



## EAST BRANCH WINTER'S RUN STREAM & WETLAND RESTORATION (HARFORD COUNTY, MD)

### Client/Owner

Maryland State Highway Administration  
Environmental Programs Division  
707 North Calvert Street  
Baltimore, MD 21203

### Completion Date:

Construction: 2003

### Estimated Project Cost

Entire Project: \$950,000

Work for which firm was responsible: \$190,000

### Project Scope

Ecotone, Inc. prepared a concept plan, performed geomorphic assessments and developed the restoration design for the restoration and reconstruction of 1,750 linear feet of East Branch Winter's Run and the creation/restoration of 7+ acres of wetlands adjacent to the stream in the floodplain of Winter's Run. The construction documents prepared by Ecotone, Inc. included grading plans, existing and proposed cross-sections, profiles, stream stabilization structure details, sediment and erosion control plans, geometry plan, planting plans, specifications and special provisions package.

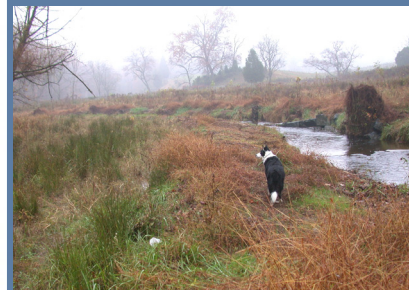
Ecotone, Inc. led the project through the permitting and approval process, and provided construction oversight in the summer of 2003. The assessment work involved an overall geomorphic and hydrologic study of East Branch Winters Run and its floodplain, located in the Fallston area of Harford County, Maryland. The stream, with a 9 square mile drainage area, had been channelized and straightened in 1970's, causing excessive bank erosion and degradation of the channel bed. Streambanks exhibited high erosion potential, portions of the stream had become excessively wide, and the stream had degraded its bed, eliminating natural access to the floodplain during high discharge events. Using fluvial geomorphic principles and natural stability concepts, the restoration design included reconstruction of the channel to establish a stable plan, dimension and profile as well as provide hydrology for the adjacent 7 acres of constructed non-tidal wetlands.

Ecotone's restoration design utilized a stable width to depth ratio and riffle-pool profile. Root wads, boulder vanes, wetland sod transplants were also incorporated to provide immediate bank protection and stability.

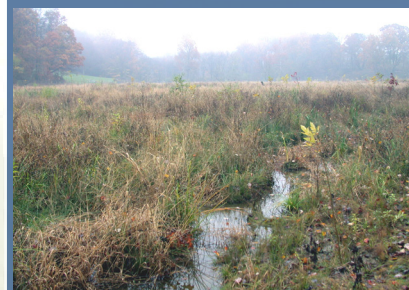
## Project Summary



Channelized, entrenched channel prior to restoration



Restored channel and wetlands  
(1 yr Post construction)



Wetland Restoration  
(1 yr post construction)

**PROJECT HIGHLIGHTS:**  
1,750 lf of stream restoration  
7 acres of wetland restoration  
Design, Permitting,  
Construction Oversight