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August 30, 2013

Mr. Kevin Suel
Arkansas Department of Environmental Quality
Water Division
5301 Northshore Drive
North Little Rock, AR 72118

Re: Walnut Ridge City Water Works – Final Report
AFIN 38-00040; NPDES Permit AR0046566; CAO LIS No. 10-156

Dear Mr. Suel:

The City of Walnut Ridge operates a wastewater treatment plant (WWTP) located at the west end of Oak Street, Walnut Ridge, Arkansas. The National Pollutant Discharge Elimination System (NPDES) discharge permit for the WWTP was renewed and became effective November 1, 2010 and expires October 31, 2015. A Notice of Violation (NOV) was issued by the ADEQ to the City of Walnut Ridge on September 2, 2010. The CAO (LIS No. 10-156) was then executed between Walnut Ridge and ADEQ to address items identified in the NOV. Garver has been working with the City of Walnut Ridge to collect data, evaluate the treatment processes, investigate the collection system, and try to identify the source of the permit excursions.

The treatment system is a Parkson Biolac wastewater treatment system. This system consists of a bar screen, aeration basin, three electric blowers, air piping and diffusers, four floating mixers, three clarifiers, an activated sludge pump and storage pond, a chlorine contact chamber, and an ultrasonic meter located at a v-notch weir at the end of the chlorine contact chamber that monitors discharge from the plant. Discharge volume is recorded on a flowmeter located in the maintenance building on site. The aeration basin consists of ten chains with ten diffuser racks per chain.

The City of Walnut Ridge retained Garver, LLC as their registered engineer to evaluate their wastewater system and provide recommendations to improve their treatment process. Garver conducted visual inspections of the WWTP on a regular schedule beginning in October 2010. During these inspections Garver compiled maintenance routines, discharge monitoring reports, and visually inspected the entire wastewater treatment train. Based on the information compiled during these site visits, Garver provided feedback and

recommendations to Walnut Ridge staff. The activities implemented by Walnut Ridge staff subsequent to these recommendations included performing settleometer tests on a regular basis, collecting influent ammonia samples, and equipping the sludge wasting equipment and the sludge return with timers. The settleometer testing allowed the Walnut Ridge staff to monitor the status and overall condition of the aeration basin. Influent ammonia samples provided information about the treatment plant influent and aided in identification of any abnormal spikes in ammonia loading. Timers on the sludge handling processes have allowed the staff to operate them more regularly and reliably.

Along with operational changes, Walnut Ridge has experienced some administrative changes as well. Mr. Lester Herring, Manager, announced his in early 2012, and Mr. Jon Kopp was chosen to be his successor in May 2012. During Mr. Kopp's tenure, he has reallocated staffing resources to manage and operate the facilities more efficiently. He has also refocused the staff on the priority of maintaining compliance with their NPDES permit.

Mr. Kopp and his staff have made several significant improvements at the WWTP. The aeration basin mixers have been repaired as needed and a spare mixer is kept on hand in the event of a catastrophic failure of a unit. The WWTP has populated a spare parts inventory to assist in maintaining operation during times of equipment failures instead of having to wait for parts to arrive in shipment before repairs can be conducted. The spare parts include items for the bar screen, diffuser assemblies, chlorinators, and other vital equipment. One of the three blowers at the WWTP has been replaced. This replacement has allowed the Walnut Ridge staff to reliably supply the necessary volume of air to the WWTP for treatment. Likely the most labor intensive effort during this process has been the rehabilitation of the air diffusers. The staff has and continues to maintain and repair damaged air diffusers. This enables proper oxygen transfer and mixing in the aeration basin which is critical for proper treatment.

The results of Walnut Ridge's hard work are evident in the quality of the effluent at the WWTP. Attached to this letter is a summary of the effluent ammonia results and the whole effluent toxicity (WET) testing results over the past few years. The trend of the data indicates that Walnut Ridge is working hard to achieve compliance, and they are succeeding. Attachment 1 is a chart documenting the ammonia levels as reported on the monthly DMR. It shows that Walnut Ridge has not exceeded the permit limitation for over a year. Attachment 2 is a summary of the WET testing results and it demonstrates that excursions are becoming much less frequent and no failures were noted for the past 2 quarters. These exciting results are directly related to the commitment of Mr. Kopp and his staff to addressing the challenges described above.

Walnut Ridge intends to proceed with maintaining the facilities and improving these results moving forward. It has taken some drastic changes in philosophy and work ethic to achieve

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this, and Walnut Ridge wants to make it clear that they are committed to continue down this path. Based on the history of compliance with the NPDES permit limitations, Walnut Ridge is formally requesting that Consent Administrative Order LIS No. 10-156 be terminated. They are ready to put this situation in the past and look to the future. Thank you for your cooperation and please feel free to contact me with any questions regarding the information contained in this letter.

