DEPARTMENT OF PUBLIC WORKS AND UTILITIES

Dr. Karen W. Weaver
Mayor

Sylvester Jones
City Administrator

JoLisa McDay
Utilities Administrator

May 29, 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

Mr. Keith Creagh, Director
Michigan Department of Environmental Quality
Constitution Hall
525 West Allegan Street
P.O. Box 30473
Lansing, Michigan 48909-7973

Dear Director Pollins and Director Creagh:

With the assistance of the EPA, the Department of Utilities (DOU) is actively attending to the City of Flint's distribution system where water quality is less than optimized. Through financial hardship and organizational transition, the City of Flint (COF) diligently strives to comply with the Administrative Order (Order) and as set forth by the Flint Water Advisory Task Force (FWATF) recommendations. We recognize the urgency in attending to water quality indicators, such as pH, that may impede the progress made in lowering lead levels in water at the Point of Use and in the City of Flint's distribution system.

It is the hope of the DOU that all agencies will continue working collaboratively with the goal of improving overall water quality for Flint's residents and customers. To this extent, the Department of Utilities recognizes the assistance of the MDEQ, EPA, and the cities of Ann Arbor and Cincinnati, respectively for providing technical support, expertise, and guidance through the Request for Proposal (RFP) process. Ms. Laura Verona, MDEQ, has demonstrated strong leadership in this rigorous process. The RFP language requires a comprehensive *Optimized Corrosion Control Plan*. Progress towards selection of a qualified firm is in its final stages.

The following recommendations were made to the City of Flint by the FWATF on May 16, 2016:

1. The City must take steps to address and correct low pH levels in the distribution system in order to ensure that orthophosphate treatment is effective and lead release is minimized.

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2. The City must incorporate into its treatment system optimization plan optimal pH ranges for lead control and other performance objectives and manage the system to achieve those standards.

In response to the first recommendation, hydrant flushers have been strategically placed throughout the City of Flint's distribution system. The Department of Utilities humbly requests the FWATF to recognize that optimization of the flushers is ongoing for improving water quality indicators such as pH. The DOU greatly appreciates the technical expertise extended by the EPA for this endeavor. Optimizing the use of the flushers will improve water quality and may lower dissolved inorganic carbon (DIC) in areas where pH is less than optimized for corrosion control.

Moreover, the DOU has secured the engineering services of LAN for the design of temporary sodium hypochlorite and sodium hydroxide chemical feed systems that will be used as needed for improving and not optimizing water quality. The proposed scope of work from LAN was provided via e-mail to representatives at MDEQ and EPA on Tuesday, May 17, 2016. A "Permit Application for Water Supply Systems" is required by the MDEQ and as a part of P.A. 399. This permit ensures that all applicable regulatory, safety, and engineering standards and protocols are established prior to the system(s) being built and used for potable water. The DOU had taken proactive measures weeks prior to securing the services of LAN by identifying the specifications for the recommended chemicals, purchasing safety and HVAC equipment, and obtaining quotes for chemical feed pumps. Until this system is in place and operational, the DOU cannot control the pH of a purchased commodity delivered to the City of Flint from the Great Lakes Water Authority.

In regards to the second recommendation, the DOU is confident that the firm awarded the contract through the RFP process will provide a strategy for implementing a treatment system optimization plan that identifies optimal pH ranges for lead control and other performance objectives with necessary management tools and standard operating procedures for achieving the recommended standards in the City of Flint's water distribution system. At this time, the DOU has the goal of improving distribution system water quality with the installation of the aforementioned chemical feed system(s). Optimization of corrosion control parameters is the aim of the RFP.

In closing, the DOU recognizes Section 3.2 of the "Optimal Corrosion Control Treatment Evaluation Technical Recommendations for Primary Agencies and Public Water Systems" guidance:

> *It is also important to recognize the potential limitations of treatment in chronic low water usage home. . .The treatment may not be effective at lowering lead and/or copper levels at these sites which can pose an ongoing risk to these residents. Systems should consider other potential actions they or residents can take to address the potential risk at these sites. (p. 27)*

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The City of Flint has implemented the *"Flush for Flint"* campaign with the goal of having consumers increase the flow of water through their service lines to improve water quality at the point of use. The DOU also references Section 5.1.1 of the guidance which supports our very legitimate concern for areas of the distribution system that may be compromised with the supplementation of additional treatment until the water in the entire system distribution system is well mixed and more representative of the water quality at the Point of Entry into the distribution system:

> *To minimize adverse impacts (e.g., sloughing of corrosion scale, aesthetic issues), systems should consider raising the pH in increments….consideration should be given to the amount of lead and/or copper reduction that is needed and the potential for secondary impacts as the distribution system equilibrates. (p. 66)*

The DOU highly regards and respects the science but also acknowledges that it is not exact and that caution must be exercised when using these chemicals to ensure the combined efforts and achievements to date for improving the City of Flint's distribution system are not negatively impacted. As the stated recommendation is to establish optimal pH ranges for corrosion control, the City of Flint humbly requests the technical assistance of MDEQ and EPA for realizing this goal until the scope of work identified within the RFP is complete and approved.

Respectfully submitted,

JoLisa McDay
Utilities Administrator (Temp.)

Cc: Mayor Karen Weaver, City of Flint
Mr. Sylvester Jones, City of Flint – City Administrator
Mr. Anthony Chubb, City of Flint – Deputy City Attorney
Mr. Jim Sygo, Chief Deputy Director, MDEQ
Mr. Bryce Feighner, MDEQ
Ms. Melanie Brown, Communications Director, MDEQ
Mr. Robert Kaplan, Acting Regional Administrator, USEPA, Region 5

Reference:
Optimal Corrosion Control Treatment Evaluation Technical Recommendations for Primacy Agencies and Public Water Systems. EPA. Office of Water (4606M), EPA 816-B-16-003. March, 2016.

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