

# EPCAMR



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## May 2012 Progress Report

### Education & Outreach

- EPCAMR completed a **PA Fish & Boat Commission Tackle Loaner Program** Sponsor Application and forwarded it on the NE Regional Office's Aquatic Resource Education Specialist, Walt Dietz for approval and review; Provided Walt with some other regional groups that might be interested in becoming sponsor sites
- Conducted a demonstration of the AMD Solar Kiln with **130 6<sup>th</sup> grade** students at the Plains-Solomon Elementary School in the Wilkes-Barre Area School District over the course of two days on how to dry iron oxide and to operate the kiln; Conducted an AMD Tie Dye Workshop along with the demonstration for the student's 6<sup>th</sup> grade field trip to Washington DC where they will be wearing their T-shirts stained with iron oxide; Ann Devine-PA DEP and her two interns made the trip from Harrisburg, PA to help build solar race cars for the day with the students
- Provided Wilkes University Community Service Office with a list of EPCAMR Projects and descriptions that student volunteers might be interested in over the Summer and into the Fall, including internships
- Initial Conference Call with Robert Maiden, newly appointed PACD Executive Director about AMD, AML Issues, and increased coordination between Districts and the Coalitions; EPCAMR will be coordinating a regional tour with Robert in August
- Conducted Final Assessments for our two King's College interns, Zach Yodis and Dan Gilbert and forwarded them to Korie Dudrich, Internship Advising Coordinator
- Conducted a conference call with John Zakelj, a high school science teacher in Union City, Indiana, who teaches Environmental Science; The sophomores and junior had just begun a unit on mineral resources and mining. His students don't get out of the county much so John tried to expose them to things they would not see in Indiana, such as the effects of mining. EPCAMR provided him with powerpoints and other resources for review that were discussed during the conference call that turned out to be a webinar of sorts for the students
- EPCAMR Executive Director interviewed by Matt Hughes, a reporter working on an article for the Times-Leader that will discuss the use of AMD for Frac Water and the Susquehanna River Basin's Commission's various policies that related to AMD and it's use within the Basin
- Received notification that the EPCAMR Executive Director was awarded a **\$100** scholarship to attend the PA Game Commission Wildlife Action Plan Forum in State College, in June 2012 to provide input into the plan for a reclamation, wildlife, and watershed restoration perspective

- Confirmed with Joe Bryer from the Peckville Genealogical Society that on July 18th, EPCAMR Staff, along with our President-Bernie McGurl, would come up and make an evening presentation to their group on our Mine Pool Mapping Work for the Lackawanna Valley and our partnership with LRCA, PA Tectonics out of Peckville, the Susquehanna River Basin Commission, and others working on mapping and monitoring the flows of the water in the underground mines in the Greater Scranton-Metro Area, including Peckville

## Technical Assistance

- EPCAMR Staff measured the flow at the Solomon Creek AMD Boreholes and at the Buttonwood Shaft and provided the data to the PA DEP Bureau of Abandoned Mine Reclamation ( PA DEP BAMR) and the Earth Conservancy (EC)
- EPCAMR Executive Director provided comments to the SRBC Water Quality Advisory Committee on request for assistance with several topics that are current within the Basin
- Provided an AMD/AML Field Tour with Allison Schuler, Professor from Penn-State Harrisburg, who was interested in collecting soils samples from culm banks in our region as a part of a National Science Foundation Research Project on ***The Potential for Cultivating Biofuel Crops on Abandoned Mine Lands***; EPCAMR has become a partner in the effort and will be providing her graduate students another tour later in the Summer of 2012; Sites visited were the Miners' Memorial Park AML Site owned by the Huber Breaker Preservation Society, the Honey Pot Susquehanna #7 slackwater canal section-near Nanticoke, and the Loomis Banks, along Dundee Road
- Provided some guidance to Eileen Cipriani-West Wyoming Borough Councilwoman on their request for assistance with applying for our ARIPPA/EPCAMR Mini-grant for a project on W. Brady Street, in West Wyoming where a landowner is having issues with water flowing out of a stripping pit into his backyard; The yard may need a diversion ditch to divert the water into a much larger pit down below the property
- Provided Jill Burrows, a student from Lehigh University, who is looking to obtain her Master's with locational and water quality data on AMD discharges since she will be updating the 1999 USGS Report where, water samples from 143 coal-mine discharge (CMD) sites in the Anthracite and Bituminous Coalfields of Pennsylvania were sampled. Complete hydrologic and inorganic aqueous geochemical data was compiled and contaminant loading was calculated (Cravotta 2008a, 2008b). The primary controls on geochemistry and pH were identified as 1) dilution by neutral to alkaline waters, 2) solubility of hydroxide, sulfate, and carbonate minerals, and 3) complexation and adsorption of aqueous sulfate (Cravotta, 2008b). Thirteen years have passed since this study was conducted, during which time the oxidation and dissolution of minerals into the mine outflows has continued; She plans on re-sampling these sites to determine if the controls on mine water chemistry have changed since the last sampling. Knowledge on how the pH and concentrations of metals change over time would be beneficial to the site planning process and the design of treatment system that are capable of functioning for an extended period of time. Additionally, the research would be helpful in identifying AMD in Pennsylvania which continues to significantly impair waterways;