Sincerely,

GARVER



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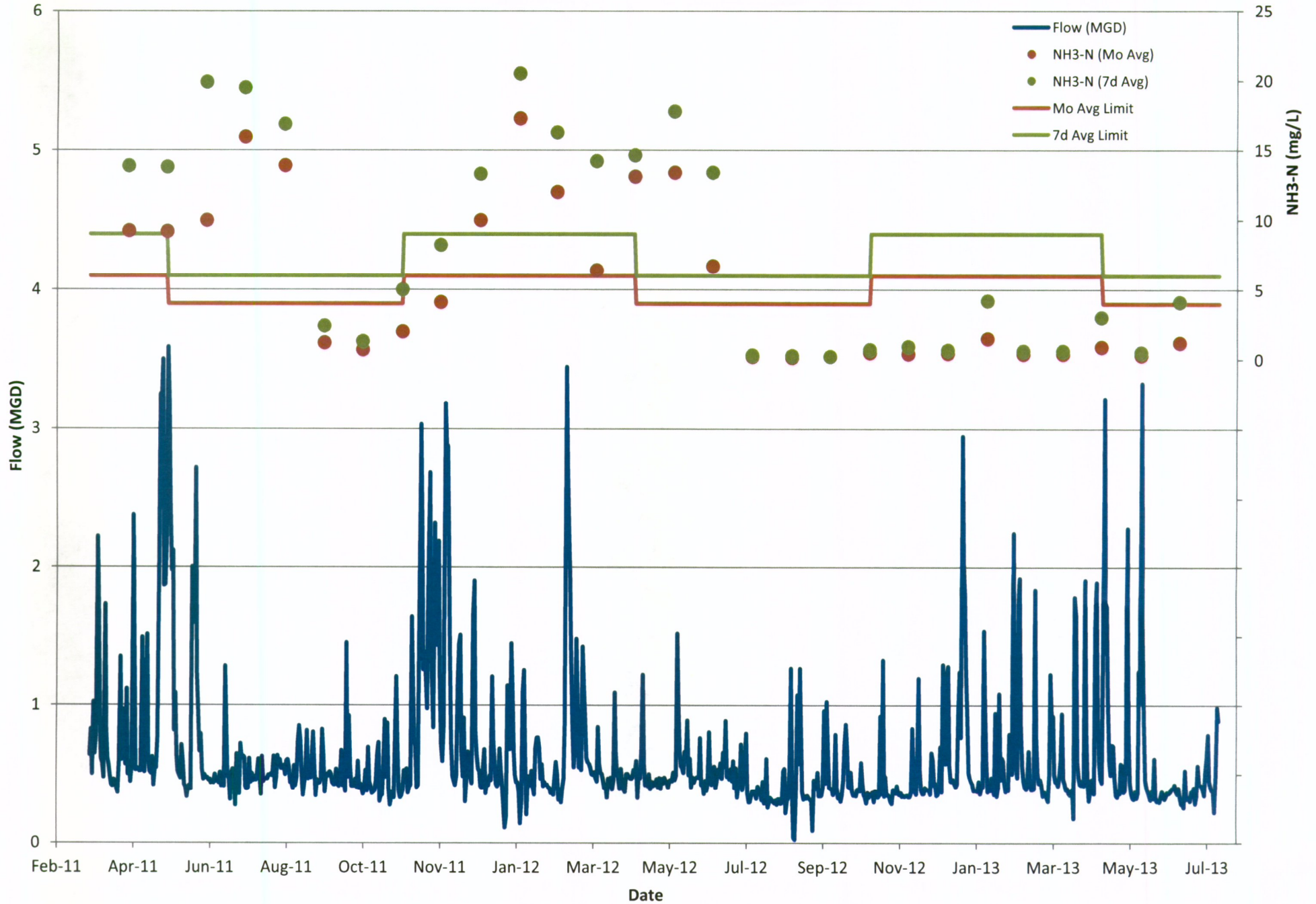
Aaron Stallmann, P.E.
Project Manager

Attachments: Attachment 1 – Ammonia Summary
Attachment 2 – WET Testing Summary

CC: Jon Kopp
File

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Walnut Ridge, Arkansas - WWTP Data



Walnut Ridge WWTP Quarterly Biomonitoring Results 2011-2012 Summary Table

Parameter	Status	1st Qtr 2011	2nd Qtr 2011	3rd Qtr 2011	4th Qtr 2011	1st Qtr 2012	2nd Qtr 2012	3rd Qtr 2012	4th Qtr 2012	1st Qtr 2013	2nd Qtr 2013	3rd Qtr 2013
Whole Effluent Toxicity	Pass											
	Fail											
Whole Effluent Toxicity	Pass											
	Fail											
Statre 7Day Chronic C. Dubia	Pass											
	Fail											
Statre 7Day Chronic P. promelas	Pass											
	Fail											
LF Leth Statre 7Day Chronic C. Dubia	Pass											
	Fail											
LF Leth Statre 7Day Chronic P. promelas	Pass											
	Fail											
NOEL Lethal Statre 7Day Chronic C. Dubia	Pass											
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NOEL Lethal Statre 7Day Chronic P. promelas	Pass											
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NOEL Sub-Lth Statre 7Day Chronic C. Dubia	Pass											
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