



## THE ADMINISTRATOR OF THE ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

**JUN 16 2016**

The Honorable Rick Snyder  
Governor of Michigan  
P.O. Box 30013  
Lansing, Michigan 48909

The Honorable Karen Williams Weaver  
Mayor of Flint  
1101 South Saginaw Street  
Flint, Michigan 48501

Dear Governor Snyder and Mayor Weaver:

As you know, the U.S. Environmental Protection Agency mobilized to Flint to address the emergency situation posed by lead in drinking water. The EPA and other agencies of the federal government, working closely with the state of Michigan and the city of Flint, have made a lot of progress in addressing the public health threat, reducing lead levels and providing technical help to make sure that the people of Flint have a safe and sustainable drinking-water supply. We are encouraged that progress has been made to re-establish coating of the conveyance pipes to prevent the active leaching of lead. Recent water-quality sampling results also indicate that there are positive trends on other key water-quality parameters. These are hopeful and encouraging signs.

While short-term progress is very important, the long-term goal must be for the city to be able to reliably and sustainably provide safe drinking water to all of the people of Flint far into the future. To date, the EPA has primarily been engaged in Flint as part of the emergency response and to ensure compliance with the emergency order, but we know that sustainable, long-term clean water is the ultimate objective.

As the EPA has worked with the drinking-water system and in the community to support safer water, we have had the opportunity to observe at close range the city's operations and the support that the state has provided to the city. In addition, the EPA has enlisted technical advice on the city's operations. Our own observations and other technical advice we have received have identified a number of significant challenges to the long-term goal of reliable and sustainable clean drinking water for the city of Flint. These challenges go well beyond the immediate crisis problems we have all been working so hard to address.

I am now bringing to your attention some of the long-term challenges we have observed in Flint and emphasizing that the time has come for the city and the state to address those challenges. Safe drinking water cannot be reliably achieved without tackling these problems, which will require the joint, sustained effort of both the city and the state.

The principal issues that must be addressed for long-term system reliability are systemic issues that go well beyond what is necessary to deal with the immediate crisis. They include:

- The distribution system is oversized for current and projected water demand in Flint, creating significant challenges for providing safe drinking water. Oversized distribution systems result in water not moving through the system as originally designed, leading to water residing in pipes too long, potentially causing a loss of chlorine residual, which is a necessary barrier against pathogens. The EPA has assisted with a flushing program in Flint that can help remedy this problem in the short term, but the state and city will have to determine and implement a solution for the long term.
- The water treatment plant is not adequately staffed, operated or administered to reliably deliver safe drinking water for years into the future. The enclosed report, prepared by an EPA contractor, identifies several of the most important issues that must be addressed. I particularly want to draw your attention to the report's findings that the system needs: additional experienced and expert operators (pp. 14-15), standard operating procedures to ensure consistent and effective operation and maintenance (p. 15), and a formal preventative and corrective maintenance program (p. 17). The drinking-water-treatment system must have the people, equipment, management, training and expert support it needs to function reliably and well.
- Flint needs a city administration that can provide stable, reliable and quick administrative support essential to a well-functioning drinking-water system. The drinking-water system must be able to hire rapidly, contract quickly for necessary equipment and expert support, including on an emergency basis, obtain necessary resources when they are needed and know that communication among the drinking-water system, the city and the state is both reliable and up-to-date. The city's plan for safe drinking water should include attention to these essential administrative functions.
- In addition to administrative support, the drinking-water system needs resources. Long-term technical viability of the system requires a long-term plan for the financial support of the drinking-water system and for the city government on which safe drinking water depends. City residents already pay one of the highest water rates in the nation, and all of the necessary actions to ensure safe drinking water will require additional investments. As the state and city plan for the long-term future, a solid and realistic financial plan will be essential.
- The city and state face an important decision on the long-term source of drinking water for the city of Flint. That decision must be based on what is best for protecting public health and ensuring compliance with drinking-water standards. While the decision is up to the city and the state, the EPA's emergency order requires that before making any switch in water source the city must demonstrate that it has the technical, managerial and financial capacity to operate the system in compliance with the Safe Drinking Water Act.

The challenges and the possibilities for addressing them are illustrated by the recent issues regarding the city's capacity to add chlorine and caustic to maintain residual chlorine levels and optimal pH for corrosion control. Although the data show that residual chlorine is currently at adequate levels, drinking-water systems need the capacity to add additional chlorine throughout their entire system as temperatures rise during the summer months. In a well-performing system, these issues would be anticipated and addressed as a matter of routine, rather than on a crisis basis. Issues such as corrosivity and residual chlorine are fundamental elements of a properly operating system. The fact that we recently had to work with the city and the state to address this problem on an urgent basis demonstrates, more powerfully than any report can, that there are basic operational deficits for personnel, contracting and funding that are essential to resolve. At the same time, this situation also illustrates that when the state

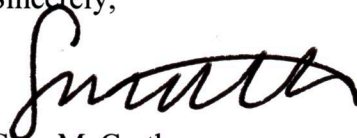


steps forward to help solve problems, as it did for this chlorine and caustic addition issue, the state and city working together can make sure that the necessary steps are taken to protect the public.

While the EPA will continue to be actively engaged on drinking-water safety in Flint, the city and the state must work more closely together to resolve these long-term, systemic issues to ensure a safe and sustainable water supply for Flint residents.

Please do not hesitate to contact me with any questions regarding this letter. In addition, your staff may always contact Mark Rupp, deputy associate administrator for Intergovernmental Relations, at rupp.mark@epa.gov or (202) 564-7178. If your staff has questions regarding the EPA's enforcement order, please contact Mark Pollins, director of the Water Enforcement Division, Office of Civil Enforcement, at pollins.mark@epa.gov or (202) 564-4001.

Sincerely,

A handwritten signature in black ink, appearing to read "Gina McCarthy", written in a cursive style.

Gina McCarthy

Enclosure

cc: Mr. Keith Creagh  
Director, Michigan Department of Environmental Quality

Mr. Nick Lyon  
Director, Michigan Department of Health and Human Services

Mr. Mark Valacak  
Health Officer, Genesee County Health Department