

THE CATALYST

SLIPPERY ROCK WATERSHED COALITION MONTHLY ACTIVITIES UPDATE

NEXT MEETING: 7 pm on 11/9/17 at Jennings Environmental Education Center, pizza and pop provided.
10/12/17 meeting attendance: A. Berman, L. Bond, H. Boylan, C. Denholm, M. Ford, S. Harris, E. Kammerdiener, B. Kuban, J. Puskas, N. Puskas, B. Rhoades, W. Taylor, F. VanAtta, M. Wahal

12th Annual NW Pennsylvania GIS Conference

The 12th Annual Northwest Pennsylvania GIS Conference was held October 19th and 20th at the Gemmill Student Complex of Clarion University. A mix of businesses, educators, students, environmental groups, government agencies, industry, and more, joined together to share their latest use and successes with GIS technology. **Shaun Busler**, GIS Professional, represented the SRWC and Stream Restoration Inc. at the conference, also serving on the conference planning committee.

Attendees were treated to exciting presentations from varied participants in the GIS field, exhibitors from renowned national and regional companies and agencies, a map gallery and poster session, and much more! The opening session and keynote address "GIS in PA — What's Trending Now" were given by Eric Jespersen of PAMAGIC and Barry Hutchins (County of Lycoming). The mid-day keynote address entitled "The Intersection of Infrastructure and Technology" was presented by Mark Contino, Vice President of Channel Development at Topcon Positioning Systems. Presentation topics throughout the two-day event included The Use of GIS to Protect Public Drinking Water, Emergency Management and GIS — Lessons Learned From Recent Events, Using Video in GIS, Mapping Vegetation Change Over 58 Years, Geoarchaeological Investigations, Benefits of Statewide Orthoimagery, GIS in a GPS World: Teaching Applied GIS and GPS Together, and many others!

As always, Shaun enjoyed seeing old friends and meeting new ones in the rapidly-expanding world of GIS. Participants were able to share their GIS research and expertise, while learning from others as well. GIS applications extend into many fields, including agriculture, environmental impact assessment, transportation planning, urban planning, determining land use and land cover changes, disaster management, navigation routing and scheduling, natural resources management, soil mapping, wetland mapping, community development, tourism, earthquake and volcano hazard information, and so much more!

Westminster College Students Present De Sale Phase 2 Findings

At the October 12th SRWC monthly meeting, Westminster College students from **Dr. Helen Boylan's** Advanced Chemistry class presented their results from the September sampling event at the De Sale Phase 2 passive system conducted as part of a service learning project. In addition to presenting their results, the students discussed the laboratory methods, equipment used, challenges, discrepancies and more. As always, the students did an excellent job of presenting the data and answering the audience's questions. We were of course happy to hear that the system that is now 17 years old was also still performing well. Thanks to Dr. Boylan and her students **Liz Bond, Maria Wahal, Brandon Rhoades, Matt Ford, Sarah Harris, Ashley Berman, and Eve Kammerdiener** for all of their efforts!





BioMost intern Cam Thon pumping sludge out of the AFVFP siphon vault at the McIntire passive system.

McIntire Maintenance

In August, BioMost made some minor improvements and conducted maintenance at the McIntire passive system. It is hard to believe that the system, which is successfully treating one of the worst quality mine discharges in the entire Slippery Rock Creek Watershed, is already six years old!. Much of the maintenance was conducted as a preventative measure because of the severity of the discharge. The primary focus was on the Auto-Flushing Vertical Flow Pond (AFVFP), which utilizes both a siphon and a solar powered Agri Drain SmartDrain valve to regularly flush the pond. The limestone within the AFVFP was stirred and washed to clean out the iron and aluminum sludge that had been accumulating over the last six years. The sludge was pumped to the nearby settling pond. During the stirring and washing one of the underdrain pipes was accidentally broken, so a decision was made to replace all of the PVC pipes with more durable HDPE pipes. A pipe was also installed at the end of the Oxidation Precipitation Channel (OPC) for the purpose of measuring flow rates of the mine water before entering the AFVP. Our hard-working maintenance crew also had to replace the rope that anchored the baffle curtains in the settling pond. Other maintenance included removing mud, sticks, and debris from the outlet riser that was placed by those pesky busy little beavers who keep trying to plug and dam up the final pond of the system. Thanks to **Ryan Mahony, Cam Thon, Cal Spigler, and Dan Guy** for all of their hard work!

Save the Date:

Student Symposium on the Environment Will Be Here Soon!

Mark your calendars and be sure to join the Slippery Rock Watershed Coalition, environmental professionals, educators and watershed organizations for an evening at Westminster College showcasing student research and creative works. The 2017 Student Symposium on the Environment will be held at Westminster College on **Thursday, December 7th** from 5:30 PM to 9:00 PM in the Witherspoon Rooms and Mueller Theater of the McKelvey Campus Center.

Students from regional educational institutions will be presenting their research, projects, and creative works relating to the environment or the natural world to professors, organizations, professionals, and their peers. This exciting opportunity will provide valuable experience and encourage the networking of students and potential employers. The public is welcome to, and encouraged to, attend this free entertaining and educational event. Please come and support our area's best and brightest college and high school students!



The KIDS Catalyst

SLIPPERY ROCK WATERSHED COALITION FUN ACTIVITY



Autumn Leaf Match-Up

In the fall, deciduous trees in Pennsylvania and other states lose their leaves to help the tree survive harsh winter weather. In the autumn, trees sense less sunlight, less rain, and colder temperatures. These 3 clues let trees know it is time to stop making chlorophyll, the special chemical that gives leaves their normal green color and help plant cells do photosynthesis — their food-making process. Isn't it amazing plants make their own food?! In the winter, trees rely on stored up food to survive, and they go into a dormant stage. When the leaves stop making chlorophyll (the "green"), the green color on leaves disappears. Then other colors, which have been there all along but had been covered up by the green, will be visible. That's why we get treated to such beautiful fall leaf colors, like yellow, orange, red, brown, and purple. Other pigments make those colors. In the leaves shown below, there are exactly 2 pairs of identical leaves (same size and shape). See if you can find them! If you can, circle them and draw a line to connect them together. Then you can color all of the leaves the beautiful colors we are enjoying out our windows right now! If you mail us your completed paper, we'll send you a \$1 credit for Amazon (to a parent's email address) that can be saved up to buy something extra special!



Name _____ Age _____ Parent email _____

Address _____



Slippery Rock Watershed Coalition c/o Stream Restoration Incorporated
A PA Non-Profit Organization
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