

Location:

Kentucky

Client:

Middle Fork Development Corp

Dates:

January – August 2010

Present Status:

Complete

Project Type:

Cumulative Impact Analysis

Major Project Elements:

Cumulative Impact Analysis
Stream Mitigation
Habitat Assessments
Benthic Macroinvertebrate Analysis

Licking River Watershed Cumulative Impacts Analysis



In compliance with the request by the Louisville District of the U.S. Army Corps of Engineers (USACE), Jackson Group conducted research and data analysis to assess the cumulative impacts of a service mining operation as well as other human activities for Licking River HUC-8 watershed. The Impact assessment encompassed area, stream,

water quality, hydrology, aquatic biology and social and environmental justice considerations.

Jackson Group used advanced mining and reclamation techniques to significantly reduce long and short-term impacts of a surface mining operation. Economic impact was taken into consideration when working on this project, as it provided 55 direct jobs and approximately 100 indirect jobs to people within this region. Changes in land use/land cover over time was also evaluated with this project. Jackson Group communicated with regulatory agencies in order to meet regulations such as those stated within the Clean Water Act and the Surface Mining Control and Reclamation Act for successful completion of this project.

Stream mitigation was used to determine the hydrologic, water quality, and biologic impacts of headwater stream restoration on surface mined lands and to compare these impacts to reference (undisturbed, natural) and control (mined, non-restored) streams.



A habitat assessment was performed in order to design new streams that would be better for the overall habitat within this watershed. A benthic macroinvertebrate analysis was also completed for this project.