

Shepherd Creek (1209J) Recreational Use Attainability Analysis Summary and Recommendation

A recreational use attainability analysis (RUAA) was conducted on Shepherd Creek (1209J) in the summer of 2010 to determine the appropriate recreational use and numeric criteria. Shepherd Creek is an unclassified intermittent water body that is approximately 14 miles in length. The creek is located in Madison County. It was identified in the 2014 Texas Clean Water Act Section 303(d) List of Impaired Water Bodies due to elevated bacteria levels. It was initially listed in 2002.

The RUAA identified that the presumed use of primary contact recreation (PCR) for Shepherd Creek should be revised to secondary contact recreation 1 (SCR 1). SCR applies to water bodies where water recreation can occur, but the nature of the recreation does not involve a significant risk of ingestion. SCR 1 applies to intermittent and perennial freshwaters where site-specific information demonstrates that primary contact recreation has little to no likelihood of occurring due to physical characteristics of the water body such as shallow depths or lack of pools.

During the field surveys, field staff did not observe recreation. Two interviews were conducted with landowners who had property along the creek. The first landowner stated that their children would wade in the stream, but other than that they had not witnessed or heard of PCR occurring in the stream. The second interviewee stated that the stream was usually dry and they had not personally used, witnessed, or heard of PCR occurring in Shepherd Creek. There was no evidence of recreation found during the field surveys. Shepherd Creek had an average thalweg of 0.35 meters (13.77 in) and lacked pools deeper than 1 meter. The thalweg depth was calculated from data from supplemental site visits. Flow was not measured due to accessibility; however, at two of the sites there was no flow (stagnant pools). The Palmer Drought Severity Index (PDSI) indicated normal conditions during both field surveys. There are no public parks on Shepherd Creek. The creek flows through rural areas and most of the land is privately owned. Public access at road crossings was moderate. Fences, gates, and private property signs are common public access limitations. All of the sites were at road crossings, and half had fences upstream and/or downstream of the access point. Other recreation impediments include trash piles, steep slopes, logjams, and debris in the water. Field staff noted that Shepherd Creek is regularly used as a dump site for dead animals and large appliances.

Limited access and shallow depths in Shepherd Creek decrease the likelihood of PCR use, supporting reclassification to SCR1. In accordance with §307.4 (j)(3)(C) of the Texas Surface Water Quality Standards, the TCEQ recommends a reclassification from PCR to SCR1 with the corresponding geometric mean of 630 colonies *E. coli*/100mL for all of Shepherd Creek, from the confluence with the Navasota River in Madison County to a point 0.7 miles upstream of FM 1452 in Madison County. This reclassification is appropriate due to “natural, ephemeral, intermittent low flow conditions or water levels” in accordance with reasons specified in 40 CFR §131.10(g)(2).

Prior to changing the currently assigned recreational use of Shepherd Creek in the Texas Surface Water Quality Standards, the TCEQ would provide additional public notice and opportunity for public comment. In addition, the U.S. Environmental Protection Agency would review this proposed change under the provisions of the federal Clean Water Act.