

Stream Restoration Projects in the West Branch of the Delaware River watershed

Delaware County Soil and Water Conservation District, under contract to NYC DEP, has constructed three restoration projects in this watershed for the purpose of protecting property, water quality, aquatic habitat and enabling the establishment of vegetated riparian corridors (buffers). These projects are all located along tributary streams to the West Branch Delaware that flow through agricultural land and are associated with farm operations participating in the Department of Agriculture's Conservation Reserve Enhancement Program (CREP).



A 1500 ft. headwater reach of *Town Brook in the Town of Stamford on the David Post farm* was restored using natural channel design methods and structures in 2004. Bank erosion and stream bed degradation along this reach was introducing phosphorus laden agricultural soils into waters where phosphorus was a target of water quality improvement efforts (see photo at left)

Rock cross vanes were used to redirect flows away from the banks and to prevent bed erosion (headcut scour) from advancing upstream.



These vanes also provided a stable location for creating an improved stream livestock crossing (see photo at the left).

The lands bordering the reach were later entered into the CREP and planted with trees and shrubs.

The Rama Farm Streambank Stabilization Project on Wright Brook in the Town of Kortright was constructed in 2006 to prepare the riparian area for inclusion in the CREP.

The landowner agreed to enter a 35 ft. buffer along the stream if the Delaware County Soil and Water Conservation District and NYCDEP would provide funds to stabilize the stream banks.

As part of this effort, the base (or toe) of banks along the 1200 foot stream reach were protected with rock up to the bankfull elevation and then rolls of willow cutting or *fascines* were installed to protect the upper bank with vegetation.



The floodplain will be planted with shrubs and tree seedlings in 2007 and grass-like sedge plants will be planted along the lower bank to provide greater bank stability.

At the ***John Palmatier Farm along Town Brook in Stamford***, Delaware County Soil and Water Conservation District modified the 150 ft. long approach to a culvert to improve its function and protect the upstream banks and bed. The project included the use of



medium rock riprap interplanted with live cuttings of willow and the construction of a cross vane to direct flows and prevent headcutting upstream. The project protects areas planted as a riparian buffer under the CREP.