

EXAMINING FEDERAL ADMINISTRATION OF THE SAFE DRINKING WATER ACT IN FLINT, MICHIGAN, PART II

HEARING

BEFORE THE

COMMITTEE ON OVERSIGHT AND GOVERNMENT REFORM HOUSE OF REPRESENTATIVES

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EXAMINING FEDERAL ADMINISTRATION OF THE SAFE DRINKING WATER ACT IN FLINT, MICHIGAN, PART II

Tuesday, March 15, 2016

HOUSE OF REPRESENTATIVES
COMMITTEE ON OVERSIGHT AND GOVERNMENT REFORM
Washington, D.C.

The committee met, pursuant to call, at 10:00 a.m., in Room 2141, Rayburn Office Building, Hon. Jason Chaffetz [chairman of the committee] presiding.

Present: Representatives Chaffetz, Mica, Duncan, Jordan, Walberg, Amash, Gosar, DesJarlais, Gowdy, Farenthold, Lummis, Meadows, DeSantis, Mulvaney, Buck, Walker, Blum, Hice, Carter, Grothman, Hurd, Palmer, Cummings, Maloney, Norton, Clay, Connolly, Cartwright, Kelly, Lawrence, Lieu, Watson Coleman, Plaskett, DeSaulnier, Welch, and Grisham.

Chairman CHAFFETZ. The Committee on Oversight and Government Reform will come to order. Without objection, the chair is authorized to declare a recess at any time.

Ms. Hedman from the EPA is supposed to be here. Ms. Hedman, are you here?

[No response.]

Chairman CHAFFETZ. I should say she's formerly from the EPA.

As I said, the Committee on Oversight and Government Reform will come to order. Without objection, the chair is authorized to declare a recess at any time.

Ms. Hedman is now here. We will go ahead and start.

Flint, Michigan was a financial disaster and had the highest water rates in the Nation, and yet some of the poorest water. In the spring of 2013, emergency manager, Ed Kurtz, approved a plan that was going to change the trajectory of the water.

In a 7 to 1 vote, the city council also voted to support this, although they did not have the authority to execute that. They were going to move from Detroit Water to the Karegnondi Water Authority. It was a roughly \$200 million build for cheaper water and associated jobs that would come along with it. Detroit Water canceled the contract a few days later, so Flint had a year to find another source of water, so they went with a Flint water source.

In April of 2014, a switch is made, and the problems begin—bacteria, TTHM issues, Legionella, lead in the water. These are all some of the things that happened. Keep in mind, there is no acceptable level—none—no acceptable level of lead in any water. But these are when the problems started.

LeAnne Walters, who is here in the audience today—we appreciate the brave nature in which you have stepped forward. She is a citizen. She is not a water expert, but she stepped forward. She did the difficult thing. And somehow, somehow she found the fortitude to get a hold of the EPA in February of 2015 where Miguel del Toral at the EPA came out to Michigan and actually started doing some testing.

By June of 2015, a report was finalized. That report was then leaked, if you will, it was put out there. We have with us the mayor at the time, Mayor Walling. And look at his resume. Mayor Walling is a smart person. He is well educated. He has been very great in the community. And he went out on television, and I want to show a clip from that television because there is a reason why he actually went on television. And I want to show that clip now.

[Video shown.]

Chairman CHAFFETZ. That was July 8th of 2015. The report was finalized by Miguel del Toral in June. I think we are going to hear testimony that Ms. Hedman and EPA communicated to the mayor that it was safe to drink the water, and that message was then conveyed to the citizens. And it was not until January of this year that the EPA actually took some definitive action.

Now, it is not to say that the EPA is the only one at fault. The Department of Environmental Quality of the State of Michigan is also at fault here. But if the EPA or the Michigan Department of Environmental Quality would have taken action in the summer of 2015 when the EPA Region 5 regulations manager, Miguel del Toral, wrote the memo to his superiors warning of the dangerously high levels of lead in the drinking water, perhaps none of this would have happened.

What is sickening about this is it was totally avoidable. The former head of Region 5, Ms. Susan Hedman, who is with us today, dismissed and downplayed this memo calling it “a preliminary draft,” and asserting, “It would be premature to draw any conclusions.” So the residents of Flint continued to drink the water, poisoning them and their families.

The next opportunity for EPA to take action came from outcries for help from city officials. Congressman Dan Kildee was also very engaged in this. It reached a fever pitch in September of 2015, and still no action was taken. In fall of 2015, local Flint residents filed an emergency petition with the EPA. Ms. Hedman continued to dismiss the problem, and claimed the EPA was monitoring the situation.

In December of 2015, the City of Flint declared a state of emergency. A month later, Governor Snyder declared a state of emergency for Flint, activated the State’s Emergency Operations Center, and requested a Federal declaration of disaster. Finally on January 21st, 2016, nearly 7 months after Miguel del Toral’s memo, the EPA issued an emergency administrative order citing, “Imminent and substantial endangerment exists” with regard to the high levels of lead in the Flint water supply.

But how many more people were poisoned in those 7 months? How many illnesses were worsened in those 7 months? On that same day that emergency order went out, that same day Ms. Hedman rightfully resigned, but her resignation does not heal the

sick and ease the suffering of the residents of Flint. What concerns me, and we will deal with on Thursday, is the action of resigning by Ms. Hedman was characterized by the EPA administrator as courageous. It was courage according to the administrator. But we will, like I said, deal with that on Thursday.

What happened in Flint can never happen again, and it is almost unbelievable how many bad decisions were made. Government at every level—local, State, and Federal—made poor decisions. And our role on the committee is to ensure Federal agencies and employees do their job. According to the EPA's website, its mission is "to protect human health and the environment." They failed at every single level. Instead the EPA seems to be working on other things, other priorities.

I am going to enter some things into the record, and it is going to make some people uncomfortable. There have been a lot of accusations about was this driven by race. Was this driven by the fact that this was a poor city? Is this because they are under served? There are a lot of accusations out here.

This is an internal memo, and before you put it up, I want you to understand who this is going back and forth with. This is Jennifer Cooks, EPA Michigan program manager, Region 5, Debbie Baltazar, EPA Region 5 branch manager, Timothy Henry, EPA Region 5 associate director of the Water Division, and Steve Marquardt—I do not know how to pronounce his name—EPA environmental engineer.

This is an internal memo. Go ahead and put it up. September 24th. "Perhaps she already knows all this, but I'm not so sure Flint is the community we want to go out on a limb for." Are you kidding me?

The EPA administrator says that Susan Hedman was courageous for resigning. It did not take us but a couple of hours once we got these memos to find the problem here. You can take down that.

Why is Flint not the community they go to? You know, of all the communities out there, the one that is having the toughest time is the one that needs the most protection. And you can shake your head and say, oh, yeah. But the EPA had every opportunity to make the right move here, and they did not.

And the Department of Environmental Quality, do not think you get off the hook either because of the one the things that is fundamentally and totally wrong here is they had the information and they would not release it to the public. The Congress now, at least the House, has passed a piece of legislation saying when you have this information, you have to release it within hours. That is just common sense. It should not take an act of Congress to tell the EPA that they need to make this information public.

We are going to a good, vibrant hearing today. So I would unanimous consent to enter this into the record.

Without objection, so ordered.

Chairman CHAFFETZ. I also would like to enter into the record a Darnell Earley directive, an Order Number 15, dated June 20th, 2014, turning over to Mayor Walling from Darnell Earley, the emergency manager at the time, the day-to-day operations for the Department of Planning and Development and the Department of Public Works.

Without objection, so ordered.

Chairman CHAFFETZ. An email from Miguel del Toral. This is correspondence back and forth dated July 8th, 2015. And one of the concerns is you got a Miguel del Toral. He is pretty much on the line, right? He is right there on the front lines. One of the things I have heard that is probably the most disturbing is that he felt like he was retaliated against. In fact, we had a hearing last year about the actions of Susan Hedman in Region 5 and the retaliation, three whistleblowers coming up talking about retaliation efforts.

And here you have Miguel del Toral on July 8th, finally gets fed up. One of the things he said is, "It almost sounds like I'm stuck in a corner holding up a potted plant because of Flint. One misstep in 27-plus years here, and people lose their minds." A guy who was not allowed to travel. He suddenly had to go to ethics training. He had to do all these other things. That is how Region 5 and the EPA was operating.

This guy should be put up as getting a raise. You want to give a bonus to somebody? Give it to Miguel del Toral. He was doing the right thing. Instead he is being reprimanded. And I would ask that this be entered into the record as well. Without objection, so ordered.

Chairman CHAFFETZ. On July 15th, 2015, I will enter this also into the record. Without objection, so ordered.

[The information follows:]

Chairman CHAFFETZ. And then finally, Miguel del Toral gets fed up on September 22nd of 2015. This is how he starts the email: "This is no surprise. Lead lines plus no treatment equals high lead in water, equals lead poisoned children." This is how it starts in September, and the EPA did not do anything until January. I do not understand that. This is the kind of thing that has to immediately get out into the public. Immediately.

Let me read another paragraph from this email. "At every stage of this process, it seems we spend more time trying to maintain state and local relationships than we do trying to protect the children. I said this from the very beginning, and I will say it again. You do not have to drop a bowling ball off of every building in every city to prove that gravity and science will work the same everywhere. It is basic chemistry."

I ask unanimous consent to enter that into the record.

Without objection, so ordered.

Chairman CHAFFETZ. And I ask unanimous consent to enter into the record an EPA internal memo, November 3rd, 2015.

Chairman CHAFFETZ. "After reviewing the rule with our Office of General Counsel, it appears there are different possible interpretations of the lead-copper rule with respect to how the rule's optimal corrosion control treatment processes apply to this situation, which may have led to some uncertainty with respect to the Flint water system."

The law, something already passed out of this Congress, the Lead and Copper Rule is supposed to be updated every 6 years. We are now being told it will not be updated until 2018, 12 years after it was supposed to. And you will hear back and forth in the correspondence about concern from the State, and the Department of Environmental Quality what are they supposed to do? And this is

the general counsel—I am sorry—the director of the Office of Groundwater and Drinking Water saying, yeah, this continues to be a problem. Mr. Edwards has highlighted this as an ongoing problem.

So there is a lot here to discuss, okay? This should never, ever have happened in the first place. With that, I will now recognize the ranking member, Mr. Cummings.

Mr. CUMMINGS. Mr. Chairman, I want to thank you for holding this hearing today and for agreeing to our request to obtain documents as part of this investigation, and for calling the person who has not been mentioned yet, Governor Snyder, to testify on Thursday. Some people in your position might have shied away from this investigation, but you came through on your promises, and I thank you for that.

I also want to thank you for agreeing to our request to conduct transcribed interviews of key witnesses. Last week our staff traveled to Michigan to interview Dan Wyant, the former director of the Michigan Department of Environmental Quality. He, too, has not been mentioned yet.

Mr. Wyant resigned on December the 29th, the same day the governor's task force issued its damning report. The governor's task force. According to that report, Mr. Wyant's staff told officials in Flint that corrosion control treatment was, and I quote, "not necessary." Mr. Wyant said that.

Mr. Wyant's staff also misinterpreted the Federal Lead and Copper Rule, and their failures, and I quote, and this comes from the governor's task force now, "Led directly to the contamination of the Flint water system." Again, this is all according to the governor's own task force.

Mr. Wyant was a very difficult witness who evaded many of our questions. Last December he apologized to the people of Flint, but he was not remorseful or apologetic in his interview with the committee. In fact, he disputed almost everything the governor's task force concluded about his failures.

Despite this obstruction, Mr. Wyant did tell us an interesting fact, and this was very, very interesting. He said in all the time he served as director, and despite all of the public outrage about the State's inaction, the topic of Flint water was never raised in any cabinet meeting, not by Mr. Wyant, not by the governor, and not by anyone else. Ladies and gentlemen, there is something wrong with that picture.

That was all the way through December of last year. I do not know if this is accurate, but if it is so, it is absolutely astonishing. In addition to interviewing Mr. Wyant, our staff also interviewed one of Governor Snyder's emergency manager for Flint, Jerry Ambrose. The State law that Governor Snyder championed in 2011 gave him authority to basically disenfranchise local officials, overrule their votes, and appoint his own emergency managers with complete power over the city's decision making.

City employees were required to obey their orders. During his interview, Mr. Ambrose told us that his number one priority—his number one priority—and the top priority of all of the governor's emergency managers was to cut spending. Cut spending. Every-

thing else was viewed through the lens of cost cutting, and public health and safety clearly suffered as a result.

This is why in March of 2015, when the Flint City Council voted to reconnect the clean drinking from Detroit, Mr. Ambrose used his power to overrule their vote. He thought it was too expensive, and it was cheaper to keep using corrosive water from the Flint River. Something is wrong with that picture.

Even though the State of Michigan had major budget surpluses, and Mr. Ambrose told us that he never once—not once—asked for funds to help Flint switch back to clean drinking water from Detroit.

Mr. Chairman, our investigation is not complete. We have another interview coming up with Edward Kurtz, the governor's second emergency manager in Flint, and there are key questions he needs to answer. For example, there was a general agreement that shifting from Detroit Water to the new pipeline being built by the Karegnondi Water Authority, or KWA, could save money. But the KWA pipeline was still under construction, and there was going to be a gap of about 2 years. Genesee County chose to stay on Detroit Water during this period, but Mr. Kurtz hired an engineering firm to use the Flint water as the primary source of drinking water.

We have yet to see any detailed studies before this switch analyzing what would need to be done to ensure that the water coming out of the taps would be safe, and how much that might cost. Where are the analyses? Where are the documents? We have not seen them.

Finally, we have heard Republicans focus their criticism almost extensively and exclusively on the EPA. I agree. The EPA officials could have done more, and I agree that everyone at fault must be held accountable. If you will recall, Mr. Chairman, when you asked me about bringing the head of the EPA, I said bring every single person that might have anything to do with this. I am not trying to protect anybody except the people of Flint.

But under Federal law and regulations, States have the primary responsibility to enforce the Safe Drinking Water Act. In this case, Michigan officials displayed, and I quote, "an abysmal public response." That is according to the governor's task force. I did not say that. The governor's task force said that. The actions were, and, again, the governor's task force, "Simply insufficient to the task of public protection." Again, those are not my words. They are the words of the governor's task force.

And the task force concluded with this as I close, and I quote. They said, "We believe that the primary responsibility for what happened in Flint rests with the Michigan Department of Environmental Quality."

And so, we will continue our investigation. There are 15 people that Congresswoman Lawrence and I asked that we meet with and have conducted interviews of. None of them would cooperate, and so we still have work to do.

And, again, Mr. Chairman, I mean it sincerely. I thank you for holding this hearing. I thank you for holding the hearing on February 3rd, today, and the one coming up on Thursday.

With that, I yield back.

Chairman CHAFFETZ. Thank you. I appreciate that.

We will hold the record open for 5 legislative days for any member who would like to submit a written statement.

Chairman CHAFFETZ. I will now recognize our panel of witnesses.

We welcome Ms. Susan Hedman, former Region 5 administrator at the United States Environmental Protection Agency, Mr. Darnell Earley, former emergency manager of the City of Flint, Michigan. It is important to note that there have been a couple different emergency managers. Mr. Earley served for portions of that time, not the entire time.

Mr. Dayne Walling is the former mayor the City of Flint. He was elected initially in August of 2009 in a special election, reelected to a 4-year term in 2011. And Dr. Marc Edwards, the Charles P. Lundsford Professor of Environmental and Water Resources Engineering at the Virginia Polytech Institute and State University. Mr. Edwards' contribution to this process has been invaluable. I appreciate his participation here as really somebody independent who understands the technicalities of the water. And his unbelievable dedication of time, and effort, and expertise has been most appreciated by both sides of this aisle.

I know that Mr. Cummings and a number of others have gone to Flint. I was in Flint this weekend along with some of the Michigan delegation, and there was Mr. Edwards on the ground talking to people in Michigan answering their questions. And we appreciate your commitment and your perspective here.

Pursuant to committee rules, all witnesses will be sworn before they testify. If you will all please rise and raise your right hand.

Do you solemnly swear or affirm that the testimony you are about to give will be the truth, the whole truth, and nothing but the truth?

[A chorus ayes.]

Chairman CHAFFETZ. Thank you. Let the record reflect that all witnesses answered in the affirmative.

Each of your written statements will be entered into the record in its entirety. In order to allow time for discussion and questioning by members, we would appreciate if you would limit your oral testimony to 5 minutes.

Ms. Hedman, you are now recognized for 5 minutes. Turn on the mics there.

WITNESS STATEMENTS

STATEMENT OF SUSAN HEDMAN, PH.D.

Ms. HEDMAN. Good morning, Mr. Chairman, Ranking Member Cummings, and distinguished members of the committee. I'm Susan Hedman, the former EPA Region 5 administrator. Thank you for this opportunity to testify about my role in EPA's response to the Flint water crisis and the reasons that I decided to resign.

I first learned that Flint was not implementing corrosion control on June 30th, 2015 approximately 14 months after the city started using Flint River water that was not treated with orthophosphate. The very next day I offered technical assistance to Flint's mayor, assistance from EPA's experts on lead and drinking water distribution systems.

The following week, we issued our first statement encouraging Flint residents to contact their water utility for lead testing, and providing information about limiting exposure to lead in tap water. On July 21st, 3 weeks after I first heard about this problem, the Michigan Department of Environmental Quality agreed with EPA's recommendation to require Flint to implement corrosion control as soon as possible, a recommendation that my staff had been making since late April when they first found out that corrosion control was not being implemented.

That should've solved the problem. It did not. During the weeks and months that followed, MDEQ was slow to deliver on our agreement from July 21st, and the City of Flint was hampered by a lack of institutional capacity and resources. EPA responded the only way we could, by working within the cooperative federalism framework of the Safe Drinking Water Act.

That framework assigns legal primacy to States to implement drinking water regulations, and give EPA the job of setting standards and providing technical assistance. So in keeping with that framework, we provided technical support to the State and the city to implement corrosion control and to provide the assistance that Flint residents needed to limit their exposure to lead.

Most of the time, this cooperative federalism model works well, even in a crisis. In fact, it worked exactly the way it's supposed to work when the Toledo water crisis occurred in 2014. But as we all know, it did not work in Flint.

Consequently, EPA was forced to evaluate the enforcement tools available under the Safe Drinking Water Act, which are more limited than the enforcement provisions of other environmental statutes. And while I used the threat of enforcement to motivate the State and city to move forward, we found that the enforcement options available to us were of limited utility last fall due to the unique circumstances of this case.

In the end, with the help of the EPA Flint Task Force, corrosion control was finally implemented, and testing now indicates that the protective coating that prevents lead from leeching into tap water is being restored. That's the good news. The bad news is that this problem should never have happened in the first place, and I need to remind you EPA had nothing to do with that.

Finally, I'd like to say a few words about my resignation. I resigned in part because of the false allegations about me that were published in early January when EPA was unable to correct the record before those allegations began to damage the Agency's ability to perform critical work in Flint. By the third week of January, I was widely portrayed in the media as someone who "sat on the sidelines during the crisis and downplayed concerns by an EPA scientist about lead in the water." That's completely untrue.

My testimony today and the material in Appendices 2 and 3 make clear that I did not sit on the sidelines, and I did not downplay any concerns raised by EPA scientists or apologize for any memos they wrote. In fact, I repeatedly asked for a final memo about lead in drinking water in Flint in a form that EPA could publicly release. And when MDEQ attacked a Region 5 scientist by calling him "a rogue employee," I immediately called the MDEQ director to complain, and in a subsequent call with the MDEQ direc-

tor and the governor's staff, I made it clear that this scientist is a valued member of the Region 5 water team, a point which I made even clearer when I subsequently appointed him to the Flint Task Force.

There wasn't time for these explanations in January in the wake of all the emergency declarations. Flint residents had lost trust in government, and the false allegations about me gave the people of Flint less reason to trust EPA. On the day I resigned, I sent a note to Administrator McCarthy saying in light of the allegations that have been made about me and the time it will take to set the record straight, I think this is the best course of action to ensure the effectiveness of EPA's response to the Flint water crisis, and to make sure that Flint residents get the help that they deserve.

That was one reason for my resignation, but there was another. Quite simply, this tragedy happened on my watch. I did not make the catastrophic decision to provide drinking without corrosion control treatment. I did not vote to cut funding for water infrastructure or for EPA. And I did not design the imperfect statutory framework that we rely on to keep our water safe. But I was the regional administrator when this crisis occurred. Having spent my entire adult life as an advocate for the environment and public health and much of that time representing citizen groups, I knew that only one thing mattered to Flint residents: the water wasn't safe to drink.

What happened in Flint should not have happened anywhere in the United States, and I was horrified that it happened in my region, the Great Lakes Region. I thought and still think that resigning was the honorable thing to do.

Although I have left government service, I've not stopped worrying about the people of Flint. I'm very encouraged to see that the corrosion control treatment that was implemented in December is recoating the pipes and that the water may be soon be safe to drink. I'm even more encouraged to read that there is growing congressional support for funding to replace the lead surface lines in Flint, and to fund water infrastructure throughout the country.

I'd like to close by asking all of you to support that legislation and, more generally, to support the long overdue investments that are needed in this Nation's water infrastructure.

Thank you for this opportunity to testify. I welcome any questions.

[Prepared statement of Ms. Hedman follows:]

Testimony of Susan Hedman
Before the House Committee on Oversight and Government Reform
March 15, 2016

Good morning, Mr. Chairman, Ranking Member Cummings and distinguished Members of the Committee. I'm Susan Hedman, the former EPA Region 5 Administrator. Thank you for this opportunity to testify about my role in EPA's response to the Flint water crisis—and the reasons that I decided to resign.

I first learned that Flint was not implementing corrosion control treatment on June 30, 2015¹ -- approximately fourteen months after the City started using Flint River water that was not treated with orthophosphate.² The very next day I offered technical assistance to Flint's Mayor -- assistance from EPA experts on lead and drinking water distribution systems.³ The following week, we issued our first statement encouraging Flint residents to contact their water utility for lead testing and providing information about limiting exposure to lead in tap water.⁴

On July 21st, three weeks after I first learned about this problem, the Michigan Department of Environmental Quality (MDEQ) agreed with EPA's recommendation to require Flint to implement corrosion control as soon as possible -- a recommendation that my staff had been making since late April, when they first found out that corrosion control was not being implemented.

That should have solved the problem -- but it did not. During the weeks and months that followed, MDEQ was slow to deliver on the agreement we reached on July 21st and the City of Flint was hampered by a lack of institutional capacity and resources.

¹ During this briefing, the EPA Region 5 Water Division Director told me that her staff started asking MDEQ to require Flint to implement corrosion control in late April, when MDEQ first told EPA staff that Flint was not implementing control. (In February, MDEQ told EPA that Flint had an "Optimized Corrosion Control Program.") The Water Division Director also told me that she had scheduled a call with the head of the MDEQ drinking water program and was confident that MDEQ would agree to require Flint to implement corrosion control during that call. She also said that water testing completed in December indicated that Flint was only slightly above the lead levels found in systems that EPA deems fully optimized for corrosion control -- and that new test results would be available before the upcoming EPA-MDEQ call.

² I had previously been briefed on and closely followed several other drinking water issues in Flint, including when MDEQ issued a Notice of Violation for Total Trihalomethane exceedances (December 2014) and when Rep. Kildee requested information on loan forgiveness for the City of Flint's Drinking Water State Revolving Fund loans (April 2015).

³ The Flint Mayor was familiar with this form of technical assistance. In February 2015, I helped the Mayor find an EPA drinking water expert to work with the City to address Total Trihalomethane violations.

⁴ The EPA statement was picked up by Flint-area media and links to EPA information about lead in drinking water appeared on local media websites. I also sent the statement to the Mayor right after we released it.

EPA responded in the only way we could: by working within the cooperative federalism framework of the Safe Drinking Water Act. That framework assigns legal primacy to states to implement drinking water regulations and gives EPA the job of setting standards and providing technical assistance. So, in keeping with that framework, we provided technical support to the State and the City -- to implement corrosion control and to provide the assistance that Flint residents needed to limit their exposure to lead.

Most of the time, this cooperative federalism model works well -- even in a crisis. In fact, it worked exactly the way it's supposed to work when the Toledo water crisis occurred in 2014.⁵ But, as we all know, it did not work in Flint.

Consequently, EPA was forced to evaluate the enforcement tools available under the Safe Drinking Water Act, which are more limited than the enforcement provisions in other federal environmental statutes. And, while I used the threat of enforcement action to motivate the State and City to move forward, we found that the enforcement options available to us were of limited utility last fall, due to the unique circumstances of this case.⁶

In the end, with the help of the EPA Task Force, corrosion control was finally implemented -- and testing now indicates that the protective coating that prevents lead from leaching into tap water is being restored.

That's the good news.

The bad news is that this problem should never have happened in the first place, and I need to remind you: EPA had nothing at all to do with that.

Finally, I'd like to say a few words about my resignation:

I resigned, in part, because of the false allegations about me that were published⁷ in early January -- which EPA was unable to correct on the record before they began to damage the Agency's ability to perform critical work in Flint. By the third week of January, I was widely portrayed in the media as someone who "... sat on the sidelines during the crisis ... and ... downplayed concerns raised by an E.P.A. scientist about lead in the water."⁸

⁵ In August 2014, the Toledo reported high levels of the toxin microcystin in drinking water. Ohio EPA immediately told US EPA about the problem and the Mayor immediately issued a Do Not Drink Order. Ohio EPA asked US EPA for technical assistance -- and Ohio EPA immediately implemented the sampling protocols that we recommended. And, Governor Kasich told EPA that he would call out the National Guard to distribute bottled water -- and that happened right away, as well.

⁶ See Appendix One.

⁷ Examples of articles containing the false allegations:

http://www.democracynow.org/2016/1/8/amid_state_fed_cover_up_the
http://www.huffingtonpost.com/entry/flint-lead-water-epa_us_569522a8e4b086bc1cd5373c
<http://www.detroitnews.com/story/news/politics/2016/01/12/epa-stayed-silent-flints-tainted-water/78719620>
<http://flintwaterstudy.org/2016/01/miguel-del-toral-emerges-from-epas-house-arrest-flintwaterstudy-supports-requested-federal-relief-for-flint/>

⁸ <http://www.nytimes.com/2016/01/24/opinion/sunday/fix-flints-water-system-now.html>

That's completely untrue. My testimony today and the material in Appendices Two and Three⁹ make clear that I did not sit on the sidelines and I did not downplay any concerns raised by EPA scientists or apologize for any memos they wrote – in fact, I repeatedly asked for a final memo about lead in a form that EPA could publicly release. And, when MDEQ attacked a Region 5 scientist¹⁰ by calling him a “rogue employee,” I immediately called the MDEQ Director to complain – and in a subsequent call with the MDEQ Director and the Governor’s staff, I made it clear that the scientist is a valued member of the Region 5 Water Division team – and I made it even clearer when I subsequently appointed the scientist to EPA’s Flint Task Force.

There wasn’t time for these explanations in January – in the wake of all the emergency declarations. Flint residents had lost trust in governmental institutions – and the false allegations about me gave the people of Flint less reason to trust EPA.

On the day I resigned, I sent a note to Administrator McCarthy saying: “In light of the allegations that have been made about me . . . and the time it will take to set the record straight, I think this is the best course of action to ensure the effectiveness of EPA’s response to the Flint water crisis and to make sure that Flint residents get the help that they deserve.”

That was one reason for my resignation, but there was another: quite simply, this tragedy happened on my watch.

I did not make the catastrophic decision to provide drinking water without corrosion control treatment;

I did not vote to cut funding for water infrastructure or for EPA;

And I did not design the imperfect statutory framework that we rely on to keep our drinking water safe.

But I was the Regional Administrator when this crisis occurred.

Having spent my entire adult life as an advocate for environmental and public health issues – and much of that time representing citizen groups – I knew that only one thing mattered to Flint residents: the water wasn’t safe to drink.

What happened in Flint, should not have happened anywhere in United States – and I was horrified that it happened in my region, the Great Lakes Region. I thought – and still think – that resigning was the honorable thing to do.

Although I have left government service – I have not stopped worrying about the people of Flint. I am very encouraged to see that the corrosion control treatment that was implemented in December is re-coating the pipes and that the water may soon be safe to drink. I am even more encouraged to read that there is growing Congressional support for funding to replace lead service lines in Flint and to fund water infrastructure

⁹ Appendix Two highlights some of the actions that I took as part of EPA’s response to the Flint water crisis. Appendix Three provides background on an e-mail exchange with the Flint Mayor that was the focus of the false allegations that were made against me in early January 2016.

¹⁰ <http://www.npr.org/2015/09/29/444497051/high-lead-levels-in-michigan-kids-after-city-switches-water-source>

throughout the country. I'd like to close by asking all of you to support that legislation -- and, more generally, to support the long overdue investments that are needed in this nation's water infrastructure.

Thank you for this opportunity to testify. I welcome any questions.

APPENDIX ONE

Safe Drinking Water Act Enforcement Options

Given EPA Region 5's longstanding reputation¹¹ for aggressive enforcement of environmental laws, it is perhaps not surprising that during the summer and fall of 2015 the Region 5 Flint team actively evaluated and reevaluated the enforcement options available under the Safe Drinking Water Act. Unfortunately, we found that the utility of the enforcement tools available to us was quite limited because of the unique circumstances of this case.

The Safe Drinking Water Act contains two major enforcement provisions:

Section 1414 of the Safe Drinking Water Act authorizes EPA to take enforcement action when a water system violates applicable regulations and the primacy agency (in this case MDEQ) fails to take action within 30 days. This section is a useful enforcement tool where a water system violates a Maximum Contaminant Level established by EPA regulations. For instance, EPA could have used this authority when the Flint water system violated the Maximum Contaminant Levels for Total Trihalomethanes in 2014, if MDEQ had failed to take enforcement action.¹² However, in cases involving lead, there is no Maximum Contaminant Level to apply. Instead, the 1991 Lead and Copper Rule is a treatment technique rule that:

... includes a lead "action level" of 15 parts per billion. If more than 10% of tap water samples exceed the action level, the PWS has not violated the rule, but other requirements – corrosion control, public education, additional water monitoring and lead service line replacement – can be triggered.¹³

In Flint's case, EPA's ability to take action under Section 1414 of the Safe Drinking Water Act was limited by a lack of evidence demonstrating that the lead "action level" had been exceeded. However, EPA was nonetheless able to work with MDEQ and the City of Flint to implement corrosion control, to carry out public education campaigns and to improve and expand water monitoring – the same outcome that would have been achieved if we had been able to proceed under Section 1414.

Section 1431 of the Safe Drinking Water Act authorizes EPA to take action when state and local authorities fail to act when a contaminant presents "imminent and substantial endangerment to the health of persons" served by a public water system. We considered this option and there were times when I told the State and City that I was prepared to move to an enforcement posture if they didn't move more quickly. However, I decided to hold

¹¹ EPA Region 5 has become known as "The Enforcement Region" because of the region's track record of initiating and successfully concluding more environmental enforcement cases than any of the other nine EPA regions. In fact, during several recent years Region 5 enforcement actions produced more than half of the total pollution reductions and injunctive relief achieved by the entire agency. Much of this enforcement work was targeted in communities that are over-burdened with risks to public health – communities that are disproportionately minority and low-income.

¹² MDEQ issued a Notice of Violation on December 16, 2014.

¹³ "Lead in Flint, Michigan's Drinking Water: Federal Regulatory Role," CRS Insight Report by Mary Tiemann, February 16, 2016 (IN10446).

off because I was advised that the Michigan Attorney General¹⁴ would likely argue that EPA was jurisdictionally barred from using Section 1431 because of the growing list of actions that the State and City were taking to protect public health, including:

MDEQ's letter requiring Flint to implement corrosion control on August 17th;

Mayor Walling's announcement that Flint would implement corrosion control on September 3rd;

The City/County Health Advisory recommending that Flint residents use filters and flush pipes before drawing water for drinking or cooking on September 25th;

The State/City Action Plan that included distribution of filters and bottled water to Flint residents and water testing in schools that was announced on October 2nd;

The State/City decision to use treated water from the Great Lakes Water Authority instead of Flint River water starting on October 16th; and

MDEQ's permit authorizing Flint to implement corrosion control that was issued on October 30th.

To be clear, I was less concerned about losing a legal argument than about the length of time it might take to resolve it – and the impact that an extended legal proceeding might have on forward progress to address the water crisis. During October and November – when MDEQ and the City were working effectively with the EPA Flint Task Force to implement corrosion control – a contentious challenge to an EPA order could have further delayed or even halted that critical work. If that had happened, we would not be seeing the reductions in lead levels that are currently occurring in Flint.

Those concerns were on my mind as I reviewed a citizen group petition asking EPA to take emergency action, pursuant to Section 1431.¹⁵ On December 10, 2015, the day after Flint started corrosion control treatment, I sent a letter to the petitioners summarizing the steps that EPA, the State of Michigan and the City of Flint had taken to address elevated lead levels – and I further deferred action on the petition until such time as the Agency determines that corrosion control is fully optimized for the Flint system.¹⁶ That letter was intended to send a message to the petitioners and to the City and State that EPA was prepared to take action under Section 1431 if corrosion control was not fully optimized.

¹⁴ Because MDEQ does not have in-house counsel, we recognized that issuing an order would result in involvement by the Michigan Attorney General, who had recently issued a statement, emphasized his commitment “to stopping overregulation and excessive mandates from the EPA.” www.mlive.com/lansing-news/index.ssf/2015/09/gov_rick_snyder_administration.html

¹⁵ Petition for Emergency Action under the Safe Drinking Water Act, submitted to the Environmental Protection Agency by Coalition for Clean Water *et al.* on October 1, 2015.

¹⁶ Shortly after signing the letter, I asked the EPA Regional Counsel to reach out to the petitioners' attorney to ask whether there were any additional steps to protect public health that the petitioners would like to recommend. The Regional Counsel reported that he made that offer in a conference call with the petitioners' attorney on December 17, 2015, and again in an e-mail in January 2016, but received no recommendations in response.

On January 21, 2016, EPA issued a Section 1431 Order, citing both the City and the State. As predicted, Michigan challenged EPA's legal authority to issue the order – but MDEQ pledged cooperation with EPA in the climate of intergovernmental collaboration created by federal, state and local emergency declarations to assist Flint.

APPENDIX TWO

My Role In The EPA Response To The Flint Water Crisis

Many people at the Environmental Protection Agency have played and continue to play critical roles in the response to the Flint water crisis. For purposes of this testimony, I have assembled this partial list of my activities to show when I first became involved in the response and the types of actions that I undertook:

I first learned that Flint was not implementing corrosion control treatment on June 30, 2015¹⁷ – approximately fourteen months after the City started using Flint River water that was not treated with orthophosphate.¹⁸ The very next day I offered technical assistance to Flint’s Mayor – assistance from EPA experts on lead and drinking water distribution systems.¹⁹ The following day, I sent the Mayor resumes for the two EPA experts so that he could contact them right away.

On July 10, 2015, I directed the EPA Region 5 Office of Public Affairs to issue our first statement encouraging Flint residents to contact their water utility to request lead testing and providing a link to information on the EPA website about limiting exposure to lead in tap water.²⁰

On July 21, 2015, EPA convinced MDEQ to require the City of Flint to implement corrosion control. This was a significant milestone – but the problem was not solved. When I asked for a status report, I was astonished to learn that MDEQ had not yet issued the promised letter directing Flint to implement corrosion control. I asked my staff to immediately follow up with MDEQ to get the letter issued -- and to ask both MDEQ and the City of Flint to increase the availability of public information about water testing and limiting exposure to lead in tap water.

¹⁷ During this briefing, the EPA Region 5 Water Division Director told me that her staff started asking MDEQ to require Flint to implement corrosion control in late April, when MDEQ first told EPA staff that Flint was not implementing control. (In February, MDEQ told EPA that Flint had an “Optimized Corrosion Control Program.”) The Water Division Director also told me that she had scheduled a call with the head of the MDEQ drinking water program and was optimistic that MDEQ would agree to require Flint to implement corrosion control during that call. She also said that water testing completed in December indicated that Flint was only slightly above the lead levels found in systems that EPA deems fully optimized for corrosion control – and that new test results would be available before the upcoming EPA-MDEQ call.

¹⁸ I had previously been briefed on and closely followed several other drinking water issues in Flint, including when MDEQ issued a Notice of Violation for Total Trihalomethane exceedances (December 2014) and when Rep. Kildee requested information on loan forgiveness for the City of Flint’s Drinking Water State Revolving Fund loans (April 2015).

¹⁹ The Flint Mayor was familiar with this form of technical assistance. In February 2015, I helped the Mayor find an EPA drinking water expert to work with the City to address Total Trihalomethane violations.

²⁰ The EPA statement was covered by Flint-area media and links to the EPA information about lead in drinking water appeared on local media websites. I also sent a copy of the statement to the Mayor right after we released it.

Finally, on August 17, 2015, MDEQ issued a letter directing the City of Flint to implement corrosion control. Although MDEQ's letter failed to convey the urgency that EPA had recommended, on September 3, 2015, the Flint Mayor stepped forward to announce that the City would implement corrosion control as soon as possible – and that he would add two EPA experts on lead and water distribution issues to the Flint Technical Advisory Committee.²¹

On September 15, 2015, I held separate calls with the Flint Mayor and the MDEQ Director to emphasize the need for expedited implementation of corrosion control and for expanded public information efforts to help Flint residents take steps to limit lead exposure until corrosion control was effective. Ten days later, the City (and County) issued a Health Advisory recommending that residents install filters to remove lead from tap water and to flush their systems before drawing water for drinking or cooking.

On September 27, 2015, I again called the MDEQ Director to stress the need for expedited implementation of corrosion control, to offer technical assistance and to call for more involvement by the Michigan Department of Health and Human Services (to implement a public information campaign and to obtain funding for bottled water and pre-mixed formula for low income residents.) During the next several days, EPA worked closely with MDEQ to develop a "Flint Action Plan" – which the MDEQ Director predicted would result in implementation of corrosion control in October. The Action Plan was announced on October 2nd and, during the following week, thousands of free water filters were distributed in Flint and testing of drinking water in schools began.

On October 16, 2015, I announced the creation of an EPA Flint Task Force to provide intensive technical assistance to MDEQ and the City of Flint to implement corrosion control treatment.²² When Task Force recommendations were not accepted, I intervened with the City and MDEQ – and on October 30, 2015, MDEQ issued a permit authorizing the City to implement corrosion control treatment in accordance with a plan designed to restore the protective coating needed to prevent leaching of lead into tap water.²³

After the EPA Flint Task Force was up and running, I oversaw less of EPA's day-to-day work in Flint – but there are several additional items worth mentioning:

On November 10, 2015, I announced that EPA would conduct an audit of the MDEQ Drinking Water Program to identify actions needed to strengthen the Michigan drinking water program.

²¹ A few days earlier, MDEQ declined a similar offer of technical assistance from EPA -- but did tell Region 5 staff that a public information campaign was being implemented in Flint by the Michigan Department of Health and Human Services.

²² On October 16, 2015, Flint began using treated Lake Huron water from the Great Lakes Water Authority, instead of Flint River Water. The water supplied by the Great Lakes Water Authority required supplementary corrosion control treatment to restore the protective coating to damaged pipes in Flint.

²³ During November the Task Force continued to work with the City and MDEQ to get the necessary equipment installed to begin corrosion control treatment (which occurred on December 9th) and to oversee water sampling to determine the effectiveness of the treatment (which is still ongoing). A complete list of Task Force activities is available at www.epa.gov/flint/flint-safe-drinking-water-task-force

On December 1, 2015, I called the MDEQ Director to offer EPA Community Involvement Coordinators to work with MDEQ to expand public information campaigns to ensure that Flint residents used filters correctly and were taking other steps to minimize exposure to lead in tap water.²⁴

On December 22, 2015, I travelled to Flint to meet with the Mayor to discuss the City and County Emergency Declaration – that had been issued the previous week. I asked what EPA could do to help and specifically offered EPA Community Involvement Coordinators to work with the City to help reach residents who do not have access to the web, who face literacy challenges or who do not speak English.

During 2015, I also provided several briefings on the Flint water crisis to Members of Congress, in person and on the phone. Starting in mid-November, I also directed my staff to hold weekly phone briefings for congressional staff.

²⁴ During that call I also provided the MDEQ Director with contact information for the Legionella program at the Centers for Disease Control and requested that he reach out to the MDHHS Director to ask the State Epidemiologist to work with the Centers for Disease Control and the Genesee County Health Department on the Legionella issue.

APPENDIX THREE

My E-Mail Exchange With The Flint Mayor (6/30 – 7/2/16)

In early January 2016, several false allegations were published²⁵ suggesting that I downplayed concerns raised by an E.P.A. scientist about lead in Flint tap water.²⁶ These allegations focused on the following e-mail exchange that I had with the Flint Mayor during the summer of 2015:

On June 30, 2015 – the same day that I was first briefed on the Flint corrosion control issue – I received an e-mail from the Flint Mayor asking about an internal EPA memo that had been obtained by a reporter.

On July 1, 2015, I sent a reply to the Mayor:

I started by apologizing to the Mayor for taking all day to get back to him. The reason that it took me all day is that I was out of the office for a medical procedure.

Because I was out of the office and was not familiar with the contents of the document that the Mayor was asking about, I asked the Region 5 Water Division Director and Deputy Director to draft my response – which included the following language: “The preliminary draft report should not have been released outside the agency. When the report has been revised and fully vetted by EPA management, the findings and recommendations will be shared with the City and MDEQ will be responsible for following up with the City.”²⁷

There were at least three reasons that the document should not have been released outside the agency:

1. The document contained personally identifiable information (PII) and health information. In the standard agency vetting process, the Office of Regional Counsel would redact that information to prepare a document for public release.
2. The document contained enforcement-sensitive information. In the standard agency vetting process, the proposed compliance review described in the draft would be redacted.
3. The document was an interim draft that did not include all of the information available to EPA on the topics covered in the memo. EPA also needed to confirm data reported in the memo by performing a standard quality assurance/quality control check.

²⁵ Examples of articles containing the false allegations:

http://www.democracynow.org/2016/1/8/amid_state_fed_cover_up_the
http://www.huffingtonpost.com/entry/flint-lead-water-epa_us_569522a8e4b086bc1cd5373c
<http://www.detroitnews.com/story/news/politics/2016/01/12/epa-stayed-silent-flints-tainted-water/78719620>
<http://flintwaterstudy.org/2016/01/miguel-del-toral-emerges-from-epas-house-arrest-flintwaterstudy-supports-requested-federal-relief-for-flint/>

²⁶ <http://www.nytimes.com/2016/01/24/opinion/sunday/fix-flints-water-system-now.html>

²⁷ I did not play any role in “vetting” or “revising” the draft or final version of that memo.

Since I could not provide the draft report in its current form to the Mayor that evening, I instead offered the Mayor access to two EPA experts on lead and drinking water distribution systems. Those experts – who work at EPA’s lab in Cincinnati – were available to talk with the Mayor about the importance of implementing corrosion control and the public health risks posed by lead in drinking water.

I closed the e-mail by apologizing again for taking all day to reply and “for the manner in which this matter was handled.” Here I was saying that I was sorry that the Mayor heard about an issue from a reporter, instead of directly from me. EPA Regional Administrators are taught that there should be no surprises for elected officials. Ironically, in this case, I was as surprised as the Mayor – since I started hearing about the lead issue at about the same time he did.

On July 2, 2015, the Mayor e-mailed me again to ask EPA to talk with the reporter who had obtained a copy of the interim memo. I replied by saying that I was not inclined for EPA staff to have further communication with the reporter because we needed to focus on finalizing the report. At the time, I had hoped that a final version of the memo would be able to be released before the reporter filed his story. In the meantime, I did not want anyone on my staff to get in trouble by commenting on a document that contained information that we are prohibited from disclosing.²⁸

In my July 2nd reply to the Mayor I also provided contact information and resumes for the EPA experts on lead and water distribution systems so that he could reach out to them for information.

My July 2nd reply to the Mayor also noted that the interim report obtained by the reporter “was a preliminary draft and that it would be premature to draw any conclusions based on that draft.” There are two important points to make about this statement:

1. I do not have the necessary expertise to judge whether it was premature to draw any conclusions based on the interim report. Here I was conveying the judgment provided to me by EPA Region 5 Water Division senior managers, individuals who do have the necessary expertise to make that judgment and had reviewed the memo in detail.
2. The final version of the report concluded that the extremely high lead levels highlighted in the interim report were likely due to physical disturbance of a service line to one residence (which had since been replaced), rather than lack of corrosion control. The draft interim report did not include any information about physical disturbance and, consequently, many news articles that were written about the draft report prematurely jumped to a conclusion: that Flint drinking water contained “hazardous waste levels” of lead because of the lack of corrosion control treatment. When the first of these articles was published²⁹ the scientist who authored the draft interim report expressed concern to the EPA Region 5 public affairs office that the article could “unduly alarm the public.”

²⁸At that time, I was particularly concerned about the release of PII/health and enforcement-sensitive information because I had recently completed the annual training that all EPA employees are required to take to learn about protecting confidential information and the substantial penalties that apply for failing to do so.

²⁹ <http://www.aclumich.org/article/corrosive-impact-tale-leaded-water-and-one-flint-family%E2%80%99s-toxic-nightmare>

Chairman CHAFFETZ. Thank you.
Mr. Earley, you are now recognized for 5 minutes.

STATEMENT OF DARNELL EARLEY

Mr. EARLEY. Thank you, Chairman Chaffetz, Ranking Member Cummings, Congresswoman Lawrence from Michigan, and to the other members of this committee, I, too, thank you for the opportunity to appear at today's hearing. It gives me an opportunity to share with you any and all factual information regarding the public water crisis in Flint, Michigan.

My name is Darnell Earley. I've been a public servant for nearly 40 years in Michigan fulfilling roles as a city, township, county manager and administrator, as well as a state government appointee. I've also served as acting mayor Flint during the time I was city administrator, and I would hope that you would glean from my comments this morning that I have a deep affinity for the City of Flint and for the people that reside there.

I recently served as one of four emergency managers appointed to Flint by Governor Rick Snyder during the period discussed, and that was between 2011 and 2015. My appointment was October 2013, and I served until January of 2015. And some on these committees, as I listened to the hearing before, expressed concern about the emergency manager law and its negative effect on communities. The law certainly does not provide for limitless disenfranchisement and total disregard of the community, its elected officials, and certainly not its people.

During my tenure as a city manager and as a township manager, I've always—always—involved the elected and appointed officials in the management of the day-to-day operations of the city. I did no different in Flint. Indeed as the chairman has just shared with you, I signed an order delegating day-to-day operational authority over not only the Department of Planning and Development, but over the Department of Public Works, which included the Flint water treatment plant.

I assigned that to the mayor. The mayor served as part of our core team, as part of our administrative staff, and had day-to-day responsibilities that I consulted with him as well as other members of our core team about the day-to-day operations of the City of Flint. That's what city managers do.

As the crisis in Flint has unfolded, we've all now witnessed some very difficult and inexcusable actions on the part of governmental agencies, delay, some inexplicable miscalculations about protocol. And in the midst of all this crisis, I must tell you that I believe that I have been unjustly persecuted, vilified and smeared both personally and professionally in the media and by some local, State, and Federal officials, as well as by a misinformed public. It's important for me to state that because part of my main reason for being here today is set the record straight, and to make clear that people understand that the role of an emergency manager is designed to benefit a community and to help it regain its financial solvency and stability.

There are four clear points I want to make regarding my comments with you. The first is that the decision to switch from DWSD, the Detroit Water and Sewage Department, to KWA was

a local decision. As the chairman has just shared with you, the city council voted to move from the DWSD to the KWA. This was not an immediate kind of decision made in a vacuum. There have been discussions about leaving the Detroit Water and Sewer Department and building its own water system since the time that I was there as city administrator, from 2001 to 2004. So this is not new discussion.

The second point I want to make is that I made no decision about the use of the Flint River. That was all a part of the discussions of moving from DWSD to KWA, having a 2-year period within which we had to find water. The city had to have water. In the notice from the Detroit Water and Sewage Department that they sent, they terminated the contract which left the city with no viable options for water. The Flint River had served as the backup for the DWSD water system, and it also served as the primary water source for the City of Flint prior to the mid-1960s. So this was a known commodity.

The fact that I was EM at the time that the switch was made does mean that it was my decision. And that's an important point to make because there were four emergency managers appointed during that time. I had the responsibility of having it happen on my watch because the contract terminated, but in that process I involved everyone in the discussion. We did all that we could in order to move the city forward towards a new water system.

And that brings me to my third point, and that is during my tenure as emergency manager, when complaints were raised regarding the water, the water treatment staff, everyone worked diligently to address those issues. The issues we were addressing, however, and I must make this very clear, we were related to the treatment and the chemistry of the river. Within the treatment of the chemistry of the river created residue that caused a lot of negative impact on the water. But those impacts had nothing to do with lead leeching into the pipes. We were not told of that as an issue. We were trying to create a situation of treatment for the TTHM, or the residual, if you will, for treating the water. So we did those things that were necessary.

We gave two boil water advisories at the direction of the Michigan Department of Environmental Quality. Boil water advisories are common in the administration of water systems, but after two of those boil water advisories, I began to feel that we were not getting to the heart of the issue, and had asked that we bring in a separate water consulting authority, the Viola National Group, to take a look at this and find out what was going on. Even in their analysis, there was not mention of the lead leeching into the water.

So we were treating water contaminated based on TTHM and other residual chlorides, not the lead issue. The lead issue surfaced after I completed my term as emergency manager in January of 2015. As we all know, we were grossly misled by the experts at MDEQ and EPA. And while I don't have any great pride in knowing that, I do think it is important because not only does the City of Flint depend on the regulatory agencies, but every city in the State of Michigan as well as the United States of America.

Let me just also state, Mr. Chairman and members, know that I am sad and that I am very, very deeply hurt by what has hap-

pened on my watch as emergency manager. I'm disappointed in the water crisis in Flint. As I said earlier, I have a special affinity for the community and the people residing there. I used to live in Flint when I was city administrator. I have relatives there now. I have family members there. I've worshipped in the churches alongside the parishioners in the City of Flint. I've patronized its buildings. I went back to Flint as emergency manager because I believed I could make a difference. I, too, drank the water.

As a former acting mayor of Flint, I sincerely regret what has transpired. The human nature inside of me cries out for a resolution of this matter on behalf of those who are less fortunate and do not have the capacity to make these things right. Well, we do have the capacity to do that. But this is a water treatment issue. This is not a leadership issue. This is not who's responsible, who can we blame. This is how do we fix a bad situation and make it better for a community that's now only about 60 miles from where I live, where I go, and I know the people. And not one day goes by that I do not pray for a resolution of this problem.

Mr. Chairman and members of the committee, in closing, the hard work and dedication of many will be needed to solve this problem, and to be reasonably sure that it will never happen again. It is, therefore, my prayer that everyone's attention will now turn towards solving these challenges, including formulating plans to address the aged and crumbled condition of water distribution systems that exist not only throughout Flint and Genesee County, but throughout urban core America, because until we do this, many other cities are just one expert's mistake away from an outcome similar to the Flint water crisis.

Thank you, Mr. Chairman and members of the committee. I'll be happy to answer any questions you may have.

[Prepared statement of Mr. Earley follows:]

Congress of the United States
House of Representatives
The Committee on Oversight and Government Reform
“Examining Federal Administration of the Safe Drinking Water Act in Flint,
Michigan – Part II”
Tuesday, March 15, 2016
10:00 AM Room 2154 Rayburn House Office Building
Washington, DC

Darnell Earley, ICMA-CM, MPA

Written Testimony – Mr. Darnell Earley

Introduction

My name is Darnell Earley. I am a career public servant with nearly 40 years of experience in Michigan as a city and township manager, county administrator, state government appointee, and public school and college educator. In 2008, while serving as city manager of Saginaw, Michigan, I was elected president of the International City/County Management Association ("ICMA"), a professional association of approximately 10,000 local government, academic, and student members across the United States, and in 19 other countries around the world. I served as president from 2009 until 2010. My career has predominately been focused on managing financially distressed urban communities, and I have also served on a number of state-appointed financial review teams for distressed cities in Michigan.

From 2001 until 2004, I served as City Administrator and briefly as Acting Mayor in Flint, Michigan. During my tenure, there was already significant discussion among civic and business leaders about the vision for a new water system for servicing Flint, Genesee County, and the surrounding area. The Detroit Water and Sewerage Department ("DWSD") contract had long presented logistical challenges and resulted in some of the highest water consumer rates in the county over the 50 years of its duration. The Karegnondi Water Authority ("KWA") concept's timing corresponded with the approaching 2014 expiration of the DWSD contract, and would give the City and County a better means for managing the cost, maintenance, and efficiency of its water services.

In November 2011, the first of four Emergency Managers, Michael Brown, was appointed in Flint. Edward Kurtz then served in this role from August 2012 until July 2013, and Michael Brown served a second term from that July through October 2013. I myself was appointed Emergency Manager in October 2013. By then, Flint was under state emergency management (PA 436 of 2012) for the second time in recent years.

As Emergency Manager, it was my responsibility to continue working to restore financial solvency to the city government, and to ensure that the city could sustain itself financially and organizationally following a return to local control. The issues before us

today arose amidst many other challenges that all financially distressed cities, and Flint in particular, face. Public safety, road repair and public works maintenance, blight elimination, and the implementation of the City's newly created Master Plan, among other challenges, all presented significant hurdles for Flint during the relevant period. In light of these many issues, please accept the following testimony.

Account of Events

The Decision to Switch From DWSD to KWA

The decision to purchase water from the new KWA upon termination of the existing 50-year contract with DWSD had been fully vetted and confirmed prior to my tenure as Emergency Manager in Flint. In March 2013, the Flint City Council passed the measure by a vote of 7-1. The Genesee County Drain Commissioner, Jeffrey Wright ("Wright"), required this affirmative vote by the City Council as a condition of joining the KWA and publicly applauded the decision. The lone "no" vote was from a council-member who opined that the Flint River should be used permanently and the KWA option defeated!

Then-Emergency Manager Edward Kurtz also supported the decision, signing it into effect on March 29, 2013, a full seven months before my appointment in October. (Attachment 1 – "Resolution to Purchase Capacity from the Karegnondi Water Authority"). The State Treasurer at the time, Andy Dillon, approved and authorized the move, citing: support of the deal from Mayor Dayne Walling, the Flint City Council, and the Michigan Department of Environmental Quality ("MDEQ"); the unique opportunity for regional collaboration; and the desperately needed costs savings the deal would bring to Flint. (Attachment 2 – "Letter from Treasurer Andy Dillon to Edward Kurtz"). For a water system that, as of June 30, 2012, had a deficit of \$8,758,091, the decision offered both short- and long-term opportunities to lower costs.

For example, it allowed the City to update the Flint Water Plant without seeking outside funds and would pass along rates savings to individual citizens and business

owners. Once this plan was fully authorized in April 2013, DWSD terminated its water contract with Flint, effective April 2014.

Before I served as Emergency Manager, there was already overwhelming consensus that the Flint River would be used as an interim water source during construction of the new KWA plant. Indeed, a subsequent order signed by Kurtz on June 26, 2013, speaks specifically to “placing the Flint Water Plant into operation using the Flint River as a primary drinking water source for approximately two years and then converting to KWA delivered lake water when available” (Attachment 3 – “Resolution to Place the Flint Water Plant into Operation”). I have read recently released correspondence from Governor Snyder’s office further pointing to such a consensus, that the decision to use the Flint River was pushed locally by the City Council, Mayor Walling, city staff, and the state. Genesee County officials were also aware of this plan. The overall decision favored using the Flint River exclusively over a proposed blend of Flint River and Lake Huron water because the river itself had been used as a capable back-up water supply for decades, and had been consistently tested and evaluated on a quarterly basis during that time. The Flint River had also served as the primary water source for the city for decades prior to the contract with DWSD. In addition, an engineering firm, Rowe Professional Services Company, independently analyzed the Flint River as an alternative water source. The City’s water treatment staff informed me that Rowe’s analysis had been submitted to and approved by MDEQ.

Tenure as Flint Emergency Manager: October 2013 – January 2015

Upon taking office, I outlined the City’s goals in a 7-Point Transition Management Plan. These goals were approved by the Mayor and City Council, and included:

- Eliminating Flint’s \$25 million budget deficit;
- Establishing a five-year financial forecast as a forward-planning schedule for Flint’s leaders to track the City’s funds, budgets, and expenditures;

- Establishing a Blue Ribbon Committee on Governance which resulted in a charter review commission to determine whether Flint should remain under a “strong mayor” system or transfer to a council/manager form of government. Many of Flint’s financial and organizational issues stemmed from the former, as strong mayors tended to appoint political rather than trained and experienced leaders to head its departments; those appointees often lacked the political will to make the difficult decisions necessary for crisis management.
- Consolidating the City’s staff, including its courts and its 9-1-1 dispatch office, to increase efficiency and reduce unnecessary expenses;
- Addressing and eliminating the City’s legacy costs associated with healthcare and retirement;
- Having the strategic plan approved by the City itself and not simply forced into execution by the Emergency Manager; and
- Ensuring that, when the City was ready to return to local control from receivership, it could sustain itself for years to come.

Additionally, while I was appointed Emergency Manager to return Flint to financial solvency, I was nonetheless confronted by the need to curb crime in the community and to oversee the transition of the City’s water supply from DWSD to the Flint River and eventually to KWA. For example, as early as October 18, 2013, I issued a press release assuring residents that subsequent changes in water rates would be transparently assessed and communicated.

Between October 2013 and April 2014, the suggestion of renewing a long-term deal with DWSD was raised and carefully reviewed. In my correspondence with DWSD Director Sue McCormick, dated March 7, 2014, I informed her that, following DWSD’s notice of termination in April 2013, the City had already fully committed to using the Flint River as an interim source until the KWA could be constructed. (Attachment 4 – “Letter from Darnell Earley to DWSD Director Sue McCormick”). I reminded her that we expected the Flint Water Treatment Plant to be fully operational and capable of

treating the river water by April 2014, but reserved interest in negotiating an interim contract should our plans encounter significant delays. We of course ended up not requiring such an interim arrangement, but the reality of the situation was that, at that moment, entering into another full time, long term contract with DWSD was financially impossible – the City had already invested millions of dollars into the KWA arrangement and simply did not have the money in its coffers for such a deal, nor could the state allocate sufficient support.

And, to be clear, I never personally received any offer of discounted rates for a short term contract from DWSD once complaints about the Flint River water surfaced, nor was I notified of any such offer. Indeed, a letter from DWSD dated January 12, 2015¹, confirmed, per Gerald Ambrose’s conservative estimates, that reconnecting to its Lake Huron source would immediately increase the City’s fixed costs alone by \$846,700 per month, or \$10,160,400 per year. (Attachment 5 – “Letter from Sue McCormick to Darnell Earley and Dayne Walling”; Attachment 6 – “Memorandum from Gerald Ambrose to Deputy Treasurer Wayne Workman”). In addition, the actual water purchase cost would average more than \$1 million per month, plus associated costs. This January 2015 proposal was an unsustainable financial fantasy, especially given that one of my first orders as Emergency Manager, pursuant to the City’s request and the Treasurer’s approval, was to sell a section of pipeline to the Genesee County Drain Commissioner that would have had to be used for any such reconnection to DWSD. (Attachment 7 – “Press Release: Michigan Department of Treasury Approves Sale of Pipeline Section”).

As the project progressed, I met several times with Wright, the Flint Water Department staff, the director of the Water Department, and water treatment plant staff. When I asked whether the plant could service water on a 24/7 basis, the Water Department staff repeatedly assured me that the project was proceeding accordingly with MDEQ’s regulatory guidance. At no time did the Water Department staff, Mayor

¹ While DWSD did address this letter to me in my capacity as Emergency Manager, I did not receive it – the letter was dated January 12, 2015, my last day in office. It is my understanding that my successor, Gerald Ambrose, responded to that letter.

Walling, the City Council, or the state petition me to halt, slow, or otherwise modify the implementation of the plan. Nor at any point and time during the preparation for the switch, did I receive any information that would even remotely indicate that the use of the Flint River was unsafe in any way.

Instead, those at the local level were pleased with the project's value as well as the independence from DWSD that it represented. Per the necessary requirements, the City applied for a permit with MDEQ for its Water Treatment Plant to process the river water for distribution throughout the community; MDEQ approved that permit on or around April 10, 2014.

The water source was switched from DWSD's Lake Huron water to the Flint River on April 25, 2014. (Attachment 8 – "Press Release: City of Flint Begins Using Flint River as Temporary Primary Water Source"). The crossover was widely praised and marked by a public ceremony, at which Mayor Walling flipped the switch and exclaimed, "It's regular, good, pure, drinking water, and it's right in our backyard. [T]his is the first step in the right direction for Flint, as we take this monumental step forward in controlling the future of our community's most precious resource." Public Works Director Howard Croft ("Croft") and others confirmed that the water was healthy and completely safe for consumption. Indeed, I had no information to doubt the veracity of the reports I was receiving regarding the switch, or the readiness of the treatment plant.

Beginning in April 2014, I received weekly briefings on the water distribution system's acclamation to river water from Croft. I had no reason to doubt his qualifications or the substance of his briefings up to that date. Keeping with my leadership philosophy of including local leaders to help mend a distressed community, I signed an Order on June 20, 2014, increasing Mayor Walling's responsibilities (and salary) to include day-to-day management of the City's Department of Public Works. This, of course, covered the Water Treatment Plant and the City's water distribution system. (Attachment 12 – "Emergency Manager Order No. 15"). Former Emergency Manager Kurtz had authorized similar additional responsibilities for Mayor Walling in April 2013.

However, tests in August 2014 indicated the presence of fecal and total coliform in parts of the water distribution system. Croft notified me of these test results, and at my request, he set up a meeting with the two of us, water treatment staff, and the MDEQ. Given the complexity of the scientific data behind the test results, I required MDEQ's interpretation and an explanation regarding what was being found in the water. I was informed that these test results could be linked to a number of sources, such as water main breaks, low pressure in the system, cross connection, an unauthorized connection to the water system, or sampling error.

I orchestrated these meetings out of concern for the people of Flint, even though I had delegated the responsibility to oversee Flint's water system to Mayor Walling only two months prior. Indeed, this issue was now out of my realm of management and should have been squarely in the hands of local leaders – yet, I assisted as I could while addressing the many additional financial challenges confronting me as Emergency Manager.

Per MDEQ standards, the City issued a boil water advisory to residents so that further testing could be performed. While this advisory was in effect, MDEQ and the water treatment staff added chlorine and fresh water to the system. I was advised by these experts that total coliform was generally harmless and that it could be eradicated with these measures. Indeed, the advisory was lifted after a few days of testing revealed no sign of coliform bacteria in the samples. But, only one month later, in September 2014, tests revealed yet another positive indication of total coliform in a localized portion of the distribution system. I requested and attended another meeting with Croft, the water treatment staff, and MDEQ. This time, I was advised that low usage may have caused the contaminants to accumulate. Another boil water advisory was issued, and again, MDEQ and the water treatment staff determined to add chlorine and increase flushing. During both of these joint meetings, MDEQ shared data reports outlining chemical testing results with me – I could only understand these reports in conjunction with the scientific interpretations MDEQ and the treatment staff provided to me. And, at any rate, MDEQ and the staff assuaged my concerns by describing these episodes as natural occurrences,

harmless to human health and geographically limited in nature. While I had general concerns, I had no basis for skepticism as to the water's quality or MDEQ and the water treatment staff's ability to treat it based on the information conveyed to me by these experts. At absolutely no time during these boil water advisories were the issues of corrosion control or lead leaching brought to my attention.

In both boil water advisory episodes, once the City's staff took these steps, MDEQ certified that water from all testing sites was well within acceptable guidelines. I had no reason to doubt the staff's actions as water treatment professionals, and certainly had no reason to question the MDEQ's expert certification. To be sure, I kept the Governor and Treasurer fully apprised of any situational knowledge I held through regular meetings with both offices. I additionally ordered Croft to prepare and circulate a formal memorandum to Harvey Hollins in the Governor's office. (Attachment 9 – "Email from Darnell Earley to Harvey Hollins and Attached Memorandum"). Croft's memorandum confirmed our September 8, 2014, meeting between City officials, the Mayor, and MDEQ staff, via conference call. As a result of that meeting, it was correctly determined that a broken valve had prevented the adequate circulation of fresh water into the distribution system, and that repairing this valve erased nearly all of the symptoms within twenty-four hours.

I additionally sought to address the growing concerns of water quality in September and October of 2014 by monitoring hydrant flushing and repairs to the City's broken water mains and valves. The water treatment staff maintained that opening the fire hydrants to flush the system would enhance circulation and reduce stagnation in the system. As for the water line repairs, they were a key part of the City's newly adopted Master Plan and the staff deemed them to be long overdue.

Nonetheless, my confidence in the water treatment staff and the guidance they were receiving from MDEQ began to wane after the second boil water advisory was issued, and after the City was notified it had violated the federal limit for trihalomethanes ("TTHM") in the water. It was clear that, despite the assurances I received, the treatment solutions relayed to me were inappropriate and ineffective.

Thus, because the analysis of our Flint water treatment staff and MDEQ seemed to be failing, I sought out private industry experts in water treatment to analyze our situation and propose solutions. In the fall of 2014, I ordered a Request for Proposal issued, and the City did so, just after I left in January 2015. Since I was successfully completing my tenure in Flint and the City was preparing for return to local control, I was appointed Emergency Manager of Detroit Public Schools by Governor Snyder. The City subsequently engaged Veolia North America to review the incoming contamination data and analyze potential causes. Veolia's resulting analysis and report was not released until March 2015.

The report commended the City's proactive efforts taken under my watch. For example, the City had reached out to engineering firms and specialty vendors, worked with the medical community, established lines of communication to receive public complaints, and offered to perform tests at individual residences. However, Veolia noted that a harsh winter heightened the risk of corrosion to the aging water distribution system. Thus, the report recommended adding polyphosphates to the water to combat corrosion, but it made no mention of the risk of lead in Flint's water. At no point during my tenure had recommendations to add corrosion control been suggested, recommended, or placed in front of me for action.

During my fifteen months in Flint, the City and I, together, attained a tremendous amount of our original goals in order to return the community to a stable, sustainable, and safe home for its residents. For one, we directed financial and human resources toward the implementation of the City's new Master Plan. We also eliminated the structural budget deficit and created a five-year financial forecast to ensure that, if followed, Flint remained financially solvent. We addressed our healthcare-related legacy costs, slashed expenses associated with previous 9-1-1 dispatch inefficiencies, and reduced the crime rate by bringing the police department under new leadership and by partnering with the Michigan State Police.

Lastly, and perhaps most significantly, I established a Blue Ribbon Committee which resulted in an elected charter review commission to review the City's charter. As

mentioned above, historically, many of Flint's struggles over the years flowed from poor management on the part of those appointed under a "strong mayor" system of governance. It was thus imperative, before I left office, to create a review process by which the people of Flint could decide for themselves whether they wished to remain living under this "strong mayor" system which had twice resulted in state receivership, or to transfer authority to a more comprehensive, competent, and management oriented structure for city administration. Too long had the City suffered from the appointment of unqualified political operatives and this last measure gave its people an opportunity to take control responsibly, and demand more from its elected and appointed officials.

