



# BANK RESTORATION & BIOENGINEERING

Osage River  
Eldon, Missouri

**New England Environmental Inc. (NEE)** designed and implemented a bank stabilization and bioengineering plan for a 900 linear foot section of bank on the Osage River, in Eldon, Missouri. The site, located below the Bagnell Dam, consisted of a 25'-30' bank, steep slopes with sparse vegetation. A primary sewer pipeline of the Town of Eldon was located at the top of the river bank and portions of the sewer pipe could be seen along the eroding bank. To address the severe bank erosion and significant amount of sediment loading occurring to the river, NEE implemented the tasks presented below:

### Project Goals:

- Re-grade the bank to a stable gradient, working from the top of slope.
- Complete the work to protect and maintain the location of the sewer pipe.
- Secure the toe of slope with stone.
- Incorporate a biodegradable erosion control fabric, permanent erosion control fabric and an erosion control seed mix to stabilize the bank.
- Re-vegetate the bank with riverfront plant species native to the Osage River.

### Results:

- Successful demonstration of bioengineering bank restoration on the Osage River.
- Restoration of sewer line infrastructure.
- Demonstration of a successful bank restoration below the Bagnell Dam and Lake of the Ozarks.
- Restoration of native vegetation.



Eroded bank prior to site excavation.



Re-graded bank with permanent erosion control fabric and biodegradable erosion control blanket along the slope.



Stabilized bank one year after restoration.

