



## *Mine Pool Investigation Work Continues at Crabtree*



The newly installed weir at Crabtree was raised during a mine pool flow experiment and for the first time the discharge ran dry (for a few days anyway!)

Work progressed throughout 2024 on a project in Crabtree that involves evaluating mine pumping and proposed treatment system alternatives to remediate the Crabtree Creek Abandoned Mine Drainage Discharge, the largest source of AMD pollution in the entire Loyahanna Creek Watershed. The goal is that after the completion of this project phase, the most effective system for both water treatment and long-term operation & maintenance will be developed, eliminating 2.4 million pounds of Iron solids currently entering Crabtree Creek and ultimately the Loyahanna Creek every year.

Working with Hedin Environmental, LWA completed an Evaluation Study of the Crabtree Creek Discharge in 2017, followed by a second project in 2021 that included the engineering and design of a plan to relocate the discharge for passive treatment via a gravity-fed pipeline. While this plan still may be a viable treatment option, due to escalated costs

of construction materials and the massive task of moving the mine water over 18,000 feet downstream, our project partners from the PA Department of Environmental Protection, Bureau of Abandoned Mine Drainage supported the option to explore an active treatment scenario as an alternative.

To date in this project phase, Hedin Environmental has conducted an in-depth hydrology study of the vast mine pool below the Crabtree and Hannastown communities, that involved a thorough mine map analysis and review of remaining abandoned boreholes within the project area, installation of permanent flow measuring weirs at both the Crabtree and Jacks Run discharge locations, continuous water chemistry and flow readings of the discharges, a test borehole drilling, and review of accessible properties for treatment system development. As this investigation nears completion, the study will provide recommended treatment system locations and conceptual designs for active treatment of the Crabtree Discharge.

This project was funded by a \$382,909 grant awarded through the Abandoned Mine Land and Acid Mine Drainage Program, a result of the \$3.7 billion in bipartisan infrastructure law funding for Pennsylvania. We would like to thank our partners from DEP-BAMR, Hedin Environmental, the Crabtree Volunteer Fire Department and most especially, Vince Mangini and our neighbors in Crabtree for supporting these efforts!



In April, LWA staff welcomed the U.S. Department of the Interior Secretary, Deb Haaland, in Crabtree.



## Multi-Year Growing Greener Project Wraps Up



This log framed stone deflector and cross vane with rock throat was constructed on Mill Creek just above the confluence with the Loyalhanna.

Over the past three years, a series of streambank stabilization and fish habitat restoration efforts led by Josh Penatzer, LWA's Director of Environmental Projects, were successfully completed on Mill Creek and Fourmile Run through a grant from the PA Department of Environmental Protection Growing Greener program. These projects aimed to reduce sedimentation, restore stream flow, and enhance aquatic habitats. Despite facing significant weather related challenges including heavy rainfall and extreme drought experienced over all three project seasons, these efforts have yielded measurable improvements in stream health and fish habitat availability.

The most recently completed projects include three sites along Mill Creek and one on Fourmile Run, each employing a variety of stabilization techniques tailored to the specific needs of the stream sections. The Mill

Creek - Mallard Lane site utilized modified mudsills, root wad channel blocks, log frame cross vanes, rock vanes, and random boulders. This effort restored 350 linear feet of bank, preventing an estimated 15 tons of sediment from entering the creek each year. Another site along Mill Creek by the Ligonier Camp & Conference Center used modified mudsills, log-framed stone deflectors, log-framed cross vanes with rock throats, J-hooks and root wad channel blocks. This larger project restored 650 linear feet of streambank, preventing approximately 30 tons of sediment from washing into the stream annually. The Fourmile Run site located in Cook Township incorporated log-framed stone deflectors, rootwads, random boulders and modified mudsills to enhance both stability and habitat quality. Here, 750 linear feet was restored and 33 tons of sediment annually will be prevented from entering the stream.

