

Canadian River near Konawa

Station AT229400 (520600010010-001AT) is a permanent ambient trend monitoring station located on the Canadian River in Oklahoma. Situated in the southeastern portion of Seminole County, the site was established east of the town of Konawa on US Highway 377. The station is positioned near the upper end of stream segment 520600010010 and is classified within the Lower Canadian River - Walnut Creek 8-digit HUC watershed (11090202). Water enters the stream system from and from several tributaries including Canadian Sandy Creek, Jumper Creek, and the Little River, among others.

This station on the Canadian River has been active for all water quality variables since November of 1998. The following assessment of beneficial uses is based on data collected from October of 1999 through September of 2004. For purposes of reporting, this station is representative of the Canadian River from the confluence of Canadian Sandy Creek (96.7007, 34.8651) downstream to confluence of the Little River with the Canadian River (96.3637, 34.9962). As per Oklahoma Water Quality Standards, Appendix A, Table 5 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 not supported. Of the twenty-eight (28) turbidity samples (Figure 35c), seven (7) samples (or 25%) exceeded the numerical criterion of 50. Of the thirteen (13) toxicant samples collected, three (3) of the lead concentrations (or 23%) exceeded the prescribed, hardness-dependent chronic criteria of 15.78 µg/L (Table 19). Dissolved oxygen (Figure 35a) and pH (Figure 35b) samples met the criteria prescribed in the WWAC beneficial use. The AG beneficial use is not supported (Figure 35d and Figure 35e). Of the forty-nine (49) total dissolved solids concentrations, twenty-four (24) samples (or 49%) exceeded the minimum sample standard of 750.0 mg/L (Appendix F sample standard is 700 mg/L). Chloride and sulfate values met the prescribed segment-specific criteria. The PBCR beneficial use is not supported (Table 20). Of the nineteen (19) enterococci concentrations, four (4) samples exceeded the prescribed screening level of 406 cfu/mL, and the geometric mean (133.3 cfu/mL) exceeded the prescribed mean standard of 33 cfu/mL. 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 35f).

Figure 35a-f. Dissolved Oxygen (a), pH (b), Turbidity (c), Total Dissolved Solids (d), Minerals (e), and Nutrients (f) on the Canadian River at Konawa (AT229400), 1999-2004.



