

Polluted Runoff: Solutions

Carroll County Farm Museum

Problem:

Double Pipe Creek watershed is identified by the Maryland Department of the Environment as a Category 5 impaired waterway for sediment, fecal bacteria, and nutrients. Carroll County Farm Museum's 20-acre site adjoins the creek and serves as a pass-through point for much of the watershed, which houses more than 200 acres of agricultural land.

Solution:

To help clean up Double Pipe Creek, riparian buffers were planted along the streamside and additional green infrastructure features were installed on museum property, including bioretention areas, cisterns, dry wells and landscape infiltration elements. The project took a year and a half to design and permit, and another year to install.

Job Creation: This process sustained three design/engineering jobs, three construction jobs, and five landscaping jobs.

Volunteers contributed more than 700 hours of labor to help construct the project and will provide ongoing maintenance of the stormwater features. In addition to helping restore water quality in Double Pipe Creek, the project enables the museum to offer stormwater runoff education to the 35,000 people who visit each year.



Students plant trees and grasses at the Carroll County Farm Museum while learning about stormwater runoff and water pollution reduction through these innovative projects they helped create.

Photo Credit: Carroll County



Photo Credit: Choose Clean Water

Key Project Facts

mostcenter.org/casestories

Project Location: Westminster, MD

Type of Project: Bioretention

Funding Sources: \$30,645 from Chesapeake Bay Trust and \$150,000 from National Fish and Wildlife Foundation

Partners: Carroll County Public Schools, The Center for Watershed Protection, University of Maryland

Cost: \$302,235 overall; \$41,895 in materials and \$260,340 in design and installation costs

Pollution Reduction Per Year: 77.20 lbs. nitrogen removed, 7.10 lbs. phosphorous removed, 3,800 lbs. sediment removed

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What is Polluted Runoff?

The growth of our cities has resulted in too many paved surfaces, which prevent rain water from being absorbed by the ground. Instead, the water runs off streets and buildings, collecting trash and dangerous chemicals on its way. This contaminated water overflows into our streams and rivers, creating public health hazards and toxic waters.

Stormwater projects create safe paths for polluted runoff to be captured and filtered before it reaches our waterways. They keep communities healthy and the environment clean. When communities and their local governments work together to solve big problems like stormwater runoff, that's a story worth telling!