

THE CATALYST

SLIPPERY ROCK WATERSHED COALITION MONTHLY ACTIVITIES UPDATE

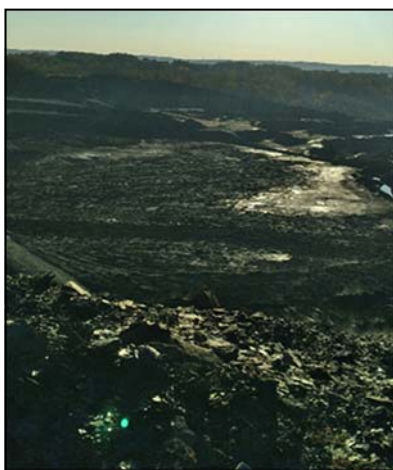
NEXT MEETING: November and December meetings are cancelled. We look forward to seeing you in the New Year! Next meeting is set for January 11, 2024, at 7 pm at Jennings Environmental Education Center. New faces are always welcome! Free pizza and pop provided!

25th Anniversary Conference on Abandoned Mine Reclamation

This year's PA Abandoned Mine Reclamation (AMR) conference was combined with the National Association of State Land Reclamationists (NASLR) conference and resulted in a very well attended event with 170 attendees. The 3-day conference was held at the Altoona Grand Hotel and started on October 24th with a field tour. Participants of the tour were taken through the westward edge of the Appalachian Mountains through an area known as the Allegheny Front, where heavy presence of sandstone, limestone, and coal seams have resulted in centuries' worth of mining and significantly impacted landscapes and watersheds. Stops along the tour included a Title V coal refuse valley fill reclamation site known as Mine 33, the Blacklick Treatment Plant which is anticipated to treat 7.2 million gallons of AMD per day, and the Colver Green Energy Power Plant. This amazing power plant is powered by waste coal alone and produces enough electricity to power 130,000 homes. Other stops along the tour involved AMD treatment sites suggested by the PA DEP Bureau of Abandoned Mine Reclamation (BAMR).

The second and third days of the conference were full of informative talks by environmental professionals from diverse backgrounds, including speakers from the PA DEP BAMR, the Office of Surface Mining Reclamation and Enforcement, numerous environmental consulting firms, nonprofit organizations, foundations, and universities. Long-time SRWC member and Executive Director of Stream Restoration Incorporated, **Cliff Denholm**, gave a talk titled "Data Collection and Interpretation for Successful AMD Treatment Projects" to share insight on what makes sampling events successful for researchers, watershed groups, and other individuals interested in restoration of watersheds impacted by AMD. Many presentations focused on funding under the Bipartisan Infrastructure Bill and Jobs Act for increased reclamation and AMD remediation projects. Presentations can be viewed on the 2023 PA AMR Conference website at 2023.treatminewater.com/presentations.

Aside from the amazing learning opportunities presented at the conference, new friendships and memories were made thanks to the great networking opportunities involving a cornhole tournament and an improv jam session featuring guitars, a didgeridoo, many percussion instruments, and many, many vocalists. Winners of the cornhole tournament were **Bobby Hughes**, Executive Director of EPCAMR, and **Rich Randle** from Illinois. These two cornhole champions were not the only winners at the conference, as the recipients of the annual Mayfly Award were **John Stefanko**, Deputy Secretary Office of Active and Abandoned Mine Operations, and **Janie French**, Executive Director at Headwaters Charitable Trust. All in all, the PA AMR/NASLR conference resulted in a memorable event.



Mine 33: Valley filled with coal refuse to be routed to cogeneration power plants.



Blacklick Creek Treatment Plant: Project lead by PA BAMR for the treatment of 3 abandoned mine discharges: the Red Mill discharge, Vinton No. 6 "sister" boreholes, and the Wehrum Mine shaft discharge.



Winners of the 2023 Mayfly Award were John Stefanko (left) and Janie French (right). The award recognizes individuals who have dedicated a lifetime of knowledge and expertise to the reclamation of abandoned mines in Pennsylvania. The mayfly was selected as the symbol for this award because its presence in a stream signifies clean water. (Please see article on front page)

Rehab at SR81 System

The Slippery Rock Watershed Coalition (SRWC) has been actively engaged in a public-private partnership since 1994 to restore the severely degraded headwaters of Slippery Rock Creek. Over 20 passive systems have been installed to treat abandoned mine discharges, addressing issues like iron, aluminum, and acidity. These systems, some over two decades old, collectively neutralize acidity and remove metals. This has significantly improved water quality, allowing fish to return to stretches of the stream for the first time in over a century. The SRWC faces challenges with the aging passive treatment systems, particularly concerning maintenance and media replacement. Proactive maintenance needs are a priority, and were successfully seen this year with the rehab of the SR81 system. Originally constructed in the year 2002, SR81 is located to the west of the town of Hilliards in Washington Township, Butler County. The SR81 passive treatment system was built to address two acidic, metal bearing discharges through use of an anoxic limestone drain (ALD), settling pond, and aerobic wetland. During its construction, a mine pool was unintentionally broken into, causing the flow entering the system to increase from 60 gpm to 280 gpm. Despite having increased flow and contaminant loads passing through, the system performed well for 16 years by neutralizing 66,500 pounds of acidity per year and by removing 24,800 pounds of dissolved iron per year. Even so, the SR81 system was dramatically undersized for the load it was treating and has not always produced net-alkaline water.



