

Delaware Biological Monitoring

New Castle County, Delaware



Biohabitats was contracted to perform biological monitoring at 10 locations within the Pike Creek watershed. Pike Creek is a tributary to the White Clay Creek, a wild and scenic river located in New Castle County Delaware. Identified as impaired, Pike Creek is listed on the EPA's 303D list, and therefore was targeted for

Post-restoration monitoring will help validate water quality improvement and support the eventual removal of the stream from the EPA's 303D list of impaired waters.

watershed improvements. In an effort to reduce instream sedimentation and improve aquatic habitat, the Delaware Department of Natural Resources and Environmental Control (DNREC) has performed three stream restoration projects along Pike Creek since it was listed.

Biohabitats' role was to collect and identify macroinvertebrates in an effort to evaluate the health of aquatic organisms within Pike Creek. Biohabitats collected samples from all three restoration sites as well as a reference reach, which was used as the baseline, unimpaired condition. In addition to collection of macroinvertebrates, Biohabitats

performed a habitat assessment utilizing DNREC's habitat assessment form which is derived from the EPA's Rapid Bioassessment Protocol. After macroinvertebrate identification, Biohabitats analyzed several metrics and computed the IBI score for each reach. A comparison was then made from the restoration reaches to the reference reach and to previous data from pre and post restoration monitoring efforts. DNREC anticipates being able to remove Pike Creek from the list of impaired waters within a few years.

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