One of the most notable successes of these projects has been the restoration of stream flow to a previously stagnant reach of Mill Creek near the wastewater treatment plant in Ligonier Borough. This improvement has significantly expanded trout habitat, allowing fish to occupy stretches of the stream that were previously unsuitable. With increased flow and structural enhancements, trout populations now have access to high-quality habitat throughout the entire restored section. This site received 1,000 linear feet of restoration measures including the construction of rock deflectors, random boulders, J-hooks and several log framed stone deflectors with rock throats, ultimately preventing 54 tons of sediment from entering Mill Creek each year.

Looking ahead, additional stream restoration projects are scheduled for summer, 2025, with plans to secure additional grant funding for new sites over the next five years. The knowledge gained from these completed projects will inform future efforts, allowing the most effective stabilization and habitat enhancement techniques to be replicated across other impaired areas of the watershed. As additional projects move forward, the ongoing commitment to monitoring and adaptation will ensure that these efforts continue to benefit the Loyalhanna Creek Watershed for years to come!



A modified mudsill structure installed along a 750 foot section of Fourmile Run in Cook Township.



# Education & Outreach Abounds in 2024!



Fourth grade students from Laurel Valley Elementary School enjoyed an early spring field trip exploring the wetland at the Watershed Farm.

From tadpoles to trout, to golfing and kayaking, we had an incredible year with people of all ages exploring and enjoying all the Loyalhanna Creek Watershed has to offer! Tara Jellison, LWA’s Administrative & Outreach Manager, coordinated over two-dozen different education programs for students in grades K-12 from the Ligonier Valley and Greater Latrobe School District’s. More than 800 children participated in hands-on learning activities both outdoors at the Watershed Farm and in their classrooms.

One of the highlights of the busy spring field trip season was working with Ms. Sampeer’s class at Ligonier Valley High School and the “Trout in the Classroom” opportunity they were able to experience throughout the second semester of the school year. After several classroom sessions learning about the importance of clean water and healthy habitats that trout need to survive, students were able to release fingerling trout they cared for during a field trip to the Loyalhanna in May.

Family-friendly programs, including the annual PA Bluebird Society Workshop hosted by Dr. Wilma Light and a “Leap Into Herpetology” program with guest presenter, April Claus, were a big hit with program attendees, and thanks to a growing partnership with Keystone State Park and Education Specialist, Chloe Kalp, we were pleased to host two summer camp sessions exploring the resources Keystone has to offer.

Outreach events, such as the always cool Polar Plunge with Greater Latrobe Parks & Recreation, Annual Membership Dinner, Great Ligonier Valley Cleanup, Loyalhanna Sojourn, Gun & Golf Extravaganza, Ligonier Witches Bike Brigade and Annual Art Auction Benefit provided both networking opportunities as well as much-needed funds to sustain our free program offerings throughout each and every year. We are so grateful for all of the attendees and community members who support our various outreach efforts!



April Claus shows a friendly box turtle to “Leap Into Herpetology” program participants.



Paddlers at the Loyalhanna Sojourn prepare to hit the water at the Cardinal Park launch.



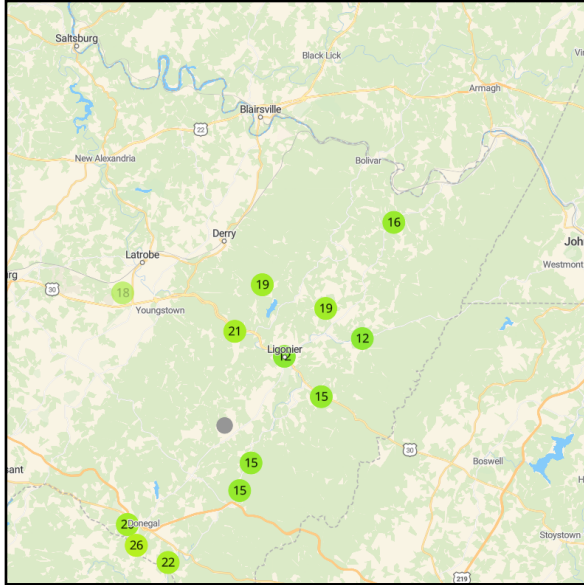
Fingerling trout before being released by students into their new Loyalhanna home.



