February 2014 Progress Report

Highlights:
- Continued processing maps for the MSI Mine Map Processing Grant: Techs Scanned 881, rescanned 21 from previous months & Georeferenced 38 maps.
- Printed a map 3.5' wide by 9' long and over 2GB in size that tested the capacity of the plotter.
- Continued work on Mine Pools in the Wyoming Valley, Northern Coal Fields
- Researched and purchased computer software and hardware to upgrade productivity. Setup a network enabled file server running Windows Server 2012 R2 with 10TB of storage capacity.

Education and Outreach:
- Filled our first order for an EPCAMR Recycled Ornament.
- EPCAMR staff participated in a conference call with the AMR Conference Committee to coordinate efforts. Setup the header and added wording to Mayfly Award, News, Registration, Presentations, Sponsors, About, and Extra Activities pages on www.treatminewater.com website.
- Filled out questionnaires for Google Apps and Insight.ly as requested by the app developers. EPCAMR was given free access to these apps and we returned the favor in the form of marketing research.
- EPCAMR staff met with students from ITT Technical Institute, Dunmore Campus, to have them help with our Iron Oxide Processing instructions and some marketing materials.
- Edited the EPCAMR bylaws with suggestions made at recent board meetings. Left the old wording there, but crossed out and new wording was in a different color to show what was being proposed. Sent the proposed wording to EPCAMR Strategic Planning Committee for review and comments. Also updated the EPCAMR Membership Form and posted it to www.epcamr.org.
- Found a neat little website analysis tool called ClickTale. The program analyzes visits to a website and shows statistics on what people look at and click on. Signed up and installed it on www.epcamr.org to see heat maps of where most people navigate to on our website and what kind of information is most often sought. This kind of background data collection could help us understand how to better organize the website and know what information is needed by our constituents.
- Updated EPCAMR Board Meeting agenda and posted it to www.epcamr.org. Sent board packets to the board members through MailChimp. Fixed some invoices and sales orders then created a Treasurer’s Report using QuickBooks.
• Updated the EPCAMR Store to remove Silverbrook Purple from available colors until we are able to get more raw material to process. Updated the Volunteer Registration to a web form instead of a downloaded PDF form that had to be sent in. A lot more volunteers are signing up now that it is easier. Changed links on the Volunteer Page and others that referenced the form on [www.epcamr.org](http://www.epcamr.org). Added a new account to the [www.huberbreaker.org](http://www.huberbreaker.org) website for a web designer that is donating his services to update the Huber Breaker Preservation Society website.
• Created EPCAMR Program Manager monthly report for the previous months, gathered other staff reports, posted them to [www.epcamr.org](http://www.epcamr.org) and sent to PA Department of Environmental Protection (DEP) 319 Nonpoint source (NPS) program staff.
• EPCAMR staff prepared for and hosted the EPCAMR 1<sup>st</sup> Quarterly Board Meeting for 2014.