These accomplishments must not be overlooked. Together, the people of Flint and I inherited yet another financial emergency. However, through the process of state intervention we made enormous strides toward returning to the City a stronger and more resilient government. This was my charge as Emergency Manager, as spelled out in Public Act 436 of 2012.

Role of MDEQ and EPA

Recent coverage of Flint's water crisis has revealed that myself and others were grossly misled by the experts at MDEQ and EPA. We were all totally dependent on their regulatory analysis – indeed it would have been unreasonable, given what I was being told at the time, to reject their guidance and attempt to make independent rulings on a highly sophisticated and scientific subject matter.

For example, General Motors' ("GM") October 2014 decision to terminate water service from the City presented an ideal opportunity for MDEQ to question the corrosive effects of its prescribed chlorine treatment. But MDEQ did not. In announcing its decision, GM cited concerns that the chloride levels in the water were corroding its raw engine blocks. It was explained, in a meeting with GM representatives, that the additional chlorine was prescribed by MDEQ to combat contaminants in the water, but at no time did GM's concerns raise any doubt in our mind that the water was unsafe for human consumption. I relied on the guidance from MDEQ experts, who maintained that

although the chloride levels were above acceptable manufacturing limits, this did not present a health concern for human consumption and use. And while I could only act upon what I was told at the time by scientific experts on water treatment, the issues of corrosion and lead were never revealed to me by any of them as a part of the problem.

Not only did MDEQ miss its opportunity to identify serious pipe corrosion problems, but it continued to ignore and reject warning signs long after I left Flint. Despite multiple emphatic warnings from EPA, MDEQ never required the Flint Water Treatment Plant to exercise optimized corrosion control until late 2015, and its water monitoring policy masked the resulting lead contamination by pre-flushing the system prior to taking samples.

Preliminary conclusions issued by Governor Snyder's Flint Water Advisory Task Force echo the sheer and gross reality of the situation: that myself and others relied on incorrect guidance from MDEQ experts to devastating effects. (Attachment 10 – "Letter from Flint Advisory Task Force to Governor Snyder"). Not only did MDEQ misapply federal safe drinking water regulations, but it fostered a culture of bare minimum, technical compliance, blinding it to many indications that the public's drinking water was compromised. The warning signs were there. EPA staffer Miguel Del Toral raised corrosion and lead concerns both in February and June of 2015. Virginia Tech's Marc Edwards reported astonishing levels of lead in Flint's drinking water. Still, MDEQ completely discounted credible indications that it had misinterpreted the appropriate standards, misinformed the City and its staff, and misled the public.

It took until October 2015 for MDEQ to admit these failures. Had MDEQ realized its mistakes in January 2015, I would have at least been in a position as Emergency Manager to immediately direct implementation of the necessary corrosion controls. Instead, by its own admission, MDEQ had been misapplying the Lead and Copper Rule's standards for not only ten months after I left Flint, but a full eighteen months after it permitted the Flint Water Plant to distribute water to Flint's citizens, in April 2014. MDEQ's inexcusable failure, concealed for months, foisted a systemic failure on everyone involved.

However, EPA should not escape criticism merely because MDEQ misapplied the safe drinking water regulations. EPA Regional Director Susan Hedman downplayed and rejected Del Toral's June 2015 memorandum. Furthermore, even if I had questioned the advice of our state and local experts, and even if I had taken it upon myself to inquire about corrosion and lead leaching, neither of which were brought to my attention, EPA itself has acknowledged the corrosion control provisions of the Lead and Copper Rule were subject to interpretation and ambiguous. It is my sincerest hope that the Agency's subsequent clarification will prevent other communities across our nation from suffering the same fate as Flint. Unfortunately, it came too late to alter the circumstances we discuss here today.

These unthinkable errors all underscore that Flint's crisis resulted from improper treatment of the water, an issue which fell squarely in the bailiwick of MDEQ and EPA. The decision to switch to KWA and to use the Flint River in the interim had nothing to do with this simple fact: when the water left the Flint Water Treatment Plant, it contained no corrosion controls. We relied on the experts to verify that the water would not pose any threat to the community--the experts failed all of us.

Switching Back to DWSD Service

The Flint City Council voted in late March 2015 to cease using the Flint River and to return to DWSD. Yet, it took seven months after their vote, and ten months after I left office as Emergency Manager, to reconnect to DWSD. This reconnect was only made possible through a series of grants, requests, and options that were unavailable to the City until, at the earliest, February 2015. That month, Governor Snyder announced \$2 million in grants to enhance Flint's water system through waste management, leak detection, and pipe assessments. (Attachment 11 – "Press Release: Governor Snyder Awards Flint \$2 Million for Water System Improvements"). Despite this grant, the City was still unable to reconnect by September 2015, as Mayor Walling requested a staggering additional \$30 million in aid to guarantee safe drinking water in Flint.

In October, DWSD's proposal included dramatically more gracious terms than any proffered to me while serving as Emergency Manager. For example, DWSD finally offered a short term and immediate reconnect until KWA was fully operational, without reconnect fees. DWSD also offered a fixed monthly rate of \$662,100 and a wholesale rate adjustment. Had these funds and proposals been available in 2013 and 2014, a reconnect to DWSD during that period may have been feasible and even desirable. However, given the raw economics at play, such an arrangement was simply not possible until well into 2015.

Conclusion

Overall, these shortcomings symbolize not an excuse, but an explanation – an explanation of the factually based realities faced by me as Flint's Emergency Manager from October 2013 until January 2015. The reality is such, that with so many challenges facing distressed urban areas, like Flint, an Emergency Manager must rely on the experts around him, especially when matters of such scientific complexity as water contamination and treatment are at the forefront. At the time, I deeply believed the information offered to me was accurate and sound, but, in relying on experts, the solutions I oversaw failed to ameliorate the troubles plaguing Flint's water.

I relied heavily upon people at all levels of government, specifically MDEQ and EPA, in their roles as regulatory agencies, and the Flint water treatment staff as the operators to advise me and to examine the issues we faced in switching to the Flint River. As a part of that group, despite lacking the necessary water treatment expertise, I now wish that I had been more probative in my approach in delving deeper into the explanations I was receiving about what was being done, what needed to be done, and when it would be done. In hindsight, it is always easier to diagnose what needed to be done or what else could have been done based upon the consequences, unintended or otherwise.

I challenge this Committee and its members: what would any of you have done differently? How should I have told the City's water treatment staff, MDEQ, or even

EPA that they were wrong in their analysis of contaminants, water treatment, or corrosion control? Given that these were highly complex environmental issues, it was more than reasonable for me to rely on these experts available to us. And, if this Committee is sincerely interested in uncovering the truth behind Flint's water crisis, it will call forward all the decisionmakers, including the other Emergency Managers, to testify. Do not stop with this panel, or the panel to be heard on March 17 – get to the whole truth. The facts *must* matter!

I do not relish the above confirmations that the experts failed me and the residents of Flint, nor do I celebrate them, but as more and more reports of Flint citizens exposed to lead are confirmed, I cannot deny that the failures of these experts resulted in the Flint water crisis.

Not one day goes by in which I do not think about, and pray for, those afflicted families in Flint, and at no time during my tenure as Emergency Manager did I ever wake up and consciously decide to deny them, or otherwise ignore their right to quality drinking water. To the contrary, as a faithful and committed public servant, I strived to return to them the financially stronger government they deserved while overseeing all of Flint's service delivery systems.

The hard work and dedication of many will be needed to solve this problem and to be reasonably sure that it will never happen again. It is therefore my prayer that everyone's attention will now turn toward solving these challenges, including formulating plans to address the aged and crumbling condition of water distribution systems that exist not only throughout Flint and Genesee County, but also in virtually every urban-core city in America. Until we do this, many other cities are just one "expert's" mistake away from a fate similar to Flint's.

Thank You.

Attachments

Attachment	Description	Date
1	Resolution to Purchase Capacity from the Karegnondi Water Authority	3.29.2013
2	Letter from Treasurer Andy Dillon to Edward Kurtz	4.11.2013
3	Resolution to Place the Flint Water Plant into Operation	6.26.2013
4	Letter from Darnell Earley to DWSD Director Sue McCormick	3.7.2014
5	Letter from Sue McCormick to Darnell Earley and Dayne Walling	1.12.2015
6	Memorandum from Gerald Ambrose to Deputy Treasurer Wayne Workman	3.3.2015
7	Press Release: Michigan Department of Treasury Approves Sale of Pipeline Section	6.13.2014
8	Press Release: City of Flint Begins Using Flint River as Temporary Primary Water Source	4.25.2014
9	Email from Darnell Earley to Harvey Hollins and Attached Memorandum	9.17.2014
10	Letter from Flint Advisory Task Force to Governor Snyder	12.29.2015
11	Press Release: Governor Snyder Awards Flint \$2 Million for Water System Improvements	2.3.2015
12	Order Number 15 - Mayor Walling's Increased Responsibility and Compensation	6.20.2014

Attachment 1

**Resolution to Purchase Capacity from the
Karegnondi Water Authority 3.29.2013**

C10

EM SUBMISSION NO.: 2013EM041PRESENTED: 3-28-13ADOPTED: 3-29-13

BY THE EMERGENCY MANAGER:

**RESOLUTION TO PURCHASE CAPACITY FROM
KAREGNONDI WATER AUTHORITY**

The Karegnondi Water Authority (KWA) is a governmental consortium of cities and counties in southeastern Michigan that was created to build a water pipeline that will provide water from Lake Huron to interested communities in Sanilac, Lapeer, and Genesee counties. The incorporating bodies that created the KWA are Sanilac County, Lapeer County, Genesee County, the City of Flint, and the City of Lapeer.

The City of Flint is currently in a year to year contract with the City of Detroit for the purchase of water. A study was conducted that projected that staying with Detroit will cost the region \$2.1 billion over the next 25 years. In contrast, if the region builds its own pipeline, the projected costs are \$1.9 billion over the same period. After the initial 25 year period, the projected costs would be less than 25% of the projected water costs from Detroit.

In order to build the pipeline, the KWA needs commitment from its members regarding the capacity that each member will purchase in the pipeline. The KWA is allowed to withdraw 85 million gallons of water per day. Capacity is available to members in increments of 1 million gallons per day known as units. For each unit of capacity that a member purchases, the buyer shall pay to the KWA a one time fee of \$32,300.00. Additionally, the buyer shall pay to the KWA not less than \$32,300.00 per unit per year until such time as water is made available to the buyer. After water is made available, the buyer shall pay to the KWA an estimated amount not to exceed \$355,300.00 per unit per year until such time that the bonds are paid in full. If it is determined that the costs per unit will exceed \$355,300.00 the buyer has a right to cancel the contract.

The purchase of capacity along with the payment of other costs necessary to operate the pipeline gives the member a right to water for sale to its customers. The buyer has a right to resell capacity and water rights. Each party entering into a capacity contract shall also be entitled to appoint additional board members equal to the party's percentage share of the total capacity under contract.

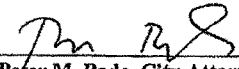
It is in the long term best interests of the City of Flint to enter into a contract with the KWA to purchase up to eighteen (18) units of capacity.

IT IS RESOLVED that City officials are authorized to enter into a contract with KWA to purchase up to eighteen (18) units of capacity.

IT IS FURTHER RESOLVED that the City Administrator is authorized to provide KWA information needed to administer the contract and, with approval of the Chief Legal Officer, to make minor (non-material) modifications to the contract.

APPROVED AS TO FORM:

APPROVED AS TO FINANCE:


Peter M. Bade, City Attorney

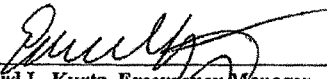

For Gerald Ambrose, Finance Director

EM DISPOSITION:

ENACT ☒

FAIL ☐

DATED 3-29-13


Edward L. Kurtz, Emergency Manager

Attachment 2

**Letter from Treasurer Andy Dillon to Edward
Kurtz 4.11.2013**

89 (Rev. 02-11)



STATE OF MICHIGAN
DEPARTMENT OF TREASURY
LANSING

RICK SNYDER
GOVERNOR

ANDY DILLON
STATE TREASURER

Mr. Edward Kurtz
Emergency Manager
City of Flint
1101 South Saginaw Street
Flint, MI 48502

April 11, 2013

Dear Mr. Kurtz:

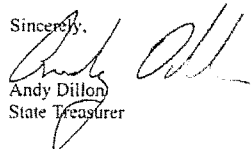
Thank you for your March 29, 2013 letter, which is attached for reference. As the Emergency Manager for the City of Flint ("Flint" or "City"), you have asked for my concurrence, pursuant to Public Act 436 of 2012, the Local Financial Stability and Choice Act, to authorize a contract in excess of \$50,000.00 not subject to competitive bidding. This request was related to the City entering into an agreement with the Karegnondi Water Authority (KWA) for provision of raw water for the City.

In considering your request, I took note of the following facts in support of Flint joining KWA. First, there is widespread support in the City for this move, including the support of the Mayor, the City Council, and the Emergency Manager. Second, this move will provide a unique opportunity for the City and County to partner on an important project, which will hopefully lead to future regional collaboration. Third, the Department of Environmental Quality is supportive of the City participating in the KWA project. Finally, your representations that this deal will lead to substantial savings for the City over the coming decades, savings that are desperately needed to help with the turnaround of the City of Flint.

It is my understanding that the Detroit Water and Sewer Department is making a final best offer to Genesee County and the City of Flint next Monday, April 15, 2013. As such, this approval will be effective at 5 pm on April 16, 2013 after receiving written notice from the City that either no such offer was presented to the county and the City or that an offer was received and was rejected in good faith based upon specified objections.

For the reasons described above and subject to the conditions set forth herein, pursuant to Section 12 (3) of PA 436 of 2012, I am authorizing you to proceed with adopting the resolution and entering into a contract with KWA.

Sincerely,


Andy Dillon
State Treasurer

Attachment 3

**Resolution to Place the Flint Water Plant into
Operation 6.26.2013**

EM SUBMISSION NO.: 2013 Em140PRESENTED: 6-21-13ADOPTED: 6-26-13

BY THE EMERGENCY MANAGER:

Resolution Authorizing Approval to Enter into a Professional Engineering Services Contract for the Implementation of Placing the Flint Water Plant into Operation

The City of Flint requires professional engineering services for assistance in placing the Flint Water Plant into operation using the Flint River as a primary drinking water source for approximately two years and then converting to KWA delivered lake water when available at a cost of \$171,000.00; and

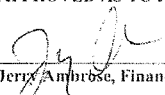
The City of Flint is seeking to enter into a sole source contract with Lockwood, Andrews & Newnam, Inc., with funding coming from the Utilities Administration FY14 account in 591-536.100-801.000; and

IT IS RESOLVED. That appropriate City Officials are authorized to enter into a Professional Engineering Services contract with Lockwood, Andrews & Newnam, Inc., for the administration of placing the Flint Water Plant into operation using the Flint River as a primary drinking water source at a cost of \$171,000.00. Funding will come from the Utilities Administration FY14 account 591-536.100-801.000

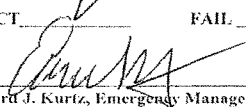
APPROVED AS TO FORM:


 Peter M. Bade, Chief Legal Officer

APPROVED AS TO FINANCE:


 Jerix Ambrose, Finance Director
EM DISPOSITION:ENACT ✓

FAIL _____

DATED 6-26-13

 Edward J. Kurtz, Emergency Manager

RESOLUTION STAFF REVIEW

Date: June 17, 2013

Agenda Item Title: Resolution Authorizing Approval to Enter into a Professional Engineering Services Contract for the implementation of Placing the Flint Water Plant into Operation

Prepared by:

Yolanda Gray, Utilities Accounting Coordinator

Summary of Proposed Action:

Resolution authorizing the City of Flint to enter into a sole source contract with Lockwood, Andrews & Newnam for professional engineering services to place the Flint Water Plant into operation using the Flint River as a primary drinking water source.

Financial Implications:

\$171,000.00

Pre-encumbered?: Yes ☐ No ☒ Requisition: Funding will be available in the FY14 Utilities Administration budget.

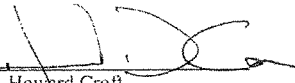
Account No. FY14 591-536,100-801.000

Other implications (i.e. collective bargaining):

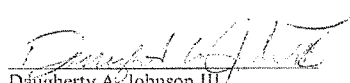
No other implications are known at this time.

Staff Recommendation: Recommend Approval

Staff Person



Howard Croft
Infrastructure & Development Director



Daugherty A. Johnson III
Utilities Administrator

Attachment 4

**Letter from Darnell Earley to DWSD Director
Sue McCormick 3.7.2014**



CITY OF FLINT
OFFICE OF THE EMERGENCY MANAGER



Darnell Earley, ICMA-CM, MPA
Emergency Manager

ELECTRONIC COMMUNICATION

March 7, 2014

Ms. Sue McCormick
Detroit Water and Sewer Department
Detroit, Michigan

RE: DWSD Water Rates

Dear Ms. McCormick:

Thank you for the correspondence dated February 12, 2014 which provides Flint with the option of continuing to purchase water from DWSD following the termination of the current contract as of April 17, 2014.

Following DWSD's April 17, 2013 notice of termination of the water service contract between the City of Flint and DWSD, the City of Flint has actively pursued using the Flint River as a temporary water source while the KWA pipeline is being constructed. We expect that the Flint Water Treatment Plant will be fully operational and capable of treating Flint River water prior to the date of termination. In that case, there will be no need for Flint to continue purchasing water to serve its residents and businesses after April 17, 2014.

We are aware that Genesee County has been in negotiations with DWSD to purchase water from DWSD following the termination of our contract, and we understand that an agreement may be imminent. Should that occur, there would be no further need for the City to discuss with DWSD any continuing purchase of water. Should that not occur, however, we would be interested, if Genesee County were to so request, to purchase water from DWSD for some period of time. In such an event, our demand for water would be only for the amount necessary to provide Genesee County with water. That amount would be approximately half of the amount Flint is currently purchasing from DWSD.

Ms. Sue McCormick
March 7, 2014
Page 2

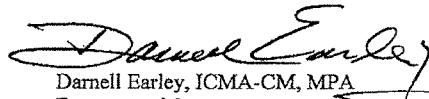
However, in the very unlikely event that the City of Flint is not able to draw water from the Flint River no later than April 17, 2014, then the City would like the option of continuing to purchase water from DWSD for a period of time, up to the time water is available from KWA.

Consequently, I am requesting that you clarify your proposal for the City of Flint to continue purchasing water from DWSD under the following scenarios:

- Flint, upon the request of Genesee County, purchases water for sale to Genesee County for up to 3 years, beginning April 17, 2014, in an amount approximately 50% of the volume currently purchased by the City;
- Flint purchases water from DWSD in approximately the same volume as currently, for up to 3 years, beginning April 17, 2014, with the ability to reduce that volume by up to 50% during that period, upon 30 days notice to DWSD
- Flint purchases water from DWSD in approximately the same volume as currently, for up to 3 years, beginning April 17, 2014, with the ability to reduce that volume by up to 50% during that period, upon 30 days notice to DWSD, and further, to terminate the reduced volume purchase should Genesee County and DWSD reach an agreement whereby Genesee County directly purchases water from DWSD.

Thank you and please contact me if you have any questions. I look forward to your response.

Sincerely,



Darnell Earley, ICMA-CM, MPA
Emergency Manager
City of Flint

Attachment 5

**Letter from Sue McCormick to Darnell Earley
and Dayne Walling 1.12.2015**

CITY OF DETROIT
WATER AND SEWERAGE DEPARTMENT
OFFICE OF THE DIRECTOR

735 RANDOLPH STREET
DETROIT, MICHIGAN 48226-2830
WWW.DETROITMI.GOV

WyanH/Saxton
RB/Dm/EC/DP
JLW/VB
EJS

January 12, 2015

Mr. Darnell Earley, Emergency Manager
Mr. Dayne Walling, Mayor
City of Flint
1101 S. Saginaw Street
Flint, Michigan 48502

Dear Messrs. Earley and Walling:

Regarding: Re-establishing Detroit Water and Sewerage Department Water Service

I was recently referred to a report in MLive in which there was reference to the City of Flint (City) potentially re-visiting its decision to utilize Flint River water as a water source prior to the completion of the KWA pipeline. Within that report, there appeared to be some incorrect assumptions about the cost of water service from the Detroit Water and Sewerage Department (DWSD). I write to you today to express the willingness of DWSD to resume delivery of drinking water to the City and its residents. We have monitored the water quality issues that have troubled the City since May, 2014, and understand that many of the difficulties stem from the limited access to source water. Please know that DWSD is ready, willing and able to resume service to the City if you so desire.

If the City is interested in a long term arrangement with DWSD, with this goal in mind, we offer that the City can immediately reconnect to the DWSD system at no additional charge to the City and at the same "expired contract" rate that the City was paying in April, 2014, modified to reflect the 4% increase experienced by all other wholesale customers in July, 2014. The resulting rate structure is a fixed monthly rate of \$846,700 and a commodity rate of \$14.92/Mcf. In order to facilitate contract negotiations, DWSD is willing to extend this rate to the City (and to Genesee County as the City's partner and former customer) until June 30, 2015.

We at DWSD take very seriously the matter of drinking water quality, and we are as concerned as you must be by the continued quality issues faced by the City. We are confident that DWSD can provide you with a solution for reliable, safe, high quality water on an expeditious timeline. Please contact me directly at (313) 224-4701 if you wish to discuss this offer further.

Sincerely yours,

Sue F. McCormick
Sue F. McCormick
Director

cc: Governor Rick Snyder -- (via U.S. Mail)
Flint City Council, (via U.S. Mail and Electronic Mail)
Eric Meys; Jacqueline Poplar (c/o Jennie Johnson); Kerry Nelson (c/o Jennie Johnson); Joshua Freeman;
Wantwaz Davis; Herbert Winfrey (c/o Jennie Johnson); Monica Galloway, Vicki VanBuren; Scott
Kincaid (c/o Jennie Johnson)
Jeff Wright, GDCD -- (via Electronic Mail)
Mayor Mike Duggan (via Electronic Mail)
James Fausano, BOWC (via Electronic Mail)
Robert Daddow, GLWA (via Electronic Mail)

Attachment 6

**Memorandum from Gerald Ambrose to Deputy
Treasurer Wayne Workman 3.3.2015**



CITY OF FLINT
OFFICE OF THE EMERGENCY MANAGER



Gerald Ambrose
Emergency Manager

TO: Wayne Workman, Deputy Treasurer
Treasury Department
State of Michigan

FROM: Jerry Ambrose, Emergency Manager
City of Flint

DATE: March 3, 2015

As the Emergency Manager for the City of Flint, I am charged with restoring the City government to financial solvency, and working to assure that the City moves forward on a financially sustainable basis. The steps taken over the past three years have been difficult. Taxes and fees have been raised, services and workforce reduced, and ongoing costs, including legacy costs, have been constrained.

The current controversy surrounding the provision of water, and the path for resolution, has a potentially significant impact on the progress that is being made. I am satisfied that the water provided to Flint users today is within all MDEQ and EPA guidelines, as evidenced by the most recent water quality results conducted for MDEQ. We have a continuing commitment to maintain water safety and to improve water quality, and have dedicated resources to assure this commitment will be made.

The oft-repeated suggestion that the City should return to DWSD, even for a short period of time, would, in my judgment, have extremely negative financial consequences to the water system, and consequently to the rate payers. By the most conservative estimates, such a move would increase costs by at least \$12 million annually, with that amount achieved only by eliminating virtually all budgeted improvements in the system. For a system with Unrestricted Assets of only \$740,745, according to the June 30, 2014 audited financial statements, the only recourse within the City's control would be to increase revenues significantly. And in my judgment, that would come from raising rates for water by 30% or more. Further, changing the *source* of the city's water would not necessarily change any of the *aesthetics* of the water, including odor and discoloration, since those appear to be directly related to the aging pipes and other infrastructure that carry water from the treatment facility to our customers.

Wayne Workman
 March 3, 2015
 Page 2

This direction of discussion also deviates from what, in my judgment, should be the focus: How can we not only operate and maintain a system to assure the delivery of safe and quality water dependably, but significantly reduce the cost of water and sewer to the users? At an average of \$149 per month for water and sewer service for a residential user, the cost is extremely high in comparison to surrounding areas, as well as most areas across the state, and creates a significant financial burden for many users. In my judgment, we should all be concentrating on how to reduce rates by 50% or more. Unfortunately, there are no easy or evident answers, and continuation of the status will be an impediment to the sustainable recovery of the City of Flint. It is a conversation that I expect we will have with the recently created Water Quality Advisory Committee.

My reasoning for this conclusion is as follows:

One of the decisions made in the context of beginning to eliminate deficits and to restore financial stability to the City of Flint was to increase water and sewer rates significantly -- the only choice available to financially stabilize a system that as of June 30, 2012, had a deficit of \$8,758,091. Another was to leave DWDS for the KWA because it offered the opportunity to lower future rate increases. A third decision was to utilize the Flint River on an interim basis when DWSD unilaterally terminated the City's contract for water purchase. That decision was made because it also offered an immediate cost savings opportunity which translated into the ability to upgrade the Water Treatment Plant without having to seek financing. It was a reasonable decision because of our experience in using the river in a back-up capacity, including test runs on a quarterly basis for several decades.

Unfortunately, the switch to the river as a primary source was more challenging than anticipated, and the harsh winter of 2013-2014 resulted in much more damage to the aging water infrastructure than in previous years. The result was the issuance of required notices that water exceeded established guidelines for safety as it could affect certain vulnerable populations, and some users of the system experienced unpleasant odors and discoloration. Some users also appeared to have had some negative reactions to the new source of water. However, as soon as the test results were known, City staff took immediate actions to address the concerns. These actions are evidenced today by the fact that MDEQ has certified that our most recent testing shows water from all testing sites to be well within acceptable guidelines. Additionally, the City is continuing to taking the necessary actions to assure that the water supply remains safe and that water quality continues to improve.

As the City has moved to address the situation, the suggestion continues to be made that the City should re-engage with DWSD and purchase water at least until the KWA pipeline is supplying water. As evidenced by the most recent letter from DWSD, such a decision would immediately increase the City's cost by \$846,700 per month, or \$10,160,400 per year, just for the fixed cost portion of the price. The actual *purchase* of water would be an additional fee, and dependent upon

Wayne Workman
March 3, 2015
Page 3

the quantity purchased. We estimate the actual water purchase cost to average more than \$1 million per month, for a grand total of approximately \$22 million per year. Finally, the DWSD offer is conditioned upon the City (or presumably the KWA) agreeing to negotiate a long term contract (30 years) for back-up.

The \$22 million annual estimate of increased costs to purchase water from DWSD would be minimally offset by an approximate \$3 million in reduced operating costs, and could be further offset by an additional \$9 million, but only if all funding for capital improvements to the system are eliminated. To eliminate all funding dedicated to repairing, stabilizing, and improving the system would be totally irresponsible and would have long term negative consequences to the City and to future rate payers.

As you are aware we have recently brought in outside expert assistance to evaluate the steps we have taken to assure that the water is safe and to continue to improve water quality. We are expecting specific recommendations within the next few weeks, and are committed to implementing those recommendations in a timely manner. Many steps have already been taken. I am confident that implementing their recommendations will assure a continuing supply of safe water as well as improved quality, and at far less cost than re-engaging DWSD.

We have also created a 40-member Water Advisory Committee and a 13-member Technical Advisory Committee to assure two-way communication with the public and users of the system. Those committees will begin to meet this week, and we look forward to answering their questions and receiving their input.

It is unfortunate that problems and concerns with quality have arisen, and we are working every day to address the issues that caused them. Maintaining safe water and improving quality is a top priority as we work to make the City of Flint an attractive place to live, work, study, and play.

Attachment 7

**Press Release: Michigan Department of Treasury
Approves Sale of Pipeline Section 6.13.2014**



CITY OF FLINT
OFFICE OF EMERGENCY MANAGER
DARNELL EARLEY
ICMA-CM, MPA

Jason Lorenz
Public Information Officer
(810) 237-2039
jlorenz@cityofflint.com

For Immediate Release

**Michigan Department of Treasury Approves City of Flint's Sale of
Section of 72" Pipeline to Genesee County Water & Waste, Sale
Finalized This Week**

Flint, Michigan – June 13, 2014 – The City of Flint's sale of a section of 72" pipeline to the Genesee County Drain Commission for \$3,987,700 has been approved by the Michigan Department of Treasury and the sale was finalized this week. The pipeline section being sold is from the connection the City of Flint formerly used to receive water from the Detroit Water & Sewerage Department, located at Potter and Baxter Roads. "The sale of this 9 mile section of water main, which no longer provides any practical function to the City of Flint, is a fortuitous one-time revenue gain from which the proceeds will be reinvested into the ongoing maintenance and operations of the Flint water system," said Emergency Manager Darnell Earley. Genesee County was the sole prospective buyer of the pipeline.

The Emergency Manager presented the pipeline sale proposal to Flint City Council in May to be approved or denied, as provided under Public Act 436. City Council voted not to accept the proposal and did not provide an alternative proposal as required under

–CONTINUE–

City Hall
1101 S. Saginaw Street - Flint, Michigan 48502
810-766-7346 FAX: 810-766-7218 www.cityofflint.com



CITY OF FLINT
OFFICE OF EMERGENCY MANAGER
DARNELL EARLEY
ICMA-CM, MPA

PA 436, thereby allowing the Emergency Manager's recommendation to be considered approved by Treasury.

—END—

Attachment 8

**Press Release: City of Flint Begins Using Flint
River as Temporary Primary Water Source
4.25.2014**



Darnell Earley
ICMA-CM, MPA
Emergency Manager

Dayne Walling
Mayor

Jason Lorenz
Public Information Officer
(810) 237-2039
jlorenz@cityofflint.com

For Immediate Release

City of Flint Officially Begins Using Flint River as Temporary Primary Water Source

Flint, Michigan – April 25, 2014 – For the first time in fifty years, the City of Flint is using the Flint River—part of the Saginaw River watershed—as a primary water source for city residents. Today the valve to the pipeline from Detroit was closed and the Flint River officially became Flint's water supply. The temporary switchover is scheduled to support the city's primary water needs for the next two years while construction of the forthcoming pipeline from Lake Huron is completed by Karegnondi Water Authority. Officials from the City of Flint, the Genesee County Drain Commission and the Michigan Department of Environmental Quality were all on hand to witness the historic event.

The Flint River was once the primary source of water for city residents up to the 1960s. Over the past 40 years, it has provided water to city residents as a back-up to water provided to us by Detroit. During our partnership with Detroit, Flint has had to transition to the use of the Flint River for residential water on a few different occasions, with the most recent temporary switchover happening in 2009. Each temporary stint on local water proved three things to city employees and residents alike: That a transition to local river water could be done seamlessly, and that it was both sensible and safe for us to use our own water as a primary water source in Flint.

—CONTINUE—

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Darnell Earley
ICMA-CM, MPA
Emergency Manager

Dayne Walling
Mayor

Even with a proven track record of providing perfectly good water for Flint, there still remains lingering uncertainty about the quality of the water. In an effort to dispel myths and promote the truth about the Flint River and its viability as a residential water resource, there have been numerous studies and tests conducted on its water by several different independent organizations. In addition to what has been found in independent studies, it is also the responsibility of the City of Flint Water Service Center to continually test the water provided to city residents. Michael Prysby of the Michigan DEQ Office of Drinking Water verified that "the quality of the water being put out meets all of our drinking water standards and Flint water is safe to drink."

For nearly 10 years Mike Glasgow has worked in the laboratory at the City of Flint Water Service Center. He has run countless tests on our drinking water to ensure its safety for public use. Mike has not only conducted tests on water provided to us by Detroit, but also on local water from nearby rivers, lakes and streams including the Flint River. When asked if over the last decade if he has seen any abnormalities of major concern in the water, his response was an emphatic, "No." In his words, "there has been nothing seen that was of major concern," during his ongoing tenure working in the lab. "The tests results have shown that our water is not only safe, but of the high quality that Flint customers have come to expect," announced DPW Director Howard Croft, "we are proud of the end result."

Apart from the water plant's devotion to ensuring that our water is good, Flint is doubly blessed in having the Flint River Watershed Coalition as a separate organization

—CONTINUE—

City Hall
1101 S. Saginaw Street - Flint, Michigan 48502
810-766-7346 FAX: 810-766-7218 www.cityofflint.com



Darnell Earley
ICMA-CM, MPA
Emergency Manager

Dayne Walling
Mayor

dedicated to monitoring the overall welfare of local bodies of water, overseeing more than 30 different nearby locations. Rebecca Fedewa has been director of the watershed coalition since 2008. By virtue of her passion for her work and her position on the board, she is very conversant with the condition of the Flint River. In her words, "The Flint River is increasingly healthy, and completely suitable as a drinking water source." Fedewa and FRWC are working closely with the city "to monitor flows and habitats between the intake and the waste water treatment plant to ensure there are minimal to no impacts to the overall health of the river."

FRWC also invites city residents to be a part of their monitoring exercises during this spring in order "to gain firsthand knowledge in the health and vitality of our Flint River." Mayor Dayne Walling invited everyone at today's event to toast to Flint's water. "It's regular, good, pure drinking water, and it's right in our backyard," said Mayor Walling, "this is the first step in the right direction for Flint, as we take this monumental step forward in controlling the future of our community's most precious resource."

—END—

Attachment 9

**Email from Darnell Earley to Harvey Hollins and
Attached Memorandum 9.17.2014**

From: Darnell Earley <dearley@cityofflint.com>
Sent: Wednesday, September 17, 2014 7:55 AM
To: Hollins, Harvey (GOV)
Subject: Fwd: Boil Water Advisory Review
Attachments: Boil Water Advisory Advisory_Memorandum.pdf; Boil Water Advisory Review_White paper.docx

Harvey,

Take a look at the attached information and let me know if this will work for you. This is a start. If you need any additional information about this matter we can get that for you as well.

DE

----- Forwarded message -----

From: "Howard Croft" <hcroft@cityofflint.com>
Date: Sep 16, 2014 11:02 PM
Subject: Boil Water Advisory Review
To: "Darnell Earley" <dearley@cityofflint.com>
Cc:

Mr. Earley,

The Public Works committee meeting ran a little long and I had a late start on this but was able to complete a bullet point overview of the boil water advisory. One copy is in white paper format and the other is an official memorandum. I tried to condense this into a comprehensive overview that focused on the main aspects.

I can add further details if this is not sufficient.

Thank you,

--
Howard Croft
Public Works Director
City of Flint
1101 S. Saginaw Street
Flint, MI 48502
PH# 810.766.7346 Ext.2043
hcroft@cityofflint.com



Dayne Walling
Mayor

CITY OF FLINT
Department of Public Works

Darnell Earley, ICMA-CM, MPA
Emergency Manager

Howard Croft
Director

MEMORANDUM

TO: Darnell Earley, Emergency Manager
FROM: Howard Croft, Public Works Director
DATE: September 16, 2014
RE: Recent Boil Water Advisory

Mr. Earley,

I have compiled a bullet point list of the pertinent events surrounding the recent boil water advisory in the City of Flint. I have separated the events into five categories and attempted to condense them into a comprehensive sequence for your review.

OVERVIEW

- o On Friday September 5th the City of Flint issued a boil water advisory to residents in two of ten test areas around the city.
- o The advisory was due to multiple positive tests for "total coliform" and the area covered approximately 9 square miles.
- o On Sunday September 7th the City expanded the advisory to include another of the ten test areas due to a subsequent positive test.
- o The boil water advisories were lifted on Tuesday September 9th at 5:00 after consultation with the DEQ.

BACKGROUND

- State of Michigan Regulations requires that the City of Flint Water Treatment Plant perform testing of its water distribution system on a routine basis in ten different locations around the City.
- The tests take twenty four hours to produce valid results and are sent directly to the Department of Environmental Quality for review.
- Test results which show positive for "Ecoli" or "fecal coliform" trigger boil water notices for the test area and the advisories usually remain in effect until three consecutive tests return negative results.
- A single positive test for "total coliform" does not generally result in a boil water advisory, rather it indicates that the environment is conducive for bacteria.
- Typically, investigation into possible causes followed by corrective measures such as flushing the affected area with open hydrants will cleanse the system.
- This process is overseen by an employee who is required to hold an F-1 State License and is listed as the Operator in Charge of the Water Plant and an employee who holds an S-1 State License which is required to maintain distribution systems of this municipal size.
- The City of Flint has over 500 miles of pipe in its distribution system, much of which is over 70 years old.
- The City of Flint has over ten-thousand valves throughout its distribution system.
- The City of Flint has a professional reliability study of its system, that was updated in December 2013.

PROBLEM

- ❖ After detecting the initial positive test for total coliform, normal procedures did not clear the condition and multiple positive tests ensued.
- ❖ The continued positive total coliform tests were the cause for issuing the boil water notice.
- ❖ Additional discoveries showed that residual chlorine levels in the affected area were considerably lower than normal.

SOLUTION

- ✓ On Monday September 8th the City convened all licensed personnel, Utility Supervisors, and DPW Director to a single meeting location and held a brainstorming session with the DEQ on conference call.
- ✓ It was agreed that while not totally isolated, the concern was mainly present in a specific large transmission line that ran through all positive testing areas.
- ✓ It was determined to expand the hydrant flushing outside of the immediate impact area.
- ✓ It was found that a 24" valve which feeds this transition main was broken in the OFF position outside of the immediate impact area.
- ✓ The broken valve was preventing fresh water from being pushed directly into the impacted area while causing water to travel from the water plant around the entire city and preventing adequate circulation of fresh water.
- ✓ In repairing the broken valve, virtually all of the symptoms were erased over a 24 hour period and the chlorine count has steadily risen back to normal levels throughout the transmission main.

CONCLUSION

- ✓ The City was in direct contact with DEQ personnel daily.
- ✓ The positive tests were for "total coliform" only.
- ✓ The following statement about total coliform was approved by the DEQ and made in writing to the public as part of the recent boil water.

Total coliform bacteria are generally not harmful themselves. Coliforms are bacteria which are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present.

Usually, coliforms are a sign that there could be a problem with the treatment or distribution system (pipes). Whenever we detect coliform bacteria in any sample, we do follow-up testing to see if other bacteria of greater concern, such as fecal coliform or E. coli, are present. We did not find any of these bacteria in our subsequent testing. If we had, we would have notified you immediately. However, we are still finding coliforms in the drinking water.

- ✓ The City of Flint is in the first year of strategic budgetary investment in an infrastructure strategy.
- ✓ The City of Flint infrastructure strategy has been, and will continue to be developed with state licensed employees, industry experts, and proven experienced consultants.

Howard D. Croft
Public Works Director

Attachment 10

**Letter from Flint Advisory Task Force to
Governor Snyder 12.29.2015**

December 29, 2015

Dear Governor Snyder:

The Flint Water Advisory Task Force, which you appointed on October 21, 2015, has devoted considerable effort and countless hours to our review of the contamination of the Flint water supply: what happened, why it occurred, and what is needed to prevent a recurrence in Flint or elsewhere in the state. We have also been assessing ongoing mitigation efforts to help assure that short- and long-term public health issues and water management concerns will be properly addressed to safeguard the health and well being of the Flint community.

Shortly after we began our work, we recognized the immediate need for better coordination of the state's response to the ongoing public health issues in Flint, and for assignment of a single person to provide this coordination. We addressed these concerns in a letter to you on December 7, 2015, and you responded with immediate adoption of these recommendations. We thank you for the commitment your response demonstrates.

In our continuing efforts, we have now interviewed numerous individuals at state and local levels; reviewed many documents, articles, and emails; and deliberated repeatedly as a group. Both individually and as a group, we have visited Flint several times during the past several weeks to meet with citizens, public health officials and healthcare providers, individuals who have water management responsibilities at the city and county levels, and other public officials.

It is clear to us, particularly as we listen to the people of Flint, that it is both critical and urgent to establish responsibility for what happened in their community and to ensure accountability. This is a first step in a long process to re-establish the trust they no longer have in their government and the agencies whose responsibility it is to protect their health. It is urgent because this deep distrust of government continues to compromise the effective delivery of protective services designed to address ongoing public health issues. It is for these reasons that we are sending this letter at this time.

We believe the primary responsibility for what happened in Flint rests with the Michigan Department of Environmental Quality (MDEQ). Although many individuals and entities at state and local levels contributed to creating and prolonging the problem, MDEQ is the government agency that has responsibility to ensure safe drinking water in Michigan. It failed in that responsibility and must be held accountable for that failure.

The Safe Drinking Water Act (SDWA) places responsibility for compliance with its requirements on the public water system. In this instance, the City of Flint had the responsibility to operate its water system within SDWA requirements, under the jurisdiction of the MDEQ. The role of the MDEQ is to ensure compliance with the SDWA through its regulatory oversight as the primary agency having enforcement responsibility for the Flint water system.

The MDEQ failed in three fundamental ways.

Regulatory Failure

We believe that in the Office of Drinking Water and Municipal Assistance (ODWMA) at MDEQ, a culture exists in which "technical compliance" is considered sufficient to ensure safe drinking water in Michigan.

This minimalist approach to regulatory and oversight responsibility is unacceptable and simply insufficient to the task of public protection. It led to MDEQ's failure to recognize a number of indications that switching the water source in Flint would—and did—compromise both water safety and water quality. The MDEQ made a number of decisions that were, and continue to be, justified on the basis that federal rules "allowed" those decisions to be made. ODWMA must adopt a posture that is driven not by this minimalist technical compliance approach, but rather by one that is founded on *what needs to be done to assure drinking water safety*.

A culture change must occur within ODWMA. It must be driven by a mission that is aspirational regarding the role of the MDEQ in ensuring the safety and the quality of Michigan's drinking water. We believe, and have expressed to MDEQ Director Dan Wyant, that as a Great Lakes State, Michigan should aspire to have the safest drinking water in the nation, rather than merely aiming for technical compliance with regulatory requirements.

Failure in Substance and Tone of MDEQ Response to the Public

Throughout 2015, as the public raised concerns and as independent studies and testing were conducted and brought to the attention of MDEQ, the agency's response was often one of aggressive dismissal, belittlement, and attempts to discredit these efforts and the individuals involved. We find both the tone and substance of many MDEQ public statements to be completely unacceptable. In a real way, the MDEQ represents the public, including the very individuals it treated dismissively and disrespectfully in public statements. We recognize that the agency might disagree with the opinions of others on a variety of issues, including testing protocol, interpretation of testing results, the requirements of federal law and rules, and other matters. What is disturbing about MDEQ's responses, however, is their persistent tone of scorn and derision. In fact, the MDEQ seems to have been more determined to discredit the work of others—who ultimately proved to be right—than to pursue its own oversight responsibility.

Failure in MDEQ Interpretation of the Lead and Copper Rule

The federal Lead and Copper Rule (LCR) is central to what happened in Flint, because that rule, at least theoretically, is designed to prevent lead and copper contamination of drinking water. The federal LCR calls for "optimized corrosion control treatment," which the MDEQ did not require in the switch to the Flint River. Prior to the switch, MDEQ staff instructed City of Flint water treatment staff that corrosion control treatment (CCT) was not necessary until two six-month monitoring periods had been conducted. The need for CCT would be evaluated after the results from those two monitoring periods were reviewed. The decision not to require CCT, made at the direction of the MDEQ, led directly to the contamination of the Flint water system.

The MDEQ seems to have taken different positions on whether it faithfully followed the LCR in the Flint situation. It first maintained that it followed the LCR, then stated that it did not follow the rule properly, and most recently claimed that a federal memorandum issued by the US EPA in early November 2015 suggests that the original MDEQ interpretation was possibly correct.

We are not convinced. Even the MDEQ's latest interpretation of the US EPA's November memorandum is overly legalistic and misunderstands the intent of the LCR, which is to minimize risks of lead and copper exposure for human health.

We believe ODWMA's single-minded legalistic focus is the heart of the problem, and it is part of the "technical compliance" culture described above. ODWMA should not be basing its actions solely on a

legally possible interpretation of the LCR. It should be focusing on how to protect Michigan's citizens from lead in drinking water.

We met with MDEQ Director Wyant on December 16, 2015, to discuss these issues, as well as many others. We note his substantial agreement with many of our conclusions, particularly as it relates to the regulatory failure and the abysmal public response of his agency. It is our understanding that he has drawn similar conclusions in his own evaluation of the MDEQ's role in the Flint water crisis. At the same time, it was disappointing to hear his weak defense of the CCT decision based on the EPA's November 2015 memorandum.

We are not finished with our work. Other individuals and entities made poor decisions, contributing to and prolonging the contamination of the drinking water supply in Flint. As an example, we are particularly concerned by recent revelations of MDHHS's apparent early knowledge of, yet silence about, elevated blood lead levels detected among Flint's children. We also feel it important to further review local government decision processes under emergency management. Our final report will highlight and discuss those concerns, among many others, to provide some context to a comprehensive series of recommendations. **As stated earlier in this letter, however, we believe that establishing responsibility is a critical and urgent need, and one that should not wait for our final report in 2016. Individuals and agencies responsible must be held accountable in a timely fashion.**

It is our hope that the heightened awareness of the dangers of lead poisoning can be an opportunity to make Michigan safer, particularly for its children. Drinking water must be recognized as a potential source of health risk exposure when water lines and fixtures containing lead are disturbed or compromised. Proper testing, not only in high-risk areas but also in facilities serving children (e.g., schools), must be considered. Facilitating long-term financing of a model public health program, and also replacement of lead-containing water service lines and fixtures, would enable Michigan to realize a positive lasting legacy from the tragedy of the Flint water crisis. Our final report will address some of these issues.

The City of Flint's water customers—fellow Michigan citizens—were needlessly and tragically exposed to toxic levels of lead through their drinking water supply. They deserve a commitment to properly assess responsibility and ensure accountability. They also deserve a commitment to needed mitigation in both the short and long term. The Flint water crisis never should have happened. Having failed to prevent it, state government should coordinate a sustained, public-health-focused response to remedy, to the fullest extent possible, the impacts on the Flint community.

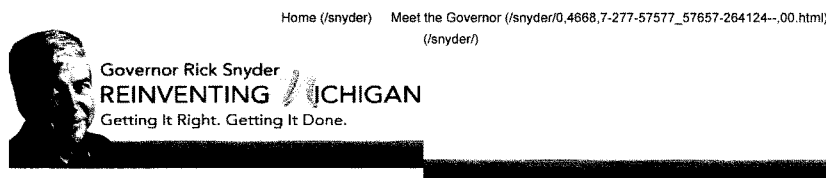
Respectfully yours,

Flint Water Advisory Task Force:

Matt Davis
Chris Kolb
Larry Reynolds
Eric Rothstein
Ken Sikkema

Attachment 11

**Press Release: Governor Snyder Awards Flint \$2
Million for Water System Improvements 2.3.2015**



Home (/snyder) Meet the Governor (/snyder/0,4668,7-277-57577_57657-264124--,.00.html) (/snyder/)

NEWSROOM

(/SNYDER/0,4668,7-277-57577_57657-264124--,.00.html) / NEWSROOM (/SNYDER/0,4668,7-277-57577_57657-264124--,.00.html)
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PRESS RELEASES
 (/SNYDER/0,4668,7-277-57577_57657-264124--,.00.html)

Gov. Rick Snyder awards Flint \$2 million in 'distressed municipalities' grants for water system infrastructure improvements

APPOINTMENT PRESS RELEASES
 (/SNYDER/0,4668,7-277-57577_57657-264124--,.00.html)

Funding to be used for leak detection, waste incinerator replacement

Tuesday, Feb. 3, 2015

REINVENTION BLOG
 (/SNYDER/0,4668,7-277-57577_60279--,.00.html)

LANSING, Mich. – Gov. Rick Snyder today awarded Flint \$2 million in grants for water system infrastructure improvements, part of an overall \$8 million plan to help municipalities through the Financially Distressed Cities, Villages, and Townships Grant Program.

PHOTOS
 (/SNYDER/0,4668,7-277-57577_57627--,.00.html)

Flint is among eleven municipalities receiving grants through the program. The city will use the funding to detect leaks in its water lines and replace its Water Pollution Control Facility Incinerator.

EXECUTIVE ORDERS
 (/SNYDER/0,4668,7-277-57577_57632--,.00.html)

"There are opportunities for state government to assist Flint city leaders as they address issues related to the city's water system," Snyder said. "These grants will help recovering cities improve public services and infrastructure, improving the quality of life for all residents."

PROCLAMATIONS
 (/SNYDER/0,4668,7-277-57577_59874--,.00.html)

The grants to Flint were announced today at the Haskell Community Center by Harvey Hollins, director of the state's Office of Urban Initiatives, and Wayne Workman, the state's deputy treasurer. They were joined by Dan Wyant, director of the Michigan Department of Environmental Quality, Flint Emergency Manager Jerry Ambrose, Mayor Dayne Walling, and state Rep. Sheldon Neeley.

EXECUTIVE DIRECTIVES
 (/SNYDER/0,4668,7-277-57577_57630--,.00.html)

Flint was awarded \$900,000 to allow the city to hire a contractor to perform a leak detection survey of the city water lines. The city will receive a map of leak locations and an assessment of leak severity, allowing the city to prioritize leak repair. The project also covers the expense of conducting a water pipe line wall thickness condition assessment on a portion of the city's pipes. The assessment will guide the city's water infrastructure program.

VIDEOS
 (HTTP://WWW.YOUTUBE.COM/watch?v=346722--,.00.html)

FLAG HONORS
 (/SNYDER/0,4668,7-277-57577_28502--,.00.html)

The city also was awarded \$1.1 million to shut down its current Water Pollution Control Facility incinerator and replace it with new facilities which will allow for the disposal of waste in landfills. The existing facilities are not up to federal Environmental Protection Agency standards.

Flint Mayor Dayne Walling said he appreciates the state support.

"This announcement comes at the perfect time for Flint as we continue with repairs and upgrades to our water service infrastructure that are in accordance with our new Capital Improvement Plan," Walling said. "This significant funding opportunity from the State will allow us to move forward with two projects that will mean long term cost savings for the City of Flint."

Municipalities are eligible for the grants if they are experiencing one or more conditions indicative of "probable financial stress," as defined by Public Act 436 of 2012, the Local Financial Stability and Choice Act.

Under the grant program, funding may be used to pay for specific projects, services, or strategies that move a city, village, or township toward financial stability. There was \$8 million appropriated for the program with a \$2 million cap, per local unit.

###

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Videos
(<http://www.youtube.com/user/SnyderGov>)

Half-staff Flag Alerts
([flaghonors](/flaghonors))

Help & Contacts

Share Your Opinion
(<https://sombgovweb.state.mi.us/GovRelations/CitizenAssistanceRequest.aspx>)

Scheduling Requests
(<https://sombgovweb.state.mi.us/GovRelations/CitizenAssistanceRequest.aspx>)

Request Recognition
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Request Assistance
(<https://sombgovweb.state.mi.us/GovRelations/CitizenAssistanceRequest.aspx>)

Contact the Governor
(</snyder/0,4668,7-277-57827-267869--,00.html>)

Services

Order a Flag
(<https://sombgovweb.state.mi.us/GovRelations/CitizenAssistanceRequest.aspx>)

State of MI Mobile Apps
(<https://sombgovweb.state.mi.us/GovRelations/CitizenAssistanceRequest.aspx>)

State Job Openings
(<http://www.mitalent.org/>)

A to Z Online Services
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Michigan Locator

Search any location for services, state parks and recreation, educational entities.

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Attachment 12

**Order Number 15 - Mayor Walling's
Increased Responsibility and Compensation**



**EMERGENCY MANAGER
CITY OF FLINT
GENESEE COUNTY MICHIGAN**

ORDER No. 15

**MAYOR DAYNE WALLING'S INCREASED RESPONSIBILITIES AND
COMPENSATION**

BY THE POWER AND AUTHORITY VESTED IN THE EMERGENCY MANAGER
("EMERGENCY MANAGER") FOR THE CITY OF FLINT, MICHIGAN ("CITY")
PURSUANT TO MICHIGAN'S PUBLIC ACT 436 OF 2012, LOCAL FINANCIAL
STABILITY AND CHOICE ACT, ("PA 436"); DARNELL EARLEY, THE EMERGENCY
MANAGER, ISSUES THE FOLLOWING ORDER:

Pursuant to PA 436, the Emergency Manager has broad powers in receivership to rectify the financial emergency and to assure the fiscal accountability of the City and its capacity to provide or cause to be provided necessary services essential to the public health, safety and welfare; and

Pursuant to PA 436, the Emergency Manager acts in place of local officials, specifically the Mayor and City Council, unless the Emergency Manager delegates specific authority; and

Pursuant to PA 436, the Emergency Manager has broad power to manage the local government, and may issue orders to elected and appointed officials necessary to accomplish the purpose of the Act. An Order issued under PA 436 is binding on the person to whom it is issued; and

Emergency Manager Edward Kurtz assigned additional responsibilities and partially restored compensation to Mayor Dayne Walling by way of Order No. 1, dated April 12, 2013; and

Emergency Manager Darnell Earley further increased Mayor Walling's responsibilities under Order No. 17, dated June 2014; and

In correspondence dated June 3, 2014, Emergency Manager Darnell Earley advised the Flint City Council that Mayor Walling would now be responsible for the day-to-day operations of the Department of Planning and Development and the Department of Public Works.

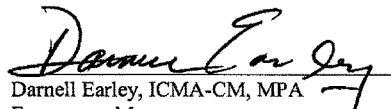
The Emergency Manager hereby authorizes the increased responsibilities of Mayor Dayne Walling set forth above and sets his annual compensation rate at \$82,500.00, in conjunction with the Biennial Budget for fiscal years 2015 and 2016.

This Order is effective immediately.

This Order may be amended, modified, repealed or terminated by any subsequent Order issued by the Emergency Manager.

Dated: 6-20-14

By:


Darnell Earley, ICMA-CM, MPA
Emergency Manager
City of Flint

xc: State of Michigan Department of Treasury
Mayor Dayne Walling
Flint City Council
Inez Brown, City Clerk

S:\P. Bado\EM2014\Orders\Order.No.15.Increased Mayoral Responsibilities 06.13.14.doc

Chairman CHAFFETZ. Thank you, Mr. Earley.

We will now recognize Mayor Walling for 5 minutes. You are now recognized.

STATEMENT OF DAYNE WALLING

Mr. WALLING. Good morning, Chairman Chaffetz, Ranking Member Cummings, and honorable members of the committee. I also thank you for the opportunity to present testimony and to be invited to this hearing.

The drinking water crisis in Flint is a catastrophe that's had a devastating effect on our families, our most vulnerable children and seniors, our schools, neighborhoods, businesses, the entire community. Flint is a strong city. It's going to survive. With the right support it will thrive. But Flint never should have been in this situation.

As a father raising my own family in Flint, I'm deeply concerned for the children and all the people who have been affected. I am sorry this crisis happened every single day. I'm angry more was not done to respond to the water problems, especially by the State which controlled both the MDEQ and the city. I appreciate the committee's efforts to identify what went wrong so problems can be fixed, Flint can move forward, and this never happens again in America.

From my experience as mayor, until November 2015, I have three main points. One, Michigan's financial manager system focused too much on cutting costs without adequate safeguards and transparency. The regulators provided false assurances to us about the safety of the water and withheld risks. And third, Governor Snyder unfortunately discounted local concerns and did not act with urgency.

The problems started with the switch to the Flint River for the city's drinking water under the control of a governor appointed financial manager mandated to cut costs. The switch was decided by EFM Kurtz in June 2013 who signed an engineering contract to upgrade the water plant, and who adopted a 2-year budget for the river water implementation without any public input or involvement from us as local elected officials. I was there. That's what happened.

The actions taken by myself and the city council in March of 2013 to support the long-term use of a new Lake Huron pipeline did not include using the river as an interim source. The finance director's projections—finance director, Jerry Ambrose, who later became emergency manager—showed payments for Detroit Water being made until the new pipeline became operational.

But the reality was the State and financial managers had full control of the city's budgets, finances, and personnel for nearly 4 years. And even as I and the city council were granted some responsibilities, the appointed managers continued to parcel out information and make all of the purchasing, personnel, and legal decisions in consultation with the State. I didn't sign one city contract or purchasing resolution during the time that the emergency managers were in place.

From day one with the river, the State regulatory agency, the Michigan Department of Environmental Quality, provided assur-

ances to us that the Flint water was safe and met the standards of the Safe Drinking Water Act. When I reached out to the EPA for guidance, I did receive information and assistance, but the full risks were not shared.

I had my own concerns about the river, was hearing concerns from the public, but I did rely on the information provided from the MDEQ and the appointed public works leadership. My family and I drank the water in our home. I echoed these assurance to the public, which I wholly regret and will never do again.

We know now that we were getting bad information and, worse, water. Children were poisoned with lead, and we found out because local doctors analyzed health data themselves despite continued resistance from the Michigan Department of Health and Human Services in October of 2015. I pushed for the return to Detroit Water as the fastest way to bring corrosion control in, and the county declared a public health emergency.

Tragically, there were opportunities missed and dismissed that could have averted the water crisis. I called for reforms and programs in January 2015 to make the water safe with all test results publicly released. The city was releasing operational reports, but the lead tests were not being shared and disclosed.

I contacted the governor directly with my plan as I believe any mayor in a crisis should do regardless of the emergency managers. My initial request was for \$20 million, yet we received only \$2 million in grants. Now the costs are hundreds of millions with an unknown number of children and families affected.

The governor discounted the complaints, even of concerned pastors and parents, apparently from his office's emails because we were viewed as adversaries of the financial manager system with illegitimate claims, when, in fact, we're Michigan citizens with toxic water.

As someone who continues to live and work in Flint, I hope more will be done to aid the city, help the city heal. Flint citizens have fought so hard. Our families have endured so much. We simply deserve the same safety and opportunities for our families and children in Flint as anywhere else in America.

Thank you for the opportunity, and I look forward to your questions.

[Prepared statement of Mr. Walling follows:]

**U.S. House of Representatives
Committee on Oversight and Government Reform
Examining Federal Administration of the Safe Drinking Water Act in Flint, MI,
Part II
Tuesday, March 15, 2016 at 10:00 a.m.
2154 Rayburn House Office Building**

**TESTIMONY OF DAYNE WALLING, FORMER MAYOR OF THE CITY OF
FLINT, MICHIGAN**
Submitted March 11, 2016

Dear Mr. Chairman Chaffetz, Mr. Ranking Minority Member Cummings and the U.S. House of Representatives Committee on Oversight and Government Reform:

Thank you for the opportunity to present testimony and to be invited to the hearing titled, "Examining Federal Administration of the Safe Drinking Water Act in Flint, MI, Part II." The drinking water crisis in Flint is a catastrophe that has had, and continues to have, a devastating effect on our families, our most vulnerable children and seniors, our schools, neighborhoods, businesses and the entire community. Flint is a strong city and I know it will survive and with the right support it will thrive, but it never should have suffered in this situation. As a father raising my own family in Flint, I am deeply concerned for the children and all people who have been affected. It is important that support and opportunities are provided to Flint's residents, the damaged public infrastructure systems, and the community as a whole. I appreciate the Committee's efforts to identify what went wrong and why.

Tragically for our community there were opportunities missed and dismissed that would have averted the water crisis. The recommendations I made, along with the Flint City Council and many other elected officials, community and faith leaders and activists were discounted by the emergency managers and Governor Snyder going back more than a year. The State's focus on balancing the City's books and choosing low cost over human consequences created more expensive public problems, as state and federal regulators did not fully address the issues along the way. While the decision to use Flint River water was reversed and Flint reconnected to the Detroit system in October 2015, there is a great deal of work left to be done to respond to the health needs of the community's residents, to repair the infrastructure, and to rebuild the trust of the people. The following are facts, observations, and actions taken relevant in understanding the Flint water crisis and the role of the city, state, and federal governments as well as the community at large.

Background on Flint

Flint is a strong city with a proud heritage of economic innovation and educational excellence, of historic successes in community and labor organizing, and of amazing athletics, arts and culture. Growing up in Flint and attending Flint's public schools, I saw

the promises and the problems in my hometown going back to the 1980s. When I came into office at the bottom of the recession in August 2009 through a special election, the unemployment rate in the City of Flint was 29.9%. Crime was rising. Foreclosures were rising. Property values were falling. The conditions in the community put severe strain on city services even as public resources were declining. I pledged to transform Flint into a sustainable 21st Century city with new jobs, safe neighborhoods, great schools and opportunity for all.

As a community in hundreds of meetings structured through the neighborhood action and comprehensive planning process, we talked about how this would require a long-term approach because meeting our goals required a fundamental shift in economic development, education, land use, transportation and infrastructure systems as well as organizational change and smarter management. At the same time, Flint was faced with ongoing fiscal stress. When I came into office, the City had a twenty million dollar structural deficit and forty million in lawsuits from the prior administration, while also receiving higher bills for health care and pensions for workers and retired city employees. Regardless of the budget challenges, I worked to increase opportunities for youth and seniors, to make city services more efficient, to enhance economic and community development, and to move towards a balanced budget in a responsible manner. I was re-elected to a full four-year term in November 2011 and on that same day Tuesday November 8th at 5pm, Governor Rick Snyder announced that an emergency manager was to be appointed, which moved decision-making authority away from the local elected officials. I served as mayor through November 2015 after losing a second re-election bid to now Mayor Karen Weaver.

Emergency Financial Managers in Michigan

One of the major flaws that has become apparent with the Flint water crisis is that putting control of local and state governments at the Governor's desk, effectively melding the local and state governments into one unit, takes away the natural checks and balances of our federal-type democratic design and regulatory system and also minimizes the voices of the citizens by placing control so far away from the community. The emergency financial managers were appointed by Governor Snyder, and of course all of the State department heads, such as the State Treasurer and the director of the Michigan Department of Environmental Quality (MDEQ), all reported to the Governor as well.

Governor Snyder came into office in January 2011 when hundreds of Michigan municipalities and school districts were dealing with the fiscal stress described by Michigan State University Professor Dr. Eric Scorson's report on "Long-Term Crisis and Systemic Failure: Taking the Fiscal Stress of America's Older Cities Seriously, Case Study: City of Flint, Michigan" released in September 2011. The report highlights that: "The causes leading to chronic fiscal stress are both internal and external. While the City can do some things to manage its fiscal stress, the revenue structure does not provide a means to solve the fiscal stress. Long-term problems will require long-term solutions at both the state and local level."

Governor Snyder and the State Legislature chose to address the financial stress in local governments and school districts with a State takeover system. This was a policy choice of austerity and other alternatives existed. For example, the Michigan Municipal League commissioned a review by Plante Moran that showed how reversing disproportionate cuts to state-shared revenue payments and providing local governments and school districts with greater financial tools would have more than offset the deficits facing Michigan's cities.

In Flint, it is important to understand that since November 2011, the City has been controlled in an unusual way due to the appointment of emergency financial managers and a Receivership Board by Governor Rick Snyder. The current law, known as Public Act 436, is specific on the point:

Sec. 9. (1) (2) "Upon appointment, an emergency manager shall act for and in the place and stead of the governing body and the office of the chief administrative officer of the local government. The emergency manager shall have broad powers in receivership to rectify the financial emergency and to assure the fiscal accountability of the local government..."

After many further sections of special authorities granted to emergency managers that are not available to elected officials, the law reiterates:

Sec. 12. (2) "...the authority of the chief administrative officer and governing body to exercise power for and on behalf of the local government under law, charter, and ordinance shall be suspended and vested in the emergency manager."

According to the takeover system for Flint, for nearly 4 years, I didn't sign purchasing resolutions, adopt budgets, or take personnel actions for the City of Flint. The emergency managers made the decisions in coordination with the Michigan Department of Treasury, State Agencies, the Governor's Office, and Governor Rick Snyder.

Switch to the Flint River

For more than 40 years, Flint had received its treated water from Detroit. The switch to the Flint River was started by Emergency Manager Ed Kurtz in June of 2013 when a contract was signed with an engineering firm (EM resolution 2013EM140 dated 6/26/2013) to design the upgrades necessary at the Flint Water Treatment Plant to treat and distribute water from the Flint River. The directors of the city's departments of public works and finance recommended this change to the emergency manager after the Michigan Department of Environmental Quality's determined it was feasible for an interim supply. I was not involved in any of these discussions about switching to the river. A biennial budget was also adopted by the emergency manager in June of 2013 that reflected the costs of the switch (EM Order No. 13 dated 6/26/2013). We learned later that the lowest cost options in treatment design, which were allowed by MDEQ such as not installing an activated carbon filter or including phosphate corrosion control, subjected Flint residents to health threats including lead and trihalomethanes.

These same decisions would not have been made by City Council. When the manager's decisions became known, I expressed my concerns internally about the switch including the community's perception of the river as polluted, the short timeline to accomplish such a critical change in a vital public service, and the limited staff capacity and inexperience that Department of Public Works leadership had with running a full-time water treatment plant.

The decision in June of 2013 to switch to the Flint River was contrary to the water plans and financial forecasts provided to me and the Flint City Council in March of 2013 when we were requested by the emergency financial manager to guide his decision on the long-term options for Flint's water supply. The two options for bringing water from Lake Huron to Flint were: a new contract with the Detroit Water and Sewer District (DWSD) or a contract with the new Karegnondi Water Authority (KWA). In the case of utilizing KWA, the financial projections provided to us as local elected officials showed the City of Flint staying on the Detroit system until 2017 by which time the new KWA pipeline was expected to be operational. Myself and the Flint City Council expressed support for a water supply contract with KWA. I provided a resolution to the emergency manager. City Council voted 7-1. This was the right decision for the City of Flint. Unlike the Detroit system that charges for distance and elevation from their system and also has annual rate increases, the KWA is a cooperative model with a fixed and flat rate for all of the participating communities based on usage only—and both sources are Lake Huron.

Contrary to the facts, Governor Snyder's office and former Emergency Manager Darnell Earley have stated and repeated blatantly false claims that I and the Flint City Council made the switch to the Flint River. Darnell Earley was the City Manager in Saginaw in 2013 until later in October—he was not working in Flint when the initial switch, treatment design and budget were decided upon. In the emails that have been released, the Governor's Urban Initiatives director knew the truth and sent an email that stated City Council did not vote on the use of the Flint River. Nevertheless, the Chief of Staff signed off on former EM Earley's controversial op-ed column in October 2105 which insinuated political motives for stating what actually the truth of the matter was: the emergency managers and the State decided to switch Flint to the river. This follows a pattern of deflection by the State in regards to responsibility for Flint's water problems that has become apparent in seeing the exchanges taking place among State employees through the release of the Governor's office and State agency emails.

