



Lower Levisa Fork And Tug Fork HUC Cumulative Impact Assessments

LOCATION:

Pike, Floyd, Martin, Johnson and Lawrence Counties

CLIENT:

Stites and Harbison, PLLC

TYPE OF PROJECT:

Cumulative Impact Assessments

Summit Engineering, Inc., was contracted by Stites and Harbison, PLLC to prepare two Cumulative Impact Assessments (CIAs) — one for the Lower Levisa Fork Hydrological Unit Code (HUC) 8 watershed and one for the Tug Fork HUC 8 watershed. These documents were prepared for U.S. Army Corps of Engineers' use during permit review and decision-making.

Development of the CIAs required field sampling of water quality and benthic macroinvertebrates at multiple sites in 13 HUC 14 subwatersheds of the Lower Levisa Fork HUC 8 study and 14 HUC 14 subwatersheds of the Tug Fork HUC 8 study.

In addition to the field sampling, an overview of the HUC 8 watershed was included in the document. This overview included the physiographic location history of activity in the watershed, geology, analysis of surface and ground water data, and examination of anthropogenic influences, i.e., urban development, oil and gas exploration/transmission, agriculture, logging, and mining.

A socioeconomic assessment of the HUC 8 watersheds was conducted as well as an analysis of the benthic macroinvertebrate data. Likewise, an analysis of water data collected in the sub-watersheds and water chemistry data available from a variety of sources for the main-stem watersheds was included. A hydrologic assessment was conducted to determine effects of past, present, and future activities on watershed runoff volume and peak flow. Finally, a GIS analysis was conducted to depict the land use/land cover in the HUC 8 watersheds.