CASE STUDY

CADDO CREEK

Carter County, Oklahoma
Submar Project 13720.2

SUBMAR®

BEFORE

AFTER

EXISTING CONDITIONS

An 8-inch natural gas pipeline crosses Caddo Creek in Carter County, Oklahoma. The bed and banks of the creek are composed of clay and sand and the banks are well vegetated. Heavy rain caused lateral migration and head cutting that eroded the right descending bank. This erosion exposed the pipeline for 7 feet at the toe of the bank.

SOLUTION

Submar obtained all necessary environmental permits prior to beginning the project. The site was dewatered using a sandbag dam and pumping the water around the project area. Both the banks and the streambed were graded and a geotextile material was placed on top of the grade.

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.

Also, a Longitudinal Peaked Stone Toe Protection (LPSTP) system was installed to prevent future toe scour and bank erosion. Final grading was performed and erosion control blanket was placed on the disturbed area.

THE Exposed Pipeline Remediation Experts

submar@submar.com

(800) 978-2627

www.submar.com