

Elk River near Tiff City, Missouri

Station AT189000 (121600030440-001AT) is a permanent ambient trend monitoring station located on the Elk River in Missouri. Situated in the west central portion of McDonald county, the site was established south-southeast of the town of Tiff City on Missouri SH 43. The station is positioned near the midpoint of stream segment 121600030440 and is classified within the Elk River 8 digit HUC watershed (11070208). Water enters the stream system from several tributaries including the Buffalo Creek, among others.

This station on the Elk River has been active for all water quality variables since May of 1999. The following assessment of beneficial uses is based on data collected from May of 2002 through April of 2007. For purposes of reporting, this station is representative of the Elk River from its entrance into Oklahoma near Tiff City, Missouri (94.2950, 36.5510) downstream to confluence of the Elk River with Grand Lake (94.6177, 36.6250). As per Appendix A, Table 1 of OAC 785:45, this water quality management segment is assigned the following designated beneficial uses: 1) Public and Private Water Supply (PPWS), 2) Cool Water Aquatic Community—Fish and Wildlife Propagation (CWAC), 3) Agriculture—Class I Irrigation (AG), and 4) Primary Body Contact—Recreation (PBCR).

The PPWS beneficial use is supported. The CWAC beneficial use is supported. Dissolved oxygen, pH, turbidity, and toxicants met the criteria prescribed in the CWAC beneficial use. The AG beneficial use is supported for total dissolved solids (TDS), chlorides, and sulfates. The PBCR beneficial use is supported for fecal coliform, enterococci, and *E. coli*. This segment of the Elk River is not nutrient-threatened. The total phosphorus and nitrate/nitrite median values were below the threshold medians of 0.36 mg/L and 5.0 mg/L, respectively. Furthermore, the mean sestonic chlorophyll-a concentration (3.4 mg/M³) produced a TSI of 43, which is below the threshold TSI of 62.