

**From:** Harry Elliott [mailto:Rocksea1@att.net]  
**Sent:** Monday, August 05, 2013 4:24 PM  
**To:** Reg-Comment  
**Cc:** Szenher, Doug  
**Subject:** Comments on proposed change to Regulation No. 2-Tyson/Waldron

I ask the Commission to deny this rulemaking.

Tyson is seeking to change the site specific criteria for chlorides, sulfates and total dissolved solids (TDS) (mineral criteria) in the unnamed tributary of the Poteau River (where it discharges) and the mineral criteria in the Poteau River (which its discharge impacts). The Poteau River is listed on the 2008 303(d) list for chlorides, sulfates, and TDS. The site specific standards for the Poteau River are 120 mg/l for chlorides, 60 mg/l for sulfates and 500 mg/l for TDS. Reg.2.511(A). According to the TMDL that EPA did for the Poteau River at Waldron for metals (copper, zinc and phosphorus), “With a 7Q10 flow of zero, *the Poteau River provides no dilution for the point source discharges during critical low flow conditions*. The facilities must discharge effluent that meets the instream standard at the point of discharge.” (2006 TMDLs for Poteau River near Waldron, page 4-1.) I think this means what Tyson’s discharge to the unnamed tributary that flows into the Poteau River, has to meet the instream standards for the Poteau River. At least for copper, zinc and total phosphorus. But ADEQ issued a permit to Tysons with effluent limits for minerals that are higher than the site specific mineral criteria for the Poteau River. The minerals concentrations that are permitted, and will become effective permit limits on September 1, 2013, are the same as the site specific criteria for the unnamed tributary to which Tyson discharges. The site specific criteria for the unnamed tributary and the effluent limits in Tyson’s permit are 150 mg/l for chlorides, 70 mg/L for sulfates and 660 mg/l for TDS. I guess the important point here is that Tyson’s discharge has been permitted by ADEQ to meet the site specific minerals criteria for the receiving stream without any dilution. So, whatever the site specific criteria are, that is the concentration Tyson's effluent must meet at the end of its pipe. (Since Tyson’s permitted discharge is greater than the site specific criteria for the Poteau River, is Tyson’s discharge contributing to the mineral impairment in the Poteau River currently?).

I understand that critical flow is defined in Reg. 2 as the “flow volume used as background dilution flows in calculating concentrations of pollutants from permitted dischargers.” And for minerals criteria, the critical flow is defined as the harmonic mean flow or 4 cfs, *except in those waters listed in Reg. 2.511* (unless listed with an asterisk.) The unnamed tributary and the Poteau River are *listed in Reg. 2.511* and not with an asterisk. Therefore, I don’t think the 4 cfs should apply to the Poteau River or the unnamed tributary. The 7Q10 is probably the best value to use in calculating site specific criteria that protect aquatic life and other designated uses during critical flows. But even using the long term average flow would be more representative of conditions in the stream for at least some months. The TMDL for the Poteau River listed the long term average flow per unit area as 1.20 cfs per square mile based on flow data from the USGS gauging station during the period of 1975 – 2004. The flow data was collected at Cauthron, AR (which I think is downstream of Waldron). (2006 TMDLs for Poteau River near Waldron, page 2-2.) Given that we have actual flow data for the Poteau, basing site

specific criteria in the Poteau and the unnamed tributary on a greater assumed flow is simply indefensible.

#### **Site Specific Criteria for Sulfates**

Tyson seeks to increase the sulfate concentration in the Poteau River. Tyson proposes to increase the sulfate concentration from 60 mg/l to 117 mg/l; almost doubling the sulfate concentration allowed to be discharged into the Poteau River. Again, the Poteau River is impaired for sulfates and almost doubling the allowable concentration of a pollutant that is the source of a river's impairment without very clear evidence that aquatic life and other designated uses will be protected is not appropriate. Please ensure that such clear and convincing evidence supports this proposal. If any question remains about whether aquatic life uses will be protected if the proposed criteria are adopted, please deny this proposed change to Reg. 2.

#### **Site Specific Criteria for Chlorides and TDS**

I think this proposal illustrates the problem Act 954 of 2013 will offer the state's surface waters and its users. The actual long term average flow for the Poteau River is 1.2 cfs. But I think Tysons is using 4 cfs to calculate the new site specific criteria. In doing this, it looks like they are asking the Commission to adopt a lower concentration for chlorides, but that is not necessarily the case. I think the way this mathematical trick works is, by using 4 cfs, an exaggerated flow is used to *calculate a concentration* that looks lower but really isn't. Tyson's proposal also includes a slight increase in TDS in the Poteau River. But by using an exaggerated flow in its calculations is this change really only a slight increase? Or something else?

This rulemaking should not be adopted unless the 7Q10 or, in the worst case, the long term average flow is used to calculate the site specific minerals criteria and this rulemaking should not be adopted until the impact of the proposal on the unnamed tributary and the Poteau River's designated uses are fully understood.

Using an assumed 4 cfs to calculate site specific mineral criteria for a stream impaired for minerals when the receiving stream is known to have a much lower flow for months during the year is not a decision that can be defended based on sound science or good government.

Sadly, our 2013 legislators will require this very caricature of science to be implemented in the State of Arkansas under Act 954 of 2013. Effective August 16, Act 954 will require standards development to be based on the greater of the average flow or 4 cfs.

Thank you for the opportunity to comment.

Harry Elliott