



Dr. Karen Weaver
Mayor

August 9, 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

Re: FTF 16-3

Dear Mr. Pollins:

I have asked for the opportunity to respond to FTF 16-3, as it focuses on my main area of responsibility, the FAST Start program, and its efforts to replace lead and galvanized water service lines in the City.

I want to first advise that the City expects to begin the next phase of service line replacements within two weeks. It should be emphasized that the City considers this next phase to be the City's pilot project on service line replacements, so the number of service lines to be replaced may seem more modest than previously expected. Contracts are expected to be tendered to Goyette Mechanical for up to 150 partial service line replacements and/or for excavations at the curb stop and to WT Stevens for up to 150 full service line replacements. The City Council, on 25 July 2016 approved a resolution authorizing these contracts and the number of lines to be replaced will be determined by City officials depending on cost, quality of work and other factors. Because of the rather prolonged process to develop and issue an RFP and to receive the successful bids – we

are now awaiting a vote by the state Receivership Transition Advisory Board (RTAB) tomorrow, 10 August 2016, and because of concerns about the accuracy and completeness of records of service lines, and the attempts to verify those records, both the service line replacement process and the City's response to FTF 16-3 required more time than expected.

The City thanks the EPA for the suggestions and counsel contained in FTF 16-3. The City views both that document and this response as but initial exchanges in an expected continuing and vital conversation on the potential technical and other issues surrounding the service line replacement process.

As can be seen, to ensure accuracy, we have repeated the paragraphs of the FTF in order, followed by the City's response in bold:

1. Identification of Sites with Lead Service Lines

The Fast Start FAQs section notes that only 5,000 of an expected inventory of 15,000 sites with lead service lines have been confirmed. The Task Force recommends that the plan identify the procedure, or procedures, that will be followed to confirm the remaining sites. Some service lines may have segments of different materials, so it may not always be possible to just examine the line at the curb box. The plan must also address this situation.

Response: The City acknowledges that the lack of complete and accurate records on the composition of service lines throughout the City is a significant hindrance to fully developing a City-wide plan for identification, evaluation, and removal of lead and other service lines. To decrease the inherent planning assumptions, the City will implement the first three measures listed and expects to obtain results:

- a. **Reviewing different formats in which the City has previously stored records of curb box locations.**
- b. **UM-Flint GIS Department under Dr. Marty Kaufman has extrapolated from existing GIS data to determine of most likely locations of lead service lines "hot spots." This work continues to be updated as new data becomes available.**
- c. **Hydrovac plan - The City will both contract and lease a Hydrovac to have curb boxes excavated and examined in neighborhoods which appear most likely to have lead or lead/galvanized services lines for confirmation.**

The City is still considering the following measures:

- d. **UM-Flint history professor Dr. Thomas Henthorn's academic focus is on Urban History and its re-construction through contemporary records. Dr. Henthorn has offered to research the City Council minutes, resolutions, City Planning Department and other municipal records from the 1920s and 1940s, the decades with the greatest indication of**

lead SL installation in new homes, to attempt to corroborate the City Water Department records.

- e. UM- Ann Arbor - Eric M. Schwartz, Assistant Professor of Marketing, Ross School of Business, and Jake Abernethy, Assistant Professor of Computer Science and Engineering, are building a predictive model of where lead service lines are most likely to be found.**
- f. Property survey – The City is considering working with Block Associations to survey their neighbors to determine the composition of service lines in their neighborhood. The Block Associations already work with the City Planning Department annually to survey unoccupied homes.**

2. Valve Assessment and Water Main Repair Contingency Plans

A number of the valves in the distribution system may not be accessible or have an unknown operational status. Since water main ruptures can happen during lead service line replacement, the Task Force recommends that the plan identify contingency plans in the event there is a water main rupture. The Task Force further recommends that the locations and functionality of the valves be assessed so that water main isolation and main repair/replacement can be conducted as quickly as possible to minimize service disruptions in the event of a water main rupture.

Emergency Watermain Shut-Off Plan

In order to be adequately prepared for a water main rupture during the service line replacement project, the following procedure shall be enforced by the City of Flint (COF) Water Service Division and City contractors:

- 1. Prior to any excavation, the contractor will notify the COF Water Services Division of the proposed work location and limits at least five (5) days prior to beginning construction.**
- 2. The City will locate the nearest working watermain shutoff valves and paint them blue in color. In addition, the next nearest shutoff valves shall be located and locations noted. The locations will be provided to the contractors and City SLR (Service Line Replacement) Team as a backup resource in the event of an emergency.**
- 3. If a rupture arises, the contractor shall immediately notify the Water Service Center at 810 766-7202. If no one is reached call the following numbers:
Robert Bincsik 810 577-8267
John Monsees 810 577-4065**
- 4. The City of Flint will perform the necessary shutoff ASAP.**
- 5. The City of Flint shall perform all repair work and ensure proper repair procedures are followed.**

The above procedure shall be followed and any necessary further actions in order to minimize service disruption and protect the safety of the public in the event of a watermain rupture.

3. Communication Plan

The Fast Start Plan indicates that high-risk households will be targeted first for lead service line replacement. The replacement can cause disturbances that could affect other residences on that block that may have lead or unknown service lines. The Task Force recommends that the City develop and implement a communication plan that informs residents of upcoming work on their street and provides proper instructions for flushing following any water main or service line work. The Task Force further recommends that communication materials be provided educating homeowners of the risks of internal plumbing materials such as galvanized pipe or lead soldered joints.

