## South Elkhorn Creek Bank Stabilization Project Lexington, KY April 2024 - October 2024

In 2022, a feasibility study was done in the Clemens Heights subdivision to address erosion and water quality issues in South Elkhorn Creek. As a result of that collaboration between Ecogro, Stantec Consulting, and Neighbors United for South Elkhorn Creek (NUSEC), plans were drawn up to rebuild and reinforce the stream. The project had 5 main goals: To improve water quality, to mitigate streambank loss, to protect existing utilities, to educate the public about stormwater quality, and to involve the public directly by hosting a riparian buffer planting day. This project was awarded grant funding in part by the Lexington-Fayette Urban County Government's Water Quality Management Fee and the Stormwater Quality Projects Incentive Grant Program.

To start, many tons of woody debris from trees and/or invasive shrubs like honeysuckle had to be cut and hauled off-site. A construction exit was built to protect local utilities from large equipment, and our excavator operators began rebuilding and armoring the channel banks using stacked native limestone (pictured right). Some of the eroded banks were over 5 feet in height, raising significant concerns over safety and further erosion. Banks were graded where possible to meet a maximum 3:1 slope and to tie in to existing topography. Over 1000 tons of stone were used in the restoration of the stream, after many tons of dirt and woody debris were removed and properly disposed of.

Once the earthmoving finished, the disturbed areas were de-compacted and covered with seed and straw. Geotextile was staked down along the banks, and mulched over to make several beds for planting. Finally, a public planting day was held to further prevent erosion and to increase aesthetics, with over 25 volunteers helping to plant just under 70 native trees and shrubs.









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