

Client
McGill Associates

ES Project No. 8791

Key Services Provided

- Macroinvertebrate Survey
- Habitat Characterization
- Reporting

Project Duration
July 2016–2019

ES Project Cost
\$25,000

ES Key Staff
Dave Czayka
Andrew Zimmerman

MCGILL ASSOCIATES WASTEWATER TREATMENT PLANT BIOLOGICAL ASSESSMENT

West Prong Little Pigeon River, Gatlinburg, Tennessee



EnviroScience, Inc. performed a biological assessment on discharge from the City of Gatlinburg's wastewater treatment plant on the West Prong Little Pigeon River to provide supporting data for requirements in the facility's National Pollutant Discharge Elimination System (NPDES) permit. The biological assessment consisted of a macroinvertebrate survey at a station upstream of the outfall and two downstream. Samples were collected in compliance with Tennessee Department of Environmental Conservation (TDEC) protocols and were scored on the Tennessee Macroinvertebrate Indices (TMI) to assess the community at that location.

In addition to the macroinvertebrate collection, EnviroScience also provided water quality measurements and habitat assessments, in accordance with TDEC protocols, at each of the three sites. The full suite of field assessments that EnviroScience conducted was meant to serve as a baseline assessment of effluent phosphorus reduction efforts that the City of Gatlinburg had implemented to comply with the permit. Results of the assessment determined that the variability in macroinvertebrate conditions between the three sites was consistent with sampling completed in previous years and should be considered to represent baseline conditions.