



February 27, 2015

Arkansas Department of Environmental Quality
Water Division – Enforcement Branch
5301 North Shore Drive
North Little Rock, AR 72118-5317

**RE: AFIN# 72-00781, NPDES Permit# AR0020010
Progress Report – Effluent Mineral Limits Compliance
Reporting Period of 08/30/2014 to 02/27/2015**

Part II Condition 10 in the NPDES permit for the Paul R. Noland Wastewater Treatment Plant (WWTP) requires progress report every 6 months on the compliance with the minerals limits. This report details the progress made in the period of 08/30/2014 to 02/27/2015.

1. *Compliance with the Interim Mineral Limits:*

The effluent discharge is meeting the interim limitations for Chloride, Sulfate, and Total Dissolved Solids (TDS) for this reporting period. Results were reported on the monthly Discharge Monitoring Reports.

2. *Complete the tasks in accordance with the approved White River Use Attainability Study Plan:*

The White River Use Attainability Study is complete.

The City submitted the White River Use Attainability Analysis (UAA) report to ADEQ on May 21, 2013. On June 10, 2013, ADEQ sent a letter to the City requesting assessment of the UAA in consideration of Act 954 compliance. On July 24, 2013, the City submitted a Technical Memorandum summarizing the quantitative assessment in compliance with Act 954. The assessment found that no modifications to the UAA or the proposed site-specific minerals water quality criteria are necessary to be in compliance with Act 954.

3. *Administrative Rulemaking Processes/Permit Modifications:*

- On September 11, 2013, the UAA team met with ADEQ to be sure that there are no other issues before we proceed with the third party rule making.
- On October 11, 2013, the Mitchell Williams Law firm filed a petition on behalf of the City of Fayetteville to initiate Third-Party Rulemaking to amend Regulation No. 2, Water Quality Standards. The petition was reviewed by the Arkansas Pollution Control and Ecology Commission's Regulations Committee on October 25, 2013. The Regulations Committee recommended the Commission to consider adopting the proposed revision and proposed that the first public hearing be held during the week of February 10, 2014.
- In December 2013, ADEQ published a legal notice for the public hearing of the proposed third-party rulemaking to change the Arkansas Pollution Control & Ecology Commission (APC&EC) Regulation 2, the Arkansas Water Quality Standards for minerals for the White River from the discharge of the Noland Wastewater Treatment Plant to immediately downstream of the confluence of Richland Creek.
- The public hearing was held at the Fayetteville Public Library on February 13, 2014.

4. *Activities since the February 13, 2014 public hearing*

- Pursuant to the public hearing, written public comments were submitted on February 27, 2014, by

the Arkansas Department of Health (ADH), ADEQ, and Mr. Robert Cross.

- ADH requested that any effluent from the WWTP should include concentration limits on chloride, sulfate, and TDS that meet the Secondary Maximum Contaminant Levels of 250 mg/L, 250 mg/L, and 500 mg/L, respectively.
- ADEQ determined the study indicated the aquatic life is not impacted by minerals and the aquatic life designated use is currently being maintained; however, the proposed criteria need to be re-evaluated to insure they reflect instream concentrations based on either the submitted data or the minerals concentrations measured over the past 23 years in monitoring data.
- Mr. Cross believes the proposed criteria are "much higher than are necessary and reasonable" and recommended "the new specifications should only be set as high as necessary to accommodate the existing situation."
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- Sampling and analysis of minerals concentrations in the White River and WWTP outfall-001 has continued since the UAA was submitted. Results from the sampling program continue to populate the database, in addition to data collected by USGS, ADEQ, and the AWRC. For a summary of the database updates through December 1, 2014, see the enclosed Attachment.
- The updated data set has been evaluated in detail in light of the public comments received after the public hearing, including statistical analyses of flow-concentration relationships and percentile rankings of minerals concentrations at different locations within the study area.
- The results of an updated data characterization were presented to ADEQ in a meeting in North Little Rock on June 19, 2014.
- On July 31, 2014, ADEQ submitted a letter to the City listing the maximum minerals concentrations the Department can support in the White River, along with the basis of the derivation (i.e., 95th percentile of available data from WR-02 and WR-03 [WHI0052]):
 - WWTP-001 to 0.4 mi downstream: 47 mg/L, 51 mg/L, and 331 mg/L for chloride, sulfate, and TDS, respectively.
 - 0.4 mi downstream of WWTP-001 to the confluence with Richland Creek: 30 mg/L, 40 mg/L, and 237 mg/L for chloride, sulfate, and TDS, respectively.
- On August 8, 2014, at the request of Steve Miller/CH2M HILL on behalf of the City, Mo Shafii and Sarah Clem of ADEQ held a conference call to discuss how the NPDES effluent limits for minerals would be developed for the Noland WWTP considering the proposed site-specific criteria.
- The City has evaluated the information obtained from the communications with ADEQ (July 31 and August 8) to determine if the Noland WWTP can meet the anticipated NPDES permit effluent limits that would result from the instream minerals criteria outlined in ADEQ's letter of July 31, 2014.
- Based on this evaluation and the data compiled from continued sampling of the treatment plant effluent as required by the current NPDES permit, the City has strong concerns regarding the potential for effluent limits to be imposed upon the Noland facility that could be exceeded more often than would be acceptable to either the City or ADEQ. This conclusion has caused the City to direct CH2M HILL to evaluate and characterize the available data beyond that which has been done thus far. This includes extensive statistical analyses of the "same-day" minerals concentrations along the mainstem White River to capitalize on the long-term minerals database at WR-03. The City is also modeling the impact of potential future phosphorus reductions at the WWTP, should it be required for Beaver Lake, on the effluent concentrations of minerals. The City will present the findings of these analyses to ADEQ in a meeting scheduled for March 19, 2015.

