

Arkansas River near Moffett

Station AT249453 (220200010010-001AT) is a permanent ambient trend monitoring station located on the Arkansas River (Kerr-McClellan Navigational System) in Oklahoma. Situated in the southeastern portion of Sequoyah County, the site was established east of the town of Moffett on State Highway 64. The station is positioned at the terminal end of stream segment 220200010010 and is classified within the Robert S. Kerr Reservoir 8-digit HUC watershed (11110104). Water enters the stream system from several tributaries including Onion Creek, Cache Creek, Big Skin Bayou, Camp Creek, and the Poteau River, among others.

This station on the Arkansas River has been listed on the ambient trend network since November of 1998 but has only been active for all water quality variables since September of 1999 because of access difficulties. The following assessment of beneficial uses is based on data collected from October of 1999 through August of 2004. For purposes of reporting, this station is representative of the Arkansas River from confluence of Onion Creek (94.6744, 35.3006) downstream to its exit from Oklahoma near Moffett, Oklahoma (94.4340, 35.3865). As per Oklahoma Water Quality Standards, Appendix A, Table 2 of Oklahoma Administrative Code (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 (Figure 59a), pH (Figure 59b), turbidity (Figure 59c), and toxicant samples met the criteria prescribed in the WWAC beneficial use. The AG beneficial use is supported for total dissolved solids, chlorides, and sulfates (Figure 59d and Figure 59e). Although 12% of the sulfate concentrations exceeded the sample standard of 92.0 mg/L, the values are below the prescribed minimum standard of 250 mg/L. The PBCR beneficial use is not supported (Table 26). Of the fifteen (15) enterococci concentrations, one (1) sample exceeded the prescribed screening level of 406 cfu/mL, and the geometric mean (57.6 cfu/mL) exceeded the prescribed mean standard of 33 cfu/mL. This segment of the Arkansas 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 (Figure 59f).

Figure 59a-f. Dissolved Oxygen (a), pH (b), Turbidity (c), Total Dissolved Solids (d), Minerals (e), and Nutrients (f) on the Arkansas River at Moffett (AT249453), 1999-2004.