LWA President, Tom Smith and Eileen Siwicki admire a painting by Rita Haldeman featured at the 40th Annual Art Auction Benefit.



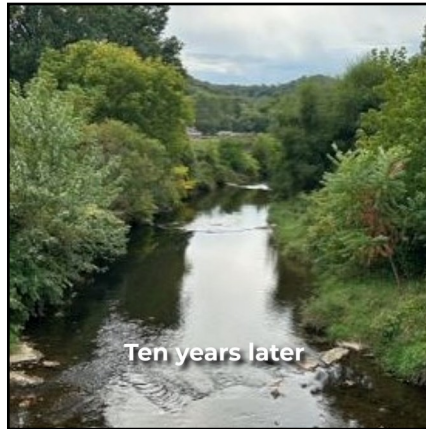
## LWA Continues Ligonier Valley Air Quality Monitoring Project



The public is able to view the real-time data from air quality sensors locally and across the globe by visiting [www.purpleair.com](http://www.purpleair.com).

Since 2021, air quality monitors by manufacturer, PurpleAir, have been continuously monitoring particulate levels in the air at several locations throughout the Ligonier Valley. The project, originally led by area conservationist, Annie MacDougall, and others from the Concerned Citizens of Ligonier group, came about as the Ligonier Valley is susceptible to air pollution due to its topography as a low-lying area and location east of Pittsburgh. The impact of this monitoring effort will help with the preservation and restoration efforts of our local natural resources to benefit the health and quality of life for residents, visitors and future generations.

With generous funding provided by several private donors, LWA has been able to purchase seven new PurpleAir Flex Air Quality Monitors to replace old sensors and establish additional monitoring locations. This data can be publicly viewed at any time through the PurpleAir website at [www.purpleair.com](http://www.purpleair.com) to see what current particulate levels are and if there are any health risks to those more susceptible to higher levels. An annual report will be published at the end of each year moving forward and shared with the community on LWA’s website.



It’s been 10 years since LWA partnered with PennDOT District 12-0 and the PA Fish & Boat Commission on a project along the lower section of Mill Creek between the Main Street and Route 30 westbound bridges. A picture is worth a thousand words in this case, and captures the incredible transformation of this once flat, shallow section of stream and its riparian area over time. Not to mention, it is one of the best kept secret spots for catching trout along this waterway - shhh don’t tell!

## YCC Summer Internship Program Continues

We were pleased to once again partner with the PA DCNR-Forbes State Forest on a successful Youth Conservation Corps Summer Internship Program. Nolan Brahosky, a rising sophomore at Frostburg State University, was selected as the 2024 intern. Working with veteran crew leader, Bill Repko, and DCNR staff, Nolan completed numerous projects throughout the Forbes, including clearing brush over trails and monuments, repairing swales along Lookout, McKenna and Summit trails, repairing a section of Bill Albert’s trail that was notoriously holding water, and constructing a new set of stone steps below Fish Run Trail.

We are grateful for the long-time support of the Katherine Mabis McKenna Foundation who have contributed to the success of this program for more than 40 years!



YCC Summer Intern Nolan Brahosky works to repair a wet section of trail using shale and logs.

# 2025 Upcoming Events

## FEBRUARY



**Bald Eagle Program and Bus Trip**  
**Thursday, February 20**  
 9:15 am arrival

Join LWA for this chartered coach bus trip and educational program to view the bald eagles that frequent the Loyalhanna Dam at this time of year. Bus will depart from the Ligonier Country Market parking area at 9:15 am for the morning program led by PGC Sergeant Warden, Mike Papinchak. Enjoy a delicious breakfast/lunch on your own at Keystone Kitchen on the way back to Ligonier!

- \$5 per person
- Register Online at <https://baldeagles.eventbrite.com>
- For more information, contact Susan at (724) 238-7560, ext. 1#



## MARCH

**PA Bluebird Society Workshop**  
**Saturday, March 1**  
 10:00 am - noon



Dr. Wilma Light and other members of the Bluebird Society of PA will lead this popular annual program on the Eastern Bluebird, including an opportunity to make your own bluebird box to attract these colorful thrushes to your home!

