

CASE STUDY

# FAIRHAVEN

Allegheny County, Pennsylvania  
Submar Project 16588

**SUBMAR®**



**BEFORE**



**AFTER**

## EXISTING CONDITIONS

A 16-inch natural gas pipeline crosses Sawmill Run in Allegheny County, Pennsylvania in a 40-foot wide right-of-way. The channel bed is composed of rock and gravel, and riprap lines the banks. The Department of Transportation had installed new box culverts directly upstream of the pipeline, and sediment had gathered in the box culverts. An unstable retaining wall was located downstream of the pipeline on the right-descending bank. Headcutting and bed degradation had exposed the pipeline for 29 feet.

## SOLUTION

The site was dewatered using sandbag dams and pumps. Both banks and the streambed were graded, and a geotextile material was placed on top of the grade. The pipeline was wrapped with rock shield and encapsulated with #57 stone.

A Submar articulating concrete mat system was installed from high bank to high bank to armor the pipeline. All edges of the mat system were toed into anchor and flank trenches that were backfilled with existing material and rip rap. A subgrade rock grade control was installed downstream of the mat system to prevent headcutting. Geotextile and rock were installed on the banks for bank paving.

THE Exposed Pipeline Remediation Experts

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