In fact, the Flint City Council voted to go back to Detroit Water in March 2015. The vote was symbolic as only the emergency manger could make that decision, but it shows the intention of the Flint City Council at the time. The City Council's action was responded to by the emergency manager who called it incomprehensible and State officials later approved the emergency manager signing a loan contract with the State of Michigan Treasurer in April 2015 that took away the local option of the City switching back to Detroit water as a condition of receiving the funds to eliminate the remaining deficit and come out of full state control.

Initial Water Problems and Assurances

The switch to the Flint River took place in April 2014. Following assurances by the City's public works director about MDEQ permitting the distribution of Flint water and stating that it would be comparable to Detroit water, I chose to participate in the ceremonial closing of the valve to the Detroit System. However, there were issues with Flint water early on and there were complaints by citizens. There were repeated assurances from the MDEQ and City public works leadership about the Flint water meeting the standards. I trusted the assurances at the time but they proved to be false as the Michigan Department of Environmental Quality admitted in October 2015.

Throughout the process, the questions being raised by EPA officials about Flint's water were not accurately addressed by the Michigan Department of Environmental Quality and they were not investigated as they should have been. The actions that I took and statements that I made as mayor were based on my understanding of Flint's water system at each point in time. Now I know that information was withheld from us as local elected officials and in the community and the true risks were not acknowledged until later. At each time, however, for every issue that I was aware of, I was diligent in working to get solutions in place—even when appointed emergency financial managers were in control and later when their orders remained in effect and altered the normal operations and accountability in city government which continues until the present.

Before the lead poisoning was recognized, the focus of the water crisis was the high level of trihalomethanes (TTHMs) which was a violation of the Safe Drinking Water Act, and problems with boil water advisories, discoloration, odors, and hardness. Throughout the summer and fall of 2014, Flint had a high number of water main breaks and infrastructure breakdowns. At the same time, the water tested extremely high for TTHM. I learned about the TTHM problem in late October 2014 at a meeting with City and MDEQ officials and was assured that the levels were already down but the averaging of quarterly test results would require a public notification, which was being prepared.

The TTHM problems raised more concerns about the overall water system's health and the lack of transparency to residents and customers. A review of the treatment system by Veolia was put in place by the emergency manager and I expressed my support for this action, as well as for the establishment of technical and community advisory groups. I also advocated for full transparency in test results being made public for Flint and all communities in Michigan.

Throughout this time, my office was being contacted by concerned citizens and I was talking with residents and trying to find answers and solutions to their problems. As a mayor, I was at the intersection of hearing from the people and hearing from the regulatory officials and City public works leadership. Many active Flint citizens were persistent and we owe a debt of gratitude to them for continuing to advocate. At the time, I considered all of the information I was receiving and I pushed for action to address what I knew. For example, with Leanne Walters' residence, I was aware of her concerns from

meeting and understood it was because of a very long lead service line put in before the area was developed as a residential neighborhood. I requested the line to be replaced at the City's expense.

While Flint was still under appointed emergency managers, I developed a comprehensive water plan to address safety, quality, access, affordability, investment, and education. On January 18th, I sent a letter to Gov. Rick Snyder outlining the following plan with the unanimous endorsement of the Flint City Council:

Safety & Quality

- 100% Safety is the standard
- City of Flint releases testing data to assure safety and expands testing to households with support from the Michigan Department of Environmental Quality
- Provide filters to all Flint households through community partnerships
- Bring on experienced river water treatment operational management in the City of Flint
- Require water testing data to be released quarterly by law in all Michigan communities

Access

- Announce an amnesty program for turn-ons and reduce the turn-on cost in Flint
- Develop a revised payment plan policy to allow customers to come back on to the Flint system
- New Federal and State partnership to establish new Drinking Water Emergency Assistance Fund for customers (modeled on Federal and State energy utility programs: Low Income Home Energy Assistance Program; Michigan Energy Assistance Program; State Emergency Relief)

Investment

- Accelerate water system improvements outlined in the City of Flint Capital Improvement Plan through Federal and State Investments
- State approves City of Flint's Distressed Cities Fund applications
- Federal and State forgiveness of payment to Drinking Water Revolving Loan Fund
- Federal and State financing for future improvements
- City Water Department implements budgeted FY15 projects including leak detection, valve repairs, new pipes and meter replacements

Education

- Develop a community partnership to provide household and business customers with information on testing and conservation
- Ongoing partnership with Michigan Department of Human Services, United Way, Salvation Army and community organizations to provide information on water assistance

- Expand youth energy initiative to assist households with conservation and efficiency (piloted in summer 2014 with Northwestern High School students, EcoWorks and Consumers Energy)

At this time in January 2015, the Emergency Manager Jerry Ambrose was well aware of numerous citizen complaints about water safety and quality. It was another missed opportunity that more was not done at this stage to seriously address Flint's water problems in a comprehensive manner. One email from the Governor's policy director characterized my letter to the Governor and request for him to personally visit Flint as politically-motivated. Given the structure of decision-making in Flint under Public Act 436 and the Governor's appointment of an emergency manager, asking the Governor for assistance was truly the only option available to me at the time to try to remedy the situation in an environment where:

- The emergency managers had control for addressing complaints and how the City would respond.
- The emergency managers had exclusive control over hiring additional help to evaluate the water problems, such as experts or consultants.
- The public works director hired by the emergency manager continually emphasized that the water was safe.
- And the State of Michigan told us it was safe.

The January 2015 request to Governor Snyder for \$20 million in financial assistance to improve Flint water and reduce the cost burden on customers, along with recommended policy reforms to ensure transparency in all drinking water systems in Michigan resulted in Flint receiving only \$2 million in grants and was authorized to shift one loan payment.

Flint also received expertise from the U.S. Environmental Protection Agency that was provided after my letter in February 2015 to White House Department of Intergovernmental Affairs Director Jerry Abramson to request technical support from the White House to address the ongoing water issues in Flint. The EPA Region 5 Administrator Dr. Susan Hedman became the point of contact. My intention was to have a double-check on the information coming from the MDEQ, the emergency managers and the City personnel who reported to them. EPA experts joined the advisory groups. I am disappointed now that the EPA did not do more to assist us in Flint and that reassurances about the review process were made when there were warning signs noticed by EPA staff back to the beginning of 2015. For instance, I asked Dr. Hedman about the internal memo from Del Toral when it was shared with the Michigan ACLU in June 2015. She explained that the review process was proceeding and the City would be notified through the MDEQ of any new requirements. This was another missed opportunity to correct the problems sooner. In retrospect, it is clear that information was being parceled out before it reached those of us elected officials and community members in Flint even after the emergency managers were not in place.

Lead Crisis

In September of 2015, more alarms were going off with Dr. Edwards' research and I was horrified when I learned about the spike in childhood lead poisoning. After a year of attempting to address the known problems of an aging infrastructure and main breaks, adjusting the water treatment process, installing a carbon filter, and making staffing changes, the water crisis became even more serious. As you know, Dr. Mona Hannah Attisha and other members of Flint's medical community conducted an independent review of blood lead level test results at Flint's public hospital, Hurley Medical Center in September 2015 as a follow up to Dr. Marc Edwards' water research--which had already prompted me to add a \$10 million request to the Governor and the State in order to replace lead service lines for the most affected and most vulnerable households. Unfortunately, there is a pattern of Flint being discounted time and again. Not only did the State initially dispute the data on childhood blood lead levels, the community's demand for replacing lead service lines is not being met still today, six months later.

Despite the resistance from the State, I took further action by issuing the Lead Advisory from the City of Flint in coordination with the Genesee County Chief Public Health Officer to ensure the public knew about the risks of lead in the water and how to minimize exposure with filters and testing. A few days later the County issued a declaration of a Public Health Emergency. This was all done locally despite misinformation continuing to be released from State agencies in coordination with the Governor's office.

Once the lead poisoning was acknowledged by the State, Michigan Department of Environmental Quality Director Dan Wyant and I agreed that the fastest way to get optimized corrosion control into Flint's system was to reconnect to Detroit. The first concrete proposal the State would agree to was for the \$12 million/9 month service cost to be shared 50% by the State and 50% by the City of Flint with a possible partial off-set by the C.S. Mott Foundation. This put too much burden on us in Flint and I demanded more. In the final agreement, the State contributed \$9 million, 75% of the cost. This continued to add to the extreme hardships faced by Flint's families and the City--but the Governor required Flint to pay part of the cost in order for him to seek State Legislative support for an appropriation and this change could not be delayed. The agreement was put into place following Flint's Water Technical Advisory Committee determining that indeed the most important next steps to minimize further lead exposure was to switch back to Detroit's water supply.

A few weeks later, I was stunned when the Michigan Department of Environmental Quality announced in October 2015 that the standards in the Safe Drinking Water Act and Lead and Copper Rule were not properly applied in Flint from the beginning of the use of the Flint River for our city's drinking water because there were repeated assurances that the same standards were followed in Flint, as in all Michigan communities. From before the switch was made until that time, all of the assurances were that Flint's water met the same standards as every other water system in the state and myself and other local officials had echoed those same claims--without knowledge of

how information and risks were being concealed by those who were in federal and state regulatory positions and knew the problems were greater than had been acknowledged to us.

We know now that Flint's water was not meeting the same standard as it relates to corrosion control and lead and this resulted in the poisoning of so many people, especially young children. The aging infrastructure and the lead service lines played a role in the crisis, yet it was the underlying problem of not requiring optimized phosphate corrosion control from the beginning that caused significant risks to health and human development and likely substantial damage to the water pipes.

Further Assistance for Flint

Lead and other legacy infrastructure problems are a challenge for many older communities across Michigan. Addressing the severe health and infrastructure challenges in Flint will require far-reaching state and federal partnerships. The new costs cannot be shifted back to Flint's taxpayers and the community. This is a large and complicated issue, but Flint must have a safe, secure and affordable water system. I am pleased to see a modicum of progress, although more needs to be done to provide health services, to fix the pipes and to compensate customers. It is my hope that federal, state, community and private partners will all work together to address the needs being identified by community leaders and elected officials who are continuing to work diligently on behalf of Flint. I am also grateful for the outpouring of support for Flint from people and organizations across the country.

Chairman CHAFFETZ. Thank you, Mayor.

And now I will turn to Mr. Edwards. You are now recognized for 5 minutes.

STATEMENT OF MARC EDWARDS, PH.D.

Mr. EDWARDS. After hearing the testimony of Susan Hedman this morning, I can't help but comment on the qualities that seem to be valued in administrators at the EPA. Willful blindness, in this case to the pain and suffering of Flint residents, unremorseful for their role in causing this manmade disaster, and completely unrepentant and unable to learn from their mistakes.

Ms. Hedman said EPA had nothing to do with creating Flint. EPA had everything to do with creating Flint. Malfeasance at the U.S. EPA from 2001 to the present has harmed cities all over the United States. And incredibly even as National Guard walked the streets of Flint distributing bottled water and installing filters on taps, Michigan and the EPA are able to say that Flint has never failed the Lead and Copper Rule.

And this is possible because the EPA has effectively condoned cheating on the Lead and Copper Rule monitoring since 2006. This is because EPA and other agencies caused a similar lead and crisis in Washington, D.C. from 2001 to 2004, that actually was 20 to 30 times worse in terms of health harm to children in Washington, D.C. And the completely covered that up for 6 years and wrote falsified scientific reports. And it created a climate in which anything goes across the United States, anything at all to cover up health harm from lead in drinking water.

Since 2006 when we realized that this cheating was occurring, I worked with a small group of people who tried to expose these practices to EPA, and we failed. We failed to get EPA to take lead in water risks seriously, and because we failed I was not surprised when Flint occurred. I was expecting a Flint to occur.

If a landlord were to engage in similar practices and through their negligence to allow even a single child to be exposed to lead paint risk, the EPA would argue for prosecution and incarceration. Yet EPA has allowed entire cities to be unnecessarily exposed to elevated lead in their drinking water, and they've covered up evidence of their unethical actions by authoring these falsified scientific reports.

And they never apologized for what they did in Washington, D.C., and incredibly to this day they have not apologize for what they did in Flint, Michigan. No apology from EPA. Completely unrepentant and unable to learn from their mistakes. I guess being a government agency means you never have to say you're sorry.

And yesterday I have to say I was dumbfounded to read an op-ed by EPA administrator, Gina McCarthy, that effectively absolved EPA of any wrongdoing or any role in creating the Flint disaster. Aside from creating this climate in which a Flint was allowed to occur, I purposely observed, witnessed, and uncovered wrongdoing by Ms. Susan Hedman at the U.S. EPA in covering up this problem.

Ms. Hedman at every step aided, abetted, and emboldened the unethical behavior of civil servants at the Michigan Department of Environmental Quality. She allowed Flint's children to be harmed.

And why should she not suffer the same or a worse fate than a common landlord who does the same thing?

Had Flint residents not fought for the truth with the assistance of compassionate outsiders, it's incredible the harm to Flint's children never would've been exposed. And so, to quote Ms. McCarthy's closing op-ed statement, I do agree with her, "It's tragic it took a disaster of this sort to get this issue the attention it deserves. Let's do something about it."

Ms. McCarthy, you could start by acknowledging EPA's failure over the last decade to enforce the provisions of the Environmental Protection Agency Lead and Copper Rule. This is a critical and necessary first step to make EPA once again worthy and deserving of the public trust and its noble mission.

Thank you.

[Prepared statement of Mr. Edwards follows:]

Failure of the U.S. Centers for Disease Control (CDC) and the U.S. Environmental Protection Agency (EPA) to Protect Children from Elevated Lead in Drinking Water: 2001-Present

Marc Edwards, Virginia Tech

Malfeasance at the U.S. EPA and the CDC from 2001-2016 has harmed children in cities all over the United States. Incredibly, even as the national guard walks Flint to install filters and distribute bottled water because of water lead dangers-- Michigan and the U.S. EPA have insisted that Flint has always met standards of the EPA Lead and Copper Rule (LCR). That claim is technically correct, because the EPA has effectively condoned cheating on the LCR since at least 2006.

Because the EPA, CDC and other agencies, first inadvertently caused, and then covered up, a water lead crisis from 2001-2004 in the nations' capitol that was 20-30 times worse than the Flint tragedy, an environment was created in which "anything goes" to hide water lead problems from the public. After discovering these deceptive practices in 2006, I worked with a small group of volunteers who dedicated nearly a decade of their lives, exposing misconduct that hid lead in water dangers, by:

- 1) writing a white paper highlighting practices of water utility gaming (Appendix A)
- 2) authoring e-mails begging, prodding and threatening officials at the EPA, to no avail (e.g., Appendix B)
- 3) assisting a 2010 congressional hearing into the U.S. CDC, revealing "A Public Health Tragedy" caused by a falsified CDC report, which the CDC has refused to either correct or retract (Appendix C)
- 4) revealing cheating at many utilities-- EPA backed up the bad actors and undercut us in every case
- 5) fighting for guidance effectively banning practices such as aerator removal, after they were shown to cause lead poisoning of children in Durham and elsewhere--but utilities still continue such practices while EPA watches in silence

Because our efforts failed to make these agencies take lead in water risks seriously, I was not surprised by "a Flint" water crisis. I was expecting it.

If a landlord were to engage in similar behavior, allowing even a single child to be exposed to lead paint risks without warning, the EPA and CDC would successfully argue for criminal prosecution and incarceration. Yet CDC and EPA have allowed entire populations to be exposed to high lead in drinking water, and covered up of evidence of their unethical actions by authoring false scientific reports. They have never apologized for their actions in D.C or in Flint MI—apparently, being a government agency means never having to say you are sorry.

I was nonetheless disappointed, that EPA administrator Gina McCarty wrote an op-ed in the Washington Post yesterday that absolved the EPA of any wrong doing in Flint. Aside from EPA's direct role in creating the aforementioned climate in which "a Flint" was inevitable, I personally witnessed and exposed misconduct by EPA Regional Administrator Susan Hedman. Ms. Hedman actively aided, abetted and emboldened, the unethical behavior of civil servants at the State of Michigan Department of Environmental Quality. She allowed Flint children to be harmed. Consequently, why should Ms. Hedman, not face the same or worse fate, as a common landlord who engaged in similar behavior? Had Flint residents not fought for the truth with the assistance of compassionate outsiders, the harm to Flint's children would never have been exposed. To quote Ms. McCarty's closing op-ed statement.

"It's tragic that it took a disaster of this scale for this issue to get the attention it deserves. Now let's do something about it."

Ms. McCarty, you should start, by acknowledging EPA's failures over the last decade, and EPA's prominent role in creating the Flint Water Crisis in the first place. This is a critical and necessary first step, to make EPA, once again, worthy of the public trust and its noble mission.

update: Health studies from the U.S. Centers for Disease Control (CDC) and Virginia Tech published in 2012 and 2014, demonstrated that the incidence of Lead Poisoning in DC children (living in homes with lead service lines) and rates of fetal death, were higher in DC the time this white paper was written, even though DC was in full compliance with the EPA LCR since 2005.

Appendix A.

Gaps in the EPA Lead and Copper Rule That Can Allow For Gaming of Compliance: DC WASA 2003-2009

By

Marc Edwards, Virginia Tech
Yanna Lambrinidou, Parents for Nontoxic Alternatives
Ralph Scott, Alliance for Health Homes
Paul Schwartz, Clean Water Action

October 2009

The intent of the Lead and Copper Rule (LCR) is to determine the effectiveness of corrosion control measures and assess public safety in a set of “worst case” (for risk of lead leaching) homes, based on normal resident water use patterns. When 10% or more of the sampled sites exceed the Environmental Protection Agency (EPA) action limit of 15 parts per billion (ppb), the LCR requires water utilities to take remedial measures that include corrosion control, lead pipe replacement, and public education to avoid unnecessary exposure to high lead in water.

In Washington DC, DC WASA and its oversight agency, EPA Region III, are supposed to select sites and sampling methods that detect the worst case lead in the system for LCR compliance monitoring. Through Freedom of Information Act (FOIA) requests and other publicly available information, we have documented methods implemented by DC WASA to circumvent the clear intent of EPA regulations by making lead values reported to EPA Region III lower than they otherwise would be through normal resident water usage. Use of these techniques has allowed DC WASA to meet the EPA action limit during 2005-2008, but DC could well have been out of compliance if testing had been properly done. Because public education requirements about risks from high lead in water were not triggered during this time, many DC residents may have been unwittingly exposed to lead-in-water hazards they could have easily avoided. The same would be true in other locales if their local water utilities were to use the same methods.

The boxes in yellow indicate practices that EPA Region III (and, in some cases, EPA Headquarters) are aware of and have recommended, approved, defended, or have taken no steps to stop. Many of these practices are not technically in violation of the LCR, because the LCR does not include language explicitly forbidding them, but they are in clear violation of the *intent* of the LCR, which is to capture worst case lead-in-water levels at high-risk homes under normal water use conditions.

A. Improper practices that have been implemented in DC

Method	How it Works	Actual Practice in DC
	The Design of the LCR Monitoring Program	
Sampling in neighborhoods predicted to have low lead.	GIS computer system, or study of maps of lead pipe and water test data, enables the identification of neighborhood-by-neighborhood trends.	DC WASA used this practice in 2003 to avoid actual replacement of lead service line pipes. The agency refuses to make its sampling pool public, so it is impossible to know if this practice continues today for LCR sampling, although it is clear that parts of the city are not sampled.
Taking samples during times of the year when the outside temperature is low and the pH in the water is high.	Under these conditions, lead leaching tends to be lower.	DC WASA engaged in this practice in 2003. Sample collection in 2005, 2006, and 2007 missed the weeks when lead in DC water is known to peak.
Taking samples during the time of the year when the water is treated with free chlorine, which keeps lead-in-water levels to a minimum.	Under these conditions, lead leaching tends to be lower.	DC WASA engaged in this practice in 2008 (in 2005 and 2006 the Washington Aqueduct did not do a chlorine burn, and we have not been able to obtain the sampling dates for the 2007 monitoring cycle).
	The LCR Sampling Instructions to Homeowners	
Instructing homeowners to flush the lines the night before sampling (also called "pre-flushing").	Pre-flushing cleans out pipes of most lead (esp. lead particles) before overnight stagnation. The longer and faster the flushing the night before, the cleaner the pipe	In 2004, DC WASA implemented a 10-minute pre-flush in their school sampling. In 2005, they incorporated the same pre-flush into their semiannual sampling for LCR

	and the lower the lead levels that will be detected the next day.	compliance. In 2007, they instructed DC public schools to pre-flush every building for 45 minutes, and every tap for another 5-15 minutes. They maintained the 10-minute pre-flush instruction for LCR compliance sampling until the fall of 2008, when DC residents exposed it with the help of the Washington Post. On September 12, 2008, EPA Headquarters determined that pre-flushing goes against the intent of the LCR, and on September 16, 2008, EPA Region III instructed DC WASA to abandon the practice. But after lobbying from DC WASA (e-mails and letters obtained via FOIA are available upon request), on September 25, 2008, EPA Headquarters and Region III granted DC WASA permission to continue to pre-flush, albeit for 2 minutes instead of 10. A 2004 experiment by Virginia Tech showed that a pre-flush of 2 minutes temporarily eliminates almost as much lead as a 10-minute pre-flush.
Instructing homeowners to try and limit stagnation time to a maximum of 8 hours (e.g., DC WASA's 2005-2008 protocol said, "Do not use any water in the house for 6 to 8 hours;" Chicago's Department of Water Management says, "It is important to collect the sample as soon as possible after six (6) hours.")	EPA's LCR states that stagnation time prior to sample collection must last for a minimum of 6 hours. EPA's guidance specifies clearly that there is <i>no upper limit</i> to stagnation time for LCR sampling. DC WASA's instruction appears to place an arbitrary cap on stagnation that is not consistent with normal resident use, and may have resulted in the exclusion of samples with higher-than-average concentrations of lead.	At least from 2005 to the fall of 2008.

Instructing homeowners to collect 1 st and 2 nd draw samples by opening the tap <i>gently</i> and <i>slowly</i> , and/or providing bottles with narrow openings.	Sampling at low flow rates prevents lead particles from getting swept out of the pipe and into samples.	DC WASA has used this practice since at least 2002. E-mails indicate that they fully understood that low flow rates would reduce lead particles in samples.
Instructing homeowners to remove aerators when sampling.	Aerators contain lead sediment, and removing them decreases lead leaching into water. In 2006, EPA issued an instruction disallowing aerator removal for LCR compliance monitoring, but in October 2008, EPA raised the issue again as a potential topic for renewed consideration.	This practice was suggested by EPA Region III to DC WASA in 2002. It was used in DC WASA's school and apartment sampling instructions in 2004. It was effectively banned by EPA in 2006 because it was implicated in a case of childhood lead poisoning from water in Durham, NC.
	The Management of LCR Samples Prior to Analysis	
Counting samples from homes that, according to homeowner records, do not have a lead pipe, as if they did have a lead pipe.	DC WASA database showed lead pipe, but the customer provided unequivocal evidence to DC WASA that there was no lead pipe.	This occurred in the spring of 2005. EPA Region III claimed the sample was valid because DC WASA <i>thought</i> the customer had a lead pipe.
Discarding properly collected samples if the stagnation time exceeds 18 hours.	EPA's LCR guidance states clearly that there is <i>no upper limit</i> to stagnation time for LCR sampling. By discarding samples that stagnated for more than 18 hours, DC WASA places an arbitrary cap on stagnation, and invalidates properly collected samples that may contain high lead. DC WASA argues that their practice is more conservative than California, which by state law discards samples after a 12-hour stagnation.	Presently in use by DC WASA. We don't know how far back this practice goes.

	The Lab Analysis of LCR Samples	
Having at least two labs analyzing LCR samples: one that is selected as the "official" lab for water samples expected to be low, and one that is selected as the "unofficial" lab for water samples expected to be high.	Sending customer samples that are expected to have higher lead to the lab that does not "count," and excluding those test results from the monitoring data reported to EPA Region III.	In 2005, DC WASA would have failed to meet the action level if samples sent to the lab at Washington Suburban Sanitary Commission (WSSC) had been counted for LCR compliance. According to written EPA guidance these samples should have counted.
Using weak acid in sample preparation.	Lead particles in water tend to sink to the bottom of the bottle and they often do not get measured. The net result is that the reported lead-in-water values can be 80% lower than what is actually present in consumers' drinking water.	This is not a problem specific to DC WASA, but it is a potential national problem because EPA allows water utilities to specify weak acid sample preparation.
	The Validation and Invalidation of Analyzed LCR Samples	
Revalidate previously invalidated samples with low lead.	For water samples that were invalidated by EPA Region III because they came from homes with no record of lead pipe, select those with low lead levels and dig test pits to determine the pipe material. If lead pipe is identified, ask EPA Region III to revalidate the samples. Do not repeat the same process on invalidated samples with high lead levels.	DC WASA and EPA Region III engaged in this practice in spring 2005.
Select homes for LCR sampling that tested low even during the lead-in-water crisis of 2004.	DC WASA sampled tens of thousands of homes across in the city in 2004. On the basis of prior results, the agency can include in their LCR testing	In a winter 2008 meeting that discussed an independent assessment of lead in DC tap water, DC WASA stated that if homes that tested high for

	homes known to have lower lead in water even during highly corrosive conditions.	lead in 2004 were sampled today, DC WASA would fail to meet the LCR.
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B. Practices that have been implemented, but were subsequently banned

Method	How it Works	Actual Practice in DC
Invalidating results with high lead-in-water concentrations.	If a sample tests high, finding a way to claim it is not a legitimate sample. Invalidating even a few high results can completely skew sampling.	DC WASA used this practice in 2001. Presently, EPA forbids sample invalidation after analysis. But DC WASA can invalidate any sample before "official" analysis for any reason (including, for example, seeing lead particles in the sample).
Sampling from homes that do not have lead pipe, in violation of agreement with the EPA and intent of LCR.	Homes without lead pipe have a lower chance of lead in water.	2005 sampling round. DC WASA was fined by EPA Region III, and samples were invalidated.

C. Practices that have been considered but we have no evidence they have been implemented

Method	How it Works	Actual Practice in DC
Replacing faucets that cause problems with high lead in water with lead-free faucets, and keep these homes in the LCR monitoring sampling pool.	To the extent the faucet is the problem, replacing it drops lead in the samples collected only for the LCR pool, without reducing the risk for the city as a whole.	Proposed in January 2003 by a DC WASA consultant.
Adding homes to the monitoring program that have already been sampled with low lead.	Sampling a home for lead under another program and, if lead levels are low, trying to recruit the homeowner to the volunteer pool for the LCR	E-mails indicate that DC WASA openly discussed this practice in 2003.

	monitoring program.	
Replacing most of the lead pipe of homes that sampled with high lead, and keeping on sampling the same homes even though they are no longer highest risk sites.	Replacing a home's lead pipe can dramatically decrease the chance of finding high lead in later sampling.	E-mails indicate that DC WASA openly discussed this practice in 2003.
Dropping homes from the LCR monitoring program that had already been sampled with high lead in water.	Maximize the chance for inclusion of low risk homes in the LCR monitoring pool.	DC WASA proposed this plan to EPA Region III in 2002. EPA Region III said it was not appropriate. There is no proof it was ever used. But DC WASA claims that all water test data is confidential, and so there is no way to check on what they are doing.

D. Practices that hide lead in water and that are used legitimately because they are allowed or required by the LCR

Method	How it Works	Actual Practice in DC
Using only the cold water faucet for all LCR sampling.	Hot tap water tends to dispense more lead than cold tap water. By limiting LCR sampling to cold tap water, LCR monitoring misses worst case lead in water that, under normal use conditions, is often ingested.	DC WASA complies with this requirement.
A long period of flushing between 1 st and 2 nd draw samples until there is a significant change in water temperature.	This subjective instruction results in highly variable flushing times between 1 st and 2 nd draw samples. DC WASA customers have reported flushing for anywhere between 1 and 10 minutes between draws. In a typical single-family home, a flush of 3 minutes or longer would result in water samples that come directly from the water main and have had practically no	DC WASA complies with this requirement. The problem is that the instruction often "misses" the worst case lead from the water held in the lead service line.

	contact time with the home's lead-bearing plumbing materials.	
Discarding properly collected samples for any reason whatsoever prior to analysis.	EPA presently allows utilities to get rid of samples prior to lab analysis without reporting them to EPA. This means that utilities can eliminate from their sample pool bottles with clear signs of high lead. For example, lead particles are often visible to the naked eye; water with lead rust is often discolored. It is even possible that quick (albeit superficial) tests can be used to check for lead content in a sample, thus allowing for the early identification of excessively contaminated bottles.	We don't know if and to what extent DC WASA engages in this practice.

E. Practices that would be clearly fraudulent

Method	How it Works	Actual Practice in DC
Tampering with samples. For example, sending distilled (or lead-free) water to the lab for analysis instead of the water collected from the homeowner's tap, or sending a home's tap water that is partially discarded and mixed with distilled (or lead-free) water.	Producing lead-in-water measurements that do not correspond to actual lead-in-water levels. Because the water utility obtains samples before they go to the lab, there are no effective safeguards to prevent this.	Several 2004 reports by DC WASA contractors identify non-detectable lead in homes of lead poisoned children, and the reports were written days before the water samples were actually analyzed by the lab. Homeowners reported that no water samples had been collected from their homes. Samples that were collected from other homes sat at DC WASA for weeks before being sent to the Washington Aqueduct for analysis.

Appendix B.

From: Marc Edwards <edwardsm@vt.edu>

Date: Fri, Nov 18, 2011 at 8:50 AM

Subject: Gaming of the LCR

To: Kempic.Jeffrey@epamail.epa.gov, Schock.Michael@epamail.epa.gov, Ralph Scott <ralphmscott@gmail.com>, Yanna Lambrinidou <pnalternatives@yahoo.com>, Stephanie Pollack <s.pollack@neu.edu>

Hi Jeff,

I cannot help but note, for the record, a comment I personally heard in a public WQTC presentation regarding Rochester's approach to dealing with the "worst case" consumer homes sampled with high lead (over 15 ppb). As you know, we are supposed to be targeting such homes for sampling in the EPA LCR. The consultant/Rochester stated that if they find a home with water lead over the action level, they will "conduct a partial lead pipe replacement so the home is removed from the sampling pool." After almost falling out of my chair at their publicly acknowledged strategy, in a presentation destined to drum up future business from other utilities hoping to benefit from their expertise (which included a GIS analysis revealing that Rochester is hardly sampling at all in neighborhoods with highest potential for elevated lead), I confirmed with three other attendees that they heard the exact same thing.

I also now know of a large utility, whose LCR "optimization strategy," is to flat out lie (in writing) on forms they fill out for the state in relation to sample site selection. This utility falsely states that any resident previously tested over 15 ppb lead, had to be removed from the utilities EPA LCR pool, because the residents "refused" to cooperate. 100% of the residents that tested over the action level were dropped in one round. When this practice was brought to the states attention, the state did nothing about it. The state even defended it. I personally spoke with several of the residents who had samples with high first draw lead (over 100 ppb) who said they never refused. The state acknowledged to a reporter that they also knew the utilities written statement was inaccurate, and that they were not at all troubled by the practice. This is the same sort of gaming that EPA Office of Water, allowed to occur in Washington DC through at least 2007.

In years past, I have no doubt that some gaming occurred, but it was always with at least some element of shame, and was spoken about in hushed tones in closed meetings if at all. These practices have now officially come out of the closet, and apparently, are part of a tool kit that unscrupulous parties use to avoid triggering the public health protections arising from a lead action level exceedence. It is undeniable that such practices will increase public exposure to lead in water, and therefore, pose a direct public health

threat to children.

What, if anything, does EPA of water, intend to do about such practices?

Because of a lack of leadership on this and other issues, the EPA LCR is currently being used to provide US consumers with a false sense of confidence about levels of lead in their public water supply. Through its inaction, EPA is effectively condoning unethical behavior. As far as I am concerned, the US EPA is more to blame for the next child who suffers health harm from elevated lead in water due to utility gaming, than the consultants/utilities who now openly engage in such practices.

Marc Edwards

From: Marc Edwards [<mailto:edwardsm@vt.edu>]
 Sent: Monday, November 21, 2011 11:11 AM
 To: 'Kempic.Jeffrey@epamail.epa.gov' (Kempic.Jeffrey@epamail.epa.gov);
Schock.Michael@epamail.epa.gov; Ralph Scott (ralphmscott@gmail.com); 'Yanna Lambrinidou'
 Subject: New Orleans utility falsifies documents to game EPA LCR, and EPA backs them up.

Is it just a coincidence the utility replaced the lead pipe as an extra bonus for homeowners who "refused," all in the same week, and conveniently eliminated EVERY SINGLE home (100%) that tested over the Action Level from the sampling pool? Note also EPA's innovative definitions of "refused," incredibly, not one of which even applies in this case.

<http://www.wdsu.com/video/29821532/detail.html>
<http://www.wdsu.com/video/29822226/detail.html>

As near as I can tell, the only thing EPA could fault here, is the utility lying about why they dropped the customers whose water tested high for lead, when EPA would have endorsed the practice in the first place.

I can only conclude that:

- 1) the US EPA Office of Water does not care whether children are lead poisoned from public drinking water**
- 2) EPA's attitude has permeated a significant fraction of the water industry, and**
- 3) the EPA LCR provides false assurances to the public about the safety of their water supply.**

As per my prior e-mail, as far as I am concerned, EPA Office of Water has direct responsibility for all future cases of elevated blood lead in children arising from gaming the LCR.

Marc Edwards

Appendix C.

**A PUBLIC HEALTH TRAGEDY: HOW FLAWED CDC DATA AND
FAULTY ASSUMPTIONS ENDANGERED CHILDREN'S HEALTH
IN THE NATION'S CAPITAL**

**Report by the Majority Staff of the Subcommittee on Investigations and Oversight
of the Committee on Science and Technology,
U.S. House of Representatives to
Subcommittee Chairman Brad Miller**

May 20, 2010

**A PUBLIC HEALTH TRAGEDY: HOW FLAWED CDC DATA AND FAULTY
ASSUMPTIONS ENDANGERED CHILDREN'S HEALTH
IN THE NATION'S CAPITAL**

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STAFF FINDINGS

The staff findings represent the essential elements of what could be proven based on the records provided to the Subcommittee and the information gathered in dozens of interviews with both former and current officials from the Centers for Disease Control and Prevention (CDC), the Public Health Service (PHS), and the District of Columbia. A fuller accounting of the results of the staff's work can be found in the Summary and body of the report.

In the Subcommittee's attempt to fully investigate many of the allegations surrounding the publication of the March 30, 2004 *Morbidity and Mortality Weekly Report Dispatch (MMWR)* and the CDC's overall response to the DC lead-in-water crisis, it has been very difficult to obtain all relevant records regarding the issue from either the CDC or the District of Columbia government, and there are key documents that have been referred to by persons interviewed that have never been located. In other instances, records obtained by the Subcommittee from non-CDC sources completely contradict allegations made by CDC officials. Some assertions made by CDC staff remain completely unsubstantiated by documentation or by outside participants who should have knowledge of the events.

Despite the gaps in some of the Subcommittee's information, it is clear that the CDC's March 30, 2004 *MMWR* was marred by many problems that have yet to be corrected. Among the Subcommittee's primary findings:

- **CDC Has Yet to Inform Public Health Community of Its Faulty Analysis.** Since 2004, lead experts, including some at CDC, have done significant research that negates most of the conclusions of the 2004 *MMWR* article about the lack of a correlation between exposure to elevated water lead levels [WLLs] and the public's health. These include determining that elevated WLLs can cause lead poisoning in children and did so in the District of Columbia; that the substitution of chloramine for chlorine as a water disinfectant causes lead corrosion and elevated WLLs and BLLs; and that "partial" lead line replacements can elevate, instead of reduce, WLLs and result in increased BLLs. CDC has failed its public health responsibilities by refusing to withdraw its 2004 *MMWR* article or to alert the public health community at large of this new information.
- **CDC Has Failed to Publish Its Own Subsequent Research Showing that Elevated WLLs Increase BLLs.** In 2007, CDC researchers presented a paper at a public health conference showing that elevated WLLs can cause lead poisoning in children and did so in the District of Columbia; that the substitution of chloramine for chlorine as a water disinfectant causes lead corrosion and elevated WLLs and BLLs; and that "partial" lead line replacements can elevate, instead of reduce, WLLs with an accompanying four-fold risk for elevated BLLs. CDC has only informed DC officials of these results recently and has failed to inform public health and water utility officials elsewhere of these results. These findings are important since many cities and states across the country have engaged in changing disinfectants and partial lead line replacements. The DC government alone spent nearly \$100 million replacing lead service lines as a response to

the DC lead-in-water crisis before the program was halted because of concerns it was actually increasing, at least in the near term, not decreasing the water lead levels.

Because the *MMWR* is not a peer-reviewed publication, but is heavily relied on by public health offices, CDC should publish its key findings expeditiously in the *MMWR* as it does other public health alerts.

- **CDC Failed to Include Key Data When It Published the Results of a “Cross-Sectional Study” in the *MMWR*.** The cross-sectional study looked at BLL test results for residents of homes with over 300 parts per billion (ppb) of lead in their drinking water, and did not find a *single* person with an elevated blood lead level. It was the most-cited part of the *MMWR* and used as evidence that elevated WLLs did not affect BLLs. But the study failed to mention that many residents had stopped drinking their tap water months earlier, although three co-authors suggested raising this issue in the *MMWR*.
- **CDC Failed to Include Residences with WLLs between 100 and 300 ppbs in Its Cross-Sectional Study Even Though It had Evidence that the BLLs of Children in Those Homes Would Actually Be Higher than Those in Homes with WLLs over 300 ppb.** CDC staff knew that a higher proportion of children in homes with WLLs between 100 and 300 ppbs had tested with BLLs $\geq 10 \mu\text{g/dL}$ than in homes with WLL greater than 300 ppb. None of the authors of the study can explain why they did not expand the study to include these homes.
- **CDC Cannot Produce the Raw Data Used in the Cross-Sectional Study.** Both CDC and the District government claim they have no records containing the raw scientific data to substantiate the basis for this study. The only raw data available, a single spreadsheet provided to Dr. Marc Edwards in a FOIA request in 2006, points to grave problems in the scientific integrity of this study, including individuals who were “tested” *after* the *MMWR* article was published and the fact that more than half of those surveyed said they drank bottled water, a key detail never mentioned in the *MMWR* article. In addition, according to this spreadsheet only 13 individuals in the study drank tap water exclusively and did not use a water filter or drink bottled water. This key fact was also omitted from the *MMWR* article.
- **The *MMWR* Eliminated One Child with an Elevated BLL.** Dr. Lynette Stokes, the first author of the *MMWR* article, a former CDC official and chief of the Bureau of Hazardous and Toxic Substances at the D.C. Department of Health, who oversaw the DC lead program, admitted in an interview that one child who lived in a home with 300 ppb of lead in the water and no other known source of lead in the child’s home, was identified in February 2004 as having an elevated BLL. Dr. Stokes said she excluded this child from the cross-sectional study because the child had only lived in the house a short time. Excluding this child permitted CDC to conclude that even among homes with the highest water lead levels not a *single* person was found with an elevated blood lead level. No records concerning this case can be located, or have been produced by either the District or the CDC.

- **In Its Hurry to Release “Good News,” CDC Ignored Decades of Its Own Research and That of the Scientific Community When It Claimed That Elevated Water Lead Levels in the District of Columbia Did Not Significantly Impact the Blood Lead Levels of Children.** Humans have known since at least the time of the Roman Empire that ingestion of lead in water leads to lead poisoning and negative cognitive and health impacts particularly in children. CDC publications have warned of the threat posed by lead-contaminated water, and numerous peer-reviewed studies over the years have documented increases in blood lead levels in children consuming water with high lead levels. When CDC’s 2004 cross-sectional study concluded that there was no such correlation, it should not have been published without a thorough peer review. Such a review would have resulted in the cancellation of that publication because of the major short-comings of the study.
- **CDC Failed to Provide Reliable Public Health Guidance When It Published an *Emergency Dispatch* Based on Known Missing Data.** Before publishing the *MMWR Dispatch*, Dr. Mary Jean Brown, the principal author of the longitudinal study who is also the chief of the CDC’s Childhood Lead Poisoning Prevention Branch (CLPPB), knew that thousands of blood lead level test results were missing, and that the District’s Department of Health had had major problems with entering this data into its computer system. She chose not to inform her editors, superiors, co-authors or the public about these problems. As a result, the *MMWR* article included incomplete blood lead level test data for the years 2002 and 2003. The Subcommittee’s investigation has found that the number of DC children with elevated blood lead levels in 2002 and 2003 was at least three times greater than the CDC claimed in 2004.
- **In its Public Messaging about Health Effects of Blood Lead Levels, CDC Officials Focused on Levels Greater than 10 $\mu\text{g}/\text{dL}$.** The public statements of CDC after the issuance of the *MMWR Dispatch* focused on its conclusion that there was no increase in children with blood lead levels (BLLs) over 10 $\mu\text{g}/\text{dL}$. However, there was an increase in children with blood lead levels over 5 $\mu\text{g}/\text{dL}$, which CDC acknowledged but did not consider significant. On February 23, 2004, CDC’s own Advisory Committee on Childhood Lead Poisoning Prevention issued a review of the evidence of health effects of BLLs under 10 $\mu\text{g}/\text{dL}$ in children and concluded that lower BLLs had a negative impact, even in children with BLLs less than 5 $\mu\text{g}/\text{dL}$. CDC chose not to provide this critical information to public health officials and District residents. The crisis in Washington D.C. turned on whether large numbers of children with blood lead levels greater than 10 $\mu\text{g}/\text{dL}$ would be found or not, even though CDC officials were well aware significant harm could occur to the development of young children even at much lower levels.

INTRODUCTION AND EXECUTIVE SUMMARY

The Centers for Disease Control and Prevention (CDC), a division of the U.S. Department of Health and Human Services (HHS), is the nation's premier public health agency. Since its establishment in 1946, the CDC has played a leading role in eradicating smallpox, identifying the cause of Legionnaires' disease and investigating the first known cases of acquired immunodeficiency syndrome (AIDS).¹ The "CDC protects the health of Americans on many levels and in many arenas," the agency states. "We conduct surveillance on a wide range of health threats—from infectious diseases to bioterrorism to environmental hazards. When diseases break out around the globe, CDC responds at a moment's notice, lending its expertise and resources to conduct outbreak investigations and provide technical assistance."²

The Lead Contamination Control Act of 1988, an amendment to the Safe Drinking Water Act, authorized the Centers for Disease Control and Prevention (CDC) to initiate program efforts to eliminate childhood lead poisoning in the United States.³ A major aspect of that program was to provide blood lead level screening grants to state and local jurisdictions. In 2000, a federal interagency work group was established to develop recommendations to eliminate childhood lead poisoning as a major public health problem in the United States by 2010. The work group produced a "coordinated federal program" to eliminate childhood lead poisoning. Its focus was on eliminating the hazards of lead paint.⁴ This focus would have significant implications for the federal response to the lead-in-water crisis in the District of Columbia.

Public Health Implications of Exposure to Lead

The fact that lead in water can cause poisoning of humans has been known for centuries, and the adverse health effects of lead poisoning, which include death, insanity, nervous system damage and sterility, have been known since the second century BCE.⁵ For decades, the CDC has warned of the dangers, especially to children, of elevated levels of lead in drinking water. Numerous peer-reviewed studies done in the 1980s documented the increases in blood lead levels (BLL) in young children who were consuming lead-contaminated water in their formulas and prepared foods.⁶ In 1989, Dr. Mary Jean Brown, currently head of CDC's childhood lead poisoning prevention branch,

¹ "Historical Perspectives History of CDC," *Morbidity and Mortality Weekly Report (MMWR)*, Centers for Disease Control and Prevention, U.S. Department of Health and Human Services, June 28, 1996, accessed at: <http://www.cdc.gov/mmwr/preview/mmwrhtml/00042732.htm>.

² "State of CDC 2008: Partnering for a Healthy World," Centers for Disease Control and Prevention, p. 4, accessed at: <http://www.cdc.gov/about/stateofcdc/pdf/SOCDC2008.pdf>.

³ P.L. 100-572.

⁴ President's Task Force on Environmental Health Risks and Safety Risks to Children, "Eliminating Childhood Lead Poisoning: A Federal Strategy Targeting Lead Paint Hazards," February 2000, p.1 accessed at: <http://www.cdc.gov/nceh/lead/about/fedstrategy2000.pdf>

⁵ Major, RH, *Classic Descriptions of Disease*, 3rd ed. Springfield, Illinois: Charles C. Thomas Publishing, 1945.

⁶ See, e.g., Ryn, J.E.; Ziegler, E.E., Nelson, S.E., Formon, S.J., "Dietary intake of lead and blood lead concentration in early infancy," *American Journal of Disabled Children*, 137, 886-91 (1983); Bonnefoy, X, Huel, G., Gueguen, R., "Variation of the Blood Lead Level as a Result of Lead Contamination of the Subjects Drinking Water," *Water Res.* 19, 1299-1303 (1985); Sherlock, J.C., Quinn, M.J., "Relationships between blood lead concentrations and dietary lead intake in infants: the Glasgow duplicate diet study 1979-1980," *Food Additives and Contaminants*. 3, 167-176 (1986).

co-authored an article in the *Journal of Environmental Health* that traced the lead poisoning of a child in Massachusetts to drinking water exposures. "Lead poisoning as a result of drinking water carried through lead service lines has been well-documented in the literature," the paper stated. It concluded: "The case presented here indicates a strong correlation between pre-treatment blood levels and lead in drinking water."⁷

The BLL in children that CDC has used to mandate action has dropped from 40 $\mu\text{g}/\text{dL}$ [40 micrograms of lead per deciliter of blood] in 1970 to 10 $\mu\text{g}/\text{dL}$ in 1991. In the publication announcing that change, CDC warned of the danger of lead in drinking water, stating that it was "probably absorbed more completely than lead in food", and that for babies consuming formula made with hot tap water the "lead exposures from water are unusually high."⁸

In 1991, the Environmental Protection Agency (EPA) set an action level for lead in drinking water of 15 parts per billion (ppb). Both of these limits are still in place today, despite the fact that lead experts have known since the 1980s that BLLs less than 10 $\mu\text{g}/\text{dL}$ also are linked to decreased IQ and cognition in children from 1-5 years of age.⁹ In a study funded by the National Institute of Environmental Health Sciences of the National Institutes of Health, children with BLLs less than 10 $\mu\text{g}/\text{dL}$ scored an average of 11.1 points lower on the Stanford-Binet IQ test.¹⁰ Although it was expected that CDC would reduce its action level as a result of this study, that never occurred. However, in February of 2004, a working group of the advisory committee for CDC's Childhood Lead Poisoning Program reviewed the literature on the cognitive effects of BLLs < 10 $\mu\text{g}/\text{dL}$ and found numerous negative impacts on children that did not become weaker at lower mean BLLs.¹¹ Dr. David Jacobs, an expert in lead poisoning, told a Senate committee in 2007 that the CDC "level of concern" was neither "safe" nor "normal."¹²

In the 1980s, EPA began developing its Integrated Exposure Uptake Biokinetic (IEUBK) model, which indicated that the BLLs of infants drinking formula containing lead in water would be expected to rise by as much as 11 $\mu\text{g}/\text{dL}$ for each increase of 100 ppb of lead in water.¹³

⁷ E. Cosgrove, M.J. Brown, et. al., "Childhood Lead Poisoning: Case Study Traces Source to Drinking Water," *Journal of Environmental Health*, Volume 52, Number 1, July/August 1989, pp. 346-349.

⁸ "Preventing Lead Poisoning in Young Children: 1991," U.S. Department of Health and Human Services, Centers for Disease Control, Oct. 1, 1991, p. 15, accessed at <http://wonder.cdc.gov/wonder/Prevguid/p0000029/p0000029.asp>

⁹ Levin R., Brown, M.J. et al., "Lead Exposures in U.S. Children, 2008: Implications for Prevention," *Environmental Health Perspectives*, October 2008, p. 1285

¹⁰ AP, "Study: Lead Affects Child IQ," April 30, 2001. The study was subsequently published in the *New England Journal of Medicine (NEJM)*. See, Canfield, Henderson, Cory-Slechta, Cox, Jusko and Lanphear, "Intellectual Impairment in Children with Blood Lead Concentrations below 10 μg per Deciliter," *NEJM*, April 17, 2003.

¹¹ CDC/NCEH, "A Review of Evidence of Health Effects of Blood Lead Levels <10 $\mu\text{g}/\text{dL}$ in Children Reported by a Work Group of the Advisory Committee on Childhood Lead Poisoning Prevention," Feb. 23, 2004.

¹² "Statement of David E. Jacobs" before the Environment and Public Works Committee, Oct. 18, 2007.

¹³ Memorandum from Paul White, Chief, Quantitative Risk Methods Group, Washington Division, National Center for Environmental Assessment, Office of Research and Development, Environmental Protection Agency to David A. Bussard, Director, Washington Division, National Center for Environmental Assessment, Office of Research and Development, Environmental Protection Agency, "SUBJECT: Risks of elevated blood lead for infants drinking formula prepared with tap water," March 3, 2004; and White, Van Leeuwen et al., "The Conceptual Structure of the Integrated Exposure Uptake Biokinetic Model for Lead in Children," *Environmental Health Perspectives*, December 1998, pp. 1513-30, accessed at <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1533456/pdf/envhper00541-0248.pdf>

Origins of the Lead-in-Water Crisis in the District of Columbia

In 1998, EPA published its "Stage 1 Disinfection Byproduct Rule," which mandated that water treatment systems reduce the production of carcinogenic disinfection byproducts that resulted from the use of chlorine.¹⁴ The Army Corps of Engineers, which control the Washington Aqueduct used by the District of Columbia's Water and Sewer Authority (WASA), began to use chloramine in November of 2000.¹⁵ This change increased lead corrosion inside the D.C. drinking water system and resulted in elevated water lead levels (WLLs).¹⁶ WASA did not notify the public until 2003, but the notices were unclear and announced meetings to "discuss and solicit public comments on WASA's Safe Drinking Water Act projects."¹⁷ As a result, thousands of unwitting D.C. residents and their children were exposed for two years to harmful levels of lead from the water they were drinking and using for cooking and infant formulas.

Public Knowledge of Excessive Lead in Water

On Saturday, January 31, 2004, a front-page story in *The Washington Post* told the public for the first time that water tests conducted the previous summer by WASA found that thousands of D.C. homes – two-thirds of those tested – had tap water lead levels above the EPA limit of 15 ppb. Approximately 2,300 of the homes tested had results over 50 ppb, and 157 were higher than 300 ppb.¹⁸

The District fell into a crisis mode as the media revealed that WASA and EPA officials had been aware of the problem since 2002 but never informed the public.¹⁹ Residents inundated WASA's water hotline with calls and overwhelmed water testing laboratories. District officials called for public meetings and established an inter-agency task force to investigate.²⁰ There were questions about what D.C. officials knew, when they knew it and whether they took the issue seriously. At a Congressional hearing, EPA officials described the levels of lead contamination as the worst they had ever seen and threatened to take over the system.

¹⁴ "Disinfectants and Disinfection Byproducts Notice of Availability," 63 *Fed. Reg.* 15673-692, March 31, 1998.

¹⁵ Edwards, M., Dudi, A., "Role of chlorine and chloramines in corrosion of lead-bearing plumbing materials," *Journal of American Water Works Association* 96, 69-81 (2004).

¹⁶ "Changes in Lead Levels during Annual Switch to Free Chlorine, Lead in DC Drinking Water," undated, Environmental Protection Agency, accessed at: <http://www.epa.gov/dclead/chlorine.htm>

¹⁷ "Water in D.C. Exceeds EPA Lead Limit: Random Tests Last Summer Found High Levels in 4,000 Homes throughout City," *Washington Post*, Jan. 31, 2004, A1. See also, "Audit of Elevated Levels of Lead in the District's Drinking Water," Office of the Inspector District of Columbia, pp. 39-45; "Summary of Investigation Reported to the Board of Directors of the District of Columbia Water and Sewer Authority," WASA, July 16, 2004, pp. 7-8 and 77-91.

¹⁸ David Nakamura, "Water in D.C. Exceeds EPA Lead Limit; Random Tests Last Summer Found High Levels in 4,000 Homes Throughout City," *The Washington Post*, January 31, 2004, p.A1.

¹⁹ EPA had initially said that WASA's actions had followed "the letter of the law," but later changed its mind. "Response to Lead Blasted on Hill; EPA Threatens to Step In, Oversee D.C. Water System," *Washington Post*, March 7, 2004, C1. In June of 2004, EPA filed an administrative order finding numerous failures with WASA's response to the lead contamination. "Administrative Order for Compliance on Consent, Docket No SDWA-03-2004-0259DS," USEPA Region III, June 2004.

²⁰ "D.C. to Create WASA Task Force; Water Agency Accused of Not Revealing Data on High Lead Levels," *Washington Post*, B1, Feb. 5, 2004.

Even then the city's reaction was slow and inadequate. The D.C. Department of Health did not issue an advisory to warn pregnant women and children under six to stop drinking unfiltered tap water and have their blood tested until a month after the story broke and described it only as a "cautionary" measure until they determined what was causing the elevated WLLs.²¹

In an attempt to respond to the public outcry and to get a quick answer about the potential human health impact, Dr. Daniel Lucey, the District's new interim medical director, sought the assistance of CDC two weeks after the news of the lead-in-water crisis first broke. The CDC responded within a week by providing expert technical assistance and sending Dr. Brown, the head of its childhood lead poisoning prevention branch. On March 10, 2004, the Surgeon General also dispatched U.S. Public Health Service (PHS) officers to help locate affected residents and test their blood.²²

CDC to Washington, D.C.: There is No Public Health Crisis

Based on this effort, on March 30, 2004, the CDC published an emergency "dispatch" in its *Mortality and Morbidity Weekly Report (MMWR)* titled: "Blood Lead Levels in Residents of Homes with Elevated Lead in Tap Water — District of Columbia, 2004" that summarized the results of "preliminary investigations."²³ The purpose of the unusually rapid publication was to let the public know that CDC — "working as quickly as we could" and "under some constraints" — had not found any evidence of a public health crisis.²⁴ This conclusion was counter to all previous peer-reviewed research on the impact of the ingestion of elevated WLLs on children.

In fact, according to CDC, based on a longitudinal study of the four-year period from 2000-2003, elevated BLLs $\geq 10 \mu\text{g/dL}$ in the District's children had actually declined from 9.8 percent to 7.6 percent for children living in homes with lead service lines. This trend, however, did not hold true for children with BLLs between 5 and $10 \mu\text{g/dL}$. CDC conveniently ignored all the scientific evidence and its own advisory group in not warning D.C. residents that these children could also be severely and negatively affected.

The results of a separate study, known as the "cross-sectional study," and included in the *MMWR*, were even more compelling to the press and the general public. This study targeted homes in the District with water lead levels at or above 300 ppb to see if there was a correlation with elevated BLLs among residents in those homes. Surprisingly, not a single child or adult was found with a BLL above the action level. The *MMWR Dispatch* thus concluded, although

²¹ "District to Issue Warning on Lead; Health Advisory on Water to Target Pregnant Women, Small Children," *Washington Post*, Feb. 25, 2004; "D.C. Assailed for 25-Day Delay in Acting; Former Health Directors, Others Chide City, Saying Warnings Were Long Overdue," *Washington Post*, Feb. 26, 2004.

²² Subcommittee staff interview of Dr. Tim Cote, Sept. 8, 2009.

²³ "Blood Lead Levels in Residents of Homes with Elevated Lead in Tap Water — District of Columbia, 2004," *MMWR Dispatch*, Vol. 53, March 30, 2004, available here: <http://www.cdc.gov/mmwr/pdf/wk/mm53d330.pdf>. Three days later it was re-published in the regular *MMWR Weekly*. "Blood Lead Levels in Residents of Homes with Elevated Lead in Tap Water — District of Columbia, 2004," *MMWR Weekly*, Vol. 53, No. 12, April 2, 2004, available here: <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5312a6.htm>.

²⁴ "High Lead Levels Found in D.C. Kids; Numbers Rose during Water Crisis," quoting Dr. Mary Jean Brown, *Washington Post*, Jan. 27, 2009, Met 2 edition.

with many qualifications, that the CDC's longitudinal analysis of blood tests of the city's children "suggest[ed]" that excessive lead in water might increase blood lead levels slightly but not raise it to harmful levels, which it inexplicably defined as $\geq 10 \mu\text{g/dL}$ – once again in opposition to the conclusions of its own advisory group. The report stated unequivocally that "although lead in tap water contributed to a small increase in BLLs in DC, no children were identified with BLLs $\geq 10 \mu\text{g/dL}$, even in homes with the highest water lead levels." (emphasis added)²⁵ In other words, not a single child in the entire District required follow-up action because of lead in their drinking water.

For D.C. residents, that was CDC's take-away message. It was clearly spelled out in the "talking points" written by Dr. Mary Jean Brown, the MMWR's primary author and the head of the CDC's childhood lead poisoning prevention branch:

Main message: There is no indication that DC residents have blood lead levels above the CDC levels of concern of 10 micrograms per deciliter for children 6 months – 15 years old and 25 micrograms per deciliter for adults as a result of lead in water (emphasis in original).²⁶

There were many problems with both the longitudinal and cross-sectional studies. For children living in homes with lead service lines, the decrease in children testing over $10 \mu\text{g/dL}$ was less than the national decline. And there was no decrease from 2000 to 2003 of children with BLLs $\geq 5 \mu\text{g/dL}$ with lead service lines, who would also be affected negatively by lead exposure. Nor was anyone able to tell Subcommittee staff why only residents of homes with WLLs of 300 ppb were chosen for the cross-sectional study when much lower WLLs were known to be harmful. Most importantly, the cross-sectional study did not include any information about whether the residents were actually drinking tap water or not.

There were other problems. There was a mysterious drop of almost 6,000 in the number of children tested in 2003 compared to 2000, and no one could explain the discrepancy. Long-standing data entry problems in the District's lead program made reliance on its data highly questionable.

Some of the co-authors were surprised by the results of the studies, particularly the cross-sectional study, and described them as "counter-intuitive." That, however, did not stop CDC from issuing its emergency *Dispatch* before determining how such "counter-intuitive" results were obtained. And it was the results of that study that caught everyone's attention, not the fact that those studied might not have been actually drinking the water. The public message was that if children drinking water with 300 ppb of lead weren't affected, everyone else could relax.

When asked why the results of these "preliminary investigations" were not held up until they could be verified, Dr. Brown stated that there was pressure from the city, EPA and CDC to get something out quickly on the public health effects of elevated WLLs.²⁷

²⁵ *MMWR Dispatch*, *supra*, p. 2.

²⁶ Dr. Mary Jean Brown's "Talking Points / Q's and A's – D.C. Lead Issues (3/30/04)."

²⁷ Subcommittee staff interview of Mary Jean Brown, July 22, 2009.

Dr. Bruce Lanphear, one of the leading experts on lead poisoning of children, later described the report as “a quick and sloppy study to address public health concerns.” If the article had been “submitted to a journal to ‘prove’ that lead in water wasn’t an important source, it would have been rejected.”²⁸

But for public health officials, CDC’s “main message” of no harm brought a rapid end to the public’s concern about the elevated drinking WLLs. Many local and federal officials and the residents of DC breathed a collective sigh of relief. As reported in the *Washington Post*, “In other words, lead in water seems likely to raise children’s blood lead levels past 5 micrograms but not past 10 micrograms.” The issue soon faded from the headlines. Two days after publication of the *MMWR Dispatch*, Dr. Brown reported to Dr. Falk, that for the first day in over a month there wasn’t a story on lead in water in the *Washington Post*. “I guess that means it worked!”²⁹

Three months later, District health officials were telling the public that lead paint was actually the cause of all unsafe blood lead levels in their children. According to those officials, “every single one” of the homes where children had elevated blood levels that the Health Department had assessed between February and May of 2004 had “increased amounts of lead paint in the home, lead in the soil and lead in other areas of the home.” That conclusion was reiterated in Congressional testimony³⁰ and in a fact sheet the department issued. The message to the public, as recalled by a local environmentalist, was that city and WASA officials said that concerns about the impact of lead in drinking water were “a scare and that there wasn’t any health impact at all – there weren’t any cases found of health impact.” EPA issued a fact sheet based on the report that stated unequivocally: “Residents with high lead levels in their tap water did not have elevated blood lead levels.”³¹

The *MMWR*’s impact went far beyond the District of Columbia. Despite the years of research indicating that for fetuses and very young children, particularly those drinking formula constituted with tap water, there is no safe lead level, and despite evidence that BLLs under 10 $\mu\text{g}/\text{dL}$ also did permanent damage, CDC’s work was used in other cities with elevated water lead levels to dampen citizen concerns about the public health risk of consuming lead-contaminated water.³²

The CDC Study Begins to Unravel

Dr. Marc Edwards, an award-winning professor of civil engineering at Virginia Tech who had been studying corrosion in water utility systems for several years, could not believe

²⁸ Rebecca Renner, “Lead on Tap: An alarming return of lead in drinking water is being ignored by the EPA and municipal officials,” *salon.com*, Nov. 27, 2006, accessed at <http://www.salon.com/news/feature/2006/11/27/lead>

²⁹ E-mail entitled “RE: MMWR Vol. 53/No. 12” from Mary Jean Brown to Henry Falk, April 1, 2004.

³⁰ Testimony of Jerry N. Johnson, WASA general manager, before the House Committee on Government Reform, May 21, 2004.

³¹ “High Lead Levels Found in D.C. Kids; Numbers Rose during Water Crisis,” *Washington Post*, Jan. 27, 2009, Met 2 Edition.

³² There were also elevated WLLs in Maine, Rhode Island, Connecticut, Boston and Portland, Oregon. Renner, “Lead on Tap,” *supra*.

CDC's conclusion that elevated WLLs did not have harmful health effects. He looked at the home risk assessments that D.C. DOH had done in early 2004 where children with elevated BLLs lived. In 2006, he told the local public radio station that some of the city's assessments pointed to water as the key source of lead in the home, and that the message that very high levels of lead in water did not cause "measurable public harm" was false.³³

In early 2007, researchers at Duke University, who had studied a similar lead-in-water spike in a North Carolina town and the resulting lead poisoning of a child after the switch by the water system from chlorine to chloramine, warned that lead poisoning programs needed to be aware of the potential increase in children's BLLs because of the use of chloramines and to take preventive steps in advance.³⁴ Very little attention was paid in the District to this research.

But in 2009, Virginia Tech's Edwards released another analysis of the blood lead level tests done on District children from 2000 to 2004, which came to a shockingly different conclusion from that in the 2004 *MMWR* and reopened the debate. Dr. Edwards reviewed thousands of BLL test results, for children under six from the Children's National Medical Center (CNMC), one of the largest service providers for children in the District. He determined that for the most vulnerable population of children -- those under 1.3 years -- the incidence of elevated blood levels over 10 µg/dL "abruptly" increased by 9.6 times in the second half of 2001 over the first half of the year. However, when he attempted to compare the CNMC data, which should have been a subset of the larger dataset used in 2004 by CDC, he found an error rate in the data of over 50 percent and could not analyze the full data set.³⁵

Dr. Edwards also found correlations between BLLs and WLLs for children older than 30 months who lived in neighborhoods at high risk for having lead water lines. He concluded that the experience in Washington, D.C., was consistent with the "decades of research linking elevated WLLs to higher BLL and EBL [elevated blood level]."³⁶

CDC Finally Finds a Negative Health Impact, but Refuses to Publish It

Four days after the 2006 radio report on Dr. Edwards' review of D.C.'s risk assessment reports, CDC announced that it would conduct a new study to determine whether its original finding was correct. Dr. Brown, the primary author of the original study, said she had not known about the home assessments done by the D.C. DOH. CDC would reanalyze the data and look at the assessments with the new study to be complete in "several months."³⁷

The new study has never been published, but a preliminary abstract released at the annual meeting of the American Public Health Association in 2007 indicated that the conclusions in the

³³ WAMU 88.5FM, "Transcript of 'Questions over Harm Caused by Lead in the Water,'" Sept. 21, 2006, accessed at http://wamu.org/news/06/09/lead_questions.php

³⁴ Miranda, Kim, Hull, Paul and Galeano, "Changes in Blood Lead Levels Associated with Use of Chloramines in Water Treatment Systems," *Environmental Health Perspectives*, February 2007, pp. 221-25.

³⁵ Edwards, Triantafyllidou and Best, "Elevated Blood Lead in Young Children due to Lead-Contaminated Drinking Water: Washington, DC, 2001-2004," *Environmental Science Technology*, March 1, 2009, pp. 1618-23.

³⁶ *Ibid.*

³⁷ WAMU 88.5FM, Transcript of "CDC Lead Study," Sept. 25, 2006, accessed at http://wamu.org/news/06/09/lead_questions.php

new research matched those of Dr. Edwards. The abstract stated that CDC had found that children with BLLs over 5 or 10 $\mu\text{g}/\text{dL}$ were “significantly more likely” to have lived in a home with a lead service line, even after adjusting for the “confounders,” such as the age of the housing unit with its presumed lead-based paint.³⁸

None of the results of CDC’s new work was provided to the EPA, the District of Columbia, WASA or the public. No new “emergency dispatch” was published in the *MMWR*, and many public health experts continue to rely on the discredited 2004 article when dealing with elevated WLLs.

The Subcommittee’s Investigation

Since March 2009, the Subcommittee staff has been investigating these serious questions about the reliability, accuracy and scientific integrity of the 2004 *MMWR* and the process used by the CDC to produce it. Numerous interviews by Subcommittee staff of CDC and District personnel and the listed authors on the study made it clear that the data reporting by the District was seriously flawed, with large amounts of data apparently never entered into the system. As a result, the Subcommittee obtained the raw test results for 2002 and 2003 from the laboratories that performed the tests.

From that data, Subcommittee staff determined that the number of children with elevated BLLs in 2002-03 was at least *three times* greater than reported by the CDC in the *MMWR*. Specifically, the CDC found a little over 300 children with elevated BLLs in 2002 and 2003. In reality, based on the actual lab reports obtained by Subcommittee, *nearly 1,000 District children had elevated BLLs during that same time frame.*

The responsibility for collecting and maintaining accurate BLL test data is with the local or state agency tasked – in this case, the District of Columbia. Subcommittee staff found massive problems, both technological and human, with the District’s efforts to maintain this database. A computer system put in place in 1999 at the behest of CDC never worked properly, requiring a laborious and error-prone manual entry process. CDC was well aware of these problems. In 2002, the CDC data manager ran the District’s 2001 annual submission and found so many errors that the data could not be loaded.³⁹ To compound the problems, the data entry employees responsible for taking lab results and putting them manually into the District’s system were laid off in 2003, causing massive delays in entering BLL test results. There were allegations of forgery of reports and test results that were never entered or thrown away before entry. A properly functioning computer system was not installed until after the CDC report was published.

