



## **Miami Whitewater Forest Dry Fork Creek**

**Hamilton County, Ohio, Park District - \$900,000**

**Overview:** For Hamilton County Park District, WQSi stabilized the banks and restored the stream along the Dry Fork Whitewater River within the Miami Whitewater Forest Park in Hamilton County, Ohio. Because of the timing of the contract and the permits required to perform the project, work couldn't be started until the winter season. Special care was required because of the work during the raining season. We diverted the stream temporarily to reduce the impact of the heavy equipment work on the downstream limits of the project. There were 7 flood events during the construction project, and because of our preparations and sequencing of the project, very little re-work was necessary. We are one of the select few companies to successfully construct a working woody toe. To date, the woody toe is performing as required.

### **Scope:**

- 🔵 Excavation and Embankment
- 🔵 Imbricated Stone Toe
- 🔵 Woody Toe
- 🔵 Live Branch Layering
- 🔵 Log Vanes
- 🔵 J-Hook Vanes/J Hook Combinations
- 🔵 Stream Re-direction
- 🔵 Planting/Live Staking
- 🔵 Seed/Fertilizing/Mulching
- 🔵 Reinforced Slope Stabilization

### **Key Issues:**

- 🔵 Project located in an active stream bed subject to flooding
- 🔵 Sequence of construction activities

### **Permit Requirements:**

- 🔵 US Army Corp of Engineers

### **Regulatory Agencies:**

- 🔵 Ohio EPA
- 🔵 Hamilton County Soil and Water

### **Engineer:**

- 🔵 Stantec



### **Lessons Learned:**

WQSi performed the bank stabilization portion of this project during the winter time. WQSi used a staged sequence of operation to minimize the soils exposure to the freezing temperatures. WQSi opened approximately 15 linear feet of stream bank at a time and completed the improvements to this swatch prior to moving to the next section. This method allowed WQSi to achieve proper compaction of the soils in the cold weather.