

Volume XXXI Number 4 Fall 2024

#### Save the Date:

**Jan 9–** SCRIP board meeting, Windber Hotel, 2 pm.

March 15– Nature-Works at Bottle-Works, Johnstown, 10 am-2 pm

April 12– Mountain Laurel Trout Unlimited banquet at The Willow, 650 Airport Road, Johnstown

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### Stonycreek-Conemaugh River Improvement Project

# Water Quality in the Stonycreek, Helped by Oven Run Projects, Improved Beyond Initial Enhancements by Len Lichvar

The primary goal of the historic abandoned mine drainage (AMD) remediation efforts, centered in the Oven Run watershed, a sub-watershed of the Stonycreek River in Somerset County, initiated in the early 1990's was never intended to restore the aquatic life of Oven Run itself.

Those efforts, pioneered by the Somerset and Cambria County Conservation Districts, led to the formation of the Stonycreek-Conemaugh River Improvement Project (SCRIP), which then empowered federal and state agencies along with local non- profits and volunteer groups, to begin the daunting task of constructing AMD treatment systems. The Stonycreek River was the target to be improved. Oven Run was to be the sacrificial lamb.

Fast forward to over 25 years later, and with the reconstruction of four of the Oven Run systems by the Somerset Conservation District, as well as a fifth system completely rehabilitated by the Pennsylvania Department of Environmental Protection Bureau of Abandoned Mine Reclamation (PADEP BAMR), more alkalinity is being generated, more metals are being removed, and more water is now treated. Also contributing are 19 other AMD treatment systems that have been constructed in the Stonyceek River watershed, as a result of the momentum generated by the Oven Run Projects.



Eric Null, center, Adjunct Instructor for Garrett College of Maryland and the Executive Director for the Pennsylvania Council of Trout Unlimited leads the fish survey crew on Oven Run. Photo by Len Lichvar

The sampling data collected by InnoH2O, under contract by the Somerset Conservation District, has clearly demonstrated that water quality in the Stonycreek River is being improved beyond the initial enhancements initially generated by the original Oven Run treatment systems.

This documented data knowledge led the Somerset Conservation District to attempt to determine what impact all this just might be having on Oven Run, which has been devoid of aquatic life for 125 years. The District organized an electofishing expedition, in cooperation with Garrett College of Maryland on Oven Run in August 2024.

(continued on page 2)

#### Stony-Oven Run (continued from page one)

This first ever fish survey of Oven Run made a monumental discovery. In the 100 meter section that was sampled, 5 species of fish were found. A total of 58 individual fish were documented that included white suckers, creek chubs, northern hog suckers, long nose dace and black nose dace. A young of the year creek chub was identified, indicating that natural reproduction is occurring in Oven Run. In addition, caddis larva and crayfish were also found.

A newspaper article dated July 9, 1993 in the Johnstown *Tribune –Democrat* headlined that the Oven Run project, "Aims to resurrect the Stonycreek River." Today it can be readily seen that this multi-million dollar effort, combined with thousands of hours of professional and volunteer contributions, has done just that. The result has been the creation of opportunities for outdoor recreation that has created an eco-tourism boom and generated an economic engine that had previously not existed in the Cambria-Somerset region. This natural resource conservation effort is the foundation that all the other more recent recreational oriented initiatives in the region have been built on.

Recent articles in the Johnstown *Tribune-Democrat* have been titled "Outdoor Enthusiasts give Tour of Region's Amenities" and "National Coalition visits Johnstown to see examples of rural reinvention." These and many other realizations now demonstrate that the foresighted vision generated over 30 years ago by a small group of local conservation minded citizens, as described back in 1993, have more than achieved their intended goal.

It should be noted, however, that never ending operation and maintenance of the existing treatment systems is still a never ending responsibility, and that understaffing and underfunding continue to be hurdles that make sustaining all these achievements an ongoing behind the scenes struggle and challenge.

Another reality is the resurgence of Oven Run may be just a footnote in a much larger saga. However, for those who still vividly remember the horrifically polluted conditions of both the Stonycreek, much less tributaries such as Oven Run, and believed it could change when many naysayers thought otherwise, it is an important and satisfying milestone nonetheless.

## Shade Creek Watershed Association Receives Grant to Develop AMD Treatment Plant by Tom Clark

Shade Creek has large problems when it comes to the impacts of historical coal mining. Much of Dark Shade Creek and all of Shade Creek mainstem is orange and devoid of any measurable fish life. However, that may be coming to an end with one project as the Shade Creek Watershed Association (SCWA) has receiving funding from the Pennsylvania Bureau of Abandoned Mine Reclamation's AMD and AML Grant Program (funded by the Biden Administration's Infrastructure Investment and Jobs Act) to begin investigations for and designs of a large AMD treatment plant which will treat the remaining large flow discharges that plague this beautiful watershed.