³⁸ “Association between Lead Poisoning among Children less than Six Year Old and Lead Service Pipes in Washington DC,” APHA, Abstract # 166176, Nov. 7, 2007, accessed at http://apha.confex.com/apha/135am/techprogram/paper_166176.htm. Nonetheless, Dr. Tee Guidotti, then WASA’s public health consultant, told the WASA board in both 2007 and 2008 that “the lead in DC water did not appear to be associated with elevated BLL on a population or on an individual basis.” Minutes of the Ad-hoc Committee on Drinking Water Quality, WASA Board of Directors, June 30, 2008. See also, Minutes of Meeting of WASA Board of Directors, July 26, 2007.

³⁹ E-mail from Jaime Raymond [nee Schoonover] to Obiora Offor, entitled: “Subject: DC’s 2001 Submission,” February 18, 2003.

The Subcommittee also asked for the original data used in CDC's cross-sectional study. Neither the District nor CDC could produce it. Furthermore, even the single spreadsheet provided by the District to Dr. Edwards pointed to grave problems in the scientific integrity of this study. For example, it listed individuals who appeared to have been tested *after* the *MMWR* was published.

All of these problems made it clear that any reliance by CDC on the 2003 data from the District's reporting system and the hastily collected BLL tests for the cross-sectional study as the basis for an emergency "*Dispatch*" advising parents and public health officials that the children of the District were in no danger from drinking lead-laced water was highly questionable. When new data came out in 2006, 2007 and 2009 which contradicted the CDC's initial work, CDC should have withdrawn the 2004 report and done a more thorough study based on accurate data. It never did so.

It is inexplicable that the CDC – the nation's premier public health agency – promoted as credible a report that countered every single piece of research that outside scientists, the agency and its own advisory committee had previously issued on the dangers of elevated lead levels in drinking water and the permanent damage to children from blood lead levels less than 10 $\mu\text{g}/\text{dL}$. CDC's actions in publishing – and continuing to stand by – the *MMWR* article made the problem go away for the agency and the politicians, but not for the parents and the children throughout the nation who will suffer life-time consequences from this misguided document.

**A PUBLIC HEALTH TRAGEDY: HOW FLAWED CDC DATA AND FAULTY
ASSUMPTIONS ENDANGERED CHILDREN'S HEALTH
IN THE NATION'S CAPITAL**

1. CDC Lead Programs and the Known Effects of Lead in Water

The Lead Contamination Control Act of 1988, an amendment to the Safe Drinking Water Act, authorized the Centers for Disease Control and Prevention (CDC) to initiate program efforts to eliminate childhood lead poisoning in the United States.⁴⁰ In 2000, after significant funding increases had been proposed for the program, a federal interagency work group was established to develop recommendations to eliminate childhood lead poisoning as a major public health problem in the United States by 2010. The work group produced a "coordinated federal program" to eliminate childhood lead poisoning by focusing on eliminating the hazards of lead paint.⁴¹ This focus would have significant implications for the federal response to the lead-in-water crisis in the District of Columbia (D.C.) as eliminating lead paint, not lead-contaminated water, was the primary goal of public health officials.

The CDC provides grants for blood lead screening programs to many local and state lead programs. In 2003, the CDC awarded \$31.7 million to 42 state and local health departments to develop and implement comprehensive lead poisoning prevention efforts of which \$500,000 went to the District.⁴² Over the years, the CDC has provided the District with more than \$12 million in lead grants.⁴³ At the time of the lead-in-water crisis, the Bureau of Hazardous Materials and Toxic Substances in the District's Department of Health (D.C. DOH) ran the Childhood Lead Poisoning Prevention Program (CLPPP) which collected blood lead level (BLL) test data for children under six years old, did follow-up home risk assessments where children with high BLLs lived, and provided general public education on lead poisoning. In 2004, Dr. Lynette Stokes, a former CDC official, was the Chief of the Bureau of Hazardous Materials and Toxic Substances. The CDC's Lead Poisoning Prevention Branch (LPPB) was (and still is) headed by Dr. Mary Jean Brown.

As part of their agreements with the CDC, the recipients of these grants were required to provide summary data on the total number of BLL tests they conducted and the number of elevated BLLs in quarterly reports provided to the CDC's LPPB. They were also required to submit copies of their annual surveillance testing "raw data" by the end of April of the following year.

⁴⁰ "Lead Contamination Control Act of 1988," Public Law 100-572, October 31, 1988, accessed at: <http://www.epa.gov/history/topics/sdwa/06.htm>.

⁴¹ President's Task Force on Environmental Health Risks and Safety Risks to Children, "Eliminating Childhood Lead Poisoning: A Federal Strategy Targeting Lead Paint Hazards," February 2000, p.1 accessed at: <http://www.cdc.gov/nceh/lead/about/fedstrategy2000.pdf>

⁴² "Cooperative Agreement Funding," Childhood Lead Poisoning Prevention Branch, Centers for Disease Control and Prevention, available here: <http://www.cdc.gov/nceh/lead/funding.htm#CooperativeAgreement>

⁴³ History of CDC lead grant funding to the District of Columbia from 1992-to-2009 provided in a spreadsheet e-mailed to the Subcommittee from the CDC on July 2, 2009.

Public Health Implications of Exposure to Lead

The fact that lead in water can cause poisoning of humans has been known for centuries, and the adverse health effects of lead poisoning, which include death, insanity, nervous system damage and sterility, have been known since the second century BCE.⁴⁴ During the Roman Empire, lead plumbing systems supplying water to cities around Rome are believed to have caused widespread lead poisonings.⁴⁵ In 1893, the *Washington Post* ran a story warning of the health hazards of lead exposures from lead-based pipes being placed in the city to carry public drinking water. The newspaper called the installation of lead pipes "a menace to the health of the people."⁴⁶ An article in the 1923 edition of the *American Journal of Public Health* noted that in 1901 physicians in New Hampshire were well aware of "lead poisoning from drinking water."⁴⁷ In 1936, an article in the same journal said: "In some instances the occurrence of lead poisoning from water has been so extensive as to be spoken of as an epidemic."⁴⁸

Children are especially susceptible to ingesting large amounts of lead from drinking water. They drink more water per pound of body weight per day than adults do and absorb it more easily. The greatest potential for harm from lead is in the immature brain where loss of IQ is sustained from lead exposure. In addition, children with elevated BLLs develop attention deficits, language problems, reading difficulties and other learning problems.⁴⁹

In the 1980s, EPA also had developed its Integrated Exposure Uptake Biokinetic (IEUBK) model to predict the impact of lead exposures on the BLLs in infants and young children. That model indicated that the BLLs of infants drinking formula containing lead in water would be expected to rise by as much as 11 ug/dL for each increase of 100 ppb of lead in water.⁵⁰ A National Academy of Sciences report on lead exposures in children in 1993 said: "Lead in tap water-consumed in the home, offices, other worksites, and public buildings-can be a particularly important source of lead exposure of young children, pregnant women, and other

⁴⁴ Major, RH, *Classic Descriptions of Disease*, 3rd ed. Springfield, Illinois: Charles C. Thomas Publishing, 1945.

⁴⁵ Jack Lewis, "Lead Poisoning: A Historical Perspective," *EPA Journal*, Environmental Protection Agency, May 1985, accessed at: <http://www.epa.gov/history/topics/perspect/lead.htm>.

⁴⁶ "Lead Pipes Unsatisfactory: Looking for a Good Sanitary Pipe For Supplying Water," *The Washington Post*, June 9, 1893.

⁴⁷ "Charles D. Howard, "Lead in Drinking Water," *American Journal of Public Health*, Volume 13, Issue 3, March 1, 1923.

⁴⁸ G. N. Quam and Arthur Klein, "Lead Pipes as a Source of Lead in Drinking Water," *American Journal of Public Health*, Volume 26, August 1936.

⁴⁹ "Testimony of Dr. Jerome A. Paulson before the City Council of Washington, D.C. on the matter of Lead in Drinking Water," Feb. 4, 2004, p. 3, accessed at: http://www.gwu.edu/~macche/presentations/02-04-04_Testimony_Lead_In_Drinking_Water.pdf

⁵⁰ Memorandum from Paul White, Chief, Quantitative Risk Methods Group, Washington Division, National Center for Environmental Assessment, Office of Research and Development, Environmental Protection Agency to David A. Bussard, Director, Washington Division, National Center for Environmental Assessment, Office of Research and Development, Environmental Protection Agency, "SUBJECT: Risks of elevated blood lead for infants drinking formula prepared with tap water," March 3, 2004; and White, Van Leeuwen et al., "The Conceptual Structure of the Integrated Exposure Uptake Biokinetic Model for Lead in Children," *Environmental Health Perspectives*, December 1998, pp. 1513-30, accessed at <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1533456/pdf/envhper00541-0248.pdf>

people.”⁵¹ In the mid-1980s elevated water lead levels in the Palisades neighborhood of Washington, D.C. were believed to have led to elevated blood lead levels in some children.⁵²

For decades, the CDC has warned of the dangers, especially to children, of elevated levels of lead in drinking water. In 1997, in a public health assessment of contamination resulting from various chemicals, volatile organics and lead at Camp LeJeune, the Agency for Toxic Substances and Disease Registry (ATSDR), an office within CDC, stated that

[P]eople drinking water containing lead at levels above 50 ppb [parts per billion] could absorb enough lead to experience long-term health consequences. Moreover, people highly sensitive to the effects of lead, particularly children, infants and fetuses, could experience irreversible adverse health effects such as decreased IQ and compromised mental development. . . .

It is the total body burden of lead that is related to the risk of adverse health effects. Because the body accumulates lead over a lifetime and releases it slowly, even small doses of lead over time can cause lead poisoning. Further, relatively low blood lead levels can cause adverse health effects, some of which, like decreased IQ or mild behavioral disorders, may not produce noticeable signs or symptoms.⁵³

Numerous peer-reviewed studies done in the 1980s documented the increases in blood lead levels (BLL) in young children who were consuming lead-contaminated water in their formulas and prepared foods.⁵⁴ In 1989, Dr. Mary Jean Brown, currently head of CDC’s childhood lead poisoning prevention branch, co-authored an article in the *Journal of Environmental Health* that traced the lead poisoning of a child in Massachusetts to drinking water exposures. “Lead poisoning as a result of drinking water carried through lead service lines has been well-documented in the literature,” the paper stated. As the “only identified source of lead” was solder from newly installed water pipes, the paper concluded: “The case presented here indicates a strong correlation between pre-treatment blood levels and lead in drinking water.”⁵⁵

⁵¹ “Measuring Lead Exposure in Infants, Children, and Other Sensitive Populations,” Committee on Measuring Lead in Critical Populations, National Research Council, National Academy of Sciences, 1993.

⁵² Margaret Engel, “City Officials Say Lead in Water Poses Problem in Palisades Section of NW,” *The Washington Post*, November 3, 1986, p. D1.

⁵³ ATSDR, “Public Health Assessment,” U.S. Marine Corps Camp LeJeune Military Reservation, Camp LeJeune, Onslow County, North Carolina, CERCLIS No. NC6170022580, January 1997, pp. 16-17, citing ATSDR, “Case studies in environmental medicine: lead toxicity,” 1992, and CDC, “Preventing Lead Poisoning, in Young Children,” October 1991.

⁵⁴ See, e.g., Ryn, J.E.; Ziegler, E.E.; Nelson, S.E.; Formon, S.J., “Dietary intake of lead and blood lead concentration in early infancy,” *American Journal of Disabled Children*, 137, 886-91 (1983); Bonnefoy, X, Huel, G., Gueguen, R., “Variation of the Blood Lead Level as a Result of Lead Contamination of the Subjects Drinking Water,” *Water Res.* 19, 1299-1303 (1985); Sherlock, J.C., Quinn, M.J., “Relationships between blood lead concentrations and dietary lead intake in infants: the Glasgow duplicate diet study 1979-1980,” *Food Additives and Contaminants*, 3, 167-176 (1986).

⁵⁵ E. Cosgrove, M.J. Brown, et. al., “Childhood Lead Poisoning: Case Study Traces Source to Drinking Water,” *Journal of Environmental Health*, Volume 52, Number 1, July/August 1989, pp. 346-349.

The BLL in children that CDC has set to mandate action has dropped from 40 $\mu\text{g}/\text{dL}$ [40 micrograms of lead per deciliter of blood] in 1970 to 10 $\mu\text{g}/\text{dL}$ in 1991. In the publication announcing that change, CDC made the following statement about the danger of lead in drinking water:

Lead in drinking water is probably absorbed more completely than lead in food. Adults absorb 35-50% of the lead they drink, and the absorption rate for children may be greater than 60% [citation omitted]. In general, lead in drinking water is not the predominant source for poisoned children. In some circumstances, however, lead exposures from water are unusually high . . . Several babies have been poisoned when hot tap water, which was then boiled (resulting in concentrating the lead), was used to make baby formula.⁵⁶

In 1991, the Environmental Protection Agency (EPA) set an action level for lead in drinking water of 15 parts per billion (ppb). Both of these limits are still in place today.

Are the Action Levels “Safe”?

Public health experts have known since the 1980s that BLLs lower than CDC’s action level of 10 $\mu\text{g}/\text{dL}$ are linked to decreased IQ and cognition in children from 1-5 years of age.⁵⁷ In a study funded by the National Institute of Environmental Health Sciences of the National Institutes of Health, children with BLLs less than 10 $\mu\text{g}/\text{dL}$ scored an average of 11.1 points lower on the Stanford-Binet IQ test. “There is no safe level of blood lead,” Dr. Bruce Lanphear, one of the researchers and a childhood lead expert, declared, a conclusion that has been espoused by the CDC and other national and international health organizations.⁵⁸ It was expected that CDC would reduce its action level as a result of this study, but that never occurred.

CDC did, however, task a working group of its Advisory Committee on Childhood Lead Poisoning Prevention to review the evidence of health effects of blood lead levels less than 10 $\mu\text{g}/\text{dL}$ in children. Their report, which was issued in February of 2004 – just as the CDC was beginning work in the District of Columbia to determine the health effects on children because of elevated lead levels in drinking water – stated that both longitudinal and cross-sectional studies had consistently found a relationship between lowered cognitive functions and BLLs less than 10 $\mu\text{g}/\text{dL}$.⁵⁹

⁵⁶ “Preventing Lead Poisoning in Young Children: 1991,” U.S. Department of Health and Human Services, Centers for Disease Control, Oct. 1, 1991, p. 15, accessed at <http://wonder.cdc.gov/wonder/Prevguid/p0000029/p0000029.asp>

⁵⁷ Levin R., Brown, M.J. et al., “Lead Exposures in U.S. Children, 2008: Implications for Prevention,” *Environmental Health Perspectives*, October 2008, p. 1285

⁵⁸ AP, “Study: Lead Affects Child IQ,” April 30, 2001. The study was subsequently published in the *New England Journal of Medicine (NEJM)*. See, Canfield, Henderson, Cory-Slechta, Cox, Jusko and Lanphear, “Intellectual Impairment in Children with Blood Lead Concentrations below 10 μg per Deciliter,” *NEJM*, April 17, 2003.

⁵⁹ CDC/NCEH, “A Review of Evidence of Health Effects of Blood Lead Levels <10 $\mu\text{g}/\text{dL}$ in Children Reported by a Work Group of the Advisory Committee on Childhood Lead Poisoning Prevention,” Feb. 23, 2004, accessed at: <http://www.cdc.gov/nceh/lead/ACCLPP/meetingMinutes/lessThan10MtgMAR04.pdf>

As. Dr. David Jacobs testified before the Senate Environment and Public Works Committee in 2007,

Importantly, the CDC level of concern was not established to be a “safe” or “normal” level, although some have used it in this fashion. As early as 1991, CDC reported that adverse health effects could be seen at blood lead levels below 10 $\mu\text{g}/\text{dL}$ [footnote omitted]. More recent evidence from multiple studies, reviewed by CDC itself, has confirmed the 1991 CDC Statement that no safe level of lead exposure has been found [footnote omitted].⁶⁰

Dr. Jacobs further stated instead of using the nation’s children as “detectors of lead problems” and to “avoid the perception that a blood lead level of 10 $\mu\text{g}/\text{dL}$ or 5 $\mu\text{g}/\text{dL}$ is ‘normal’ or ‘safe,’ CDC and other medical authorities might consider labeling blood lead levels between 2 and 10 $\mu\text{g}/\text{dL}$ what they really are: ‘above average.’”⁶¹

2. Origins of the Lead-in-Water Crisis in the District of Columbia

In 1998, EPA published its “Stage 1 Disinfection Byproduct Rule, which mandated that water treatment systems to reduce the production of disinfection byproducts that resulted from the use of chlorine. Those byproducts, known as trihalomethanes, were recognized carcinogens.⁶² The Army Corps of Engineers, which control the Washington Aqueduct used by the District of Columbia’s Water and Sewer Authority (WASA) began to use chloramine, a compound composed of chlorine and ammonia, in November of 2000.⁶³ This change increased lead corrosion inside the D.C. drinking water system and resulted in elevated water lead levels (WLLs).⁶⁴ By late 2001, WASA knew that the levels of lead in the District’s drinking water were above EPA’s limit. One reporter later described it as one of the worst lead contaminations of city water on record.⁶⁵ WASA notified EPA in August of 2002. Although WASA was also required to notify customers of the elevated WLLs within 60 days, it did not do so until 2003. Subsequent investigations found that WASA’s notices lacked both clarity and a sense of urgency. Advertisements for public meetings did not reveal the lead problem, but stated the meetings would “discuss and solicit public comments on WASA’s Safe Drinking Water Act projects.”⁶⁶ As a result, thousands of unwitting D.C. residents and their children were exposed

⁶⁰ “Written Statement of David E. Jacobs, Ph.D., CIH,” U.S. Senate Environment and Public Works Committee, Oct. 18, 2007, p. 12.

⁶¹ Jacobs Statement, *supra*, p. 13.

⁶² “Disinfectants and Disinfection Byproducts Notice of Availability,” 63 *Fed. Reg.* 15673-692, March 31, 1998.

⁶³ Edwards, M., Dudi, A., “Role of chlorine and chloramines in corrosion of lead-bearing plumbing materials,” *Journal of American Water Works Association* 96, 69-81 (2004).

⁶⁴ “Changes in Lead Levels during Annual Switch to Free Chlorine, Lead in DC Drinking Water,” undated, Environmental Protection Agency, accessed at: <http://www.epa.gov/dclead/chlorine.htm>

⁶⁵ Rebecca Renner, “Health agency covered up lead harm,” *salon.com*, April 10, 2009, accessed at http://www.salon.com/env/feature/2009/04/10/cdc_lead_report

⁶⁶ “Water in D.C. Exceeds EPA Lead Limit: Random Tests Last Summer Found High Levels in 4,000 Homes throughout City,” *Washington Post*, Jan. 31, 2004, A1. See also, “Audit of Elevated Levels of Lead in the District’s Drinking Water,” Office of the Inspector District of Columbia, pp. 39-45; “Summary of Investigation Reported to the Board of Directors of the District of Columbia Water and Sewer Authority,” WASA, July 16, 2004, pp. 7-8 and 77-91.

for two years to harmful levels of lead from the water they were drinking and using for cooking and infant formulas.

Public Knowledge of Excessive Lead in Water

On Saturday, January 31, 2004, a front-page story in *The Washington Post* told the public for the first time that water tests conducted the previous summer by WASA found that thousands of DC homes – two-thirds of those tested – had tap water lead levels above the EPA limit of 15 ppb. Approximately 2,300 of the homes tested had results over 50 ppb, and 157 were higher than 300 ppb.⁶⁷

The District fell into a crisis mode as the media revealed that WASA and EPA officials had been aware of the problem since 2002 but never informed the public.⁶⁸ Residents inundated WASA's water hotline with calls and overwhelmed water testing laboratories. District officials called for public meetings and established an inter-agency task force to investigate.⁶⁹ High lead levels were found in the fountains at nine District schools.⁷⁰ The District Health Department's director was ousted after it was found that he did not respond to a call for help in December of 2003 from WASA because lead in water was a WASA, not a city, problem. A few days later, it was determined that District health officials actually had known about the lead problem since October of 2002 and even assisted WASA in drafting an education brochure, but did not believe it was a "major" health concern.⁷¹ At a Congressional hearing, EPA officials described the levels of lead contamination as the worst they had ever seen and threatened to take over the system.⁷² Earlier statements that the contamination was confined to houses with lead service lines were questioned when it was found that houses with copper service lines also had elevated WLLs. But WASA often didn't know the actual composition of the service lines.⁷³ WASA's directives to about where to expect lead, how to flush it away and when not to drink the water often were based on false assumptions and had to be withdrawn.⁷⁴

⁶⁷ David Nakamura, "Water in D.C. Exceeds EPA Lead Limit; Random Tests Last Summer Found High Levels in 4,000 Homes Throughout City," *The Washington Post*, January 31, 2004, p.A1.

⁶⁸ EPA had initially said that WASA's actions had followed "the letter of the law, but later changed its mind. "Response to Lead Blasted on Hill; EPA Threatens to Step In, Oversee D.C. Water System," *Washington Post*, March 7, 2004, C1. In June of 2004, EPA filed an administrative order finding numerous failures with WASA's response to the lead contamination. "Administrative Order for Compliance on Consent, Docket No. SDWA-03-2004-0259DS," USEPA Region III, June 2004.

⁶⁹ "D.C. to Create WASA Task Force; Water Agency Accused of Not Revealing Data on High Lead Levels," *Washington Post*, B1, Feb. 5, 2004.

⁷⁰ "High Lead Levels Found in Water at 9 D.C. Schools; Untested Fountains, Sinks Still in Use," *Washington Post*, Feb. 25, 2004, B1.

⁷¹ "D.C. to Oust Health Chief over Response to Lead Problems," *Washington Post*, March 26, 2004, B8 "D.C. Knew of Lead Problems in 2002; Timing of E-mails Contradicts Claims," *Washington Post*, March 29, 2004, A1.

⁷² EPA had initially said that WASA's actions had followed "the letter of the law, but later changed its mind. "Response to Lead Blasted on Hill; EPA Threatens to Step In, Oversee D.C. Water System," *Washington Post*, March 7, 2004, C1. In June of 2004, EPA filed an administrative order finding numerous failures with WASA's response to the lead contamination. "Administrative Order for Compliance on Consent, Docket No. SDWA-03-2004-259DS," USEPA Region III, June 2004.

⁷³ "Homes with Copper Lines not Immune to High Lead," *Washington Post*, March 13, 2004, B1.

⁷⁴ "WASA Backpedaling Prompts Confusion; D.C. Agency Changed Advice on Flushing Taps, Replacing Pipes, Health Risks," *Washington Post*, March 14, 2004, A16.

There also was evidence that city health officials – who had decided in 2002 that lead in water was not really a serious problem – had not really changed their views. The Department of Health did not issue an advisory warning pregnant women and children under six to stop drinking unfiltered tap water and have their blood tested until a month after the story broke. Even then, they described it as a “cautionary” measure until they determined what was causing the elevated WLLs.⁷⁵

In an attempt to respond to the public outcry and to get a quick answer about the potential human health impact, Dr. Daniel Lucey, the District’s new interim medical director, sought the assistance of CDC, the federal agency which issued the grants for childhood blood lead screening and provided public education, two weeks after the news of the lead-in-water crisis first broke.⁷⁶ CDC Director Julie Gerberding quickly directed top staff members to “help Dan. He is the new Acting DC health director. He is terrific!!!”⁷⁷ The CDC responded within a week by providing expert technical assistance and sending Dr. Brown, the head of its childhood lead poisoning prevention branch. On March 10, 2004, the Surgeon General also dispatched U.S. Public Health Service (PHS) officers to help locate affected residents and test their blood.⁷⁸

Problems with the District’s Lead Tracking System

Both the quarterly reports and the raw surveillance data submissions from the D.C. CLPPP to the CDC would play important roles in the scientific integrity issues that arose regarding the credibility of the underlying raw data used in the March 30, 2004 *Morbidity and Mortality Weekly Report* (MMWR) *Dispatch* to evaluate the public health impact of lead in water in Washington, D.C. The conduct by D.C. offices is not the focus of this report, but it is impossible to fully appreciate the data integrity problems associated with the CDC’s lead analysis at the time of the 2004 lead-in-water public health crisis without an appreciation of the source of the data used by CDC. Further, an appreciation of how much was and is known by CDC officials regarding problems with the management of data by city offices helps clarify questions about those officials’ commitment to transparency and integrity.

Prior to 1999, the District’s lead program maintained a manual system to track lead test data results and individual childhood lead case files. In 1999, the D.C. CLPPP implemented a CDC-developed, software program that the CDC provided free of charge to state and local CLPPPs to track medical and environmental activities and to maintain BLL test data. The software, called STELLAR (Systematic Tracking of Elevated Lead Levels & Remediation), was meant to replace the functions of a paper tracking system with a computerized one, provide easier and quicker access to data and automate routine program tasks.⁷⁹ The laboratories that reported BLL test

⁷⁵ “District to Issue Warning on Lead; Health Advisory on Water to Target Pregnant Women, Small Children,” *Washington Post*, Feb. 25, 2004; “D.C. Assailed for 25-Day Delay in Acting; Former Health Directors, Others Chide City, Saying Warnings Were Long Overdue,” *Washington Post*, Feb. 26, 2004.

⁷⁶ E-mail from Daniel Lucey to Julie Gerberding entitled “A washingtonpost.com article on lead in the DC water from Dan Lucey,” Feb. 16, 2004.

⁷⁷ E-mail entitled “FW: A washingtonpost.com article on lead in the DC water from Dan Lucey,” from Julie Gerberding to Henry Falk, Patrick Meehan, Richard Jackson and Tom Sinks, Feb. 16, 2004.

⁷⁸ Subcommittee staff interview of Dr. Tim Cote, Sept. 8, 2009.

⁷⁹ “STELLAR: Systematic Tracking of Elevated Lead Levels & Remediation” & Remediation” web-page, Childhood Lead Poisoning Prevention Program (CLPPP), The National Center for Environmental Health (NCEH),

data results to D.C. would simply send the data on a computer disk that could be easily uploaded to STELLAR and be retrieved by D.C. CLPPP staff. Accuracy would be improved because of the elimination of the manual entry of laboratory results by data entry clerks.

However, the STELLAR database had problems from the start in both the District and in other jurisdictions.⁸⁰ In 1999, the District database crashed, and it is unclear if all the data was ever recovered. "I was looking back over my notes about your 99 data submission and noticed our discussion about trying to identify how much data you recovered after your crash," wrote Wendy Blumenthal, then the head of CDC's lead database reporting program, to Obiora Offor, database manager of the D.C. lead program.⁸¹

The electronic data often could not be uploaded into STELLAR, so the data entry clerks in the D.C. CLPPP office had to manually input the data from paper copies. As before, the process was time consuming and prone to human errors. In addition, in 2002 the District began to lay off the estimated one dozen data entry clerks then working in the D.C. CLPPP office, leading to a significant data entry backlog. By May 2002, Offor realized that the lead program's data entry of test results was far behind. The target was to enter 22,000 BLL test records into STELLAR in FY2002. But in the first seven months, from October 1, 2001 through May 2, 2002, only 4,856 test results had been entered.⁸²

In the 2002 timeframe, Offor wrote several undated memos to Christine Onwuche, the D.C. lead program manager, highlighting his concerns about the STELLAR database and the ability of the D.C. lead program to accurately and efficiently track its childhood lead cases. He requested a new computer system to help eliminate these issues. By May, only two data entry clerks were entering BLL test results into STELLAR. In a memo that month, labeled "Data Concern," Offor pleaded with some of the lead program's investigators to volunteer to enter blood lead test results into the lead database. Offor and four other lead program employees volunteered to meet a quota each week entering a specific number of blood test results into STELLAR. Offor pledged to enter 150 BLL tests himself each week, and the other volunteers committed to entering 600 BLL test results. "While I see this as a temporary solution to this data problem," wrote Offor, "I look forward to the approval of the funding for the new web-based system to [sic] that will eliminate the need to seek so many people to enter data."⁸³ Offor proposed that the District scrap STELLAR and acquire a new lead tracking database by Welligent LLC called LeadTrax "to facilitate data sharing, improve communication and enable

Centers for Disease Control and Prevention (CDC), Page last updated: June 1, 2009, accessed at: <http://www.cdc.gov/nceh/lead/data/stellar.htm>.

⁸⁰ Barry Brooks, the CDC's health advisor to the District of Columbia and the CDC project manager for CDC's lead grants to D.C. told the Subcommittee staff that STELLAR was never intended to be a surveillance system, but was a case management system. Subcommittee staff interview with Barry Brooks, July 14, 2009.

⁸¹ E-mail from Wendy J. Blumenthal to Obiora Offor, cc'd to Jaime Schoonover, entitled "DC data," Oct. 10, 2001.

⁸² Undated Memo titled "Data Concern" written by Obiora Offor, the database manager in the D.C. Childhood Lead Poisoning Prevention Program (CLPPP). The memo appears to be from May 2002. Mr. Offor says he sent the memo to Ms. Christine Onwuche, the CLPPP program manager.

⁸³ Undated Memo titled "Data Concern" written by Obiora Offor, the database manager in the D.C. Childhood Lead Poisoning Prevention Program (CLPPP). The memo appears to be from May 2002. Mr. Offor says he sent the memo to Ms. Christine Onwuche, the CLPPP program manager.

us to better serve the citizens of the District of Columbia.”⁸⁴ According to Offor, by the end of 2002, all the data entry clerks had been laid off.⁸⁵

There were also major accuracy problems in the data that was entered. In February 2003, the CDC’s new LPPB data manager, Jaime Raymond, told Offor that she had run D.C.’s 2001 annual submission and found “there were so many errors, that you hit the >10% error, so I was not able to load any of your data.”⁸⁶ By 2003, critical problems with data collection still paralyzed the D.C. lead program. In August 2003, Offor faxed a letter to Bobby Dixon of the Laboratory Corporation of America (LABCORP), one of seven laboratories reporting blood lead level screening data to CLPPP, asking for all lead screening data processed between September 1st 2002 and July 31st, 2003.⁸⁷ The reason was that “on close examination of the District Lead database, it was discovered that not all lead result [sic] were . . . entered into the database.” (emphasis added)⁸⁸

CDC’s Knowledge of Data Gaps and Inconsistent Reports

In November of 2003, Barry Brooks, the CDC’s new project manager in charge of the CDC lead grant funding for the District’s (as well as several other states’) CLPPP program, visited the D.C. CLPPP offices for the first time. His trip report said that he became aware during that visit that the D.C. CLPPP was “manually entering” data into STELLAR because of technical issues uploading the electronic data from the laboratories into the database.⁸⁹

However, according to Subcommittee staff interviews with CDC officials, including Brooks, Dr. Brown, and Raymond, the CDC’s lead program database manager, none of them were aware of the D.C. CLPPP’s STELLAR blood lead test data “backlog.” Dr. Brown said she was aware that there was a “lag” of several weeks in the labs reporting their BLL test data to the D.C. lead program, but that she was not aware of the backlog in entering data.⁹⁰

According to Offor, because there was a growing backlog of BLL test results that had not been entered into STELLAR in 2003, every month the D.C. CLPPP program staff was adding

⁸⁴ Undated Memo titled “Request For A New Database” written by Obiora Offor, the database manager in the D.C. Childhood Lead Poisoning Prevention Program (CLPPP). The memo appears to be from May 2002. Mr. Offor says he sent the memo to Ms. Christine Onwuche, the CLPPP program manager.

⁸⁵ Subcommittee staff interview with Obiora Offor, Sept. 1, 2009.

⁸⁶ E-mail from Jaime Raymond [nee Schoonover] to Obiora Offor, entitled: “Subject: DC’s 2001 Submission,” February 18, 2003.

⁸⁷ In 2003 the following laboratories were reporting blood lead level test results to the DC Department of Health: 1) The Laboratory Corporation of America (LABCORP), Herndon, Virginia; 2) Quest Diagnostics, Chantilly, Virginia; 3) Quest Diagnostics, Baltimore, Maryland; 4) Children’s National Medical Center, Washington, D.C.; 5) DC Public Health Laboratory, Washington, D.C.; 6) MedTox Laboratories, St. Paul, Minnesota; 7) Mayo Labs, Rochester, Minnesota.

⁸⁸ “Data Request” faxed from Mr. Obiora Offor, Computer Specialist, Government of the District of Columbia, Department of Health, Childhood Lead Poisoning Screening & Education Program to the Laboratory Corporation of America (LABCORP), August 5, 2003.

⁸⁹ Subcommittee staff interviews of Barry Brooks, July 13, 2009 and October 22, 2009; also see “Draft Timeline of CDC Activities related to Lead in Water in the District of Columbia,” prepared by Barry Brooks and Mary Jean Brown, June 1, 2009, National Center for Environmental Health (NCEH), Centers for Disease Control and Prevention (CDC).

⁹⁰ Subcommittee staff interview with Mary Jean Brown, October 22, 2009.

the number of BLL test results received, but *not* yet entered into STELLAR, into monthly “Performance Measures Reports” used internally by the D.C. lead program. The report for September 2003, for example, showed that the D.C. CLPPP had 5,324 blood lead test results that had *not* been entered into STELLAR.⁹¹ Offor said these monthly reports were provided to both Onwuche and Dr. Stokes on a routine basis, and he assumed that Onwuche was providing them to the CDC. But in October 2009, when the Subcommittee showed Dr. Brown and Brooks copies of this September 2003 report during separate interviews with them, both said they had never seen these reports before and were unfamiliar with them.⁹²

The LeadTrax database was finally installed in April 2004, a month after the *MMWR* article was published. But the problems regarding the “data entry” issues in the D.C. CLPPP program played a key role in undermining the scientific integrity of the raw data the *MMWR* relied upon to base its analysis of the D.C. lead-in-water crisis and the article’s ultimate conclusions. Based on the subsequent research done by Dr. Marc Edwards, as well as work done by the Subcommittee staff, it is clear that the data used in the longitudinal study published in the March 2004 *MMWR* was significantly incomplete, inaccurate and undermined any reliable conclusions about the health effects of elevated WLLs that were made in that report.

Data Problems: A Blood Lead Level Test “Data Gap”

Barry Brooks told the Subcommittee that when the lead-in-water crisis broke publicly in January 2004, he immediately went to look at the District’s quarterly reports to get a quick handle on what their elevated blood lead tests showed.⁹³

According to the CDC, in 2001, 16,042 children in D.C. under six years old were screened for elevated BLLs; 156 had elevated BLLs. In 2002, 15,755 children were screened; 122 had elevated BLLs.⁹⁴ When Brooks looked at the D.C. lead program’s quarterly reports for 2003 that were filed with CDC, he claims, they showed that approximately 15,000 D.C. children had been screened for lead in 2003, roughly the same as the year before, although he does not recall the exact numbers with elevated BLLs.⁹⁵

⁹¹ “Performance Measures Report,” Childhood Lead Poisoning, Screening, and Education Program (CLPSEP), Bureau of Hazardous Materials and Toxic Substances (BHMTS), District of Columbia Department of Health (DCDOH), Environmental Health Administration, September 30th FY 2003.

⁹² Subcommittee staff interview with Dr. Mary Jean Brown, October 22, 2009; Subcommittee staff interview with Mr. Barry Brooks, October 22, 2009.

⁹³ The quarterly reports are short 2-page summary documents that provide a snapshot of the numbers of blood lead tests conducted, children identified with elevated BLLs and related statistical information. The “raw data” in the blood lead screening test results received from the laboratories actually performing the blood lead tests include information related to each actual blood lead screening test result, not simply summarized statistical data. The CDC requires that it is provided with a copy of this raw surveillance data by all of its lead grant recipients annually.

⁹⁴ “Number of Children Tested and Confirmed EBLs by State, Year, and BLL Group, Children < 72 Months Old,” Childhood Lead Poisoning Data, Statistics, and Surveillance, National Center for Environmental Health (NCEH), Centers for Disease Control and Prevention (CDC), available here:

http://www.cdc.gov/nceh/lead/data/State_Confirmed_byYear_1997_to_2006.xls

⁹⁵ The Subcommittee staff conducted three interviews with Barry Brooks, the CDC’s health advisor to the District of Columbia and the CDC’s project manager in charge of the CDC lead grants to DC. The first interview with Mr. Brooks via telephone was conducted on March 23, 2009 the other two interviews were conducted in the Subcommittee offices in Washington, D.C. and occurred on July 13, 2009 and October 22, 2009. Brooks reiterated

However, on Feb 28, 2004, as part of the CDC's review, the D.C. lead program's raw surveillance data maintained in STELLAR for the years from 1998 through 2003 was brought to the CDC in Atlanta for analysis.⁹⁶ This data – the source for the longitudinal study in the *MMWR* article – included records for the screening of only 9,229 children in 2003, an astounding drop of 6,526 children from the previous year.⁹⁷ The dramatic decline was unprecedented and unexplained. It should have raised red flags at CDC about the completeness and reliability of the District's data for use in the *MMWR* report. It did not.

Allegations of Forgery

What is even more astounding was the unquestioned use of this data based on the knowledge that CDC had about the problems with the District's data prior to the *MMWR*'s publication. Not only was D.C. having trouble with its blood lead database and significant backlogs in entering test results into the database, but CDC also received an allegation of forgery of the administrative quarterly reports submitted by the District. According to Brooks, in February or March of 2004, he telephoned the D.C. CLPPP program and asked about the 6,500 discrepancy in the numbers between the 2003 quarterly reports submitted to CDC and the "raw data" in the STELLAR database.

Brooks claims that during that telephone call, a CLPPP program official admitted to "forging" the quarterly CDC reports. According to Brooks, the official claimed they did this because of the huge disparity between the screening numbers for 2003 as compared to those provided from D.C. to the CDC in previous years.⁹⁸ Although Brooks claims that the CDC had three separate copies of the allegedly "forged" quarterly reports, the CDC has been unable to locate any of them for the Subcommittee and claims they were all lost during an office move. In addition, none of the 2003 quarterly reports obtained by the Subcommittee from the District of Columbia government support the allegations of forgery made by Brooks and repeated by Dr. Brown. It is unclear when Dr. Brown learned of this claim of "forgery." In staff interviews, she suggested she knew before the *MMWR* was published, but an "official" internal CDC chronology prepared by Brown and Brooks for senior CDC officials indicates that she was told by Brooks in the first week of April-right after the *MMWR* was released.⁹⁹

this description of what he found in February 2004 when he reviewed DC's 2003 quarterly reports submitted to CDC during each of these interviews.

⁹⁶ "Draft Timeline of CDC Activities related to Lead in Water in the District of Columbia," included in "Office of the Director Briefing Memo: Lead in Water," Monday, June 1, 2009, 1:00 – 2:00 p.m., Roybal Campus, Bldg. 21, Conference Room 12302, For Internal Discussion Only, National Center for Environmental Health (NCEH), Centers for Disease Control and Prevention (CDC). The dataset included nearly 85,000 blood lead test results which were used for the longitudinal analysis in the *MMWR* article.

⁹⁷ "Number of Children Tested and Confirmed EBLs by State, Year, and BLL Group, Children < 72 Months Old," Childhood Lead Poisoning Data, Statistics, and Surveillance, National Center for Environmental Health (NCEH), Centers for Disease Control and Prevention (CDC), available here:

http://www.cdc.gov/nceh/lead/data/State_Confirmed_byYear_1997_to_2006.xls

⁹⁸ In interviews with the Subcommittee, the D.C. official Brooks named adamantly denies these assertions and says such a suggestion was not made. This official could point to some documents in their attorney's possession that seemed to confirm their story.

⁹⁹ The Subcommittee has not been provided with any records by CDC to indicate exactly when Barry Brooks informed Dr. Brown about the allegations of "forgery." The CDC apparently has no contemporaneous e-mails,

Furthermore, Brooks claimed that in March 2004 he was told by the same D.C. official that Quest Diagnostics laboratory, one of the seven labs that provided blood lead data to D.C. in 2003, claimed that it had stopped reporting *all* BLLs to D.C. in 2003 and *only* reported elevated results. Dr. Brown confirmed that she was aware of this claim that a lab had not reported all of its results and said she sent an e-mail (no email has ever been provided by CDC or D.C. to confirm this communication) to Dr. Stokes in D.C. asking that the lab be contacted for a full reporting.¹⁰⁰ Both Brooks and Dr. Brown told Subcommittee staff they believed this was a cause of the 2003 “missing” blood lead level test data. Yet, that official has denied that Quest labs ever said any such thing, or that he suggested this to Brooks. The information provided to the Subcommittee from Quest labs, as well as additional information provided by the D.C. government, also contradicts the recollection of events or causes for the drop in 2003 BLL test data from both Brooks and Dr. Brown.

3. CDC's Involvement in the District's Lead-in-Water Crisis and the *MMWR* Dispatch

Offices of the CDC learned of problems with lead in D.C.'s water even before the Washington Post story broke. According to Dr. Brown, the Environmental Protection Agency (EPA) contacted Dr. Tom Sinks, deputy director at CDC's Agency for Toxic Substances and Disease Registry (ATSDR) sometime in late 2003 or early 2004 and reported that WASA was out of compliance with the lead and copper water rules.¹⁰¹ Dr. Brown began working with the District's lead office and EPA's water office in early February 2004. Some kind of human testing program may have already been under consideration because CDC had asked for the addresses of persons whose water had elevated lead levels, but there is no evidence of urgency in either Brown's efforts or CDC's response.¹⁰²

Very quickly, CDC's involvement escalated. February 10, 2004, was the first day of Dr. Daniel Lucey's three-month contract to be the District's interim chief medical officer. Dr. Lucey was an infectious disease specialist with no experience in dealing with lead poisoning, no staff or budget and only a temporary office left vacant by an employee on leave. Within three days of

memorandums or other records about this alleged incident. But the Brooks/Brown timeline prepared for senior CDC officials conveniently says Brooks informed Brown of the allegations of “forgery” in the “First week of April 2004,” days after the publication of the *MMWR* article. Regardless of the specific day Dr. Brown became aware of the alleged “forgery” she acknowledged to Subcommittee staff that she did not share this information with any other CDC officials, including her superiors, for more than *four years*. In July 2008 she finally informed former NCEH/ATSDR director Dr. Howard Frumkin about these allegations in preparing him for an interview with science reporter Rebecca Renner. Dr. Frumkin in turn failed to inform Renner about this issue until March 2009, eight months after she interviewed him about the “missing” blood lead level test results. Dr. Mark Bashor, the Associate Director for Science (ADS) at NCEH/ATSDR, did not learn about these allegations until March 2009 as well. “I never heard a whisper about it from Mary Jean Brown,” Bashor told Subcommittee staff. “I was the ADS for god's sake. It takes a lot to get me mad,” said Bashor. “I was totally ticked off.”

¹⁰⁰ Subcommittee staff interview of Dr. Brown, July 22, 2009.

¹⁰¹ Subcommittee staff interview of Dr. Brown, July 22, 2009.

¹⁰² E-mail from Dan Lucey to Julie Gerberding entitled “A washingtonpost.com article on lead in the DC water from Dan Lucey,” Feb. 16, 2004.

coming on the job, he was told by Mr. James Buford, then the head of the District's Department of Health (DOH) that he was to be "the face of lead in DC."¹⁰³

In an e-mail to himself dated February 16, 2004, Dr. Lucey recorded the frustration of the public resulting from the lack of reliable information and skepticism about the ability of the District's task force to address the problem as expressed in a *Washington Post* editorial:

To this day, the public has no idea of the number of District homes that have lead levels in their water that exceed the federal limit of 15 parts per billion. We know that more than 4,000 homes fall into the category based on WASA tests last summer, but we know that only because of media reports two weeks ago . . . But there are . . . as estimated 23,000 lead service lines in the city. The extent to which homes connected to those lines have lead contamination is unknown and will remain unanswered until WASA completes a survey. The first letter targeted to those estimated 23,000 homes or locations likely to have lead lines, we learned yesterday, may be mailed out by WASA sometime next week. This is coming roughly seven months after WASA first learned that lead exceeded federal limits in thousands of District homes. Little wonder WASA had so many anxious and outraged customers on its hands. (emphasis added)¹⁰⁴

The same day, he forwarded the editorial in an e-mail to Dr. Julie Gerberding, then CDC's director, seeking the agency's expertise and assistance in responding to the D.C. lead-in-water crisis. He informed Dr. Gerberding that a series of public community meetings would begin the next day and asked to talk to a "content expert" and a "risk assessor for lead." He also referred to the previous request from the CDC for the addresses of persons whose water may have elevated levels of lead as District officials had expressed concern about confidentiality.¹⁰⁵

Dr. Gerberding quickly responded and commandeered top CDC staff to help. She forwarded the e-mail to Dr. Henry Falk, then the director of CDC's National Center for Environmental Health (NCEH) and assistant administrator for ATSDR; Tom Sinks, his deputy; Dr. Patrick Meehan, the NCEH deputy director; and Richard Jackson, one of her senior advisors "Please help Dan," she wrote. "He is the new Acting DC health director. He is terrific!!!"¹⁰⁶ Dr. Sinks reported back to Dr. Gerberding that Dr. Brown had been working with the D.C. lead office and EPA's water office for a week, but that he would have her contact Dr. Lucey.¹⁰⁷ "Thanks Tom!" Dr. Gerberding replied. "Dan is just a few days on the job and getting hit with

¹⁰³ Subcommittee staff interview of Dr. Dan Lucey, Nov. 4, 2009. Buford was fired because of his poor performance responding to the DC lead crisis before the *MMWR* was released at the end of March 2004. See: Avram Goldstein, "D.C. to Oust Health Chief Over Response to Lead Problem," *The Washington Post*, March 26, 2004, B8.

¹⁰⁴ E-mail from Dan Lucey to Dan Lucey entitled "A washingtonpost.com article on lead . . ." from Dan Lucey to Dan Lucey, quoting from an editorial entitled "In Deep Water", *Washington Post*, Feb. 14, 2004, A28, Feb. 16, 2004.

¹⁰⁵ E-mail from Dan Lucey to Julie Gerberding entitled "A washingtonpost.com article on lead in the DC water from Dan Lucey" from Dan Lucey to Julie Gerberding, Feb. 16, 2004. Dr. Lucey and Dr. Gerberding had conducted their medical internships and residencies together at the University of California in San Francisco in the early 1980s.

¹⁰⁶ E-mail from Julie Gerberding to Henry Falk, Patrick Meehan, Tom Sinks and Richard Jackson entitled "FW: A washingtonpost.com article on lead . . .", Feb. 16, 2004.

¹⁰⁷ E-mail from Tom Sinks to Julie Gerberding, entitled "Re: A washingtonpost.com article on lead . . .", Feb. 16, 2004.

this mess.”¹⁰⁸ Dr. Sinks contacted Dr. Brown and – in an e-mail marked of “high” importance – asked her to get in touch with Dr. Lucey “to see what his needs are,” and then provide a one-pager to Dr. Gerberding about their activities.¹⁰⁹

The next day, Dr. Lucey had a conference call with Dr. Brown, Dr. Falk and Dr. Meehan. “I was asking for help,” Dr. Lucey recalled. “The CDC said they were glad to help in any way they could.”¹¹⁰ Dr. Brown offered to come to Washington and arrived on February 24.¹¹¹ Dr. Lucey said that, because of their expertise, Dr. Stokes and Dr. Brown became the lead experts he relied upon most often in developing a response to the D.C. lead crisis.

Two days later, on February 26, the District’s Department of Health (D.C. DOH), under Dr. Lucey’s signature and with the assistance of the CDC, sent a letter to the 23,000 residences that were believed to have lead service lines. It warned them of potential hazards from elevated water lead levels (WLLs), and stated that “Children under six years and women who are pregnant or breastfeeding should not drink unfiltered water, or use it to prepare infant formula or concentrated juice, in any of these 23,000 residences until the concerns regarding the lead levels in the water have been resolved.”¹¹²

CDC’s Studies: The Longitudinal and Cross-Sectional Studies

Two parallel, but separate, data review and collection efforts were quickly spawned after the CDC became involved in the D.C. lead issue. Both became part of the March 2004 *MMWR*. The first involved looking at the District’s historic BLL test data to identify specific trends and anomalies regarding the increases or decreases of elevated BLLs among the city’s children. This longitudinal study was led by Dr. Brown. The other effort involved going to the homes with the highest known WLLs and taking BLL samples from those residents in an attempt to correlate the public health impact from exposure to elevated WLLs in the city’s drinking water supply. This effort was designed and led by Dr. Tim Cote of the U.S. Public Health Service and was included in the *MMWR* report as the cross-sectional study.

The Longitudinal Study

The longitudinal study was based on public health surveillance data maintained by the D.C. CLPPP. Public health surveillance data can serve as a useful means to identify public health trends over time and to detect potential health perils to the public.¹¹³ Surveillance data, by

¹⁰⁸ E-mail from Julie Gerberding to Tom Sinks entitled “Re: A washingtonpost.com article on lead . . .” Feb. 16, 2004.

¹⁰⁹ E-mail from Tom Sinks to Mary Jean Brown, Tina Forrester and Christopher DeRosa entitled “Dr. Gerberding was contacted directly about the Pb situation in DC by Dan Lucey,” Feb. 17, 2004.

¹¹⁰ E-mail from Henry Falk to Tom Sinks entitled “Re: Dr. Gerberding was contacted directly about the Pb situation in DC by Dan Lucey,” Feb. 17, 2004; Subcommittee staff interview of Dr. Lucey, Nov. 4, 2009.

¹¹¹ Subcommittee staff interview of Dr. Dan Lucey, *supra*.

¹¹² “Dear Resident” letter, signed by Dr. Daniel R. Lucey, M.D., Interim Chief Medical Officer, Office of the Director, Department of Health, Government of the District of Columbia, available here:

<http://www.dcwatch.com/wasa/040226.htm>.

¹¹³ “Welcome to Child Blood Lead Surveillance (CLBS) Orientation,” Centers for Disease Control and Prevention (CDC), U.S. Department of Health and Human Services (HHS), available here: <http://www.cdc.gov/nceh/lead/training/surveillance/index.html>. The CDC defines public health surveillance data as

definition, is “not perfect,” as CDC officials repeatedly told the Subcommittee staff. But, as discussed above, the District’s data had such significant omissions and errors that reliance upon it was very questionable. At the time of *MMWR*, it was well-known that there was an unexplained drop of more than 6,500 in the number of children tested in 2003 compared to 2002. Flaws, errors or omissions in public health surveillance data may put the public at risk by failing to identify known health dangers or underestimating the extent of the potential danger. Those shortcomings must be pointed out in any study that purports to provide advice on public health. The authors of the *MMWR* had a scientific obligation and public health responsibility to clearly identify those shortcomings, but they never did. Six years after the publication of the *MMWR* they have still not informed the public of the article’s many data integrity flaws or their faulty conclusions.

Both Brooks and Dr. Brown made a variety of claims to the Subcommittee staff about why the data for more than 6,500 children was missing, and why CDC continued to use data that was – at a minimum – incomplete. Dr. Brown, the head of the CDC’s lead branch and primary author of the *MMWR*, had several explanations. She assumed – based on her previous experience – that any “missing” blood lead tests were non-elevated screening tests not reported by the labs.¹¹⁴ She claimed that the 2003 data provided for use in the *MMWR* did not include the last quarter as there was often a lag between tests being submitted and labs reporting back. She also claimed that the “Quest Labs” non-reporting story explained some of the gap. Finally, she indicated that whether she had the data or not wouldn’t make a difference in the final results. No effort was made to confirm any of these problems by Dr. Brown. She simply assumed away the reasons for the missing 6,500 tests.¹¹⁵

In short, Dr. Brown’s reasons for ignoring the data gap was questionable. While Dr. Brown did not apprise any of the *MMWR* editors, her co-authors, other CDC officials, or the public of the critical data integrity questions that swirled around the 2003 BLL test data used in the *MMWR*, some of her co-authors were likely to have known of the problems. The lead author of the *MMWR* article was Dr. Lynette Stokes, head of the D.C.CLPPP. Another co-author with direct knowledge of problems was Christine Onwuche, the CLPPP manager.

In training materials, CDC directed state and local public health officials to acknowledge known limitations or potential flaws in public health data. A CDC on-line guide on child BLL surveillance states, “The key to interpreting data is to know the limitations of the data and to keep the limitations in mind when describing the findings. Inaccuracies in the data may preclude more sophisticated analyses,” the guide, developed under the leadership of Dr. Brown, states. “Erratically collected or incomplete data cannot be corrected by complex analytic techniques,” it warns.¹¹⁶ The CDC, however, failed to follow its own advice and never offered any warnings

follows: “Ongoing, systematic collection, analysis, and interpretation of health-related data essential to the planning, implementation, and evaluation of public health practice, closely integrated with the timely dissemination of these data to those responsible for prevention and control.” See CLBS Orientation, Module 1 – Child Blood Lead Surveillance, Surveillance in Public Health section, prepared by Dr. Pamela Meyer.

¹¹⁴ Subcommittee staff interview of Mary Jean Brown, July 22, 2009.

¹¹⁵ Subcommittee staff interview of Mary Jean Brown, July 22, 2009.

¹¹⁶ “Welcome to Child Blood Lead Surveillance (CLBS) Orientation,” Centers for Disease Control and Prevention (CDC), U.S. Department of Health and Human Services (HHS), Module 4 – Analysis, Interpretation and Use of CBLS Data, Data Interpretations and Limitations section, available here:

<http://www.cdc.gov/nceh/lead/training/surveillance/Module05/Analysis-Limitations.html>.

about the known flaws in the data used to compile the *MMWR* report or attempted to correct them before publication.

CDC'S Cross-Sectional Study: Another Flawed Effort

Fifteen years before she oversaw the publication of the *MMWR* article, Dr. Brown was a co-author of an article in the *Journal of Environmental Health* that traced the lead poisoning of a child in Massachusetts to drinking water exposures. "Lead poisoning as a result of drinking water carried through lead service lines has been well-documented in the literature," her article published in 1989 said. "A case of childhood lead poisoning is presented in which the only identified source of lead was lead solder from newly installed water pipes." The paper concluded: "The case presented here indicates a strong correlation between pre-treatment blood levels and lead in drinking water."¹¹⁷

The cross-sectional study was the most significant portion of the *MMWR* article because it allegedly did not find a correlation between homes that had WLLs ≥ 300 ppb – the "worst" cases – and elevated BLLs of those residents. The study was small, including only 201 residents, just 17 of whom were children under the age of six years old. This is the element of the *MMWR* that was the most widely cited by the media and local, state and federal health officials. They relied on it to claim that in the D.C. lead-in-water crisis there is no evidence that even these highest WLLs led to human harm. Even though the study lacks statistical power given its small size, the persuasive power of looking at the worst of the worst cases and failing to find a single instance of a person with lead above the level of concern cannot be understated.

In the talking points that Dr. Brown prepared for the release of the *MMWR Dispatch*, she wrote that "all [the participants in the cross-sectional study] had BLLs below the CDC levels of concern of 10 micrograms per deciliter for children 6 months – 15 years old and 25 micrograms per deciliter for adults."¹¹⁸ The Subcommittee, however, has identified serious questions with the integrity of the data used in this study.

The study was designed by Dr. Tim Cote, a Public Health Service officer. The explanation offered to Subcommittee staff for choosing homes with 300 ppb or greater of lead in water has been that public health investigators were looking for the "worst case" examples to see what impact, if any, the most extreme levels of lead in water may have had on the blood lead levels of residents drinking the water. Dr. Cote said, "We needed to conduct a rapid assessment." As a result, they focused on the "worst case" homes.¹¹⁹ The D.C. Water and Sewer Authority (WASA) provided a list of 179 homes that fit the criteria.¹²⁰

¹¹⁷ E. Cosgrove, M.J. Brown, et. al., "Childhood Lead Poisoning: Case Study Traces Source to Drinking Water," *Journal of Environmental Health*, Volume 52, Number 1, July/August 1989, pp. 346-349.

¹¹⁸ "Talking Points / Q's and A's – D.C. Lead Issues (3/30/04)", prepared by Mary Jean Brown.

¹¹⁹ Subcommittee staff interview of Dr. Tim Cote, September 8, 2009.

¹²⁰ E-mail from Gregory Hope, Chief, D.C. Water Quality Control Branch, to Nkechi (Christine) Onwuche and Obiora Offor, cc'd to Lynette Stokes and Jerusalem Bekele, entitled "Updated Lead Replacement Monitoring Data," "Attachments: Combined WASA Lead Monitoring Data Above 300.xls; Partial Lead Replacement GE 300.xls," Feb. 11, 2004.

However, Dr. Brown by mid-March 2004 already had information indicating that the highest BLL results were not found in homes with WLLs over 300 ppb, but in homes with WLLs from 16 to 300 ppb in both the first and second draws of water. This data was included in a series of tables attached to an e-mail sent to Dr. Lucey by Dr. Brown on March 12, 2004, more than two weeks before the *MMWR*'s release.¹²¹ In that e-mail, Dr. Brown told Dr. Lucey the "good news" that BLLs in the District were decreasing, even though they were higher in homes with lead service lines. Without evidence or home risk assessments, Dr. Brown claimed that these results were "confounded by age of housing and presumably lead contaminated house dust and soil in these same homes."¹²² But she did not mention the findings in the attached charts for the 852 homes with WLLs of 15 ppb and above, a significantly larger number than the 179 homes that had WLLs over 300 ppb. Those homes had a much higher percentage of children with elevated BLLs than the homes with WLLs over 300 ppb.

In fact, Table 10 in Dr. Brown's e-mail shows that while 34.1 percent of people tested in homes with WLLs between 201 and 300 ppb had elevated BLLs, only 8.1 percent of those in homes with WLLs above 300 ppb had elevated blood lead levels. Given the existence of this data, limiting the cross-sectional study to only those homes with WLLs of 300 ppb or more seriously skewed the results of the study in favor of finding no violations of the CDC levels of concern.

Table 10: Frequency of Elevated Blood Lead Tests in 852 Home by Second Draw Water Lead Level

Blood Lead Levels	0-15 ppb	16-50 ppb	51-100 ppb	101-200 ppb	201-300 ppb	> 300 ppb	TOTAL
<10 µg/dL	577 85.7%	612 84.9%	324 78.8%	183 85.5%	60 65.9	34 91.9%	1,790 83.3%
≥ 10 µg/dL	97 14.4%	109 15.1%	87 21.2%	31 14.5%	31 34.1%	3 8.1%	358 16.7%

Source: Subcommittee on Investigations and Oversight, based on data provided in March 12, 2004 e-mail from Dr. Mary Jean Brown to Dr. Daniel Lucey.

The co-authors of the *MMWR* article interviewed by Subcommittee staff, including Dr. Brown, Dr. Lucey, Dr. Stokes and Dr. Cote all agreed that the fact the Cross-sectional study did not identify a single individual with an elevated BLL was "counterintuitive." "It doesn't make a lot of intuitive sense, does it," Dr. Cote said. But that was what the data showed, they argued. "We are interested in finding relationships," said Dr. Cote. "But we take the facts as they come."¹²³

In fact, one resident in those homes was found to exceed the level of concern. In a radio interview on February 27, 2004 Dr. Stokes said: "One child had a 14 microgram per deciliter blood lead level from that 175 homes with addresses above 300 parts per billion."¹²⁴ That child

¹²¹ E-mail from Mary Jean Brown to Dan Lucey, March 12, 2004, Tables 9 and 10.

¹²² E-mail from Mary Jean Brown to Dan Lucey, March 12, 2004, Tables 9 and 10.

¹²³ Subcommittee staff interview of Dr. Tim Cote, Sept. 6, 2009.

¹²⁴ Lisa Nummerger, "Lead Crisis in DC," Metro Connection, WAMU 88.5 American University Radio, Feb. 27, 2004, audio available here: <http://wamu.org/programs/mc/04/02/27.php>.

was dropped from the study, allowing the authors to make the false claim that “The findings in this report indicate that although lead in tap water contributed to a small increase in BLLs in DC, no children were identified with BLLs >10 µg/dL, even in homes with the highest water lead levels.”¹²⁵

When the Subcommittee first interviewed Dr. Stokes on May 1, 2009, and asked her about her statement, she said it must have been taken out of context, and that she must have been talking about a child exposed to lead paint.¹²⁶ However, when a Subcommittee staff member sat in on another interview of Dr. Stokes by D.C. Office of Inspector General (OIG) investigators in September 2009, her recollection changed dramatically. When asked about the radio interview, Dr. Stokes said that when D.C. investigators examined the home of the child, they found no signs of lead in the paint, dust or soil.¹²⁷ Although this was one of the 175 homes with a WLL of at least 300 ppb, Dr. Stokes said the child was excluded from the Cross-sectional study because the child had only lived in the home for a short time, a matter of “weeks or days.” Lead, however, remains in the blood stream for a relatively short period of time, normally around 30 days.¹²⁸ It is therefore an indicator only of recent lead exposure. Even if a child had been in a home for a few weeks but had been drinking tap water with elevated levels of lead, the result could have been an elevated BLL. Dr. Stokes, who was hired in the D.C. Department of Health because of her lead expertise and is both an epidemiologist and toxicologist, said she was unfamiliar with how long lead stays in the bloodstream.¹²⁹

Instead of following up on the one case that clearly showed a child living in a home with a WLL above 300 ppb, who also had an elevated BLL, Dr. Stokes simply excluded this child from the *MMWR* study. Several of Dr. Stokes’ *MMWR* co-authors, including Dr. Brown, said they were unaware of anyone being dropped from the study.¹³⁰

Not only was at least one participant excluded from the cross-sectional study by Dr. Stokes, some individuals were included despite the fact that they had either only lived in the targeted homes infrequently or had stopped drinking the water long before they had their blood tested. One of the few children included in the study appears to have been Charles Eason’s grandson who only stayed at Mr. Eason’s home on the weekends. Mr. Eason had been informed of his elevated WLLs in the fall of 2003. He had stopped consuming any tap water in November of 2003 and made sure his grandson only drank bottled water while at his home.¹³¹

¹²⁵ *MMWR Dispatch*, *supra*, p. 2.

¹²⁶ Subcommittee staff interview of Dr. Lynette Stokes, May 1, 2009.

¹²⁷ Joint interview of Dr. Lynette Stokes by Subcommittee staff and DC Office of Inspector General, Sept. 10, 2009.

¹²⁸ “Toxicological Profile for Lead,” Agency for Toxic Substances and Disease Registry (ATSDR), Centers for Disease Control and Prevention (CDC), U.S. Department of Health and Human Services (HHS), August 2007, available here: <http://www.atsdr.cdc.gov/ToxProfiles/tp13.pdf>. While the half-life of lead in blood is about 30 days, it remains in soft tissue for between 30 and 45 days and in bone for between 25-to-30 years.

¹²⁹ Joint interview of Dr. Lynette Stokes by Subcommittee staff and DC Office of Inspector General, Sept. 10, 2009.

¹³⁰ Public Health Service officials who visited DC homes with 300 ppb of lead in the water and collected blood lead samples for the Cross-sectional study say they did not exclude anyone from their survey regardless of how long they lived in these homes. See, e.g., Subcommittee staff phone interview of Capt. Lydia Velazquez, U.S. Public Health Service, Oct. 20, 2009.

¹³¹ Subcommittee staff telephone interview of Charles Eason, Sept. 15, 2009.

In the fall of 2003, as it did for thousands of other District residents with lead service lines, WASA provided Mr. Eason with a free sampling kit and requested that he sample his water and mail it back. In November, WASA sent him a letter stating that the EPA limit for WLLs was 15 ppb and that Eason's water measured 550 ppb. But the letter provided little additional information. Eason began using a filter on his tap water immediately and drinking bottled water. He kept trying to get fuller answers from WASA about his water but had little luck. A few weeks after the WASA letter arrived, Eason saw an announcement for a WASA community meeting at the Martin Luther King Branch Library on Dec. 17, 2003, which he attended¹³². According to Eason, there was only one other D.C. resident at the meeting and several WASA officials.

One of the WASA officials at the meeting said that two-thirds of the D.C. homes WASA tested were above the EPA limit of 15 ppb. Eason was surprised that he had not heard this before and wondered if the public was aware of what he believed was an important public health issue. Eason called *The Washington Post* and spoke with Dave Nakamura, the reporter who broke the story on the D.C. lead-in-water crisis on Saturday, January 31, 2004.

Equally important to the credibility of the cross-sectional study was the fact that it did not adequately address whether the residents of the homes were actually drinking unfiltered tap water. The reality was that more than half of them acknowledged drinking bottled water, a fact omitted from the study. Still more were filtering their water. Based on the only data available from the field work (see discussion regarding this issue below), only 13 individuals in the study – from 11 separate residences' -- drank tap water exclusively and did not use a water filter or drink bottled water. This key fact was omitted from the *MMWR* article.¹³³

At least three individuals involved in the cross-sectional study – two co-authors and one public health service officer acknowledged for his assistance in the article – raised concerns prior to the publication of the report that many of those included in the study may have been drinking filtered or bottled water prior to having their blood drawn. Obviously, this would undermine the study's conclusion that there was no correlation between elevated WLLs and elevated BLLs.

"Do we want to mention that many of D.C. residents (couldn't give you #'s though) have been drinking bottled water before any of this went public?" asked Lt. Cmdr. Christine Yu, a senior regulatory management and PHS officer at the Food and Drug Administration. "Or does

¹³² See letter to Mr. Donald S. Welsh, Regional Administrator, Environmental Protection Agency, Region III, Philadelphia, Pennsylvania from Jerry N. Johnson, General Manager, District of Columbia Water and Sewer Authority (DCWASA), Attachment #1, "DCWASA Community and Civic Lead Meetings," December 17, 2003, EPA Grant Meeting, Martin Luther King Branch Library, available here: http://www.epa.gov/dclead/WASA_Letter_3-17-04.pdf.

¹³³ The only raw data available on the MMWR's cross sectional study is a single spreadsheet obtained by Dr. Marc Edwards in a Freedom of Information Act (FOIA) request he submitted with the District of Columbia government. The Excel spreadsheet was sent to Dr. Edwards via e-mail from Tom Collier, the D.C. Department of Health FOIA Officer as an attachment on May 31, 2006. In formal requests by the Subcommittee to the D.C. government and various components of the Department of Health and Human Services, including the CDC, requesting all raw data used as a basis for the conclusions and findings in the MMWR's cross sectional study none of those agencies have found a single record responsive to the Subcommittee's request.

that just confound the data some more?" Yu's e-mail was cc'd to both Dr. Cote and Dr. Brown.¹³⁴

Another Public Health Service officer, LCDR Anthony Walker, wrote to Mary Jean Brown and asked:

"I am not sure if the bottled water consumption would skew the data, but it does present another peice [sic] that might confuse the reader."¹³⁵

On March 23, 2004, PHS Capt. Mark Eberhardt also sent an e-mail to Dr. Brown raising similar concerns.

"6) Do you want to point out that the water sample [sic] that were tested in many of the homes were done last year, but the blood lead measures were determined this month? Between these two time periods, some people stopped drinking water supplied by WASA; some people started using filters, and some people had the lead supply lines to their home replace[d] before blood lead levels were measured. *The point is that this may help to explain why currently no persons have blood lead levels above the levels of concern.*" (emphasis added)¹³⁶

There is no evidence that this obvious and critical concern was ever addressed by the authors prior to publication. The Subcommittee was never provided with a single e-mail response from Dr. Cote or Dr. Brown regarding how to handle this issue in the *MMWR*, nor did they remember anyone raising it when interviewed by staff.

