

Flint WTP

- $\rightarrow$ If use Flint River
regardless of amount - LT2 Impacts
Change Treatment Requirements
 - Chem Storage Exp. \$2.1 M
 - CO₂, LOX, High N
 - UV Disinfect + C+T \$7.0 M
 - Add'l backup power need capital + O+M
 - Add'l O+M @ WTP
 - Zebra Mussel \$0.3 M
 - Higher Demand (River)
 - Softening
 - Lime Sludge Disposal \$15.1
- Total
- \$50 Million Capital
 - $\rightarrow$ 40 M req vs. 10 recommend

AAR Mtg

11/5/2015

- Timeline Review by today?

EPA - ① Feb

② May/June

Rule is ambiguous
50,000+

③ Test + # of samples

④ Disruption Issue

⑤ New Guidance from EPA
DEQ Policy?

- Perfection of Messaging & going forward
- May vs. Oct

~~WTP~~

NPR / Jim Interview

- Sample Disgarded

- Cont by City on Tier 1

- LCR not reflective of exposure
WTP + WDR operation

- Ed. Info City → Residents

Residential Drinking Water Sampling Protocol
Agenda
November 5, 2015

1. Introductions
2. Overview of EBL investigations and case management (HHS)
3. Overview of water sampling protocols (DEQ)
4. Discussion
5. Logistics
 - a. Sampling supplies
 - b. Handling and packing for transport to the lab
 - c. Results reporting

Flow/coordination of EBL cases

- ✓ MDHHS (Bob Scott) will send an updated list of EBL children in Flint weekly
- ✓ GCHD (Sherry) will review list and assign EBL cases to CM *← case manager*
- ✓ Sherry will send contact information via email to MDHHS-Courtney
- ✓ MDHHS-Courtney will review and send to ETC (EBL Environmental Investigator (EI) Contractor) and an EI will be assigned to the case.
- ✓ GCHD CM will contact family to determine available scheduling dates/times.
 - CM will discuss how the family must prepare for the site visit, including the water sampling prep using following three step process to collect water samples:
 - ✓ a. Scheduler will attempt to ensure water is not used for at least six hours prior to Contractor arrival in order to collect first draw water samples. The Contractor will send the family instructions on water use prior to the visit.
 - ✓ b. If this step is unachievable, Contractor will ask family not to use the water during the site visit and will stay at the unit for a minimum of six hours and collect the first draw water sample at that time.
 - ✓ c. If this step is unachievable, Contractor will schedule a return visit for early morning time to collect the first draw water samples.
- ✓ GCHD CM will contact John DeFabio at ETC 800-864-3236 and coordinate schedules to attend the initial site visit together.
- **On-site:**
 - ✓ ○ The EI will draw water samples first thing to allow for family to use water thereafter.
 - The EI will conduct the Occupant Questionnaire
 - The EI will begin investigation, while
 - The CM provides case-management services to the family, including the presentation of the lead dust cleaning kit and associated education. If a HEPA vac is available through the EI, the CM will teach the family how to use the vac safely. Hopefully, this can be done while the EI is conducting the investigation and the vac can be taken back with them to alleviate pick up.
 - When the CM has completed the visit, she will leave the site. The EI will continue the investigation until complete. The CM will explain the procedure to the family prior to the first visit.
 - The EI will screen the family for eligibility into the MDHHS-Lead Safe Home Program (LSHP) for abatement of lead-based paint hazards (I have attached our LSHP application packet with eligibility requirements listed on the flier).
 1. If the family appears eligible for the LSHP, the application will be submitted to Courtney for processing.
 2. If the family is enrolled in the LSHP, Courtney will notify Sherry/CM via email.
 3. For the families that do not qualify for the LSHP, referral to other resources will be provided, if available.
 - The EBL Environmental Investigation is not reimbursed by Medicaid, therefore, MDHHS or ETC will not bill Medicaid for any services.

DHHS Mtg.

11/5/2015

Funding for Staff

- Nursery Staff @ GCHD
- Contract for Env. Sampling
including water sampling

Investigation Certification

Soil / Dust / Paint

Cosmetics / Dishes / other consumer goods

5 staff @ DHHS

ETC is certified contractor

signed contract

4-5 staff

GCHD Nursery Health Care Case Mgmts

try to do health care Env. Invest. at same time
ETC to collect water samples

see draft flow chart

Investigator to GCHD

- Historic City LCR sampling
- Home Plumbing Info $\rightarrow$ materials + leaks, grounding
- Service Line Information
- Multi Family Resident Housing

$$75' \ 3/4" \quad \left(\frac{0.75}{12}\right)^2 \times 0.785 \times 75 \times 7.48 = 1.72 \text{ gal}$$

$$60' \ 1/2" \text{ Plumbing} \quad \left(\frac{0.5}{12}\right)^2 \times 0.785 \times 60 \times 7.48 = \underline{0.62 \text{ gal}}$$

10 L = 2.65 gallons

2.34

$$2.65 - 2.34 = 0.31 / 7.48 / 1.785 / 0.004$$

13.2 ft.

DHHS $\rightarrow$ Email History

HPPA Key for Lab Analysis

Coordinated Message on Results

- DHHS Exposure
- LCR - 15 ppb

Purpose of monitoring is to identify source
& reduce exposure

EPA Task Force Call

11/3/2015
4:00

- MDEQ Construction Permit - No Amendments
- MDEQ CCT operation letter

Sampling that would include more than Pb/Cu
for diagnostic other metals

ok @ EPA lab but not used
for compliance

Mtg w/ Kildee

10/21 letter from Kildee to EPA

1st session 2/2015 - 10/2015 timeline
2nd w/ Task Force

(Future Public Document)

