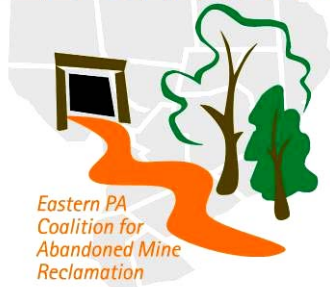


EPCAMR



Eastern PA Coalition for Abandoned Mine Reclamation

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December 2012 Progress Report

Highlights:

- EPCAMR staff participated in an AMR Conference Call.
- Continued to update and produce figures for the LLWRAP.
- Updated 2 GIS and 2 statistical databases for partners. Updated 2 EPCAMR computers to run more efficiently.
- EPCAMR staff sampled 16 boreholes in the Lackawanna Valley.
- Filled 2 iron oxide orders from EPCAMR Online Store.
- Updated www.epcamr.org and www.treatminewater.com . Administered the EPCAMR facebook page and Google Apps for Nonprofits account.

Education and Outreach:

- Participated in an AMR Conference Call in preparation for the 2013 PA AMR Conference which will be hosted by the PA AMR Conference Committee at the Ramada Inn and Conference Center in State College from August 8-10, 2013. Setup a website at 2013.treatminewater.com, began searching for a theme and a trading card creator application as suggested by the committee.
- Created EPCAMR Program Manager monthly report for the previous month, gathered other staff reports, posted them to www.epcamr.org and sent to PA Department of Environmental Protection (DEP) 319 Nonpoint source (NPS) program staff. EPCAMR Staff prepared monthly reimbursements to send along as well.
- Assisted Wayne Lehman, Schuylkill Conservation District Watershed Specialist, in coordinating an Anthracite Region CDWS Meeting in February.

Technical Assistance:

- Installed ArcGIS 10.1 on EPCAMR Program Manager's computer and service pack 1, which came out about a month after the new version of the software was released. The program and service pack took approximately 4 hours to complete.
- Searched high and low for a marked up map of surface water infiltration points to underground mines in the Lackawanna River Watershed. Decided to take the narrative descriptions from the Lackawanna River Conservation Plan to heads up digitize infiltration points in ArcGIS.
- Attempted to run the MXD doctor on the Mine Pool Mapping map document file for ArcGIS as this 10.0 version would not open in the 10.1 version of ArcGIS (the software was not downward compatible).
- Updated and cleaned up the EPCAMR Intern computer to get it functioning a little quicker. Also mapped the "M drive" to allow users to share files over the network on the Maxtor Drive.
- Worked with EPCAMR Volunteer to make a backup of the GIS files on the M drive and free up several gigabits of space on the drive.

- Ran cost calculations for hypothetical passive and active treatment system scenarios at the Duryea Breach and Old Forge Borehole AMD discharges using AMD Treat 5.0+. Active treatment system designs and costs are a bit more complicated using AMD Treat and required additional research to find prices of individual parts to add into the calculations. Used a mass balance equation to simulate the combination of the Duryea Breach and Old Forge Borehole discharges into one discharge and treat the combined flows both actively and passively. These calculations will be used in the cost / benefit analysis for the Qualified Hydrologic Unit Plan (QHUP) that the Lackawanna River Corridor Association (LRCA) will be completing and submitting to the PA DEP Bureau of Abandoned Mine Reclamation (BAMR) for the Lower Lackawanna River Watershed [LRCA].
- Formatted and combined several sections of the Lower Lackawanna Watershed Restoration Action Plan (LLWRAP), written by EPCAMR and LRCA Executive Directors, into one document. Built an outline structure for the document in preparation for a table of contents, index of figures, and index of tables. Redistributed this document back out to partners for comments [LRCA].
- Ran calculations based on EPCAMR staff hourly rates to find out what was retroactively owed staff after a merit raise percentage was approved by the board of trustees.
- Created several graphs for the LLWRAP related to raw borehole mine water elevations, discharge chemistry and flow data [LRCA].
- Filled 2 iron oxide pigment orders which were ordered through the EPCAMR Online Store.
- EPCAMR staff sat around a table with Susquehanna River Basin Commission (SRBC) and LRCA staff to review and edit the LLWRAP on the large screen computer monitor at the EPCAMR Technical Assistance Center (TAC) [LRCA].
- Aided EPCAMR Executive Director in preparing the Solomon Creek Coldwater Conservation Plan Implementation grant narrative and budget to make improvements to the fishery habitat in the un-urbanized sections of the Solomon Creek Watershed.
- Continued to answer follow up questions for First Energy Corporation related to culm piles documented in the Abandoned Mine Land Inventory System (AMLIS).
- Answered questions about the AMD Treatment System snapshot data submitted by EPCAMR and the Buck Mountain ALD treatment system. Also asked Cliff Denholm, Stream Restoration Inc. (SRI), if a one page survey was available to hand out to at an upcoming Anthracite Region Conservation District Watershed Specialists (CDWS) meeting. This could help us gauge the audience and get the best bang for the buck when we host a Datashed.org training in the Anthracite Region have the training. It should answer questions like what user level they consider themselves (beginner, novice, expert) so we know where we need to focus. Do they or groups in their county sample treatment systems or AMD discharges on a regular basis? Who is the keeper of the data? What do they do with it? What aspects of the site need to be explained better, "how to's" and feedback on how they think the site can be improved for ease of use. Which ones use Datashed.org and if they don't, what do they use?
- Replied to Clifford Dodge, PA Department of Conservation and Natural Resources (DCNR) Bureau of Topographic and Geologic Survey Senior Geologist, related to questions he had on the Bernice Mine Pool. He too is looking at the geologic structure of the mine pool and wanted to make sure he had all the resource material available.
- EPCAMR staff traveled around the Lackawanna Valley to conduct water level monitoring of 15 boreholes related to the Scranton Metropolitan Mine Pool. Monitored the Jermyn borehole as well which is connected to the Jermyn Mine Pool [LRCA].
- Created several graphs for the LLWRAP related to Old Forge Borehole and Duryea Breach discharges flow data as compared to the USGS River Gauge at Old Forge, PA. Also updated the AMD Treat scenarios for the Duryea Breach, Old Forge Borehole and both discharges combined to only use flow and chemistry from the 2011-2012 study period [LRCA].
- ArcGIS 10.1 began crashing during normal use and map making. This severely hindered progress in preparation of figures for the LLWRAP. Attempted to troubleshoot the elusive problem using the ESRI user forums. There were several discussion threads related to the

topic, but several users were boggled by the problem. ESRI representatives suggested contacting support, which in EPCAMR's case, required going through the OSM TIPS program for authorization. Support suggested a few remedial work-a-rounds, which only helped for a short time. As ArcGIS 10.1 continues to crash every 10-30 minutes, I began saving my work at regular 5 minute intervals as to make forward progress on maps and statistic gathering.

- Updated all Lackawanna Borehole data and graphs in spreadsheet form. Calculated average, mean, maximum, minimum, standard deviation, and range of each borehole water level dataset. Updated the average water levels in the borehole GIS dataset.

[] - Denotes funding source where applicable.