**Technical Assistance:**
• Reconciled scans and georeferenced SID files for the previous month, recorded in the inventory control spreadsheet, prepared an invoice and sent the hard drive to the PA DEP California District Mining Office (DMO) for the Mine Subsidence Insurance Mine Map Processing Program. Verified that there were no rescan requests for the month of December. Picked up and dropped off maps 3 times this month and aided technicians with scanning and georeferencing [MSI].
• Colortrac Field Technician installed a new main board in the 42” scanner and the scanner seems to be working better, not perfect, but the amount of random lines on the scan have decreased. The scanner still arbitrarily kicks out maps before completing a scan. PA DEP California DMO staff suggested manipulating the manual with and length settings, but the field technician said the settings on the scanner have to match the settings on the software. Nothing seems to really help, but technicians have found ways to minimize kicks like raising/lowering the head and cleaning the scanner with canned air [MSI].
• Installed Microsoft Office 2013 to Program Manager’s computer and downloaded Microsoft Server 2012R2 in preparation for installation on the recently ordered server.
• Purchased and setup a laptop for Executive Director, the current laptop was experiencing random crashes due to some sort of error (probably hardware related). The fix could have been relatively expensive and the laptop was old (it had been purchased in 2006).
• Researched what was needed in the way of converters and parts for the Dell PowerEdge server to use existing hardware. Ordered these parts online. Server was delivered a few days later. Purchased a 3TB hard drive from Best Buy to install the Windows Server 2012r2 operating system (OS) on a 120GB partition, the rest of the drive will be available for storage. Researched and setup “Storage Space”, a new RAID (redundant array of independent disks) type of server storage. Asked Bill Frantz, BRF Designs (the same techie expert that setup our WordPress website), for help and guiding (which he provided pro bono). Setup a mirrored, thin provisioned Storage Space. With this technology, a hidden copy of the files are stored on a separate drive within the array. This way if one drive in the array becomes corrupts or stops functioning, the data is not lost. You simply add another drive to the array and it will copy the files that were lost. Synced folders with SyncBack program one last time in preparation for transfer to the server. Attempted to transfer the “X Drive” (with all the MSI Data) to the Storage Space Array, but learned that this setup requires double the storage space that is taken up by the files and drives can be added to the array as needed to increase the drive capacity. Added another 3TB drive to the array and tried again with success. Basically for every 1,000 maps scanned, the server will need 1TB of space available to store the maps [MSI].
• Transferred the “M Drive” to the second portion of the drive that holds the OS on the server, but somewhere about ½ way through the transfer the drive went unresponsive. Unfortunately the “M Drive” wasn’t a folder that was in the sync and not all the information made it to the server, including our QuickBooks financial data. There was a backup made in November, but a lot of catch up work would be needed. Took the drive to Stillwater Computer Services in Plymouth.
The business was able to recover information from “dead drives” in the past, but this time he was unsuccessful. In a last ditch effort, Executive Director mentioned that his cousin owned a computer repair shop in Mountain Top and that he was willing to see what he could do. Remarkably, he was able to get the drive to function by sticking it in the freezer and extracted most of the data off the drive. Both bench fees were a bargain compared to the time that could have been spent manually inputting the data back in to the system since November. Staff have implemented a more rigorous backup procedure through QuickBooks for the financial data to be stored on thumb drives and laptops that are often taken off premise. Other data on this new “M Drive” is not as important and does not require backup, folders like the GIS, EarthVision, and Program Manager’s EPCAMR folders are still managed with SyncBack Program as a way to synchronize and backup the files to another location.

- Created a streets map for the Lackawanna River for the Lackawanna River Corridor Association (LRCA). The map will be used in a fundraising effort related to the Lackawanna Riverfest.
- Updated RAMLIS version 13 with new aerial photos and legislative boundaries before sending off to the PA DEP California DMO.
- Needed to sample Espy Run Treatment System by the end of the month, but the snow pack on the rail road grade and haul roads to the site were still too thick to traverse safely by truck. Notified Earth Conservancy who agreed that we could wait till March when the snow had melted a little more.
- Attempted to print a coal mine surface map that was over 2GB in size for the Huber Breaker Preservation Society. This has never before been attempted on our HP DesignJet plotter. The first print took over an hour to process and resulted in a 15” x 15” square of the map printing. Researched the issue and discovered that the plotter has a 256MB limited amount of internal memory and that you could pre-process a print first on a computer and then send a smaller file to the printer. Spooling (pre-processing) of the map took over 4.5 hours. Checked the next morning and the majority of the map had printed, but the paper roll ran out. Setup the plotter with a full roll of paper and waited till the end of the day to begin the print. The full map was printed by the next morning.
- Installed GIMP, a free image manipulation program, and Microsoft Office 2013 to the Server for direct editing of files. Also researched and setup the server to act as a desktop workstation (the interface is similar to a Windows 8 environment).
- Received the Hard Drive on return from the DMO office in the mail and started to review the return files. This month only 21 files needed to be rescanned out of 971 that were sent for approval. That is a 98% approval rating [MSI].

[ ] - Denotes funding source where applicable.