Presenter	Sean Sipple Wetland Studies and Solutions, Inc.
Type	Poster
Category	**Effectiveness of monitoring protocols**
Title	*Using the Virginia Stream Condition Index to Evaluate the Condition of Virginia Non-coastal Stream Restorations*
Abstract	In response to the absence of long-term monitoring requirements in Virginia to evaluate the biological condition of stream restoration projects, Wetland Studies and Solutions, Inc. worked with the U.S. Army Corps of Engineers, Virginia Department of Environmental Quality, U.S. Environmental Protection Agency, and U.S. Fish and Wildlife Service (Inter-agency Review Team) to include a method to monitor the biological condition of two stream restoration banks in Northern Virginia. The team chose the Stream Condition Index for Use in Virginia Non-coastal streams (VA-SCI), as the VA-SCI was validated by the DEQ for use in Virginia in 2006. The VA-SCI is a multi-metric benthic macroinvertebrate indiex of biotic integrity. Monitoring using the VA-SCI and a supplimental habitat evaluation were incorporated into the Mitigation Banking Instruments for both the Northern Virginia Stream Restoration Bank and the Loudoun County Wetlands and Stream Bank as a study of its potential use in non-coastal stream restoration projects in Virginia. Pre-restoration monitoring at the Northern Virginia Stream Restoration Bank indicated that the habitat of the streams was poor and the benthic macroinvertebrate community was in severe stress on average. Post-restoration monitoring will be conducted in Spring 2009. Pre-restoration monitoring at the Loudoun County Wetlands and Stream Bank indicated that stream habitat was fair and the benthic macroinvertebrate community was in stress prior to restoration. Two years of post-restoration monitoring indicate that both stream habitat and the benthic macroinvertebrate community have increased above pre-restoration conditions. These results are attributed to the re-establishment of benthic macroinvertebrates into the stream following the restoration disturbance and the improvement of steam habitat, as shown in our habitat assessment scores.