Westmoreland Conservation District

Watershed Restoration

Shupe Run Streambank Restoration

Design Features: riparian buffer, stone deflectors, single log vane deflectors, regrading of streambank, rip-rap, rock toes

Date of Installation: Phase I: 2008, Phase II: 2013

Location: Willow Park, Center Ave.,
Mt. Pleasant, PA 15666

Client: Mt. Pleasant Borough

Cost: $103,000

Project Partners: Westmoreland Conservation District, Jacobs Creek Watershed Association, Mt. Pleasant Borough, Mt. Pleasant Township

Project Contact: Rob Cronauer
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Severe erosion threatening the soccer fields' fence next to Shupe Run

Stabilized bank under fence after rip-rap and riparian buffer planting

Project Specifications

The area of Shupe Run in Willow Park near the soccer fields was severely eroding due to the high flows of stormwater entering the stream during rain events, which was threatening the fence and nearby soccer fields next to the stream. This had caused the banks of the area to become almost vertical with little to no vegetated buffer to help control the erosion.

The Westmoreland Conservation District provided technical assistance and project management for this project. Funds were acquired from two sources for the two phases of the project. Phase I was funded by a Growing Greener grant, and Phase II was funded by an EPA Section 319 grant. Both were used to implement Best Management Practices (BMPs) to stabilize the streambank and reduce the amount of sediment entering the stream.

Phase I of this project was completed in the spring of 2008 and consisted of a number of BMPS. Large amounts of rip-rap and rock toes were placed along sections of the bank to reduce erosion. The steepest parts of the streambank were graded down to a shallower angle. Riparian buffers were planted all along the project area to stabilize the eroding streambank.

Phase II was completed in March of 2013 and built upon the previous work done in 2008. Stone deflectors, rock toes, and single log vanes were installed at five areas along Shupe Run, along with additional streambank grading and riparian buffers.

Benefits

The installation of the various BMPs along Shupe Run stabilized 2,000+ feet of streambank, cooled water temperatures to create better aquatic habitats for fish, and prevented around 33,000 pounds of sediment entering the stream per year.

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Streambank before construction

Streambank a few months after construction

Streambank seven years after construction.
Note the amount of vegetation that has grown up

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Eroding bank near pedestrian bridge

Bank shortly after grading, rip-rap, and seed and mulch

Bank seven years after BMPs were installed

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A section of Phase II streambank before construction

Phase II streambank after construction

Another Phase II streambank section before construction

The same section after construction