

**Location:**

Boone County, Kentucky

**Client Information:**

Brad Steffen  
Bat Program Director  
TRC Solutions  
670 Morrison Road  
Suite 220  
Gahanna, Ohio 43230  
Office: (513) 489-2255  
BSteffen@trcsolutions.com

**Dates:**

September 2014

**Present Status:**

Complete

**Project Type:**Macroinvertebrate and fish  
survey**Project Management:**

Jackson Group

**Team Members:**

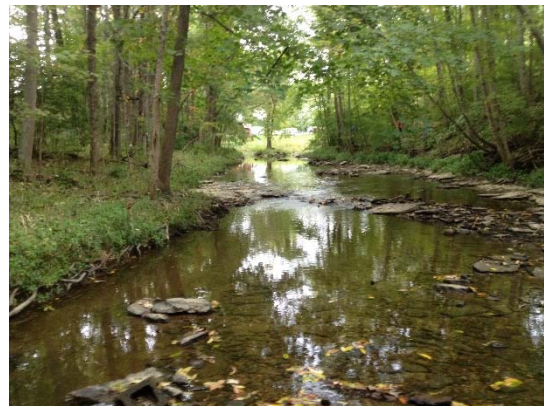
Keith Bowlin  
Tyler Newman  
Kat Cunningham

**Major Project Elements:**

Benthic Macroinvertebrate  
Survey  
Habitat Assessment  
Fish Survey

**Boone County Stream Assessment**

Jackson Group was contracted by TRC Solutions of Gahanna, Ohio, on behalf of the Kenton County Airport Board, to perform an assessment of the macroinvertebrate and fish communities in Elijahs and Gunpowder Creeks in Boone County, Kentucky. The assessment was conducted in September of 2014, and was performed in accordance with the current protocols set forth by the Kentucky Division of Water (KDOW).



Habitat suitability for aquatic communities was assessed and rated using the most recent version of KDOW *Methods for Assessing Habitat in Wadeable Waters* (KDOW 2011). Each station was evaluated for ten parameters that rate instream habitat, channel morphology, bank stability, and riparian vegetation. Each reach was ranked according to its habitat score and classified by the ecoregion.

The macroinvertebrate communities were sampled following the riffle/multi-habitat sampling method described by the *Methods for Sampling Benthic Macroinvertebrate Communities in Wadeable Waters* (KDOW 2011). Sampling protocols call for two samples to be collected from each reach: a semi-quantitative riffle sample and a multi-habitat sample.



Fish were sampled using KDOW (2010) *Collection Methods for Fish in Wadeable Streams, Version 2.1*. Sampling consisted of using a backpack electrofishing unit for a minimum of 500 “shocking” seconds to a maximum of



## Macroinvertebrate and Fish Surveys

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1,000 “shocking” seconds. All fish were identified in the field and released on site.