

## Blackmon, Amanda

---

**To:** Liu, Terry; Sears, Jessica  
**Subject:** RE: OWRB comments regarding NACA WWTF Permit Number AR0050024

---

**From:** Rebecca Veiga [mailto:Rebecca.Veiga@owrb.ok.gov]  
**Sent:** Tuesday, January 19, 2021 2:39 PM  
**To:** Leamons, Bryan  
**Cc:** Blanz, Bob; Kenneth Wagner; Julie Cunningham; Bill Cauthron; Monty Porter; Jade Jones; Shanon Phillips; Karen Steele; Wooster, Richard; Forrest John (John.Forrest@epamail.epa.gov); Liu, Terry; rosborough.evelyn@epa.gov; Martinez.Maria@epa.gov  
**Subject:** OWRB comments regarding NACA WWTF Permit Number AR0050024

*Sent via electronic mail: no hard copy to follow*

January 19, 2021

Bryan Leamons, P.E.  
Senior Operations Manger  
Office of Water Quality, Division of Environmental Quality  
5301 Northshore Drive  
North Little Rock, AR, 72118

**RE: OWRB Comments on Northwest Arkansas Conservation Authority Regional Wastewater Treatment Facility, NPDES Permit Number: AR0050024, AFIN 04-01986**

Dear Mr. Leamons:

Thank you for the opportunity to provide comments on the Northwest Arkansas Conservation Authority (NACA) Regional Wastewater Treatment Facility (WWTF) draft NPDES permit (AR0050024). As you know, this facility is located in the Illinois River watershed and this watershed spans the political boundary between Arkansas and Oklahoma. Oklahoma has a vested interest in the water quality of the Illinois River as it flows from Arkansas into Oklahoma. Especially because in Oklahoma the Illinois River is designated as an outstanding resource water and scenic river under our water quality standards (WQS) (OAC Title 785, Chapter 45); therefore, this river is provided Oklahoma's greatest level of water quality protection. In this context, the Oklahoma Water Resources Board (OWRB) offers the following comments and recommended revision to the NACA Regional WWTF draft permit.

1. Section A.2 Effluent Limitations and Monitoring Requirements (Page 3 of Part I.A)

OWRB does not support increasing the total phosphorus (TP) effluent limit from 0.1 mg/L to 0.5 mg/L at outfall 001 under Tier II (design flow 7.2 MGD) of the draft permit. The increased allowable phosphorus concentration in the discharge combined with the expanded facility flow will result in increased phosphorus load to the Illinois River watershed. The allowable TP load will increase by factor of 10 from 3.0 lbs. per day (Tier I limitation) to 30 lbs. per day when the Tier II discharge limitations become effective per Part II.9 of the draft permit. Ambient water quality monitoring results from state line locations in both Arkansas and Oklahoma demonstrate that Oklahoma's total phosphorus WQS is consistently violated as the Illinois River flows from Arkansas into

Oklahoma (see Attachment A). Increasing the allowable phosphorus load in the watershed from the NACA Regional WWTF is inconsistent with watershed wide efforts to reduce phosphorus loading and meet applicable Oklahoma WQS as required by the Clean Water Act.

It is agreed that regional wastewater treatment is beneficial and it is encouraging that progress toward this effort continues. It is recognized that there will be reduced TP loading in the watershed and as small communities, which currently have minimal wastewater treatment, are connected to the NACA Regional WWTF. However, it seems that only one small community (Elm Springs) has recently been connected to the NACA Regional WWTF; at this time, connection of the remaining communities (Cave Springs, Bethel Heights, Highfill) represent a potential TP load reduction only. It is a more judicious approach to only consider revision of TP effluent limits after communities are connected and TP load reductions are realized. Moreover, if the TP effluent limit remains at 0.1 mg/L upon expansion of the NACA Regional WWTF and small communities continue to be incorporated into regionalized treatment even greater TP load reduction would be achieved. This approach is aligned with Arkansas' responsibility to meet applicable Oklahoma WQS in the Illinois River at the boundary between the two states.

Based on information in the permit fact sheet, the capital cost for the expanded facility to include treatment technologies required for the 0.1 mg/L TP effluent limit is \$2,750,000 and an additional \$114,000 annually as part of operation and maintenance. Given the continued rapid population growth in the NACA Regional WWTF service area and associated economic growth the treatment technology necessary to maintain the 0.1 mg/L TP effluent limit does not appear cost prohibitive. Moreover, based on information in the permit application (Table ES-1), this current expansion to 7.2 MGD only serves a short term planning horizon of approximately 10 years and by 2040 the projected flow to the NACA Regional WWTF is 9.2 MGD. It is clear that as the population continues to grow the NACA Regional WWTF must also expand. This will result in even greater TP loading into the Illinois River, which will perpetuate the violation of Oklahoma TP WQS. Even if the TP effluent limit is not increased to 0.5 mg/L, TP loading will increase due to the increased flow. Thus, it is imperative that the effluent limit of 0.1 mg/L be maintained in order to mitigate increased phosphorus load as the flow from the NACA Regional WWTF continues to expand.

