

ADEQ

ARKANSAS
Department of Environmental Quality

January 8, 2010

Claudia Hosch (6WQ-P)
Associate Director
U.S. Environmental Protection Agency
1445 Ross Avenue
Dallas, TX 75202-2733

Re: Comments on the Draft Quality Assurance Project Plan (WA #3-36)

Dear Ms. Hosch:

The Arkansas Department of Environmental Quality (ADEQ) would like to thank Region 6 Environmental Protection Agency (EPA) for allowing us to review and provide comments on the Quality Assurance Project Plan (QAPP). ADEQ has the following comments for consideration in regards to the draft QAPP. In addition to the Department's comments the City of Fayetteville, Tyson Foods, Inc., Rogers Water Utility, and the City of Siloam Springs comments have been attached.

Comment 1

Page 1, section 1.0, paragraph 2 states: the upper section of the Illinois River is a designated scenic river. Only in Oklahoma is the upper section of the Illinois River designated a scenic river. **The ADEQ requests that 'in Oklahoma' be added to eliminate any confusion.**

Comment 2

ADEQ continues to emphasize that the Illinois River and its tributaries in Arkansas are meeting Water Quality Standards. Page 1, paragraph 3, 2nd sentence: **ADEQ requests the addition of the footnote "Arkansas does not have a numeric Water Quality Standard for Total Phosphorus and has never listed any stream as impaired for TP on any 303(d) list."**

Comment 3

Page 1, section 1.0 paragraph 4, 1st sentence: **ADEQ requests the word "applicable" be added before "water quality."**

Comment 4

Page 1, section 1.0, paragraph 4 states: "Ultimately, the intent is development of a tool that can lead to scientifically sound TMDLs..." **"A TMDL is the maximum amount of pollution a waterbody can assimilate without violating state Water Quality Standards. If in Arkansas, the Illinois River and its tributaries are not impaired for Total Phosphorus, then what Water Quality Standards will be used to define these "scientifically sound TMDLs?"**

Comment 5

Page 1, paragraph 5 states: "The State of Oklahoma identified that the likely causes of pollution of the Illinois River are domestic wastewater and poultry farm runoff, and law suits between the states have been ongoing for more that two decades." **The State of Arkansas has not been involved in any lawsuits with Oklahoma in this regard and asks that the statement be removed.**

Comment 6

Page 1, section 1.0, paragraph 4: ADEQ requests a more detailed definition, a clarified outline and proposed corrective actions of a “water quality restoration plan.”

Comment 7

Page 8, section 4.2, last paragraph: suggests the models to be used have already been selected. No explanation is provided as to why these models are appropriate only to say that smaller portions of the watershed have been evaluated using these models. ADEQ requests a more detailed explanation as to why these models are appropriate for the entire Illinois River Watershed. In addition, justification should be provided as to why other models that were considered were not selected.

Comment 8

In the sixth sentence of the first paragraph in section 4.3 a space is missing between “that dispute.”

Comment 9

As stated in Comment 3 the word ‘applicable’ should be used prior to water quality standard in the first sentence in section 5.0.

Comment 10

Section 5.1 discusses data collected for a modeling effort of the Illinois River and Tenkiller Reservoir that would be used for the entire Illinois River Watershed. The data that is being used was collected prior to 2001 (some data as old as 1971) with additional data available through 2004. The Statement of Joint Principles and Actions agreed to by Arkansas and Oklahoma environmental agencies in 2003 reduces the amount of TP discharged by the wastewater treatment plants. The data being used to establish the TMDL will not accurately reflect current conditions of the watershed. This data, while useful for some general purposes, is too old for the purpose of trying to determine appropriate Total Phosphorus loads.

Comment 11

Page 9 in section 5.1 the use of a model (HSPF) that depicts the stream as one dimensional may not provide an accurate portrayal of Total Nitrogen and Phosphorus fate. How will this apparent model shortcoming be taken into account?

Comment 12

Page 9, section 5.2: Regarding available data: ADEQ asks why there is such a large gap. More specifically, will the data used for the modeling effort begin at 2001 or 2004? What efforts will be made to take into account land-use changes (i.e. increase/decrease agriculture, or even increase/decrease of WWTP limits) during those years?

Comment 13

Page 10, “That effort used relatively simple instream algorithms to approximate the complex instream fate and transport interactions of dissolved and particulate phosphorus.” Simple instream algorithms do not correlate very well with the complex chemical, physical, and biological processes of phosphorus assimilation in flowing streams. What benefit does AQUA TERRA expect to gain from these simple algorithms?

Comment 14

Page 11, Task 3 is associated with compiling all “existing time-variable data and information applicable to the Illinois River and Tenkiller Reservoir.....” AQUA TERRA needs to include in the data acquisition ADEQ’s comprehensive two year study titled *Illinois River Water Quality, Macroinvertebrate and Fish Community Survey March 1997*, and the comprehensive two year study prepared by the Center for Agricultural and Rural Sustainability, University of Arkansas Division of Agriculture titled, *Water Quality and Ecological Assessment of Osage and Spring Creeks December 2009*, for the Springdale Water Utilities and the Rogers Water Utilities. In addition, AQUA TERRA should perform a comprehensive evaluation of Lake Francis and the impacts that discharges from Lake Francis have on the nutrient levels in the Illinois River.

Comment 15

Page 11, section 5.2, paragraph 5: the ‘IS’ in ArcGIS is not capitalized.

Comment 16

Page 12, section 5.3, Watershed Model Development: Again, the use of HSPF (a one dimensional stream channel model designed for agricultural dominated watersheds("ditches")) does not seem appropriate for more upland systems. It seems the SWAT model should be introduced as a supplementary model. Choosing parameters between the different models may introduce bias. Please explain.

Comment 17

Section 7.1 states: "In essence, simulation models are needed to develop a scientifically robust and defensible watershed model to determine reductions in phosphorus loads needed to meet (add applicable) water quality standards for the Illinois River as they pertain to the states of Arkansas and Oklahoma." Again, it is important to recognize that Arkansas does not have a numeric nutrient Water Quality Standard for Total Phosphorus. Further, the Illinois River and its tributaries currently meet all of their designated uses in the State of Arkansas as well as the applicable narrative nutrient water quality criteria. This needs to be clearly stated in the QAPP.

Comment 18

Page 19, "While the stated purpose of this study is as stated above, EPA recognizes the value of performing holistic modeling of the Illinois River Watershed that includes consideration of Tenkiller Lake. Hence, the need exists for a linked modeling system that includes a reservoir simulation model." ADEQ requests that this reservoir simulation model also be used to evaluate Lake Francis.

Comment 19

Page 20, section 7.2, paragraph 1 states: Calibration of the model is dependent upon the experience of the modeler. ADEQ believes autonomous individuals could approach calibration in different manners. ADEQ asks is there a defined level of experience or standardization?

Comment 20

Page 23, "The QA program under which this task order will operate includes surveillance, with independent checks of the **data obtained from sampling**, analysis, and data gathering activities. (No field data collection is planned or expected in this WA)." ADEQ requests that the phrase "with independent checks of the data obtained from sampling be removed in light of the fact that "no field data collection is planned or expected in this WA".

Comment 21

In the QAPP, the phrase "QMP Plan" is used. The Department believes the word "Plan" is redundant and suggests removing the word when the phrase is used.

If you have any questions you contact my by phone at (501) 682-0629 or by email at the following address: bailey@adeq.state.ar.us

Sincerely,

John Bailey, P.E.
Permit Branch Manager, Water Division