

Working Together to Preserve and Protect the Corbin Reservoir Watershed

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Where We've Been

In 2004, the Corbin City Reservoir and many stream reaches within the watershed were listed as 1st priority impaired water bodies/streams in Kentucky Division of Water's (KDOW) 303(d) list of impaired waters. As a result, Third Rock Consultants, LLC (Third Rock) received a U.S. Environmental Protection Agency (US EPA) 319(h) grant through KDOW to develop a Watershed Plan for the watershed.

For two years Third Rock extensively monitored the watershed to identify the main sources of water pollutants. Once pollution/degradation sources were identified, Third Rock provided a plan for practical solutions for improving water quality. As the year 2007 begins, Third Rock begins a new phase in the Corbin City Reservoir Watershed project after US EPA funded an additional grant to implement the remediation solutions for the watershed.



area associated with the City of London is believed to contribute most significantly to the water pollution issues.

Third Rock's proposed remediation approach includes an initial phase to focus primarily on reducing effects of the urban influence on the streams. Water runoff from storm events will be buffered with the installation of rain gardens in the most effected areas. Excessive nutrients and sediment in the streams will be treated with streamside wetlands. Additionally, stream sections will be restored, cattle will be excluded from streams, riparian areas will be revegetated and local ordinances will be proposed to promote low impact development.

The streamside wetland plan is a novel procedure proposed by Third Rock to significantly reduce elevated stream nutrients. It is proposed that sections of currently incised stream channels be rerouted into wetlands re-established with a silviculture twist - cottonwoods would be planted in the wetlands and harvested on a 7-10 year cycle.

These fast-growing poplar species have been shown to have significant nutrient uptake when used as agricultural buffers. Planting the trees on mounds (based on US Forest Service methods) within the stream-fed wetland should promote nutrient removal from the water. Harvesting will then be necessary to prevent nutrient recycling. After harvesting, these trees can be sold to local chipping facilities, the profit of which can facilitate wetland maintenance.

The next project team meeting will be held at 6:00 pm January 29th in the Community Room of the London Courthouse. Fieldwork will begin as early as March.

Where We're Going – Remediation to Begin in 2007

Third Rock's recently finalized its Watershed Plan for the Corbin City Reservoir. The Plan documents excessive nutrients and sediment in the reservoir stem primarily from the Little Laurel River, which drains the developed area of London. The concentration of nutrients, sediment, and bacteria are significantly higher in the Little Laurel River than the adjacent Laurel River and Robinson Creek.

Though the Little Laurel River drainage contains of farmland similar to the other drainages, the developed

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For more information about our work in the watershed, log on to www.thirdrockconsultants.com and go to our Corbin City Reservoir Watershed page. You can also contact Third Rock's project manager, Tony Miller, at tmiller@thirdrockconsultants.com or 859-977-2000.

Third Rock Receives 2007 EPA Grant to Begin Remediation in the Watershed

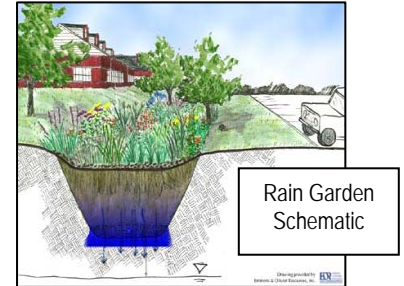
Third Rock was notified in September 2006 of the award of an FFY 2007 319(h) grant from EPA to be used for the remediation of non-point source water pollution issues in the Corbin City Reservoir watershed. The award follows Third Rock's completion of a Watershed Plan that detailed impairment sources and recommended viable solutions.

The primary focus of the remediation effort will be on the sub-watershed of the Little Laurel River specified as the principle source of nutrient, sediment, and bacteria loading to the Corbin Reservoir. On-the-ground-implementation of various best management plans and proposed (BMPs) and other proposed remediation and additional assessment is slated to begin in the spring of '07.

Continuing to Learn – Bioretention and Rain Gardens

On November 30th and December 1st, 2006, Third Rock biologist and Project Manager Tony Miller attended a Bioretention and Rain Garden Training Workshop in Nashville, TN. The workshop was sponsored by the Cumberland River Compact's Building Outside the Box (BOB) program. Presenters addressed rain garden site selection and construction in residential areas. Following the presentation portion of the workshop, participants toured a low-impact development designed by the BOB group that incorporated rain gardens to reduce site runoff.

Tony and other Third Rock project team members have proposed to incorporate bioretention and rain garden design into the initial phase of remediation in the watershed.



For more information on bioretention and rain gardens, contact Jennifer Shelby, a PhD candidate in biological engineering who works for Third Rock and is slated to lead the design effort for this phase of remediation. Contact her at 895-977-2000 or e-mail her at jshelby@thirdrockconsultants.com.

