



# Veterans Park Dam Removal Feasibility Study Lexington, KY February, 2019 - February, 2020

In February of 2019, the project team of EcoGro, Ridgewater, and Stantec were hired by the city of Lexington's Division of Environmental Services to create a feasibility study for the removal of a defunct low-head dam on West Hickman Creek in Veterans Park. This concrete impoundment had been circumvented by water cutting through the stream bank and around the dam. This bypassing meant water no longer flowed over it or was retained upstream. With the creek now more eroded and incised, this also presents a safety risk with walking and mountain bike trails above steep and unstable banks. Less dangerous but still concerning, sediment had built up on the upstream side of the dam and water was flowing at a much slower rate than was expected due to the water depth above the dam. Removing the concrete structure could also entail rapid release of sediment. Stream habitat and water quality must be improved through the project, while also keeping in mind safety and aesthetics of an active public park.

A walkthrough of the site was conducted by the project team, making several notable observations concerning the dam and surrounding area. Next, survey equipment was used to develop a cross section and obtain topographic information on landscape features and water levels. Based on current conditions, our team recommended the dam be replaced with a rock riffle, designed to withstand a 24-hour, "100 year" storm with flow depths over 15 feet. The study results included a map of proposed features, cross sections, along with financial estimates for what the project might be expected to cost.

