

EXECUTIVE SUMMARY

The City of Huntsville ("Huntsville") operates a municipal wastewater treatment facility on Highway 23 North of Huntsville in Madison County, Arkansas. Treated municipal wastewater is discharged from Outfall 001, as authorized by the Arkansas Department of Environmental Quality (ADEQ) under National Pollutant Discharge Elimination System (NPDES) Permit No. AR0022004 that was effective on June 1, 2011 ("the Permit"). Outfall 001 discharges to Town Branch, which flows into Holman Creek, which flows War Eagle Creek. The Permit requires Huntsville to monitor and report the concentration of TDS in its effluent, and includes a condition that Huntsville undertake a study to evaluate all options for achieving compliance with water quality standards for Total Dissolved Solids.

Huntsville submitted the required work plan, which was approved by ADEQ. Huntsville implemented the work plan, and issued a final report, entitled City of Huntsville, Arkansas Section 2.306 Site Specific Water Quality Study: Town Branch, Holman Creek, and War Eagle Creek ("the Study"). The Study includes documentation supporting the following significant findings:

- The designated Fishery Uses for Town Branch, Holman Creek and War Eagle Creek are being maintained.
- The whole effluent toxicity testing results for the Huntsville wastewater treatment facility indicate no toxicity associated with minerals.
- The habitat quality of each of the stream reaches at issue is adequate to support the designated fishery use.
- The upstream/downstream biological assessment supports the determination of full attainment of the fishery use.
- The fish collections for each of the creeks evaluated were typical of Ozark Highlands Ecoregion fisheries, supporting the determination of full attainment of the designated fishery use.
- Removal of the domestic water supply use and modification of the dissolved mineral water quality criteria are necessary to accommodate important economic and social development in the Huntsville area.

Based on the Study, Huntsville is requesting the following amendments to the mineral criteria for the Town Branch, Holman Creek and War Eagle Creek in APCEC Regulation No. 2:

Town Branch from Point of Discharge of the City of Huntsville WWTP downstream to the confluence with Holman Creek			Holman Creek from the confluence with Town Branch downstream to the confluence with War Eagle Creek			War Eagle Creek from the confluence with Holman Creek		
Site Specific Criteria Proposed			Site Specific Criteria Proposed			Site Specific Criteria Proposed		
Chloride (mg/L)	TDS (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	TDS (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	TDS (mg/L)	Sulfate (mg/L)
185	525	41	185	525	41	185	525	41

- A critical background flow of 4.0 cfs should be applied by listing Town Branch, Holman Creek, and War Eagle Creek (with asterisks) in Reg. 2.511.
- Removal of the Domestic Water Supply use for Town Branch beginning at Latitude 36.112330°, Longitude- 93.732833° and extending downstream to its confluence with Holman Creek at Latitude 36.0118158°, Longitude- 93.736039°; and for Holman Creek beginning at its confluence with Town Branch at Latitude 36.118158°, Longitude -93.736039° and extending downstream to its confluence with War Eagle Creek at Latitude 36.140824°, Longitude -93.729594°.