

## Canadian River near Whitefield

Station AT245000 (220300000010-001AT) is a permanent ambient trend monitoring station near the lower end of the Canadian River in Oklahoma. Situated in the northwestern portion of Haskell County, the site was established north of the town of Whitefield on State Highway 2. The station is positioned between the upper end and the midpoint of stream segment 220300000010 and is classified within the Lower Canadian River 8-digit HUC watershed (11090204). Water enters the stream system from Eufaula Lake and several tributaries including Emachaya Creek and Taloka Creek, among others.

This station on the Canadian River has been active for all water quality variables since September of 1999. The following assessment of beneficial uses is based on data collected from October 1999 through September of 2004. For purposes of reporting, this station is representative of the Canadian River from the confluence with Lake Eufaula (95.3582, 35.3065) downstream to the Canadian River's confluence with Robert S. Kerr Reservoir (95.0776, 35.4325). 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 38a), pH (Figure 38b), turbidity (Figure 38c), 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 38d and Figure 38e). Although 12% of the sulfate concentrations exceeded the sample standard of 60.0 mg/L, the values are below the minimum value of 250 mg/L. The PBCR beneficial use is supported for fecal coliform, *E. coli* and enterococci. This segment of the Canadian 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 38f).

**Figure 38a-f.** Dissolved Oxygen (a), pH (b), Turbidity (c), Total Dissolved Solids (d), Minerals (e), and Nutrients (f) on the Canadian River at Whitefield (AT245000), 1999-2004.



