

## by Mike Parker Communications Director Pennsylvania Fish and Boat Commission

he perils facing polluted Turtle Creek, Union County, have been documented before, but the latest update is a major milestone in a continued conservation success story.

In April, the Pennsylvania Fish and Boat Commission (PFBC) joined the Pennsylvania Departments of Agriculture, Conservation and Natural Resources, and Environmental Protection, and members of the Northcentral Pennsylvania and Chesapeake Conservancies for a celebration to remove, or "delist", portions of Turtle Creek from the federal Clean Water Act impaired waters list.

The delisting not only shows progress in Pennsylvania's focused efforts to improve water quality within the Chesapeake Bay Watershed but magnifies the PFBC's role as a steward of our natural aquatic resources beyond the purposes of recreational fishing and boating.

When PFBC was recruited to the Northcentral Stream Partnership in 2007, it was an initial recognition of the agency's expertise in the design and construction of instream habitat projects and how it could benefit the

greater good. While habitat projects benefit aquatic life and anglers, the resulting cleaner water benefits everyone, even hundreds of miles downstream. Since 2013, multiple successful projects on private agricultural properties along Turtle Creek have worked to reduce excessive siltation, stabilize streambanks, reduce livestock grazing in the stream and restore an abundant population of aquatic life. The delisting of multiple sections of Turtle Creek is the ultimate recognition that time and hard work pay off.

To date, restoration work along approximately 4.16 miles of Turtle Creek has resulted in approximately 2 miles of stream being delisted.

"Pennsylvania has more streams of this type than any other state in the country," said State Senator Gene Yaw (PA-23) who is also chair of the Pennsylvania delegation of the Chesapeake Bay Commission. "About a third of them have some kind of a need for an upgrade or repair on them. And, this is the type of project that accomplishes those things."

Projects within the Turtle Creek watershed have been funded through an innovative block grant model using Growing Greener grants and other funds that provide stream improvements to landowners at little or no cost. The PFBC and other partners are able to stretch the impact of projects by focusing on low-cost, high-benefit best management practices for stream restoration.

38 Pennsylvania Angler & Boater fishandboat.com



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Through the partnership with other state agencies, local conservation districts and private property owners, the PFBC has assisted with the design and construction of more than 1,350 instream structures on Turtle Creek including modified mudsill cribbing for overhead cover and streambank stabilization, log vane deflectors to draw current away from the streambanks, and cross vane structures to control grade and produce a downstream habitat pool for aquatic life. Other partners have contributed to the overwhelming success of the project through their areas of expertise including riparian buffer plantings using native Pennsylvania species, streambank fencing and livestock crossings.

To amplify its commitment to projects like Turtle Creek and expand efforts on similarly impaired waters, in 2020, the PFBC created the Chesapeake Bay Watershed Habitat Unit. With the formation of the new specialized unit, the number of staff dedicated to stream rehabilitation work grew from just two to eight, greatly expanding the agency's reach to work on multiple habitat projects at a time and complete larger projects more quickly. Other projects currently underway within the watershed include improvements to Limestone Run, Montour and Northumberland counties, and Little Shamokin Creek, Northumberland County, a Stocked Trout Water.

In Turtle Creek, the positive results are evident in the number of fish, reptile and amphibian species that have returned to the creek in recent years. When surveyed by the PFBC's Division of Environmental Services in 2023, 25 fish species were encountered within the stream including wild Brown Trout, Bluegills, Largemouth Bass, Smallmouth Bass and various sunfish as well as Margined Madtoms, darters, and several species of minnows including dace and shiners.

"The success story being written here on Turtle Creek is nothing short of remarkable and should inspire us to keep working to conserve, protect and enhance our aquatic resources statewide," said PFBC Executive Director Tim Schaeffer. "We've made the work that we're doing here relevant and meaningful well beyond these farmlands."



Turtle Creek watershed conservation partners including PFBC Executive Director Tim Schaeffer (fifth from left) celebrate by holding signs that, together, read "Delisted!" to celebrate multiple stream sections being removed from the federal impaired list.



To celebrate the delisting of several sections of Turtle Creek from the federal Clean Water Act impaired waters list, a celebration was held on the farm of Mary Beth and Frank Griffith, Union County. Guests toured the stream restoration project area and visited educational stations highlighting improvements in water quality and fish populations health.

## **Stream Habitat Management:**



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