

Beaver River near Guymon

Station AT232500 (720510000190-001AT) is a permanent ambient trend monitoring station located on the Beaver River in Oklahoma. Situated in the central portion of Texas County, the site was established west of the city of Guymon off of US Highway 64 on County Road 40. The station is positioned near the midpoint of stream segment 720510000190 and is classified within the Upper Beaver River 8-digit HUC watershed (11100101). Water enters the stream system from several tributaries including Sand Creek, Tepee Creek, Dry Sand Creek, and Goff Creek, among others.

This station on the Beaver 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 Beaver River from the confluence of Sand Creek (101.7692, 36.5976) downstream to confluence of Goff Creek with the Beaver River (101.4709, 36.7255). As per Oklahoma Water Quality Standards, Appendix A, Table 7 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 43a), pH (Figure 43b), turbidity (Figure 43c), and toxicant data met the criteria prescribed in the WWAC beneficial use. The AG beneficial use is supported for total dissolved solids, chlorides, and sulfates (Figure 43d and Figure 43e). The PBCR beneficial use is not supported (Table 23). Of the seventeen (17) enterococci concentrations, five (5) samples exceeded the prescribed screening level of 406 cfu/mL, and the geometric mean (454.8 cfu/mL) exceeded the prescribed mean standard of 33 cfu/mL. Of the eighteen (18) *E. coli* concentrations, three (3) samples exceeded the prescribed screening level of 406 cfu/mL, and the geometric mean (256.9 cfu/mL) exceeded the prescribed mean standard of 126 cfu/mL. Of the 17 fecal coliform concentrations, seven (7) samples (or 41%) exceeded the prescribed screening level of 400 cfu/mL, and the geometric mean (707.1 cfu/mL) exceeded the prescribed mean standard of 400 cfu/mL. This segment of the Beaver 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 43f).

Figure 43a-f. Dissolved Oxygen (a), pH (b), Turbidity (c), Total Dissolved Solids (d), Minerals (e), and Nutrients (f) on the Beaver River at Guymon (AT232500), 1999-2004.



