

## Wolf Creek near Fort Supply

Station AT237050 (720500030010-001AT) is a permanent ambient trend monitoring station located on Wolf Creek in Oklahoma. Situated in the west central portion of Woodward County, the site was established south of the town of Fort Supply off US Highway 270. The station is positioned near the terminal end of stream segment 720500030010 and is classified within the Lower Wolf Creek 8 digit HUC watershed (11100203). Water enters the stream system from Texas and from several tributaries including Twenty-five Mile Creek, Little Wolf Creek, and Sixteen-mile Creek, among others.

This station on Wolf Creek has been active for all water quality variables since November of 1998. 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 Wolf Creek from the confluence of Twenty-five Mile Creek (99.7333, 36.3337) downstream to confluence of Wolf Creek with Fort Supply Reservoir (99.5762, 36.5094). As per Appendix A, Table 7 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 toxicant data collected during the same period met the criteria prescribed in the WWAC beneficial use. Fish collected during the summer of 2006 indicate that the segment is supporting a healthy biological community. Based on the Index of Biological Integrity (IBI) outlined in Appendix C of Oklahoma's USAP, the station has a sample composition score of 14 (maximum 30) and fish condition score of 9 (maximum 15) for a total score of 23. This is above the assigned supporting threshold of 22 for Central Great Plains warm water aquatic communities [OAC 46:15-5(l)]. The AG beneficial use is supported for total dissolved solids, chlorides, and sulfates. The PBCR beneficial use is not supported. Of the twenty-three (23) enterococci concentrations, six (6) samples exceeded the prescribed screening level of 406 cfu/100mL, and the geometric mean (138.0 cfu/100mL) exceeded the prescribed mean standard of 33 cfu/100mL. This segment of Wolf Creek 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.