

LARRYS CREEK STREAM STABILIZATION PROJECT PIATT TOWNSHIP, LYCOMING COUNTY, PENNSYLVANIA

WHM Consulting, Inc. (WHM) was retained by Anadarko Petroleum Company (APC) to complete a natural channel design and construct a section Larrys Creek that flows along S.R. 287 in Piatt Township, Lycoming County, Pennsylvania.

The project is a mitigation site for stream impacts local to the project area for nearby development activities. WHM, APC, and the PA Fish and Boat Commission (PFBC) worked together on the design, build, and long-term site assurances to make the project successful.

The site had been identified by the PFBC and other local agencies as a problem area for the watershed. Excessive bank erosion and sediment deposition were elevating the potential for a channel avulsion, that would cause detrimental effects on downstream properties and highway infrastructure.

The goal of the project was two-fold. The first goal was to stabilize a 2200' section of Larrys Creek by changing the channel alignment, grading the channel, and stabilizing the banks. The second goal was to work with the PFBC to ensure public access and long-term site protection/management, providing new public recreational opportunities.

The project design involved completion of bathymetric surveying, sediment analysis, and natural channel design methods to determine the proposed dimensions, pattern, and profile. Effective sediment transport combined with bank stabilization were the primary objectives of the overall design. Sediment transport was addressed by designing the creeks dimension, pattern and profile to match reference reach conditions. Bank stabilization was achieved through installation of the Toe Wood Structure, Sod Mats, Soil Lifts, and Riparian Plantings.

The project's construction involved moving an estimated 34,000 cubic yards of materials to create the designed conditions. The construction component was achieved in approximately 5 weeks, from building the new channel alignment, installation of the bank stabilization measures, to planting the site.

This was a high-profile project for the area and involved coordination with local, state and federal regulatory entities. Through our established relationships with the regulatory community and company history of designing and building successful project, we were able to effectively complete this project the design, permitting and construction in a timely, cost-effective manner, achieving the goals set forth at the project's beginning.



BEFORE



DURING



AFTER