Please do not hesitate to contact Billy Ammons at 479-443-3292, or billy.ammons@ch2m.com, if you have any questions regarding this report. I can also be reached at 479-575-8390, tnyander@fayetteville-ar.gov.

*I, **Tim Nyander**, certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.*

Sincerely,

City of Fayetteville



Tim Nyander
Utilities Director

C: Billy Ammons, CH2M HILL Regional Business Manager
Don Marr, City of Fayetteville Chief of Staff
Amy Schluterman, ADEQ – Water Enforcement

ATTACHMENT

Water Quality Database: Summary of Updates through December 4, 2014

WR-01/ USGS 7048600/ AWRC Fayetteville

- WR-01 last updated per database received from U of A on 11/17/14 (most recent result from 10/30/14)
- USGS 07048600 Field/Lab Samples last downloaded on 12/1/14 (most recent result from 8/27/2014)
- AWRC Fayetteville water quality data last updated per database received on 9/23/14 (most recent result from 6/10/2014)

WR-03/USGS 7048700/ ADEQ WHI0052/ AWRC Goshen

- WR-03 last updated per database received from U of A on 11/17/14 (most recent result from 10/30/14)
- USGS 07048700 Field/ Lab Samples last downloaded on 12/1/14 (most recent result from 8/27/2014)
- ADEQ WHI0052 water quality data last downloaded from ADEQ (http://www.adeq.state.ar.us/techsvs/water_quality) on 9/23/14 (most recent result from 10/14/2014)
- AWRC Goshen water quality data last updated per database received on 9/23/14 (most recent result from 6/10/2014)

WF-02/ 7048550 / WHI0051 / AWRC West Fork

- WF-02 last updated per database received from U of A on 11/17/14 (most recent result from 10/30/14)
- USGS 07048550 Field/Lab Samples last downloaded on 9/23/14 (most recent result from 7/15/2014)
- ADEQ WHI0051 water quality data last downloaded from STORET on 9/23/14 (most recent result from 1/8/2013)
- AWRC West Fork water quality data last updated per database received on 9/23/14 (most recent result from 6/10/2014)

RC-01 / 7048800 / AWRC Richland

- RC-01 last updated per database received from U of A on 11/17/14 (most recent result from 10/30/14)
- USGS 07048800 Field/Lab Samples last downloaded on 9/23/14 (most recent result from 6/10/2014)
- AWRC Richland water quality data last updated per database received on 9/23/14 (most recent result from 6/10/2014)

RC-02/WHI0109

- RC-01 last updated per database received from U of A on 11/17/14 (most recent result from 10/30/14)
- ADEQ WHI0109 water quality data last downloaded from STORET on 9/23/14 (most recent result from 6/18/2007)

WWTP-001

- **WWTP-001 from UAA sampling last updated per database received from U of A on 11/17/14 (most recent result from 10/30/14)**
- **WWTP-001 from Plant Monitoring last updated per database received from Noland WWTP on 12/3/14 (most recent result from 11/4/14)**

WR-02, WR-2.5, and WF-01 (Other UAA Stations with No Collocated Sites)

- **Water Quality data last updated per database received from U of A on 11/17/14 (most recent result from 10/30/14)**