Given the arbitrary selection of those homes with WLLs of over 300 ppb, the very small number of children under six in the study and the failure to determine whether any residents were actually drinking tap water at the time the blood tests were taken made the conclusions scientifically meaningless. It is inconceivable that trained scientists would produce such a study, and expect that it would stand up to any kind of critical review or attempt to use it to reach any sort of valid public health conclusion about the impact of elevated WLLs. Despite the factual and scientific problems with the study, some of the *MMWR* authors remained comforted by its conclusions. "People were relieved there weren't bodies in the street," Dr. Cote told Subcommittee staff.¹³⁷

¹³⁴ E-mail from Christine Yu to one dozen Public Health Service colleagues and cc'd to Dr. Tim Cote and Dr. Mary Jean Brown, entitled "Subject: RE: MMWR Lead contamination data analysis," Wed., March 24, 2004 1:17 AM.

¹³⁵ This e-mail was one of many undated e-mails placed into a word file and provided to the Subcommittee by the Centers for Disease Control and Prevention (CDC) regarding the "clearance" of the cross-sectional study in the *MMWR* article. The date is unknown because they appear to be deleted from the information provided by the CDC to the Subcommittee.

¹³⁶ E-mail from Mark Eberhardt to Mary Jean Brown, cc'd to Dr. Cote, "Subject: Comments regarding DC lead MMWR," March 23, 2004. Emblematic of the data integrity problems with the *MMWR* article is the fact that Eberhardt's name was spelled incorrectly (Eberhart) in the *MMWR* article which did not address his comments and he was cited as a Medical Doctor (MD), which he is not, according to a Subcommittee staff interview with Mark Eberhardt, September 16, 2009.

¹³⁷ Subcommittee staff interview of Dr. Cote, Sept. 8, 2009.

Rationale for the *MMWR* and its Consequences

What had started as an effort to offer support to the D.C. public health authorities had morphed into a push to get an article published. As Dr. Brown acknowledged, an article was desired by D.C. officials. Dr. Lucey told staff that he relied on the CDC staff to do public health work and when they told him they were not finding any evidence of a problem due to lead in water, he wanted them to get that out as quickly and authoritatively as possible. Lucey was not a lead expert and was managing the public health response of town hall meetings and blood testing clinics. He relied on Dr. Brown and Dr. Stokes to manage the public health inquiries.

The *MMWR* was published very rapidly, just six weeks after the first contact with Dr. Gerberding at the CDC. The two studies that form the basis of that article were neither peer reviewed nor subject to elaborate internal review by CDC staff. The article was drafted in a political atmosphere where CDC staff were responding to perceived pressure from the top of their agency—Dr. Gerberding wanted them to help Dr. Lucey—and perceived pressure within the District to calm panic about water quality and health. On top of this, there is an undoubted feeling in the CDC lead program that a fixation on lead in water could derail the progress the program had been making on lead in paint, an issue perceived as being much more dangerous to children across the country.¹³⁸

4. CDC to Washington, D.C.: There is No Public Health Crisis

Based on this effort, on March 30, 2004, the CDC published an emergency “dispatch” in its *Mortality and Morbidity Weekly Report (MMWR)* titled: “Blood Lead Levels in Residents of Homes with Elevated Lead in Tap Water — District of Columbia, 2004” that summarized the results of “preliminary investigations.”¹³⁹ The purpose of the unusually rapid publication, according to a statement made in 2009 by Dr. Brown, its primary author, was to let the public know that CDC — “working as quickly as we could” and “under some constraints” — had not found any evidence of a public health crisis.¹⁴⁰ In fact, according to CDC, based on a longitudinal study of the four-year period from 2000-2003, elevated BLLs $\geq 10 \mu\text{g/dL}$ in the District’s children had declined from 9.8 percent to 7.6 percent for children living in homes with lead service lines. This trend, however, did not hold true for children with BLLs $\geq 5 \mu\text{g/dL}$.

¹³⁸ Despite the well-documented history of the toxic effects of lead in water on human health and her own publications — and perhaps because of the focus of federal programs on eliminating the lead paint hazard — Dr. Brown seemed singularly focused on the hazards of lead paint and dust, even during the height of the District’s lead-in-water crisis. On July 16, 2004, four months after the *MMWR* article was released, Brown wrote to Dr. Lynette Stokes, “Now that there is a better understanding of the public health impact of lead in the drinking water in the District, I hope we will be able to focus on the issue of lead-based paint hazards,” she wrote. Memo from Mary Jean Brown to Lynette Stokes, entitled “Subject: Environmental Lead Hazards for Young Children Living in Washington DC,” July 16, 2004.

¹³⁹ “Blood Lead Levels in Residents of Homes with Elevated Lead in Tap Water — District of Columbia, 2004,” *MMWR Dispatch*, Vol. 53, March 30, 2004, available here: <http://www.cdc.gov/mmwr/pdf/wk/mm53d330.pdf>. Three days later it was re-published in the regular *MMWR Weekly*. “Blood Lead Levels in Residents of Homes with Elevated Lead in Tap Water — District of Columbia, 2004,” *MMWR Weekly*, Vol. 53, No. 12, April 2, 2004, available here: <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5312a6.htm>.

¹⁴⁰ “High Lead Levels Found in D.C. Kids; Numbers Rose during Water Crisis,” quoting Dr. Mary Jean Brown, *Washington Post*, Jan. 27, 2009, Met 2 edition.

While the integrity of the underlying data and the methodology used in both studies in the *MMWR* were highly questionable, the public health message to the citizens of the District was very clear: there was no public health crisis. While full of the normal warnings about no safe level of lead, and the adverse impacts of lead on children and adults, the one English language sentence most likely to resonate with readers read:

"The findings in this report indicate that although lead in tap water contributed to a small increase in BLLs in DC, no children were identified with BLLs >10 $\mu\text{g}/\text{dL}$, even in homes with the highest water lead levels."¹⁴¹

At the same time, her own agency's advisory committee was warning of the health effects of BLLs of less than 10 $\mu\text{g}/\text{dL}$ on children, Dr. Brown's prepared talking points to be used in response to public, press, congressional and other potential inquiries after the release of the *MMWR Dispatch* said all was well:

Main message: There is no indication that DC residents have blood lead levels above the CDC levels of concern of 10 micrograms per deciliter for children 6 months – 15 years old and 25 micrograms per deciliter for adults as a result of lead in water (emphasis in original).¹⁴²

As if to reinforce the message of the article, most of the Public Health Service staff packed up and returned to their home agencies by mid-April. The crisis was officially over.

In the wake of the *MMWR* being published, Dr. Falk sent Dr. Brown an e-mail on April 1, 2004 with the *MMWR Dispatch* article attached. "Have you had many calls re this? How is it going?" Falk asked.¹⁴³ Dr. Brown's response implied a shared sense of relief that the public interest in the D.C. lead-in-water crisis had finally abated.

"Today has been the first day in over a month that there wasn't a story on lead in water in the Washington Post and also the first that I haven't been interviewed by at least one news outlet. I guess that means it worked!"¹⁴⁴

From January 31, 2004 through March 31, 2004, *The Washington Post* had published 66 individual stories revolving around the D.C. lead-in-water crisis. In an interview with Subcommittee staff, Brown explained her statement by suggesting that she was hoping that the *MMWR Dispatch* would serve as a single source of information for reporters and others

¹⁴¹ *MMWR Dispatch*, March 30, 2004, page 2.

¹⁴² Dr. Mary Jean Brown's "Talking Points / Q's and A's – D.C. Lead Issues (3/30/04)."

¹⁴³ E-mail from Dr. Henry Falk to Mary Jean Brown, cc'd to Patrick J. Meehan, entitled "FW: *MMWR* Vol. 53 / No. 12," April 1, 2004, 4:01 pm.

¹⁴⁴ E-mail from Mary Jean Brown to Dr. Henry Falk entitled "RE: *MMWR* Vol. 53 / No. 12," April 1, 2004.

regarding the CDC's analysis and findings.¹⁴⁵ Dr. Falk suggested that his interpretation of Brown's response was the same.¹⁴⁶

Indeed, the *MMWR* article was very effective in informing the public that the CDC didn't think there was a public health crisis. On April 6, 2004, a week after publication, a commentary titled: "EPA's lead heads," in *The Washington Times*, read, "The ongoing hysteria about lead in D.C.'s drinking water is much ado about nothing, according to a new report from the Centers for Disease Control and Prevention." Based on the *MMWR* article, the commentary continued: "No health effects whatsoever have been attributed to the lead in D.C.'s water. This is hardly a surprise since the already very low blood lead levels among D.C. residents overall have dropped steadily for years, according to the CDC." (emphasis added)¹⁴⁷

The District of Columbia government was also quick to seize on the report's findings. On April 9, 2004, the D.C. Interagency Task Force on Lead in Drinking Water, chaired by D.C. Mayor Anthony Williams and Councilmember Carol Schwartz, issued their interim report, which was followed by a final report on April 22, 2004. Both reports cited the basic conclusions of the *MMWR Dispatch* that there was no problem.¹⁴⁸

When asked why the results of these "preliminary investigations" were not held up until they could be verified, Dr. Brown stated, "The city certainly wanted a document out there. . . . EPA Region 3 wanted it; CDC wanted it. . . . Lots of people wanted to push it forward."¹⁴⁹ But, five-years later, Dr. Brown told the Subcommittee staff that she didn't have "a lot of confidence" in the 300 ppb, cross-sectional study data. "There were lots of people not drinking the water," she said.¹⁵⁰

Dr. Bruce Lanphear, one of the leading experts on lead poisoning of children, later described the report as "a quick and sloppy study to address public health concerns." If the article had been "submitted to a journal to 'prove' that lead in water wasn't an important source, it would have been rejected."¹⁵¹

According to Dr. Falk, Dr. Gerberding, CDC's director, proclaimed herself "very pleased" with the results.¹⁵²

¹⁴⁵ Subcommittee staff interview of Mary Jean Brown, July 22, 2009.

¹⁴⁶ Subcommittee staff interview of Dr. Henry Falk, Sept. 2, 2009.

¹⁴⁷ Steve Milloy, "EPA's lead heads," Special to *The Washington Times*, April 6, 2004, p. A14.

¹⁴⁸ "Final Report of the Interagency Task Force on Lead in Drinking Water and Recommendations of the Co-Chairs," Government of the District of Columbia, April 22, 2004, p. 10; Available here: http://www.dc.gov/mayor/news/2004/lead_task_force_report_4.23.04.pdf.

The interim report released on April 9, 2004, is available here: http://www.dc.gov/mayor/pdf/Task_Force_Report040904.pdf.

¹⁴⁹ Subcommittee staff interview of Mary Jean Brown, July 22, 2009.

¹⁵⁰ Subcommittee staff interview of Mary Jean Brown, July 22, 2009.

¹⁵¹ Rebecca Renner, "Lead on Tap: An alarming return of lead in drinking water is being ignored by the EPA and municipal officials," *salon.com*, Nov. 27, 2006, accessed at <http://www.salon.com/news/feature/2006/11/27/lead>

¹⁵² Subcommittee staff interview of Henry Falk, Sep. 2, 2009.

The Broader Impact of the *MMWR*

In a March 21, 2004, e-mail exchange between Dr. Cote and Dr. Brown regarding draft comments on the *MMWR* paper, the two appear to realize the importance of the paper that they were about to publish and its broader public health implications: “Something happened to the water [in D.C.], and this could happen elsewhere,” wrote Brown, “so the recommendation for caution is important.” “Hey, I’m all for caution,” Dr. Cote wrote. “I agree that this paper will be important for many municipalities outside DC,” he wrote.¹⁵³

In fact, at the same time that CDC officials were completing their work on the *MMWR* article, Pitt County health workers in Greenville, North Carolina, detected elevated BLLs in two young children at the same time the local water utility discovered elevated WLLs in several of the city’s homes, including the homes of those children. As in the District, the cause of the high WLLs was also attributed to the addition of chloramines into the city’s drinking water supply. By November 2004, the Greenville water utility mailed notices to 27,000 customers warning them that the city had exceeded the EPA’s standards for lead levels in water.¹⁵⁴

But county health officials did not connect the elevated WLLs and the lead poisoned children because they had never seen a case of lead poisoning attributed to elevated WLLs before. In addition, Dr. John Morrow, the Pitt County health director, said in a phone interview with Subcommittee staff that he had read the CDC’s *MMWR* article and spoken briefly with Dr. Brown via telephone about the article and therefore kept looking for non-water sources of lead exposures in Greenville.¹⁵⁵ It was not until March 2005 – a year after the children’s elevated BLLs were discovered – that the North Carolina health workers finally made a connection between the elevated BLLs and elevated WLLs. Dr. Edwards blames that year-long delay on the *MMWR*’s influence on local and state public health workers.

On May 8, 2004, writing in *The Seattle Times*, William O. Robertson, medical director of the Washington Poison Center, cited the CDC’s *MMWR* in his efforts to downplay fears about lead-in-water issues that had emerged in some of Seattle’s schools.¹⁵⁶ On July 16, 2004, a story in *The Seattle Times* regarding elevated WLLs in Seattle’s schools again cited the CDC’s *MMWR* article. “Parents should not be overly concerned about lead in Seattle schools’ drinking water because it is unlikely any child has been harmed,” the paper wrote. It quoted Dr. Brown cautioning parents from thinking their children were brain-damaged because they drank from the school’s water fountains. The conclusions of the *MMWR*’s cross-sectional study was prominently

¹⁵³ E-mail from Tm Cote to Mary Jean Brown, cc’d to Daniel R. Lucey, “Subject: RE: MMWR draft2 comments,” Sunday, March 21, 2004, 11:51 pm.

¹⁵⁴ See for instance: Pat Stith, Catherine Clabby and David Raynor, “Silence, flawed test data hide lead contamination: Water systems muddy their results by testing homes least likely to have lead,” *The News & Observer*, March 28, 2006; “NC Lead Poisoning: Pitt County issues advisory after lead discovered in children,” *Associated Press*, May 3, 2005; “Tapping into Greenville’s Lead and Water Issues,” *The Experience*, Department of Environment and Natural Resources, North Carolina Division of Environmental Health, Vol. 1, July 2005.

¹⁵⁵ Subcommittee staff telephone interview with Dr. John Morrow, August 28, 2009.

¹⁵⁶ William O. Robertson, Medical Director, Washington Poison Center, Seattle, Opinion, Northwest Voices; “A sampling of readers’ letters, faxes and e-mails,” *The Seattle Times*, May 8, 2004, p. B7.

featured, and an inaccurate claim made that most of the people in the study reported drinking tap water – something the study never claimed.¹⁵⁷

On May 21, 2004, Angela Logomasini, director of risk and environmental policy at the Competitive Enterprise Institute, told the House Government Reform Committee that lead in D.C.'s drinking water did not "warrant a panicked response" or the "frenzied reaction we've seen in D.C." The CDC's *MMWR* "study reinforces these findings," she wrote in her testimony. "It found that the elevated lead levels in D.C. water did not raise the level of lead in anyone's blood to a level of concern." She also drew the inaccurate conclusion that the CDC had found that every child with an elevated BLL lived in a home with peeling lead paint and/or lead-containing dust from renovations.¹⁵⁸

On September 5, 2004, Dr. Dean Sienko, then the acting chief medical executive of the Michigan Department of Community Health and the Ingham County medical director, wrote an article in the *Lansing City Pulse* downplaying concerns about elevated WLLs in Lansing, Michigan. He cited the cross-sectional study in the *MMWR* article as a reason not to worry.¹⁵⁹

Even Congress relied on the *MMWR* to evaluate the potential human health harm caused by the D.C. lead-in-water crisis. The Government Accountability Office (GAO), Congress's investigative arm, cited – without additional analysis – the conclusions of the two studies in its report on the District's attempt to reduce WLLs.¹⁶⁰

EPA also relied upon the CDC's *MMWR* article. In July 2005, the agency posted a fact-sheet that summarized the findings. It referred to the cross-sectional study and said: "Residents with high lead levels in their tap water did not have elevated blood lead levels" and told readers that "blood lead levels in District residents have been decreasing steadily."¹⁶¹

In 2007, in an article in the Montreal paper *The Suburban*, Dr. Joe Schwarcz, the director of McGill University's Office for Science and Society, said: "I have scoured the literature for studies that link levels in the water with levels in the blood. The best studies I have come across which have surveyed really large numbers of homes was in Washington, D.C., where there is a huge problem with lead pipes in underprivileged areas. ... [T]hey found that although the water

¹⁵⁷ Sanjay Bhatt and Warren King, "Schools' lead danger disputed; Experts: water risk 'extremely low' / Neurological problems unlikely to stem from exposure to drinking fountains," *The Seattle Times*, July 16, 2004, p. A1.

¹⁵⁸ Angela Logomasini, Director of Risk and Environmental Policy, Competitive Enterprise Institute, prepared testimony before House Government Reform Committee hearing titled: "Thirsty for Results: Lessons Learned from the District of Columbia's Lead Contamination Experience," May 21, 2004.

¹⁵⁹ Dr. Dean Sienko, Acting Chief Medical Executive of the Michigan Department of Community Health and the Ingham County Medical Director and Chief Medical Examiner, Editorial in the *Lansing City Pulse*, September 5, 2004 (the link to this article is no longer available), but the paper can be found here: <http://www.lansingcitypulse.com/lansing>.

¹⁶⁰ "District of Columbia's Drinking Water: Agencies Have Improved Coordination, but Key Challenges Remain in Protecting the Public from Elevated Lead Levels, Government Accountability Office (GAO), GAO-05-344, March 2005, available here: <http://www.gao.gov/new.items/d05344.pdf>.

¹⁶¹ "Results of Blood Lead Level Testing of District of Columbia Residents," Environmental Protection Agency (EPA), July 2005, revised October 2006, available here: http://www.epa.gov/dclead/BloodLevelsFactSheet10_06_rev.pdf.

level was sometimes as high as 300 parts per billion, which is astounding, it didn't influence the blood levels."¹⁶²

5. Efforts by CDC, DC and the Subcommittee to Identify Missing Blood Lead Level Data

Despite the insistence by Dr. Brown that complete data was not needed to understand what had been happening to D.C.'s children, CDC staff did attempt to obtain missing data for 2003. In March 2005 – a full year after the *MMWR* article was published – the CDC lead program tried to resolve the cause of the drop in 2003 blood lead test results. A chain of e-mails shows that Barry Brooks asked the D.C. CLPPP office to ask the laboratories to resubmit the 2003 BLL data. Brooks also told Subcommittee staff that he emphasized to District officials the importance of determining if there was missing data.¹⁶³ Despite this effort, according to Brooks, the re-submitted lab data regarding the number of children tested and the number with elevated blood lead levels did not change significantly from the “raw data” CDC used in the 2004 *MMWR* analysis.¹⁶⁴ Nothing the Subcommittee found during its investigation supports the view that the labs did not previously submit this information to the District. The problem appears to have been the incomplete recording of the results by the D.C. lead program staff.

This inability of the CDC to gather accurate data is difficult to understand because the CLPPP program had switched over to the LeadTrax system in April 2004, and had systematically entered all blood lead results from the labs into that system. Based on the material provided to the Subcommittee, it appears that thousands of the missing 2003 results should have been available to the CDC by March of 2005. Furthermore, the Subcommittee did its own collection of lab reports for 2002 and 2003 and had no trouble developing figures for those years that erased the “missing” 6,500 children.

LeadTrax

In April 2004, just after the *MMWR* was published, the District finally acquired the new LeadTrax database to track children screened for BLLs. Through the spring and summer of 2004, Offor worked closely with the manufacturer's technical support staff to acquire and upload the historical 2002/2003 BLL test data into the new system. In October 2004, the manufacturer ran an “historical analysis” of all existing BLL test data on the new LeadTrax software, although it apparently did not include all the results submitted by the labs. It did, however, point out reporting gaps in the D.C. blood lead test data, particularly for the 2003 period.

In a summary document, the manufacturer pointed out that data was “very likely missing” from the Children's National Medical Center from late 2003 into early 2004; data from the D.C. Public Health Laboratory was “very erratic over the same period,” and all of it was “suspect”; there was an “aberration” in the data in early 2004; and that there was a “fairly

¹⁶² Joel Goldenberg, “No Worry on Water,” *The Suburban*, March 14, 2007, available here: <http://archive.thesuburban.com/content.jsp?sid=14400449001260020182649221692&ctid=1000000&cnid=1010853>

¹⁶³ Subcommittee staff interview of Barry Brooks, July 13, 2009.

¹⁶⁴ Subcommittee staff interview of Barry Brooks, July 13, 2009.

substantial drop-off in results from all labs combined for 2003.” The major labs of LabCorp. and Quest, however, appears to have a “fairly consistent rate of reporting.”¹⁶⁵

By January 2005, as a result of switching from the poorly functioning STELLAR database to LeadTrax, D.C. had a new, more accurate set of blood lead level test numbers for 2002 and 2003. A January 2005 e-mail from an employee of the U.S. Department of Housing and Urban Development (HUD) to the CLPPP program manager included a table of elevated blood lead levels of D.C. children that had previously been provided by the D.C. Department of Health.¹⁶⁶

The table, which appears to be sorted by the number of BLL tests conducted and not the specific number of children tested, shows that in 2003 D.C. conducted 22,138 blood lead tests and that at least 400 of those tests showed elevated blood lead levels.¹⁶⁷ The numbers reported to HUD from the D.C.’s lead program in 2005 show:

EBL data (in uniform table)

Year	# of Children Screened	# EBLs 10-14 ug/dL	# EBLs 15-19 ug/dL	Source of Data
2004	26,311			D.C. Department of Health
2003	22,138	244	156	D.C. Department of Health
2002	22,839	319	246	D.C. Department of Health
2001	22,218	378	104	D.C. Department of Health

Source: Subcommittee on Investigations and Oversight, based on D.C. Department of Health 2005 data.¹⁶⁸

I&O Subcommittee Effort to Obtain Data

Initially, the Subcommittee was unable to get cooperation from the District in gathering up-to-date reports on 2002 and 2003 so staff initiated a survey of the labs. When Chairman Miller wrote to each of the seven laboratories providing BLL test data to the District and asked them to provide the number of children they reported to the D.C. CLPPP in 2002 and 2003 with BLLs above the action level of $\geq 10 \mu\text{g/dL}$, the Subcommittee obtained drastically different numbers.

¹⁶⁵ “Historical Analysis” of the DC blood lead reporting database, produced by Welligent LLC and run on the newly installed LeadTrax software, October 29, 2004.

¹⁶⁶ Tia Clark, Office of Healthy Homes and Lead Hazard Control, U.S. Department of Housing and Urban Development, e-mail to Christine Onwuche, the DC CLPPP program manager, Subject: “EBL table per our conversation,” January 27, 2005. The accompanying chart was labeled: “EBL data (in uniform table).”

¹⁶⁷ Some children may have been tested multiple times so the number of children with elevated blood lead levels may have been lower. But the table also only includes elevated results from 10 ug/dL to 19 ug/dL. Presumably that random cut-off would have also excluded additional test data on children with EBLs higher than 19 ug/dL.

¹⁶⁸ Tia Clark, Office of Healthy Homes and Lead Hazard Control, U.S. Department of Housing and Urban Development, e-mail to Christine Onwuche, the DC CLPPP program manager, Subject: “EBL table per our conversation,” January 27, 2005. The accompanying chart was labeled: “EBL data (in uniform table).”

The labs' documentation of test results provided to the D.C. CLPPP showed that at least 949 D.C. children had BLLs $\geq 10 \mu\text{g/dL}$ in the critical years of 2002 and 2003, *three times* the 315 used in the 2004 *MMWR* article to tell the citizens of the District that excessive lead in water was not a serious public health issue. As discussed earlier, there was a tremendous backlog of data not entered into STELLAR in early 2004 when the initial set of raw data was submitted to CDC.

The elevated BLL test results that D.C. had in its LeadTrax system by January 2005 are generally in line with data provided to the Subcommittee by the commercial laboratories in 2009. But those are not the final numbers compiled by the D.C. CLPPP. Data for 2002 and 2003 currently available in LeadTrax show even larger discrepancies between the number of elevated BLL tests for the District's children and the number of elevated BLL tests still being reported by the CDC for those years. That data, detailed in the table below, shows that the number of children in D.C. that had elevated blood lead levels in 2002 and 2003 is actually *three times* higher than the CDC had used in the *MMWR* article.¹⁶⁹

Number of D.C. Children Under Six Years Old
with Elevated Blood Lead Levels

YEAR	CDC	I&O Subcommittee
2002	122	457
2003	193	492
Total	315	949

Source: Subcommittee on Investigations and Oversight, based on data provided by seven laboratories which conducted BLL tests for the District of Columbia's CLPPP and data maintained on the CDC's Childhood Lead Poisoning Prevention Program web-page.¹⁷⁰

¹⁶⁹ The CDC's 2004 *MMWR* article used nearly 85,000 blood lead level "tests" to analyze historic lead levels in DC from 1998 to 2003. Separately, the CDC posts the number of individual "children," not tests, that public health surveillance shows have been identified with elevated blood lead levels annually. Those numbers show that 122 DC children had elevated blood lead levels in 2002 and 193 individual children had elevated blood lead levels in 2003. The blood "test" data results upon which those figures were based were used as the foundation for the historic blood lead level trend analysis in the 2004 *MMWR* article and were woefully incomplete.

¹⁷⁰ Cities and states that have cooperative agreements with the CDC and obtain CDC grant funds for their lead programs are required to provide CDC with their raw public health surveillance data regarding lead screening tests each year. Since 1992, the District of Columbia has received nearly \$12 million in CDC lead grant funding. Once the CDC receives this raw surveillance data, which is supposed to include *all* blood lead tests performed that year, then CDC publishes a separate list based upon the number of children tested, not the number of tests conducted, on the CDC lead branch web-site. The incomplete raw surveillance data CDC received from DC regarding the city's 2003 blood lead tests in early 2004 were provided to the CDC for use in the March 2004 *MMWR* report. The numbers posted by CDC on its web-site in March 2005 regarding the number of individual children who had elevated blood lead tests in DC in 2003 was based on this incomplete and flawed data and remain there today, available here: www.cdc.gov/nceh/lead/data/State_Confirmed_byYear_1997_to_2006.xls. The Subcommittee obtained summary data of the number of individual children five years old or younger who had elevated blood lead levels above the CDC "level of concern" of $>10 \mu\text{g/dL}$ [10 micrograms of lead per deciliter of blood] in 2002 and 2003 that were reported to the DC Department of Health. The Subcommittee wrote to all seven laboratories providing blood lead test data to DC back in 2002 and 2003, so that we could compare the data CDC

It is unclear why the CDC has not updated its database to remove its obviously incorrect data. It posts lead poisoning surveillance data from its 42 cooperating lead programs on its Web site, and its database manager is responsible for cleaning up the data by removing duplicate entries and making sure that the number of children tested is accurate. The final numbers are verified with the cooperating programs and posted. This process normally takes about six months. Even if the efforts in 2005 failed to get a clean LeadTrax report to the CDC, the subsequent complaints about data quality in the CDC database, and the availability of up-to-date reports from the D.C. government, should have induced the CDC to update those numbers.

The CDC also relies on the lead data it posts on its web site to evaluate CDC-funded lead programs to identify cities or states that have indications of elevated lead poisonings that might be caused by environmental factors. Local and state public health professionals and academics use the data to assess potential lead problems. "This is our basic data," acknowledges Barry Brooks. "When we judge programs, this is what we use."¹⁷¹ The fact that the actual numbers of children in D.C. with elevated BLLs in 2002 and 2003 appears to have been *three times* higher than the number on the CDC Web site is significant. As Brooks admitted, "Elevated numbers drive everything."¹⁷²

With the implementation of LeadTrax in 2004, the BLL test data subsequently reported to the CDC by the D.C. CLPPP was much more accurate, reliable and complete than data submitted under the old STELLAR system. What is much less clear is why CDC failed to understand either the cause or the significance of the 2003 "data gap" and acknowledge it in the *MMWR* article. And even when presented with more accurate data from the D.C. CLPPP and the Subcommittee, CDC has still refused to publicly state that the longitudinal study in *MMWR* report was fatally flawed and its conclusions are scientifically invalid.

2005: CDC Contractor Identifies Continuing Problem with D.C. CLPPP

Dr. Brown and Barry Brooks both expressed a belief that the "data gap" issues and the reported admission of "forgery" of quarterly reports were simply one-time, isolated instances that had no bearing on the integrity of the data CDC received from D.C., the conclusions of the *MMWR*, or their trust in the ability of the D.C. Childhood Lead Poisoning Prevention Program to effectively manage D.C.'s lead program.¹⁷³

posted on its website with the data the labs reported to DC. Under the CDC's lead grants to the District, copies of the raw public health surveillance data regarding blood lead tests provided to the DC government from these laboratories was supposed to be provided to the CDC.

¹⁷¹ Subcommittee interview with Barry Brooks, Oct. 22, 2009.

¹⁷² Subcommittee interview with Barry Brooks, July 13, 2009.

¹⁷³ The Subcommittee staff conducted a total of six interviews with Dr. Mary Jean Brown and Barry Brooks, three interviews with each of them. The first interview with Mr. Brooks via telephone was conducted on March 23, 2009 and the other two interviews were conducted in the Subcommittee offices in Washington, D.C. and occurred on July 13, 2009 and October 22, 2009. The first Subcommittee staff interview with Dr. Brown also occurred via telephone on March 19, 2009, followed by two interviews in Washington, D.C. on July 22, 2009 and October 22, 2009. Both Dr. Brown and Barry Brooks reiterated this position during each of these interviews.

In reality, even though the D.C. lead-in-water crisis had faded from national headlines soon after the *MMWR* article was published, the D.C. lead program continued to suffer from a host of unresolved problems. In October 2005, Dr. Brown's Lead Poisoning Prevention Branch at the CDC issued a sole source, non-competitive contract award to The National Center for Healthy Housing (NCHH) for "Building Capacity in Childhood Lead Poisoning Prevention Programs." The contract required NCHH to provide on-site technical assistance to the D.C. CLPPP office to help evaluate and revitalize the failing D.C. lead program.¹⁷⁴

In September of 2007, NCHH completed an internal "Preliminary Work Plan" regarding a summary of their findings of the D.C. lead program. Barry Brooks, the CDC's project officer and health advisor in charge of the CDC lead grant to the District was one of the officials involved in the NCHH assessment. The review, which has never been publicly released, was damning.¹⁷⁵

Among the report's findings:

- In many cases, children identified as having elevated BLLs in 2004 and 2005 never had risk assessments of their homes completed to identify the actual source of lead exposure. "There is a substantial backlog of EBL [elevated blood lead] cases for which risk assessments have never been performed," the report said, "or for which risk assessments were done too long ago to be valid now." In 2007, the assessment backlog was around 250 cases and growing.
- A review of 41 risk assessment reports found three cases had lead in the water above the EPA limit of 15 ppb with no other lead source identified. In about half of the 41 cases, drinking water had not even been tested for lead.
- There was a continuing mismatch between BLL data collected by the D.C. lead program and BLL test data reported by the CDC. The D.C. lead program "reports that in recent years 16,200 to 18,400 children in D.C. received blood lead tests per year, but CDC figures are substantially lower (12,300 to 14,500)." The report found that CDC reported only around 200 elevated BLL cases annually while D.C. reported 300 to 430 per year. The reason or reasons for this wide discrepancy, however, remained unclear.

A week after NCHH finished its "Preliminary Work Plan," Pierre Erville, the new chief of the District's Bureau of Environmental Hazards and Injury Prevention, wrote to Brooks. Erville, who now oversees the D.C. lead program, said he was writing to let Brooks know he was "concerned about what to me appears to be poor performance by our program," and that he was

¹⁷⁴ "Building Capacity in Childhood Lead Poisoning Prevention Programs," Solicitation Notice, Oct. 27, 2005, available here: <http://fedbizopps.info/archive/2005/10-October/29-Oct-2005/FBO-00922487.htm>.

¹⁷⁵ "Preliminary Work Plan - Building Capacity in Childhood Lead Prevention Programs: Technical Assistance and Training to Support the Washington, DC Childhood Lead Poisoning Screening and Education Program's Case Management of Children with Elevated Blood Lead Levels," The National Center for Healthy Housing, September 20, 2007.

“dismayed” by the work of the CLPPP program manager. He assured Brooks that he planned to put “the District of Columbia on the right track to effectively prevent lead poisoning.”¹⁷⁶

Erville noted that he recently hired an epidemiologist for the lead program, that the various D.C. agencies working on lead issues were moving forward as a coordinated group, and that he had re-written the District’s risk assessment protocols. “I plan to work closely with [the new epidemiologist] and to achieve long-needed data reliability and analysis,” he wrote. “I am also working very closely with the IT folks to ensure Lead Trax is a smooth-functioning program component and putting pressure on supervisory staff to ensure case management follow-up work occurs consistently and in a timely manner,” he emphasized.¹⁷⁷ Erville’s frank assessment of the D.C. lead program’s troubles came more than three years *after* the CDC published the *MMWR* article and the CDC lead program became keenly aware of these systemic problems.

6. Dr. Edwards’ Investigation: The Missing Cross-Sectional Data

While the vast majority of those reading the *MMWR* article were reassured that District residents had suffered little, if any, harm from the elevated WLLs, a few were troubled by its conclusions. Dr. Marc Edwards, a civil engineering professor and water corrosion expert, who was named a MacArthur Fellow in 2007 with an accompanying \$500,000 grant (often called a “genius grant”)¹⁷⁸ to study drinking water safety issues, was more surprised by the findings than almost anyone else. Dr. Edwards, the Charles P. Lunsford Professor in the Civil and Environmental Engineering Department at Virginia Polytechnic Institute and State University, was investigating pinhole leaks in residential water lines in Washington, D.C. in the spring of 2003 when he discovered exorbitantly high levels of lead in the drinking water supply. He determined that chloramines, a chemical used as a disinfectant which had been added to the District’s water supply in November 2000 by WASA, was causing lead to leach from household plumbing systems.¹⁷⁹ Edwards soon realized that traditional testing protocols were failing to identify the high lead levels in many homes with lead pipes. He also discovered that children in District homes with elevated water lead levels had elevated blood lead levels too.

Based on his research, Dr. Edwards believed that the *MMWR*’s conclusions of no public harm contradicted the vast majority of published scientific findings regarding the effects of elevated WLLs on children’s BLLs and their health. But after hearing it repeatedly cited by scientists and public health officials across the country and even internationally, Dr. Edwards sought to acquire the underlying data used for the *MMWR* article to do his own analysis.

In 2005, Dr. Edwards filed Freedom of Information Act (FOIA) requests with both the District of Columbia and the CDC for the raw data underlying the *MMWR* article.¹⁸⁰ He was

¹⁷⁶ E-mail from Pierre Erville to Barry Brooks, entitled “DC grant reports,” Sept. 27, 2007.

¹⁷⁷ *Ibid.*

¹⁷⁸ “MacArthur Fellows 2007: Marc Edwards,” John D. and Catherine T. MacArthur Foundation, September 2007, available here: www.macfound.org/site/apps/nlnet/content2.aspx?c=ikLXJ8MOKrH&b=2913825&ct=4074601.

¹⁷⁹ Testimony of Marc Edwards, “Public Confidence Down the Drain: the Federal Role in Ensuring Safe Drinking Water in the District of Columbia,” Committee on Government Reform, U.S. House of Representatives, March 5, 2004, accessed at <http://www.dcwatches.com/wasa/040305h.htm>

¹⁸⁰ For information on federal laws related to the Freedom of Information Act (FOIA) see U.S. Department of Justice’s FOIA web-page, available here: <http://www.justice.gov/oip/>; For D.C. specific laws governing public

bounced between the D.C. Department of Health (D.C. DOH) and CDC and back again. "Trying to find the data was like a shell-game," Edwards said. "I went through about 1.5 years with DC DOH with hundreds of pages of FOIA letters, appeals, etc., before the mayors [sic] office ordered them to produce some of the data."¹⁸¹

Finally, at the end of May 2006, the District's general counsel ordered the D.C. DOH director to provide the data.¹⁸² Dr. Edwards received a single Excel spread sheet that was apparently the only data that the Department had regarding the 300-ppb Cross-sectional study cited in the *MMWR* publication.¹⁸³

As part of its investigation, the Subcommittee requested all available documents, including the raw data, survey questionnaires and related records, underlying the Cross-sectional study from the U.S. Department of Health and Human Services and its components, including the CDC, the Food and Drug Administration (FDA), and the PHS, and from the District of Columbia and its agencies.¹⁸⁴ None of these agencies have provided the Subcommittee with any records directly related to the collection of the raw data for that study or its results.¹⁸⁵

CDC, Dr. Cote and the other co-authors all told Subcommittee staff that they had no raw data or survey instruments used in the study. The *MMWR* editorial office also did not possess any of the raw data records. They only maintain "clearance sheets" for their articles for six months. But, Dr. Ward, the *MMWR* editor at the time the DC lead-in-water article was published, said: "I would expect the authors to maintain a copy of the data."¹⁸⁶

In a letter from Chip Richardson, General Counsel to the Mayor of the District of the Columbia, responding to the Subcommittee on Investigations and Oversight Chairman Brad Miller's request for all records related to the cross sectional study, Mr. Richardson wrote that "No documents responsive to this request have been found."¹⁸⁷ When provided with a copy of the e-mail that the D.C. FOIA officer e-mailed to Dr. Edwards in 2006 which contained the Excel spreadsheet with the "raw data" purportedly used in the study, an official from D.C.'s

access to District government records see: Council of the District of Columbia, Freedom of Information Act (FOIA) web-page, available here: <http://www.dccouncil.washington.dc.us/foia>

¹⁸¹ E-mail from Dr. Marc Edward to Subcommittee on Investigations and Oversight staff, "Subject: Re: 300 ppb study," September 3, 2009.

¹⁸² Leonard H. Becker, General Counsel, Government of the District of Columbia, letter to Dr. Gregg Pane, Director, District of Columbia Department of Health, "Re: Freedom of Information Act Appeal," May 31, 2006.

¹⁸³ E-mail from Tom Collier to Marc Edwards with Excel spreadsheet attached, May 31, 2006. In an earlier e-mail to Dr. Edwards, from Tom Collier on April 12, 2006, Collier had described the information as follows: "I will be mailing you spreadsheets showing blood level screening results for the period from February 3, 2004, to March 22, 2004, and February 3, 2004, to September 21, 2004, by first class mail tomorrow. *I will also be getting the raw data for the March, 2004, article and will be forwarding that to you tomorrow.* It should be in an electronic format. The other materials you have requested will be forthcoming, to the extent DOH has them (emphasis added)."

¹⁸⁴ Letter from Chairman Brad Miller, Investigations and Oversight Subcommittee, to Health and Human Services (HHS) Secretary Katherine Sebelius, Aug. 3, 2009; letter from Chairman Brad Miller to District of Columbia Mayor Adrian Fenty, Aug. 3, 2009.

¹⁸⁵ Some records were received from CDC related to comments on the *MMWR* draft report.

¹⁸⁶ Subcommittee staff telephone interview with Dr. John Ward, former Editor of the *MMWR* Series and Director, Office of Scientific and Health Communications, Centers for Disease Control and Prevention, September 28, 2009.

¹⁸⁷ Letter from Chip Richardson, General Counsel to the Mayor of the District of the Columbia, to Brad Miller, Chairman, Subcommittee on Investigations and Oversight, September 3, 2009.

Office of Policy and Legislative Affairs, Executive Office of the Mayor responded that “there is no evidence that a document was attached to the e-mail you’ve referenced.”¹⁸⁸

Regardless of this incomprehensible explanation by the District government, it appears that the spreadsheet received by Dr. Edwards is both authentic and the only available record regarding the 300 ppb Cross-sectional study based on the correspondence between Tom Collier, the D.C. FOIA officer and Dr. Edwards in 2006.

Dr. Edwards’ Analysis: Data in Spread Sheet Doesn’t Match Cross-Sectional Study

The *MMWR*’s section on the “Cross-sectional study of Homes with >300 ppb Lead in Water” stated that the D.C. Public Health Laboratory had analyzed the BLL tests on 184 persons in 86 homes with WLLs at or above 300 ppb. In addition, the test results of 17 persons from 12 homes who had blood drawn and analyzed independently and then reported to the D.C. DOH were included for a total of 201 residents from 98 homes. Only 17 of these residents were children under six years of age. The *MMWR* says a total of 153 residents (76%) reported drinking tap water, but 52 households (53%) reported using a water filter on their taps.

But the numbers in the Excel spreadsheet provided to Dr. Edwards are dramatically inconsistent with the numbers referred to in the *MMWR*. For instance, the Excel spreadsheet lists only 194 residents, not 201. It also shows only 136 residents drank tap water, while the *MMWR* claims 153 residents drank tap water. In addition, the raw data reports that 131 of the 194 residents in the spreadsheet say they drank bottled water. Bottled water is not even mentioned in the *MMWR*, despite suggestions by three co-authors and collaborators that bottled water consumption by those surveyed may confound the results. According to the spreadsheet provided to Dr. Edwards, only 13 individuals in 11 homes did not drink bottled water or use a water filter. In other words, only 13 of the 194 residents in the spreadsheet drank unfiltered tap water, with its highly elevated lead levels, exclusively.

The spreadsheet raised other serious questions about the scientific integrity of the *MMWR* publication. Ninety five people, or nearly half of the 194 participants, have no blood “draw date” listed. This date is important because lead in the bloodstream has a half-life of around 30 days. If survey participants stopped drinking tap water after the D.C. lead-in-water crisis first came to the public’s attention at the end of January 2004, there could be a significant difference between those that had their blood drawn in February and those that had their blood drawn in March. From a public health perspective, this is something that the *MMWR* should have addressed. Despite assurances by Dr. Cote that those entering data on the Cross-sectional study used a “double entry” method to help ensure data integrity, the missing “draw dates” and other issues raise troubling questions about the overall quality and integrity of the study’s data.

Dr. Regina Tan, a co-author of the *MMWR* article and a PHS officer who volunteered to assist in the D.C. lead-in-water crisis, told the Subcommittee staff that there were significant software and IT-related issues that impacted the entry of the survey data used in the Cross-sectional study. She was deployed for six days from March 15 - 20, 2004, and was in charge of

¹⁸⁸ E-mail response to Subcommittee from Jamal H. Anderson, federal affairs advisor, Office of Policy and Legislative Affairs, Executive Office of the Mayor, District of Columbia, Sept. 11, 2009.

overseeing the PHS data entry team. Dr. Tan, who has since left the U.S. Public Health Service, said: "There was a lot of frustration beyond normal data entry, because the system kept crashing and we had to keep re-entering the data. We had to go back to the original data and manually re-enter the data," Tan said. "I recall being frustrated because there wasn't a fix. ... We just started again every time the system crashed and hoped we got to the end before it crashed again. We would just enter and enter and enter until it got done." Dr. Tan said that Dr. Cote was well aware of these issues.¹⁸⁹

Once a blood sample is obtained, it normally takes several days for the laboratory to analyze the results in order to determine an individual's blood lead level. According to Subcommittee staff interviews with officials from the D.C. Public Health Laboratory, which analyzed and processed the blood lead samples for the Cross-sectional study, the timeline for those samples was similar. Yet, the raw data spreadsheet provided to Dr. Edwards lists two individuals as having their blood drawn on March 30, 2004, the same day the *MMWR Dispatch* was published. Another individual is listed as having blood drawn on September 30, 1952, *almost 52 years prior* to the publication of the *MMWR*, and one person is listed as having blood drawn on December 3, 2004, *nine months after* the *MMWR* was published.

When asked about these anomalies in the spreadsheet, Dr. Cote, the PHS official who was the lead author on the cross-sectional study, said the data contained in the spreadsheet must have been corrupted "after the fact." It is true that the Subcommittee cannot verify that the table provided Dr. Edwards is accurate or the final basis for the work done in the *MMWR*. However, since the study lead (Dr. Cote) did not retain records, the lead authors (Dr. Stokes and Dr. Brown) did not retain records and neither the District nor the agencies involved retained records, it is hard to give merit to simple assurances that the data was of high quality and the analysis robust.

Despite the data integrity issues raised in the Edwards data file and by the unacknowledged presence of confounding variables that coauthors were aware of at the time of the *MMWR*, Dr. Cote said he believed the data behind the *MMWR* study is still scientifically sound.¹⁹⁰

Besides the exclusion from the *MMWR* study of the one child who had an elevated blood lead level of 14 ug/dL and lived in a home with more than 300 ppb of lead in the water, there were other significant omissions. On March 25, 2004, Dr. Cote sent an e-mail to Dr. Brown and Dr. Lucey. Dr. Cote said he had taken "a hard look at how BLLs varied by responses to the questionnaire [sic] on drinking water exposures (among houses with >300ppb lead measured)." Dr. Cote found that those who drank tap water had a 1 microgram per deciliter higher blood lead level than those who said they did not drink tap water at all. "This is exciting and interesting and we'd better be sure about it before we let it out," Dr. Cote wrote.¹⁹¹ But in the end, this "exciting and interesting" finding was not included.

¹⁸⁹ Subcommittee staff interview with Dr. Regina L. Tan, November 5, 2009.

¹⁹⁰ Subcommittee staff interview with Dr. Cote, September 8, 2009.

¹⁹¹ E-mail from Dr. Tim Cote to Mary Jean Brown and Dr. Daniel Lucey entitled "Relationship between drinking tapwater and BLLs," March 25, 2004.

One week after this e-mail was sent, however, and the day after the *MMWR* article was released, Dr. Brown was quoted in a story in *The Washington Post* saying: "There is no safe level of lead. Even a small contribution, especially in small children, is not something that we want to happen. . . . We don't want to increase the blood lead levels of those individuals by even 1 microgram if it can be prevented," Dr. Brown said.¹⁹² Yet, a 1 microgram increase in BLLs due to drinking D.C. tap water apparently was not important enough to warrant a mention in the *MMWR* article.

In the end, Dr. Edwards believed the problems in the spreadsheet's data for the cross-sectional study were so egregious, and the resistance from CDC and D.C. DOH to his request for the actual raw data so strong, that he began to believe that it may actually have been fabricated. He also questioned the data used in the *MMWR*'s longitudinal study because of the dramatic and unexplained drop of more than 6,500 in the number of children that were tested in 2003 compared to previous years.¹⁹³

In January of 2007, Dr. Edwards sent a formal complaint to the CDC alleging "possible fabrication and falsification" of the data used in the CDC's March 2004 *MMWR* article. CDC responded that his allegations were directed at District, not CDC, employees.¹⁹⁴ Dr. Edwards then sent a second, more detailed letter to CDC in September 2007 with specific allegations of possible scientific misconduct by CDC scientists.

Dr. James Stephens, CDC's acting associate director for science, was tasked with looking into Dr. Edwards' allegations. But Dr. Stephens never fully investigated Dr. Edwards' allegations because he determined the allegations did not merit an investigation as they did not meet the threshold definition of research misconduct specified in federal regulations. Therefore, an investigation was not required.¹⁹⁵ To qualify as "research misconduct" under the federal

¹⁹² Avram Goldstein, "Water Treatment Affected Levels In Some Children, Study in D.C. Says," *The Washington Post*, March 31, 2004, p. B1.

¹⁹³ "Number of Children Tested and Confirmed EBLs by State, Year, and BLL Group, Children < 72 Months Old," Childhood Lead Poisoning Data, Statistics, and Surveillance, National Center for Environmental Health (NCEH), Centers for Disease Control and Prevention (CDC), available here: http://www.cdc.gov/nceh/lead/data/State_Confirmed_byYear_1997_to_2006.xls

¹⁹⁴ Letter from Dr. James W. Stephens, Associate Director for Science, Centers for Disease Control and Prevention (CDC), Department of Health and Human Services (HHS) to Dr. Marc Edwards, Virginia Polytechnic Institute and State University, Blacksburg, Virginia, September 18, 2007. See also: E-mail from James Stephens to Marc Edwards, "Subject: RE: Outcome of the assessment," October 10, 2007, in which Dr. Stephens wrote: "Per my letter, I would advise raising your concerns with the DC Office of the Inspector General." Some CDC officials did not see how any of the allegations applied to CDC officials because the data that Edwards questioned on both the longitudinal study and the cross-sectional study came from the District government and the U.S. Public Health Service, not the CDC. But others found this a weak position. "We do have some accountability since the data was published in the *MMWR* and MJB [Mary Jean Brown] is the 1st author," wrote Dr. Tom Sinks, deputy director of NCEH/ATSDR. E-mail from Dr. Tom Sinks to Dr. Brown, Dr. Howard Frumkin, cc'd to Dr. James Stephens, entitled "RE: Allegations of possible scientific misconduct," Jan. 18, 2007.

¹⁹⁵ Subcommittee staff interview of Dr. James Stephens, June 30, 2009. During this interview Dr. Stephens acknowledged: "I did not say I did an investigation because that is not what I did." He did not investigate Dr. Edwards' allegations because it did not reach the definition of federal "research misconduct," he said, which can be found here: "Public Health Service Policies on Research Misconduct; Final Rule, 42 CFR Parts 50 and 93," Department of Health and Human Services, printed in the Federal Register, Vol. 70, No. 94, Tuesday, May 17, 2005, available here: http://ori.dhhs.gov/documents/42_cfr_parts_50_and_93_2005.pdf. Other CDC staff apparently

definition, intentional deception must be alleged. Dr. Edwards' allegations may not have been sufficient to charge intentional deception.

But other CDC officials, while agreeing that Dr. Edwards' complaint did not allege research misconduct, thought the issues he raised were troubling and warranted some sort of investigation. "[T]he questioned data were not acquired as a research activity but as surveillance data," wrote Dr. John Dahlberg, director of CDC's Investigative Oversight Division, Office of Research Integrity. As a result, "the research misconduct policy . . . does not apply to the concerns that have been raised." Still, wrote Dahlberg, "The apparent absence of much of the lead data is also troubling. Given the importance of this issue, and the apparently real concerns raised, it would appear that some sort of review should be undertaken. Possibly this could be done by either the DC Inspector General and/or by the HHS IG office."¹⁹⁶ The CDC never informed the D.C. OIG about these allegations. Instead, they suggested to Dr. Edwards that if he had concerns with the data used in the *MMWR* that he should raise those concerns with the D.C. OIG.

7. CDC Response to Critics and New Unpublished Analysis

CDC's Notice of Misinterpretation: Resistance and Eventual Publication

One positive result of Dr. Edwards' complaint, however, was that it alerted CDC officials to the fact that the March 30, 2004 *MMWR* was being relied upon by state and local officials to make public health decisions regarding elevated levels of lead in drinking water. Some CDC officials believed that it was being "misinterpreted" to conclude that elevated WLLs were safe.

The result was a decision by CDC in March 2007 to issue a "notice" on the *MMWR* Web site to address the "misinterpretations." The notice was intended to reiterate what the CDC now claimed were the main conclusions in the 2004 article – that there are no safe levels of lead exposure, and that the *MMWR* never implied that D.C.'s elevated WLLs were safe. But Dr. Brown resisted issuing any sort of "alert" or "notice" for months. In August 2007, she wrote: "Tom Sinks and I had a conversation regarding the misinterpretation of the results published in the *MMWR* article on lead in water in D.C. We agree that the article is clear that CDC DOES NOT conclude that 300 ppb of lead in water is 'safe.' We also agreed that authors are not responsible for possible misinterpretations of their studies." (emphasis added)¹⁹⁷

Dr. Brown said she did not want to set an "unwanted precedent" by publishing an alert. "I know CDC data is misunderstood and used inappropriately all of the time," she told Subcommittee staff, "but I did not believe this was a good precedent to set." Brown also said she did not believe the issues raised by Dr. Edwards were "related to science," but rather, there were "people pushing this." She implied that local D.C. activists were somehow behind the allegations

believed Dr. Stephens had done a full investigation and exonerated the agency and its officials. See, e.g., Subcommittee staff interview of Dr. Mark Bashor, Associate Director for Science, National Center for Environmental Health/Agency for Toxic Substances and Disease Registry (NCEH/ATSDR), Centers for Disease Control and Prevention (CDC), Sept. 2, 2009.

¹⁹⁶ E-mail from Dr. John Dahlberg to Dr. James Stephens, entitled "RE: Allegation of misconduct," Feb. 2, 2007.

¹⁹⁷ E-mail from Mary Jean Brown to Jim Rabb and Andrew Dannenberg, cc'd to Sharunda Buchanan, Aug. 3, 2007.

by Dr. Edwards and she suggested that Marc Edwards did not understand the limitations of the *MMWR* or public health surveillance data in general since he was an “engineering professor” and not a public health official.¹⁹⁸

Dr. Mark Bashor, the associate director for science at NCEH/ATSDR, pushed repeatedly to issue a “notice” or “alert” in the spring and summer of 2007 but faced Dr. Brown’s resistance. On August 10, 2007, Dr. Bashor, tried to put an end to the continuing delays in posting the “notice.”

To bring closure to the issue that I thought we had closed on earlier (March 26th), I met with Dr. Sinks yesterday.

Our decision is that the program should draft a notice to be posted on the web, explaining how the 2004 *MMWR* article is being misinterpreted/misused, providing appropriate additional information and clarification, and reiterating our position on Pb [lead] in drinking water.¹⁹⁹

Dr. Bashor’s e-mail, however, was not sufficient. On August 14, 2007, Dr. Frumkin, NCEH/ATSDR’s director, ordered Dr. Brown to write the notice they had discussed.

This will confirm our phone call today in which I directed you to write the short clarifying text on the correct interpretation of our DC water lead data, which has been questioned, for posting on the web site. Please provide it to Mark Bashor by the end of this week. Thank you.²⁰⁰

Finally, after a five-month delay, the notice was posted on the CDC web-site.²⁰¹ The notice was to be the extent of CDC’s response to Dr. Edwards’ allegations. On September 18, 2007, Dr. Stephens wrote to Dr. Edwards and said he had found no evidence of misconduct by CDC, and that the questions he raised “pertained to data collected by others outside of CDC.”

Dr. Stephens recommended that Dr. Edwards contact the D.C. Office of Inspector General with his allegations.²⁰²

¹⁹⁸ Subcommittee staff interview of Dr. Mary Jean Brown, July 22, 2009.

¹⁹⁹ E-mail from Mark M. Bashor to Sharunda D. Buchanan, cc’d to Tom Sinks, James Stephens and Jana Telfer, entitled “Notice re: 2004 *MMWR* Pb in D.C. Water paper,” Aug. 10, 2007 1:02 pm.

²⁰⁰ E-mail from Howard Frumkin to Mary Jean Brown, cc’d to Sharunda Buchanan, Mark Bashor and Tom Sinks, entitled “102 paragraphs on correct interpretation of lead data,” Aug. 14, 2007, 11:52 a.m.

²⁰¹ “Addendum: Following the release of the *MMWR*, “Blood Lead Levels in Residents of Homes with Elevated Lead in Tap Water – District of Columbia, 2004”, some reports have suggested erroneously that the Centers for Disease Control and Prevention has determined that lead in residential tap water at concentrations as high as 300 parts per billion is ‘safe’. CDC would like to reiterate the key message from the 2004 article that because no threshold for adverse health effects in young children has been demonstrated (no safe blood level has been identified), all sources of lead exposure for children should be controlled or eliminated. Lead concentrations in drinking water should be below the U. S. Environmental Protection Agency’s action level of 15 parts per billion.” The note clarifying the CDC’s position on their *MMWR* article was posted to the CDC web-site on August 17, 2007, available here: <http://www.cdc.gov/nceh/lead/tips/water.htm>.

²⁰² Letter from Dr. James W. Stephens to Dr. Marc Edwards, Sept. 18, 2007.

CDC's Inadequate Review of Dr. Edwards' Allegations

As stated earlier, Dr. Stephens did not conduct a full investigation of the facts underlying Dr. Edwards' allegations. When he wrote his September 2007 letter to Dr. Edwards, Dr. Stephens had not even spoken to Dr. Brown, the primary author of the *MMWR* article. He did not do so until October 2007. During that meeting, Dr. Brown apparently mentioned the "challenges" of relying on public health surveillance data because of missing or incomplete data and the overall problems in obtaining all BLL test data from commercial laboratories in a timely manner. She reiterated the unsubstantiated claim that the Quest lab was to blame for the drop in BLL screening data from 2002 to 2003, and that she was convinced that the CDC was not missing any "elevated" BLL test results. This explanation appeared to have appeased any concerns Dr. Stephens may have had about the integrity of the data underlying the *MMWR*.²⁰³

Dr. Edwards was not satisfied and sent a follow-up e-mail to Dr. Stephens asking for clarification and then sent a second more detailed letter alleging "Possible Scientific Misconduct by CDC Scientists and Officials."²⁰⁴ "In this letter," wrote Dr. Edwards, "I allege scientific misconduct by CDC employees, which is something you claim necessary before your office will consider an investigation into this matter."²⁰⁵

On October 10, 2007, Dr. Stephens responded in an e-mail: "I was not able to identify any evidence of falsification, fabrication, or plagiarism related to CDC's involvement in the *MMWR* Dispatch either from the materials you provided or from any internal information," and made it clear that CDC did not believe this issue warranted any further efforts on its part. Once again, he advised Dr. Edwards to go to the District's Office of Inspector General if he still had concerns about the data in the *MMWR*.²⁰⁶

CDC's New Study on the Impact of Elevated WLLs in D.C.

Dr. Edwards' skepticism about the conclusions of the *MMWR* also encouraged him to look at the risk assessments that the health department had done of the homes with elevated WLLs and children with elevated BLLs. He found that CDC's and the District's statement that lead paint was the only source of those elevated BLLs was not true. In 2006, Dr. Edwards told the local public radio station that some of the city's assessments pointed to water as the key source of lead in the home. "The message sent – that very high levels of lead in water did not cause any measurable public harm – is a false message and it has to be retracted," Edwards said. The radio station reviewed department records and confirmed his statement.²⁰⁷ Four days after that report, CDC announced that it would conduct a new study to determine whether its original finding was correct. Dr. Brown, the primary author of the original study, said she had not known about the home assessments done by the D.C. DOH. "We think everything's safe," she said, but

²⁰³ Subcommittee staff interview of Dr. James Stephens, June 30, 2009.

²⁰⁴ E-mail from Marc Edwards to James Stephens, entitled "Please clarify the meaning of the September 18th letter," Sept. 22, 2007. See also, letter from Marc Edwards to James Stephens, Sept. 18, 2007.

²⁰⁵ Dr. Marc Edwards sent his second letter regarding potential CDC scientific misconduct to Dr. James Stephens on September 18, 2007, with the heading: "Re: Possible Scientific Misconduct by CDC Scientists and Officials."

²⁰⁶ E-mail from James Stephens to Marc Edwards, entitled "RE: Outcome of the assessment," Oct. 10, 2007.

²⁰⁷ WAMU 88.5FM, Transcript of "Questions over Harm Caused by Lead in the Water," Sept. 21, 2006, accessed at http://wamu.org/news/06/09/lead_questions.php

CDC would re-analyze the data and would look at the assessments. That study was supposed to be completed in “several months.”²⁰⁸

Although when CDC published the *MMWR* in 2004, officials stated that it was a “preliminary investigation”, and that it was still “ongoing,”²⁰⁹ there was no follow up until Dr. Edwards’ radio appearance. Since 2007, Dr. Brown and CDC colleagues had been working on a revised D.C. lead-in-water study based, at least partly, on the same incomplete data used in the March 2004 *MMWR* article. But when the conclusions were released at an American Public Health Association conference in November of 2007 they shattered the finding of the 2004 *MMWR* that the elevated WLLs had no impact on public health. Even when controlling for all the “confounders,” such as the age of the housing unit, researcher Jaime Raymond found that “Children who were tested and BLLs ≥ 5 $\mu\text{g/dL}$ or ≥ 10 $\mu\text{g/dL}$ were significantly more likely to have lived in a HU [Housing Unit] with a LSL [Lead Service Line] compared to children with lower BLLs.” In addition, when chloramine was added to the water system as a disinfectant, the CDC found, it may have caused lead service lines to leach lead into the water, contributing to the rise of BLLs in young children. “When chloramine was eliminated as the drinking water disinfectant,” Raymond noted, “we saw a dramatic reduction in BLLs in children < 6 years old in Washington DC.”²¹⁰

Another key finding of the new study was that the risk of elevated BLLs for children in homes with partial lead line replacements was four times higher than in homes without lead service lines.²¹¹ Despite the significance of these findings both in health and financial terms to the nation’s children and the water systems that initially saw partial line replacement as a solution to lead leaching into drinking water, the study has never been published.

In 2004, even before the publication of the *MMWR* article, water experts, including Dr. Marc Edwards, had warned that “partial” lead line replacements would actually increase the water lead levels at least in the short run increasing the potential human health dangers of D.C.’s residents.²¹² But in the wake of the D.C. lead-in-water crisis, WASA spent over \$100 million to replace publicly owned lead pipes throughout the city before deciding the program was a waste

²⁰⁸ WAMU 88.5FM, Transcript of “CDC Lead Study,” Sept. 25, 2006, accessed at http://wamu.org/news/06/09/lead_questions.php

²⁰⁹ *MMWR Dispatch*, *supra*, p. 1.

²¹⁰ “Association between lead poisoning among children less than six years old and lead service pipes in Washington DC,” Abstract #166176, 135th American Public Health Association (APHA) Annual Meeting, Jaime Raymond, MPH, Chinaro Kennedy, DrPH, MPH, and Mary Jean Brown, ScD, RN, National Center for Environmental Health (NCEH), Centers for Disease Control and Prevention (CDC), Wednesday, November 07, 2007, available here: http://apha.confex.com/apha/135am/techprogram/paper_166176.htm.

²¹¹ *Ibid.*

²¹² Based on his research in 2003, the resulting increase in WLLs caused by chloramines and partial line replacement was identified by Dr. Edwards even before the CDC completed its March 30, 2004 *MMWR* article. In a Feb. 19, 2004, letter to an expert panel at WASA, Dr. Edwards wrote: “[N]ot does chloramine worsen galvanic corrosion between brass/copper or lead/copper, but it also increases the amount of lead leached to the water when the metals are coupled. . . . replacing a half a lead service with copper is going to dramatically worsen the galvanic corrosion . . . Such partial replacements should be stopped immediately.” Dr. Edwards repeated his warning at a Congressional hearing. Testimony of Marc Edwards, “Public Confidence Down the Drain: The Federal Role in Ensuring Safe Drinking Water in the District of Columbia, U.S. House of Representatives, Committee on Government Reform, March 5, 2004.

of money and actually caused a temporary increase in WLLs.²¹³ Many states, including Michigan, Rhode Island, Wisconsin, New York and Washington have also invested hundreds of millions of dollars in replacing lead service lines.²¹⁴ In most cases, however, homeowners responsible for replacing the portion of lead pipe from the street to their home declined to spend the several thousand dollars to do so. By mid-February 2004, for instance, of 526 D.C. residents who had the WASA-owned service lines on their street replaced, only *one* resident chose to pay for the replacement of the line to his home.²¹⁵

In December 2008, the new draft CDC study, co-authored by Raymond, Dr. Brown and other CDC officials was finally submitted for “clearance” at CDC. But the allegations concerning the credibility of the underlying data were raised and have never been resolved. On January 25, 2009 – two days before Dr. Edwards came out with a peer-reviewed article that concluded that very young children in the District were more than four times as likely to have BLLs ≥ 10 $\mu\text{g}/\text{dL}$ – Dr. Bashor weighed in with his comments. Among his many concerns:

Regarding some big-picture comments based on my reading (NOT clearance review) to date:

(a) At the center of this paper is the blood lead data from 1998-2006, “...derived from the Washington D.C. Childhood Lead Poisoning Prevention Program....” The strength or weakness of the present draft relies on the accuracy, completeness, and comparability of the blood lead data for each year and across years. The only descriptions I could find regarding the analytical methods and QA/QC methods was a single sentence: “Blood lead tests were analyzed at various laboratories across the United States and were reported as whole numbers to the DC CLPPP.” The fact that multiple laboratories over multiple years contribute to the database argues for a more detailed discussion of analytical methods, QA/QC, and implications for the ability to compare with confidence the results from multiple labs across multiple years. The NCEH/DLS could assist in developing this discussion.

(b) As just noted, the integrity of the blood lead level database is a centerpiece of the entire paper. It appears to be public knowledge (at least reporters’ knowledge) that allegations have been made challenging the

²¹³ Michael Ruane, “WASA Backs off Lead Pipe Program,” *Washington Post*, Sept. 5, 2008.

²¹⁴ See: Christian Czerwinski, “Lead line replacement ahead of schedule,” *Lansing State Journal*, May 31, 2006; “Kinetico offers solutions to high lead levels in Ontario water,” *Canada NewsWire*, June 15, 2007; Dean Mosiman, “Mayor: Spend More on Water; Cieslewicz Will Propose a Spending Increase of More Than 50 Percent for Madison Water Utility Infrastructure,” *The Capital Times & Wisconsin State Journal*, August 31, 2006; “Neighbors Syracuse: City to Begin Lead Pipe Replacement in Spring,” *The Post Standard/Herald-Journal*, August 19, 2004; “WASA prioritizing lead line replacement plan,” *Associated Press*, April 15, 2004; “Rhode Island Daybook: Lead Pipe Protest,” *Associated Press*, April 12, 2010; Sanjay Bhatt, “Options presented to clean up water; Estimates vary | Seattle Schools study 3 options to reduce lead,” *Seattle Times*, October 20, 2004.

²¹⁵ E-mail from EPA lead expert Michael Schock to EPA colleague Ronnie Levin and cc’d to nearly three dozen other colleagues including the CDC’s Dr. Henry Falk, Subject: “FW: WP 2/11: WASA Avoided Replacing Lead Service Lines,” February 18, 2004 7:54 am.

integrity of this database due to the (alleged?) loss of thousands of data points in a critical year (2003) of this study. ... I am very concerned that we are treating this data as if it were entirely accurate and complete, without having seen anything regarding the District's finding(s) regarding public allegations. Has CDC/NCEH/EEHS/LPPB received assurance(s) regarding the accuracy and completeness of the database? I am especially concerned that we have clarity on this matter, since CDC is using the data, and further, CDC could be perceived as having some responsibility if we fund this data collection program through a Cooperative Agreement (substantial Federal Involvement, by definition).

