

ADEQ

A R K A N S A S
Department of Environmental Quality

December 2, 2013

Mr. Doug Szenher
Public Outreach and Assistance
Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, AR72118-5317

Re: Response to GBM^c Third Party Rulemaking for Huntsville, Town Branch, Holman Creek
and War Eagle Creek – Section 2.306 Site Specific Criteria Water Quality Study

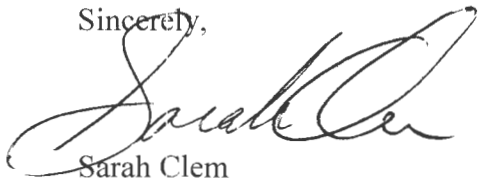
Dear Mr. Szenher,

The Department has several concerns regarding the proposed site specific minerals criteria changes to the Town Branch, Holman Creek, and War Eagle Creek with respect to criteria development; order of stream segment listing in Reg. 2; Reg. 2.511 footnote necessity; and discrepancies between the Petition to Initiate and Reg. 2 markup.

The Department does not recommend approval of proposed site specific minerals criteria changes for the Town Branch, Holman Creek, and War Eagle Creek as currently presented. Details on the Department's decision are attached.

If you have any questions or comments, please feel free to call 501-682-0660 or email me at clem@adeq.state.ar.us

Sincerely,



Sarah Clem
ADEQ Branch Manager
Water Quality Planning Branch
Water Division

Enclosure

Criteria Development

The Department opposes the calculated site specific criteria as presented in the Petition to Initiate Rulemaking – Second Amendment for the following reasons:

1. Use of 4 cfs as the critical background flow for Town Branch and Holman Creek is inappropriate and does not represent actual flow conditions. 7Q10 is appropriate and protective of designated and existing uses within the waterbodies.
2. The use of the effluent flow and effluent mineral concentration (Qe and Ce) in calculations for Holman Creek and War Eagle is inappropriate. Flow and minerals concentrations should reflect the entirety of the contributing waterbodies, not just the downstream effluent.
3. The Department opposes use of ecoregion values as background concentrations for minerals used for all stream segments. Data collected during the study (Tables 5.1 and 5.2 in the UAA) show that mineral concentrations above the outfall/confluence generally average higher than the ecoregion value (Table 1). Actual instream values, not ecoregion values, should be used and are protective of designated and existing uses within these stream segments.

Table 1. Ecoregion values and average instream concentrations (mg/L) from UAA study.

	Chloride	TDS	Sulfate
Ecoregion Value	6	143	6
TB-1	17.6	195	15.3
TB-2	120.2	468.3	51
HC-1	7.7	156.7	12.4
HC-2	81.5	365.4	33.8
WEC-1	3.9	103.8	7.3
WEC-2	15.4	145.6	10.4
Outfall 001	208	604	51.7

The Department does not recommend approval of the recommended Site Specific Criteria as currently presented and requests that revised proposed site specific mineral criteria be calculated using the background flow and concentrations mentioned above.

An alternate approach to generating Site Specific Criteria instead of using mass balance equations is a percentile of actual conditions for minerals.

Order within Reg 2 for proposed amendments to War Eagle

The two entries for War Eagle Creek should be in the following order:

War Eagle Creek (downstream from the confluence with Clifty Creek to Beaver Lake)

War Eagle Creek (from the confluence with Holman Creek to Clifty Creek)

This also represents the proper wording in order to be consistent with the Petition to Initiate. (See below.)

Footnotes to Regulation No. 2

The footnote:

“# - At such time as Act 954 of 2013 is implemented using average flow and as average flow can be calculated for War Eagle Creek the site specific criteria shall revert to the Ecoregion Values.”

is unnecessary as Act 954 of 2013 was repealed on October 21, 2013 (Act 4 of the 2013 Extraordinary Session) and should be removed.

The footnote:

“+ - Based on critical background flow of 7.2 cfs and 10.9 cfs (7Q10) at Holman and Clifty Creek confluences, respectively.”

is unnecessary and should be removed.

Discrepancies between Petition to Initiate - Second Amendment and amended Regulation No. 2- Second Amended

There are several discrepancies between the proposed amendments to Reg. 2 (item 12. of Petition to Initiate Rulemaking - Second Amendment) and the proposed Reg. 2 markup.

1. The proposed Reg. 2 markup should be amended to the following to be consistent with the Petition to Initiate Rulemaking – Second Amendment:

War Eagle Creek (downstream from the confluence with Clifty Creek to Beaver Lake)

War Eagle Creek (from the confluence with Holman Creek to Clifty Creek)

Holman Creek (from the confluence with Town Branch downstream to the confluence with War Eagle Creek)

Town Branch (from Point of Discharge of the City of Huntsville WWTP downstream to the confluence with Holman Creek)

2. The proposed Regulation has a footnote (which ADEQ recommends be removed, see above) that is inconsistent with the text in item 12. in the Petition to Initiate – Second Amendment:

Item 12 reads:

“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. Critical background flows of 7.2 and 10.9 the (7Q10 for War Creek [sic] at the Holman

creek and Clifty Creek confluence, respectively) should be applied to War Eagle Creek.”

Amended Reg. 2 reads:

“+ - Based on critical background flow of 7.2 cfs and 10.9 cfs (7Q10) at Holman and Clifty Creek confluences, respectively).”

and is applied to both entries for War Eagle Creek.

Firstly, item 12. is inconsistent with itself as it states to apply 4.0 cfs to War Eagle Creek, then restates to apply 7.2 cfs and 10.9 cfs for specific reaches.

Secondly, item 12 is inconsistent with the proposed footnote in Reg. 2.511 as the footnote does not specify use of 4 cfs at all.

Again, the Department recommends omission of the footnote altogether, see above.