How is one project going to solve everything you may ask? Because even though Shade Creek has these large flow and highly polluting discharges, all of them are located relatively close to one another, which can allow for a strategically placed plant, that will look much like a clarifier-based sewage treatment system, to treat them all in total. (continued on page 5)



Larry Hutchinson, SCWA VP, collects needed flow data from the weir at the Reitz 4
Discharge in Central City. Photo by Tom Clark

### Master Naturalists Inaugural Training in Cambria County

by Melissa Reckner and Jackie Ritko



Pennsylvania Master Naturalist (PMN) is a program you probably haven't heard anything about... yet. PMN is a non-profit organization that was formed in 2010 to bring the Master Naturalist training to the Commonwealth. It is based off a model that was developed and continues in Texas.

PMN is designed to connect adults to their local ecosystems through natural science training and conservation service work. A 12-week training introduces participants to topics such as water in the landscape, geology, ornithology, mammalogy, and much more. Four Saturday field trips expand upon the lessons learned in the weekly classes.

After the core training concludes, participants have 11 months to complete 30 hours of approved community service and 8 hours of advanced training to become certified as a Master Naturalist. Service opportunities include stewardship, education, program support, and community science and should be completed with a local conservation organization, municipality, school, or similar group. Naturalists must complete 20 hours of service and 12 hours of training in subsequent years to maintain certification.

The Cambria County Conservation District, with assistance from Brandywine Conservancy's Penguin Court, hosted the first training program in Cambria County this fall at its Disaster's Edge Education Center in St. Michael. Ten people completed the training and will be working in the county to secure their service hours in order to graduate in November 2025.

Jackie Ritko, the District's Resource Conservation Supervisor, said of the program, "I really enjoyed our first Master Naturalist program. It is a very well-thought-out curriculum that equips individuals with a deep understanding of the natural world, ignites a passion for conservation, and empowers participants to become stewards of their local ecosystems."

Given the strong positive feedback, the District will host the training again in fall 2025, while Penguin Court will host the training in Westmoreland County at the same time. If you can't wait to participate, there will be new training opportunities in Indiana and Somerset Counties this spring.

To learn more and apply for the program, visit <u>PAMasterNaturalist.org</u>.

All photos by Melissa Reckner.







### Cambria County Master Naturalist Program Conservation Field Trip

by Jackie Ritko

Cambria County's first Master Naturalist Class embarked on their final field trip on October 19th. Conservation projects were the focus of the day and we were lucky enough to have Branden Diehl, Grant and Project Consultant for the Foundation for PA Watersheds, to give us a tour of the Rosebud St. Michael Abandoned Mine Drainage (AMD) Treatment Plant.



Participants got to learn about how AMD treatment plants play a crucial role in restoring the environmental health of areas affected by abandoned mines. The design and operation of the plants are highly specialized, aiming to reduce harmful environmental effects while maintaining efficient and sustainable treatment processes. Participants were able to examine each stage of the treatment process and learn how the plants tackle the large volume of water coming from vast underground mine complexes. The next stop on our field trip was to a site along the main stem of the Little Conemaugh, just outside of the town of Portage.

Branden is currently working with DEP BAMR to design a similar plant that will treat several large discharges from the Sonman and Hughes mines. The cleanup of these discharges will result in greatly improve water quality on the main stem of the Little Conemaugh River.





The final part of the field trip was spent exploring the BottleWorks in Johnstown to look at their green infrastructure projects. Facilities Chair and Executive Board Member, Sue Konvolinka, graciously guided the class through the history of the BottleWorks, how they developed the green roof project and designed the extensive rain garden across the street. Exploring the native plant gardens and recently completed pavilion was a fantastic way to wrap up our fall field trip series.

All photos by Jackie Ritko.

#### Shade Creek AMD Treatment Plant (continued from page 2)

The discharges will then be conveyed to the plant through the connection of mine pools, pumping station(s) and pipelines which will restore the final 3.5 miles of Dark Shade Creek, 10-miles of Shade Creek, and another 4-miles of the Stonycreek River down to the entry of Paint Creek.

SCWA has contracted Kleinfelder out of State College, PA to complete the investigation and design of the plant. First task to be completed will be the installation of water-level loggers within the two largest mine pools, Reitz 4 and Loyalhanna 6, to collect data to help determine the best way to convey the discharges to the plant site, which is still undetermined. However, several candidate sites have been short-listed. After installation of the loggers in the boreholes, Kleinfelder will complete a conveyance plan, a treatment system byproduct plan, a real estate and infrastructure analysis, and a bench-scale treatment test, all leading to a design of a plant that can then be utilized to cost full design, construction, and permitting for a future grant to complete the project.

Once online, fish from downstream areas and cleaner tributaries will quickly populate the mainstem of Shade Creek and Dark Shade Creek through the communities of Central City and Cairnbrook and restore a stream prized by paddlers.



Michael Cook started a podcast that showcases our area: "We explore all of the amazing recreational opportunities of the Greater Cambria County region." Where Adventure Lives is available for free on Amazon/Audible, Spotify, and Apple, etc. Len Lichvar, from the Somerset Conservation District, is featured on Episode 49.

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## www.scrippa.org

SCRIP is the Stonycreek-Conemaugh River Improvement Project, a coalition of grass-roots groups and local resource agencies working to restore and promote the Upper Conemaugh watershed.

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