



USEPA Targeted Watershed Grant Project for the Raritan Basin

Fact Sheet #4 Crystal Springs Stream Restoration Project Spruce Run

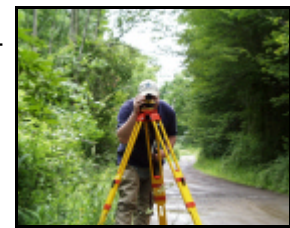


Downstream side of culvert

During 2003, the New Jersey Water Supply Authority (NJWSA) began working on several projects in the Spruce Run Reservoir watershed that are funded by a Targeted Watersheds Grant from the United States Environmental Protection Agency (EPA) (see Fact-sheet #1 for details). These projects include three stream restoration projects, including the Old Farm Road Riparian Buffer Improvement Project, the Hoffman Park Stream Restoration Project and the Crystal Spring Stream Restoration Project.

NJWSA used the NRCS Stream Visual Assessment Protocol (SVAP) to gather baseline data and to create

a list of potential restoration sites (see Basin Bulletin Fall 2004 for details). Two sites, SVAPs, #32 and #33, were assessed near the headwaters of the Spruce Run, the main tributary that feeds Spruce Run Reservoir. These two sites are, respectively, on the downstream and upstream side of a private road crossing. The property surrounding these two sites was recently purchased by NJWSA and a consortium of county, municipal and nonprofit entities and is preserved as open space.



As of Fall 2005, NJWSA performed four seasons of biological (macroinvertebrate) monitoring and conducted a set of geomorphological surveys at the property.

The 12-foot wide culvert underneath the private road consists of three pipes that impede fish passage and water flow. There is also an accumulation of fine sediments on the upstream side of the culvert. NJWSA's project will replace the culvert with a 16-foot wide culvert in order to improve water and fish passage through the culvert while maintaining park access.



Upstream side of culvert



Downstream of Culvert



Upstream of Culvert

