

PRE- AND POST-CONSTRUCTION BIOLOGICAL MONITORING OF THE SCIOTO RIVER

Prospect, OH

Client
MS Consultants

E.S. Project No. 5981

Key Services Provided
Stream Quality Analysis

Project Duration
August 2012 -
October 2017

Total Project Cost
\$127,000.00

ES Key Staff
Nicole Jordan
Rhonda Mendel
Dave Czayka



EnviroScience, Inc. is in the process of completing a 5-year assessment of the Scioto River near Prospect, Ohio between 2012 – 2017 for MS Consultants. This study was initiated in August 2012 and is ongoing. The 2012 survey was completed upstream and downstream of the Prospect Dam as part of the pre-construction baseline biological monitoring. Additional surveys were completed in 2013, 2015, and 2017 following the removal of the Prospect Dam. Two stations on the Scioto River were analyzed for biological integrity. At each station, sampling of the benthic macroinvertebrate communities, fish community, and field chemistry parameters were performed in accordance with the protocols of the Ohio Environmental Protection Agency (OEPA 1987) and Rankin (1989). This study is completed at years 0, 1, 3, and 5 as pre- and post-construction biological monitoring to document the biological and physical changes that result from the Prospect Dam removal.

The fish IBI and MIwb scores pre-construction indicate a Good/Exceptional Community downstream of the dam and a Fair/Poor community upstream of the dam. In the first year after the dam removal, the IBI/MIwb scores changed to Fair/Fair at the downstream location and Fair/Good at the upstream location. The macroinvertebrate ICI scores in 2012 indicate communities “very poor” above the dam and “fair” below the dam. In the first year following the dam removal both sites are rated as “fair”.

Additional surveys were completed in 2015 and 2017 to further determine the effects of the dam removal on this section of the Scioto River. Since the downstream location was moved in the Year 1 survey at the request of the OEPA, it is difficult to determine if the fish community is improving or declining at this site since the dam has been removed. As the river continues to recover from the impacts of the Prospect Dam, transitioning from impounded pool habitat into riffle-run-pool complexes, the quality of the fish communities throughout this stretch of river should continue improving as well.