- Task Force Mtg. in Rep. Kildee's ~~the~~ office

- Sampling Events @ schools

- DHAS release data at same time

data sorting issues down by this week

- Custom Sampler

- 3 Elementary Schools sequential 12:30h & 1h

- Diagnostic Monitoring

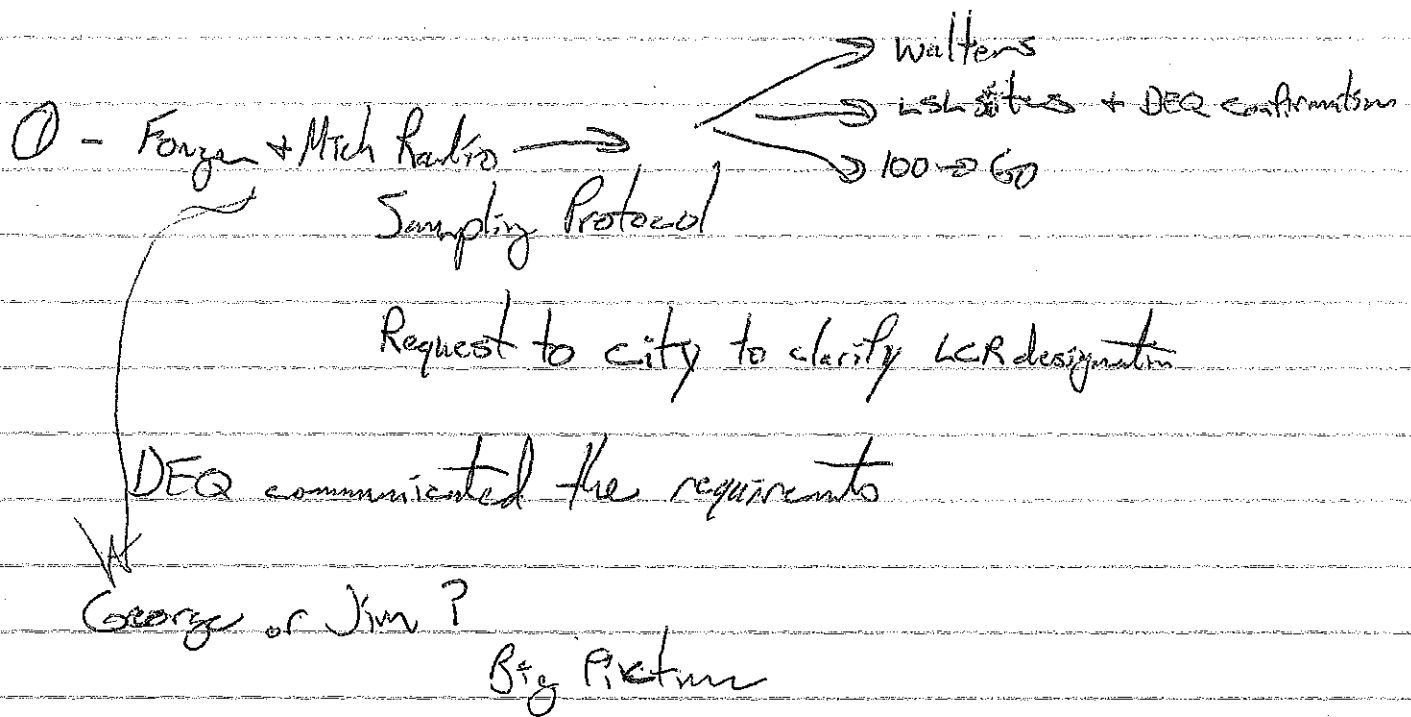
-
-

- TAC Monitoring

Dir. Conf. Rm
9:40 AM

11/2/2015

Flint Update Mtg.



Packman Test Results

Freeborn 31 sites done

↳ 3 site 10-16

Eisenbaum

Brownell

- ① Sygo-MPR
 - ② LSL Tier 1 verify
 - ③ Email to city on timelines ^{PM} status
 - ④ LCR Changes Elements?
 - ⑤ Test Results
- 30 min
- Action Steps / wk
- Daycare
- Home sampling / DPHS

Action Steps

- Contact DHAHS on status of Lead Ed. Materials
- Call to city
- Email from LDO
 timelime + status for install
 Tues, PM

Not on list - Chlorine Residual Data → email to Hand on
 from TCR sites
 Plant

- MOR on standby operation
 ↳ letter
- DHAHS → get LSH spreadsheet
- Draft Residential monitoring to HHS

10/30
10-27-2015

- General Lead Education Outreach Status
 - Childhood Pb Prev. Program
 - Letter through schools + daycare (Flint specific)

DHHS Draft Communication Plan

EBL Investigation

Landlord Liability Act

- where poisoning in child occurs
- abatement

- EBL ^{investigation} meeting w/ water supplier

Followup Sampling Mtg.

11:00
10/26/2015

- Sample Observations

Suggestion ~~5th sample?~~

≈ 10 sec for 125 mL?



→ use 1-2 sites? for Litv sample

ideal groups 2-3

2 teams or 3 for each school w/ 1 coordinator

(5) (7)

Data Evaluation

label bottles 1-4 for each site

Tony

Lo Eisenberg

Lo.

Joe

Aidy

+3-117

9:30
10/30/2015

Mtg. w/ DLARA

Joe has layouts for 3 schools
rooms only

- Current Draft - GCHD taking samples (not currently case) of protocol
- DLARA check w/ architect on plumbing plans
- All maintenance is contract
 - school plumber

Freeman is 1st

Hope to get all 3 schools done
2-3 hours each

Naming + Labeling + Sequencing Plan

Take picture of each

- Label, Tape, Perm. Marker

- Ladders Available

- Lead Solder Kits to test

- Hanes

- 3 categories of fountains

Timing for schools?

City of Flint Water Action Steps for Week of October 19-23

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
1.	Update 2004 letter to EPA	DEQ	Dana DeBruyn	<i>to be done following AAR</i>
2.	Schedule Flint Water Treatment Plant tour	DEQ and Flint	George Krisztian	To be scheduled for week of 10/19/15; waiting on confirmation from Flint
3.	Figure out number of samples from schools and child care facilities	DEQ	Jim Sygo Pat Cook Steve Busch	
4.	Conduct After Action Plan	DEQ	George Krisztian	Initial meeting to be scheduled for week of 10/19/15
5.	Introduce legislative changes to Part 54 of NREPA – Drinking Water Revolving Loan Fund	DEQ, Treasury, and EPA	Maggie Pallone George Krisztian Sonya Butler	
6.	After Action Review Panel	DEQ	Madhu Anderson George Krisztian Karen Tommasulo	
7.	Staff hiring plan	DEQ	<u>Jim Sygo</u> Maggie Pallone George Krisztian	
8.	\$1 million for DEQ Laboratory billing code	DEQ	Maggie Pallone George Krisztian	
9.	Finalize fiscal year 2017 budget request	DEQ	Maggie Pallone George Krisztian	

Completed.

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
10.	Develop letter to schools	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	
11.	Finalize sampling protocol	DEQ	Jim Sygo Steve Busch <u>Pat Cook</u> Mike Prysby	
12.	Confirm school sampling logistics <i>George</i>	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	
13.	Meeting(s) with school staff/management <i>w/other 10</i> <i>Karen T</i>	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	
14.	Complete Non-Transient Non-Community Water Supply letter	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	
15.	Meet with DHHS and discuss all lead education material for schools	DEQ and DHHS	<u>Jim Sygo</u> Steve Busch Pat Cook Mike Prysby	<i>w/26</i>
16.	ODWMA staff observe a DLARA plumbing assessment	DEQ and DLARA	<u>Jim Sygo</u> <u>Steve Busch</u> Pat Cook Mike Prysby	

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
17.	Develop sample form and chain of custody document <i>Lab</i>	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	
18.	Provide Director Wyant with revised Part 54 language <i>Sonya</i>	DEQ	Jim Sygo Steve Busch Pat Cook Mike Prysby	
19.	Review corrosion control treatment plan and get any EPA comments	DEQ and EPA	Jim Sygo Steve Busch Pat Cook <u>Mike Prysby</u>	
20.	Review construction permit application and issue construction permit for phosphate equipment <i>Mike</i>	DEQ	Jim Sygo Steve Busch Pat Cook <u>Mike Prysby</u>	
21.	Review Standby Operation of Flint Water Treatment Plant with city of Flint <i>→</i>	DEQ and Flint	Jim Sygo Steve Busch Pat Cook <u>Mike Prysby</u>	
22.	Provide city of Flint updated monitoring schedule based on Detroit Water and Sewerage Department (DWSD)/Great Lakes Water Authority (GLWA) service	DEQ and Flint	Jim Sygo Steve Busch Pat Cook Mike Prysby <i>Adam</i>	
<i>23 is done as of 10/16</i> X 23.	Contact city of Flint and Genesee County daily for DWSD connection status updates	DEQ, Flint, and Genesee County	Jim Sygo Steve Busch Pat Cook Mike Prysby	

