



RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING



KEITH CREAGH
DIRECTOR

March 8, 2016

VIA E-MAIL

Mr. Mark Pollins, Director
Water Enforcement Division
Office of Civil Enforcement
Office of Enforcement and Compliance Assurance
United States Environmental Protection Agency
William Jefferson Clinton Building
1200 Pennsylvania Avenue, NW (2243A)
Washington, DC 20460

Dear Mr. Pollins:

Thank you for your letter dated February 19, 2016. We continue to coordinate and communicate closely with Mr. Mike Glasgow, City of Flint (City), and the United States Environmental Protection Agency's (EPA) Region 5 staff, as well as other state and federal agencies, on a regular basis in order to continue to comply with the Emergency Order that was issued on January 21, 2016. The Michigan Department of Environmental Quality's (MDEQ) primary focus is to ensure a reliable and safe drinking water system for the people of Flint.

From your February 19, 2016, letter, you referenced two issues that require immediate attention. The first issue is the development of a comprehensive plan to ensure the optimization of corrosion control for the public water system for the current source water, the Great Lakes Water Authority (GLWA). As you are aware, the City provided a corrosion control proposal on October 16, 2015, the same date that the City switched back to water from the GLWA. The proposal was reviewed by both the MDEQ and EPA Task Force staff, and collectively, the recommendation was made to increase the dosing of orthophosphate to a level beyond the typical levels maintained by the GLWA. On October 28, 2015, the MDEQ issued a construction permit for the City for the installation of equipment in order to provide additional corrosion control treatment, and the MDEQ followed up with a letter to the City regarding corrosion control treatment operation on October 30, 2015, in which the orthophosphate dose was established at 3.1 mg/L. On December 9, 2015, the City began adding supplemental orthophosphate to the distribution system from the Flint water plant. As of the date of this letter, the City continues to add supplemental orthophosphate and residual chlorine to the distribution system, and the associated sampling and monitoring information is updated weekly on the www.michigan.gov/flintwater Web site.

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While the information in the paragraph above provides historical context, we are in agreement that going forward it is important that the City has and operates a rigorous optimized corrosion control treatment plan for the existing water source to guide any necessary adjustments to treatment and to set performance goals on when treatment is considered optimized. In order to support these efforts, the MDEQ has reached out to the American Water Works Association (AWWA) for documentation and guidance on optimization, especially treatment optimization, corrosion control planning, and identifying experts across the nation in these fields. Several recommended individuals from the AWWA have been added to the Water Quality Subcommittee and the Water Infrastructure Integrity Subcommittee of the Flint Water Interagency Coordinating Committee (FWICC) in order to assist in these efforts. Additionally, I learned that in the February 23, 2016, meeting among EPA, City, and MDEQ staff, we received confirmation of involvement from the EPA's Area-Wide Optimization Program (AWOP) out of Cincinnati, Ohio. We look forward to working with those EPA individuals who will be able to provide assistance, tools, and approaches toward achieving water quality optimization goals.

From a financial perspective, to date, a total of \$13 million has been appropriated within the MDEQ's budget to support the efforts in Flint (additional dollars have been dedicated from other parts of the state). Of the \$13 million, \$11.5 million (88 percent) is anticipated to be paid directly to Flint to support costs associated with continuing the water supply coming from the GLWA, future infrastructure needs, and implementation of utility relief processes. It is MDEQ's recommendation that the City utilize a portion of the above funding in order to retain a nationally qualified and experienced professional services consultant to formally develop a comprehensive corrosion control and optimization plan that can be completed within an agreed upon timeline and associated milestones set by the City, MDEQ, and EPA. The MDEQ will take the lead in the developing the language for the Request for Proposals and will incorporate both aspects for currently establishing proper corrosion control while on the GLWA, as well as the longer term optimization of the distribution system for the planned transition to the Karegnondi Water Authority (KWA). This consultant would utilize a wide range of data collection efforts that are currently underway such as: weekly monitoring reports, residential test results, sentinel sampling results, the planned pipe rig/loop test (assumption that the EPA is the lead entity), AWOP resources, the updated reliability plan, and the continuous discovery of known lead service lines based upon field verifications. The MDEQ stands ready to assist and support the City as needed in the identification and selection of this consultant.

