United States Department of the Interior – National Park Service – Buffalo National River. Arkansas Legislature Agriculture, Forestry, and Economic Development Joint Committee Meeting, March 29, 2016, Regarding ADEQ 2016 303(d) Impaired Waterbodies List.

Handout #1, Mill Creek

Mill Creek has a surface watershed of 19.4 square miles. Much of the flow of the creek originates from two springs in the former Dogpatch USA theme park. Mill Creek includes the Marble Falls Suburban Improvement District waste water treatment plant, and a number of homes located on the banks of the stream. In 2015, NPS began collecting water samples on Mill Creek each week. These samples are taken above the county road crossing about ½ mile above where the creek flows into the Buffalo River. See the map in Figure 1. As can be seen in Figure 2, the water in the creek exceeded the non-ERW standards for primary contact recreation (blue shaded box) 6 times, and the ERW standards 8 times during the summer of 2015. Figure 2 shows the geometric mean results from that period. During the 5 months of primary contact season in 2015, Mill Creek exceeded the standard for 4 months. The conditions are sufficiently concerning that NPS has installed "water quality advisory" signs on the creek and at the Crow Hole on the Buffalo River in an effort to protect public health through education.

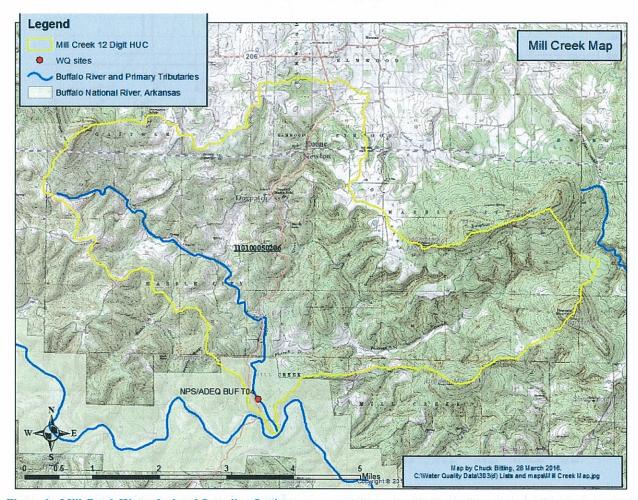


Figure 1: Mill Creek Watershed and Sampling Station

United States Department of the Interior – National Park Service – Buffalo National River. Arkansas Legislature Agriculture, Forestry, and Economic Development Joint Committee Meeting, March 29, 2016, Regarding ADEQ 2016 303(d) Impaired Waterbodies List.

Handout #1, Mill Creek

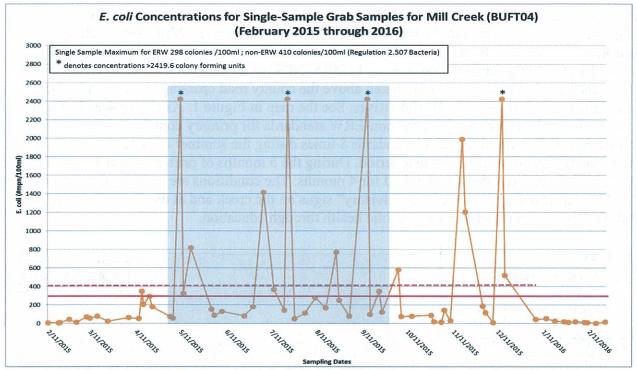


Figure 2: Mill Creek E. coli individual sample results, February 2015 to February 2016. Blue shaded box indicates primary contact season. Solid red line indicates ERW standards for *E. coli*. Dashed red line indicates non-ERW standard for *E. coli*.

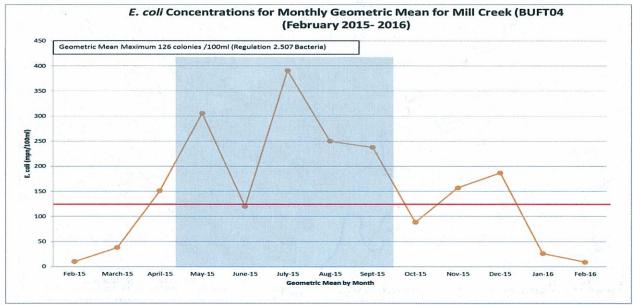


Figure 3: Mill Creek E. coli geometric mean data, February 2015 to February 2016. Blue shaded box indicates primary contact season. Solid red line indicates ERW geometric mean standards for E. coli.