

AGRICULTURE

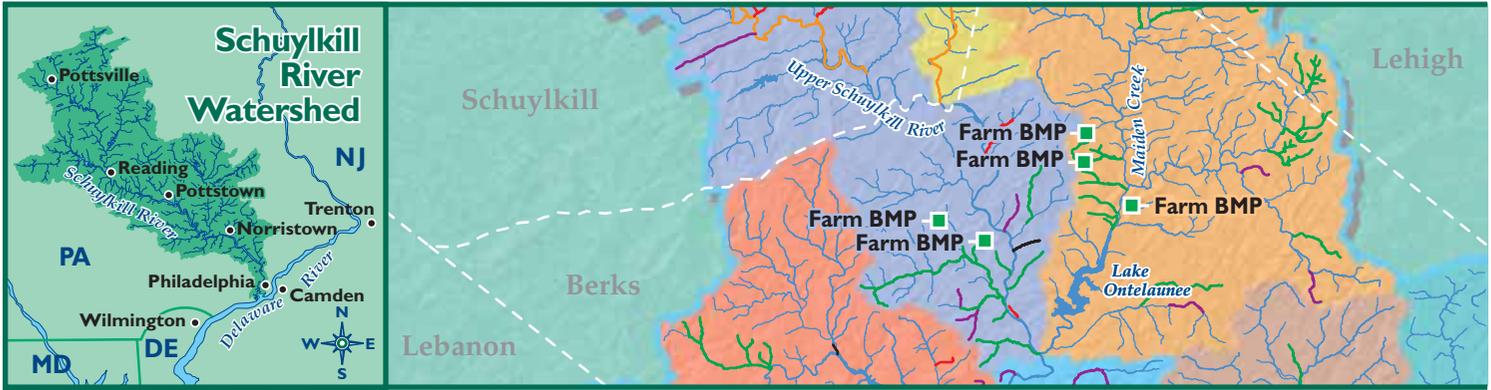


Adams Farm

On a small Maiden Creek tributary, the 105-acre Adams farm provides leased pasture to a neighbor's livestock. To protect the water resources from bacterial and nutrient pollution, the Berks County Conservancy used Schuylkill Watershed Initiative Grant funds to fence off ten acres of wetland and riparian buffer from livestock, and plant hundreds of native plants that will help filter runoff before it reaches the stream. Over 5,270 feet of stream bank was fenced off to keep the animals and their manure out of the water. High in nutrients and bacteria, manure in stormwater runoff contributes to excessive plant growth and algae blooms in the waterways, depleting the water of dissolved oxygen as the plants die. Fish and other aquatic creatures cannot survive if dissolved oxygen levels are too low. The presence of pathogens in source water may increase the cost of downstream drinking water treatment. Agriculture runoff can introduce cryptosporidium, which may persist through water treatment and cause illness among immunocompromised individuals.

The Adams farm is in the Agricultural Conservation Easement (ACE) Program implemented by the Berks County Agricultural Land Preservation Board. ACE farms require a Conservation Plan which calls for or recommends implementation of agricultural Best Management Practices (BMPs). Given that the farmland is protected in perpetuity, there is little chance of future residential or commercial development. Preserved in clusters, ACE farmlands help ensure the continuation of agriculture (the county's top industry), while maintaining the rural landscape of Berks County. These large land areas provide for stormwater infiltration that could otherwise become runoff from paved, developed surfaces.





This particular agricultural BMP project's value lies not only in the immediate and significant environmental improvement, but also in the lessons learned by more than 40 Kutztown High School Future Farmers of America students and their family members who planted trees in the riparian buffer and wetland restoration areas. Most of the students came from farming backgrounds, and their experience on the Adams farm gave them an opportunity to think about at-home watershed stewardship practices. They learned why fencing is a vital tool for keeping livestock and manure out of streams and wetland areas. They planted hundreds of trees, shrubs, and other well-established native plants, discovering hands-on how root systems support stream banks and reduce soil erosion, and how tree shade keeps water temperatures down to maintain healthier aquatic habitats. Gaining firsthand insight on preserving land and soil to keep headwaters and drinking water resources clean, these students will continue the tremendous success of the Adams farm lessons in their future farming endeavors.



The Schuylkill Watershed Initiative Grant is a targeted watershed grant awarded by the U.S. Environmental Protection Agency for the completion of a suite of water quality improvement demonstration projects in the Schuylkill River Watershed. The Adams Farm project is one of more than 40 projects that received funding from this source, in addition to other funds and/or support. The grant is administered by the Partnership for the Delaware Estuary and the Philadelphia Water Department.