

Appendix G – Response to Public Comments

Comments were received from:

- (a) Graham Brannin, City of Tulsa (COT)
- (b) Jami Skimbo, City of Tulsa (Tulsa)
- (c) Bruce Noble, U.S. National Park Service (NPS)
- (d) Julie Shannon, City of Bethany (Bethany)
- (e) Don Molnar, ODAFF (ODAFF)
- (f) U.S. EPA Region 6 (EPA)

This key is used in the summary of comments below to identify the commenter. DEQ responses to comments are indicated in *italics*.

1. (COT) Page 8, 2nd paragraph – “Tulsa Public Works and Development” should be changed to “City of Tulsa”.

DEQ Response: *This correction has been made in the final report.*

2. (COT) Shouldn't the Cross Timbers ecoregion have biological criteria?

DEQ Response: *The biocriteria map in the Draft 2012 Integrated Report is not the correct map. The correct version of the map has been included in the final report. The biocriteria specified in Chapter 46 are based on historical ecoregion boundaries which did not include an ecoregion named “Cross Timbers.” A majority of the ecoregion named “Cross Timbers” in the latest ecoregion map is covered by the ecoregion name “Central Oklahoma-Texas Plains” in Chapter 46 and in the proper map that is now included in the final version of the 2012 Integrated Report.*

3. (COT) Page 43, it references “OAC 785:46-15-5 (see Figure 12)” – there is no such figure in the document.

DEQ Response: *This was a typographical error and has been corrected to properly refer to Figure 4 in the final version of the report.*

4. (COT) There is concern that Blue Thumb volunteer biological screening collections and analysis are treated the same as Oklahoma Conservation Commission and OWRB data. The methods, training, and QA are vastly different. The Blue Thumb data should not be used to determine impairment.

DEQ Response: *A limited scope of Blue Thumb data has been utilized in use support assessments for years. Previously, most of the data used have been bacteria, which were collected and analyzed using the same procurement and laboratory methods employed by OCC's ambient monitoring program. Blue Thumb biological collections are made using the same methods, training, and Quality Assurance (QA) as OCC's ambient program. In fact, all Blue Thumb biological collections are made only under the direct oversight and effort of OCC staff; none is exclusively volunteer collected. All data are collected under an EPA approved Quality Assurance Project Plan (QAPP), which due to the rigor of collection effort, clearly conveys the intent to employ biological data in use support assessment, as demonstrated in this excerpt from the Blue Thumb QAPP:*

The general monitoring is executed to gather rudimentary data for education programs and is not intended or designed for enforcement purposes. However, biological data collections (fish and macroinvertebrates) and instream habitat assessments are obtained under direct supervision of OCC staff following OCC Standard Operating Procedures (SOPs), so these data are used for assessment of streams in accord with Oklahoma State Standards to determine attainment of relevant designated uses.

No Change was made as a result of this comment.

5. (COT) I would like to review the latest data collected by the contributing agencies.

DEQ Response: *Water quality data is collected by various agencies in the State. Upon request, DEQ can direct you to the proper agencies responsible for the collection of data on specific waterbodies. No change was made as a result of this comment.*

6. (COT) Comparing urban streams to rural reference streams may be unrealistic.

DEQ Response: *The only assessments involving reference comparisons are those for biological collections, specifically, fish collections with an “undetermined” result from state biocriteria (which use number ranges, not reference conditions) and macroinvertebrates. Reference conditions were derived from pooled averages of high quality sites in each ecoregion (i.e., not the score of only one site) and reflect the quality of streams achievable and thus comparable for their assigned beneficial use (e.g., WWAC, CWAC, HLAC). If the methods consistently resulted in nonsupport decisions for urban streams, this would pose concern for applicability and indicate a need for review. However, assessments to date don’t indicate a strong trend toward impairment of urban streams (e.g., nearly half of the streams assessed in one particular metro area were found to support their assigned FWP beneficial use based on fish). No change was made as a result of this comment.*