Response: As the FAST Start program begins its next phase, the City of Flint communications strategy will include:

a. Strategic communications, including messaging, media relations, news conference and event planning and execution, digital media outreach, and crisis communication management.

b. A series of news conferences with Mayor Karen Weaver and FAST Start to keep the media, Flint residents, NGOs, neighborhood block associations, water system experts and other stakeholders up-to-date on the RFPs being awarded, what neighborhoods will get pipes replaced, what progress is being made, including media advisories and press releases.

c. The City will prepare and distribute an advisory to go out on a regular basis to advise residents, the media and other stakeholders where pipes are being replaced each week and to provide proper instructions for flushing following any water main or service line work.

d. As part of the effort to find out where the lead and galvanized steel service lines are in the city, MW will create and distribute a press release in conjunction with Kristin asking residents to self-report if they think they have one of the lines in question. MW also will design a flyer in English and Spanish to distribute throughout the community educating residents on the risk of internal plumbing materials such as galvanized pipe or lead soldered joints and how to test to see if their service lines are lead or galvanized steel.

e. Design a brochure in English and Spanish using graphics and text to explain what the FAST Start program is, what the process of pipe removal entails (an initial assessment visit by a plumber, water testing in the home before and after removal, a crew replacing the line from the street to the house) and that the home's residents don't have to be U.S. citizens to be eligible for the pipe removal program.

f. Create and place posts on Facebook and Twitter to promote the self-reporting program and provide updates on the FAST Start program.

4. Galvanized Line Replacement

Many of the service lines are lead from the main to the curb box, but another material from the curb box into the house. If there is any galvanized pipe in the segment of the line between the curb box and the house, then the Task Force recommends that the Fast Start Plan require replacement of the entire line, all the way to the house as there could be considerable lead/iron particulates in that portion of the pipe.

Response: The current RFP requires that any lead or galvanized service lines be replaced. The City intends to continue this requirement for all service line replacement projects, although they will continue to consider whether other alternatives are cost-, health-, and time-effective.

5. Particulate Removal Flushing Protocol

The Fast Start Plan must have a post-replacement particulate flushing protocol that will be followed to remove disturbed particulate from the interior plumbing after a lead service line replacement. This particulate removal flushing protocol could start from the outdoor hose, but it will need to cover all taps within the house. This flushing will be critical if the water filter is only provided for three months as noted in the current plan. The Task Force recommends that the Plan include a checklist to be completed at each site to ensure that all taps are flushed following the protocol.

Amended Response 13 December 2016: For every home, prior to reconnecting the water meter, the new service line shall be thoroughly flushed with sufficient water volume and velocity to remove all foreign material from the pipe. After reconnection of the service line, flushing protocol will commence by running an outside faucet for a period of at least fifteen minutes to further flush any foreign material from the service line, and then flushing of all taps for at least fifteen minutes. The contractor will advise resident to use the filter until otherwise notified. Residents will be also advised to flush their taps for an additional 15 minutes. This advisory to the residents will be contained in the Fact Sheet and Permission Form provided the resident, with the following language:

“Your water may be cloudy for a period of time after the service line is replaced because of the disruption. You should flush your pipes a second time for at least 15 minutes once the contractor has left or at your earliest convenience. This should cost you less than 10 cents for the additional water usage. Please continue to use your water filters until you receive further notice from the City. While replacement of the service line is expected to improve the quality of your water, concerns regarding other components of the water supply remain. Again, continue to use water filters and maintain faucet aerators until directed otherwise.”

6. Follow-up Sampling

The Task Force recommends that Fast Start Plan add follow-up sampling and analysis for lead at the end of the three-month period following lead service line replacement. This sampling would evaluate the effectiveness of the particulate removal flushing and determine whether water filters would need to be provided for a longer period of time. The Task Force intends to evaluate the results of lead service line replacement, including assessing how quickly lead in drinking water reaches acceptable levels. Until such a determination can be made, the Task Force recommends that residents continue to use filters for drinking and other consumptive uses.

The City acknowledges the benefit of water sampling at each residence where the service line will be replaced. Previously, with the MDEQ/Rowe pilot study, a sampling protocol was developed whereby each home's water would be sampled 2- 3 days before and 2- 3 days after line replacement. The City has confirmed with Dr. Shawn McElmurry of Wayne State University that they will continue this protocol for the next phase of line replacements. The MDEQ has also volunteered to assist with the water sampling; the same protocols will be used and the City, MDEQ and WSU will coordinate the sampling. The City will then coordinate the sampling with the Contractors. The City is exploring ways to both continue this testing for all line replacements and to add testing at the 90 days post-replacement mark.

7. Coordination with Water Main Work

If the City is considering water main replacement, either because the mains have exceeded their useful life or are being downsized to accommodate the lower demand, then the Task Force recommends that the plan consider replacing all lead, and associated galvanized, service lines in conjunction with the main replacement. This would be more cost effective and would reduce the need for contingency plans and communication plans to address lines that may be disturbed, but not replaced under the current prioritization process.

The City fully agrees with this suggestion. Their application for DWRP grant funds was developed with this concept in mind. The City application for CDBG funds similarly was developed with the intent to coordinate with DWRP grant fund activities and with SL replacement. The FAST Start program and the City Water Distribution staff are working closely and jointly with City Planning to assure that all plans for infrastructure updates, repairs, rehabilitation or replacement, and the implementation of those plans are well understood and coordinated carefully across City government. The summary of these efforts, entitled "Rebuild Flint the Right Way, the Flint Water Crisis Infrastructure Response Guide" was released by the City at Mayor Karen Weaver's first annual State of the City address on 4 August 2016. Please note that this is not a comprehensive plan for coordinated infrastructure replacement, but is the City's Expression of Intent to do so.

Sincerely,

/s/

BG (ret) Mike McDaniel
FAST Start Coordinator

C: Mr. Keith Creagh, Director, MDEQ