

## Hatchery Creek Stream Restoration Project – A Unique Opportunity to Enhance Sport Fishing

Oakes Rount  
Stantec Consulting Services Inc  
Louisville, KY

Co-authors: Kevin Rexroat (KY Dept. of Fish & Wildlife Resources), Rob Lewis (KY Dept. of Fish & Wildlife Resources), George Athanasakes (Stantec), Eric Dawalt (Ridgewater), and Jim Hanssen (EcoGro)

The Hatchery Creek Stream Restoration project is a unique opportunity to utilize the latest stream restoration techniques to maximize trout habitat, create recreational opportunities for the citizens of Kentucky, and provide mitigation credits. The project is located immediately downstream of the Wolf Creek Dam US Fish & Wildlife National Trout Hatchery near Lake Cumberland in Jamestown, Kentucky. The project will extend an existing 400 foot long channel, which is the outflow from the trout hatchery to create approximately 6,000 feet of trout stream habitat. In an effort to maximize habitat and recreational opportunities, the project is being designed to provide a variety of habitat for all life stages of trout and will include a variety of stream types including A, B, C and DA channels.

This talk will focus on unique sport fishing aspects of the project as well as permitting issues specific to DA stream types. The Hatchery Creek Stream Restoration project is a relatively high profile project for the state and is highly anticipated by a number of local trout fishing clubs. Prior to restoration the existing 400-foot long channel was already a very popular fishing spot. The new 6,000 foot long channel was designed and constructed to promote a self-sustaining trout stream while accommodating sport fishing and different zones of fishing restrictions. This created design challenges as well as construction and phasing challenges in an effort to provide fishermen throughout the state a unique fishing experience while maximizing trout habitat and mitigation credits. Specific design aspects to maximize trout habitat and accommodate the different fishing restrictions will be discussed. In addition, the permitting of the project will be discussed including the combining of stream and wetland credits for the project as well as the unique aspects of permitting a DA stream type. As part of the project a braid calculator was developed to quantify additional habitat provided by DA stream types in light of mitigation credit generation.