Eastern PA Coalition for Abandoned Mine Reclamation

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October 2011 Progress Report

Highlights:

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- EPCAMR staff conducted 5 Tree Trout Field Trips for Wilkes-Barre Area and exhibited at Chalk Fest related to outreach/education. Presented at the Watershed Specialist Annual meeting and corresponded with Luzerne County Commissioner to help with an AMD problem.
- EPCAMR staff met with OFBH Project Partners on site to download transducer data and monitor flow at the Duryea Outfall
- EPCAMR staff sampled 14 boreholes in the Lackawanna Valley and 23 in the Wyoming Valley. Georeferenced 2 maps, completed 1 3D model, updated 2 GIS databases for EPCAMR partners.
- EPCAMR Staff continued work on the Solomon Creek Plan and Jeddo Highland #5 projects.
- Updated www.epcamr.org, and www.treatminewater.com. Administered the EPCAMR facebook page and Google Apps for Nonprofits account. Helped 2 member orgs with webhosting issues.

Education and Outreach:

- EPCAMR staff weed whacked and created paths through the summer foliage explosion at Duryea Wetland / Askam Borehole and Solomon Creek field sites in preparation for the Tree Trout Environmental Education Programs with Wilkes-Barre Area SD - Heights Elementary Students. [PPL]
- EPCAMR staff conducted 2 - AMD Impacts Field Days and 2 - Clean Stream Field Days related to the Tree Trout EE Program with Wilkes-Barre Area SD - Heights Elementary students. [PPL]
- EPCAMR staff exhibited at Chalk Fest at the Wilkes-Barre River Common. Participants learned how to use iron oxide pigments to make chalk and tie dye t-shirts.
- Traveled to State College to present the Reclaimed Abandoned Mine Lands Inventory System (RAMLIS) GIS tool to participants of the Watershed Specialists Annual Meeting sponsored by the Pennsylvania Association of Conservation Districts (PACD) as requested by PA DEP 319 Program staff. Shared 2 times slots and aided Cliff Denholm, Stream Restoration Inc. (SRI), with his Datashed.org presentation.
- Created a “Webhosting for EPCAMR Members” web page on www.epcamr.org, explaining the service, products and cost effective fees associated.
- Referred Megan Blackmon, Schuylkill Headwaters Association (SHA), to Bill Frantz, BRF Designs, to help in the design of a new website for the Schuylkill Valley Conservancy. Most likely, EPCAMR will host the resulting website.
- Resolved an issue on the SHA website regarding the display name in web browser. The url showed sha.epcamr.org, which is the subdomain hosted by EPCAMR, but their domain name is SchuylkillHeadwaters.org. The same issue was resolved with the treatminewater.com website by using a masking technique directly from the GoDaddy Domain Name Server. This was initially tried on the SHA website, but briefly created an e-mail service outage. The fix included

reinstalling the WordPress content management system in another directory and migrating the website to the new location. Also fixed their "projects" page by copying the text over separately from the images. The original document was created in Microsoft Publisher and when copied over to WordPress, the formatting was not acceptable therefore SHA staff solved to problem by saving the file as an image and uploading it for a temporary fix. This work was done to atone for the e-mail service outage and is not normally part of the webhosting service.

- Worked with Harvard Grad Student, Jessica Wolff, to post her "Coal History Timeline" as an item for purchase on the EPCAMR online store as suggested by many at the AMR Conference in August. Jessica was able to find pricing and a means of reproduction of several sizes from poster to full banner size.
- Tested the service provided by www.FreeScreenSharing.com to ascertain if it can be used by the AMR Conference Committee for conference calls and general planning. The "webinar" service is an offshoot of the www.FreeConferenceCall.com service currently being used, but this also allows for presenter to share their screen, displaying a visual to go along with the voice ability and it's still free. Passed this information on to Anne Daymut, WPCAMR, the lead co-host of the 2012 AMR conference.
- 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. Aided executive director in preparing the reimbursement, sent and learned that we will be dealing with new staff in DEP.
- Plugged the 319 program reimbursement numbers from the last few months into the EPCAMR Operating Budget spreadsheets as an update.
- Completed the EPCAMR staff self evaluation and submitted it to the Executive Director as a part of my annual performance evaluation.
- Updated the donations page on www.epcamr.org to include iGive as an additional way to help EPCAMR by donating time, talent and treasures. Installed iGive.com plug-in on several of EPCAMR's computers web browsers.
- EPCAMR staff stopped by the Office of Surface Mining office in Wilkes-Barre pickup unwanted equipment and supplies for the EPCAMR office after paperwork was approved by staff in Pittsburgh office that are dealing with the surplus.
- Worked with EPCAMR intern to transfer historical borehole water level data from the OSM Folios into the borehole spreadsheets for the Northern Field.
- EPCAMR staff conducted an inservice Clean Stream Field Day related to the Tree Trout EE Program with Wilkes-Barre Area SD Teachers [PPL].

