

STORMWATER RUNOFF

Overview

In a perfect world, rain or melting snow would be absorbed by lush, vegetated land, soaked up by the roots of thriving trees, shrubs, and other plants in vastly forested areas. It would filter through layers of rock and sand, and recharge underground aquifers with clean, fresh water.

But in the real world, stormwater that cannot infiltrate asphalt, concrete, and other paved, compacted surfaces will simply follow gravity and run off to someplace else — usually down a storm drain and/or directly into a creek or river. On a downhill journey, stormwater runoff picks up everything we leave on the land and carries the pollutants directly into our local drinking and recreational water resources and fragile aquatic habitats. Chemicals, fertilizers, pesticides, bacteria, road salts, engine fluids, eroded soil, and debris can all be found in stormwater runoff, contributing 30% of all water quality impairments in the Schuylkill River Watershed. The sheer quantity of stormwater runoff presents a massively damaging force in the form of flooding and land erosion when it is improperly or inadequately managed.

Stream restoration and riparian buffer



Stormwater retention basin retrofits



Best Management Practices (BMPs) for stormwater management and pollution prevention can make a difference at every level, from the streamside private landowner, to the environmentally aware school campus, and on up to municipalities and major cities. One of the primary goals of stormwater BMPs is to get water back into the ground to prevent runoff and flooding, and recharge stream baseflows. BMPs, both structural and non-structural, are imperative for getting water back into the ground in today's nonporous world. Structural BMPs include pervious pavement (allows water infiltration), infiltration beds, basins, rain gardens, green roofs, swales, and other vegetated bioretention areas. Examples of non-structural BMP's are reduction of nonporous pavement, forested riparian buffer restoration, street cleaning, and protection and restoration measures for existing natural resources.



The Stormwater Workgroup of the Schuylkill Action Network strives to improve stormwater management to reduce and prevent runoff pollution in the Schuylkill River Watershed. This is accomplished by working with municipalities, government agencies, and other nonprofit and watershed organizations to increase and improve BMPs in the watershed. The workgroup's expertise is shared among members, which include state and federal government agencies, nonprofit organizations, and local governments who address stormwater management issues and priorities. Members share ideas and build capacity for providing coordination, outreach, education, and technical assistance in local communities.



Stormwater retention basin retrofit



The Schuylkill Watershed Initiative Grant is a \$1.15 million targeted watershed grant awarded by the U.S. Environmental Protection Agency for the completion of a suite of water quality improvement demonstration projects. The grant is administered by the Partnership for the Delaware Estuary and the Philadelphia Water Department, and through leveraging, provided \$3 million for water quality improvements, including over \$725,000 devoted to stormwater management projects in the Schuylkill River Watershed.