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
24.	Work with Karegnondi Water Authority (KWA) and other agencies to address bottleneck issues	DEQ and KWA	Jim Sygo Steve Busch Pat Cook <u>Mike Prysby</u>	
25.	Verify city of Flint distribution operations under DWSD/GLWA service	DEQ	Jim Sygo Steve Busch Pat Cook <u>Mike Prysby</u>	
26.	Contact city of Flint for Service Line Record status update and obtain a copy of the records to date	DEQ and Flint	Jim Sygo <u>Steve Busch</u> Pat Cook Mike Prysby	
27.	Provide DHHS with any available cross-reference information	DEQ and DHHS	Jim Sygo <u>Steve Busch</u> Pat Cook Mike Prysby	
28.	Develop childcare facility guidance or review DHHS related materials	DEQ and DHHS	Jim Sygo Steve Busch Pat Cook Mike Prysby	

- Mtg w/ HHS on lead education
- Create school sampling guidance
for statewide distribution
for school personnel to sample
- Confirm Assessments
of Sampling 2 schools → Braniff
+ Fisenham
- CCT letter back to City
- Weekly check on KWA

- Flint water
- Schools
- SRF

- BG/TL

26 Action Steps for Next Week 10/12-10/16

- Steve 1. Identify schools and prioritize for assessment
- Steve 2. Get DLARA plumbers organized →
- Pat Cook 3. Complete sampling instructions
- Don DeBryn 4. MDARD info for restaurants
- Don DeBryn 5. Update 2004 letter to EPA 3 asks
- Mike Pysby 6. Approve Flint plan for water line DEQ-Flint + GCDC
- Liane 7. Lead education plan for schools for Drinking Water HHS Primary
- George 8. Begin regular meetings with Flint DEQ-Flint
- George 9. Schedule WTP tour DEQ-Flint
- Karen 10. Meet with schools and DLARA-invitation only ≤
- Karen 11. Update Web page
- George 12. Contact DHHS to see where they are with United Way Emergency Declaration
- Liane 13. Circulate protocol draft with EPA DEQ EPA
- George 14. Contact City about homeowner sample delivery
- Liane 15. Communicate to MDARD and City that business samples should be coordinated *Email to Liane*
~~George~~ though lab
- Pat Liane Steve 16. Figure out number of samples from schools and child care facilities *est.*
- ~~17. Confirm Lynda Dykema is POC for DHHS~~
- Pysby 18. Contact KWA to find out if there are any bottlenecks we need to remove
- Pysby 19. Expedite 399 Plan and Phosphate Plan on Wed.
- Steve 20. Get update on service line index card conversion and identify where partial replacements exist DEQ Flint Steve 30% Done
- Steve 21. Make sure DHHS gets info so they can cross reference George
- Maggie 22. Legislative contacts
- Maggie 23. Legislative time line and summary
- Dan/MBT 24. Dan reconnect with state superintendent
- Dan/MBT 25. Conduct After Action Plan (George)
- Maggie 26. Change Part 54-Drinking Water Revolving Loan Fund
Township + EPA

MDARD Call

1115
10/8/ 1:00-1:30
200 Food Service

10 Processors

✓ Restaurant
- Operations

✓ - Filters

✓ - mapping of service line

- plumbing inspection

facilities that serve
primarily high risk populationshow to get a testGDC Draft
Guidance Document

- MDARD

- DEQ

-

Kevin

- 517-582-1156

email blast

MDARD

↳ Business
Contact the
Lab Directly

Call w/ Susan + Tom EPA

10/1/2015
10:30

- Tim Henry
- Tom Pay
- Carol? Braverman

- Cindy Smith
- Tom Smith
- Darren Little
- others?

Activities

- Lead Samples

- Compliance Sampling
- Schools
- At Risk Households

} Refine

Tier Sites?

Tom Baker

Screening → First Draw

↳ Protocol for full plan
↳ School Planning

another approach

Chicago sampling protocol

↳ EPA + HUD sequential sampling
10-12 Lites total

- Darren Little

systematic to better define record

Subset

- Exposure
- Baseline

Diagnostic Sampling Plan

- 2 Hanley Zip Codes

~~AL~~
- AL +

ATSDR what is acceptable

15 ppb based on working corrosion control
20 ppb for 3T?

Home sampling of Paint, sills, DWP

EOL of every child ideal but no funding

Donner

FD - 45 sec = 2 min

- central regional lab

CITY OF DETROIT
WATER AND SEWERAGE DEPARTMENT
OFFICE OF THE DIRECTOR

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

Wyant/Saxton
RB/Dm/EC/DP
JW/VB
FyI

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:

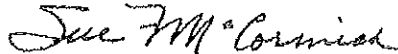
Regarding: Re-establishing Detroit Water and Sewerage Department Water Service

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.

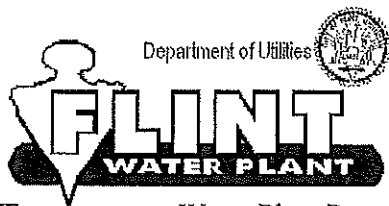
We at DWSD take very seriously the matter of drinking water quality, and we are as concerned as you must be by the continued quality issues faced by the City. We are confident that DWSD can provide you with a solution for reliable, safe, high quality water on an expeditious timeline. Please contact me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

Sincerely yours,



Sue F. McCormick
Director

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



Memorandum

To: Water Plant Personnel

From: Mike Glasgow
Utilities Administrator

Date: October, 22 2015

Subject: Laboratory testing requirements for current water supply

Due to the recent change in water supply, the drinking water testing for the water plant laboratory personnel has been adjusted. The testing has been arranged to reflect what was conducted in years prior to operation of the treatment plant from the river. There are a few additional items that have been included, and this schedule may be adjusted as necessary.

AM & PM PLANT RUN:

- Collect & analyze samples for chlorine residual and Coliform Bacteria in the morning and afternoon (at least 4 hours apart) from the following sites on plant grounds:
Control Station # 2, Dort Well, Pump Station # 4, & Lab Tap

LAB TAP TESTING:

- Collect & analyze lab tap samples once daily for pH, fluoride, total hardness, alkalinity, non-carbonate hardness, calcium, magnesium, total phosphate, temperature and chloride.
- Collect & analyze 3 samples daily (at least 3 hours apart) for Turbidity.
- Collect & analyze 1 sample weekly for Heterotrophic bacteria.