7. (Tulsa) “On Page 8 of your report you have Tulsa Public Works and Development Department and we’re no longer that and haven’t been. So we just need City of Tulsa on that, and I believe you got an email from us also from Tulsa.” (Verbal comments from Public Meeting)

DEQ Response: *This correction has been made in the final report.*

8. (NPS) Given that the source of the dissolved oxygen issue at the Lake of the Arbuckles, and presumably at most reservoirs in Oklahoma, is “unknown”, would it not make sense to somehow offer an explanation that dissolved oxygen problems are largely to be anticipated in non-natural reservoirs in Oklahoma? This may not result in the removal of the lake (or lakes) from the 303d list, but it would offer a better explanation than “unknown” and would remove some of the sting of being included on the list.

DEQ Response: *At this point we cannot isolate the source of the impairment or determine whether the issue is due to natural or man-made conditions. Dissolved oxygen depletion occurs in both natural lakes and man-made reservoirs. Many non-natural lakes in Oklahoma are not impaired for dissolved oxygen. No change was made as a result of this comment.*

9. (NPS) I am not an expert in water quality so the seriousness of dissolved oxygen problems is not clear to me. However, I am lead to believe that the circumstances are not catastrophic since the Lake of the Arbuckles continues to be the source of drinking water for several municipalities and is a recreational destination for upwards of a million people every year. That being the case, it leads a layperson like me to wonder if there’s even a need to include a reservoir on the 303d list for an endemic problem like dissolved oxygen. In the grand scheme of things, what purpose does the listing really serve?

DEQ Response: *The Lake of the Arbuckles does not meet dissolved oxygen standards as related to the Fish and Wildlife Propagation – Warm Water Aquatic Community beneficial use. Dissolved oxygen depletion can potentially affect fish communities resulting in an impact on recreational opportunities. As the lake does not meet the water quality standards for dissolved oxygen, the lake is placed on the 303(d) list and a TMDL must be completed. The use of the lake for a drinking water source is not related to the Fish and Wildlife Propagation beneficial use assessment. The use of the reservoir for drinking water is assessed through the Public and Private Water Supply beneficial use assessment. Dissolved oxygen depletion is not used to determine the attainment status of the Public and Private Water Supply beneficial use. No change was made as a result of this comment.*

10. (Bethany) “I’m concerned that if the Blue Thumb data, in particular, is used – which it may always be used – but that if just that data is used, there are some cities that may not want to partner with Blue Thumb for their city’s stormwater program. And I think that would be a great loss to Blue Thumb and a great loss to all the cities that use Blue Thumb to help in their program but it becomes sort of, you know a situation where if you utilize the Blue Thumb data which is supposed to be a field screen, and then it puts their streams on the 303(d) list because they use that data, that may not support collecting that data for the programs.” (Verbal comments from Public Meeting)

DEQ Response: *The Integrated Report process requires the consideration of “all existing and readily available water quality related data and information” in the assessment and listing process. DEQ solicits data and/or assessments*

from any and all sources preceding each reporting cycle, providing that the data was collected using approved QA protocols and under an approved QAPP or similar quality control process. (See response to public comment #4 in this document for an explanation of the Blue Thumb biological monitoring program.) The assessments using this data resulted in “attainment of FWP” assessments for many streams, including those draining incorporated metropolitan areas. DEQ directs specific concerns regarding the nature of the Blue Thumb Program relationship with the cities to Cheryl Cheadle, Blue Thumb Program Director (918-398-1804 or cheryl.cheadle@conservation.ok.gov). No change was made as a result of this comment.

11. (EPA) EPA Comments on Oklahoma’s Draft 2012 303(d) List

In EPA’s review of the state of Oklahoma’s draft 303(d) list, we note that three “Scenic River” waters, including Lee Creek, Little Lee Creek, and Little River (Mountain Fork), are not listed for total phosphorus. The basis for the state’s proposed action to not list these waters is that they are in compliance with the total phosphorus criterion (0.037mg/L) protective of the Aesthetics beneficial use. Less than 25% of the rolling 90-day geometric means calculated for total phosphorus in each of these waters exceeded the criterion. In a segment of a Scenic River, 25% or more of these rolling 90-day geometric means must exceed the total phosphorus criterion for the Aesthetics beneficial use to be deemed not supported, as outlined in Oklahoma’s Use Support Assessment Protocols (USAPs) found in the state’s Administrative Code, Title 785, Chapter 46.

