

Bat Creek Water Quality Initiative

Bat Creek is one of three major creeks flowing into the downstream half of Tellico Lake, classified as polluted streams. Headwaters of this creek are located near Madisonville and flow about 18 miles to the mouth adjacent to the Rarity Bay community where it discharges into Tellico Lake. The TN Dept. of Environment & Conservation (TDEC) identified the Madisonville Wastewater Treatment Plant (WWTP) and pasture grazing as primary pollutant sources of excess nitrogen, phosphorus and E coli bacteria responsible for the classification.

TDEC records revealed a long history of noncompliance with the WWTP discharge permit. Eliminating this source of pollution was essential for the stream to be declassified. With a goal of improving the water quality of Bat Creek, WATeR teamed with the TN Clean Water Network to file a lawsuit against Madisonville in Federal Court for violating conditions of the Federal Clean Water Act. Through negotiation, the three parties agreed to a Consent Decree which required the city to build a new, modern WWTP that would meet TN discharge limits. The new plant began operation in late June 2017.

WATeR developed and executed a two-year plan to identify regions throughout the Bat Creek Watershed that contribute agricultural sources of pollution. Water samples and associated flow rates were collected monthly (Photo) for seven months in 2016 at 18 locations along the creek and major tributaries. These data will support efficient implementation of Agricultural Best Management Practices (BMPs) to eliminate specific sources of pollution. Results are documented in report *Nonpoint Source Pollution of the Bat Creek Watershed in Monroe County, TN*, May 2017.



WATeR recently partnered with the University of Tennessee Extension Service to prepare a proposal for a USEPA grant submitted in December 2018. If funded, this \$300,000 grant, will be administered through the TN Department of Agriculture. It will provide cost-share funds to support UT experts working with farmers to implement BMPs designed to significantly reduce if not eliminate sources of nonpoint pollution in Bat Creek. When completed, these BMPs along with the new efficient WWTP, may allow TDEC to remove Bat Creek from the list of polluted streams and remove a major source of pollution to Tellico Lake.