



An aerial view of Hammer Creek Estates in Lancaster County, Pennsylvania © John Hinkson / TNC

## Floodplain and Stream Restoration Aids Pennsylvania Farmers

*TNC and its partners are applying science-based conservation practices in the Chesapeake Bay watershed*

For Mitchel and Ashley Zimmerman, farming in Lancaster County, Pennsylvania, is a generational tradition. Their 233-year-old farmhouse in the Upper Cocalico Creek watershed has been in Ashley's family for almost a century, and while a lot has changed over that time, the couple still primarily raises corn and soybeans along with a few cattle and two donkeys.

In recent years, however, Mitchel has grown increasingly concerned about heavy erosion of the stream running through the property. Periodic flooding in his fields harms his productivity and his bottom line.

Like many of Pennsylvania's historic farmlands, the Upper Cocalico basin is facing a floodplain challenge. When natural wetlands are drained or altered over time, the ground loses a critical "sponge," leaving stream banks vulnerable to deterioration from heavy rainfall. What's more, nutrients applied to fertile fields have less resistance for running off into local waterways, negatively impacting water quality all the way downstream to the Chesapeake Bay.

At an informational session about stream maintenance in 2022, Mitchel met Jon Niles, TNC Pennsylvania's Stream and Wetland Restoration Specialist. Jon works with partners, including Trout Unlimited, to aid landowners on designing voluntary stream improvements that provide both environmental and economic benefits. Every property is unique, and every landowner's needs are different, so the plans are always customized to suit each farm.

"I welcomed Jon's expertise on how we can make it better, how we can control erosion," Mitchel says. "We walked the property and identified a bunch of things that might be able to keep the fields drier so that we can be more profitable as farmers."

Last year, Jon and the project team finalized a design for Hammer Creek Estates, which included adding a 2.4-acre wetland restoration area, a 1,000-foot floodplain and stream restoration area and additional riparian buffers on the banks. *(continued, over)*



Mitchel Zimmerman at Hammer Creek Estates © John Hinkson / TNC



The banks along the creek at Hammer Creek Estate will be reinforced with riparian buffers. © John Hinkson / TNC

(continued from front) The plan also helped improve pastures and cropland while implementing a plan for rotational grazing. With funding secured through both public and private grants, construction will begin this year. The restoration work is expected to be completed in late 2025.

“I love that TNC is a science-based conservation organization working to advance the best practices in a global, regional and local boots-on-the-ground model,” Jon says about his work. “The ability to contribute to wetland restoration and wildlife habitat in a way that helps farmers is the most rewarding part.”

Restoring this historic stream and floodplain will directly benefit water quality in the Upper Cocalico and the Chesapeake Bay watershed. But for Mitchel and his family, it means a brighter future for their land.

“Five, ten or fifteen years down the road, when everything’s starting to grow up and there’s shade, I’m imagining this as a place where I can take the family down to the creek to go fishing,” Mitchel says.

Mitchel hopes that more farmers will consider working alongside TNC and its partners on similar stream and wetland restoration efforts for their properties.

“I view this as future-proofing. If you take care of the land, it will take care of you,” he says. “What we do here will affect our neighbors downstream, and if we work together as a community, it’s going to benefit everyone.”

The Nature Conservancy wants to ensure a cleaner, more sustainable future for our rivers and streams. As North America’s largest estuary, the Chesapeake Bay watershed covers approximately 64,000 square miles and includes thousands of streams across six states and the District of Columbia. Much of the Chesapeake watershed also lies within the Appalachian range, a global priority landscape.

TNC is committed to conserving freshwater resources during this critical decade. With your support, we can make a lasting impact. In honor of World Water Day on March 22, please consider a gift to help us create innovative new programs and implement policies that will ensure cleaner water for generations to come.

To learn more about how your gift can make a difference, contact us today at 610-834-1323 or email us at [PA\\_Chapter@tnc.org](mailto:PA_Chapter@tnc.org).




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### Rare species sightings at Delaware preserves

Biodiversity is thriving at TNC’s preserves in Delaware. Recently, our land stewards caught a rare glimpse of sandbuilder worm reefs (*Sabellaria vulgaris*) during a walk at low tide on Big Stone Beach. Forming along the Delaware Bayshore, these unique reefs provide shelter from wave action and mitigate beach sand erosion.

The crevices in the reefs also offer food, shelter and protection for a host of other marine species, making them vital to our coastal ecosystem.

We’ve also nabbed glimpses of rare Delmarva fox squirrels, Lion’s Mane mushrooms and Butterfly Pea in full bloom, which can serve as a host plant for several native caterpillars and butterflies, including the vibrant long-tailed skipper. These finds highlight the value of protecting nature and restoring habitat for our rare and threatened species.

 Be sure to follow TNC Delaware on Instagram (@Nature\_Delaware) to see what we spot next!