- Nimick Family Education Center at the Watershed Farm
- Free! One bluebird box per household, limited to the first 50.
- To register, contact Susan Huba at [susan@loyalwater.com](mailto:susan@loyalwater.com) or (724) 238-7560, ext. 1#

## APRIL



**Great Ligonier Valley Cleanup**  
**Saturday, April 26**  
 9:00 am - noon

Celebrate Earth Day 2025 by volunteering for our annual Great Ligonier Valley Cleanup! Individuals and groups of all ages are able to participate in this spring community cleanup event of state and township roads throughout the Ligonier Valley!

- All supplies, including bags, safety vests and gloves will be provided
- For more information or to register, contact Josh at (724) 238-7560, ext. 2# or [josh@loyalwater.com](mailto:josh@loyalwater.com).



## MAY

**11<sup>th</sup> Annual Loyalhanna Sojourn**  
**Saturday, May 17**  
 9:00 am start

Paddle 9 miles of the Loyalhanna Creek from Latrobe to New Alexandria in this exciting on-the-water event! Shuttle transportation, insurance and a commemorative t-shirt included.

- \$25 per person
- Register Online at [www.latroberecreation.org](http://www.latroberecreation.org)
- Need a kayak? Contact Two Dam Kayak Rentals for boat rentals (724) 541-7447

## MAY



**54<sup>th</sup> Annual Membership Dinner**  
**Friday, May 23**  
 6:00 - 8:30 pm

LWA's annual membership dinner is a great time for camaraderie and reflection on our recent accomplishments in conservation. Join other LWA members for a delicious family-style dinner by Simply Good Catering and fabulous entertainment in the Barn!

- Invitations will be mailed in April
- For more information, contact Tara at [tara@loyalwater.com](mailto:tara@loyalwater.com) or (724) 238-7560, ext. 3#



## JUNE



**Valley Vibes Music Festival**  
**Sunday, June 8**  
 11:00 am start

Grab your friends and get ready for a day filled with amazing live reggae & roots music by bands MSJR, Keystone Vibe, 4String Fighter & Friends, RAS Prophet and headliner, Lopaka Rootz! Delicious food trucks and local libations from Unity Brewing and area distilleries will also be featured, along with good vibes of course!

- \$25 per person
- Purchase pre-sale tickets online at <https://valleyvibes25.eventbrite.com>
- For more information, contact Susan Huba at [susan@loyalwater.com](mailto:susan@loyalwater.com) or (724) 238-7560, ext. 1#





Last August, a crew from Spotless Solutions spruced up the barn with (several) new coats of paint! While not a drastic change, it definitely freshened up the siding and trim after the initial renovations were completed eight years ago. Thank you to the crew for doing a spectacular job!



A huge congratulations to Josh and Ellie Penatzer on the birth of their newest addition, Wade Thomas Penatzer. Wade was born on December 2, 2024, weighing in at 7 lbs, 3 oz and 18.5 inches long, and joined his wonderful big sister Riley and big brother Dale.

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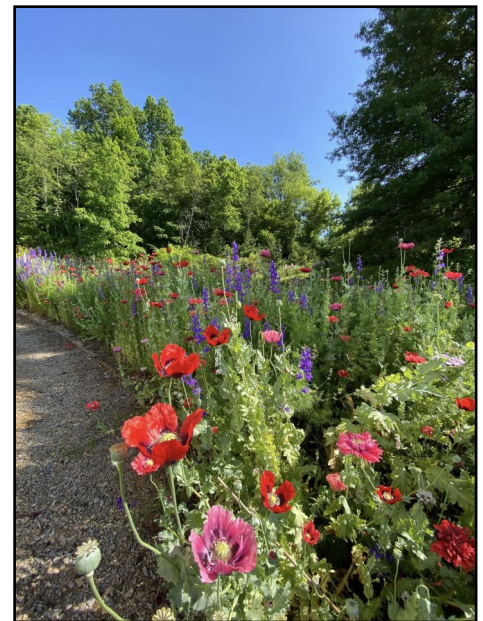
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### *Contact Us*



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