

## Honey Creek near Grove

Station AT189090 (121600030290-001AT) is a permanent ambient trend monitoring station located on Honey Creek in Oklahoma. Situated in the northeastern portion of Delaware county, the site was established southeast of the city of Grove off of SH 25 on County Road N4650. The station is positioned near the terminal end of stream segment 121600030445 and is classified within the Grand Lake 8 digit HUC watershed (11070206). Water enters the stream system from Missouri and from several tributaries including the Cave Springs Branch, among others.

This station on Honey Creek has been active for all water quality variables since November of 1998. The following assessment of beneficial uses is based on data collected from May of 2002 through April of 2007. Analysis also includes water quality data collected by the United States Geological Survey's Oklahoma Water Science Center. For purposes of reporting, this station is representative of Honey Creek from its entrance into Oklahoma near Southwest City, Missouri (94.6178, 36.5243) downstream to confluence of Honey Creek with Grand Lake (94.7427, 36.5505). As per Appendix A, Table 1 of OAC 785:45, this water quality management segment is assigned the following designated beneficial uses: 1) Public and Private Water Supply (PPWS), 2) Cool Water Aquatic Community—Fish and Wildlife Propagation (CWAC), 3) Agriculture—Class I Irrigation (AG), and 4) Primary Body Contact—Recreation (PBCR).

The PPWS beneficial use is supported. The CWAC beneficial use is supported. Dissolved oxygen, pH, turbidity, and toxicant samples met the criteria prescribed in the WWAC beneficial use. Fish collected during the summer of 2006 indicate that the segment is supporting a healthy biological community. Based on the Index of Biological Integrity (IBI) outlined in Appendix C of Oklahoma's USAP, the station has a sample composition score of 24 (maximum 30) and fish condition score of 15 (maximum 15) for a total score of 39. This is above the assigned supporting threshold of 37 for Ozark Highland cool water aquatic communities [OAC 46:15-5(j)]. The AG beneficial use is supported for total dissolved solids (TDS), chlorides, and sulfates. Although samples of TDS, chloride, and sulfate exceeded the sample standards and the mean of all chloride values exceeded the yearly mean standard, all values are below the minimum standard standards. The PBCR beneficial use is not supported. Of the twenty-eight (28) enterococci concentrations, eight (8) samples exceeded the prescribed screening level of 406 cfu/100mL, and the geometric mean (308.3 cfu/100mL) exceeded the prescribed mean standard of 33 cfu/100mL. This segment of Honey Creek is not nutrient-threatened. The total phosphorus and nitrate/nitrite median values were below the threshold medians of 0.15 mg/L and 2.4 mg/L, respectively.