



## Lexmark Shadybrook Park Streambank Stabilization Lexington, KY May - June, 2010

This project consists of repairing the banks of a section of Cane Run and a section of the Tributary to Cane Run flowing through Lexmark International property in Shadybrook Park. Cane Run is a stream in Lexington, KY that has been identified by the Kentucky Division of Water as unable to support aquatic wildlife or primary contact recreation. Due to the urban watershed, non-point source pollutants in the stormwater and intense volumes of runoff, the banks of Shadybrook Park were eroded and largely void of aquatic habitat.

The primary concern of Lexmark was for safety of the park users, which are Lexmark employees and their families. There was a concern that a person near the edge of the bank could fall and be seriously injured. The stream channel was degraded with steep, eroded banks approximately four feet high. The channel was cutting its way toward park facilities and playground areas.

To reduce Lexmark's liabilities, EcoGro teamed with project partners to design and build approximately 1,350 feet of stabilized banks along Cane Run and its tributary. The toe of the slope was armored with limestone rock to provide a stable foundation and the banks were re-graded to a more gradual slope. Lastly, the banks were seeded with a selection of native grasses and wildflowers, and then covered with a biodegradable erosion control blanket.

Even though this project was undertaken to improve the safety as its primary goal, there were multiple aspects of this project that Cane Run benefited from as it flows across Lexmark property. During the repairs, a series of rocky riffles, shallow point bars and deep pools were created to develop a more natural stream channel and reduce shear stress on the outside bends. Because the streambanks were excavated and the soil was removed from the floodplain, the stream channel



gained some capacity to help moderate high storm flows. This space allows for sediment and trash to deposit upstream of the park. EcoGro established a vegetated riparian buffer along the project to further protect the floodplain from erosion and provide valuable aquatic habitat. The dense root system of these plants will help to bind the soil as well as use up some of the excess nutrients that contribute to Cane Run's water pollution.



### Key Features:

- Design/Build
- Native plants
- Riparian buffer
- Biodegradable EPSC controls

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