



Bear Run Riparian Project

In 2001, the Wayne received the Forest Service's Eastern Region Riparian Award for work on the Bear Run Stream Project in Lawrence County. In 2002, the Wayne received the Chief's Stewardship award for the project. As the accolades keep coming on Bear Run, the success is measured in many ways. Recent flooding established just how well the riparian work held up and worked! Fish surveys show that fish are continuing to return to the area.



Rebecca Ewing, Forest Fisheries Biologist, explains, "riparian is a term used to describe the areas around lakes and along streams. These areas provide many unique benefits to water quality and wildlife." The riparian award is given annually to a National Forest that demonstrates a commitment to restoring and improving riparian areas and watershed health. The Wayne National Forest received the award specifically for their work on the Bear Run Project.

Bear Run is a small creek, north of Ironton, Ohio, that had been filled in with sediment from past coal mining operations and illegal off-road vehicle use. Due to the sediment, heavy rains resulted in flooding across a state highway and onto private property. Ewing said, "Solving the problem involved a remarkable partnership between the Wayne National Forest and five federal and state agencies. We decided to use natural channel design concepts to restore this small stream to a functioning system."

The use of natural channel design, according to Pam Stachler, Forest Hydrologist, is a cutting edge restoration tool in Ohio. Previously, the common method would have been to deepen and widen a stream channel with a backhoe or bulldozer, resulting in harmful effects on the stream and the aquatic life living in it. Stachler noted that this commonly resulted in warmer water temperatures and removing features such as deep fishing holes and undercut banks.

The construction phase shown here demonstrates the restoration of natural meanders in the stream bed. Some of the channel was lined with jute matting (below)





to provide bank stability during storm events until natural vegetation was established.



Restoration using natural channel design incorporates the natural meanders, depth, width, and floodplain a stream should have. This design leaves a stream stable and maintenance-free as well as immediately able to provide quality habitat for fishes and other organisms.

The restored channel has numerous pools as seen in the picture above which host aquatic life and provide water sources for wildlife.

Stachler stated that the project could never have been accomplished without the help of several other agencies including: the Ohio Division of Soil and Water Conservation, Civilian Conservation Corps, Ohio Department of Transportation, Lawrence Soil and Water District, and the Federal Correctional Facility in Ashland, Kentucky. Each partner provided funds, materials, and expertise to the project.

Ewing is excited about the project and said, "As a demonstration project, it's exemplary, and we're hoping this will be the first of many restoration efforts using this concept on the Wayne National Forest. As a measure of its success, not only has flooding been eliminated, but fish are already starting to migrate upstream into the restored channel."



Shown below are various stages of the project as the area was seeded and mulched. Today a lush growth of vegetation covers the site. A fence was built to eliminate illegal ORV traffic from accessing the site and a larger culvert was installed by ODOT to provide for fish migration from the main stream.



Surveying for Fish

Technicians from the Ironton District recently surveyed the stream channel for fish species. They used electro-fishing, a practice that gently stuns the fish and causes them to come to the surface. Proper use of electro-fishing does not injure the fish and allows us to easily record the different species. In the short stretch of Bear Run tributary they surveyed, 123 fish were found. The fish represented 5 different species, including Creek Chub, Pumpkin Seed, and Greenside Darters.

The fish had migrated into the channel during storm events. Monitoring reveals that creek chubs and southern redbelly dace are reproducing in the new channel in 2001.

