



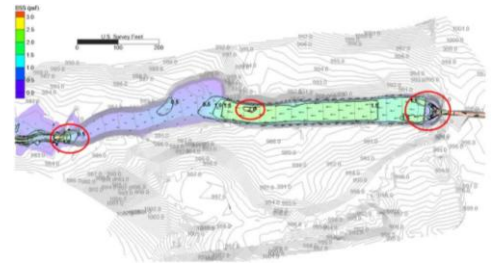
**Montessori Middle School of Kentucky
Stormwater Quality Improvement and Stream
Restoration Project**
Project Design: February 2011 - April 2013
Project Construction: April 2013 - March 2014

In 2010, EcoGro saw potential in a small, un-named tributary to the South Elkhorn Creek in Lexington Kentucky. It's steep, eroded banks were suffering from urban runoff. What this creek lacked in environmental quality, it presented in opportunity for improvement. EcoGro, Montessori Middle School of Kentucky, and several project partners submitted a grant application for the LFUCG Stormwater Quality Incentive Grant Program. The city of Lexington recognized the same potential gains for education and habitat as they approved this project for funding. The purpose of this project was to restore habitat and improve water quality in addition to providing an exceptional educational opportunity.

In 2012, the University of Louisville conducted a one year study to monitor and analyze urban stream pollutants. This information not only benefited the design of this project, but also provided insight into pollutants effecting similar streams across the Bluegrass. A model of stream flows was developed to evaluate how the new channel design would hold up to the 100 year storm event. This allowed designers to address any predicted problems before construction began. Researchers will also conduct studies to evaluate how various in-stream treatments improve water quality conditions.

Project Partners: Ridgewater, LLC, Vision Engineering, Lexington-Fayette Urban County Government, Univ. of Louisville, Univ. of Kentucky, KDOW, US ACE, KYTC.

This project was funded by the LFUCG Stormwater Quality Projects Incentive Grant Program.



Above: hydraulic model, MMSK students observing construction, U.of L. research cells, built channel.

MMSK MONTESSORI MIDDLE SCHOOL of Kentucky
Ecological Odyssey

FUNDED BY THE LFUCG WATER QUALITY MANAGEMENT FEE THROUGH THE STORMWATER QUALITY PROJECTS INCENTIVE GRANT PROGRAM

UNIVERSITY OF LOUISVILLE STREAM INSTITUTE, ecogro, RIDGEWATER, VISION ENGINEERING, livegreenlexington, SEEC, US Army Corps of Engineers, UNIVERSITY OF KENTUCKY College of Agriculture, UNIVERSITY OF LOUISVILLE, KY, KYTC, KDOW, KY ACE, KYTC.

- Key Features:**
- Design/Build
 - 2D hydraulic model
 - Water research
 - Water education

www.EcoGro.net
(859) 231-0500

P.O. Box 22273, Lexington, KY 40522