(c) Given the enormous amount of time that has been consumed addressing controversy regarding the 2004 MMWR paper on this situation, I am surprised that the present draft manuscript—while it cites the subject MMWR—does not include any comparative discussion regarding the findings of that publication, and the present draft manuscript. Is there a reason for this? If not, I think the findings of both should be discussed.²¹⁶

Dr. Bashor returned the paper for revisions. He rejected it a second time on February 27, 2009. But somehow, after the second rejection, the paper went to Dr. Peter Briss, the science officer in the CDC's Coordinating Center for Environmental Health and Injury Prevention (CCEHIP), where Dr. Henry Falk was the director. That was an unusual event. "They had gone over my head and up the chain," said Dr. Bashor in an interview. Asked if that had ever happened before, Bashor said: "I don't think that's *ever* happened, except in this case."²¹⁷

Dr. Tom Sinks, NCEH/ATSDR's deputy director, then spent months revising the paper, and Dr. Briss approved it in CK-May 2009-CK. In fact, because of his substantial involvement in revising the study, Dr. Sinks became a co-author of the new report. But, despite Dr. Bashor's clearly expressed concerns about the use of seriously flawed data in an article to be submitted for peer review, neither Dr. Brown, Dr. Sinks nor any of the other co-authors ever sought to address those criticisms or to obtain the missing blood lead level test data.

The manuscript was sent to the journal *Environmental Health Perspectives* (EHP) last summer which rejected it. It was then submitted to the journal *Environmental Research*, where it underwent peer review. Once again, the issue of the integrity of the underlying data was raised. One reviewer pointed out that the 2003 missing blood lead level data "raises a lot of questions."

First, since the labs are identified did you consider obtaining the unreported data and adding them to the analysis? That would seem

²¹⁶ E-mail from Dr. Mark Bashor, Associate Director for Science, NCEH/ATSDR, Centers for Disease Control and Prevention (CDC), to Howard Frumkin, Tom Sinks, James Stephens, Peter Briss, Sharunda Buchanan, Andrew Dannenberg and Mary Jean Brown, "Subject: INITIAL COMMENTS ON BROWN'S DRAFT MS: ASSOICATION BETWEEN CHILDREN'S BLOOD LEAD LEVELS...IN WASHINGTON DC..." Sunday, January 25, 2009, 4:18 pm.

²¹⁷ Subcommittee interview with Dr. Mark Bashor, Sept. 2, 2009.

to be the most straightforward way to address the situation. Second, if that is not possible for some reason, it would be preferable for you to provide a quantitative analysis of how the unreported data compare with the results that are reported. Your statement that they were “more likely” to be <10 leaves a lot to be imagined.”²¹⁸

A second reviewer identified other problems as well.

There are some biases that are inherent in the analysis, but not identified. For instance, the targeting of children for screening in CLPPPs assumes a principal exposure of dust/paint/soil. The highest risk for elevated exposures due to drinking water is in formula-fed infants. No data for this population were obtained in this study. As such, this analysis likely underestimates the full impact of the elevated lead levels in DC’s drinking water. Also, using age of housing to control for lead paint, reduces the significance of the water.²¹⁹

The article has not yet been published.

8. Dr. Edwards’ Peer-Reviewed Research: Elevated Water Lead Levels Endangered District’s Children

At the same time Dr. Bashor was questioning Dr. Brown’s reliance on faulty data, Dr. Edwards published a peer-reviewed study in the January 2009 issue of *Environmental Science & Technology* journal that found that in Washington, D.C., the youngest children aged 15 months or less were four times more likely to have an elevated BLL from 2001-to-2003 when water lead levels were at their highest compared to 2000 before water lead levels had increased.²²⁰ Along with co-authors Simoni Triantafyllidou and Dr. Dana Best, an epidemiologist and pediatrician at Children’s National Medical Center (CNMC) in Washington, D.C., Dr. Edwards had examined 28,000 BLL test results submitted to the D.C. Childhood Lead Poisoning Prevention Program from CNMC between 1997 and 2007. The data showed that hundreds of the youngest D.C. children were exposed to damaging levels of lead in their blood while the District’s drinking water supply had high levels of lead – a markedly different conclusion than that of the CDC’s 2004 *MMWR* article.

²¹⁸ Letter from Ellen Kovner Silbergeld, PhD, Editor-in-Chief, *Environmental Research* to Mary Jean Brown, “Subject: ER-09-0331: Interim Decision,” re: Title: Association between Children’s Blood Lead Levels, Lead Service Lines, and Chloramines for Water Disinfection, Washington, D.C., 1998-2006, Corresponding Author, Dr. Mary Jean Brown, Authors: Jaime Raymond, MPH; David Homa, PhD, MPH; Chinaro Kennedy, DrPH, MPH; Thomas Sinks, PhD, Aug. 13, 2009.

²¹⁹ *Ibid.*

²²⁰ Marc Edwards, Simoni Triantafyllidou, and Dana Best, “Elevated Blood Lead in Young Children Due to Lead-Contaminated Drinking Water: Washington, DC, 2001-2004,” *Environmental Science & Technology*, published by the American Chemical Society, March 1 2009, pp. 1618-1623; published on-line on January 27, 2009, available here: <http://pubs.acs.org/doi/abs/10.1021/es802789w>.

Dr. Edwards had obtained a copy, via a FOIA request, of the nearly 85,000 blood lead test results reported to the D.C. lead program from 1998 to 2003 from all laboratories, including CNMC, that were used in the 2004 *MMWR* article's analysis of historical blood lead tests in Washington, D.C. But when the authors of the Edwards paper tried to compare the CDC records to the CNMC records they found an error rate of more than 50 percent, in five separate domains, including sample data, blood lead level and subject's age. "Because repeated attempts to resolve this and other discrepancies in the CDC data were not successful," the authors wrote, "only the CNMC data were used for analyses and conclusions in this work."²²¹

In addition, according to the records in the CNMC database, Children's National Medical Center reported 80 elevated blood lead level test results to D.C. in the second half of 2003. However, when Edwards compared this data to the database of BLL tests that CDC used in the *MMWR* study it showed that the database had only 23 elevated BLL test results from D.C. for that same period [CK]. In 2003, CNMC was one of seven labs reporting BLL tests to the D.C. Department of Health. So, the information D.C. reported to CDC should have been a compilation of all of the BLL tests reported to D.C. from all of these labs. Yet, the CDC database contained fewer tests than the CNMC alone.²²² [CK]

The Edwards article sparked widespread media coverage and a hearing by the Council of the District of Columbia.²²³ The CDC's response to Dr. Edwards' award-winning research, however, was to downplay the significance of any findings that could be seen as contradicting the basic conclusions from the 2004 *MMWR* article that no one had suffered undue harm from the D.C. lead-in-water crisis. In a follow-up article in *The Washington Post*, Dr. Frumkin – contrary to other lead experts – even implied that the reduction in the IQ of children exposed to elevated water lead levels in D.C. was not a cause for concern. "At these levels, the effects are subtle," said Frumkin. "They are detectable in population studies but generally not in individual

²²¹ Edwards, Triantafyllidou and Best, *supra*, p. 1620. The CDC also provided the Subcommittee with a copy of the underlying raw data of those 85,000 blood lead tests. As Dr. Edwards pointed out, the data includes 9,766 blood test results for 2003, but the vast majority contained no indication of the age of those being tested. Of the 9,766 test results, 8,939 listed the age as zero months. This is indicative of other problems in the underlying data from the DC lead program and CDC.

²²² In an interview with Subcommittee staff in September 2009, Pierre Erville, Associate Director for Lead and Healthy Housing in the DC Department of the Environment which now oversees the District's lead program, said that after the Edwards article came out in January 2009 the District went back to Children's National Medical Center and obtained a copy of the data they used for the Edwards study. Erville admitted that the data contained records that were not available in the District's own blood lead database, but should have been. Eight months after the Edwards paper was published, Erville said DC was still analyzing the CNMC data to see how many records may be missing from the District's blood lead database.²²³

²²³ See, e.g., Carol Leonnig, "High Lead Levels Found in D.C. Kids," *Washington Post*, A1; "Lead Probe Sought in D.C.," *Washington Post*, B1. Dr. Edwards' work was subsequently cited as the best paper of 2009 in the science category by the journal, and he was given the Praxis award for professional ethics by Villanova University in April of 2010 "because of his exemplary dedication to the ethical ideals of his profession as an engineer," said Mark Doorley, director of Villanova's Ethics Program. "Out of a concern for the public welfare, a central value of the engineering profession, Professor Edwards pursued what he thought was a highly dangerous claim about lead in the water of Washington, D.C." Villanova press release, "Dr. Marc Edwards will receive Villanova's 2010 Praxis Award in Professional Ethics," Sept. 28, 2009, accessed at: <http://www.villanova.edu/artsci/ethics/praxisaward/release.htm>

children,” he said.²²⁴ Once again, the message from the CDC was that there was no reason for D.C. parents to worry. . . The message was repeated – once again – by WASA officials. In a D.C. Council meeting, WASA General Manager Jerry Johnson said he would allow a child to drink the water, stating that he relied on CDC for information that residents’ health had not been harmed. “I’m not a physician; I’m not an epidemiologist. We had to rely on outside services,” he said.²²⁵

Internally the CDC spent significant time and energy strategizing about how to respond to the Edwards paper. Dr. Frumkin proposed a letter to the *The Washington Post*. His draft letter mentioned the new study on the D.C. lead-in-water crisis that Dr. Brown had been working on since 2007. But Glen Nowak, CDC’s director of media relations, sent an e-mail to several CDC officials, questioning how CDC could claim to promise the study would provide “critical information the city can use to help vulnerable children,” but not release it until later in the year.²²⁶

Those were reasonable questions that never received clear answers. In the end, officials at the Department of Health and Human Services Department officials (HHS) killed Dr. Frumkin’s proposed letter about the new study. The CDC had informed EPA officials about the preliminary conclusions in 2007.²²⁷ But the citizens of the District – those that would benefit most from the CDC’s new findings – have never been told of the results of this study. There was no new *MMWR Dispatch* to inform public health officials worldwide that, even when adjusted for the age of the housing unit, children whose water came from lead service lines had a significantly more likely to have an elevated BLL. There was no new *MMWR Dispatch* warning cities that partial lead line replacements or the addition of chloramine would cause a spike in children’s BLLs.

In September 2009, after WASA had halted its partial lead line replacement program, Dr. Brown finally informed WASA that CDC’s study indicated “that the risk of elevated blood lead levels ≥ 10 ug/dL in homes with partial replacements of lead service lines is about 4 times that of the risk for blood lead elevations in homes without lead service lines. We also noted an increase in risk for elevated blood lead levels when homes with partial replacement were compared to homes with full replacement of lead service lines.”²²⁸

In January 2010, a full year after the CDC’s Nowak questioned the rationale for sitting on presumably critically important public health information, Dr. Frumkin finally posted a two-paragraph update for lead program managers on the CDC web-site regarding some of the results

²²⁴ David Brown, “Study Can’t Pinpoint Extent of Lead Exposure,” *The Washington Post*, January 31, 2009, B1, available here: <http://www.washingtonpost.com/wp-dyn/content/article/2009/01/30/AR2009013003666.html>.

²²⁵ Nikita Stewart, “Water Assessment is Murky; Comments at Hearing Fail to Ease Concern about Lead,” *Washington Post*, Feb. 11, 2009, B4.

²²⁶ E-mail from Glen Nowak (CDC/OD/OEC) to Dr. Mary Jean Brown, Dr. Howard Frumkin, Dr. Tom Sinks, and others on January 28, 2009 12:14 pm.

²²⁷ See: E-mail from Edward V. Ohanian, Ph.D., Director, Health and Ecological Criteria Division, Office of Science and Technology, Office of Water, Environmental Protection Agency to Mary Jean Brown, “Subject: Re: CDC Draft Letter to WASA,” August 17, 2009. In the e-mail Ohanian wrote: “Mary Jean: We appreciate the CDC’s urgency in providing information to local officials regarding the findings of the draft study currently undergoing peer review. . . . We first discussed this study with you in a meeting on December 14, 2007, and our health scientists reviewed a draft of this report in February, 2009.”

²²⁸ Letter from Mary Jean Brown to Avis Russell, Interim General Manager, DC WASA, cc’d to District Department of Environment and Environmental Protection Agency’s Office of Water, Sept. 4, 2009.

of Dr. Brown's new paper. "I wanted to bring the preliminary results [of this study] to your attention as they underscore the need to provide health education materials to families that include advice for lead safe water practices following plumbing work in housing with lead water lines or lead solder."²²⁹

Meanwhile, District of Columbia officials were again quick to rely on the misleading statements made by senior CDC officials about the potential human health dangers of lead in drinking water. On February 10, 2009, in the wake of the release of Dr. Edwards' paper, George Hawkins, then the District Department of Environment director, told a D.C. City Council public hearing on water quality issues that his office was aware of the Edwards' study and had asked CDC to analyze it for them. In the meantime, Hawkins said, he had relied on the "initial analysis" from "experts such as Dr. Howard Frumkin" and quoted Frumkin's remarks to *The Washington Post* that the effects of lead exposure to children was "subtle" and not detectable "in individual children."²³⁰ The take home message nearly five years after the CDC's publication of the *MMWR* was still the same. The lead-in-water crisis in D.C. did not result in any measurable public harm to the Capitol's children.

In April 2009, Rebecca Renner published a story about the CDC's *MMWR* article and the flawed data they relied upon for that study in an article on Salon.com, based partly on her interview with Dr. Frumkin the previous summer. The article focused on the thousands of "missing" blood lead level test results for D.C. children not reported to CDC in 2003. It raised questions regarding why the CDC's 2004 *MMWR* drew such a different conclusion about the public health impact of elevated lead levels in water in D.C. than Marc Edwards' January 2009 paper or the 2007 presentation by the CDC's own Jaime Raymond at the American Public Health Association. "This is a disaster of accountability from the CDC's point of view," John Rosen, a pediatrician and national expert on lead poisoning at Montefiore Medical Center in New York City told Renner. "This raises troubling questions about CDC's complicity in passing on dubious data," Rosen said.²³¹

Rather than spending their time, effort and energy trying to finally investigate the cause of the 2003 blood lead level "data gap," the CDC issued a lengthy media statement responding to the Salon.com article defending the scientific merits of the *MMWR* article. "Now, as in 2004, CDC continues to stand by its *MMWR* statement, that, "Because no threshold for adverse health effects in young children has been documented, public health interventions should focus on eliminating all lead exposures in children," the CDC said. Regarding the "missing data," the CDC stuck to the same factually inaccurate claim they had been espousing for half-a-decade regarding the 2003 gap

²²⁹ "Important update: lead-based water lines," Howard Frumkin, M.D., Dr.P.H., Director, National Center for Environmental Health/Agency for Toxic Substances and Disease Registry, posted on-line January 2010, available here: <http://www.cdc.gov/nceh/lead/waterlines.htm>.

²³⁰ Statement by George S. Hawkins, Esq., Director, District Department of Environment, Washington, D.C, Joint Public Hearing on Water Quality in the District of Columbia, Committee on Government Operations and the Environment and Committee on Public Works and Transportation, February 10, 2009, available here: <http://www.ddoe.dc.gov/ddoe/cwp/view.a.1209.q.499285.asp>

²³¹ Rebecca Renner, "Health agency covered up lead harm: The Centers for Disease Control and Prevention withheld evidence that contaminated tap water caused lead poisoning in kids," Salon.com, April 10, 2009, available here: http://www.salon.com/env/feature/2009/04/10/cdc_lead_report/

in blood lead level reporting data from the District's Childhood Lead Poisoning Prevention Program.

In 2004, a participating commercial laboratory stopped reporting test results that fell below the CDC level of concern of 10 ug/dL. CDC believes this failure of reporting accounts for the missing data because the laboratory continued to report BLLs greater than 10 ug/dL. To the extent "missing" data would have affected overall results, it would have exaggerated the apparent problem, not masked it.²³²

The CDC statement also misconstrued its own "investigation" into Dr. Edwards' scientific misconduct complaint and said the CDC "thoroughly investigated this complaint and found no evidence of scientific misconduct." In fact, CDC had never actually "investigated" Dr. Edwards' allegations. Instead they decided the allegations were not aimed at CDC officials and pointed Dr. Edwards towards the D.C. government.

9. Conclusion

The leaders of CDC's lead program never questioned their fundamental assumptions about the D.C. lead-in-water issue. Rather than attempting to unearth the root scientific explanations for the surprising findings of the 2004 *MMWR* article, or conceding that they may have overlooked, underemphasized or dismissed critical problems in the D.C. lead program their agency continued to fund, the CDC simply refused to acknowledge anything in either the D.C. lead program or their own analysis of the D.C. lead-in-water crisis could potentially be amiss.

The flawed foundation upon which the CDC's *MMWR* article has stood for more than six years has undermined public health efforts to fully and completely investigate lead-in-water issues as a potential public health hazard around the nation. The leadership of CDC's Childhood Lead Poisoning Prevention Program made scientifically unsound assumptions about the data they were analyzing, ignored critically important issues and simply discounted others.

None of the long standing and substantial problems in the D.C. lead program should exonerate the CDC or CDC officials involved in the publication of the *MMWR* lead-in-water article. In fact, given the extent of the problems in the D.C. lead program it is simply astounding that these issues did not receive adequate attention from CDC lead program officials who had been providing the D.C. CLPPP office with millions of dollars in lead grants. The CDC appears to have been blinded to the problems that were brewing in the D.C. lead program. They also failed to take adequate action to either investigate or rectify any of the problems they did become aware of in the D.C. CLPPP. Their lack of action and dismissal of known problems dramatically undercut the scientific integrity of the *MMWR* article on potential human health effects of lead-in-water in Washington, D.C.

²³² "CDC Responds to Salon.com Article," Media Statement, Office of Enterprise Communication, Centers for Disease Control and Prevention, April 10, 2009, available here: <http://www.cdc.gov/media/pressrel/2009/s090410.htm>.

The Subcommittee's investigation into the D.C. lead-in-water issues makes it clear that both the 300 ppb cross sectional study and the D.C. lead program's 2002-2003 blood lead test data provided to CDC and used as a foundation for the *MMWR* article were incomplete and untrustworthy. As a result, the full extent and impact this public health crisis had on the city's residents has remained unclear. What is clear is that the public health information the CDC provided in the *MMWR* article, while reassuring, was based upon fundamentally flawed and incomplete data. Rather than immediately and aggressively attempting to address the known questions surrounding the 2003 blood lead level "data gap" and the allegations of forgery, CDC officials cloaked the *MMWR*'s fundamental data integrity failings and the obvious management short-comings in the D.C. Childhood Lead Poisoning Prevention Program from a rigorous, immediate and comprehensive examination.

The nation and the world have relied upon the Centers for Disease Control and Prevention to provide unvarnished scientific facts and forthright analysis regarding critical public health related issues for decades. The imprimatur of the CDC on the *MMWR*'s D.C. lead-in-water article had an impact on local and state public health officials who were investigating lead-in-water health issues of their own. They viewed it as scientifically sound and the public health conclusions it offered as being reliable and responsible. But the main public health messages conveyed to the public in the *MMWR* article resulted in underestimating the potential public health dangers of lead exposures in drinking water. The faulty assumptions and flawed data used in that article have had a long-lasting and wide-spread impact on objectively, thoroughly and properly confronting the lead-in-water issue in D.C. and in other cities around the country.

Chairman CHAFFETZ. Thank you, Mr. Edwards. We appreciate it. We will now go to questioning, and we will first recognize the gentleman from Michigan, Mr. Walberg, for 5 minutes.

Mr. WALBERG. Thank you, Mr. Chairman, and I appreciate the fact that we have had a hearing. We are now having this hearing and another hearing, and I know that we are intent on getting answers and ultimately addressing the concerns of people, children, the faces that are in the room that we had the privilege to see this past Saturday in Flint standing alongside our colleague, Dale Kildee, as well.

We want answers, but we want action, and ultimately we want solutions.

Ms. Hedman, you say in your testimony, and I will reiterate it again. You read it. "The bad news is that this problem should have never happened." And looking at the faces of the children, the community members there in Flint on Saturday, they would concur with you. As I would concur with you as well.

But you went on to say as did Gina McCarthy, administrator of EPA in her article just referred to that I read with shock and awe that she would make the statements in the Washington Post that she did. But you made them today as well when you said, "And I need to remind you EPA had nothing at all to do with that."

To be clear, you actually think the EPA had nothing with the crisis in Flint?

Ms. HEDMAN. No.

Mr. WALBERG. Okay. Ms. Hedman, I have here in front of me Section 1431.

Ms. HEDMAN. Yes.

Mr. WALBERG. It is the law. 1431 of the Safe Drinking Water Act pulled from the EPA's Web site this this morning, which describes the emergency powers authority given to the EPA "in the event of an imminent—let me state that again—"an imminent and substantial endangerment to public health." Do you believe the people of Flint have at any time faced an imminent or substantial endangerment to their health?

Ms. HEDMAN. Yes.

Mr. WALBERG. Then was this endangerment to the people of Flint not evident when the EPA learned of the high lead levels in June 2015?

Ms. HEDMAN. Well, Section 1431 requires that there be both substantial endangerment and that the State fails or the city fails to take action.

Mr. WALBERG. Well, did they fail to take action?

Ms. HEDMAN. Well —

Mr. WALBERG. I think the answer is yes, do you not?

Ms. HEDMAN. The legal advice that I got was that once the State had issued the order directing the City of Flint to implement corrosion control, and the mayor stepped forward to indicate that he would do as soon as possible, that it was likely that the State of Michigan would argue that there was a jurisdictional bar.

Mr. WALBERG. Well, I mean, argument is one thing. Dealing with the job that you have is another thing.

Ms. HEDMAN. Yeah, and —

Mr. WALBERG. The issue was we had seen so far the action was not being taken. Mr. Edwards and others, community members and others that we have all heard from thankfully, they pressed it. It was not happening. Why did the EPA not intervene and take control of the situation as soon as it learned of the Flint water crisis? This is a crisis to human health.

Mr. Edwards, do you think Ms. Hedman's response was adequate?

Mr. EDWARDS. Completely unacceptable and criminal frankly.

Mr. WALBERG. How soon should she have taken action according to law and according to human decency as well?

Mr. EDWARDS. I do not know the law, but as a human being she should have told people immediately.

Mr. WALBERG. Ms. Hedman, in July 2015, you told Flint's mayor to disregard Mr. del Toral's preliminary memo that found high levels of lead in Flint water supply. Why did it take another 5 months for the final report to come out?

Ms. HEDMAN. I never told the mayor to disregard that memo. In fact, if you look at Appendix 3 to my testimony, you will see what actually occurred during the conversation that I had with the mayor —

Mr. WALBERG. There is great dispute on that coming across the board.

Ms. HEDMAN. Yes. I wrote the email, and I know what I said. And if we could take the time to take a moment to talk about that, I think we could clear that up.

Mr. WALBERG. I am not sure we could. Mr. del Toral certainly has a different recollection of it, as well as responses to him. And I had the opportunity to talk with him in Flint this Saturday as well. Very different from what we are being told here, and that is the concern.

Again, the human decency act. When the issue was brought to you by authorities in the field, by actual testing, the EPA did not do what it needed to do, even if the other entities going down to the local level and the State level were not doing their duty, and we are certainly going to ask them about those issues. And I look forward to their responses as well, Mr. Chairman.

I see my time has expired. I yield back, and hopefully I can gain some other time from other individuals down the road.

Chairman CHAFFETZ. I thank the gentleman, Mr. Walberg. I will now recognize the gentlewoman from New York, Ms. Maloney, for 5 minutes.

Ms. MALONEY. The Flint drinking water crisis is a national scandal, and it cries out for accountability from those that are responsible. And that is what we are trying to accomplish today.

I would like to begin with Mayor Walling. Mayor Walling, in Mr. Earley's statement for this committee, he made several statements that specifically concern the involvement of yourself and the city council in the decision to switch to the Flint water. First, Mr. Earley alleges, and I quote, "The concept of using the Flint River as an interim water source was inherent in the city council's KWA water authority vote, and Kurtz's March 2013th order."

So, Mayor Walling, at any time did the city council ever vote on using the Flint River as an interim source of water?

Mr. WALLING. No.

Ms. MALONEY. Now, Mr. Earley never says that the city council voted on this issue. Rather he implies, he very clearly implies, that somehow their vote to join the KWA Water Authority meant that they approved the use of the Flint River as an interim source. So Mr. Walling, in your prepared statement today before the committee, I quote, "The decision in June of 2013 to switch to the Flint River was contrary to the water plans and financial forecasts provided to me and the Flint City Council in March of 2013."

I am going to put on the screen a document entitled, "Original Projection Summary Comparison: The KWA and DWSD Water Authority to the Detroit Authority." And what is notable to me when you see this, this is a seamless movement. Never does this document mention the taking of water from the Flint River. Is that correct, Mr. Mayor?

Mr. WALLING. That is correct.

Ms. MALONEY. And this was what was put before the city council. Is that correct??

Mr. WALLING. That is right. That was March 2013.

Ms. MALONEY. And if I were a member of that city council, I would think that was a seamless movement, and that the Flint River was never touched, and that the KWA and Detroit Water would be what was there. Is that your interpretation of it?

Mr. WALLING. That was what was provided in the documents. That is what took place in the city council meetings, the comments that I and others made.

Ms. MALONEY. Now, Mr. Earley also alleges that he, "delegated all day-to-day operational responsibilities of the Department of Planning and Development and the Department of Public Works to Mayor Walling as of June 2014," which notably is after—after—the switchover. So, Mayor Walling, it appears to me that Mr. Earley is attempting to deflect blame for this crisis onto you and to the city council of Flint. What is your response to that?

Mr. WALLING. I was surprised when this statement was first made. It was made through an op-ed, I believe, in October of 2015. And, you know, first of all, Mr. Earley at the time was serving as city manager in the City of Saginaw. He was not serving in the City of Flint. I was, and I know what happened and what the process was.

The first frequently asked questions that the City of Flint provided in early February of 2015 when so many of the issues came out about the TTHM crisis was that the finance director and the city's public works director provided that recommendation to EFM Kurtz in June of 2013.

Ms. MALONEY. So in reality, to cut to the chase of it, who actually made the major decision related to the water issues in Flint? Who made those decisions?

Mr. WALLING. They were in place by Emergency Financial Manager Kurtz in June of 2013. That included an adopted 2-year budget that set the equipment, and purchasing, and personnel for the Department of Public Works for the next 2 years. That is what Mr. Earley later inherited.

Ms. MALONEY. And, Mayor Walling, my time is up, but just would Mr. Early have had the power to keep clean Detroit Water flowing if he wanted to?

Mr. WALLING. Yes. The emergency managers often amended the budgets that they were working with in consultation with the State.

Ms. MALONEY. And they had that power, not the city council.

Mr. WALLING. Correct.

Chairman CHAFFETZ. I thank the gentlewoman. I will now recognize the gentleman from Michigan, Mr. Amash, for 5 minutes.

Mr. AMASH. Thank you, Mr. Chairman, and thank you to the panel for being here. Thank you especially to Professor Edwards, who has been an extremely valuable expert in this area. And I share your concerns about the EPA and its role, and Ms. Hedman's role in this, and Mr. Walberg made many important points in that regard.

I am going to ask some questions to Mr. Earley. Mr. Earley, you wrote a column for the Detroit News in October 2015. Is that correct?

Mr. EARLEY. That is correct, sir.

Mr. AMASH. Mr. Chairman, I would like to ask unanimous consent to enter this op-ed into the record.

Chairman CHAFFETZ. Without objection, so ordered.

Mr. AMASH. You have made clear here today and in your column that the decision to switch over to the Flint River was made by the previous emergency manager and the city council, correct?

Mr. EARLEY. That is correct.

Mr. AMASH. In your op-ed, you say, "It fell to me to oversee the implementation," correct?

Mr. AMASH. That is correct.

Mr. AMASH. Now, also in your op-ed it says, "It did not fall to me to question, second guess, or invalidate the actions taken prior to my appointment." Do you really believe that?

Mr. EARLEY. I believe that based on the fact that there was no petition. There was no effort made to engage me to change what had already been implemented. When I —

Mr. AMASH. I am sorry. So you believe as an emergency manager, as someone who is put in charge of the City of Flint, it does not fall on you to question, second guess, or invalidate any actions taken prior to your appointment?

Mr. EARLEY. No. What I mean by that is that it does not fall to me to arbitrarily change that, and that is what I was referring to.

Mr. AMASH. Is it not the job of a city manager to question things? Is that not why you are brought in?

Mr. EARLEY. That is part of the reason, yes.

Mr. AMASH. If as a congressman, if I took the position that it is not my job to question, second guess, or invalidate any actions that happened prior to my being here, would I be doing my job?

Mr. EARLEY. Well, if everybody were telling you that the project was on course and everything was going well, there was nothing to second guess.

Mr. AMASH. So if Congress passes something in a previous term and I get elected, I am just supposed to say, oh, well, everything is okay. I do not have any work here. Is that right?

Mr. EARLEY. What I am saying is that you would obviously have to do your own due diligence, but if it comes up that there is nothing to change, there is nothing to change. And if people are telling you that the project is on course. Keep in mind that was only one of many projects in a distressed community that the emergency manager was responsible for.

Mr. AMASH. So in your op-ed, you also say, "At the time the decision was made, there was no way to predict such an unfortunate outcome." You also call it "an unintended consequence with no blame to affix." So as a person appointed in this position or as an elected official like me, are we not supposed to concern ourselves with unintended consequences? We are just not supposed to think about those things?

Mr. EARLEY. No, that is not what I am saying. What I am saying is that because of those unintended consequences, we now have what is known as the Flint water crisis. In hindsight, there is probably a lot more that everyone would have done, a lot more questioning everyone would have done. But when you have an 18-month window to turn around a distressed community going through its second round of State intervention, the object is to get the work done and enlist as many people as you can to assist you in getting that work done.

Mr. AMASH. Is it not your job to think about unintended consequences?

Mr. EARLEY. Well, we always think about the possibility of hypotheticals, absolutely.

Mr. AMASH. And do you feel you did that in this case?

Mr. EARLEY. Well, I believe based on the information we were given, we acted responsibly and did what we did knowing the information we had at the time. Yes, sir.

Mr. AMASH. All right. According to Michigan's emergency manager law, "Upon appointment, an emergency manager shall act for and in the place and stead of the governing body and the office of chief administrator officer of the local government. Additionally, the emergency manager shall have broad powers to assure the local government's capacity to provide or cause to be provided as necessary governmental services essential to the public health, safety, and welfare."

What in your view is the emergency manager's role in overseeing the daily duties of city employees?

Mr. EARLEY. Well, as I said earlier in my comments, as the city manager I have always involved the elected and the appointed officials in the work that I do. And I did no different as the emergency manager and involving them because they are the experts. They are the ones that handle the day-to-day operations. They were very much involved in it, yes.

Mr. AMASH. So when a city has an emergency manager, whose responsible for ensuring compliance with State and Federal laws regarding safe drinking water?

Mr. EARLEY. Well, regarding anything, the emergency manager obviously is the person responsible for making sure that those things get done, and I have always accepted that.

Mr. AMASH. So you take responsibility for that because in your op-ed you say, the headline is, "Don't Blame EM for Flint Water Disaster."

Mr. EARLEY. I am trying to draw a distinction between responsibility and blame, sir. And we were all responsible by virtue of our roles. I was very responsible in my role as emergency manager.

Mr. AMASH. What role did you have, and what steps did you take in ensuring the water treatment plant was prepared to meet State and Federal drinking water standards, knowing that the Flint River would be the primary water source?

Mr. EARLEY. Well, we had regular meetings on the progress. We are upgrading the plant as we got up to the switching over to the Flint Water. I had regular meetings with the treatment staff. The mayor was a part of some regular meetings that we had. We all had discussions about the progress and the things that were being encountered in this switch.

Once we made the switch and we got the complaints about the quality of the water, we went to the DEQ. We got boil water advisories, which are common in the case of treating water. We had meetings on a couple of occasions with the MDEQ to talk about what is going and what is actually being treated.

And let me again state for the record, in none of those meetings were the current issues that we are dealing with no a problem. They were not addressed. They were not issues brought to our attention. But we did everything we could to make sure we were being responsible to the complaints and the concerns about the quality of the water.

Mr. AMASH. I think responsibility involves paying attention to unintended consequences, thinking about what might happen.

I see my time has expired. Thank you, Mr. Chairman.

Chairman CHAFFETZ. I thank the gentleman. I will now recognize the gentlewoman from the District of Columbia, Ms. Norton, for 5 minutes.

Ms. NORTON. I thank you, Mr. Chairman. Mr. Edwards talked about willful blindness. I want to warn everybody about the willful blindness that is built into the separation of powers system, and that is why finger pointing of the Federal and the State side, either on this committee or among our witnesses, is quite inappropriate.

Now, this committee has recognized this. To its credit, this committee passed this past February a bill, actually passed a law that requires the EPA to notify residents of high levels of lead when water samples show lead levels for the highest 10 percent of homes tested are above 15 parts per billion.

Why do you think we needed a law? Because there is unusual deference on the part of Federal officials. And apparently it took a law to say when people's lives are in danger, when their health is in danger, there is an obligation to speak up when the State is not doing its part. Mr. del Toral did speak up to his supervisors, but he risked being a whistleblower, and we know what happens to whistleblowers in our system. So my questions are not aimed at finger pointing.

It is clear, though, that once you have the slightest evidence of lead in the water wherever you are in the system, you better speak

up because this is irreversible. You cannot turn this one around, people.

So I have a question for Mr. Earley recognizing the Federal responsibility as well as the State responsibility, sir. But let us speak to your responsibility. You know, people are not crazy. They began to smell odors in the water. They saw the color of the Flint water change. And that started a month after the water plant began processing, during your watch, sir, the Flint water.

Now, they began to speak out. They complained even about skin rashes and hair loss. Those complaints, it is our information, continued for 8 months while you were emergency manager of Flint. Did you ever consider given those complaints switching back to Detroit Water once the public started to sicken and to speak out?

Mr. EARLEY. Well, let me just make, again, very clear that the fact of the complaints, we responded to those. We sent our water staff out and collected samples. But keep in mind we were also working very closely with the Michigan Department of Environmental Quality on these issues. And while the water did have some discoloration, we were told a number of reasons for that, none of which raised the fact that the water was not fit for human consumption.

We relied on the information we received from the Michigan Department of Environmental Quality as this was a manageable issue. And we did what we —

Ms. NORTON. Yeah, Mr. Earley, you have extraordinary powers as an emergency manager. Was money ever a concern or enough of a concern for you to ask the governor for State funds to reconnect to the Detroit Water System during your time, during your watch?

Mr. EARLEY. Again, we were trying to manage the issue.

Ms. NORTON. And the smell of the water and the constant complaints were not enough of a warning for you to try to do something beyond rely on the experts. I mean, the experts seem to have been, Mr. Earley, in the public drinking the water.

Mr. EARLEY. We relied on the Michigan Department of Environmental Quality, and we got the information from them, and —

Ms. NORTON. All right. Mr. Earley, I am sorry. My time is limited. Sue McCormack of Detroit Water wrote to you offering to continue supplying water to Flint, Michigan until the Water Authority's project was complete. But you wrote back, "There will be no need for Flint to continue purchasing water to serve its residences and business after April 17th, 2014." Why did you reject this offer to continue using Detroit Water as a source?

Mr. EARLEY. Just to be clear, the letter you refer to went to the city clerk. At the time —

Ms. NORTON. You had no knowledge of this letter.

Mr. EARLEY. I was not the emergency manager at the time that the letter came in. By the time I got there, we had already been notified that the contract had been terminated, but we could still —

Ms. NORTON. But you were the emergency manager before the switch was implemented on your watch. You could say, wait a minute, I am in charge now. Was this not your job to look at what should be done now now that you are in charge, sir?

Mr. EARLEY. We did look at that, and, again, we followed the guidelines based on the information we were given. But importantly in that letter is that —

Ms. NORTON. What about the warning that came, now, imagine receiving a warning from somebody in the line who says, “I have people above me making plans to distribute water as soon as possible. I was reluctant to go before, but after looking at the monitoring schedule and current staffing, I do not anticipate giving the okay to begin sending this water out any time. If any water is distributed from this plant in the next couple of weeks, it will be against my direction.” What more did you need, Mr. Earley?

Mr. EARLEY. That did not go to me, ma’am. That did not go to me. That email went to the director of the Department, I do believe. It did not go to me.

Ms. NORTON. Your name is on the letter, Mr. Earley.

Mr. EARLEY. You are talking two different things.

Ms. NORTON. What is the other thing, sir?

Mr. EARLEY. Well, the letter from the DWSD and an email that came from one of the operators that talked about the distribution of water.

Chairman CHAFFETZ. The gentlewoman’s time has far expired. I will now recognize the gentleman from Florida, Mr. Micah.

Mr. MICA. Mr. Chairman and members of the committee, I think this hearing is going to be known as the great finger pointing hearing. And we have got the Flint mayor throwing people under the bus. We have got the Flint emergency manager throwing people under the bus. And we have got Ms. Hedman, former EPA administrator for that area, throwing people under the bus. But somewhere it seems like people were asleep at the tap and not doing their job.

Now, if the locals failed, and the mayor failed, and the emergency managers failed, and there were failures there, Mr. Edwards, what role would the Federal government have?

Mr. EDWARDS. They are the last resort. They are the last line of defense. They are the last hope of Flint residents.

Mr. MICA. And the reason we put EPA together was to protect people, right, in cities, in communities, and States where they did not act to protect the water of the people, right?

Mr. EDWARDS. That is correct.

Mr. MICA. Okay. Were they notified? Well, there are some heroes in this. First, the hero is, and she is here today, is Ms. Walters and her family because they notified the local people, and the Federal people, and everybody they could that they were poisoning their kids. Mr. del Toral wrote an incredible memo. He acted. Ms. Hedman, was he not an EPA official?

Ms. HEDMAN. He is an EPA scientist.

Mr. MICA. Yeah, he did a great job.

Ms. HEDMAN. Yes, he did.

Mr. MICA. A higher schooler could read his memo, which he produced. Here is a copy of his memo, June 24th. It tells you the violations of the city. It tells you the incompetence. Then it tells you the poisoning of their children. It is documented and all the steps, and the violations of Flint are listed here. Not just this, but they have a history. They are listed on the back. A higher schooler could read this and evaluate it.

Now, you got that memo, right, Ms. Hedman?

Ms. HEDMAN. I am not sure when I got that memo, but I did get it.

Mr. MICA. Well, you got it, right? Okay, June. And, Mayor, you were aware of this, and you two talked, did you not? Did you talk to her about this memo, Mayor?

Mr. WALLING. Yes.

Mr. MICA. You did talk to her. But, sir, I went back and checked to see if you talked to your constituent, the woman and family whose kids were being poisoned. We knew this early in 2015. They knew it at the end of 2014. We had the tests here that proved, and he went in and he tested the pipes. He did everything.

First they said the pipes were lead into the house. They were not lead. They were plastic. They were PVC. There was no lead in there. So you told her at the library on March 31st you were aware of it. You went to Ms. Walters and told her you were aware of the situation, and you would take care of it, right? You would do anything. Did you not tell that to your constituent?

Mr. WALLING. Yes.

Mr. MICA. She showed up April 2nd, 2015 at your office, and they said you were gone for Easter, but they would be back with her on Monday, right? That is what they told her, I am telling you. And that is what she told me.

Today is, what, 2016, March 15th. You have not been back with her since. But you were aware of this memo. You read this memo. They tried to suppress this memo. This was not a pretty memo because it said your constituents were being poisoned.

So this is an incredible failure, I believe, at all levels, particularly the Federal level. That is our responsibility. When we get a memo like this from someone with the EPA doing their job, and a constituent who reports it, and we have the evidence of the poisoning. This Mr. del Toral is a hero, and the things he did, every test possible. He conducted every test possible, is that right? You read it, Mr. Edwards. Did you read this?

Mr. EDWARDS. His memo has proven to be 100 percent accurate in every way, shape, and form.

Mr. MICA. And yet ignored at the local level, ignored at the emergency management level, and then the worst thing. That is our responsibility. When all these levels fail, EPA. You never acted for, what, 5 months after this memo, Ms. Hedman?

Ms. HEDMAN. That is incorrect. In fact, the following day I offered lead experts to the mayor.

Mr. MICA. Yeah, what they did.

Ms. HEDMAN. And within 3 weeks we had concluded an agreement with MDEQ to order Flint to issue corrosion control.

Mr. MICA. And what did they do?

Ms. HEDMAN. They issued an order —

Mr. MICA. Did they do it?

Ms. HEDMAN. They did eventually.

Mr. MICA. Eventually when?

Ms. HEDMAN. They issued an order on August 17th directing the City of Flint to implement corrosion control on September 3rd.

Mr. MICA. And the time is ticking, and nothing is done, and you never went back on them. There was really no plan in place for more than 5 months.

Ms. HEDMAN. That is not true.

Mr. MICA. It was ignored. It is the whole truth and nothing but the truth, I hate to tell you. And, again, I think EPA also failed. So we had failure at multiple levels. Mr. Edwards, you have seen cases. You said this is not uncommon of how they failed across the country. Is that not the case in Flint?

Mr. EDWARDS. Well, I mean, there is a climate out there where lead and water problems are covered up, people are cheating on the sampling, and that climate allowed Flint to occur. It allowed these unethical civil servants at MDEQ to claim that there was no problem in the water whatsoever, even when they were breaking Federal corrosion control law.

Mr. MICA. Thank you.

Mr. JORDAN. [Presiding.] Thank the gentleman. Mr. Clay is recognized for his 5 minutes.

Mr. CLAY. Thank you, Mr. Chairman. You know, there were numerous red flags that should have led the State to agree to return to the Detroit Water System. Bacterial contamination in the water as early as summer 2014, the Legionella outbreak, the astronomical lead readings in LeAnne Walters' home, all of these early signs should have been reason enough to consider returning to a safe water supply. But the response was always the same. It was not in the emergency manager's financial plan for the city to return to the Detroit Water System.

On January 9th, 2015, in response to concerns that had been raised about the safety of Flint's water, Mr. Early, you wrote, and I quote, "Suggestions have been made that the City of Flint should return to using water purchased through the Detroit Water and Sewage Department." For many reasons, financial and otherwise, the City of Flint can ill afford to switch courses at this point.

You also said it is not financially prudent to spend \$18 million to purchase water that meets the same DEQ standards as the water now available from the Flint River. Mr. Earley, obviously now we know that the water from the Flint River was not meeting the same standard as water coming from Detroit Water. Is that correct?

Mr. EARLEY. Yes, sir.

Mr. CLAY. And then did you consider changing course at any point after serious concerns had been raised about the quality and safety of the river water?

Mr. EARLEY. Well, at the time that you referenced, we had already enlisted the aid of another water expert to determine exactly what the causes were. We were trying to diagnosis the causes. Again, we were dealing with the issue of coliform, TTHM, E. coli, and other issues. We were not talking about lead at the time.

The point is simply this. The City of Flint did not have the money.

Mr. CLAY. Yeah, but sometimes, I mean, look, common sense should take over. The General Motors plant stopped using the water when it started to rust new parts. What would that tell the

average person? That means they need to stop drinking it. I mean, come on. Is that that difficult to determine?

Mr. EARLEY. We continued to rely on the Michigan Department of Environmental Quality, and until such time as they deemed the water unsafe to drink, we were doing all that we could to manage the contamination and to also make the water accessible and potable.

Mr. CLAY. Okay, look. Look. After that January 15th letter, a few days later the director of the Detroit Water System sent you a letter offering to reconnect the City of Flint to the Detroit Water supply. Why did you reject the director's offer?

Mr. EARLEY. I did not do that. I was gone from Flint. I had left Flint by that time that letter came out. That rejection was written by my successor. Again, there were four emergency managers during this period. That letter of rejection came from my successor.

Mr. CLAY. Okay. And so, it came down to you or your successor trying to save \$18 million?

Mr. EARLEY. No, it came down to the fact that the city did not have \$18 million. They were already paying some of the most exorbitant and the highest water rates in the country. We have litigation pending now from the customers who are fighting the rates for the water, even before the contamination issues.

Mr. CLAY. Okay. Going along with your line of thinking then, when do we say, okay, public health and safety matters? And it is the responsibility of the State of Michigan or the EPA to step in and say we are endangering lives. We are damaging people for the rest of their lives. And when does that occur?

Mr. EARLEY. From day one, sir. From day one.

Mr. CLAY. Yeah, but you did not do it.

Mr. EARLEY. The issues of lead contamination came out in 2015. They came out after that. The issues we were dealing with in terms of contaminated water were the TTHMs, the E. coli, and the coliform materials that were found in the water. And that was a result of the distribution system age. It was the result of the number of water main breaks that we had at that particular time.

I mean, this was the perfect storm for things to happen while we were switching from one water source to another. But we tried to manage those.

Mr. CLAY. Well, I mean, but did not common sense tell you what General Motors did when they changed the water system that they were using because it was rusting the parts. What did that say to you?

Mr. EARLEY. What we were told regarding that situation was because of the raw nature of the machine parts that General Motors was producing, the treatment materials we were putting in to treat the water was indeed having a negative impact on their products. But it did not correlate to a negative impact on consumption of the water according to the MDEQ.

Mr. CLAY. Mr. Chairman, for the record, I have a letter in response signed by Darnell Earley rejecting the Detroit Water's offer to change back. So make this part of the record, too.

Chairman CHAFFETZ. [Presiding.] Without objection, so ordered.

Mr. CLAY. Mr. Chairman, I yield back.

Chairman CHAFFETZ. And before the gentleman yields back, Mr. Edwards, I will give you an opportunity to respond to this inquiry as well. It sounded like you wanted, okay.

The gentleman yields back. I now actually recognize myself for 5 minutes.

Ms. Hedman, when did you first know there was a problem about water in Flint?

Ms. HEDMAN. The first time I was briefed was December of 2014. I was briefed on the TTHM issue, the disinfection byproduct issue. My staff have instructions that when there is a significant violation in a system to bring it to my attention. And they briefed me shortly before —

Chairman CHAFFETZ. So you knew about it in 2014. When did you have your first conversation with Mayor Walling?

Ms. HEDMAN. My first conversation about TTHM, about the disinfection byproducts, occurred in late February. He requested a drinking water expert in that area, and I supplied him with an expert from the EPA lab in Cincinnati.

Chairman CHAFFETZ. So, Mr. Walling, you went on television in July of 2015 and told everybody that it was safe to drink the water. Did you just do that on your own, or who told you that that was a viable thing to say?

Mr. WALLING. MDEQ had repeatedly provided assurances. We heard over and over again in our technical advisory meetings, discussions with staff that the water was meeting the standards, that it was safe to drink.

Chairman CHAFFETZ. Did you have a discussion with the EPA?

Mr. WALLING. Dr. Hedman and I spoke around that time after the del Toral memo was provided to me in Flint.

Chairman CHAFFETZ. What did she say?

Mr. WALLING. And it was explained to me that that memo was under review, that the scope of the problem was being assessed. And my understanding at the time was this was limited to very particular cases because of what was there for lead surface lines and plumbing in individual houses.

Chairman CHAFFETZ. Mr. Edwards, what is your take on that?

Mr. EDWARDS. Well, the email is very clear from Ms. Hedman that she apologized for Mr. del Toral's memo, and Mr. Walling asked her if there was anything that should be of concern to Flint residents. And she said, frankly, no.

Chairman CHAFFETZ. Ms. Hedman, why did you do that?

Ms. HEDMAN. I did not apologize for the memo. I apologized for taking all day to get back to the mayor. And that is because I was out of the office for a medical procedure. And, in fact —

Chairman CHAFFETZ. Okay. So that was one day, so.

Ms. HEDMAN. And, in fact, during the entire time period that Mr. Edwards imagines I was covering up data and silencing scientists, I was actually out of the office. I did not return until July 13th. During that time period, my deputy, Bob Kaplan, who Dr. Edwards describes as one of the good guys, was actually in charge of the office.

Chairman CHAFFETZ. So, Mr. Edwards, this memo from Mr. del Toral is pretty comprehensive, is it not? Does it tackle the issue? Does it inform them as to the health of this water?

Mr. EDWARDS. Yes, it points out that Flint is not being protected by Federal law, and that the public health is in danger.

Chairman CHAFFETZ. When should that information have been released?

Mr. EDWARDS. Had EPA just stayed silent and not apologized for the memo to Mr. Walling and told Mr. Walling that Mr. del Toral was accurate in what he said, I doubt Mr. Walling would have gone on TV to drink the water and tell Flint residents it was safe.

Chairman CHAFFETZ. Is that true, Mr. Walling? Were you talked out of it? I mean, the memo comes out. You are getting inquiries from news organizations, the ACLU, and others saying, hey, what are you doing about this. And you go on television and say it is safe.

Mr. WALLING. I did trust the guidance that I was receiving, and that is what I regret in this looking back. But I deliberately reached out. I asked the White House Office of Intergovernmental Affairs for a point of contact in the EPA. This is while the City of Flint was still under emergency manager because I wanted to double check on what we were hearing from the State regulators.

And when we are hearing essentially the same thing from the State and the Federal regulators, then I relied on that information, and that is what I —

Chairman CHAFFETZ. So what did the White House ask you to do? They asked you to communicate with who?

Mr. WALLING. No, I asked the White House for a point of contact.

Chairman CHAFFETZ. Right. And the White House directed you to?

Mr. WALLING. Dr. Susan Hedman.

Chairman CHAFFETZ. How long did it take before the EPA finally confirmed, came back and said, yeah, that del Toral report is accurate? They did not, did they? They never did. That is the point. If you left office, you were there for months, and months, and months, and they never did come back and actually confirm it. Mr. Edwards, is that correct?

Mr. EDWARDS. That is correct.

Chairman CHAFFETZ. Ms. Hedman, you were in office. You were here being paid by the taxpayers until late January of 2016. Why did it take you so long?

Ms. HEDMAN. Mr. del Toral's memo actually dealt with lead in one residence and two neighboring residences. And the conclusion of the final version of his memo was that the problem had been caused by a physical disturbance of a lead surface line, and that it was particular to that household.

Chairman CHAFFETZ. Mr. Edwards, this was not a report about one house, was it?

Mr. EDWARDS. Mr. del Toral clearly pointed out that Flint was not being protected by Federal corrosion control laws period, and that the public health of an entire city was in danger.

Chairman CHAFFETZ. This is where you are fundamentally and totally wrong, Ms. Hedman, and if you do not recognize that now. We are in mid-March 2016, and you still do not get it. You still do not get it, and neither does the EPA administrator. You screwed up, and you messed up people's lives.

Ms. HEDMAN. Mr. Chairman, Mr. del Toral —

[Applause.]

Chairman CHAFFETZ. No, no, no. The audience, please. Ms. Hedman?

Ms. HEDMAN. Mr. del Toral was just one of several people at Region 5 who were concerned about the failure to implement corrosion control, and had been communicating to MDEQ at higher and higher levels of EPA management —

Chairman CHAFFETZ. This information was out there publicly. It had been released. You did not like it, did you? If somebody released that report, did he do the right thing or not do the right thing?

Ms. HEDMAN. I do not believe he released the report.

Chairman CHAFFETZ. Okay.

Ms. HEDMAN. I think we need to be clear that there was —

Chairman CHAFFETZ. Was that the right thing for that report to go public?

Ms. HEDMAN. There were three reasons why EPA could not release that report.

Chairman CHAFFETZ. What are those?

Ms. HEDMAN. The first is that it contained personally identifiable information, health information, and that kind of information is not something that we could release. And so, before a report is released, that is typically redacted by our Office of Regional Counsel.

Chairman CHAFFETZ. Okay. So a black pen would take 10 seconds or so? Yeah, okay. Keep going.

Ms. HEDMAN. Right, and secondly, the material in the report included enforcement sensitive information. And we do not release that to the targets or to the general public. Again, that would have been a redaction issue. And then additionally, there was data in the report that we neither collected nor analyzed, and it needed to go through a kind of standard QAQC.

I directed that that be done as soon as possible. It was my expectation that the report could be finalized and put in a form that could be publicly released before the reporter had to file his story. That was my expectation at the time.

Chairman CHAFFETZ. And it took 7 months. Mr. Edwards, your reaction to her comments?

Mr. EDWARDS. I am just in disbelief.

Chairman CHAFFETZ. My time has well expired. I will now recognize the gentleman from Virginia, Mr. Connolly, for 5 minutes.

Mr. CONNOLLY. Thank you, Mr. Chairman. You know, I was in local government, Mr. Edwards, for 14 years in Virginia. And my point of contact on the environment almost always was the Department of Environmental Quality. I thought you gave a very eloquent, passionate, and suitably outraged opening statement, but you focus on EPA almost exclusively in that statement.

But when we actually get to how government works and what the mechanics of it are, a local government relates first to the Department of Environmental Quality, and the Environmental Protection Agency does not run water authorities around the country. It relies on the State DEQ.

You know, I have heard a lot of talk about let us not finger point, but we do need to get to the bottom of this and how it works. And I do not think this EPA's finest moment, but I for one, coming from

local government for 14 years, am not going to let the local DEQ off the hook because it sounds better for one political philosophy to try to shift this entire blame onto the Federal government. There is plenty of blame to go around, but I do not want to be an enabler to avoid getting to the bottom of what happened and who let it happen.

Let me just say, Mr. Early, you said that it was your successor who declined the offer of Detroit Water, but my colleague, Mr. Clay, entered into the record a letter dated March 7th, 2014 addressed to Sue McCormick, Detroit Water and Sewer Department, signed by you. And you say in that letter, "We expect the Flint water treatment plan will be fully operational and capable of treating Flint water prior to the date of termination. In that case, there will be no need for Flint to continue purchasing water service to serve its residents and businesses after April 17th."

Now, Sue McCormick took that letter to be a rejection letter of the offer.

Mr. EARLEY. Okay.

Mr. CONNOLLY. Did you intend it to be a rejection letter of the offer?

Mr. EARLEY. Let me respond to that letter. There were very distinct letters back to the Detroit Water and Sewage Department. One was drafted by me before the issues of lead were discussed. That is the letter that you are making reference to. And then there was another drafted by the successor, Mr. Ambrose, that also said the same thing.

My letter was in response to the fact that the project was already underway, that the city had invested millions of dollars into the new water system, and they wanted a long-term water agreement, which was not feasible.

Mr. CONNOLLY. Were you aware when you wrote this letter of concerns about the quality of water coming from the Flint River?

Mr. EARLEY. In March of?

Mr. CONNOLLY. This is March 7th, 2014.

Mr. EARLEY. That was before the switch. That was before the switch from the —

Mr. CONNOLLY. But you were planning the switch.

Mr. EARLEY. The switch was already planned well before I got there.

Mr. CONNOLLY. I understand.

Mr. EARLEY. Yeah.

Mr. CONNOLLY. Were you aware when you wrote this letter that there were concerns about the quality of water coming from the Flint River?

Mr. EARLEY. We had not switched yet. We had not —

Mr. CONNOLLY. I am not asking that question. Were you aware? Had any one brought to your attention —

Mr. EARLEY. No.

Mr. CONNOLLY.—that there were concerns about the Flint River?

Mr. EARLEY. No.

Mr. CONNOLLY. Did you have any reason to believe there could be water quality concerns taking water from the Flint River?

Mr. EARLEY. I did not, sir, because the DEQ had certified the water. The State had given the permits, all of the things were necessary to move forward with the project.

Mr. CONNOLLY. Okay. Your testimony today and other things you have written are pretty harsh about the Michigan Department of Environmental Quality, correct?

Mr. EARLEY. Yes.

Mr. CONNOLLY. You say it missed its opportunity to identify serious pipe corrosion problems. You say that it multiple emphatic warnings from the EPA. Is that correct?

Mr. EARLEY. Yes.

Mr. CONNOLLY. Is it your testimony that MDEQ ignored warnings from the EPA?

Mr. EARLEY. I cannot speak to why they reacted the way that they did.

Mr. CONNOLLY. I did not ask that question. Factually are you saying by saying that they had multiple emphatic warnings from the EPA, the clear implication of that statement, and they ignored them. Is that your testimony?

Mr. EARLEY. No.

Mr. CONNOLLY. Ms. Hedman, that statement that there were multiple emphatic warnings from the EPA, what is Mr. Early referring to from your point of view?

Ms. HEDMAN. What date is the letter again, please?

Mr. CONNOLLY. He says in his testimony that the MDEQ received multiple emphatic warnings from the EPA warning.

Ms. HEDMAN. I thought you were referring to the letter. Yes, we

Mr. CONNOLLY. No, I am not referring to the letter. I am referring to the Mr. Earley's testimony.

Ms. HEDMAN. So in February of 2015, EPA inquired about the type of corrosion control that was being implemented in Flint. And my staff was told that Flint was fully optimized for corrosion control. It was not until April 24th that the MDEQ admitted to my staff for the first time that Flint was not practicing corrosion control.

And at that time, from that day forward, at higher and higher levels at EPA, we repeatedly emphatically and urgently told MDEQ that it was important to implement corrosion control as soon as possible.

Mr. CONNOLLY. All right, my time is up. Mr. Chairman, I want to thank you for the hearing, and I want to thank you again for Thursday's planned hearing. Irrespective of our politics or anything else, this is a catastrophic failure with our citizens. And if government exists for any purpose, it is to protect our citizens in health and safety, and this is a catastrophic failure in that mission.

Chairman CHAFFETZ. Thank you. The gentleman yields back. I will recognize the gentleman from Ohio, Mr. Jordan.

Mr. JORDAN. I thank the chairman. I would yield my time to the gentleman from Michigan.

Chairman CHAFFETZ. Mr. Walberg, sir.

Mr. WALBERG. I thank the gentleman from Ohio. Let us go a little bit different track. I would like to come back to Ms. Hedman again. But initially or first, EPA finally actively intervened in Flint

in late January 2016. Mr. Edwards or Dr. Edwards, in the last few months what steps have been taken to make Flint's water lead free? I saw you there Saturday. I saw you talking with residents, talking about filters, and all of the rest. What steps have been taken?

Mr. EDWARDS. They have switched back to Detroit Water. EPA has implemented very good corrosion control effective December. We believe the lead levels are dropping dramatically as the pipe coating is reestablished. And we are currently sampling with Flint residents last week to see house by house how much lower lead levels are now. And it is our hypothesis that lead is about 4 times better now than it was back during the height of the lead poisoning incidents in Flint neighborhoods.

Mr. WALBERG. How long do you think it will take for, reasonably speaking, for Flint's water to be safe?

Mr. EDWARDS. In order to meet existing Federal standards, which is not a high bar as I have already said, you have to do a federally approved lead and copper sampling event that Flint has never done in its history because they have never sampled the right homes. And they have been using sampling protocols that missed lead in water risk —

Mr. WALBERG. Do you have records even of those homes that they have sampled?

Mr. EDWARDS. Yes, we do, yeah. But they did not have lead pipes as is specified like other cities around the United States. Philadelphia, it is now acknowledged they did not sample enough homes with lead pipes according to the requirements of the law. This is something that EPA has been allowing since 2006.

Mr. WALBERG. Do you believe it is necessary and reasonable for Flint to replace all of the lead pipes?

Mr. EDWARDS. You know, obviously that is desirable. I think everyone wants that to happen. No one wants it more than me. But I think we have to consider seriously what is the best place to invest in Flint's future to help Flint get back on their feet. They have needs in terms of the water mains.

Flint has more water main breaks per mile than almost any other city in the United States. That is one of the reasons their water bills are so high. So there is many infrastructure needs that have to be addressed, and that is why I am in favor, although I do not think it does enough, I am in favor of this Flint bill to get money to Flint residents for their infrastructure.

Mr. WALBERG. We heard, I believe, Saturday 40 percent water being wasted due to breaks in the lines, leaking out. That is amazing. And then you are talking about people having to pay those water bills when they are not even getting the water, let alone the water being safe to drink.

Let me go back to Ms. Hedman. In your testimony, you stated that, "I resigned in part because of the false allegations about me that were published in early January." You specifically cite a January 12th Detroit News article titled, "EPA Stayed Silent on Flint's Tainted Water," in which Marc Edwards is extensively quoted saying that the people who knew about the lack of corrosion controls should have acted immediately.

Let me ask you. Is it a false allegation to say that people who knew about the contaminated water should have acted?

Ms. HEDMAN. No, and we did. We did. As soon as I learned about this, I offered lead experts to the mayor, and we reached out again to MDEQ. And within 3 weeks had reached agreement that MDEQ would order to Flint to implement corrosion control as soon as possible. And in the interim, we issued a statement —

Mr. WALBERG. I think Mr. del Toral would not agree with that. And, Mr. Edwards, what is your position?

Mr. EDWARDS. She did nothing to protect Flint's children. Nothing.

Mr. WALBERG. The article also quoted Michigan Senate Minority Leader, Jim Ananich, of Flint who says, "Anyone who read his memo and failed to act should be held accountable to the fullest extent of the law." That is the minority leader of the Michigan legislature, Mr. Ananich. Is he wrong, Ms. Hedman?

Ms. HEDMAN. Mr. del Toral's memo contained the same recommendations that I had been receiving from others in EPA who had followed through starting on June 10th before that del Toral

Mr. WALBERG. Yes, he was disciplined for his memo.

Ms. HEDMAN. No, he was not.

Mr. WALBERG. He was disciplined for standing up as a whistleblower.

Ms. HEDMAN. He was not.

Mr. WALBERG. He was absolutely.

Ms. HEDMAN. He was not. He was not.

Mr. WALBERG. Mr. Chairman, with that disagreement, I yield back.

Chairman CHAFFETZ. If the gentleman would yield first, did you make him go through ethics training?

Ms. HEDMAN. No.

Chairman CHAFFETZ. No.

Ms. HEDMAN. No.

Chairman CHAFFETZ. You really believe that. Did you limit his travel?

Ms. HEDMAN. No.

Chairman CHAFFETZ. There was no discipline whatsoever.

Ms. HEDMAN. None whatsoever.

Chairman CHAFFETZ. Is he a hero or a villain in this?

Ms. HEDMAN. He is a hero, and to be clear I recommended him for EPA's highest award.

Chairman CHAFFETZ. When?

Ms. HEDMAN. In about September, and in his typical modest way, he declined to be nominated because his work was not finished.

Chairman CHAFFETZ. You need to go back and read the emails and the memos that were provided to us by the EPA because that is not what was happening within your organization. And you were in charge of that organization.

Ms. HEDMAN. So I can tell you that my deputy, who was in charge during the time period that you are concerned about, got wind of that, and he went down to the Water Division and put an

end to it. And when I called him, he told me that I did not even have to tell him. He took care of it.

Chairman CHAFFETZ. Did anybody at the EPA do anything wrong?

Ms. HEDMAN. Are you asking me the question if I could do this all over again, is there something I would do —

Chairman CHAFFETZ. No. I am asking you, you were in charge. Did anybody at the EPA do anything wrong?

Ms. HEDMAN. I do not think anyone at EPA did anything wrong, but I do believe we could have done more.

Chairman CHAFFETZ. Wow.

Mr. CUMMINGS. Mr. Chairman?

Chairman CHAFFETZ. Mr. Cummings.

Mr. CUMMINGS. Mr. Chairman, I want to clear. Ms. Hedman, you are under oath. Do you understand that?

Ms. HEDMAN. Yes.

Mr. CUMMINGS. And I just want to make sure you are clear as to what you are saying because if you are not clear, I do not want you to be subjected to some kind of criminal inquiry, so I just want to ask you this. Did you retaliate against Mr. del Toral in any way?

Ms. HEDMAN. Absolutely not.

Mr. CUMMINGS. And so, you said something just a moment ago. You said your deputy did something. What was that? You said he cleared it up. What did he clear up?

Ms. HEDMAN. So after I sent an email to the mayor, the mayor requested that we reach out to the reporter again. And I replied to the mayor by saying at this point I am not inclined to have my staff have contact with the reporter. They need to finish the report because I did believe they would be able to get a final report out.

I understand through a series of emails that came to me later, I would say around July 7th or 8th, that that was forwarded and interpreted as some sort of direction that nobody was supposed to talk to reporters. And when I saw that email, I called my deputy because I was concerned about the flavor of that interpretation. And he said, no problem, I have already handled it.

Mr. CUMMINGS. All right. Thank you, Mr. Chairman.

Chairman CHAFFETZ. I thank the gentleman. We will now go to the gentleman from Pennsylvania, Mr. Cartwright, for 5 minutes.

Mr. CARTWRIGHT. Thank you, Mr. Chairman. Mr. Earley, I want to revisit a question with you on the decision on using the Flint River. You submitted an opening statement in writing. Am I correct in that?

Mr. EARLEY. That is correct, sir.

Mr. CARTWRIGHT. And I read it, and you said, "It was not my decision to use the Flint River, nor was it a two-pronged decision." You said, "The concept of using the Flint River as an interim water source was inherent in the city council's KWA vote and Kurtz's March 2013 order." Have I read that correctly?

Mr. EARLEY. Yes, sir.

Mr. CARTWRIGHT. So you said, "The decision to use the Flint River was inherent in the city's council's vote." That's as opposed to explicit. It was not explicit, correct?

Mr. EARLEY. That is correct, sir.

Mr. CARTWRIGHT. All right. But you know what? That is not what Mayor Walling testified to. In fact, Mayor Walling also submitted a written statement, and he said on page 4 of 9, "Contrary to the facts, Governor Snyder's office and former emergency manager, Darnell Earley, have stated and repeated blatantly false claims that I and the Flint City Council made the switch to the Flint River." Did you read that? Did you have access to his opening statement?

Mr. EARLEY. I did not, sir.

Mr. CARTWRIGHT. Okay. Well, he said that. And, Mr. Walling, a simple "yes" or "no," do you stand by that remark?

Mr. WALLING. Yes.

Mr. CARTWRIGHT. That is a yes for the record.

Mr. WALLING. Yes.

Mr. CARTWRIGHT. All right. So here is the point, Mr. Earley. You were the one with the power at the time. I would like to clarify your powers as emergency manager at the time. I want to read to you the passage from the 2012 law that created the position of emergency manager. And it says this: "The emergency manager shall have broad powers and receivership to rectify the financial emergency and to assure the fiscal accountability of the local government and the local government's capacity to provide or cause to be provided necessary government services essential to the public health, safety, and welfare." Have I read that correctly?

Mr. EARLEY. That is correct, sir.

Mr. CARTWRIGHT. Mr. Earley, do you agree that as emergency manager you had broad powers?

Mr. EARLEY. Yes, sir.

Mr. CARTWRIGHT. And once you issued an opinion, it was law. The emergency manager law says, "An order issued under this section is binding on the local elected and appointed officials and employees, agents, and contractors." Have I read that correctly?

Mr. EARLEY. Yes, sir.

Mr. CARTWRIGHT. And you used those broad powers to cut about \$18 million from the budget by moving away from Detroit Water to the Flint River, and this was the agenda from Governor Snyder's office to save money. That was the emergency referred to in "emergency manager." It was not an emergency in the environment, or in public water, or drinking supply. It was an emergency about money. It was a money emergency manager that you were.

In your testimony you said a proposal to stay on Detroit Water was "an unsustainable financial fantasy." Have I read that correctly?

Mr. EARLEY. Yes, sir.

Mr. CARTWRIGHT. Did you at any time use your broad powers to request additional State funds to help Flint purchase safe Detroit water during the transition to KWA?

Mr. EARLEY. No, sir.

Mr. CARTWRIGHT. But that is exactly what they did after tens of thousands of people were poisoned by lead in the drinking water of Flint, correct?

Mr. EARLEY. Yes, sir.

