

## Cimarron River near Mocane

Station AT157000 (620930000010-001AT) is a permanent ambient trend monitoring station located on the Cimarron River in Oklahoma. Situated in the northeastern portion of Beaver County, the site was established northeast of the town of Mocane off of US Highway 64 on County Road 1510. The station is positioned near the upper end of stream segment 620930000010 and is classified within the Upper Cimarron River – Liberal 8 digit HUC watershed (11040006). Water enters the stream system from Kansas and from several tributaries including Cottonwood Creek, Crooked Creek, and Horse Creek, among others.

This station on the Cimarron River has been active for all water quality variables since October of 1999. The following assessment of beneficial uses is based on data collected from May of 2002 through March of 2007. For purposes of reporting, this station is representative of the Cimarron River from its entrance into Oklahoma near Mocane, Oklahoma (97.3276, 36.9679) downstream to its exit from Oklahoma near Englewood, Kansas (97.1739, 36.6243). As per Appendix A, Table 6 of OAC 785:45, this water quality management segment is assigned the following designated beneficial uses: 1) Public and Private Water Supply (PPWS), 2) Warm Water Aquatic Community—Fish and Wildlife Propagation (WWAC), 3) Agriculture—Class I Irrigation (AG), and 4) Primary Body Contact—Recreation (PBCR).

The PPWS beneficial use is supported. The WWAC beneficial use is supported. Dissolved oxygen, pH, turbidity, and toxicants data met the criteria prescribed in the WWAC beneficial use. Fish were collected during the summer of 2005. Based on the Index of Biological Integrity (IBI) outlined in Appendix C of Oklahoma's USAP, the station has a sample composition score of 10 (maximum 30) and fish condition score of 11 (maximum 15) for a total score of 21. However, because biocriteria have not been developed for the Southwest Tablelands ecoregion, no assessment of community biological health can be made at this time. The AG beneficial use is supported for total dissolved solids, chloride, and sulfate. The PBCR beneficial use is not supported. Of the thirty (30) fecal coliform concentrations, eight (8) samples (or 27%) exceeded the prescribed screening level of 400 cfu/100mL. Of the twenty-eight (28) enterococci concentrations, seven (7) samples exceeded the prescribed screening level of 406 cfu/100mL, and the geometric mean (119.9 cfu/100mL) exceeded the prescribed mean standard of 33 cfu/100mL. This segment of the Cimarron River is not nutrient-threatened. The total phosphorus and nitrate/nitrite median values were below the threshold medians of 1.0 mg/L and 4.65 mg/L, respectively.