

Canadian River near Bridgeport

Station AT228500 (520610020150-001AT) is a permanent ambient trend monitoring station located on the Canadian River in Oklahoma. Situated in the northeastern portion of Caddo County, the site was established east of the town of Bridgeport on US Highway 66. The station is positioned near the upper end of stream segment 520610020150 and is classified within the Lower Canadian River - Walnut Creek 8 digit HUC watershed (11090202). Water enters the stream system from several tributaries including Lariat Creek, Canyon View Creek, Powder Face Creek, and Buggy Creek, 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 June of 2002 through March of 2007. For purposes of reporting, this station is representative of the Canadian River from the confluence of Deer Creek (98.4737, 35.5580) downstream to confluence of the Canadian River with Buggy Creek (97.8950, 35.3450). As per Appendix A, Table 5 of OAC 785:45, this water quality management segment is assigned the following designated beneficial uses: 1) Emergency Water Supply (EWS), 2) Warm Water Aquatic Community—Fish and Wildlife Propagation (WWAC), 3) Agriculture—Class I Irrigation (AG), and 4) Primary Body Contact—Recreation (PBCR).

The WWAC beneficial use is not supported. Of the thirty-two (32) turbidity samples, eight (8) samples (or 25%) exceeded the numerical criterion of 50. Dissolved oxygen, pH, and toxicants samples met the criteria prescribed in the WWAC beneficial use. The AG beneficial use is supported for total dissolved solids, chlorides, and sulfates. The PBCR beneficial use is not supported. Of the twenty-seven (27) enterococci concentrations, six (6) samples exceeded the prescribed screening level of 406 cfu/100mL, and the geometric mean (134.2 cfu/100mL) exceeded the prescribed mean standard of 33 cfu/100mL. 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. Furthermore, the mean sestonic chlorophyll-a concentration (19.9 mg/M³) produced a TSI of 60, which is below the threshold TSI of 62.