LITTLE PINE CREEK STREAM RESTORATION PROJECT
SHALER TOWNSHIP, ALLEGHENY COUNTY, PENNSYLVANIA

WHM Consulting, Inc. (WHM) was retained by Penns Woods West Trout Unlimited (PWWTU) to complete a natural channel design and construct a section of Little Pine Creek that flows through Fawcett Fields Park in Shaler Township, Allegheny County, Pennsylvania.

PWWTU had received a Growing Greener Grant for the design and construction of a natural stream channel restoration project on a section of Little Pine Creek. This section of Little Pine Creek has been heavily damaged by high-flow events is the past several years. High stormwater flows have carried large amounts of sediment downstream and deposited them along the banks of Little Pine Creek within the project reach. These deposits have shifted the baseflow of the stream causing significant bank erosion in the project area.

The goal of the project was to stabilize the degraded stream segment of Little Pine Creek and improve aquatic habitat of approximately 1,000 linear feet within the Fawcett Fields Park. The design approach of the project was based on using natural stream channel design techniques and methodologies. This approach uses natural channel formation principals to provide a stable stream channel, adequate stormwater and bedload transportation routing, and improved aquatic habitat. A summary of work included: 1000' of channel reconstruction, bank stabilization, numerous in-stream rock flow structures, and riparian zone plantings.

The final project consisted of removing existing structures, constructing and maintaining approximately 1,000' of stream channel improvements on Little Pine Creek, including 5 Cross Rock Vanes, 1 Rock Bank Stabilization Toe, and 1 J-hook Log Vane.

BEFORE

DURING

AFTER

We obtained permit approvals in a timely manner, so construction began on schedule. Through our relationships with regulators, we know how to prepare permit applications that the agencies will consider complete in the first submission.