019 NAAML P Conference call to see how the AMR Conference Committee can work with the PA DEP group that coordinates the NAAML P conference. It was interesting to compare how different the teams were, yet we were able to come to an agreement on how the groups would work together. Corrected a mistake on the "save the date" cards where our logo for the AMR Conference was incorrect. Sent the correct logo.
- EPCAMR staff participated in an AMR Conference Call to talk over specifics for the 2018 Conference. Received a contract for the Ramada Inn and Conference Center from WPCAMR to use in development if a budget.
- Reviewed and approved the November EPCAMR newsletter put together by EPCAMR AmeriCorps Member, Abbie Keefe. Suggested some articles for the Facebook feed.
- Was notified by YouTube that our trout tank livestream violated community guidelines. Received another notification about an hour later that another video violated community guidelines. Researched the guidelines which include but are not limited to videos that contain nudity or sexual content, violent or graphic content, harmful or dangerous content, hateful content, threats, spam, misleading metadata, or scams. If your account receives three Community Guidelines strikes within a three-month period, your account will be terminated. About 4 hours later we received another strike and our account was terminated. I appealed all three strikes because as far as I can tell the videos of fish swimming in a tank and showing staff (not children) doing maintenance on the tank did not actually violate anything.
- Took some time to clean up the storage area after a busy summer/fall of outreach programs and sampling activities. Several travel boxes needed to be consolidated back into their storage bins. Also Earth Conservancy was cleaning out a closet and were throwing away many supplies that we could use. Found places to store these donated items.
- EPCAMR staff hosted an AML tour and meeting with Cassandra Krul, AmeriCorps Member serving out of the Office of Surface Mining Reclamation and Enforcement Appalachian Field Office in Pittsburgh.

- EPCAMR staff participated in a site showing and meeting for the Harry E. Banks reclamation project, one of the sites being considered for the 2017 RECLAM Pilot Program. Local representatives, Swoyersville Borough councilmen, Olympus Power, PA DEP BAMR and DMO were in attendance to discuss specifics.

### **Technical Assistance:**

- Upgraded 2 MSI computers and 2 donated Lenovo laptops to Windows 10 and general cleanup to keep them running at top speed. One of the Lenovo laptops was for the intern and the other for the TIC livestreaming. Prepared the TIC computer with OBS software to replace a computer that stopped functioning. Left the other Lenovo laptop as Windows 7, but it required activation with one of our licenses from TechSoup. The company that donated the laptops must have reported them as discontinued to Microsoft?
- Installed SEDCAD (Sediment, Erosion, Discharge by Computer Aided Design). SEDCAD was developed specifically for the design and evaluation of alternative surface water, erosion and sediment control systems with a focus on earth-disturbing activities. I thought it might be helpful in calculating buildup of AMD sediments in treatment ponds.
- Changed the dissolved oxygen tip on the YSI meter and calibrated as per instructions. It seems that the meter was reading about 1 ppm above what it should be, but the tip hadn't been changed in some time and a majority of the water sampled is AMD. It should be ready for another spring/summer sampling season.
- The EPCAMR file server, GobbaDaPile, had been cooperating for some time \*knock on wood\* and I attempted to ascertain a reason. Checked all the drives for errors and only needed to repair the "N" drive. I am not sure as to why there was such a winning streak, but it could be that it was being used less since we had one staff member leave and other staff took time off. [MSI]
- Brainstormed a plan to create a "dark storage" infrastructure through hard drives and waterproof / static proof storage cases with EPCAMR Executive Director. Looked at several products.
- Started setting up a geodatabase to build mosaicked mine maps. Attempted to add them to the current ArcSDE enterprise geodatabase, but ran into issues with versioned editing. Theoretically it is possible, but it wasn't working and troubleshooting wasn't worth the trouble. Setup a file geodatabase instead to house the mosaic work. Also decided to setup several geodatabases for different veins and topographic areas so different staff could work on different geodatabases at the same time. The whole reason for the ArcSDE enterprise geodatabase is that several staff can work on one geodatabase at the same time. [MSI]
- Continued to troubleshoot slowness in ArcGIS 10.5.1 and discovered that users blogging on GeoNet had similar issues and it was caused by accessing GIS files on a file server and their antivirus. We do in fact use a file server and have no choice to accept that slow down due to network speed, but shut down Windows Defender and the speed up was noticeable. After some research I found that in particular the real-time antivirus protection scanners were to blame. I had attempted to exempt certain ArcGIS related folders and files from being scanned in the past, but this did not have an effect like actually shutting off the process while running ArcGIS. The antivirus will constantly remind you to turn the process back on, so no worries about accidentally leaving it off.
- Spoke with Patrick Jacquay at the PA DEP California DMO about building mosaics. They provided a training and documentation, but there were some things we were running into that were not in the documentation. We also realized that even though there are a lot of georeferenced maps, there aren't enough yet to complete mosaics. Some will need to be left in draft format until other maps can be sought out and georeferenced. [MSI]
- Digitized the anthracite grid from maps in the Pottsville Area to aid the initial line up of maps in the southern anthracite coal field. [MSI]
- Ended up scrapping one of the donated Lenovo laptops that the EPCAMR intern was using. The power button was no longer working? Opened it up to get at the hard drive and scanned image files that he needed. Transferred those files to the M drive where he could access and continue to organize them.

- Georeferenced some difficult maps in the Western Middle Field and digitized the anthracite grid over these maps. [MSI]

[ ] - Denotes funding source where applicable.