Technical Assistance:

- Prepared Jeddo Basin Cross Sections for the 3D Modeling and volume calculation in earthVision and shared the information with Kent Fuller, Pagnotti Enterprises. Updated "Skips Scripts" instructions on processing cross section data to create contour data in preparation to teach interns how to replicate the process. EPCAMR Intern began drawing Eckley and Buck Mountain Basin Cross Sections in R2V. [Jeddo]
- EPCAMR staff traveled to the Duryea Breach discharge location to take flow measurements, to the Old Forge Borehole (OFBH) discharge location to download data from the insitu pressure transducers and around the Lackawanna Valley to conduct water level monitoring of 14 boreholes. [LRCA]
- EPCAMR staff followed up on a request by Luzerne County Commissioner Urban asking about the mine water emanating from the Woodward Borehole (#39) and storm drains near Kirby Park. Updated mine pool GIS layers in the area using Bureau of Mines Report maps from S. H. Ash denoting pools of water, mine water flow direction and barrier pillars. Judgments were made on the effectiveness of the barrier pillar based on altitude of effectiveness and breach statistics in the report and new discharge locations since pumps were shut down following the closing of underground mines in the Wyoming Valley. This area is part of the larger Northwest

Mine Pool Complex. The discharge from this complex emanates from the Buttonwood Shaft in Hanover Township. Historical borehole water level measurements show Woodward Borehole discharging for a time after the Agnes Flood in 1972 as well. Typically this borehole does not discharge, but the average water level lies less than 10 feet below the surface. This area is low in surface elevation as well as corresponding areas across the river in South Wilkes-Barre (water pumps were turned on under the E. L. Meyers High School Stadium to remove water from under the playing field). In 1972 there was less development in the general vicinity and water most likely flowed to ponds along the base of the railroad grade (now baseball playing fields for Wilkes University). Provided maps and recommended waiting for the water to subside in this wet year, but if it water continues to be a nuisance, to install a drainage system to route it away from the road and back to a lower lying area behind the Wilkes Fields.

- Downloaded and installed service pack 3 for ArcGIS 10 on all EPCAMR laptops with the TIPS software installed. The new updates did not resolve the issue related to downward compatibility and the time it takes to open map files produced in previous versions of ArcGIS. This issue was finally resolved by waiting for the map to load, then opening a new map in a second instance of ArcGIS 10 and copying the data frame over to the new map. Remarkably, the work around carried all formatting and database relates over to the new map. As usual, this was not a solve recommended by ESRI and was found by digging through the community posts for an answer since direct support requests cannot be made by those using concurrent licenses of software.
- Provided the Lackawanna River Corridor Association (LRCA) director with the 1975 Groundwater Resources of Lackawanna County, PA report by Jerrald R. Hollowell, U. S. Geological Survey, Water Resources Division (aka. the Hollowell report) in digital form.
- EPCAMR staff traveled to Wilkes University's E. S. Farley Library to search for a Hollowell report and maps for the Wyoming Valley. Found the 1971 publication named Hydrology of Pleistocene Sediments in the Wyoming valley, Luzerne County, Pennsylvania by Jerrald R. Hollowell with maps and similar geological publications for various other locations in PA (including the West Branch of the Susquehanna River). The publication was also found online and a copy ordered through www.raregeologybooks.com. [SRBC]
- Created charts of the Old Forge Borehole (OFBH) transducer data from 9/3 to 10/7 to compare depth to pressure to downloaded data from the Lackawanna River Gauge at Old Forge. Sent to PA Tectonics, Lackawanna River Corridor Association (LRCA) and Susquehanna River Basin Commission (SRBC) staff. [LRCA]
- EPCAMR Staff traveled around the Wyoming Valley to monitor water levels in 23 boreholes over 2 days. Met with PA DEP BAMR Wilkes-Barre Office staff member the second day to return the borrowed Solonist Water Level Meter and sent an updated spreadsheet of the data collected to Todd Wood of the same office. [SRBC]
- Continued to update mine pool GIS layers using Bureau of Mines Report maps from S. H. Ash denoting pools of water, mine water flow direction and barrier pillars. Judgments were made on the effectiveness of the barrier pillar based on altitude of effectiveness and breach statistics in the report and new discharge locations since pumps were shut down following the closing of underground mines in the Wyoming Valley. Discovered that initial digitization of the maps was off a bit most likely due to incorrect PA Spatial Data Access (PASDA) Server specifications on topographic and aerial photos served up for a period of time several months ago. Barrier pillars were meticulously adjusted to the corrected coordinates. [SRBC]
- Aided EPCAMR Volunteer in updating the EPCAMR assets inventory of supplies in storage. Sorted outdated software from current software.
- Traveled to Old Forge and Duryea to take flow measurements with SRBC staffer, Tom Clark. The Doppler flow equipment used is top of the line in stream flow calculating. A cross section was drawn and readings taken every foot downstream of the Old Forge Borehole Discharge and Duryea Discharge which were respectively determined to flow at 481 and 20 cubic feet per second (cfs). This data coupled with Lackawanna River Gauge at Old Forge (upstream) data can be used to estimate the flow of the Old Forge Borehole. A second time/transit method was

also conducted by throwing a bag of lemons down the culvert and timing their appearance at the other end of the culvert. The measurement was coined the “Lemon Method”. A photo was snapped of a 42” smooth core from the borehole that was discovered in the streambed now that the weeds have died down for the fall. These factors will be used to calibrate the equation to determine instantaneous flow from the pressure transducers and the best way to measure flow at the Duryea Breach. Also met with landowner, Victoria Popple, to make her aware of the effort to calculate a flow of the Old Forge Borehole.

[ ] - Denotes funding source where applicable.