DISTRIBUTION SAMPLING:

- Collect & analyze samples from the 10 distribution sites at least twice weekly for chlorine residual and coliform bacteria. A total of at 100 samples must be collected and analyzed each month, so in total, at least 10 sampling events should take place each month.
- Once weekly also test each distribution site for fluoride, total phosphate, and Heterotrophic bacteria.
- Once quarterly perform Water Quality Parameters (WQM) from the 25 distribution sites. Total phosphate will be a new addition to all the other parameters tested.
- Once quarterly collect Disinfection Byproduct samples (DBP) from 8 sites according to the current DBP schedule. Next sampling will take place the 3rd full week of November.
- Lead & copper sampling will be on going throughout the rest of the year, a detailed plan will be completed soon.

RIVER SAMPLING:

- When time permits, a river sample should be collected once weekly and analyzed for coliform bacteria, pH, fluoride, total hardness, alkalinity, non-carbonate hardness, calcium, magnesium, temperature, turbidity, and chloride.

City of Flint, Michigan
Office of the City Administrator

Memo

To: Dayne Walling, Mayor
From: Natasha L. Henderson, City Administrator
cc: President Freeman and Councilmembers
Date: October 20, 2015
Re: Water Filtration Plant and Water Distribution Internal Review

Water Filtration Plant and Water Distribution Systems Overview

The City of Flint's water filtration plant and distribution system have experienced many challenges over the past two years and it is of grave concern that we reflect upon the decisions that have been made and understand how we will proceed in the future. First, and foremost the City will conduct an internal review of the steps that were taken in 2013 when the agreement with Karegnondi Water Authority (KWA) was signed.

In the wake of recent water concerns, I have developed a proactive and comprehensive plan showing the City's commitment to deliver high quality water, address its aging infrastructure, and maintain a qualified staff. I am outlining a series of steps that the city will take to not only ensure that these goals are met but a plan that is designed to start rebuilding community trust through action and transparency.

In addition, with the assistance of the EPA Task Force, Michigan Department of Environmental Quality, and Safe Drinking Water Technical Advisory Committee, the following steps are meant to go into effect as quickly as possible with all goals being accomplished by the time KWA begins delivering raw water.

- Independent review
- Processes & Testing
- Training

- Technology
- Communication
- Lead Lines
- Capital Improvements

Independent Review

We will seek to commission an independent source to review the technical and operational steps that occurred from the time the City signed on to the KWA to present. This is meant to internally perform an after action review in order to clearly assess the decisions that were made. My expectation is that we will hire out-side legal counsel to lead this internal review. I believe it is imperative that the City has all information that has led the City to the water quality issues that have arisen.

Internal Processes & Testing

We understand that EPA standards are the minimum requirements that utility systems are required to meet, the City will establish and move forward with higher standards and goals than those set by regulators. As these new standards are set, they will be published with a plan on how to obtain each goal complete with expected timeframes. The following are the first set of goals that have been set by the City that exceed the regulatory requirements.

Regulatory Requirements	City Goals
(1) F-1 Licenced Personnel	(2) F-1 Licenced Personnel
(1) S-1 Licensed Personnel	(2) S-1 Licensed Personnel
100 TTHM Samples per Month	120 TTHM Samples per Month
100 Lead/Copper Volunteer Samples / yr.	300 Lead/Copper Volunteer Samples / yr.
Annual Water Quality Report	Quarterly Water Report

Training

We will encourage all utility employees to become members of the American Water Works Association (AWWA) which is the largest nonprofit, scientific and educational association dedicated to managing and treating water. The AWWA offers continual training opportunities and the City will develop an internal training regimen that employees must adhere to. The goal is to continue to develop each employee which promotes a long term succession plan.

Technology

The addition of enhanced Supervisory Control and Data Acquisition (SCADA) will make sure that the system is running with the industries most updated technology and running as efficient as possible. The SCADA adds automation to the Water Plant thereby reducing the need for as much manual intervention. The City will also maintain Safe Drinking Water Technical Advisory Committee with more consistent meetings.

Enhanced Communication

We recognize that one of the key features of a Utility is the public communication with honest and candid information. We will increase the way we send information to people and the frequency that our communication is available. The following are first steps in that direction.

- Monitors around City Hall that display information about the water system

- Direct emails to individuals and neighborhood groups informing people where work is occurring
- Door hangers for field workers to distribute alerting people when water may be off or discolored
- A website page and GIS map dedicated to water events
- Quarterly Water reports that are directly mailed to users
- More frequent press releases that provide information relating to infrastructure concerns
- Immediate notification using all of the above media if a violation occurs
- An answering service so that every call is answered in a timely manor

Lead Service Lines

Every effort will be made to ensure a program will be in place to address the long-term goal of replacing all lead service lines. The program is expected to address the location of all City owned lead service lines and look to provide an opportunity for homeowners to receive a grant in order to have their service line changed at the same time as the city is changing its lines. This coordinated program will look to utilize funds from multiple avenues to support City residents, such as:

- CDBG Funds
- DWRF revolving loan funding
- Grant funding

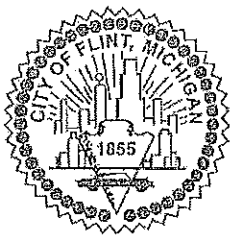
Capital Improvement Plan

The City will continue to modify its 5-year CIP annually to make sure that we are always addressing the most critical issues facing the City. Another rate study will help set the correct rate for the system and determine the proper allocation to address concerns. The Water Reliability Study will continue to highlight the critical needs and will continue to be updated every two years.

As City Administrator, my goal is to ensure all of the necessary steps are in place prior to the implementation of KWA delivering water to the City. All of these initiatives will be inserted into the Utilities strategic plan and tracked regularly by staff, myself, and reported to the DPW Committee to ensure accountability.

[illegible]

[illegible]



CITY OF FLINT

Dayne Walling
Mayor

September 14, 2015

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

RE: Call for Additional Support for Flint Water Improvement Plan

Dear Governor Snyder:

On behalf of the Flint community, I am writing with a renewed request for additional support to address Flint's water challenges to ensure that water is affordable and secure for everyone in Flint especially our vulnerable populations. I am asking for an additional \$30 million in funds for Flint's infrastructure and a new healthy homes initiative.

Significant progress has been made throughout this year to increase water safety and quality and I thank you for the involvement of your office, the Michigan Department of Environmental Quality, and the Michigan Department of Treasury. A majority of items in the Water Improvement Plan are completed or underway. Most importantly, Flint is now in compliance with the Safe Drinking Water Act due in large part to the installation of the new carbon filter. The infrastructure systems are being made more secure and efficient through the State grants. Now the City is committed to following the recommendation of the Michigan Department of Environmental Quality to optimize the treatment process, reduce corrosion and further minimize risks from lead.

The need to accelerate the City's capital improvement investments remains and has been further increased by the continued financial stress and legal issues. Previously I requested support for replacement or forgiveness of payment to the Drinking Water Revolving Loan Fund due to Flint's status as a distressed community and the gap in funding in the adopted capital improvement plan. I understand that the existing federal law does not allow the existing Drinking Water Revolving Loans that Flint is carrying to be forgiven in retrospect but the need still exists. Flint owes approximately \$20 Million. One solution is for the State to grant a new \$20 Million that is designed as forgivable from the start. Another solution is to provide

The Honorable Rick Snyder
September 14, 2015
Page 2

equivalent funding through an expansion of the grant program to Michigan's Financially Distressed Cities, Villages and Townships with a supplemental budget amendment in cooperation with the State Legislature.

