



Road to recovery isn't a road...it's a river

West Branch of Susquehanna sees big improvements, but there's more work to do

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By AMY WOLFE , For The Express

The West Branch Susquehanna River is special.

I knew that from the moment I set my eyes upon it when visiting Lock Haven a little more than 20 years ago.

As a second-year biology student from DeSales University interested in transferring to Lock Haven University's (LHU) Ecology and Environmental Biology Bachelor of Science program, one look at the beautiful river and the vast, mountainous state forest lands that surround the area was all it took to know this was a place I would eventually like to call "home."

In one of my biology classes at LHU, however, I quickly learned that this beautiful river was not teeming with healthy populations of fish just waiting to be caught at first cast. In fact, I was appalled to learn that, from Lock Haven all the way to its headwaters in Cambria County, the river was essentially devoid of any aquatic life. It had been that way for decades as a result of unregulated coal mining that occurred before 1977 when federal regulations took effect.

And not only was this majestic river mostly lifeless, but so were the hundreds of miles of the river's coldwater tributaries that once upon a time contained thriving populations of Pennsylvania's state fish, the brook trout. Instead, the river and these streams were comprised of polluted water that flows from abandoned coal mines scattered throughout the watershed. This polluted water, or abandoned mine drainage, is highly acidic and contains high concentrations of metals, such as aluminum and iron that can be toxic to aquatic life.

That was 20 years ago.

A lot has happened since then.

Local watershed organizations, county conservation districts, Trout Unlimited, government agencies and many other groups have stepped up to voluntarily clean up the pollution that persists from abandoned coal mines.

Tens of millions of dollars from federal, state, local, and private grant programs have been spent to restore these scarred lands and streams - not to mention the thousands of hours spent by dozens of volunteers across the region to plan, implement, and monitor these projects.

A common way to restore polluted streams is called passive treatment, which typically utilizes a series of wetlands and ponds that contain limestone and organic compost to neutralize the acidic water and remove the toxic metals from it. It's like a huge filtration system - the polluted water goes in and after being treated, is stripped of the compounds that make it so.

Several such systems that have been built over the past decade are located in the nearby Tangascootack Creek watershed and Twomile Run subwatershed of lower Kettle Creek. In fact, these

treatment systems are responsible for the improvements in water quality to once-dead streams in the region like Babb Creek, a tributary to Pine Creek that now supports thriving populations of native brookies.

All over the West Branch Susquehanna watershed, success stories like these are becoming more common where years of studying, planning, and then doing these projects are paying off as fish and other aquatic life return to the streams and river.

Take, for instance, the river near Hyner.

Little more than 10 years ago, only three kinds of fish could be found there.

Now, at least 16 types of fish call the river their home there. Ask anyone who has fished the river around Renovo and they'll tell you how good the smallmouth bass fishing has become in recent years.

Nevertheless, the successes are still relatively few. Abandoned mine drainage has plagued more than 1,000 stream miles throughout the West Branch Susquehanna watershed for decades.

Reversing this damage is going to take just as long.

Recent sampling of aquatic insects - fish food - are still found in low numbers, which indicates the river still shows signs of impairment from the mine pollution. Although significant advances in mine drainage treatment technology have been made over the years, funding is not always readily available and it often takes years of fundraising just to cover the cost of one project, which can range anywhere from several hundred thousand to well over a million dollars.

It's slow, plodding work, but it's worth it - for the rivers and streams in the West Branch Susquehanna watershed, for the people who live and fish here, and for all Pennsylvanians.

As we continue this important work, we'll be sure to celebrate every project that is completed, every mile of stream to which fish return, and every new opportunity to cast to a wild brook trout in a place that bears the burden of a legacy of mining, but is on a path to renewal.

Amy (Gottesfeld) Wolfe graduated with a bachelor of science in ecology and environmental biology from Lock Haven University in 1996. Since 1999, she has worked for Trout Unlimited, the nation's oldest and largest coldwater conservation organization, on watershed restoration throughout Northcentral Pennsylvania. Ms. Wolfe currently serves as Trout Unlimited's director of the Eastern Abandoned Mine Program and the Pennsylvania Eastern Brook Trout Habitat Initiative with an office in Lock Haven. A major focus of her work over the past 14 years has been Kettle Creek watershed in Clinton, Potter, and Tioga counties. More information on cleaning up abandoned mine drainage across the West Branch watershed by TU and its partners can be found at www.tu.org and www.wbsrc.org.