The second issue that you raised in your February 19, 2016, letter that required immediate response was the overall staffing of qualified personnel to ensure that the City's public water system complies with the Safe Drinking Water Act (SDWA) and the National Primary Drinking Water Regulations (NPDWRs), including the Lead and Copper Rule. While the MDEQ has no direct role in the hiring or structuring of the City's public water system staffing, there is recognition that the City has been without a Public Works Director since October of 2015 and there is question on the status of the City

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Administrator's position. These two positions, and others with more day-to-day operational duties, are critical in supporting Mr. Glasgow and the public water system. The MDEQ stands ready to coordinate with the City regarding personnel matters.

The MDEQ is aware of the City's "Fast Start" program that has been proposed for replacing lead service lines. We look forward to observing a planned demonstration of the techniques for pipe replacement from the Lansing Board of Water & Light and the City. We believe that proper planning will be essential to ensure the success of any type of pipe replacement program. We remain focused on coordinating with the City in the overall inventory of lead service lines, as well as understanding the functional aspects of the distribution system's control valves in order to avoid any negative impacts associated with eventual pipe replacements. The MDEQ is committed to continuing to identify the best solution in partnership with the City, the EPA, and other industry experts.

As it pertains to the planned switch to the KWA, the MDEQ remains very closely engaged in the ongoing meetings and design reviews between the City, the Genesee County Drain Commission, and their design consultant. To date, the MDEQ has assigned a team of three professional engineers from the Office of Drinking Water and Municipal Assistance, who combined have over 90 years of experience in the public water supply field. This team's primary role will be to review plans and proposals, provide recommendations and feedback, and share related documentation with the EPA so that, collectively, we can be well-informed on the timing and status of the proposed transition to this future water source. In addition, an FWICC KWA Subcommittee has also been established with state and national expertise that will evaluate items and make recommendations on such things as: the backup/emergency water source, rate structure, plant startup, and overall operations. There are still ongoing discussions that require decisions and contractual relationships by the City, Genesee County Drain Commission, and KWA as it relates to the long-term connected relationships of these systems, as well as the identified backup/emergency water source(s). The MDEQ is clear on the key provisions of the Emergency Order that states there can be no switch away from finished water purchased from the GLWA to the KWA until the current system is fully optimized (including appropriate treatment) and is running properly, as well as the City demonstrating that it has the technical, managerial, and financial capacity to operate the public water system in compliance with the SDWA and NPDWRs.

Please refer to the enclosed Attachment A that outlines MDEQ's response and current status of compliance for the 11 items that were identified as Attachment C of your February 19, 2016, letter. We believe that, based upon the meeting that took place on February 23, 2016, among EPA, City, and MDEQ staff, there has been progress in each of the identified items and we continue to post materials directly to the "DEQ Reports to EPA" tab of the www.michigan.gov/flintwater Web site. We support continuing these

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face-to-face conversations on a regular basis as a productive way for all sides to understand the wide range of actions being taken to help Flint, as well as the conditions and expectations of the Emergency Order.

Sincerely,



Keith Creagh

Director

517-284-6700

Enclosure

cc/enc: Brigadier General Mike McDaniel (Ret.), City of Flint

Mr. Anthony Chubb, City of Flint

Mr. Mike Glasgow, City of Flint

Mr. Jim Sygo, Chief Deputy Director, MDEQ

Mr. George Krisztian, MDEQ

Attachment A
Michigan Department of Environmental Quality
Responses
March 8, 2016

1. *Respondents have not responded in writing to the EPA Flint Task Force's requests and recommendations (Paragraph 52). (Primary responsibility: City)*

Additional information titled "Flint's Safe Drinking Water Task Force, Recommendations Tracking Spreadsheet" was posted to the www.michigan.gov/flintwater Web site on February 29, 2016. This tracking spreadsheet was supplied by the EPA on February 26, 2016, and is currently pending input and additional information from the City.

2. *Respondents have not provided all lead in water testing results for the City since January 2013 (Paragraph 53(b)). (Primary responsibility: City)*

Based upon additional information titled "Supplemental Information Water Testing Since Jan 2013" posted to the www.michigan.gov/flintwater Web site on February 12, 2016, and subsequent conversations with EPA staff at the February 23, 2016, meeting, it is our understanding that this issue has been adequately addressed.