The community's heightened concern about lead leeching into the water from old service lines and home plumbing also needs to be addressed. We know that lead is an environmental contaminant and there have been many programs in place over the years to address sources in paint and pipes. Flint needs a new healthy homes initiative specifically focused on lead in water with \$10 Million to start the process of replacing service lines for the most vulnerable households. Regardless of the source and treatment of Flint's water, this long term threat of lead in pipes needs to be removed in the interest of public health.

My approach continues to be to work with you and your appointed officials, State Senator Ananich, State Representatives Phelps and Neeley, Congressman Kildee, community groups, businesses, churches, foundations, the Flint City Council, and all of the City of Flint and State and Federal government personnel. We need every available expert and resource to address Flint's water problems.

Flint's safety is my top priority. Just as the City and State have worked together on public safety, we need additional support for fixing the water problems. We need \$30 Million in new funds to repair and update the city-wide infrastructure and to assist households in becoming lead-free. The entire Flint community deserves sustainable, safe, secure and affordable water now and into the future. Thank you for the consideration Governor and I look forward to future discussions.

Sincerely,

A handwritten signature in black ink, appearing to read "Dayne Walling", with a stylized flourish at the end.

Dayne Walling
Mayor, City of Flint

CC: Flint City Council President Joshua Freeman; Congressman Dan Kildee; State Senator Jim Ananich; State Representative Sheldon Neeley; State Representative Phil Phelps; EPA Regional Administrator Dr. Susan Hedman; Chief of Staff Dennis Muchmore



CITY OF FLINT

Dayne Walling
Mayor

January 18, 2015

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

RE: Flint Water Improvement Plan

Dear Governor Snyder:

On behalf of the Flint community, I am writing to convey serious concerns about water quality and to request your support for my proposed Flint Water Improvement Plan. Access to safe and clean water is a basic human right, and, therefore, policy and budget decisions need to ensure that water is affordable and secure for everyone in Flint and all across Michigan. It is essential there is City, State and Federal cooperation to address the challenges here and to meet the needs of vulnerable populations.

The Flint Water Improvement Plan is focused in five areas: safety, quality, access, investment and education. The plan puts safety and quality first because this is fundamental. It is designed to be a sustainable solution for the City of Flint and the community as we move towards a new permanent water supply from Lake Huron through the Karegnondi Water Authority. My plan offers new ideas and also builds on successful models of utility, energy and assistance programs at the State and Federal levels.

Safety & Quality

- 100% Safety is the standard
- City of Flint reports testing data to the public to assure safety and expands testing sites and frequency
- Bring on experienced river water treatment operational management in the City of Flint

Access

- Announce an amnesty program for Flint water service turn-ons and reduce the turn-on fee
- Develop a revised affordable payment plan policy to encourage customers to return
- Design Federal and State partnership to establish new Drinking Water Emergency Assistance Fund for the elderly and vulnerable families

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

- o Federal and State support for replacement or forgiveness of payment to the Drinking Water Revolving Loan Fund due to Flint's status as a distressed community
 - o Federal and State grants for infrastructure improvements in alignment with the Flint Master Plan
- City Water Department implements budgeted FY15 projects including leak detection, valve repairs, new pipes and meter replacements

Education

- Develop a community partnership with universities 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 and water assistance with the Keep the Water Flowing Fund and support services
- Expand youth energy initiative to assist households with conservation and efficiency (piloted in summer 2014 with Northwestern High School students, EcoWorks and Consumers Energy)

It is also critical to restore the public confidence in Flint Water. The implementation of this plan must be accompanied by extensive community engagement including local elected officials. My objective is to work with you and your appointed officials, State Senator Ananich, State Representatives Phelps and Neeley, Congressman Kildee, community groups, businesses, churches, foundations, the Flint City Council, and all of the City of Flint and government personnel.

It is imperative that we communicate better and provide residents more information. I understand representatives from the Michigan Department of Environmental Quality will be joining a public forum this week at City Hall. This engagement going forward is vital so thank you for supporting their efforts. I think this issue of transparency is important for communities all across the State. I recommend a review of the applicable laws and policies and, at a minimum, a new requirement that water testing data be reported publicly no less than quarterly by law in all Michigan communities in Flint's population category.

Thank you for the consideration Governor. There is nothing more important in Flint right now than fixing the water problems. We must work together to identify funds to repair and update the water treatment facilities and city-wide infrastructure and to help those persons without access to clean water so that the entire Flint community has sustainable, safe, secure and affordable water now and into the future. This is an important issue for the state of our State of Michigan and I urge you to work with us to implement solutions.

Sincerely,



Dayne Walling, Mayor
City of Flint

CC: Flint City Council President Joshua Freeman; Congressman Dan Kildee; State Senator Jim Ananich; State Representative Sheldon Neeley; State Representative Phil Phelps; Flint Emergency Manager Jerry Ambrose

Flint Mtg @

- Wayne Workman

- Dave Murray

- Al Harris

- Peter Austin

- Claire Deamer

lwalters313@gmail.com

- Samples from city collected in w/ Rule check w/ city

- Lead exposure is immediate

- Water Rate Restructure

- Rule 710a(1)

to DEO Notification 3 months to
the monitoring period to

30 days to customer

Sample History 212

Rusty Water - Complaint

① Collection Date ~~2/11/2015~~ 2/18/2015 Cu, Fe, Mn, Zn (no lead analysis)
only
by city 10:20 AM

② 2/18/2015 Pb 104 ppb But Filtered
Cu ND
by Walters 7:15 AM Form? ✓

③ 2/25/2015 Metals (lead ND)
by city 10:26 AM

④ 3/3/2015 Pb 397 ppb
by Walters 6:00 AM Form? Cu ND

⑤ 3/18/2015 Pb 4 ppb
by city 11:10 AM Cu ND

⑥ 4/2/2015 Service Line Improper Tap
by Walters

CCR:

Mailed out on own w/ VN
7/15 of July

212 Browning Didn't Pay for several months

Charge for - Service Replacement? City Pays

- Analysis? City Pays

- other water use? No major use

- Plumbing Permit? Check w/ inspector

EPA did not provide copies of results
Not certified

Monitoring Period	90 th %ile	Samples Above 15 ppb	Total
1-6/2015	11 ppb	6 33	(68 total)
6-12/2014	6 ppb	2	(100 total)
6-9/2011	0 ppb	0	(23 total)
6-9/2008	0 33 ppb	0	(33 total)
6-9/2005	1.4 ppb	0	(33 total)
6-9/2002	4 ppb	1	(33 total)
6-9/2001	4.4 ppb	0	(33 total)
6-9/2000	7 ppb	2	(33 total)
1-6/1999	5 ppb	0	(33 total)
7-12/1998	7.4 ppb	1	(33 total)
7-12/1997	5 ppb	1	(33 total)
1-6/1997	4.5 ppb	1	(33 total)
No Monitoring Reg'd til 1997			
7-12/1992	14.4 ppb	3	(33 total)
1-6/1992	15 ppb	4	(33 total)

3/15/1993/dtr
 DWSD in 1992
 Study to 7/1/1994
 Treatment by 1/1/1997

7/21/2015

EPA

Tom

Rita

Nick

Tinka

Didn't focus on facts

Talked w/ Carrie Monosmith

①

Study allowance is 18 months
if they make recommendation

Study River Now

Study new source →

EPA Small System

Wurfel, Brad (DEQ)

From: Wurfel, Brad (DEQ)
Sent: Thursday, March 05, 2015 4:26 PM
To: Hollins, Harvey (GOV); 'Wyant, Dan (WyantD@michigan.gov)'; Agen, Jarrod (GOV)
Cc: Baird, Richard (GOV); 'Wurfel, Sara (GOV) (Wurfels@michigan.gov)'
Subject: FW: Tap Filters

Harvey,

Since group call Tuesday I have been working out how the filter idea might take shape.