Mr. CARTWRIGHT. Mr. Earley, it took a public health crisis of these proportions with thousands of victims for Flint finally to receive the State funds it needed to protect its citizens, did it not?

Mr. EARLEY. Yes, sir.

Mr. CARTWRIGHT. So I wonder what all this says about the governor of Michigan. The emergency manager law says this, and I quote, "The emergency manager shall serve at the pleasure of the governor." You were doing the governor's bidding. In fact, I read the Detroit News this morning, and your pastor, Reverend Marlon Jennings. Is that your pastor?

Mr. EARLEY. He is a pastor that I do know from the City of Flint, yes.

Mr. CARTWRIGHT. He was talking about you in today's paper. "It is unfortunate that he was caught up in this quagmire of responsibility to the governor in his position, and at the same time trying to serve the people of Flint, Jennings said." "It turned out that the two were diametrically opposed. His job as emergency manager is to carry out the wishes and execute the plan and program of the governor." Did you see that in the paper this morning?

Mr. EARLEY. I have not seen that yet, sir.

Mr. CARTWRIGHT. You do not have reason to disagree with the pastor, do you?

Mr. EARLEY. Well, I would say that the role as defined there is pretty narrow. It is a much broader role. I think the real goal is to return the city or the school district back to financial solvency.

Mr. CARTWRIGHT. After all of this, the governor appointed you to be emergency manager of the Detroit Public Schools after you got done with the Flint, and your salary for that job was \$41,000 more than what you made in Flint. Am I correct in that?

Mr. EARLEY. Yes.

Mr. CARTWRIGHT. It looks like the governor was pleased with your performance in Flint.

[Laughter.]

Mr. CARTWRIGHT. I yield back, Mr. Chairman.

Chairman CHAFFETZ. I thank the gentleman. I will now recognize the gentleman from North Carolina, Mr. Meadows, for 5 minutes.

Mr. MEADOWS. Thank you, Mr. Chairman. Ms. Hedman, let me come to you because the chairman and the ranking member both questioned, I guess, your last round of testimony. And so, is it your sworn testimony that you did not directly or indirectly retaliate against Mr. del Toral for him being a whistleblower? Is that your sworn testimony?

Ms. HEDMAN. My sworn testimony is that I certainly did not, and I have no knowledge of anyone in EPA who did so.

Mr. MEADOWS. And you have looked very closely at that, because we have been led to believe very differently, and that is why I am giving you one last chance to perhaps correct your testimony here today because you are under sworn testimony, and we are very concerned that we get the whole truth and nothing but the truth. So you have no knowledge indirectly or directly of any retaliation that came against him.

Ms. HEDMAN. No.

Mr. MEADOWS. All right. Mr. Edwards, you worked very closely with Mr. del Toral. How would you characterize that statement in light of your close working with him?

Mr. EDWARDS. I do not think Ms. Hedman understands the climate she created at Region 5 EPA. Even before Mr. del Toral wrote that memo, he told me that he had to protect Flint's children while minimizing the likelihood he would be retaliated against.

Mr. MEADOWS. Had he shared with you that he has been retaliated against? Is that your belief?

Mr. EDWARDS. Well, I mean, obviously he was told not to talk to anyone to Flint or about Flint. A deal of some sort was made between EPA and MDEQ where MDEQ felt emboldened to say that "they had handled Mr. del Toral." That Flint residents would not be hearing from Mr. del Toral again.

And so, that is when we got involved. I mean, I invested \$200,000 of my own money. A team of 25 volunteers from Virginia Tech had to go in and demonstrate that Flint residents were not crazy, and that lead in water was high.

Mr. MEADOWS. So is it your testimony that somehow Mr. del Toral was handled by the EPA and the Department of Water Quality Michigan to silence him in his defense of the children of Flint, Michigan?

Mr. EDWARDS. Absolutely.

Mr. MEADOWS. Ms. Hedman, how do you respond to that?

Ms. HEDMAN. I know of absolutely no evidence to substantiate that claim.

Mr. MEADOWS. Well, let me go a little bit further because some of what you know and what you do not know is, I guess, the problem because your testimony here today says that the EPA had no fault. That was in your opening testimony. There is no fault.

Ms. HEDMAN. No.

Mr. MEADOWS. And so, you stand by, I mean, in light of everything that is coming out, that there is no fault for the EPA on behalf of the EPA.

Ms. HEDMAN. That is not what I said in my testimony or in my answers to the questions.

Mr. MEADOWS. All right. So the EPA is at fault.

Ms. HEDMAN. I said that I thought we could have done more.

Mr. MEADOWS. Listen, that is political speak. Are you at fault or not? Yes or no.

Ms. HEDMAN. In what respect?

Mr. MEADOWS. In any respect, I guess, Ms. Hedman. I mean, here is the problem is we have got children that have been harmed, and yet we are sitting here equivocating over words that may or may not establish blame. And I am concerned that what we are doing is we are just wiping our hands of it and saying that I had nothing to do with it. Is that your testimony?

Ms. HEDMAN. It is not.

Mr. MEADOWS. All right. So EPA partially at fault?

Ms. HEDMAN. I believe we could have done more.

Mr. MEADOWS. All right. So let me go on a little bit further. Mr. Edwards, in our last time when you were here before this exact same committee, I asked you about a FOIA request from the EPA

because you had gotten lots of information from Michigan and zero from the EPA. Did you ever get your FOIA request responded to?

Mr. EDWARDS. No. There are still outstanding appeals from 9 years ago. The request that we had for Flint emails came in all redacted, so I hope —

Mr. MEADOWS. So when did those come in? When did those come in? The day after the hearing?

Mr. EDWARDS. Oh, I did get one FOIA the day after the hearing, yeah. That was —

Mr. MEADOWS. Is it not amazing how it takes a congressional hearing to have the Federal law adhered to. So and it is redacted?

Mr. EDWARDS. The emails in relation to Flint —

Mr. MEADOWS. More than personal information. Obviously we want to redact personal information.

Mr. EDWARDS. The emails that we requested about the Flint water crisis from EPA were almost 90 percent redacted in terms of deliberative, attorney-client privilege, or unresponsive. Everything virtually was redacted from those emails.

Mr. MEADOWS. Ms. Hedman, I mean, so redacting all of that. Normally when we redact it is for national security concerns. Do you think the EPA has a national security concern here?

Ms. HEDMAN. I am not familiar at all with the emails.

Mr. MEADOWS. I will yield back.

Chairman CHAFFETZ. Before the gentleman yields back —

Mr. CUMMINGS. No, I was going to take a turn.

Chairman CHAFFETZ. I will now recognize the ranking member for 5 minutes.

Mr. CUMMINGS. Thank you. Thank you very much, Mr. Chairman. I want to go back. I want to follow up on some of the things that Mr. Meadows said. The chairman introduced, Ms. Hedman, a document. It is an email, and it, first of all, Email Exhibit 6. Is that right? Anyway, Mr. del Toral, he is writing a letter to somebody named Rita Bair. Do you know Rita Bair?

Ms. HEDMAN. She works in the Region 5 Water Division.

Mr. CUMMINGS. And so, apparently he had been denied an opportunity to go to Milwaukee for some kind of conference. And this is what kind of struck me, and it kind of bears out what the chairman and Mr. Meadows has been getting to. It says, "I told you about this project during the check-ins as well as in my performance review, so I'm not sure what you intend by your message."

This is the piece that gets me. "It almost sounds like I'm to be stuck in a corner holding up a potted plant because of Flint. One misstep in 27-plus years here, and people lose their minds." Well, why do you think he said that?

Ms. HEDMAN. First of all, I —

Mr. CUMMINGS. It sounds like he feels like he's being retaliated against.

Ms. HEDMAN. First of all, I had never heard of that email until this morning, and I am appalled that anything might have been done to make him feel that way.

Mr. CUMMINGS. Yeah. Well, I am kind of glad you quit. I am glad you resigned. Let me tell you why, and I have told the chairman this. There is something going on in that Region 5 that we need

to deal with. And I do not know exactly what it is, but there are problems. And I am determined to make sure that we do that.

You know, Mr. Earley, I got to tell you, I almost vomited when I heard you say something a moment ago. You said that even after you found out that newly manufactured parts were starting to rust out by using the Flint water, that you did not see that as a problem. I mean, wait a minute now. I am confused.

If they are going to rust out, newly manufactured parts, you mean that does not send you a warning that maybe human beings might be being harmed? Come on now.

Mr. EARLEY. Well, again, I was relying on the information that I was getting from the MDEQ and from the staff. I mean —

Mr. CUMMINGS. But if somebody —

Mr. EARLEY.—I am not a water treatment expert.

Mr. CUMMINGS. You do not have to be a water treatment expert. A five-year-old could figure that out. But anyway, let me go on to Mr. Walling.

As you know, Governor Snyder has agreed to testify, Mr. Walling, before us on Thursday, and I am looking forward to that. And I really do thank the chairman for having him. It is clear that the governor had a very important role to play in the Flint water crisis. The governor appointed emergency managers who ran Flint during the crisis, and the governor made the belated decision to help pay for Flint to reconnect to the Detroit Water System in October of last year.

Mayor Walling, I want to get your perspective on how the governor handled the Flint water crisis because I want to make sure we address everybody who may have been responsible for this fiasco. Mayor Walling, when did you first start having serious concerns about the safety of the water coming from the Flint River?

Mr. WALLING. I had growing concerns as the complaints were coming in from the citizens.

Mr. CUMMINGS. Give me a date. Give me a date.

Mr. WALLING. Throughout the summer of 2014.

Mr. CUMMINGS. All right. And when did you first reach out to the governor for help?

Mr. WALLING. I reached out to the governor in January of 2015.

Mr. CUMMINGS. All right. And in your January 18th letter you wrote, and I quote, “I am writing to convey serious concerns about water quality and to request your support for my proposed Flint water improvement plan.” Mayor, why did you write the letter to the governor, and what were you hoping to achieve?

Mr. WALLING. I was not seeing enough being done by the emergency managers in Flint to address this problem. I believe this needed to go directly to the governor. I, of course, did not know what his staff were telling him or not. But he needed to hear directly from me as the mayor of the city what needed to be done to protect and serve the citizens.

Mr. CUMMINGS. And so, let me read an internal email from one of the governor’s senior staff commenting on your request. He wrote, and I quote, “Mayor Walling is seeking to drag the governor into the conflict with both hands.” Mayor Walling, what is your response to that, and why do you think the governor’s folks wrote that?

Mr. WALLING. I have read similar emails and what has been disclosed, and I was highly disappointed that the chief elected official for the State of Michigan would view my concerns as the chief elected official for the City of Flint in that kind of manner, and that staff around him would be giving him that counsel.

Here is a community that is already under a financial manager that is now dealing with a TTHM crisis and other issues that are unresolved. And I come to the governor with a professional letter, comprehensive, and asking for him to respond to help invest, to come to the City of Flint and meet with residents, which it took him a year to do.

Mr. CUMMINGS. I got it. I got it. I get the gist of it. I do not have but so much time. You sent another letter to Governor Snyder about 8 months later on September 14th, 2015. Is that correct?

Mr. WALLING. Yes.

Mr. CUMMINGS. You wrote, and I quote, "The community has heightened concern about lead leeching into the water from old surface lines and home plumbing, and also needs to be addressed." So 8 months after your first letter, you were still asking for help to improve the safety of the water in your community, and still nothing was happening. Mayor Walling, how did you feel when you found out that the State was not treating the Flint River water with corrosion control agents for nearly a year and a half? How did you feel?

Mr. WALLING. I was just stunned because it had been said to me, I know to other staff, to our community in public forums that it was meeting the standards, that it was comparable with Detroit, that it was safe. We had heard that time and time and time again. And this was from the Michigan Department of Environmental Quality that we looked to for that guidance.

Mr. CUMMINGS. Mr. Chairman, I just need one more minute. Let me read you another email that Governor Snyder's chief of staff, Dennis Muchmore. And by the way, do you know Dennis Muchmore?

Mr. WALLING. I do.

Mr. CUMMINGS. He will not talk to us, okay? He was the chief of staff, but he refused to talk to us. So Mr. Muchmore sent to the governor September 2015, he wrote, and I quote, listen to this one. "Frankly I think we both know that Walling went out on a CYA effort." You know that means, right?

Mr. WALLING. Yes, I do.

Mr. CUMMINGS. Yeah, cover it, "due to the election. But, of course, can't say so." What is your reaction to that email?

Mr. WALLING. Well, it is sickening because this is when we are getting the research results from Dr. Edwards, and we are looking for ways to respond despite getting resistance. And to suggest that that was a political motive on my part when I am doing everything I can despite the budgets that we are required to follow, the contracts that are in place.

We are looking for answers. We are looking for help. And it appears that the governor's office did that a cross the board with our local elected officials, that we were all discounted for some reason.

Mr. CUMMINGS. All right. I got to quit now, but I got to tell you, as I am sitting here listening to all of this, it is sickening, all of

it. I mean, there is no reason in 2016 that people should be, when they turn on their faucet should be getting poisoned water. And you know what? And somebody said it a little earlier. This is like the pointing of the finger. You did it. You did it. You did it.

You know, we are so much better than this, and we have to be. This cannot be the norm. And I do not know why that is, but I am telling you I think there are a lot of failures, and I hope that we get to the bottom of it.

Thank you, Mr. Chairman.

Chairman CHAFFETZ. Thank you. I will now recognize the gentleman from Georgia, Mr. Hice, for 5 minutes.

Mr. HICE. Thank you, Mr. Chairman. Mr. Edwards, let me begin with you. Last month when you were here, I asked you some very pointed questions about the EPA's responsibility. And, quite frankly, I am shocked, stunned by the audacity of Ms. Hedman's testimony today.

Let us begin, if we can, with a brief clip from the hearing last month.

[Video shown.]

Mr. HICE. All right. Those were powerful words. After seeing this clip, do you still stand by those statements?

Mr. EDWARDS. Yes, I do, and I will point out that silence on the part of the EPA is interpreted as acquiescence.

Mr. HICE. All right. Well, let us go further then because there has been more information brought to the table today. Is there anything you would like to add to your statement that we just watched based on testimonies we have heard today?

Mr. EDWARDS. Just that Mr. del Toral's "misstep," as quoted in his email, was his proudest moment and one of EPA's proudest moments, too.

Mr. HICE. A few moments ago, Ms. Hedman stated that she responded immediately, and I noticed while she was saying that that you were shaking your head. In fact, when given the opportunity, you responded authoritatively that she did nothing. You said it a couple of times, "she did nothing."

First of all, do you believe that Ms. Hedman has provided some false testimony today when you are saying one thing and she is saying another?

Mr. EDWARDS. The bottom line is she did nothing immediately to get Flint's children out of harm's way. And she has that obligation. She is the top policeman in the region. And by remaining silent about what was happening, she was acquiescent. She was allowing Mr. Walling to believe that Mr. del Toral was a rogue employee that did not speak for the Agency. Mr. Walling was quoted in the paper on that. At no point did Ms. Hedman tell Mr. Walling that Mr. del Toral had done his job and that memo was accurate.

Mr. HICE. So it very questionable to you when she says that she acted immediately whether or not that really took place. The ranking member, Mr. Cummings, a few moments ago stated that, in essence, he smells a rat in Region 5. Was the situation at Flint the first time that you heard of problems in the way that Region 5 was being handled under the leadership of Ms. Hedman?

Mr. EDWARDS. The first time I heard of problems was when Mr. del Toral was thinking about how to reveal the problem. Mr. del

Toral was afraid that he would be retaliated against, but he nonetheless had the moral obligation to protect Flint's children. And so, in that type of environment, what is an employee to do?

He took the best course of action that he could to get this memo out both in EPA and into the hands of Ms. Walters and myself. A press story was written about this memo, and even then Ms. Hedman covered this up.

Mr. HICE. So you firmly believe there was a cover up.

Mr. EDWARDS. Nothing was done to protect Flint's children.

Mr. HICE. Okay. Let me ask you —

Mr. EDWARDS. Until we got involved, until we started sampling, and I invested \$200,000, and this team of volunteers from Virginia Tech donated four-person years of effort, they never would have installed corrosion control.

Mr. HICE. So it would still be taking place had you not —

Mr. EDWARDS. I believe so. I believe there is no record that MDEQ would have been forced to meet Federal law in Flint.

Mr. HICE. Okay. Well, Mr. Chairman, I see my time has expired. Thank you.

Chairman CHAFFETZ. I thank the gentleman. I will now recognize the gentlewoman from Illinois, Ms. Kelly, for 5 minutes.

Ms. KELLY. Thank you, Mr. Chair. I want to thank the chairman and the ranking member for working together to bring those responsible for this crisis here. And I want to thank Mr. Edwards for coming back before this committee again.

The crisis in Flint is an inexcusable failure at various levels of government, but we also have an obligation to learn how we can prevent further tragedy. Flint's water crisis is causing local municipalities and cities to take a closer look at their own water supply.

Every day I hear from constituents who want to know if their town's water is safe. I have pregnant mothers that have called me from Fort Heights, and fathers in Pembroke Township who want to know that their local governments are not mismanaging their water supply given the grave public health and safety dangers that can arise.

Mr. Edwards, what would you recommend to municipalities using lead pipes or pipes with lead soldering that are now concerned about their own water supply?

Mr. EDWARDS. Well, I actually applaud an action EPA took 2 weeks ago to finally close some of the loopholes in sampling that allow lead in water to be low when you collect samples and high when people drink the water. These practices are occurring all over the country, and we have been complaining about them, shouting about them for 10 years. And it took something like Flint before EPA Office of Drinking Water and Groundwater released a memo that will better meet the intent of the Lead and Copper Rule.

Ms. KELLY. Anything else you would recommend along those line?

Mr. EDWARDS. All I have ever wanted was the original intent of the Lead and Copper Rule to be met.

Ms. KELLY. Okay. And what about State governments? What more can they do?

Mr. EDWARDS. Well, you know, the State governments have been operating in this climate that EPA created in which cheating was

condoned. And MDEQ exploited every one of those loopholes to hide the high lead in Flint's water, even to the point where they would not have had to install corrosion control. That is a fact.

It is absolutely clear in the record they were passing the Lead and Copper Rule using these loopholes, and they were using that as an excuse to not install corrosion control. And, in fact, there is an email where Mr. del Toral asked MDEQ to stop pre-flushing, pre-cleaning the pipes the night before sampling. This is something we have been screaming about to stop because it caused lead poisoning of children in D.C. in 2006 to 2008. And MDEQ said, well, it is not the law yet, and we are not going to do that until EPA makes it the law. And so, that was very clear in the emails that they were going to use every single loophole, every trick that EPA allowed to hide this lead in water problem.

Ms. KELLY. Then finally, what we can do as a Congress or as a committee to ensure that governments at levels are doing all they can to perform basic functioning and providing every American with safe drinking water?

Mr. EDWARDS. Well, I think the most important thing is to create a climate in which the thousands and thousands of great employees at EPA all across the country and at MDEQs all across the country can do their job, where employees like Mr. del Toral are allowed to their job without fear of being retaliated against either directly or indirectly.

Ms. KELLY. Okay, thank you. Ms. Hedman, you were the Region 5 administrator for the EPA, and prior to that worked as an environmental attorney in the Office of the Illinois Attorney General. Do you agree with Mr. Edwards' assessments?

Ms. HEDMAN. I agree generally that there are improvements to be made in sampling protocols and in the Lead and Copper Rule. And although I am no longer at EPA, I am very pleased to see that EPA is moving in that direction.

Ms. KELLY. Okay. One thing I would like to see that we continue to have hearings. Like we do not have these hearings and just stop. It may be 6 months from now or a year from now that we check back on Flint so the people of Flint still know that we are concerned. Of course they know they have Representative Lawrence and Kildee and my colleagues on the other side from Michigan. But I want you to know that we are all concerned.

And with that, I yield the remainder of my time to Ranking Member Cummings.

Mr. CUMMINGS. I want to just say to the gentlelady that I agree with you that we have to continuously follow up on this situation because the thing that I do not want, every time I think about Flint, I think about Katrina, to be frank with you. And so, after all the cameras are gone and the attention moves away, the question is where are the people left? Where are these children left? And I know we talk a lot about children, but I am also concerned about the adults because they, too, are drinking this water.

So I am sure the chairman will work with us. I am looking forward that just so that we can stay on top of it. Thank you, Mr. Chairman.

Chairman CHAFFETZ. Absolutely. I concur, and I appreciate the gentlewoman's questions, and she has my commitment that we will continue to follow up.

I will now recognize the gentleman from Wisconsin, Mr. Grothman, for 5 minutes.

Mr. GROTHMAN. Sure. I just have a few questions for Ms. Hedman. Sometimes it is good to flush out your background, and I see you graduated from the University of Wisconsin Law School with me, so congratulations.

I want to find out a little bit how you got the job. You know, you used to work for Ferlice and Madigan down there in Illinois, and you switched over to this job. Can I ask why you applied for the job? Who let you know the job was available, that sort of thing?

Ms. HEDMAN. I did not apply for the job. In fact, I actually wrote a number of recommendations for other people to take the job. And when I was first approached, my answer was no. I, however, was persuaded to take the job. I will tell you that one of the reasons I was hesitant is I recognized the huge, huge problems that EPA has to deal with in a period of declining budgets, particularly infrastructure budgets. And it seemed a huge task to take on, but I did.

Mr. GROTHMAN. Okay. Who approached you about the job? You said you did not want the job, but people approached and kind of begged you to take it.

Ms. HEDMAN. I received a call from the EPA administrator.

Mr. GROTHMAN. Secretary Jackson?

Ms. HEDMAN. Yes.

Mr. GROTHMAN. Okay.

Ms. HEDMAN. Administrator Jackson.

Mr. GROTHMAN. Okay. Mr. Edwards, are you kind of familiar with Ms. Hedman's background?

Chairman CHAFFETZ. Sorry. Mr. Edwards, we can come back to you. He has his own personal water issue in a moment, so he will be right back.

[Laughter.]

Mr. GROTHMAN. Okay.

Chairman CHAFFETZ. We will come back to you if you would like. Oh, there he comes. Here he comes. Sorry. He is back. We will not dock you the time. Go ahead, Mr. Grothman.

Mr. GROTHMAN. Well, I will do one more question. Why specifically or what was your background that caused Secretary Jackson to feel you would be qualified for this job?

Ms. HEDMAN. I understand I had been recommended by a number of people to her. I have, as you pointed out, a law degree. I also have a Ph.D. in environmental studies, and I have spent my entire life essentially working to protect public health and the environment often representing citizen groups, like the good people of Flint.

Mr. GROTHMAN. Okay. Mr. Edwards, we just asked a question of Ms. Hedman. Are you familiar with her background, or could you comment in general about what you feel are her qualifications for running District 5?

Mr. EDWARDS. No, I do not know anything about her background.

Mr. GROTHMAN. So in other words, okay, back to Ms. Hedman. So you were hired for EPA at the suggestion of Ms. Jackson. Other

people may have recommended you. Could you give me examples of people that you said brought it up that would cause you to be a good person at District 5? You said other people had recommended you. Do you know who those people were?

Ms. HEDMAN. I believe that some people in environmental groups actually recommended me for the job.

Mr. GROTHMAN. Okay. I will yield. Would you like me to yield my remaining time to you?

Chairman CHAFFETZ. We will come back next I think.

Mr. GROTHMAN. Okay. I will yield the remainder of my time.

Chairman CHAFFETZ. Thank you. I will now recognize the gentlewoman from Michigan, Ms. Lawrence, for 5 minutes.

Ms. LAWRENCE. I want to thank the ranking member and the chairman for calling this hearing. You know, I am a child of Michigan, and have dedicated 25 years of my life to public service. And this issue has created anxiety, sadness, frustration, and right now I have knots in my stomach because as my colleagues have said, we are pointing the fingers at each other where this is a point where each of you should stand up and accept responsibility.

I want to ask a few questions. Mr. Edwards, because we need to fix this problem. And I share with you your frustration and your passion about EPA, and we collectively, because everyone is, you know, talking about is this a partisan issue. We work together. First of all, we are here today because we work together. The Republican chair and the ranking member Democrat agree that this is something that is worthy of a hearing. And EPA should have, as we have now passed a law that does not give them an option. It was a loophole, and you agreed to that.

Let us talk about the primacy issue. So the Michigan Department of Environmental Quality has primacy, and that means that they have the responsibility for the public water system. And something that was interesting to me, they did not provide the corrosion control. Why not?

Mr. EDWARDS. For the life of me, I cannot figure this out. This is such a specialized skill. That's why we have a law that says thou shalt have corrosion control. We have people at the State, at the primary agency to make sure that law is followed. So for the life of me, I do not understand why it was not followed because every dollar you spend on corrosion control not only protects from lead, it saves \$10 at minimum in terms of damage to your pipe infrastructure. And in Flint's case it would have saved \$10,000 for dollar invested.

Ms. LAWRENCE. Mr. Earley, you are an appointee of the State. The Michigan Environmental Department is a State. Can you tell me why, have you been advised or told why the Michigan Department of Environmental Quality did not provide erosion control? Was it financial? Was it, oops, we forgot, because there was clear documentation that EPA, although they did not tell the public, made them aware.

You in your capacity as an appointee of the State, has anyone made you aware of why they did not provide the corrosion?

Mr. EARLEY. No, that has not been brought to my attention. The issue of the corrosion control and all of that came pretty much after

I was there. As I tried to say earlier, the issues we were dealing with were related to the TTHM and the other contaminants.

Ms. LAWRENCE. And that is a good point because clearly water that we drink out of our faucets do not have that in there, so there should have been some chemical added to the water. It sounds as if they went to the Flint River and just turned on the faucet. So why did not they provide at minimum bacteria control?

Mr. EARLEY. I cannot answer the reason why they did not.

Ms. LAWRENCE. Did anyone while you were there ask that question? Why did they not treat the water in Flint?

Mr. EARLEY. The questions we were asking during my tenure was how to deal with the contaminants that we knew were in the water, the TTHM, the E. coli, and the coliform.

Ms. LAWRENCE. And at no time did anyone ask why in the City of Flint you would turn water on, make it go through the faucets for human beings to drink, and they are experts. You have a water treatment system, and no one treated the water.

Mr. EARLEY. Well, the water was treated, but the corrosion controls were not there, and they were not part of the discussion.

Ms. LAWRENCE. Sir, at first we had bacteria in the water. You do not have bacteria in water that is treated. So when we are talking about the corrosion control, that is for the lead. But under your leadership, it was contaminated water.

Mr. EARLEY. Yes.

Ms. LAWRENCE. And no one asked the question. So how do we know how to fix it if no one ever asked why would we in America in 2016 with you being in charge, and you signed the contract, regardless of who initiated it, and people in Flint, including yourself, knew that the water that was drinking had bacteria in it, which is unacceptable. At no time did we ask why did this happen.

Mr. EARLEY. Of course we asked why did it happen as it related to —

Ms. LAWRENCE. And what was the answer?

Mr. EARLEY. As it related to the issues that we were treating, we were told the protocols in which to treat the contaminants that we were working with, the TTHM and the E. coli, and the coliform treatments. The issue of lead treatment and lead corrosion —

Ms. LAWRENCE. I am not talking about lead. Let us talk about when you were there.

Mr. EARLEY. Okay. Well, when I was there, we treated for the contaminants that were in the water. We followed the DEQ protocols for boiling water advisories on two separate occasions. When we still had problems with the water and we still were not —

Ms. LAWRENCE. In America we do not normally boil water. We turn on the faucet and drink it, and trust the government to provide us with water that is safe. If I was responsible for the public trust, that would have been my number one answer to make sure we did not have to keep boiling the water. Why did it happen?

Mr. EARLEY. Well, when it happened the second time, I sought the —

Ms. LAWRENCE. The second time?

Mr. EARLEY. Yes, because we were told after we did the things that we had done before, we were given all clears for the water, and that the treatment, the precautionary measures had worked.

Ms. LAWRENCE. I served as the mayor of a local community, and this is my core problem with emergency managers. At any time did you hold a public meeting with the citizens to find out what their concerns were? Did you hold public input meetings?

Mr. EARLEY. There were meetings held after the issue of the contamination when I left in January. There were meetings held after that.

Ms. LAWRENCE. But while you were there, you did not engage the public.

Mr. EARLEY. We did not have meetings —

Ms. LAWRENCE. You did not engage the public.

Mr. EARLEY. The water staff did engage the public as complaints came in and were a part of trying to find solutions for the problems that we were dealing with.

Ms. LAWRENCE. This is a fundamental problem with emergency management philosophy is that you report only to a bottom line and to the governor, and that the voice of the people are eliminated in this process.

Mr. Chair, I know I am over, but may I ask one more question? I want to ask this question when it comes to primacy. See, I am infuriated that someone made the deliberate decision not to treat this water when the primacy or the responsibility of drinking water rests with the State. Yes, we should hold EPA accountable. We have passed a law now from all sides, both sides agreeing that this shall not, EPA must notify the public and stop the water.

But before that, how do we get our arms around as a congressional body that no State will take the arrogance and the destructive criminal, I feel, criminal activity to poison people? How do we get there?

Mr. EDWARDS. I would like to know that question myself, how this decision was made to not follow the law. I mean, did they forget? Were they trying to save money? I really have no idea.

Ms. LAWRENCE. Mr. Earley, he said he was sitting there in charge as emergency manager. You do not know the answer. Mayor Walling, can you give me an answer?

Mr. WALLING. I do not have an answer because the initial treatment design did not include the carbon filter that later had to be added. That actually meant there was additional chlorine and the TTHM problem. So there was no corrosion control. There was no carbon filter. All of these warning signs that were going off, they all go back to the original treatment design that the MDEQ and the emergency manager put in place and budgeted for in June of 2013.

And we are still waiting on answers as to how those decisions actually got made, what the considerations were. I do not know.

Ms. LAWRENCE. I yield back my time. This is where we need to go because we cannot have this happen again. Thank you.

Chairman CHAFFETZ. I thank the gentlewoman. I now recognize the gentleman from Alabama, Mr. Palmer, for 5 minutes.

Mr. PALMER. Thank you, Mr. Chairman. Mr. Edwards, in an email recently released to the public dated September 11th, 2015, EPA's Michigan program director states the following: "Just to clarify, on our call I wanted to remind you that Miguel's report had the DEQ cc'd. So if the legislature or whoever might say you were all

cc'd, you can truthfully respond that it was the EPA's request that the report not be sent to the cc's. Consequently, you all never received the report from Miguel. Good to talk with you all."

The program director was referring to Miguel del Toral's memo that had recently been made public and is addressed to a number of employees with EPA.gov and Michigan.gov domain names. It appears to function to instruct such employees on a way to circumvent public and legislative accountability. It also portrays government collaboration to manage and a spin a situation.

When you see an email like this, Mr. Edwards, what does it tell you about the government prioritizing obfuscation over protecting the public interest?

Mr. EDWARDS. Well, it is very clear that MDEQ and EPA were working hand-in-hand to cover this problem up as reflected by that email with Jennifer Crooks. And this revisionist history where EPA was fighting MDEQ every step of the way is just ludicrous.

Mr. PALMER. What does this email tell you about the EPA's continued disregard for Mr. del Toral's warnings?

Mr. EDWARDS. I just do not know how you could have disregarded those warnings as they did. They just sat there silent.

Mr. PALMER. Well, there has got to be a reason for why they did not want his warnings to get out there, why they wanted to apparently give cover.

Mr. EDWARDS. They provided all kinds of cover for MDEQ at every step of the way. Every step of the way EPA was there covering up for MDEQ.

Mr. PALMER. Do you believe it provides cover, that a memo like that was intended to provide cover?

Mr. EDWARDS. Well, MDEQ actually took her advice in the letter responding to Kildee. They basically cited that excuse verbatim.

Mr. PALMER. Do you believe this email shows at a minimum callous disregard for public safety?

Mr. EDWARDS. Amongst a few EPA employees. The vast majority of EPA employees at Region 5 come to work every day and do their best to do their job under difficult circumstances.

Mr. PALMER. I thank you for that clarification because I agree with you that most, and I believe this is true across the board with Federal employees. They come to work every day to do the best job they can, but it is that handful who do not that create problems like this, and that cause incredible suffering for the public.

Ms. Hedman, or I should, I guess, refer to you as "Dr. Hedman." Following up on the questions posed earlier regarding outstanding FOIA requests, the email I read to Dr. Edwards shows the EPA Michigan program director, your former colleague, emailing other EPA and Michigan employees to their official accounts to provide them cover from the legislature or whoever who might theoretically ask about their exposure to Mr. del Toral's memo. It is worth noting that the program director sent this from her personal Gmail account to their official email.

EPA has a history of using such methods to circumvent transparency. For instance, Gina McCarthy has been called before this committee or, I believe, it was the Science Committee, for example, because of using her personal email for government business.

This is email that I read today appears to me to be evidence of a deliberate intention to mislead going back to the fact that most employees try to do the best they can and that a handful do not. I think that this indicates that there is a culture of secrecy and a lack of a transparency that starts at the top. How would you respond to that?

Ms. HEDMAN. I would respond by saying that EPA has a policy of not using personal email, and if there is an instance where it is necessary for technical reasons to copy one's government account.

Mr. PALMER. Well, you know, she did that 6 weeks later. I have a copy of the law here, Title 44, regarding Federal records that requires that indicates, Mr. Chairman, that she did not copy this in a timely manner. You know, this is not about finger pointing, and that is what troubles me about this hearing. It is not about politics. It is about these people who have suffered injury because of the failure of government.

And I just want to say this. I believe every member of this committee has a responsibility to get to the truth, to make sure that government fulfills its responsibility to serve the public and, in this case, to protect the public. We want the truth.

I have gotten to know a lot of members on this committee, and I can assure you we can handle the truth, the whole truth. Mr. Chairman, I am just not at all confident that we have heard the whole truth today.

I yield back.

Chairman CHAFFETZ. I thank the gentleman. I will now recognize the gentlewoman from New Jersey, Ms. Watson Coleman, for 5 minutes.

Ms. WATSON COLEMAN. Thank you, Mr. Chairman, and thank you to you and our ranking member for holding this hearing. This is indeed a sad day and a little bit confusing how we get to the bottom of something when everyone is pointing their finger in another direction with the exception of Mayor Walling and Mr. Edwards.

Mr. Edwards, I want to ask you a question that has nothing to do with Flint. My State, the State of New Jersey, is experiencing a knowledge of high lead content, particularly in 11 cities, but right now concentrating on one city. Do you know whether or not EPA is at all monitoring or getting involved in that situation at this early stage so that we will not have a Flint, Michigan situation?

Mr. EDWARDS. My suspicion is that they are probably not, although they did send that memo. And, again, I applaud this that they sent the memo out that basically said thou shalt stop cheating on the Lead and Copper Rule monitoring. It took too long to get to that point, but that memo has gone out. It is not going to help you in the short term because it is going to take 6 months before those rules are changed.

Ms. WATSON COLEMAN. Mr. Chairman and Ranking Member Cummings, I believe that this issue is broader than what we are experiencing in this very sad situation. And I very much would look forward to having an Oversight Committee hearing on EPA's role in this whole issue across the United States, because I think it will be very revealing and very scary what is happening in our

older, poorer communities. And so, I make that request for your consideration.

Ms. Hedman, where is Mr. del Toral?

Ms. HEDMAN. Where is he —

Ms. WATSON COLEMAN. Where is he?

Ms. HEDMAN. Physically right now?

Ms. WATSON COLEMAN. Working? Where is he working? Where is he located? Where is he working?

Ms. HEDMAN. Well, he works out of the Region 5 office. I know that recently he has spent a great deal of time in Flint, so he may very well be there working right now.

Ms. WATSON COLEMAN. So let me ask you this question. For 50 years, Flint, Michigan was receiving its water from the Detroit system. Is that correct?

Ms. HEDMAN. [Nonverbal response.]

Ms. WATSON COLEMAN. So for that 50 years, the water treatment system in Flint was dormant? Is that fair?

Ms. HEDMAN. [Nonverbal response.]

Ms. WATSON COLEMAN. Okay. Was there any requirement that before you reactivate a dormant system that you do certain precautionary testing and preparation?

Ms. HEDMAN. I know that there are requirements, but I cannot speak to the specifics.

Ms. WATSON COLEMAN. Are there any EPA requirements?

Ms. HEDMAN. Again, I cannot speak to the specifics of that.

Ms. WATSON COLEMAN. Mr. Edwards, can you answer that question?

Mr. EDWARDS. The law requires that when you switch to a new water source that you do corrosion control studies in advance of the switch to make sure that you have effective corrosion control in place. And in the absence of doing a study, the simplest thing, the minimum that would have been allowed under the law would have been to continue the corrosion control that was used in Detroit water, which would have been dosing of orthophosphates.

So had they done the minimum under the law, adding that orthophosphate to the Flint River water, which had been done for 50 years under Detroit, the vast majority of these problems, including the leaking pipes, the Legionella, the lead, would not have occurred.

Ms. WATSON COLEMAN. So tell me, give the timeframe because I am confused somewhat about the timeframe when this should have happened. Should that have happened in April of 2014?

Mr. EDWARDS. This should have been done months before the switch.

Ms. WATSON COLEMAN. The switch was April of 2014?

Mr. EDWARDS. Yes.

Ms. WATSON COLEMAN. And who was the emergency manager during that period of time?

Mr. EDWARDS. I do not know at all.

Ms. WATSON COLEMAN. Do you know, Mr. Earley?

Mr. EARLEY. Yes. In April of 2014, I was the emergency manager.

Ms. WATSON COLEMAN. So then why did you not as the emergency manager ensure that before this switch was going to take place that all of the safety and security measures were in place?

Mr. EARLEY. I did, and I was assured that all that were required had taken place. We had been monitoring this switch. Again, as I said, the project started before I got there, and once I got there, we continued to monitor, and I received updates from —

Ms. WATSON COLEMAN. Well, Mr. Earley, who told you? Who assured you that these safety and security measures were in place before actually turning on the switch?

Mr. EARLEY. The director of the Department of Public Works, which is also the director of the Flint Water Treatment Supply or Water Treatment Department. It was his responsibility to make sure that all of those things were in place, and he had staff working with him. And they in turn worked directly with MDEQ and the EPA to make sure we were meeting all of the requirements. Those were the requirements for being licensed.

Ms. WATSON COLEMAN. So now we have introduced another level, the local sanitation department or water department manager?

Mr. EARLEY. The treatment people at the water plant.

Ms. WATSON COLEMAN. The treatment people?

Mr. EARLEY. Yes.

Ms. WATSON COLEMAN. So now it is was his responsibility to ensure that these measures were in place, and he is the one that informed you that these measures were in place. He misrepresented?

Mr. EARLEY. That we were meeting the requirements —

Ms. WATSON COLEMAN. Did he misrepresent? Did he tell you the truth?

Mr. EARLEY. Well, we all know now that the information that we all got was somewhat misinformed based on —

Ms. WATSON COLEMAN. Where did the lie start?

Mr. EARLEY. Well, the information that we got was from MDEQ which governed our switch from the Detroit Water and Sewer Department to the Flint River. We relied on the information we received from the State regulatory agencies.

Ms. WATSON COLEMAN. I cannot believe my 5 minutes is up so quickly —

[Laughter.]

Ms. WATSON COLEMAN.—because God knows we have not gotten to the bottom of this yet. But thank you, Mr. Chairman. I yield back. This is incredibly upsetting.

Chairman CHAFFETZ. I thank the gentlewoman. I will now recognize the gentleman from Georgia, Mr. Carter, for 5 minutes.

Mr. CARTER. Thank you, Mr. Chairman. Ms. Hedman, I am correct when I say that EPA has the authority to intervene when there is contamination in drinking water that poses a threat to humans. Is that correct? Yes.

Ms. HEDMAN. When there is a threat and the State has failed to

Mr. CARTER. When there is a threat to human, EPA has the authority to intervene, correct.

Ms. HEDMAN. And the State has failed to take action.

Mr. CARTER. Come on, Ms. Hedman. EPA has responsibility to the citizens. You have to intervene not when the State does not do

it. When you see that it happens, you have to do it then. No, no. I will ask the questions, okay?

You are aware of the memo that came in June of 2015 from Miguel del Toral, right? You are aware of that memo. In June of 2015, Mr. del Toral's title was regulations manager, Groundwater and Drinking Water Branch. He is a Drinking Water specialist.

Ms. HEDMAN. Yes.

Mr. CARTER. In fact, I believe that he was one of the key members of your Safe Drinking Water team.

Ms. HEDMAN. Yes.

Mr. CARTER. In fact, I believe that you have said he is one of the top experts in his field.

Ms. HEDMAN. He is.

Mr. CARTER. He is. Yet when Mr. del Toral reported the high levels of lead in Flint's drinking water, not only did you silence him, but you sat around idly and did nothing. Why would you do that?

Ms. HEDMAN. I did not do that.

Mr. CARTER. If he is an expert as you have acknowledged, why did you not listen to him?

Ms. HEDMAN. I did, and I did not sit silently. I did not —

Mr. CARTER. I beg to differ, Ms. Hedman. Instead of heeding the warning of one of your top experts, one of your top experts. Listen, all of us here, we depend on people. We depend on staff, but if we do not listen to them, they do us no good whatsoever. You surround yourself with good people, as you did. You surrounded yourself with a specialist. You got to listen to him, but you did not do that.

Ms. HEDMAN. I did.

Mr. CARTER. Not only did you not listen to him, you tried to silence him.

Ms. HEDMAN. I did not.

Mr. CARTER. You know, so what did you do? You sought a legal opinion. Is that correct?

Ms. HEDMAN. Well, immediately —

Mr. CARTER. Immediately.

Ms. HEDMAN. Immediately in June, I offered technical assistance to the Flint mayor. That was July 1st. On July 10th, we issued our first statement urging Flint residents to get their water tested, and to take precautions to limit —

Mr. CARTER. Here you have an expert who is telling you we have got a problem. We have got lead in our drinking water. Instead of protecting the citizens, that is what EPA is about, environmental protection. EPA, Environmental Protection Agency.

Ms. HEDMAN. Yes.

Mr. CARTER. Protecting the public, and instead of saying we have got an expert here, one of my team members who is an expert in this field is telling us we have got lead in this water, stop drinking it. Stop drinking it right now. But you did not do that. You sought a legal opinion —

Ms. HEDMAN. No.

Mr. CARTER.—because you were wanting to follow the law?

Ms. HEDMAN. No. Let us be clear. The data reported in Mr. del Toral's memo was data related to one residence, first of all. My first question about that was had the lead surface line been removed. It was, and the follow-up testing showed that the water

was safe to drink. And then two neighboring houses, one of which did show high lead levels and one which did not.

That data by itself indicated something about the tap water in those three residences, and ultimately Mr. del Toral's final version of the memo concluded that the residents with very high lead levels had high lead levels not due to lack of corrosion control, but because of physical disturbance of the lead surface line.

Mr. CARTER. Because a physical disturbance of the lead surface line.

Ms. HEDMAN. Construction in the street.

Mr. CARTER. Construction in the street. You know, I —

Ms. HEDMAN. And so, the point being his memo also made the point that corrosion control had not been implemented in Flint. That was a point that previously other —

Mr. CARTER. Dr. Hedman, I am sorry. Dr. Edwards, what do you make of this?

Mr. EDWARDS. I am kind of wondering if she has read the memo to this day because there are three reports that the city had collected high lead in drinking from LeAnne's house, 100, 300, 700 parts per billion before there was any disturbance. And moreover, her statement that she warned Flint residents to start flushing the water, no Flint residents got a warning that the water was unsafe to drink. What they got is Mr. Walling going on TV and saying that the water is safe to drink. That is what the message that was sent.

No Flint resident got any warning about dangerous levels of lead in drinking water, the fact that corrosion control laws were not being followed in Flint. No one knew that.

Mr. CARTER. You know, let me tell you. Ms. Hedman, I am sorry, there is a special place in hell for actions like this. Madam Chair, I yield.

[Applause.]

Chairman CHAFFETZ. The gentleman yields back. I recognize the gentleman from California, Mr. Lieu, for 5 minutes.

Mr. LIEU. Thank you, Mr. Chairman. I would like to start with the national issues and then come down to Flint. We know that in addition to Flint, we have had lead-tainted water in Washington, D.C., in Sebring, Ohio, and now in Newark, New Jersey, where schoolchildren have been poisoned. Ms. Hedman, this really is a national issue as well, is it not?

Ms. HEDMAN. Given that I am no longer at the Agency, I do not want to speak for EPA. But indeed lead is an issue of concern throughout the country.

Mr. LIEU. I have two articles here. One is a report from the NRDC that says, "Study Finds Safe Drinking Water in U.S. Cities At Risk: NRDC Reports On Drinking Water Systems of 19 Cities and Finds That Pollution, Old Pipes, and Outdated Treatment Threaten Tap Water Quality." And then I have a second article in Salon. It says, "It's Not Just A Flint Problem: Other U.S. Cities Are Suffering From Toxic Water." And, Mr. Chairman, if I could enter these into the record.

Chairman CHAFFETZ. Without objection, so ordered.

Mr. LIEU. Ms. Hedman, I am going to read you a couple of sentences from the Salon article. The author writes, "The Safe Drinking Water Act, enacted in 1986, required the EPA to set standards

for the concentration of lead in public pipes with a push for lead free. This stirred the country on a road towards replacing old water pipes with plastic pipes as an ecofriendly alternative. However, many poor municipalities instead turn to anti-corrosive agents as a cheaper and faster solution.”

If Flint had plastic pipes, none of us would be here today, correct?

Ms. HEDMAN. That is true.

Mr. LIEU. In fact, if Sebring, Newark, and Washington, D.C. had plastic pipes, none of that lead contamination would have happened, correct?

Ms. HEDMAN. That is true, although if there were lead in fixtures, it would still be a concern.

Mr. LIEU. I understand. Thank you. Now, let us talk about Flint. Mr. Earley, I read your testimony, and I heard it today as well. You essentially say everything was fine, and everyone told you everything was fine. And you had regular meetings with the water treatment officials. Did you know that the water treatment plant operator, Michael Glasgow, wrote an email saying, “I have people above me making plans to distribute water ASAP. If water is distributed from this plant in the next couple of weeks, it will be against my direction.” So it was not fine for Michael Glasgow. Were you aware of that?

Ms. HEDMAN. I was—oh, I am sorry.

Mr. LIEU. Mr. Earley, yes.

Mr. EARLEY. I was made aware of that email when I sat before the governor’s task force. It was the first time I had seen that email. So I am not sure what he is referring to when he talks about people above him because there were at least two other layers, possibly two other layers of supervision before it got to me.

Mr. LIEU. So even though you regularly, as you said, regularly met with water treatment plant officials, you had no idea that the water treatment plant operator had said I am not ready to go on this. You had no idea.

Mr. EARLEY. No, there was no discussion on that in our regular meetings. What was going on —

Mr. LIEU. All right, stop. Stop right there. You also testified that this was not a leadership issue. This was purely a water treatment issue. I suggest that this was a leadership issue if you had no idea, even though you had regular meetings, that this water treatment plant operator was making these statements that he was not ready to go.

I am curious. You know, Mr. Walling, I commend him for saying I am sorry and for apologizing. That took courage. Mr. Earley, I do not see anywhere in your testimony. Are you ready to say you are sorry?

Mr. EARLEY. What I said and will say again is that, you know, I was responsible. It happened on my watch.

Mr. LIEU. Are you sorry?

Mr. EARLEY. I feel very badly about that, and, yes, I am sorry that the people of the City of Flint have had to go through—I said that earlier—this crisis. It tears me up inside. I am very regretful and remorseful for what has happened.

Mr. LIEU. All right. Ms. Hedman, the EPA knew in April that corrosive agents were not being put in. Why did it take so long for them to let you know at the end of the June that that was not happening?

Ms. HEDMAN. I think from the review of the emails that I have seen during that time period that the first reaction was if we simply tell MDEQ they need to do this, they will do it.

Mr. LIEU. When were corrosive agents actually put in?

Ms. HEDMAN. December 9th is when corrosion control began.

Mr. LIEU. Okay. So April, May, June, July, August, September, October, November, children of Flint were drinking lead-contaminated water. Why in July or August did you not just stand up and yell and scream, stop this? Give them bottled water. Why did it take so long? To me, this is negligence bordering on deliberate indifference.

You knew. EPA knew in April corrosive agents not done. In June you were notified of that, and then you were given a report that said lots of lead in this drinking water. And then nothing is done until December. There is no excuse for that. Someone needed to have yelled and screamed and said stop this. People are being poisoned. It should have been done in at least July or August, maybe September, at least by October.

That was so wrong. This was a crime of epic proportions that could have been prevented. I yield back.

Chairman CHAFFETZ. I thank the gentleman. I will now recognize the gentleman from South Carolina, Mr. Mulvaney, for 5 minutes.

Mr. MULVANEY. I thank the chairman. I thank the committee. I will try and, I guess, start as simply as I know how, which is, Mr. Edwards, I think at the end of Mr. Carter's testimony, he asked a question of Ms. Hedman, and I will go ahead and ask it. He asked, did you warn Flint residents to flush their water?

Ms. HEDMAN. On July 10th, 10 days after I first learned about this, EPA Region 5 issued the first statement advising Flint residents to get their water tested by their water utility, and referring them to EPA information on the Web about limiting exposure to lead in drinking water.

Mr. MULVANEY. So is that your testimony when you said you gave them warning to flush their water? That is what you are referring to?

Ms. HEDMAN. Right. That was the first time that we did that.

Mr. MULVANEY. Okay. That was in July.

Ms. HEDMAN. July 10th.

Mr. MULVANEY. I am looking at an email that has been mentioned a couple of times, and to the extent it has not been entered into the record, Mr. Chairman, it is an email of Miguel del Toral dated September 22nd, 2015. I ask it to be added to the record.

Chairman CHAFFETZ. Without objection, so ordered.

Mr. MULVANEY. Are you familiar with this email, Ms. Hedman?

Ms. HEDMAN. I am not sure what the email is.

Mr. MULVANEY. That begins, it is to Thomas Ploy, Rita Bair, Nicholas D'Amato, Joanna Glowacki, and Andrea Porter amongst others from Miguel del Toral, September 22nd, 2015. It begins, "This is no surprise. Lead lines plus no treatment equals high lead

in water, equals lead poisoned children.” Are you familiar with that email?

Ms. HEDMAN. Only hearing it from you.

Mr. MULVANEY. Okay. If you read down the email, and by the way I think the email is an email that you sent Mr. Edwards that was then forwarded. I will get to that in a second I hope. It says, “Even worse, absent anything from EPA, MDEQ, and the city other than they are in full compliance, other folks have to alert the public to the risk.” Do you get the impression from the email that Mr. del Toral thinks that the EPA warned the folks in Flint in September to flush their water?

Ms. HEDMAN. We had been told on August 31st by MDEQ, it was MCH, the old acronym for the Michigan Department of Health and Human Services, was, in fact, implementing a public information campaign. On September 15th, I held calls with both the mayor and with the director of MDEQ urging expedited implementation of corrosion control and expanded public information campaigns. And the mayor and the county did issue a health advisory with that kind of information 10 days later.

Mr. MULVANEY. All right. I wish I could go into every single of those. I know Dr. Edwards is probably eager to do that. You said something earlier today, which I think took a lot of us off guard, surprised a lot of people sitting here when you did not think the EPA had done anything wrong through this entire process. And my guess is if I asked you for evidence of that, you would lay out what you have just laid out. We did this on this date, this on this date.

Let me ask you this. Is that the standard to which you held yourself at the EPA just not to do anything wrong?

Ms. HEDMAN. No.

Mr. MULVANEY. What was the standard to which you held yourself when you were with EPA?

Ms. HEDMAN. To do the best job possible.

Mr. MULVANEY. Did you do the best job possible?

Ms. HEDMAN. In retrospect knowing what I know now, I wish we had issued more frequent and more urgent statements about —

Mr. MULVANEY. But it is still your belief and your testimony that the EPA and you did not do anything wrong in handling the Flint situation.

Ms. HEDMAN. As I said, I wish we had done more. I wish when MDEQ represented facts to us we had verified those facts.

Mr. MULVANEY. Let me ask you about that because that is another thing you said that, again, caught me a little bit off guard. It says the EPA, yes, in answer to questions from someone—I apologize, forgetting who —is supposed to step in to protect safety, but only if there is a threat, which clearly there was, and the State has failed to act. Do you remember that testimony?

Ms. HEDMAN. Yes. Yes.

Mr. MULVANEY. Is it your testimony then the State had not failed to act?

Ms. HEDMAN. At which point in time?

Mr. MULVANEY. At any point in time. Pick one. I do not care. Mr. del Toral’s email of September 22nd, had the State failed to act by that time?

Ms. HEDMAN. By that time, the State had issued an order to Flint directing Flint to implement corrosion control, and he mayor had announced that he was going to take that action.

Mr. MULVANEY. Not my question. My question is had the State failed to act?

Ms. HEDMAN. The State had taken some actions, and let me —

Mr. MULVANEY. Not the standard. You said the EPA is not really supposed to get involved unless there is a threat, number one, and the State has failed to act, number two. So I am asking you as of September, had the State failed to act.

Ms. HEDMAN. We were involved, and the legal advice that I received at that time —

Mr. MULVANEY. You were involved, but people were still drinking lead-contaminated water. How is that possible?

Ms. HEDMAN. There are two things that we tried every day to make happen. One is implementation of corrosion control.

Mr. MULVANEY. Okay.

Ms. HEDMAN. And two is a public information campaign to make sure that Flint residents knew what they needed to do to reduce risk until corrosion control worked.

Mr. MULVANEY. I am not going to have nearly enough time to do any of this. I do want to ask Dr. Edwards one question. You said something, sir, earlier that interested me as well, which you said that in a different environment this would be criminal. What did you mean when you said that? I apologize if that is not the exact words, but you did use the words “criminal.”

Mr. EDWARDS. I think in any environment it is criminal when you know children are being harmed and not being protected by Federal law, and you sit there silent.

Mr. MULVANEY. And if I —

Mr. EDWARDS. I would point out Virginia Tech issued the first warning to not to drink the water in August 2015. MDEQ invoked the authority of EPA in its response to the press to our warning about the dangers of Flint water to say the water was safe to drink. EPA sat there silent at a minimum as the State attacked us for saying Flint water was not safe to drink.

Mr. MULVANEY. If I had done this as a terrorist to the children of Flint and I got caught, would I be in jail?

Mr. EDWARDS. I have already said if a landlord did this, he would be in jail.

Mr. MULVANEY. Or a builder, a homebuilder, which is what I used to do. If I built a house that poisoned my residents the same way the City of Flint has done it, I would be in jail, would I not? Which leads to my last question. Ms. Hedman, should the government be held to a different standard than its citizens?

Ms. HEDMAN. Everyone should be required to follow the law.

Mr. MULVANEY. Thank you, Mr. Chairman.

Chairman CHAFFETZ. Thank you. I will now recognize the gentleman from the Virgin Islands, Ms. Plaskett, for 5 minutes.

Ms. PLASKETT. Thank you, Mr. Chairman, Mr. Ranking Member. Witnesses, thank you for being here this morning.

Mr. Earley, on February 2nd, the governor of Michigan, Rick Snyder, issued a State informing the public of your resignation that

was going to be effective on February 29th. Have you seen that press release?

Mr. EARLEY. Yes.

Ms. PLASKETT. Okay. And in it, it states, and I am going to quote here, "Governor Snyder and I agreed that our goal was for me to be the last emergency manager appointed to DPS. I have completed the comprehensive restructuring necessary to downsizing the central office." That is your quote, correct?

Mr. EARLEY. That is.

Ms. PLASKETT. And do you remember giving the quote to the governor for the press release for that?

Mr. EARLEY. Excuse me?

Ms. PLASKETT. Do you remember giving the governor that quote for his press release?

Mr. EARLEY. Yes, I remember. Not directly to him, but I discussed it with his communications people, yes.

Ms. PLASKETT. Okay. And that press release and your resignation came a day before, less than 24 hours before this committee was having a hearing on Flint, Michigan on February 3rd. Chairman Chaffetz and Ranking Member Cummings sent a letter in January for you to testify at that time, but you refused to come.

When you were giving the quote to the governor's office for the press release the day before the hearing took place, did you have a conversation with the governor or with those individuals in his office about testifying before this committee?

Mr. EARLEY. No, my conversations regarding the letter that you refer to took place before that. They were only drafted on the first of February because we had pretty much done all in Detroit Public Schools as an emergency manager that I would be able to do.

Ms. PLASKETT. So you discussed with him around February 1st your resignation on February 2nd and what the quote was going to be. But you knew that you had a pending request to testify before this committee at that time. Is that not correct?

Mr. EARLEY. The exact —

Ms. PLASKETT. Did you know that you had to testify, that there was a request for you to testify on February 3rd when you were having discussions with the governor and his staff about your resignation on February 1st or 2nd?

Mr. EARLEY. We had that discussion prior to the 2nd.

Ms. PLASKETT. You just said the 1st.

Mr. EARLEY. Well, the 1st. The press release came out after the

Ms. PLASKETT. The press release came out on February 2nd, less than 24 hours before this hearing. In your discussions with the governor about that press release, did you discuss with him your request, the request for you to testify before this committee?

Mr. EARLEY. It had nothing to do with the —

Ms. PLASKETT. It is a yes or a no. Yes or no, did you discuss it with him?

Mr. EARLEY. Yes.

Ms. PLASKETT. You did discuss testifying before this committee?

Mr. EARLEY. I did discuss that I had received the invitation, yes.

Ms. PLASKETT. And what was said during that discussion?

Mr. EARLEY. That I had received an invitation.

Ms. PLASKETT. And the governor, did he direct you to comply with that?

Mr. EARLEY. No.

Ms. PLASKETT. And you did not at that time, so clearly you had a discussion with the governor, a governor who has said he wants transparent and accountability for the individuals that are working, and you worked for the pleasure of the governor. He did not direct you to testify when the request had been by the House Committee on Oversight and Government Reform about this.

So on February 2nd when Chairman Chaffetz's staff informed your lawyer that the chairman was considering issuing a subpoena to compel you to testify before the committee on that day, did you discuss that with the governor?

Mr. EARLEY. No, I had that discussion with the attorney because I had to seek out some advice as to respond to the initial invite because I did not have time to prepare for a hearing. I was more than willing and certainly wanted to come forward and discuss the facts of this. That had nothing to do with my appointment at Detroit Public Schools.

Ms. PLASKETT. But your appointment was made by this same governor, and you have within you to discuss it with him, and you are serving at his direction. And even though that discussion has taken place, your attorney that you said you sought out about the subpoena, you told the attorney and asked him to refuse to accept the service of the chairman's subpoena because you said you did not have time to coordinate your testimony, but you had time to coordinate on October 26th your op-ed in which you said do not blame the emergency manager for the Flint water disaster, and outlined reasons why that was your position at that time.

Mr. EARLEY. No, I did not discuss the subpoena in terms of not coming to this hearing. That was never a discussion that I had. I sought counsel because I wanted to understand the process. The invitation was what I said that I was not prepared to attend, not the subpoena.

Ms. PLASKETT. So you did not tell your attorney to refuse service of the subpoena —

Mr. EARLEY. No.

Ms. PLASKETT.—that was potentially being —

Mr. EARLEY. No.

Ms. PLASKETT. Okay. That is important for us to note for the record. We have an email that says that you were being told that a subpoena was going to be issued to you at that time. You are aware of that?

Mr. EARLEY. I do not recall —

Ms. PLASKETT. We have the email, Mr. Earley. Do you want me to put it on the screen?

Mr. EARLEY. Yes, if you would, please.

Ms. PLASKETT. Okay. Could we do that? And at that time, while they are putting that up, that email exchange with your attorney, so now you are saying that the attorney did not tell you that you were supposed to potentially be subpoenaed to testify before this committee?

Mr. EARLEY. I sought advice of counsel on the issue regarding the invitation, and then declined the invitation because I did not have an opportunity to —

Ms. PLASKETT. I have moved on from the invitation. I am now talking about the subpoena.

Mr. EARLEY. Okay.

Ms. PLASKETT. Did you have a discussion with your attorney about service and acceptance of the potential subpoena?

Mr. EARLEY. That is an attorney-client issue that I would like to refer to my attorney to answer if that is possible.

Ms. PLASKETT. I am glad he is not a potted plant in this one and he is going to give you some advice about that. That was very good.

So did you inform the governor that you were going to refuse to testify even after a potential subpoena was going to be issued?

Mr. EARLEY. No, I did not.

Ms. PLASKETT. And did the governor ever instruct you to cooperate with this committee, and did they encourage you to comply with the request when it was an invitation?

Mr. EARLEY. No, it was strictly my decision based on my conversation with my counsel about preparation for a very important hearing. And that was pretty much the extent of it.

Ms. PLASKETT. And so, the governor did not tell you yes or no whether he thought it was a good reason that you should or should not testify.

Mr. EARLEY. The governor did not advise me on that because I sought legal advice on that.

Ms. PLASKETT. No, no, no. We went by earlier, in your testimony you said that you let the governor know that you had an invitation to testify. Did he respond to that particular comment that you made to him?

Mr. EARLEY. I think the response was, as I recall it, was, you know, it is your decision, do what you have to do. Do what you, you know, you feel most comfortable doing.

Ms. PLASKETT. Do we have the email? No? Okay, thank you. Thank you very much. And actually, Mr. Chairman, I know it is unusual, but the gentlewoman from Michigan wanted me to yield time to her. But, you know, in getting a witness to actually answer a question, it was a little difficult. Would you give us the indulgence of allowing her?

Chairman CHAFFETZ. Under House rules you can do a second round, but we need to go through everybody first.

Ms. PLASKETT. Thank you. Okay, thank you, sir.

Chairman CHAFFETZ. So we are going to actually now recognize gentlewoman from New Mexico, Ms. Lujan Grisham.

Ms. PLASKETT. Thank you, sir.

Ms. LUJAN GRISHAM. Thank you, Mr. Chairman. Then I will be happy to provide a minute to my colleague, Ms. Lawrence, and yield to her.

Ms. LAWRENCE. I have a question for each of them. Mr. Edwards, in your communications on this issue, do you feel that governor knew what was happening?

Mr. EDWARDS. I have not seen emails that showed that he knew about —

Ms. LAWRENCE. Do you feel he should have known?

Mr. EDWARDS. I feel that the governor should have listened more to the people of Flint and been less trusting of EPA and MDEQ.

Ms. LAWRENCE. Mr. Walling, in your role, would the governor or should the governor have known, or are you aware that he knew? You said you contacted his office. Did he know?

Mr. WALLING. He knew of the issues we had in January of 2015 because we did have a follow-up phone call. From the emails that I have seen, it appears that all of his senior aides were aware of extensive issues with MDEQ and DHHS.

Ms. LAWRENCE. Okay, thank you. Mr. Early, you were his direct appointee. Did you communicate with the governor? Was the governor aware of this water situation in Flint?

Mr. EARLEY. The situation that I communicated to the governor involved, as I have said, the contamination issues that we were trying to manage when I was there. I had no discussions with the governor regarding lead corrosion or lead contamination.

Ms. LAWRENCE. But you communicated with him that there was a water issue in the City of Flint.

Mr. EARLEY. Yes, when we switched.

Ms. LAWRENCE. Ms. Hedman, did you communicate directly with the governor's staff, the governor, to inform him of the situation that was happening with EPA and the water situation in Flint?

Ms. HEDMAN. My only communication with the governor's staff occurred in the days leading up to the announcement of the Flint action plan, which I think occurred on October 2nd.

Ms. LAWRENCE. Thank you. I yield back the rest of my time.

Ms. LUJAN GRISHAM. Mr. Chairman, thank you very much. So I am going to try to dig a little deeper in that context because what we all want is good and effective government. And for me it is irrelevant whether that good and effective protective government is at the Federal level, at the State level, or the local level. It should all be working to serve and protect its citizens.

And, Ms. Hedman, I appreciate your recognition that you could have been more vigorous, but in the context of is the State's primary responsibility, and that when a State fails, as was the case in Michigan, we have a terrible end result. We have people drinking unsafe water. And I think people want to know if the State of Michigan's failures are typical of other State governments, which it should cause all of Congress to think about the role of Federal government, EPA, and what we do about State accountability in this regard.

Now, Ms. Hedman, in a footnote in your written testimony, you mentioned a drinking water crisis that occurred in Toledo, Ohio in 2014. Was the danger to human health in that crisis, was there danger?

Ms. HEDMAN. There was. It was the toxin microcystin.

Ms. LUJAN GRISHAM. And how long did it take the mayor of Toledo, based on that message from you, to issue a do not drink notice?

Ms. HEDMAN. He immediately issued a do not drink order.

Ms. LUJAN GRISHAM. So he immediately reacts. Did the Ohio EPA resist the sampling protocol EPA was recommending as MDEQ did in the case of Flint?

Ms. HEDMAN. No, not at all. They took on board all of the sampling advice and worked very closely with our Cincinnati labs —

Ms. LUJAN GRISHAM. And, in fact, in your written testimony you commend Governor Kasich for his handling of that particular crisis. In fact, you note that he called on the National Guard immediately.

Ms. HEDMAN. Immediately. Governor Kasich said he would call out the National Guard to deliver bottled water, and he did it.

Ms. LUJAN GRISHAM. So I take it that you believe that there is a serious critical difference between the response of Governor Snyder and the response of Governor Kasich.

Ms. HEDMAN. Yes.

Ms. LUJAN GRISHAM. In in our investigation of the Michigan crisis, the committee received startling testimony from the former head of the Michigan Department of Environmental Quality. He told us that the topic of the Flint water crisis never even made it to the agenda of Governor Snyder's cabinet meetings. Never, not once.

In your experience working with Ohio, did Governor Kasich make Toledo's drinking water a priority of his entire administration?

Ms. HEDMAN. Well, I can tell you that he not only responded quickly in terms of calling out the National Guard to get the water out. After the entire scenario had ended, I believe that he actually reached out and thanked —

Ms. LUJAN GRISHAM. So we can see a stark and dramatic difference between the responsibility of these two States. And I think it is the job of this committee to make sure that the Federal government, the State government, and the local government are doing all it can, and should, and is requested to do to protect its citizens, correct?

Ms. HEDMAN. I agree.

Ms. LUJAN GRISHAM. Thank you. So one last thing. I am about out of time. But, quite frankly, given this testimony, if Governor Snyder had reacted the Flint water crisis in the same in which Governor Kasich reacted to the Toledo water crisis, do you believe it would have made a significant difference to human health and safety in regards to the drinking water situation in Flint, Michigan?

Ms. HEDMAN. I do.

Ms. LUJAN GRISHAM. Thank you. I yield back.

Chairman CHAFFETZ. I thank the gentlelady. I have a few more questions I would like to go through.

Ms. Hedman, you have cited repeatedly how urgent it was and how important it is. We spent over the course of 3 days a transcribed interview with Mr. Dan Wyant. Do you know who he is?

Ms. HEDMAN. Yes. He was the director of MDEQ.

Chairman CHAFFETZ. When did you have the first conversation with him about the concerns of what is going on in Flint, Michigan?