3. *The existing inventory of homes with lead service lines submission is not adequate (Paragraph 54(a)). (Primary responsibility: MDEQ)*

Additional information titled "Existing Inventory of Homes with Lead Service" was posted to the www.michigan.gov/flintwater Web site on February 25, 2016, the same day a data sharing agreement between the EPA and MDEQ was executed. A data sharing meeting between the State of Michigan and University of Michigan-Flint occurred on February 22, 2016, to evaluate historical and parcel mapped information. All known lead service lines that have been field-verified to date from more than 900 MDEQ home inspections have been shared with the EPA. The MDEQ continues to evaluate field verification methods such as ground penetrating radar, sequential sampling, and hydrovac excavation at the valve box as methods of continuing to update lead service information.

4. *Respondents have not adequately demonstrated (e.g., using daily sampling information) that they are maintaining chlorine residual in the distribution system (Paragraph 57) or continuing to add corrosion inhibitors at levels sufficient to re-optimize corrosion control in the distribution system (Paragraph 58). (Primary responsibility: MDEQ)*

The primary response and current status are supplied in the context of the accompanied response letter.

5. *Respondents have not provided plans and schedules to ensure the treatment plant is consistently and reliably meeting plant performance criteria (Paragraph 59(a)).* (Primary responsibility: City)

The primary response is supplied in the context of the accompanied response letter. Additional information titled "Supplemental Information Weekly Conference Call re Flint Water Plant Ops 022616" was posted on February 26, 2016 (updated weekly), to the www.michigan.gov/flintwater Web site. Current draft engineering documentation was provided to the EPA on an FTP site on February 29, 2016.

6. *Respondents have not submitted a plan for daily monitoring of water quality parameters in the distribution system (Paragraph 59(b)).* (Primary responsibility: City)

Based upon additional information titled "Monthly Operation Report – Weekly Update for 021816" posted on February 20, 2016 (updated weekly), to the www.michigan.gov/flintwater Web site and subsequent conversations with EPA staff at the February 23, 2016, meeting, it is our understanding that this deficiency has been adequately addressed.

7. *Respondents have submitted an inadequate operations plan for the corrosion control equipment and daily monitoring of finished water corrosion control parameters (Paragraph 59(c)).* (Primary responsibility: City)

The primary response and current status are supplied in the context of the accompanied response letter.

8. *Respondents submitted a list of staff, but have not adequately demonstrated the City has the necessary, capable and qualified personnel required to perform the duties and obligations required to ensure the public water system complies with the SDWA and the National Primary Drinking Water Regulations (Paragraph 61).* (Primary responsibility: City)

Additional information titled "Supplemental Information Plant and Water Department Employees" and "Treatment Plant and Water Department Org Chart Job Descriptions" was posted to the www.michigan.gov/flintwater Web site on February 12, 2016. Information describing the roles and responsibilities of professional services consulting firms is pending input and additional information from the City; content will be posted when made available.

9. *Respondents have not yet provided a list of the "Independent Advisory Panel" membership (Paragraph 63).* (Primary responsibility: MDEQ)

Additional information titled "Flint Water Interagency Coordinating Committee Subcommittee" was posted to the www.michigan.gov/flintwater Web site on February 26, 2016. Additional representatives recommended by the American

Water Works Association were added to the Water Quality Subcommittee and the Water Infrastructure Integrity Subcommittee.

10. *Respondents must identify the 25 sites within the distribution system for which water quality parameter measurements are taken (Paragraph 53(a)).* (Primary responsibility: MDEQ)

Based upon additional information titled "Routine Distribution System Quarterly Sampling Site Locations – PPI Redacted" posted to the www.michigan.gov/flintwater Web site on February 12, 2016, and subsequent conversations with EPA staff at the February 23, 2016, meeting, it is our understanding that this deficiency has been adequately addressed.

11. *Respondents must confirm they have identified all of the areas in the City of Flint with elevated blood lead levels (Paragraph 53(c)).* (Primary responsibility: MDEQ, in coordination with Michigan Department of Health and Human Services)

Based upon additional information titled "Explanation of Flint Blood Count Report by Zip Code" posted to the www.michigan.gov/flintwater Web site on February 12, 2016, and subsequent conversations with EPA staff at the February 23, 2016, meeting, it is our understanding that this issue has been adequately addressed.