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August 14, 2019

Nicole Foley-Kraft, Chief SDWA Compliance Section USEPA – Region 2 290 Broadway New York, New York 10007-1866

RE: Village of Delanson Water System (PWS ID #: NY4600064) Response to Administrative Order, Docket No. SDWA-02-2019-8033

Dear Mrs. Foley-Kraft:

On behalf of the Village of Delanson, we offer the following response to the June 18, 2019 Administrative Order (AO) regarding compliance with the Maximum Contaminant Levels (MCL's) for Total Trihalomethanes (TTHM) and Haloacetic Acids (HAA). The Village of Delanson intends to comply with the AO and take the steps necessary to mitigate the Disinfection Byproduct (DBP) issues the Village water system experiences. Based on engineering studies completed in the early 2000's, it is anticipated that the Village will ultimately need to utilize activated carbon filtration/adsorption to achieve MCL compliance. Preliminary Capital costs for this endeavor are \$750,000, while annual operation and maintenance costs are anticipated to be \$10,000 per year. The proposed capital cost is not able to be absorbed by the approximately 126 service connections to the system without some form of financial assistant. Like many small communities, the Village of Delanson continuously grapples with balancing the need to provide quality drinking water to its constituents while controlling costs.

Although Preliminary Engineering studies have been undertaken in the past to address the Village's DPB issue, work undertaken in the last few years has included:

- 1. In 2018, with the assistance of a hydrogeologist, the Village undertook a desktop hydrogeological evaluation for the Village and surrounding areas to assess the potential for the development of a groundwater source to replace the existing surface water source. Unfortunately, the evaluation did not yield results that would have been financially feasible for the community since most of the potential groundwater supply sites were far away from the existing water distribution system.
- 2. In May of 2019 (prior to the AO being received by the Village), the Village Board contracted with Lamont Engineers, P.C. to make improvements to the water treatment plant. One of the improvements currently being designed is to add an effluent flow meter to the treatment

process. Installation of this meter will permit the Village to more accurately inject sodium hypochlorite into the flow stream entering the water distribution system thus reducing "overdose" of this chemical which contributes to the formation of DBP's. The design of this improvement will be completed in early September 2019 and we anticipate the new meter being fully operational by April 2020.

As previously noted, it is our opinion that the Village will ultimately need to construct an activated carbon filter step in the existing water treatment process to comply with the DBP MCL's. This treatment step would be constructed downstream of the slow sand filters, but upstream of the UV system, chemical injection and finished water clearwells, with the intent of reducing the total organic carbon in the process flow stream prior to chemical injection. At this time, Lamont Engineers, P.C. is under contract with the Village to updated the previously completed preliminary engineering studies such that the Village can apply for funding to offset the costs of this capital project.

Based on the above, we have developed the following plan of action and compliance schedule for your review and consideration:

- September 2019 Submit treatment plant improvements to Schenectady County Department of Health (DOH) and publicly bid the proposed improvements, including construction of the effluent flow meter and chemical flow pacing improvements.
- December 2019 Complete update of Preliminary Engineers Report submit to Schenectady County and New York State DOH for review and approval.
- April 2020 Complete construction of water treatment plant improvements (including Effluent Flow meter).
- February 2020 July 2020 Pursue financing (loans/grants) to make improvements to our water treatment plant and overall water system infrastructure.
- October/November 2020 Anticipated release of funding awards.
- January 2021 June 2021 Design of improvements to overall water system infrastructure, including treatment improvements for DBP MCL compliance.
- > January 2022 Public bidding of water system infrastructure improvements.
- > April 2022 Start of construction phase of water system infrastructure improvements.
- > April 2024 Completion of construction phase of water system infrastructure improvements.

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At this time, the Village intends to pursue grant/loan project financing for the above infrastructure improvements through the New Water Grant Program (Water Infrastructure Improvement Act – WIIA), New York State Drinking Water State Revolving Fund (DWSRF) and USDA – Rural Development – Water & Waste Disposal Loan and Grant Program.

Please feel free to contact me should you have any questions.

Sincerely,

Jason R. Preisner Project Engineer Lamont Engineers, P.C.