Ms. HEDMAN. I know from checking my records that I definitely had a conversation with him on September 15th right before I had a conversation with the mayor. I believe I also had a shorter conversation with him on September 1st as part of a commissioners roundtable.

Chairman CHAFFETZ. At least according to Mr. Wyant, and it is a little while ago, his first conversation with you was September 27th. Now, whether it is the 15th or the 27th, can you see the concern that it took that long before you actually talked to the person who is in charge of the Michigan Department of Environmental Quality? What the heck are you doing if you are not calling him?

Ms. HEDMAN. So, again, I believe I also talked with him on the 1st. But the point —

Chairman CHAFFETZ. Okay, September 1st. Okay. So I am going to go ahead and give you a little latitude there. I do not believe you because I do not see any reason to trust you. But let us assume that that is true for a second. Why did it take so long?

Ms. HEDMAN. My staff was reporting —

Chairman CHAFFETZ. So it was your staff's fault.

Ms. HEDMAN. No, no. No, no, no, that Michigan was taking the required action, that Michigan was reporting that there was going to be a public information campaign. And if Michigan staff had said we will not issue the order that EPA has required, then I would have gone directly to the director.

Chairman CHAFFETZ. But they did not, did they?

Ms. HEDMAN. They did on August 17th.

Chairman CHAFFETZ. So this is the fundamental problem with government and big government. It is, oh, well, we will delegate this instead of just picking up the phone and talking to somebody and having a discussion with them. They have these emails here. For instance, this one is dated October 1st where he was led to believe that you actually supported what they were doing. And this is the communication back and forth that Mr. Edwards talks about that.

Where they are then led to believe that they are actually in compliance. In fact, it is later on even in November when the EPA admits that the Lead and Copper Rule is ambiguous. There is not clarity there. They admit that. It is your own internal email.

Mr. EDWARDS. Can you comment on this? You have been so good at giving a perspective on all this, but for those that do not how to read these reports, what is your analysis of that?

Mr. EDWARDS. Well, I think that EPA was embarrassed by how long it took them to actually act, that it became a national and international embarrassment by that point. And then what are they going to do, say that they knew there was no confusion right from the start?

When I read that memo, it was essentially a get out of jail free card for both EPA and MDEQ. We not understand our own law is essentially what that memo said. So I just thought it was absurd.

Chairman CHAFFETZ. Ms. Hedman, are you familiar with the, we had a hearing here in July of last year about you and your region. Are you familiar with that?

Ms. HEDMAN. I did hear about it. I was actually visiting some Indian tribes in northern Minnesota when that occurred.

Chairman CHAFFETZ. So did you get a follow up? Did you read about? Tell me what you know about that.

Ms. HEDMAN. I did, and I was very, very concerned about some of the allegations that were made. And let me say as someone who has been an intern here on Capitol Hill in the 1970s, and someone

who early in my career experienced both sexual harassment and sexual discrimination, I have zero tolerance for that in the workplace.

Chairman CHAFFETZ. Then why did we have three of your employees do a very brave and courageous thing, and step forward, and testify to Congress that you tried to retaliate against them for talking about this, that some of them were asked to remove the investigators. I mean, it is one thing when I get one person, but when we get three people testifying before Congress, putting their lives, and their livelihood, and their careers on the line, there is some smoke there, is there not? Are you telling me you did nothing wrong?

Ms. HEDMAN. I can tell you that I asked for a follow-up to look into those allegations, and —

Chairman CHAFFETZ. And what was the conclusion?

Ms. HEDMAN. At no point did anyone ever present any evidence that those allegations were, in fact, true.

Chairman CHAFFETZ. We sat here for a couple of hours and heard testimony. There is some evidence there. I just wish you were at the EPA so I could call on you to be fired because you should have never been in this position. It is so frustrating. This is what happens.

99 percent of the people, good Federal employees. They are patriotic. They are hardworking, and they do the right thing. And then we get somebody who comes along who spoils it. They are bad apples, and they just say, oh, I will just retire, full benefits, full everything. That was absolutely fundamentally, totally wrong.

Ms. HEDMAN. Mr. Chairman, I do want you to know that I appointed a new assistant regional administrator who has aggressively dealt with these kinds of situations. And I personally recall a case where we removed someone for sexual harassment, and another case, which the inspector general gave us very high marks for where we removed an individual who viewed child pornography on a Federal computer. And he is in Federal prison.

Chairman CHAFFETZ. Well, and there are ongoing investigations right now by the inspector general, and this should have been dealt with at a much higher level.

Let me go on to Mr. Walling. I need help, Mayor, for some clarification. You became the mayor in 2009 in a special election. Elected, reelected, in 2011. But I honestly do not know what this means, but I want to understand.

In your bio, you were the chairman of the Karegnondi Water Authority from 2010 to 2015. Were you paid or compensated in any way, shape, or form for being the chairman of the KWA?

Mr. WALLING. I was not. I served as a function of being mayor. The mayor of an incorporating community in that authority serves as does the current mayor serves in that role now.

Chairman CHAFFETZ. So when you become the mayor, you then get to be the head of that, you know, because one of the concerns is are there conflicts of interest because essentially the KWA gets \$200 million or so to start building this pipeline, and that puts you in a pretty powerful position to direct dollars, and locations, and knowledge ahead of time. It gives you essentially insider information, does it not?

Mr. WALLING. It is a major project. It was a major responsibility. The chairmanship came to me through an election of the members of that authority. That happens on an annual basis the officers of that authority are elected.

Chairman CHAFFETZ. Are you here to testify, again, I just want to be clear. I do not want to disparage you unfairly in any way, shape, or form, but I need to know from you personally here. Did you benefit personally in any way, shape, or form from that assignment and that knowledge?

Mr. WALLING. No, I did not, Mr. Chairman.

Chairman CHAFFETZ. Okay. Mr. Edwards, tell me what DEQ, in your opinion, Michigan Department of Environmental Quality, what did they do right and what did they do wrong? Did they do anything right?

Mr. EDWARDS. No.

[Laughter.]

Mr. EDWARDS. Honestly as I sit here, I cannot think of a single thing they did right.

Chairman CHAFFETZ. Did the EPA do anything right?

Mr. EDWARDS. Mr. del Toral did everything every EPA employee should aspire to do. His memo could have made EPA the heroes here in this particular case. Even despite the 10 years of allowing utilities to cheat on the Lead and Copper Rule prior to that time, he realized the danger that puts children in.

Chairman CHAFFETZ. And what is your personal assessment of what the governor has done or is doing now?

Mr. EDWARDS. Well, unlike EPA, the governor has taken responsibility for what occurred. Certainly he was guilty of not listening to Flint residents. Certainly he was guilty of being overly trusting of MDEQ and EPA. But at present he says that he wants to be part of the solution, and he is actively engaged in this. And so, I am willing to work with anyone who wants to be part of the solution, and I think he is sincere about trying to help Flint get back on its feet.

Chairman CHAFFETZ. We are about to have a vote called on the floor. If the Ranking Member has another—yes.

Mr. CUMMINGS. Thank you very much, Mr. Chairman. Mr. Earley, I am little stunned by what you told Representative Plaskett. You said that you talked to the governor's office about our request for you to testify on February 3rd. And by the way, that was a joint request, Democrats and Republicans.

And you said that the governor never directed you to cooperate with us, the House Committee on Oversight and Government Reform, and that they just told you to do whatever you had to do. Is that correct?

Mr. EARLEY. Well, basically it was, you know, to make my own decision about going. And because it was, as I said, an invitation and I was not prepared to sit before this committee, I declined the invitation, and that was the extent of the conversation I had with the governor. But the subpoena that you are referring to or that has been referred to was issued a night before. I could not have gotten here physically to do that. So, you know, and it was never served on me. So my announcement basically that, you know, I was

declining the invitation was in hopes that I could enough time to prepare, and to get here, and to meet with this committee.

Mr. CUMMINGS. Now, you also had said that you had had some discussions with the governor. Did you have discussions with Mr. Muchmore? Do you know who he is?

Mr. EARLEY. Yes, I know Mr. Muchmore.

Mr. CUMMINGS. And did you have discussions with him about what was going on in Flint with regard to the water?

Mr. EARLEY. Not specifically. He was a part of some of the meetings that we had as we were briefing them on the progress. But, again, this was all on the contamination issues prior to the lead leeching issues that we now deal with.

But they were apprised of the progress we were making and converting from DWSD to the use of the Flint River during the interim while the KWA was being completed. Yes, we had those discussions.

Mr. CUMMINGS. Okay. Did it surprise you that Mr. Wyant had told us that it was never brought up in the governor's cabinet meetings?

Mr. EARLEY. That is a surprise.

Mr. CUMMINGS. Why do you say that?

Mr. EARLEY. Well —

Chairman CHAFFETZ. This was a major thing, right? I mean, this was not —

Mr. EARLEY. Yes. Yes. That is a surprise. I was not a part of the governor's cabinet, yeah.

Mr. CUMMINGS. I understand that.

Mr. EARLEY. So I did not know what was being discussed in those meetings, and I can only take that as, you know, a comment from a former employee.

Mr. CUMMINGS. Mr. Walling, did you have discussions with Mr. Muchmore?

Mr. WALLING. I did on a few occasions, a phone call.

Mr. CUMMINGS. And was he aware of what was going on, I mean, in Flint —

Mr. WALLING. Yes.

Mr. CUMMINGS.—with regard to the water?

Mr. WALLING. Yes.

Mr. CUMMINGS. And so, is it fair that you would have had more conversations with him than you would have had with the governor?

Mr. WALLING. Yes, I did. I would call the chief of staff and also one of his direct reports, Harvey Hollins, who is his urban initiatives director, was in, you know, regular communication with us even as elected officials during the emergency manager.

Mr. CUMMINGS. One of the things that we concluded is that the governor probably did not do a lot of communicating in writing with regard to this event, this whole water thing and crisis. So, therefore, in order for us to get any kind of information we needed, we needed to talk to folks. And that is the 15 people we were trying to get to including Mr. Muchmore and I think the other gentleman you just mentioned. And, again, they refused to talk to us, so hopefully they will have a change of heart.

I yield back.

Chairman CHAFFETZ. Thank you. I recognize Ms. Plaskett for a moment.

Ms. PLASKETT. Thank you, Mr. Chairman. We were concerned about this email, and I do have the redacted version of for you and for your attorney if you would like at some point to have a look at this. And you may want to make an amendment to your testimony after such a review. The chairman and the staff can make this available for the both of you.

Chairman CHAFFETZ. We will allow 72 hours for such clarification.

Ms. PLASKETT. Thank you.

Chairman CHAFFETZ. Thank you. We have a vote on the floor. I want to thank the four of you for your time. This is very illuminating. Again, our hearts, and prayers, and thoughts go to the people who actually live in Flint who were affected by this and are going to continue to be affected by this.

We look forward to part three of our hearing with Governor Synder as well as the EPA administrator. And that will take place in this room on Thursday at 9:00 a.m.

We stand adjourned.

[Whereupon, at 1:37 p.m., the sub/committee was adjourned.]

APPENDIX

MATERIAL SUBMITTED FOR THE HEARING RECORD

To: Poy, Thomas; Bair, Rita; Damato, Nicholas; Shoven, Heather; Deltoral, Miguel; Porter, Andrea
Subject: STPB's recommendation on Flint--financials

This is STPB recommendation to the Front Office on possible use of set-asides to purchase home treatment devices. I told Steve Tom P and I concurred. See highlighted in red below—Flint's poor financial practices. This is what Highland Park was doing, and why they eventually went bankrupt—using water revenues to pay for general public works projects, and not maintaining rates to support O&M of the water system.

Jennifer

From: Marquardt, Steve
Sent: Thursday, September 24, 2015 1:39 PM
To: Cossa, Laura
Subject: FW: Flint

Steve Marquardt
USEPA Region 5

From: Ballazar, Debbie
Sent: Thursday, September 24, 2015 1:38 PM
To: Henry, Timothy
Cc: Marquardt, Steve
Subject: Flint

Tim — Here is information regarding use of DWSRF set-asides. We've included information on Flint's financial practices as we think Susan needs to be aware. Perhaps she already knows all this, but I'm not so sure Flint is the community we want to go out on a limb for. At least without a better understanding of where all that money went.

Perhaps she already knows all this, but I'm not so sure Flint is the community we want to go out on a limb for.



**EMERGENCY MANAGER
CITY OF FLINT
GENESEE COUNTY MICHIGAN**

ORDER No. 15

**MAYOR DAYNE WALLING'S INCREASED RESPONSIBILITIES AND
COMPENSATION**

BY THE POWER AND AUTHORITY VESTED IN THE EMERGENCY MANAGER
("EMERGENCY MANAGER") FOR THE CITY OF FLINT, MICHIGAN ("CITY")
PURSUANT TO MICHIGAN'S PUBLIC ACT 436 OF 2012, LOCAL FINANCIAL
STABILITY AND CHOICE ACT, ("PA 436"); DARNELL EARLEY, THE EMERGENCY
MANAGER, ISSUES THE FOLLOWING ORDER:

Pursuant to PA 436, the Emergency Manager has broad powers in receivership to rectify the financial emergency and to assure the fiscal accountability of the City and its capacity to provide or cause to be provided necessary services essential to the public health, safety and welfare; and

Pursuant to PA 436, the Emergency Manager acts in place of local officials, specifically the Mayor and City Council, unless the Emergency Manager delegates specific authority; and

Pursuant to PA 436, the Emergency Manager has broad power to manage the local government, and may issue orders to elected and appointed officials necessary to accomplish the purpose of the Act. An Order issued under PA 436 is binding on the person to whom it is issued; and

Emergency Manager Edward Kurtz assigned additional responsibilities and partially restored compensation to Mayor Dayne Walling by way of Order No. 1, dated April 12, 2013; and

Emergency Manager Darnell Earley further increased Mayor Walling's responsibilities under Order No. 17, dated June 2014; and

In correspondence dated June 3, 2014, Emergency Manager Darnell Earley advised the Flint City Council that Mayor Walling would now be responsible for the day-to-day operations of the Department of Planning and Development and the Department of Public Works.

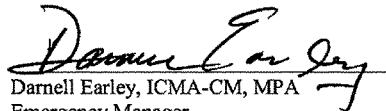
The Emergency Manager hereby authorizes the increased responsibilities of Mayor Dayne Walling set forth above and sets his annual compensation rate at \$82,500.00, in conjunction with the Biennial Budget for fiscal years 2015 and 2016.

This Order is effective immediately.

This Order may be amended, modified, repealed or terminated by any subsequent Order issued by the Emergency Manager.

Dated: 6-20-14

By:


Darnell Earley, ICMA-CM, MPA
Emergency Manager
City of Flint

xc: State of Michigan Department of Treasury
Mayor Dayne Walling
Flint City Council
Inez Brown, City Clerk

S:\P. Bاده\EM2014\Orders\Order.No.15.Increased Mayoral Responsibilities 06.13.14.doc

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To: Personal Email / Ex. 6
From: Deltoral, Miguel
Sent: Thur 7/9/2015 11:28:44 AM
Subject: Fw: Meeting Request by Paul B. (that public health guy in Milwaukee)

Miguel A. Del Toral
Regulations Manager
U.S. EPA R5 GWDWB
77 West Jackson Blvd, (WG-15J)
Chicago, IL 60604
[REDACTED]

From: Bair, Rita
Sent: Wednesday, July 8, 2015 03:37 PM
To: Deltoral, Miguel
Cc: Damato, Nicholas; Poy, Thomas
Subject: RE: Meeting Request by Paul B. (that public health guy in Milwaukee)

Miguel, first my comment about not having the time or money for you to travel to Milwaukee for the presentation was not in any way a repercussion from Flint. Based strictly on the email message from Paul to Lara, I do not see how this specifically relates to the Milwaukee pilot project. First, the message was sent to Lara, not you and is asking broadly for EPA staff who might be able to attend. The main focus appears to be Environmental Justice with a side note about lead in water. Right now I believe there is more important work for you to spend your time on. If they are looking for someone to talk about lead in drinking water, I would suggest we refer them to WDNR or the Milwaukee Water Authority. If you want me to send a message off to Lara I can or if you want to discuss further let me know. However, based on the information I have now, I do not approve your participation in this request.

From: Deltoral, Miguel
Sent: Wednesday, July 08, 2015 7:29 AM
To: Bair, Rita
Cc: Damato, Nicholas; Poy, Thomas
Subject: Re: Meeting Request by Paul B. (that public health guy in Milwaukee)

Sorry for not explaining. Milwaukee is an ongoing project that was approved by Tom Poy and blessed by WDNR. I told you about this project during the checkins as well as in my performance review, so I am not sure what you intend by your message. It almost sounds like I'm to be stuck in a corner holding up a potted plant because of Flint. One mis-step in 27+ years here and people lose their minds.

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We have been working directly with both the Milwaukee Waterworks and Health Departments on how to sample and what PE to provide to residents when they begin the water main replacement. I have already been to Milwaukee (with Tom's/WDNR's blessing) to meet with the water and health folks. This is just a continuation of the process.

This would be a day trip, so no cost except for use of a vehicle. If you are saying I have no time to participate, then I think you should discuss that with Tom Poy and let me know what you decide.

Miguel A. Del Toral

Regulations Manager
U.S. EPA R5 GWDWB
77 West Jackson Blvd, (WG-15J)
Chicago, IL 60604
[REDACTED]

From: Bair, Rita
Sent: Tuesday, July 7, 2015 12:58 PM
To: Deltoral, Miguel
Cc: Damato, Nicholas
Subject: RE: Meeting Request by Paul B. (that public health guy in Milwaukee)

Not sure what the FYI means. Are you asking to go? I don't think we have the time or money for you to participate, but let me know if there is more to this than I see.

From: Deltoral, Miguel
Sent: Tuesday, July 07, 2015 11:25 AM
To: Poy, Thomas; Bair, Rita; Damato, Nicholas
Cc: Shoven, Heather; Porter, Andrea; Janczy, Joseph J - DNR
Subject: Fw: Meeting Request by Paul B. (that public health guy in Milwaukee)

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fyi

Miguel A. Del Toral

Regulations Manager
U.S. EPA R5 GWDWB
77 West Jackson Blvd, (WG-15J)
Chicago, IL 60604
[REDACTED]

From: Lasky, Lara
Sent: Tuesday, July 7, 2015 11:02 AM
To: Deltoral, Miguel
Subject: FW: Meeting Request by Paul B. (that public health guy in Milwaukee)

Hi-

Left you a message.

We should chat about this.

Hope you had some nice time off.

Best,

Lara

From: Biedrzycki, Paul [mailto:[REDACTED]]
Sent: Tuesday, July 07, 2015 8:59 AM
To: Lasky, Lara
Subject: Meeting Request by Paul B. (that public health guy in Milwaukee)

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Hi Lara -

Would you and/or your colleagues be available and interested in coming to Milwaukee to discuss OEJ and associated capabilities available to local public health agencies? I think this would be of benefit to a number of my younger leadership staff here as well as putting into context how OEJ could support the lead in water sampling pilot underway here at the MHD.

Very informal. Coffee or lunch on me! Let me know some dates that would work in the next month or so.

best,

paul b.

Sent from my iPad

Paul A. Biedrzycki, MPH, MBA

Director, Disease Control and Environmental Health

City of Milwaukee Health Department

841 N. Broadway, 3rd Floor

Milwaukee, WI 53202

[REDACTED]

[REDACTED]

Adjunct Faculty

Zilber School of Public Health

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University of Wisconsin - Milwaukee

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To: Bair, Rita[bair.rita@epa.gov]; Damato, Nicholas[damato.nicholas@epa.gov]; Poy, Thomas[poy.thomas@epa.gov]
Cc: Moriarty, Edward[Moriarty.EdwardJ@epa.gov]; Kuefler, Janet[kuefler.janet@epa.gov]; Crooks, Jennifer[crooks.jennifer@epa.gov]; Porter, Andrea[portier.andrea@epa.gov]; Shoven, Heather[shoven.heather@epa.gov]; McElhinney, Cary[mcelhinney.cary@epa.gov]
From: Deltoral, Miguel
Sent: Wed 7/15/2015 12:06:55 PM
Subject: Re: Flint Discussion

Rita/Nick/Tom – I thought we had decided to postpone the discussion on compliance until later so that I could focus on getting the final report done. As with inaccurate information that was going to MDEQ, I am now seeing back and forth from GWDWB folks on the compliance issues that is not consistent with the LCR. No disrespect intended, but I worked on the LCR and I know the intent of these provisions (see final rule and guidance excerpts below). GWDWB folks jumping into this discussion without knowing the LCR requirements/intent or reading the rule, preamble and guidance is not helpful and is taking away the little time I have to work on the report.

My recommendation is that this compliance discussion be postponed into next week when Nick and Tom are back in the office and we can schedule a call with OGWDW so that everyone is in on the discussion. Please advise.

LCR Short-term Revisions (2007) Preamble (beginning on page 57788)

2. What Is EPA's Rationale for Advanced Notification and Approval of Long-Term Treatment Changes or Addition of New Source Revisions?

EPA requested comment on whether it should revise the existing rule language on "addition of new source" to "source change," but did not propose to make this change. Many commenters stated that revising the rule to cover any source change would be too prescriptive and that this could also include daily changes. Source changes occur on a daily basis due to changes in demand and commenters expressed concern that State review and approval of these changes could not be done in a timely manner and therefore could be detrimental to public health. EPA has retained the language of "addition of new source" in the final rule rather than use the term "source change." EPA believes that it would be difficult to define a long-term source change because the

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source mixture can constantly change due to demand or changes in availability of sources. EPA discussed several scenarios in the proposed rule, including switching from 100% surface water to 100% ground water, switching from 100% surface water to 50% ground water and 50% surface water, and a change in proportion of moving from 75% ground water and 25% surface water to 25% ground water and 75% surface water.

EPA believes that the existing language “addition of new source” covers the first two scenarios. Notification and approval would not be necessary if the switch is repeated on an annual basis.

The optimal corrosion control treatment for systems with mixed sources (ground water and surface water) should consider the impact of changing the proportions. Section 141.87(a)(1)(i) states that the tap samples shall be representative of water quality throughout the distribution system taking into account the number of persons, the different sources of water, the different treatment methods employed by the system, and seasonal variability. Both water source and water treatment methods can produce different finished water pH values or other critical water quality parameters. For example, if the finished water pH values from both the surface sources and ground water sources are very similar, then this can mitigate the impact of changing the proportions of the various sources. Systems with waters that have different finished pH values should consider monitoring at the representative sites in the distribution system after making a major change in the proportions of the sources (75% ground water to 25% ground water). EPA will provide guidance to help systems identify source water changes (such as changing the mixture) that could impact optimal corrosion control.

Some commenters stated that State approval of the treatment change or addition of a new source is not necessary and would delay changes needed by the system. EPA disagrees with these commenters. EPA believes that clarifying the revision to focus on long-term treatment changes will address concerns that this requirement would affect a system's ability to address daily water quality treatment changes. State notification and approval of long-term treatment changes is important because these changes could adversely impact optimal corrosion control. As EPA noted in the proposed rule, this approach allows the State to evaluate the change prior to implementation and, if needed, to design a monitoring program to ensure that optimal corrosion control is maintained after the change. EPA expects that States will review and approve long-term treatment changes and additions of new sources expeditiously and will avoid unnecessary delays to long-term changes that are needed by the system.

EPA's intent is also re-stated in Section E of the attached LCR Short-term Revisions State Guidance – pages 24 & 25).

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Miguel A. Del Toral
Regulations Manager
U.S. EPA R5 GWDWB
77 West Jackson Blvd. (WG-15J)
Chicago, IL 60604
Phone: (312) 886-5253

From: Deltoral, Miguel
Sent: Wednesday, July 15, 2015 06:24 AM
To: Kuefler, Janet; Crooks, Jennifer; Bair, Rita; Damato, Nicholas; Porter, Andrea; Shoven, Heather
Cc: Moriarty, Edward
Subject: Re: Flint Discussion

I very much disagree with not issuing a TT violation here. If you open this door for Flint (i.e., new source = new system), other systems elsewhere inside/outside R5 are going to want the same treatment. I am copying Ed Moriarty on this as I think we need an OGWDW/OGC review if we are considering NOT issuing a TT violation for failure to install/maintain OCCT as it will set a very bad precedent and could cause problems in other R5 states and regions.

The advanced notification and approval requirements in the LCR for long-term treatment changes and new sources were intended to make systems think about these source water and treatment transitions carefully so that they plan the transition accordingly and don't increase lead/copper levels.

I know it's a tough situation, and I agree that our primary focus should be on moving forward, but at a minimum we need to have a discussion with OGWDW and OGC on this.

Miguel A. Del Toral
Regulations Manager
U.S. EPA R5 GWDWB
77 West Jackson Blvd. (WG-15J)
Chicago, IL 60604
Phone: (312) 886-5253

From: Kuefler, Janet
Sent: Monday, July 13, 2015 04:59 PM

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To: Crooks, Jennifer; Bair, Rita; Damato, Nicholas; Deltoral, Miguel; Porter, Andrea; Shoven, Heather
Subject: RE: Flint Discussion

I agree with Jen's last sentence. I think focusing on what the system and local health department, or TSC-Cincy experts or CDC can do in the short term to assess the extent of the issue and offer remediation options that can be quickly implemented, if needed, is a sound approach.

I am not certain of the regulatory applicability related to previous consecutive systems, which can come to agreement with the parent system about who does what, and how this scenario applies to the former consecutive system for things like installation and maintenance of corrosion control (since the installation was not done by the former consecutive system.) Can we ask HQ if they know of other systems like this, or maybe this has been done already. I am still catching up on email.

Thanks,

Janet Kuefler
Ground Water and Drinking Water Branch
State Programs Team Leader

United States Environmental Protection Agency, Region 5
77 West Jackson Blvd. (WG-15J)
Chicago, Illinois 60604

(312) 886-0123
kuefler.janet@epa.gov

From: Crooks, Jennifer
Sent: Thursday, July 09, 2015 3:45 PM
To: Bair, Rita; Damato, Nicholas; Deltoral, Miguel; Porter, Andrea; Kuefler, Janet; Shoven, Heather
Subject: RE: Flint Discussion

Rita—you asked at our July 1 meeting that we provide you with any comments related to your write-up to summarize this situation with Flint, or from our meeting.

I had a discussion with Miguel earlier this week, and it seems more apparent that Flint may have violated the LCR by not maintaining corrosion control after being optimized back in the early 1990's (since they were a customer of Detroit). MDEQ did not tell Flint to maintain corrosion control; instead, they treated the change in source water as a new system. I'll bet that the State will take this personally since they are responsible for the City of Flint's actions; which isn't a bad thing, but they may get VERY defensive. We can get into the weeds and explain in detail the intent of the rule and our interpretation of the rule and why the State must issue a TT violation, but in the end; the City, the State and we must move forward TOGETHER to correct this problem. We have resources in Mike Schock and Darren Lytle

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and Mike Wright; and we want to work with the State and the City to address ALL of the contaminant issues going on in Flint; bacti, TTHMs, Legionella, lead—from a wholistic approach to get some form of corrosion control working that doesn't minimize treatment for bacti or TTHMs. It doesn't make sense to discuss with the State what happened in the past; we need to move forward and work with the State as our partner; as the State sees the lead levels climbing, I don't see the benefit in rubbing their nose in the fact that we're right, and they're wrong.

If the State/City agree to issue public education on how citizens must properly flush their taps, I'm wondering what the benefit would be to force the State to issue a TT violation to Flint.

Regarding the State's protocol of pre-flushing, Miguel said earlier this week on the phone with me that pre-flushing didn't really make that much difference in the lead levels when the City was using Detroit water, since there was scale existing on the inside of the lead pipes. Now that the scale appears to be disappearing, the lead levels are starting to rise even with pre-flushing being conducted prior to sampling. Yes, the levels would probably be higher without the pre-flushing, but the City may exceed the Action Level even with the pre-flushing. Maybe the issue of the State's use of pre-flushing is moot at this point; perhaps we need to focus our energy on getting the State and City to accept our offer of Darren and Mike's participation in a wholistic approach to starting corrosion control and implementing public education for lead.

Jennifer

From: Bair, Rita

Sent: Wednesday, July 01, 2015 8:32 AM

To: Damato, Nicholas; Crooks, Jennifer; Deltoral, Miguel; Porter, Andrea; Kuefler, Janet; Shoven, Heather

Subject: RE: Flint Discussion

I have been trying to wrap my brain around all the Flint issues and developed the attached summary that I thought I'd share for the meeting. Our objective for the meeting is to discuss the status of Flint, what are all the current issues are, and to all agree on next steps and messaging. If you have other objectives for the meeting please bring those up first thing at the meeting.

<< File: Flint Summary of Issues.docx >>

-----Original Appointment-----

From: Bair, Rita

Sent: Monday, June 29, 2015 12:29 PM

To: Bair, Rita; Damato, Nicholas; Crooks, Jennifer; Del Toral, Miguel; Porter, Andrea; Kuefler, Janet; Shoven, Heather

Subject: Flint Discussion

When: Wednesday, July 01, 2015 9:00 AM-10:00 AM (UTC-06:00) Central Time (US & Canada).

Where: R5Metcalfe-ConfRm-R1515B/R5-Metcalfe---15th-Floor

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To: Pov, Thomas [REDACTED] Bair, Rita [REDACTED] Damato, Nicholas [REDACTED]
Cc: Glowacki, Joanna [REDACTED] Porter, Andrea [REDACTED]
Shoven, Heather [REDACTED]
From: Deltoral, Miguel
Sent: Tue 9/22/2015 12:06:37 PM
Subject: Fw: Pediatrician's blood lead study and City of Flint response. FYI

This is no surprise. lead lines + no treatment = high lead in water = lead poisoned children.

You have a city that has lead lines and no treatment that is collecting pre-flushing which we know can easily miss very high lead levels. We do nothing to stop that.

We have an independent group taking samples that show much higher lead levels and what do people do? They question the VT data, rather than saying anything about the City's data from sampling that we know can miss the lead and on top of that we just found out that the city may have lied on the reporting forms to DEQ in stating that all of the sites they used had lead service lines when they apparently do not have any information that they could possibly have used to make those determinations. To mean that means you have to throw out both rounds of data unless they can provide the supporting documentation. And since they admitted they do not have it, what do we do? Nothing again?

I can't recall what R5 decided on the MI disinvestments, but I very seriously hope that we did not allow MDEQ NOT to issue violations for failure to submit the LCR reporting forms. It is only by way of having these forms from Flint that we became aware that what they reported for each of the monitoring sites is not true. If I am a lawyer, and someone puts down on a form that every site is a lead line site, and they cannot produce a single piece of information that they used to make the determination that they are lead line sites...isn't that false reporting at a minimum? And when all of this results in a town full of lead-poisoned children, doesn't that mean anything to anyone?

Even worse, absent anything from EPA, MDEQ and the City, other than 'they are in full compliance' other folks have to alert the public to the risk. We now have data from yet another independent group that appears to show that the children are in fact, being poisoned.

At every stage of this process, it seems that we spend more time trying to maintain State/local relationships than we do trying to protect the children. I said this from the very beginning and I will say this again...you don't have to drop a bowling ball off of every building in every city to prove that gravity (and science) will work the same way everywhere. It's basic chemistry.

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There is nothing that can be done in the immediate future with respect to treatment that can prevent more children from being further damaged. Someone needs to require that the residents of Flint be provided with water filters until they can fix the treatment.

Sorry for the rant, but I am very upset about this because I told people this was going to be the outcome. I watched this movie before in Washington, DC. and we are heading down the exact same path of denial and delay and meanwhile, the children are being irreparably damaged.

Miguel A. Del Toral
Regulations Manager
U.S. EPA R5 GWDWB



From: Marc Edwards [REDACTED]
Sent: Monday, September 21, 2015 04:49 PM
To: Schock, Michael; Lytle, Darren; Burneson, Eric; [REDACTED] Murphy, Thomas; Shoven, Heather; Deltoral, Miguel
Subject: Pediatrician's blood lead study and City of Flint response. FYI

Pediatrician's from Hurley medical center gave a medical briefing to the mayor, Croft and the City administrator about their blood lead data today.

To summarize what they found, they compared incidence of EBL (> 5 ug/dL) in the time period before and after the switch using their in-house data. Basically repeating my DC Lead study from 2009 methods.

For infants < 15 months, here is what they found.

- 1) Non-flint residents no change (0.5% pre vs. 0.5% post).
- 2) The two zip codes where we found the highest lead in water, EBL rose from 1.5% pre-switch to 4.4% after the switch.
- 3) For the rest of Flint (lower risk zip codes) the EBL incidence rose from 0.6 to 1.1%.

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- 4) For all children less than 5 years old, EBL rose from 2.1% switch to 4.0% post-switch ($p < 0.05$)
- 5) For all children less than 5 years old, EBL rose from 2.5% pre-switch to 6.3% post-switch in the zip codes with highest water lead risk ($p < 0.05$).

The person said I could tell you the following. What follows are her exact words, not mine. I did put the red underline emphasis in there.

"The meeting included the mayor, Croft, city administrator, sen ananich and doctors. The city folks had a meeting this am with DEQ and EPA who gave them a blessing that they were in compliance with everything - they said all the water experts this am said their is no "corrosivity" issue.

We pushed for a health advisory - even something saying "we are in compliance, but we don't know everything, we want to be safe, follow these precautions. "That would enable mobilization of additional resources. They seemed receptive to that. ?? I'm not sure what will happen - mayor is going to dc this week to see EPA? Croft said he has been sharing information with you. they are not blaming the water source, they are blaming sitting water and old pipes....they said population has decreased and more water is sitting."

The pediatrician's information is below. She said you could call her to verbally confirm what was said at the meeting.

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Her cell phone is: Personal Phone / Ex. 6

Mona Hanna-Attisha MD MPH

Director, Pediatric Residency Program

Hurley Children's Hospital at Hurley Medical Center

Assistant Professor, Department of Pediatrics and Human
Development

Michigan State University College of Human Medicine



Date Signed: November 3, 2015



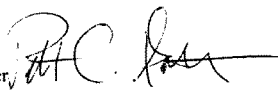
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

SOURCE OF WATER

NOV 03 2015

MEMORANDUM

SUBJECT: Lead and Copper Rule Requirements for Optimal Corrosion Control Treatment for Large Drinking Water Systems

FROM: Peter C. Grevatt, Director
Office of Ground Water and Drinking Water 

TO: EPA Regional Water Division Directors, Regions I-X

This memorandum addresses certain concerns raised about the application of the 1991 Lead and Copper Rule, specifically the requirements pertaining to maintenance of optimal corrosion control treatment, in situations in which a large water system ceases to purchase treated water and switches to a new drinking water source. These concerns have been raised most recently in regard to the drinking water system in Flint, Michigan, where the water system was disconnected from the Detroit Water and Sewerage Department, which provided corrosion control treatment for Lake Huron source waters, and instead began distributing water from the Flint River. This type of situation rarely arises and the language of the LCR does not specifically discuss such circumstances. After reviewing the rule with our Office of General Counsel, it appears that there are differing possible interpretations of the LCR with respect to how the rule's optimal corrosion control treatment procedures apply to this situation, which may have led to some uncertainty with respect to the Flint water system. This memorandum clarifies how the LCR applies to this situation and eliminates the uncertainty for water systems and primacy agencies that may face these circumstances in the future.

It is important for large systems and primacy agencies¹ to take the steps necessary to ensure that appropriate corrosion control treatment is maintained at all times, thus ensuring that public health is protected. This memorandum focuses on those steps and clarifies, on a prospective basis, how EPA interprets the LCR corrosion control requirements and how primacy agencies should apply these requirements to large public water systems before, during and after making a significant change in source water, including switching from purchased water to a new source.

Under the LCR, all large systems (those serving more than 50,000 persons), whether purchasing water or not, must have completed a series of steps to either optimize the corrosion control treatment or be deemed to have optimal corrosion control treatment (OCC¹) by 1998. 40 CFR 141.81. Key steps for

¹ The term "primacy agency" refers to the State, tribe or U.S. Environmental Protection Agency regional office having jurisdiction over, and primary enforcement responsibility for, a given public water system.

optimizing corrosion control include monitoring, corrosion control studies, installation of treatment, follow-up sampling and specification by the primacy agency of water quality parameters (WQPs) for monitoring corrosion control. The LCR requires any large system that has met the OCCT requirements through the installation of corrosion control treatment to continue operating and maintaining the treatment and to continue meeting the WQPs established by the primacy agency. 40 CFR 141.81(b) and 141.82(g). Systems deemed to have OCCT without the installation of corrosion control treatment are not subject to this requirement. However, they are required to notify the primacy agency in writing of any upcoming changes in treatment or source and request that the primacy agency modify its determination of the OCCT and WQPs applicable to the system. The primacy agency must then review and approve the change and designate OCCT and WQPs prior to its implementation by the system. 141.81(b)(3). Similarly, systems subject to reduced monitoring or monitoring waivers must notify the primacy agency of any upcoming changes in treatment or source and the primacy agency must subsequently review and approve it. EPA recommends that systems that are not subject to a notification requirement also notify the primacy agency prior to the addition of a new source or treatment and request the primacy agency to modify its determination of the optimal corrosion control and WQPs applicable to the system.

Due to the unique characteristics of each PWS (e.g., source water, existing treatment processes, distribution system materials) it is critical that public water systems, in conjunction with their primacy agencies and, if necessary, outside technical consultants, evaluate and address potential impacts resulting from treatment and/or source water changes. It is also critical for public water systems to conduct ongoing monitoring to ensure compliance with OCCT prior to, during and after a source or treatment change. The rearrangement of a system's existing configuration may trigger the need for OCCT adjustments and establishment of appropriate WQPs. Primacy agencies should work with systems that plan to disconnect from a supplier that had installed corrosion control treatment to determine the OCCT for the new source and establish WQPs for that treatment instead of using the OCCT and WQPs established for the previous source. This will allow a system that ceases to purchase treated water to stay in compliance with any applicable requirements pertaining to OCCT and ensure protection of public health during and after the change in source. EPA has developed a guidance manual² specifically focusing on evaluation of corrosion control treatment options and optimization of full-scale treatment to assist water systems and primacy agencies with these efforts. EPA is currently preparing an updated version of the manual, which we anticipate will be released in February 2016.

The key to identifying and mitigating potential problems is to ensure effective collaboration between the public water system and the primacy agency. Corrosion control treatment can come in many forms. For this reason, it is important to conduct a system-wide assessment prior to any source water and/or treatment modifications and to identify existing or anticipated water quality, treatment or operational issues that may interfere with or limit the effectiveness of corrosion control treatment optimization or re-optimization.

If you have additional questions or concerns, please contact me or have your staff contact Maria Lopez Carbo, Chief of the Protection Branch, in the Office of Ground Water and Drinking Water, at lopez-carbo.maria@epa.gov.

² U.S. Environmental Protection Agency. *Lead and Copper Rule Guidance Manual, Volume II: Corrosion Control Treatment*. Office of Water. EPA 811-B-92-002. 1992. Available at: http://nepis.epa.gov/Exc/ZipPDF.cgi?Dockey_910191M4.txt.

CITY OF FLINT
OFFICE OF THE EMERGENCY MANAGER



Daraell Earley, ICMA-CM,MPA
Emergency Manager

ELECTRONIC COMMUNICATION

March 7, 2014

Ms. Sue McCormick
Detroit Water and Sewer Department
Detroit, Michigan

RE: DWSD Water Rates

Dear Ms. McCormick:

Thank you for the correspondence dated February 12, 2014 which provides Flint with the option of continuing to purchase water from DWSD following the termination of the current contract as of April 17, 2014.

Following DWSD's April 17, 2013 notice of termination of the water service contract between the City of Flint and DWSD, the City of Flint has actively pursued using the Flint River as a temporary water source while the KWA pipeline is being constructed. We expect that the Flint Water Treatment Plant will be fully operational and capable of treating Flint River water prior to the date of termination. In that case, there will be no need for Flint to continue purchasing water to serve its residents and businesses after April 17, 2014.

We are aware that Genesee County has been in negotiations with DWSD to purchase water from DWSD following the termination of our contract, and we understand that an agreement may be imminent. Should that occur, there would be no further need for the City to discuss with DWSD any continuing purchase of water. Should that not occur, however, we would be interested, if Genesee County were to so request, to purchase water from DWSD for some period of time. In such an event, our demand for water would be only for the amount necessary to provide Genesee County with water. That amount would be approximately half of the amount Flint is currently purchasing from DWSD.

Ms. Sue McCormick
March 7, 2014
Page 2

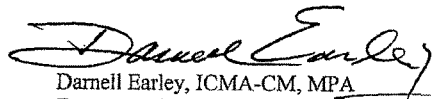
However, in the very unlikely event that the City of Flint is not able to draw water from the Flint River no later than April 17, 2014, then the City would like the option of continuing to purchase water from DWSD for a period of time, up to the time water is available from KWA.

Consequently, I am requesting that you clarify your proposal for the City of Flint to continue purchasing water from DWSD under the following scenarios:

- Flint, upon the request of Genesee County, purchases water for sale to Genesee County for up to 3 years, beginning April 17, 2014, in an amount approximately 50% of the volume currently purchased by the City;
- Flint purchases water from DWSD in approximately the same volume as currently, for up to 3 years, beginning April 17, 2014, with the ability to reduce that volume by up to 50% during that period, upon 30 days notice to DWSD
- Flint purchases water from DWSD in approximately the same volume as currently, for up to 3 years, beginning April 17, 2014, with the ability to reduce that volume by up to 50% during that period, upon 30 days notice to DWSD, and further, to terminate the reduced volume purchase should Genesee County and DWSD reach an agreement whereby Genesee County directly purchases water from DWSD.

Thank you and please contact me if you have any questions. I look forward to your response.

Sincerely,


Darnell Earley, ICMA-CM, MPA
Emergency Manager
City of Flint

NLO ANTOANETA ROUSSE

MONDAY, JAN 25, 2016 07:55 PM EST

It's not just a Flint problem: Other U.S. cities are suffering from toxic water

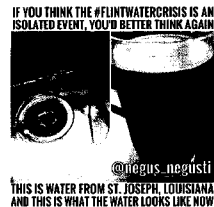
Residents in other cities are turning to social media and petitions to condemn government inaction on toxic water



Louis Singleton receives water filters, bottled water and a test kit from Michigan National Guard Specialist Joe Weaver as clean water supplies are distributed to residents, Thursday, Jan. 21, 2016 in Flint, Mich. The National Guard, state employees, local authorities and volunteers have been distributing lead tests, filters and bottled water during the city's drinking water crisis. (AP Photo/Paul Sancya)(Credit: AP)

In the wake of the Flint, Michigan water crisis, residents in other U.S. cities are following suit by turning to social media to condemn government inaction on toxic drinking water and call for federal help.

A photo of what appears to be polluted water surfaced on Twitter over the weekend showing brown-colored running water coming from a tap in Louisiana. The caption reads "If you think the #flintwatercrisis was an isolated event, you'd better think again. This is water from St. Joseph, Louisiana."



Flint residents filed a class-action lawsuit against Michigan Gov. Rick Snyder in November for failing to add an anti-corrosive agent to the city's water, which consequently eroded pipes and let lead seep into the flow. When found in excessive levels in children, lead is a toxin that can lead to long-term neurological damage.

Chris Sellers, a professor of history at Stony Brook University, wrote on [The Conversation](#) that “the physical conditions that have made it literally toxic for Flint residents are neither as exceptional nor as recent as much of the media coverage suggests.”

Sellers said that the Flint case is not isolated, noting that an estimated six million miles of lead pipes across the country carry water to homes that are highly likely poisoning residents.

In a 2011 [National Resources Defense Council study](#), 19 cities were found with pollution and deteriorating plumbing. These included: Albuquerque, Denver, Phoenix, San Diego and Fresno. It was also reported that while some cities did a good job of filing right-to-know reports, others published information that was incomplete, misleading, or buried deep in reports. Moreover, nearly all the cities in the study failed to report on the health effects of contaminants found in the water to their residents.

The Safe Drinking Water Act, enacted in 1986, required the Environmental Protection Agency to set standards for the concentration of lead in public pipes, with a push for “lead-free.” This stirred the country on a road towards replacing old water pipes with PVC, as an eco-friendly alternative. However, many poorer municipalities, like St. Joseph, instead turned to anti-corrosive agents as a cheaper and faster solution.

Last week it was reported that 60% of Flint’s population was African-American, prompting discussions about whether officials would have acted quicker if the city was comprised of white, wealthy residents. The New York Times questioned if the scandal was linked to [environmental racism](#).

Likewise, the town of St. Joseph, located in northeastern Louisiana, is 77% African-American and 20% white, according to [Surbubansstats](#). Here again a large percentage of residents, 40%, live below the poverty line.

Initially residents had either become complacent or lost faith in the city officials representing them, however with the recent media attention on Flint, a new movement has been generated and a [petition](#) has been launched with over 2,400 signatures as of Monday, asking President Obama to declare a federal emergency in St. Joseph and send resources to repair the town’s water infrastructure.

Residents from the small Louisiana town have seen the color of their water change from a pale yellow, to murky brown in recent days. Rosine Bouobde, a resident from St. Joseph, told [knoe.com](#) this has been going on for years.

Bouobde said that the toll of consistently buying bottled water is a burden on the residents of St. Joseph.

“You have to keep in mind that this is a community where a lot of people live in the poverty guideline. They actually have to allocate their revenue to purchase water that is truly not fair is it,” she told [knoe.com](#).

In his piece for [The Conversation](#), Sellers wrote that the best solution for protecting the nation’s water would be to replace lead lines systematically and proactively, “not just one crisis-beset city at a time.

RESPONSES TO QUESTIONS FOR THE RECORD

Hearing on “Examining Federal Administration of the Safe
Drinking Water Act in Flint, Michigan, Part 2”

March 15, 2016

Responses to Questions from Ranking Member Elijah E. Cummings
Committee on Oversight and Government Reform
U.S. House of Representatives

Darnell Earley, Former Emergency Manager, City of Flint, Michigan

1. Several Members of this Committee continue to allege that my participation in these proceedings, and my desire to assist the Committee in uncovering the truth behind the Flint water crisis, have been hollow at best. I deny these assertions, and I deny the allegations from Rep. Cummings that I have provided the Committee with conflicting statements in my sworn testimony and written correspondence.

On January 29, 2016, the Committee invited me by letter to testify in Washington, D.C., at its February 3 hearing. The Committee could have legally required my presence at that hearing by issuing a subpoena, but it did not. I live and work in Michigan and had only just retained legal counsel. Thus, I politely declined this invitation verbally on February 1, and my attorney additionally declined on my behalf in an email sent at 2:18 pm on February 2.

Notwithstanding, my attorney and I had ongoing discussions about the Committee’s January 29 invitation, the potentiality of a subpoena being issued for February 3, and the February 2 subpoena that was subsequently issued. To be sure, this has already been clarified in my March 18, 2016, correspondence. That clarification, despite your accusations that I am either perpetrating or concealing a fraud upon the Committee, in no way contradicts my sworn testimony given at the March 15 hearing, that I “did not discuss the subpoena in terms of not coming to *this* hearing.” (emphasis added).

But my attorney’s refusal of service of the February 2 subpoena had little, if anything to do with the contents of our conversations. Indeed, that subpoena was issued to me – not to my attorney. Second, I was never properly served with the February 2 subpoena. Third, neither my attorney, nor I, had any obligation to accept the service of a subpoena – issued slightly over 24 hours before the return date – that was unreasonable, completely unenforceable, and physically impossible for me to honor. Nonetheless, the subpoena was issued only hours before the Committee expected me to provide a complete, in-person, sworn testimony in Washington, D.C., at 9:00 am the following morning. To believe otherwise, raises serious questions regarding the Committee’s credibility and good faith efforts in seeking my presence at the first hearing.

Furthermore, had my attorney accepted service, doing so would not have even required my consultation, as the Committee staff merely requested whether he would accept service via email. Moreover, acceptance would have legally required me to appear the

next day in Washington--a physical impossibility. It was too late in the day on February 2 to reasonably expect that I would be able to travel from Michigan to Washington, D.C. during such a short time frame. Indeed, rather than seek to enforce that subpoena, the Committee merely issued a new one for a later, more reasonable date.

It is worth noting that I accepted service of the second subpoena, apart from the subpoena in question, in my Detroit office on February 4. This subpoena corresponded to a Congressional deposition, to be held on February 25. I fully intended to comply and cooperate with the Committee's order for my appearance. I immediately secured air travel and solidified the transportation logistics for my trip to Washington to give my deposition. As you know, that deposition was canceled, leaving me responsible for the cost of unused airfare. These subsequent actions demonstrate my resolve to appear before the Committee as a fully prepared witness, but more importantly, to ensure that the facts in this matter were made a part of the record.

For whatever reason, the circumstances surrounding my appearance before the Committee seem to be at the forefront of its investigation--this continues to serve no purpose. I appeared and testified fully and truthfully on March 15. Any additional inquiry into this topic would seem to miss the substantive issues regarding the Flint water crisis.

Lastly on this point, while the Committee boldly concludes that "[I] may not subsequently assert the attorney-client privilege to perpetrate or conceal a previous falsehood made in [my] sworn testimony," it ignores the fact that I invoked the privilege *at* the March 15 hearing *as well as* in my March 18 clarification. My testimony and clarification are entirely consistent -- I have perpetrated no falsehoods here.

Rep. Cummings' specific questions and my responses are as follows:

- a. **Did you discuss with your attorney the possibility of refusing to accept service of the Committee's subpoena to testify at the hearing on March 15, 2016?**

Without waiving the attorney client privilege--No.

- b. **If so, what was said during those discussions? Did your attorney propose refusing service of the Committee's subpoena or did you?**

N/A.

- c. **Did you discuss with the Governor or any of his staff how you should respond to the Committee's subpoena.**

No. I only had one discussion with the Governor and his staff concerning my appearance before the Committee. That discussion occurred on the afternoon of Monday, February 1, 2016, and concerned the Committee's invitation for me to testify at the February 3 hearing.

To be sure, when I spoke with the Governor and his staff on February 1, no subpoena had yet been issued to compel my appearance before the Committee. The first notice from the

Committee that a subpoena for my appearance had been authorized was sent to my attorney at 4:46 pm on February 2, 2016. To reiterate, I only had one discussion with the Governor and his staff – I did not have any additional discussions after notice of the subpoena had been transmitted.

- d. **If so, what was said during those discussions, and by whom?**

N/A.

- e. **Did the Governor or any of his staff at any time encourage you to comply with the Committee's subpoena?**

No. This question has been addressed in my response to Question 1(c).

2. My responses to Rep. Cummings' specific questions regarding my correspondence with the Detroit Water and Sewerage Department ("DWSD") and my communications with Flint Water Plant employees are as follows:

- a. **Why did you reject Detroit Water's offer for Flint to continue using Detroit Water as Flint's source for drinking water?**

This question has been addressed. I refer you to pages 4-5 of my written testimony, reprinted here for your convenience:

Between October 2013 and April 2014, the suggestion of renewing a long-term deal with DWSD was raised and carefully reviewed. In my correspondence with DWSD Director Sue McCormick, dated March 7, 2014, I informed her that, following DWSD's notice of termination in April 2013, the City had already fully committed to using the Flint River as an interim source until the KWA could be constructed. (Attachment 4 – "Letter from Darnell Earley to DWSD Director Sue McCormick"). I reminded her that we expected the Flint Water Treatment Plant to be fully operational and capable of treating the river water by April 2014, but reserved interest in negotiating an interim contract should our plans encounter significant delays. We of course ended up not requiring such an interim arrangement, but the reality of the situation was that, at that moment, entering into another full time, long term contract with DWSD was financially impossible – the City had already invested millions of dollars into the KWA arrangement and simply did not have the money in its coffers for such a deal, nor could the state allocate sufficient support.

Ms. McCormick's February 2014 letter proposed to supply water at premium rates under another long-term contract. For a community already paying some of the highest water rates in the country, the proposed terms were financially unsustainable and impossible.

- b. **Did you ask the Flint water employees if they felt ready to operate the plant before it was brought online? If so, who did you speak to, and what was the content of your conversation?**

Yes. Prior to the water source switch from DWSD to the Flint River, I met regularly with Flint's Director of Public Works, Howard Croft. I additionally participated in a meeting with Croft, the Genesee County Drain Commissioner Jeff Wright, and Utilities Administrator Daugherty Johnson. At that meeting I was assured that all plant preparations were proceeding according to schedule. These were the only individuals I recall directly communicating with regarding the plant's capabilities.

Closer to the scheduled switch date, Croft and Johnson expressed to me that issues with installing the plant's purification systems would result in a slight operational delay. Once I was assured that these issues were resolved, the City made the switch to the Flint River.

- c. **Did you ever ask Flint Water Plant employees if they had any concerns with the operation of the plant or the quality of the water? If so, who did you speak to, and what was the content of your conversation?**

Yes. In none of my conversations with Director of Public Works Howard Croft or any other Flint employee were concerns brought to my attention regarding either the plant's capabilities or the Flint River's safety as a drinking water source. Nor did any local, state or federal officials ever express any concern of insufficiencies to me about the plant or the use of the Flint River. At all times, Croft informed that the Flint River water could and would be treated to meet MDEQ and EPA safe drinking water standards.

Questions for Dr. Marc Edwards
Charles P. Lunsford Professor
Virginia Polytechnic Institute and State University

Questions from Representative Brenda L. Lawrence
Committee on Oversight and Government Reform

March 15, 2016, Hearing: "Examining Federal Administration of the Safe Drinking Water Act
in Flint, Michigan, Part II"

1. Dr. Edwards, as you know, just an hour away from Flint – Lansing, Michigan has replaced 13,000 lead service lines. Are they doing it in a way that is safe for residents and could it be a model for the rest of the nation to follow?"

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Home (<http://flintwaterstudy.org/>) ▶ Lead-Safe Drinking Water Action Plans Proposed for Michigan and the U.S. in 2005: Derailed by "scientifically indefensible"

Lead-Safe Drinking Water Action Plans Proposed for Michigan and the U.S. in 2005: Derailed by "scientifically indefensible" U.S. Centers for Disease Control Report

© October 22, 2015 (<http://flintwaterstudy.org/2015/10/lead-safe-water-action-plan-michigan-us-2005-derailed-scientifically-indefensible-of-cdc-report/>)  Siddhartha Roy (<http://flintwaterstudy.org/author/flintwaterstudy/>)  Articles (<http://flintwaterstudy.org/category/articles/>)

In 2004, FLINTWATERSTUDY's Dr. Marc Edwards was asked by (then MI State Senator) Virg Bernero to assist on a lead in-water problem in Lansing, MI. The city's water utility had been caught cheating on their Lead and Copper Rule monitoring requirements by manipulating the sampling (<http://www.washingtonpost.com/wp-dyn/articles/A7094-2004Oct4.html>) – their failing lead in-water report grade was changed into a passing grade. Sound familiar? (<http://flintwaterstudy.org/2015/09/commentary-mdcq-mistakes-deception-flint-water-crisis/>)

Incredibly, at the time, there was heated debate about whether elevated lead in water posed any health concern to children whatsoever. When confronted with decades of peer reviewed articles demonstrating that lead in water exposures could cause lead poisoning, especially amongst infants less than 1 year old, Michigan health officials repeatedly cited new research by the U.S. Centers for Disease Control (CDC) that indicated there was nothing to worry about.

The CDC had concluded that exposure to astronomical levels of lead in Washington D.C. drinking water, (https://en.wikipedia.org/wiki/Lead_contamination_in_Washington,_D.C._drinking_water) did not elevate the blood lead of any children over CDC levels of concern: even in the "worst case" exposures (<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5312a6.htm>). It took 6 years of volunteer work by scientists (<http://www.washingtonpost.com/wp-dyn/content/article/2010/05/22/A82010052203447.html>), D.C. citizens (<http://dcwasawatch.blogspot.com/>) and a bi partisan Congressional investigation

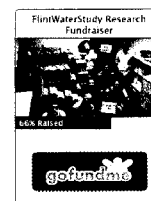
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FUNDRAISING CAMPAIGN TO BUY LEAD FILTERS FOR FLINT RESIDENTS

We thank the 48 generous contributors who helped raise \$4,345 through our SafeWaterFlint fundraising campaign. The funds have been donated to the United Way of Genesee County (<http://www.unitedwaygenesee.org/en/so/m/15061-3848-51>) who are spearheading filter

Lead-Safe Drinking Water Action Plans Proposed for Michigan and the U.S. in 2005: Derailed by “scientific... Page 2 of 6

to reveal that this 2004 CDC report was “scientifically indefensible.” (<http://www.washingtonpost.com/wp-dyn/content/article/2010/05/19/AR2010051902599.html>)

To Bernero's credit, he refused to rely on the flawed CDC study, and did not back down (<http://flintwaterstudy.org/2015/10/lead-safe-water-action-plan-michigan-us-2005-derailed-scientifically-indefensible-cdc-report/#virg>) even when he was accused of creating a “lead scare.” After studying the problem thoroughly, he wrote:

I am today calling on our state and local public health officials, water utilities and state environmental regulators to cease and desist from their ongoing attempts to trivialize the importance of lead in drinking water as a possible source of lead poisoning in children. This nation's scientific community long ago reached the conclusion that lead is a zero tolerance poison and that all sources of lead must be considered as a threat to the health of our children. ... When it comes to the health of our children, we cannot afford to wait. We cannot afford to accept the baseless conclusions and bland assurances of those who refuse to accept, for whatever reason, that we need to be concerned about the presence of lead in drinking water. We must not delay. We must act now.

Today Lansing has become a national success story—they have fully replaced 15,500 of 17,000 lead service lines, and they have a firm plan to replace them all. However, the opportunity to learn anything from the tragedy in Washington DC, and prevent harm to children throughout the U.S. (<https://norton.house.gov/media-center/press-releases/june-29-2005-jeffords-sarbanes-norton-waxman-introduce-lead-free>), never really took root anywhere else. Reasonably intelligent people can be forgiven for having trusted the CDC in 2004. Now that we have once again learned (<https://mitpress.mit.edu/books/great-lead-water-pipe-disaster>) that elevated lead in water can cause elevated blood lead in children (<http://www.usatoday.com/story/news/nation-now/2015/10/11/flint-water-doctor/73777352/>) and adverse pregnancy outcomes (<http://pubs.acs.org/doi/abs/10.1021/es4034952>), it is time to take the health threat from lead in water seriously and extend the Lansing model to the rest of the U.S.

The key elements of the proposed 2005 Michigan lead action plan were as follows:

distribution in Flint. You can donate directly to United Way on their [donation page here](http://www.unitedwaygeneseo.org/civicrm/contribute-1&id=3) (<http://www.unitedwaygeneseo.org/civicrm/contribute-1&id=3>).

INFORMING FLINT RESIDENTS ABOUT LEAD IN THEIR WATER

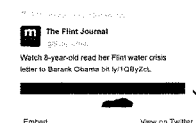
All Flint residents who returned their lead kits will receive their results via regular mail. You will also receive [this document on how to interpret your lead results](http://flintwaterstudy.org/wp-content/uploads/2015/08/interpretation.pdf) (<http://flintwaterstudy.org/wp-content/uploads/2015/08/interpretation.pdf>). For the 277 lead kits analyzed to far, we have finished calling residents who had considerably high lead in their water.

FLINTWATERINFO.COM



OUR TWITTER FEED

Tweets by @flintwaterstudy



JOIN OUR EMAIL LISTSERV

If you wish to receive email updates from us, please join [our listserv](https://groups.google.com/group/flintwaters) (<https://groups.google.com/group/flintwaters>)

If you do not see our Twitter feed and Facebook links above, please consider changing your browser to Google Chrome or Microsoft Edge for an improved experience.

Department of Environmental Quality

- Take immediate action to identify all communities in Michigan where lead service lines are still in use.
- Issue a water quality advisory to all such identified communities urging them to conduct profile tests as soon as practicable to determine if their lead service lines are leaching lead into drinking water at hazardous levels.

Department of Community Health

- Immediately review and revise the protocols for testing the tap water in homes where lead-burdened children have been identified.

Michigan Legislature

- Take prompt action on legislation to adopt new standards for lead testing of household tap water and require annual notification to all residents of homes where a lead service line is present.

U.S. Congress

- Require the U.S. Environmental Protection Agency to expedite the revision of the Lead and Copper Rule to strengthen federal safe drinking water standards to protect the public from the hazards of lead-contaminated drinking water.
- Make additional funds available to the states to assist local communities in expediting the removal of lead service lines.

The key elements of the JEFFORDS, SARBANES, NORTON & WAXMAN LEAD-FREE DRINKING WATER ACT (2005) would have:

- Required the EPA to revise the national primary drinking water regulations for lead in drinking water to ensure protection of vulnerable populations such as infants, children, pregnant women, and breast-feeding mothers;
- Required better notification for residents when a water system has high lead levels;
- Required increased water testing and lead remediation in schools and day-care centers nationwide;
- Provided more federal funding to upgrade water distribution systems;
- Banned plumbing components with elevated lead levels.

Because we have been getting a lot of questions about the DC Lead Crisis and CDC's lead in water work, we are also providing links to the complete [2010 Congressional Report "A PUBLIC HEALTH TRAGEDY: HOW FLAWED CDC DATA AND FAULTY ASSUMPTIONS ENDANGERED CHILDREN'S HEALTH"](#) (<http://flintwaterstudy.org/2015/10/lead-safe-water-action-plan-michigan-us-2005-derailed-scientifically-indefensible-cdc-report/#report>) as well as Dr. Edwards written testimony at the 2010 Congressional hearing (<http://flintwaterstudy.org/2015/10/lead-safe-water-action-plan-michigan-us-2005-derailed-scientifically-indefensible-cdc-report/#testimony>). We also make readers aware of the sacrifices made by several heroic whistleblowers who tried to alert the public to high lead in drinking water (<https://www.youtube.com/watch?v=apZynV7lfc>), activists who ran afoul of the CDC (<http://www.washingtonpost.com/wp-dyn/content/article/2010/05/26/AR2010052604841.html>), and several DC citizens who labored for years (in vain) to hold government agencies accountable for the harm that was done to D.C.'s children. (<http://dcwasawatch.blogspot.com/>)

Lead in the Water: If We Don't Know, Can It Still Hurt Us?**By State Senator Virg Bernero**

I've always had a lot of respect for Dave Thompson, one of Michigan's foremost environmentalists and current policy adviser to the Michigan Environmental Council. But after reading his recent column concerning Lansing's lead problem, I have to wonder if he's been drinking water from a lead pipe.

It's not that his call for more attention to lead-based paint as a major source of childhood lead poisoning is off base. As he correctly points out, we've known for a long time that lead paint is a problem, particularly in older neighborhoods in cities like Lansing. And I agree that testing a mere 5% of Ingham County's children under age 6 for lead poisoning is insufficient. He's absolutely right, we have to do better.

That's why Governor (again) last year convened a statewide childhood lead poisoning task force and why the Michigan Legislature is moving a comprehensive package of bills designed to ramp up screening for lead-poisoned children, clean up homes that still have lead-based paint, and hold landlords accountable for repeatedly renting properties with known lead hazards.

What disturbs me most is Bernero's unquestioning, uncritical and out-of-character acceptance of the sweeping assurances offered by the Board of Water and Light and, regrettably, the Ingham County Health Department that lead levels in Lansing's drinking water remain and threaten are negligible hazards. More public debate, transparency, honest facts, rigorous testing...

[Download \(PDF, 219KB\) \(http://flintwaterstudy.org/wp-content/uploads/2015/10/Lansing-debate-Virg-final.pdf\)](http://flintwaterstudy.org/wp-content/uploads/2015/10/Lansing-debate-Virg-final.pdf)

2010 Congressional Report: A Public Health Tragedy: How Flawed CDC Data and Faulty Assumptions endangered children's health in the nation's capital

A PUBLIC HEALTH TRAGEDY: HOW FLAWED CDC DATA AND FAULTY ASSUMPTIONS ENDANGERED CHILDREN'S HEALTH IN THE NATION'S CAPITAL

[Download \(PDF, 930KB\) \(http://flintwaterstudy.org/wp-content/uploads/2015/10/House-report-lead-in-water-2010-CDC-public-health-tragedy-small.pdf\)](http://flintwaterstudy.org/wp-content/uploads/2015/10/House-report-lead-in-water-2010-CDC-public-health-tragedy-small.pdf)

2010 Testimony of Marc Edwards, PhD to the US House of Representatives Committee on Science and Technology, 111th Congress



The Charles Edwards Via Jr. Department of
Civil and Environmental Engineering

May 17, 2016

Testimony of Marc Edwards, PhD before the
U.S. House of Representatives Committee on Science and Technology, 113th Congress
Preventing Harm: Protecting Health, Recovery, and Environmental Public Health Protection

EXPERIENCES AND OBSERVATIONS FROM THE 2001-2004 "DE LEAD CRISIS" INTRODUCTION

I am the Charles L. Underd Professor of Civil and Environmental Engineering at Virginia Tech where I conduct research at the interface of basic science, public health, consumer control and environmental engineering. I have published over 100 peer-reviewed journal articles, made hundreds of technical presentations, and have been recognized with numerous awards including a Presidential Faculty Fellowship from the White House/National Science Foundation (1999) and a MacArthur Fellowship (2008). *Time* magazine named me amongst the 4 most important "innovators" in water from around the world (2004) and just this year Villanova University awarded me the Praxis Award in Professional Ethics.

My undergraduate training in the basic/medical sciences (BS in Bio-Physics), my graduate degree in Environmental Engineering (MS/PhD), and my experiences with the Centers for Disease Control and Prevention (CDC) from 2005 to the present make me highly qualified to discuss how complex of this situation is, whether health is affected. I have conducted on the science of

[Download \(PDF, 664KB\) \(http://flintwaterstudy.org/wp-content/uploads/2015/10/Final-Version-Marc-Edwards-Testimony-to-House-May-17-2016.pdf\)](http://flintwaterstudy.org/wp-content/uploads/2015/10/Final-Version-Marc-Edwards-Testimony-to-House-May-17-2016.pdf)

Primary Author: Dr. Marc Edwards

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February 1, 2016
By "Marc Edwards"

Guide to FlintWaterStudy.org
(<http://flintwaterstudy.org/2016/01/to-flintwaterstudy-org/>)
January 15, 2016
By "Marc Edwards"

Some Common Misunderstandings of Flint's Lead in Water Problem
(<http://flintwaterstudy.org/2015/11/common-misunderstandings-of-flints-water-lead-problem/>)
November 28, 2015
By "Marc Edwards"

Sen. Minority Leader Jim Ananich's Letter to EPA HQ and Region 5: EPA Review Needed on Flint, Michigan Water Treatment (<http://flintwaterstudy.org/2015/10/sen-minority-leader-jim-ananichs-letter-to-epa-hq-and-region-5-epa-review-needed-on-flint-michigan-water-treatment/>)

Would you sign this waiver that Leanne Walters refused to sign?
(<http://flintwaterstudy.org/2015/11/would-you-sign-this-waiver-leanne-walters-refused-sign/>)