Public Comments on the 2018 Arkansas Department of Environmental Quality 303(d) list:

Fourche Creek is and has been listed on the Arkansas Department of Environmental Quality (ADEQ) list as a Category 5 low priority impaired water body. Previous to this year, Reach 24 (upper Fourche Creek watershed to the confluence of Rock Creek and Fourche Creek) and 22 (the lower part of the Fourche Creek watershed) have been listed as impaired for designated uses not met due to a number of causes. However, in the 2018 303(d) list, only Reach 24 is listed as impaired, and for the first time since the 2008 303(d) list, Reach 22, was not listed as impaired. Based on the differences between various assessments over time, Fourche Creek water quality data should be reexamined, monitoring continued, and Fourche Creek potentially assigned a higher priority.

The reasons for this request are the following:

1. Until the 2016 303(d) list, Reach 22, from the confluence of Rock Creek and Fourche Creek to the Arkansas River, has been listed as impaired for not meeting the designated use for aquatic life/fisheries. In the 2016 303(d) list, no designated uses were listed as impaired and the 2018 303(d) list Reach 22 was not listed as impaired. The reason for removal of Reach 22 from the list is unclear. I am not aware of any remediation activities to warrant a removal from the list.

2. Previously, the source of contaminants has been identified as unknown and/or surface erosion. We believe that urban runoff is a major of contaminants, and therefore should be listed as such. This is based on my own research and water quality measurements. I have had several students do projects on the creeks around town, including Fourche Creek and its many tributaries. Below I have included a table of exceedances of the EPA MCL and CCC concentrations. Through my time sampling Fourche and the other creeks, the results have indicated a great variation in concentration dependent on time of year and discharge in the creek. Therefore I recommend increasing the frequency of sampling (or partnering with a group to so) to sample more often to capture the variability within the creek.

Table 1: Concentrations of arsenic and cadmium measured by ICPMS that exceeded the EPA MCL or EPA CCC are highlighted in yellow.

Sample ID	Date Sampled	As	Cd
EPA MCL		10 ppb	5 ppb
EPA CCC		150 ppb	0.25 ppb
RC1	6/13/16	18.25	0.31
RC2	6/13/16	11.46	0.11
RC3	6/13/16	12.75	0.12
RC4	6/13/16	11.68	0.11
RC5	6/10/16	11.67	0.11

FC3	4/6/16	8.38	0.58
FC4	4/6/16	9.02	0.46
FC2	6/10/16	10.47	0.16
FC3	6/10/16	12.49	0.52
FC4	6/10/16	11.88	0.31

3. Much of the Fourche Creek watershed is in the City of Little Rock and the amount of trash in the Creek is astonishing. From 2014 to 2017, Arkansas Audubon has hosted two or more Fourche Creek cleanups per year. Approximately 31.8 tons of trash have been removed as well as hundreds of tires. This number does not include cleanups conducted elsewhere in the watershed such as cleanups in Coleman Creek conducted by the University of Arkansas-Little Rock Aquatic Science Association.

4. Fourche Creek is a potential major recreation resource for Metropolitan Little Rock. The Arkansas Game and Fish has built a boat ramp at Benny Craig Park and section of the creek has been designated the Fourche Creek Urban Water Park. There is a concern for fecal contamination in the creek as major sewer lines pass through the area to wastewater treatment plants. Anecdotal information suggests that during major flood events the sewer main lids pop and there is raw sewage release directly to the creek. This is a concern for secondary contact (kayak and canoeing) recreation. In the 2008 303(d) list, primary contact recreations was designated as impair because of pathogenic indicator bacteria.

Because of the reasons listed above and the potential water resource for Central Arkansas, it is recommended that Fourche Creek's low priority be reexamined.

Thank you,

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