
Ferguson Township

Park Hills Drainageway

State College, Pennsylvania



A severely eroding, suburban drainageway is transformed into a stable and functioning ecosystem that enhances community safety, water quality, and habitat.

SERVICES

Ecological Restoration
Nature Based Solutions
Water Strategies

Located adjacent to the borough of State College, Ferguson Township is home to 19,000 residents. Over time, development and changing rainfall patterns in the region caused a drainageway in the Township's Park Hills subdivision to erode severely during storms. Eroding sediment then clogged culverts, causing local flooding and creating maintenance issues. As the ecological expert on a team led by NTM Engineering, Biohabitats helped the Township develop a solution to restore stability and ecological function to the drainageway

After conducting ecological and hydrological assessments of the site, Biohabitats developed a strategy to naturalize the drainageway so that it would safely store and convey stormwater flow within Township lands. The design, which features improved channel geometry, riffle grade control structures, and native riparian plantings, reduces channel erosion and downstream sediment deposits while enhancing native riparian habitat. It also preserves as much of the community's mature tree canopy as possible, protects existing and proposed utilities within the drainageway, and helps the Township earn stream restoration credit toward their MS4 permit for sediment and nutrient pollution.

A total of 2,350 linear feet of channel will be restored, bringing enhanced safety, flood protection, and habitat to this suburban community.