To reiterate some key points so we're all clear:

1. DEQ does not inspect individuals' homes in a situation like this. It's the city's system, their operators handle all complaints and maintenance. In fact, our folks alerted me that the city's got union rules in place forbidding any contractor from touching the system.
2. DEQ's role is limited to ensuring the plant is operating to state standards and the water it produces meets potability standards. The aesthetic issues drawing concern from residents – color, odor, taste – stem from a variety of things. Age of the system and prolonged lack of upkeep is the leading factor. But in some areas, another contributing factor is changes in water flow – source used to come from the south, now comes from the north, so some pipes are flowing in reverse, stirring up whatever was settled for a long time. In some sections, large pipes that historically served large communities are now serving a much smaller customer base, contributing to water stagnating in the system. In some areas, household connections are old and worn, so two neighbors may be having dramatically different experiences. My point is, the challenge takes many forms and there's no single solution that will bring sweeping change. The two consultants hired by the city have, as I understand it, both reinforced this idea in their assessments, so that's good.
3. The fix for this will be years in the making, truly. Even if full funding were available, 'big dig' projects can't all happen at once. The city needs to get an assessment of its infrastructure so it can prioritize its needs, and I understand they're working on that. In the near term, maintenance this spring / summer – things like cleaning the pipes in key sections and flushing the system via the hydrants – could offer some short term results. I know nobody wants to just wait for spring, but that is something important to keep in mind.
4. In the meantime, the group discussed possibly making home water filters available somehow. The National Safety Foundation is a Michigan company, headquartered and founded in Ann Arbor, that develops standards for all kinds of infrastructure. They're a globally recognized source for standard setting. A look at their site reveals there are myriad filtration options on the market and within each type (faucet mounted, whole house line filters, etc) there are filters that focus on different aspects of purification.

If this idea begins to get legs, I'd suggest testing some different models on the local water at the customer level to see if they work. I'd also suggest the idea be focused on tap-mounted models to promote clean, appealing drinking water. And I'd suggest this program could be funded in whole or in part by the state, but would need to be administered by the city (reinforcing the fact that they own, operate and service the system). I've got some information on filter models below.

Two more considerations: One, while the state has provided residents in some communities with bottled water in the past, it always has to do with their water being somehow contaminated – as in, some kind of chemical plume that impaired local drinking water sources. This would be the first time the state took steps to deal with what is an aesthetic issue on a system where the water is meeting state drinking water standards.

Water filter info:

ANSI NSF Standard 42 Covers bacteriostasis, taste and odor (associated only with chlorine removal), and other aesthetic conditions

http://standards.nsf.org/apps/group_public/download.php/19895/NSF_42-11%20-%20watermarked.pdf

ANSI NSF Standard 53 Covers health effects removal

http://standards.nsf.org/apps/group_public/download.php/19896/NSF_53-11a%20-%20watermarked.pdf

It is important to note that the filters are not required to meet all aspects of the standard, only the portions they want to make claims for. So product information for each filter must be reviewed to determine its applicability.

Most of these point of use filters are basic activated carbon filters that simply remove taste and odor specifically associated with chlorine, not other things like iron, manganese, hydrogen sulfide, etc. that can also impact taste and odor as well as color.

It is important to recognize that taste and odor is generally an individual preference and such standards have for the most part not been developed because groups of individuals may still consider taste and odor issues to exist even after levels for such a standard have been met.

Other considerations are that the test water for such filters attempting to meet the standard uses hardness levels of 170 mg/L or less. Flint's water at times may be above this level, which could then impact filter performance and longevity.

Most of these filters are designed to be replaced after 100 gallons or less of use, a period of about 3 months for most households. In addition the tests allow for initial pressure drops of up to 15 psi. This may limit use in households that already rely on minimum pressure within their household plumbing.

Regarding the health effects standards, as the Flint water system already meets such requirements, with the exception of the current TTHM locational running annual average, there is little point to the use of these filters for such a purpose.

To the point you'd asked about the other day, while Flint and Detroit are leading examples of unmaintained infrastructure, Flint is not alone by any means.

This recent infrastructure report card

<http://www.infrastructurereportcard.org/michigan/michigan-overview/>

Lists Michigan with a \$13.8 Billion need over the next 20 years.

<http://www.infrastructurereportcard.org/a/#p/state-facts/michigan>

Here's a link to the 2009 Report Card for Michigan Infrastructure

<http://www.michiganreportcard.com/>

From the report:

"A significant portion of the state's primary distribution system is nearing 100 years old. CWS are facing a significant challenge to maintain the vast network of aging, underground infrastructure. Within the city of Detroit alone, approximately 80% of its distribution piping was installed prior to 1940, which is not unusual for CWS in Michigan."

"The age of the majority of the state's distribution system is the primary contributor to normal decay and failure. In many cases, pipe life has far exceeded useful service life. Much of the older water systems consist of undersized mains constructed of materials such as unlined cast iron pipe. Minor fluctuations in system flows or pressure may cause red water complaints and even result in pipe failure. All CWS should have routine flushing and valve maintenance programs; however many are hesitant due to the time and cost."