- She will be taking field measurements for pH, Eh, conductivity, dissolved oxygen, and discharge. Water samples will be taken for complete inorganic geochemistry analysis (alkalinity, anions, cations). Alkalinity analysis will be done within 24 hours of sampling, and if necessary, in the field following USGS clean sampling protocols. Cation and anion analysis will be done in the aqueous geochemistry lab at Lehigh University
- EPCAMR Staff had a meeting at the Lackawanna River Corridor Association's Office with Dan Cardell-Advance Diamond, a LLC organization that is interested in treating AMD and Frac Water for the Gas Industry; Introduced us to some plating technology that has not been tried on AMD yet; Willing to secure equipment for demonstration project; Provided them with some water quality data on several of our AMD discharges in the Region
- EPCAMR Staff sampled several AMD Treatment Systems throughout the EPCAMR Region as a part of a large sampling sweep of state-wide AMD Treatment Systems with funding provided for the sampling to be covered by Stream Restoration Inc. and inputted into [www.Datashed.org](http://www.Datashed.org)
- EPCAMR Executive Director met with Peter Samony, a NE Sales Representative for ALEDco, a DXP Company, that deals with pumps for mines ([www.dxpe.com](http://www.dxpe.com), [www.aledco.com](http://www.aledco.com) )
- Peter Haentjens, EMARR, provided EPCAMR with a copy of the NREL Jeddo Energy Study for our review

## Conference Coordination

- Conducted an AMR Conference Call on May 30<sup>th</sup> with the Planning Committee to begin working on the agenda for the **2012 AMR Conference** at the Ramada Inn State College, PA August 2-4<sup>th</sup>, 2012; Followed up with Mario Carello and Mike Smith-Moshannon DMO who will be assisting us with arranging an AMD Tour Route in the E. Clearfield County area
- Lined up speakers from watershed community groups that received funding under our Mini-Grant Program for the ARIPPA Annual Meeting at Toftrees in State College, PA that was to serve as a small fundraiser for the Coalitions

## Project Coordination

- EPCAMR Staff and Interns constructed the first ever *Solar AMD Kiln* for drying iron oxide that is off the grid, made from recycled materials operated by a 45-watt 3-solar panel system
- Meeting with Mike Dziak, EC CEO to review our Final Report of the Monitoring and Assessment of the **Espy Run AMD Treatment System** and downstream Improvements
- Invoiced Stream Restoration Inc., on **Datashed** workload objectives completed by EPCAMR
- EPCAMR Staff conducted our monthly **Lackawanna Valley Borehole Monitoring** and flow measurements at the Old Forge Borehole and the Duryea Outfall
- EPCAMR Staff provided Shawn Rummel, PA Trout Unlimited with a map of the sampling locations for the August Electroshocking Survey in the Solomon Creek Watershed as a part of the **Solomon Creek Coldwater Heritage Conservation Plan** EPCAMR is completing

- Attended the Exeter Borough Planning Commission Meeting to explain the ***Hicks Creek Natural Stream Channel Design Project*** and obtain their approval to move forward with the final design permit applications and approvals before moving to construction; Provided all information to Harold Ash, the Exeter Borough Engineer for his review and comments
- Worked on and completed our ***PA DEP EE AMD Teacher Training*** grant Program Reimbursement and Progress Narrative Report and forwarded it along to Ann Devine, PA DEP EE Grants Program; Completed a budget revision request and submitted it to Ann
- Completed a partner survey for the FFA related to our work with the Wilkes-Barre Career & Technology Center who are helping us with the ***Huber Miner's Memorial Park Landscape***
- Met with Tom Clark-SRBC AMD Coordinator to conduct a field investigation in the Southern Anthracite Coal Fields around the Rausch Creek Mine Pools and other AMD discharges as a part of the ***Anthracite Region Mine Pool Mapping*** efforts that EPCAMR is working on; EPCAMR Staff hiked and sampled various AMD discharges as well as obtained flows
- Followed up with Pagnotti Enterprises to see when they would like EPCAMR to come in and make a presentation on the ***Jeddo Highlands #5 Mine Pool Hydrogeological Investigation Report*** that we're completing for them
- Prepared and submitted a ***\$3000 Indigenous Environmental Network Mini-Grant*** to support a Summer Intern to assist EPCAMR with marketing our iron oxide, the Solar Kiln, and to conduct outreach/education programs with students and nature camps into the Fall of 2012

## **EPCAMR Program Administration**

- Reviewed and submitted our April 2012 PA DEP 319 Progress Report along with a April 2012 reimbursement request form
- Completed the Quarterly Services Survey for the 3<sup>rd</sup> Quarter for the US Department of Commerce, Economics and Statistics Administration-US Census Bureau
- Performed reconciliations on our EPCAMR Accounts
- Conducted and convened our EPCAMR 2<sup>nd</sup> Quarter Board Meeting in Ashley, PA at the EPCAMR Office
- EPCAMR Staff Meeting with Glenn Rider-PA DEP BCR in Harrisburg to provide input into the PA DEP's prioritization plans for moving forward with future AMD remediation projects, watershed restoration projects, and abandoned mine land reclamation projects throughout PA
- Received a donated hand-held GPS Unit, complete with PA Topographic Maps loaded onto it from Bob Kent, an EPCAMR supporter and avid trout fisherman
- Coordinated with several EPCAMR prospective volunteers who would like to donate some hours to our organization on several of our projects and general clerical and administrative assistance (Alexis Seery, Eric Moore, Deborah Megl)