It is recommended that the draft permit be revised to reflect a TP effluent limit of 0.1 mg/L as a 6-month average at outfall 001 under Tier II of the permit. In the future, as additional communities connect to the NACA Regional WWTF and progress toward reduced TP loading in the watershed continues, discussions regarding modifications to TP effluent limits may be appropriate.

## 2. Draft Permit Fact Sheet, Anti-backsliding (Page 10)

OWRB staff does not agree with the anti-backsliding conclusion regarding revised mass and concentration TP limits for Tier II (7.2 MGD) of the draft permit. The TP effluent limit of 0.1 mg/L was considered appropriate by EPA Region 6 to attain applicable water quality standards of all affected states and meet the requirements of 40 CFR Parts 122.44(d) and 122.4(d) and (i)<sup>[1]</sup>. In accordance with Clean Water Act Section 402(o)(3) and implementing regulation 40 CFR Part 122.44(l)(2)(ii), a permit may not contain a less stringent effluent limit if the implementation of this limit would result in violation of a WQS. As described in comment 1 above, increasing the TP effluent limit to 0.5 mg/L will increase TP loading to the watershed and is not supportive of attaining the Oklahoma TP WQS. OWRB staff thoroughly reviewed the supporting documents associated with the draft permit and did not find a technical analysis or any supporting justification that relaxing the TP effluent limit to 0.5 mg/L for Tier II would safeguard compliance with applicable Oklahoma WQS.

Moreover, the NACA Regional WWTF is not the only discharger in the Arkansas portion of the watershed and the cumulative TP load consistently violates Oklahoma's WQS as the Illinois River flows from Arkansas into Oklahoma (see Attachment A). The additional documents associated with this draft permit include a Water Quality Management Plan (WQMP) Update Summary Sheet; however, this document only remarks that the 208 Plan is being updated to add provisions of this draft permit including the Tier II design flow 7.2 MGD and the increased TP effluent limit of 0.5 mg/L. WQMPs (208 Plans) work to promote comprehensive planning and track discharges in a defined geographic area. Given the existing dischargers in the watershed also contributing TP load to the Illinois River and current water quality conditions it is clear that increased TP loading from the NACA Regional WWTF will cause or contribute to a violation of Oklahoma TP WQS. Thus, even if this draft permit does meet an exception listed in 40 CFR Part 122.44(l)(2)(i) it conflicts with the

limitations set forth in 40 CFR Part 122.44(l)(2)(ii) because a WQS will be violated. Therefore, the TP effluent limit may not be relaxed from 0.1 mg/L to 0.5 mg/L as proposed in this draft permit.

It is recommended that the draft permit be revised to reflect a TP effluent limit of 0.1 mg/L as a 6-month average at outfall 001 under Tier II of the permit. In the future, as additional communities connect to the NACA Regional WWTF and progress toward reduced TP loading in the watershed continues, discussions regarding modifications to TP effluent limits may be appropriate.

OWRB staff and ADEQ staff have established a positive and strong working relationship on a variety of projects in the Illinois River watershed. Continued cooperation between our agencies is valuable and we look forward to ongoing work together. Please contact me if you have any questions regarding these comments.

Sincerely,

Rebecca Veiga Nascimento

Oklahoma Water Resources Board  
3800 North Classen  
Oklahoma City, OK 73118

Phone: 405-530-8952  
Mobile: 626-524-9365

- 
1. Letter from EPA Region 6 to Arkansas Department of Environmental Quality (Dated January 16, 2009) Regarding Specific Objection to Preliminary Draft Permit Northwest Arkansas Conservation Authority (NACA) NPDES Permit No. AR0050024

---

---

---

---

---

<sup>[1]</sup> Letter from EPA Region 6 to Arkansas Department of Environmental Quality (Dated January 16, 2009) Regarding Specific Objection to Preliminary Draft Permit Northwest Arkansas Conservation Authority (NACA) NPDES Permit No. AR0050024

# Attachment A

The OWRB and ADEQ both have surface water monitoring programs that monitor water quality within the Illinois River watershed on a regular basis. Data from these programs are used to evaluate water quality conditions. There are two long established monitoring locations near the boundary between the two states; Watts at US-59 and South Siloam Springs at Arkansas state highway 59. The US Geological Survey (USGS) also collects water quality data at both of these locations. The load duration curves below present the measured ambient total phosphorus load at these locations in comparison to the allowable load to attain the Oklahoma total phosphorus criterion. Data from the respective state agency and USGS from 2008 – 2018 was used in the graphs below. Data is publically available and will be provided upon request.