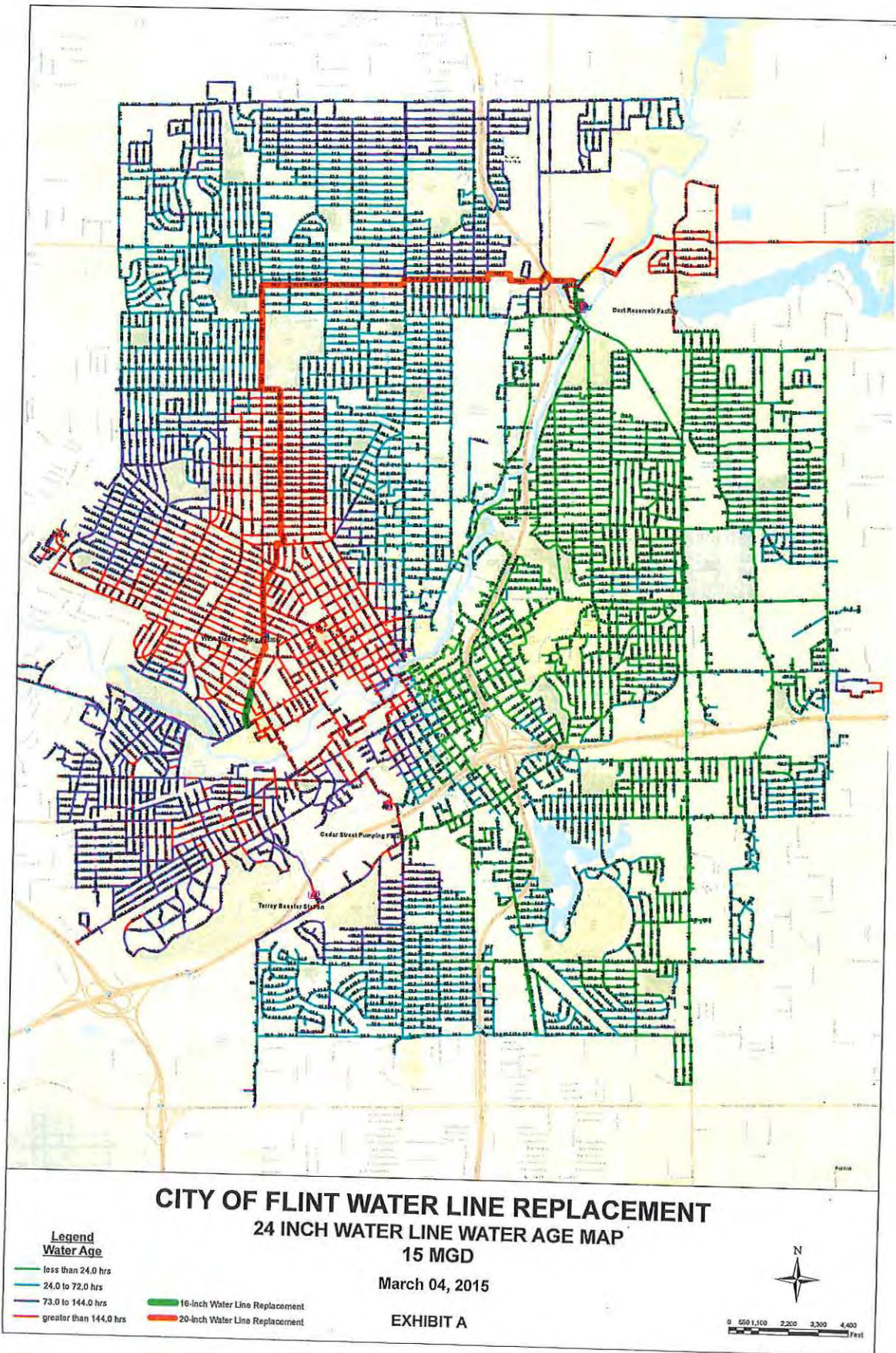
"Under the Stage 2 Disinfection Byproducts Rule, all CWS that disinfect are required to provide increased trihalomethane (THM) and haloacetic acid (HAA5) monitoring due to the potential byproducts of chlorine reactions within the pipe system. Corrosion, scale, solid suspension on the interior sidewall of pipe, in addition to the age and condition of the system will require diligent rehabilitation investment to maintain system integrity."

"While better materials and advanced technology is available to replace the aging distribution system, resources remain scarce when compared with the magnitude of the rehabilitation task at hand. Too often, distribution system replacement costs are underfunded and the first item to be slashed when budget problems arise. Overall, distribution system maintenance is reactionary in much of the older systems. Since the majority of the antiquated system will require removal and replacement beyond the CWS funding resources for systematic upgrade, a reactionary rehabilitation program is inevitable and must be funded accordingly."

Call or email me if you need anything further.

b

Brad Wurfel
Communications Director
Michigan Department of Environmental Quality
517-284-6713
517-230-8006 cell



Flint

1st Qtr 2010

TTHM Results

WSSN	System	Mon Prd	Collect Date	Site Code	Analyte	Result	Unit	LRAA	Units	Results Used
02310	FLINT, CITY OF	2Q2014	21-May-14	DBP1	2950	0.1624	MG/L	0.041	MG/L	1
02310	FLINT, CITY OF	3Q2014	21-Aug-14	DBP1	2950	0.1453	MG/L	0.077	MG/L	2
02310	FLINT, CITY OF	4Q2014	20-Nov-14	DBP1	2950	0.0586	MG/L	0.092	MG/L	3
02310	FLINT, CITY OF	1Q2015	17-Feb-15	DBP1	2950	0.0162	MG/L	0.096	MG/L	4
										0.096
02310	FLINT, CITY OF	2Q2014	21-May-14	DBP2	2950	0.1116	MG/L	0.028	MG/L	1
02310	FLINT, CITY OF	3Q2014	21-Aug-14	DBP2	2950	0.1272	MG/L	0.06	MG/L	2
02310	FLINT, CITY OF	4Q2014	20-Nov-14	DBP2	2950	0.0333	MG/L	0.068	MG/L	3
02310	FLINT, CITY OF	1Q2015	17-Feb-15	DBP2	2950	0.0168	MG/L	0.072	MG/L	4
										0.072
02310	FLINT, CITY OF	2Q2014	21-May-14	DBP3	2950	0.0965	MG/L	0.024	MG/L	1
02310	FLINT, CITY OF	3Q2014	21-Aug-14	DBP3	2950	0.1183	MG/L	0.054	MG/L	2
02310	FLINT, CITY OF	4Q2014	19-Nov-14	DBP3	2950	0.0411	MG/L	0.064	MG/L	3
02310	FLINT, CITY OF	1Q2015	17-Feb-15	DBP3	2950	0.0149	MG/L	0.068	MG/L	4
										0.068
02310	FLINT, CITY OF	2Q2014	21-May-14	DBP4	2950	0.1064	MG/L	0.027	MG/L	1
02310	FLINT, CITY OF	3Q2014	21-Aug-14	DBP4	2950	0.1962	MG/L	0.076	MG/L	2
02310	FLINT, CITY OF	4Q2014	19-Nov-14	DBP4	2950	0.0936	MG/L	0.099	MG/L	3
02310	FLINT, CITY OF	1Q2015	17-Feb-15	DBP4	2950	0.0245	MG/L	0.105	MG/L	4
										0.105
02310	FLINT, CITY OF	2Q2014	21-May-14	DBP5	2950	0.0792	MG/L	0.02	MG/L	1
02310	FLINT, CITY OF	3Q2014	21-Aug-14	DBP5	2950	0.1813	MG/L	0.065	MG/L	2
02310	FLINT, CITY OF	4Q2014	20-Nov-14	DBP5	2950	0.0339	MG/L	0.074	MG/L	3
02310	FLINT, CITY OF	1Q2015	17-Feb-15	DBP5	2950	0.0181	MG/L	0.078	MG/L	4
										0.078
02310	FLINT, CITY OF	2Q2014	21-May-14	DBP6	2950	0.0882	MG/L	0.022	MG/L	1
02310	FLINT, CITY OF	3Q2014	21-Aug-14	DBP6	2950	0.1444	MG/L	0.058	MG/L	2
02310	FLINT, CITY OF	4Q2014	19-Nov-14	DBP6	2950	0.0536	MG/L	0.072	MG/L	3
02310	FLINT, CITY OF	1Q2015	17-Feb-15	DBP6	2950	0.0192	MG/L	0.076	MG/L	4
										0.076
02310	FLINT, CITY OF	2Q2014	21-May-14	DBP7	2950	0.0822	MG/L	0.021	MG/L	1
02310	FLINT, CITY OF	3Q2014	21-Aug-14	DBP7	2950	0.1124	MG/L	0.049	MG/L	2
02310	FLINT, CITY OF	4Q2014	19-Nov-14	DBP7	2950	0.0501	MG/L	0.061	MG/L	3
02310	FLINT, CITY OF	1Q2015	17-Feb-15	DBP7	2950	0.0285	MG/L	0.068	MG/L	4
										0.068
02310	FLINT, CITY OF	2Q2014	21-May-14	DBP8	2950	0.0751	MG/L	0.019	MG/L	1
02310	FLINT, CITY OF	3Q2014	21-Aug-14	DBP8	2950	0.112	MG/L	0.047	MG/L	2
02310	FLINT, CITY OF	4Q2014	20-Nov-14	DBP8	2950	0.0362	MG/L	0.056	MG/L	3
02310	FLINT, CITY OF	1Q2015	17-Feb-15	DBP8	2950	0.0199	MG/L	0.061	MG/L	4
										0.061