As part of this rehab project, the SR81 system was expanded by converting some of the treatment components into an additional ALD and by expanding the existing wetland. Iron sludge and organic matter were removed from the settling pond and wetland and placed into a newly constructed sludge pond onsite. To account for increased flow rate and contaminant loads that occurred due to a break in the mine pool during original construction of SR81, the SRWC proposed to expand the system. The ALD was expanded by converting the existing settling pond and part of the wetland into a second ALD containing 3,500 tons of limestone. A portion of the wetland was reconfigured into a settling pond, and the wetland itself was expanded on the west end. Part of the naturally existing wetland was spread out to distribute flow and to enhance retention time of contaminants. PVC Z-piles were used as directional barriers. Iron sludge and organic debris were removed from the settling pond and wetland to help give new life to an aging system expected to keep on cleaning AMD water for many years to come.



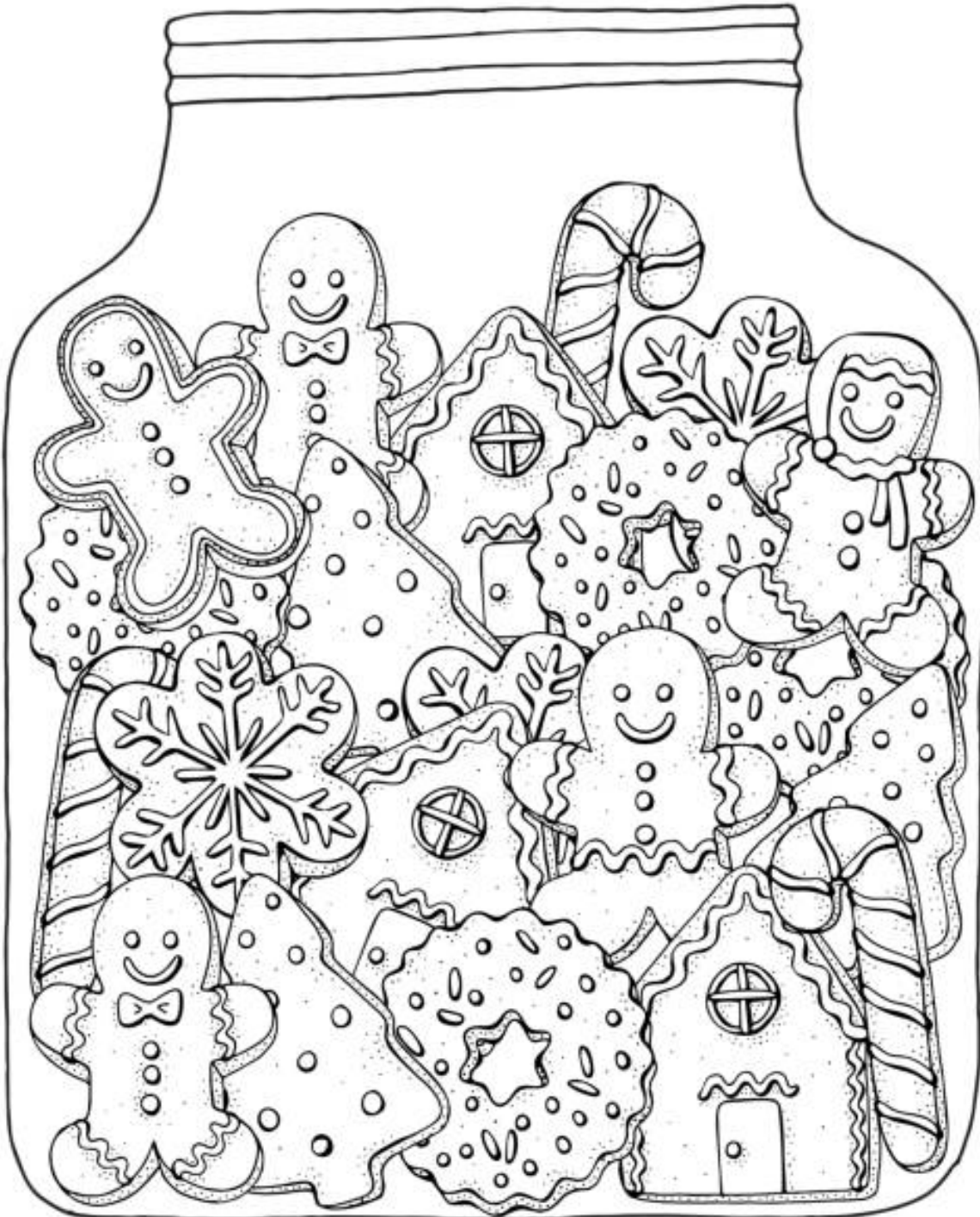
The KIDS Catalyst

SLIPPERY ROCK WATERSHED COALITION FUN ACTIVITY

Cookie Coloring!



Mmmmm... yum! Who among our Catalyst readers loves Christmas cookies?! This month we have a fun jar of cookies for you to color, in the spirit of the holidays! Fun fact: Queen Elizabeth I invented the gingerbread man cookie when she asked her royal bakers to make cookies to look like her visiting dignitaries, to honor them! We hope you have fun coloring in these cookies, and we also hope you get to eat lots of the real ones! If you send us your completed paper, we'll send you a \$1 Amazon credit through a parent's email address. You can save your credits to buy something extra special! Happy Holidays to you and your family!



Name _____ Age ____ Parent email address: _____



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