While EPA agrees with these findings when applying the above procedure outlined in the USAPs, we continue to have concerns with the apparent discrepancy between this procedure and the state’s water quality standards (WQS). Oklahoma’s WQS, as outlined in Oklahoma’s Administrative Code, Title 785, Chapter 45, state that the “thirty (30) day geometric mean total phosphorus concentration in waters designated “Scenic River”...shall not exceed 0.037mg/L.” We understand that the assessment procedure was developed as a “proxy” metric to assess the WQS in light of the challenges with acquiring adequate data in a 30-day period. However, recent court cases and changes in EPA policy have brought about a greater focus on the specific language found in a state’s WQS.

In EPA’s 2006 integrated report guidance, it states that past EPA guidance “recommended making non attainment decisions, for ‘conventional pollutants’ ...when more than ‘10% of measurements exceed the water quality criterion.’ Use of this rule when addressing conventional pollutants, is appropriate if its application is consistent with the manner in which applicable WQC [water quality criteria] are expressed” (brackets added). Further, the guidance clarifies that “use of the ten percent rule for interpreting water quality data is usually not consistent with WQC expressed either as: 1) instantaneous maxima not to be surpassed at any time, or 2) average concentrations over specified times. In the case of ‘instantaneous maxima (or minima) never to occur’ criteria, use of the ten percent rule typically leads to the belief that segment conditions are equal or better than specified by the WQC, when they in fact are considerably worse. (That is, pollutant concentrations are above the criterion-concentration a far greater proportion of the time than specified by the WQC.)” In summary, the policy stated in EPA’s integrated report guidance indicates that EPA will, in the absence of any qualifying language regarding “shall not exceed” criteria statements in state WQS, review state 303(d) listing decisions based on a plain reading of the state’s applicable WQS, i.e. any 30-day geometric mean total phosphorus result that exceeds 0.037 mg/L results in a finding of non-support for any water body identified in Oklahoma’s WQS as a Scenic River.

We recognize the state of Oklahoma’s challenges, including resource or logistical constraints, with acquiring adequate data in a 30-day period to perform an assessment in accordance with the 30-day averaging period and “shall not exceed” frequency as laid out in Oklahoma’s WQS. Further, we recognize that in reality it may be very difficult to achieve a 30-day geometric mean of 0.037 mg/L at all times and unrealistic to expect any mitigation or restoration practice to achieve this goal under all environmental conditions. However, we believe that the conflicts between the Oklahoma WQS and USAPs must be reconciled in some manner so as to clarify the state’s expectations for assessing the total phosphorus criterion in Scenic Rivers. As noted in EPA’s previous comments to the Oklahoma Water Resources Board (OWRB) during Oklahoma’s re-evaluation of the Scenic Rivers total phosphorus criterion, one possible option would be to add a statement or footnote to the WQS at OAC 785:45-5-19(c)(2) to clarify the applicability or implementation of the 30-day averaging period and “shall not exceed” language in light of monitoring challenges and data representativeness considerations previously raised by OWRB..

DEQ Response: *A use support protocol was duly adopted and is contained within OAC 785:46-15-14(b). Oklahoma statues require that this protocol be fully implemented by Oklahoma state environmental agencies and it has been reviewed in the past by the USEPA Region 6 staff. To interpret total phosphorus data from scenic rivers outside of that protocol would be counter to statutory requirements and to Oklahoma's implementation goals of consistent, documented implementation and scientific defensibility. Because standards development and implementation is a public process, the OWRB does welcome comments and suggestions from all parties concerning opportunities for improvement and clarity. This comment was forwarded to OWRB for their consideration. No change was made as a result of this comment.*