OEL?



Genesee County Health Department

Mark Valacak, M.P.H., Health Officer
Gary K. Johnson, M.D., M.P.H., Medical Director

January 27, 2015

FOIA Coordinator, City of Flint
1101 S. Saginaw Street, 3rd floor
Flint, MI 48502

RE: Flint Water Plant Information Request

Dear FOIA Coordinator,

Under provisions of the Michigan Freedom of Information Act (MCLA 15.231 et seq; MSA 4.1801 (1) et seq) please provide copies of the following:

Provide specific water testing locations and laboratory results within the City of Flint public water system for Coliform, E-coli, Heterotrophic Bacteria and Trihalomethanes from January 1, 2010 to January 27, 2015. Provide any additional water testing that has been conducted for identifying potential public health risks. Include any available mapping of the water testing areas.

Provide a map delineating the boundaries of the City of Flint water distribution system. Include any changes to the boundaries, along with corresponding dates from January 1, 2014 to January 27, 2015.

Provide a map or list of locations, detailing dead ends, pooling, low pressure and any additional areas of concern within the City of Flint water distribution system. Include any modifications to the water distribution system addressing concerns, along with corresponding dates from January 1, 2014 to January 27, 2015.

If you determine that any of the requested information is exempt from disclosure, please detail what is being withheld and cite the exemption under FOIA. I anticipate the request being filled within five working days of receipt of this letter, as provided under FOIA. Please contact me at (810) 257-3618 if there are fees associated to comply with this request.

Sincerely,

Jim Henry

Jim Henry
Environmental Health Supervisor
Genesee County Health Department
630 S. Saginaw Street
Flint, MI 48502

Better Life Through Better Health

Floyd J. McCree Courts & Human Services Building ♦ 630 S. Saginaw Street, Ste. 4 ♦ Flint, Michigan 48502-1540

Burton Branch ♦ G-3373 S. Saginaw Street ♦ Burton, Michigan 48529

Main Phone 810-257-3612 ♦ Visit us at: www.gchd.us



City of Flint Public Forum

Wednesday January 21, 2015
7:00 pm City Hall Dome

AGENDA

Opening COF – DPW Director - Howard Croft

- Forum Ground Rules (disorderly conduct will not be tolerated)
- Overview of Format (each guest to speak for ~10 minutes with written questions afterward)
- Recognition of Officials
- Introduction of Guests

1st Speaker DEQ – Local Representatives - Mike Prysby, Steve Busch

- Role of DEQ
- Explanation of TTHM violation

2nd Speaker LAN – Lead Engineer - Warren Green

- Discuss Engineering role
- Discuss Operational Evaluation Report

3rd Speaker MSU Microbiologist – Dr. Joan Rose

- Risk Assessment (what do the numbers mean?)
- What to do if someone suspects they are at risk
- What about the elderly and those with a weak immune system
- What will the next violation mean (water is still safe)

4th Speaker GCDC – Jeff Wright

- What to expect from KWA raw water as source
- Update on KWA timeline

Final COF – DPW Director – Howard Croft

- Summary (Next Steps – Action Plans)
 - Hiring an industry expert
 - Tours of Treatment Plant
 - Continued communication
 - Planned steps (CIP built on , Water Reliability Study, Operational Evaluation Report)
 - Funding (researching all sources, state funding, federal opportunities)
 - Water & sewer rates (budgetary evaluation upcoming)
- Questions (Expected to have an hour of panel response time)
- Conclusion - Thank the panel, (Additional follow up at next Public Works Committee meeting)

Michigan Department of Environmental Quality Community Water Supply

Information Regarding
Total Trihalomethane (TTHM)
Disinfection Byproducts

DEQ - Community Water Supply

- Regulatory Authority over Public Water Systems
- Michigan Safe Drinking Water Act
- 1400 Community Supplies in MI (like Flint)
- Lansing Jackson Districts – 300 in 13 counties
- Oversight through:
 - Inspection
 - Monitoring
 - Construction Permitting
 - Planning
- Partnership and Compliance Assistance

What are TTHM's

Trihalomethanes occur when natural organic matter in the water react with chlorine disinfectants.
(Byproduct of disinfection process)

4 Chemical Compounds made up of these elements:

- Carbon
- Hydrogen
- Bromine
- Chlorine

TTHM Standard

- Based on chronic exposure to low doses
- 80 parts per billion (0.080 ppm)
- Locational Running Annual Average (LRAA)
- Quarterly monitoring at each location
- Location and timing based on highest risk
- Running = over last 4 quarters, not calendar yr
- Total sum of 4 quarters not to exceed 320 ppb

Flint TTHM Results

TTHM Results (mg/L)					
	5/21/14	8/21/14	11/20/14	LRAA	OEL
DBP1 McDonalds 3719 Davison	0.162	0.145	0.059	0.092	0.106
DBP2 Liquor Palace 3302 S. Dort Highway	0.112	0.127	0.033	0.068	0.076
DBP3 North Flint Auto 6204 N. Saginaw St.	0.097	0.118	0.041	0.064	0.074
DBP4 University Market 2501 Flushing Road	0.106	0.196	0.094	0.099	0.122
DBP5 Taco Bell 3606 Corunna Road	0.079	0.181	0.034	0.074	0.082
DBP6 Rite-Aid Pharmacy 5018 Clio Road	0.088	0.144	0.054	0.072	0.085
DBP7 Salem Housing 3216 MLK Boulevard	0.082	0.112	0.050	0.061	0.074
DBP8 BP Gas Station 822 S. Dort Highway	0.075	0.112	0.036	0.056	0.065

Potential Health Effects Related to TTHM

- Federal Language
- Some people who drink water containing TTHM in excess of the MCL over many years could experience liver, kidney, or central nervous system problems and increased risk of cancer.

Health Effect Basis by EPA

- Toxicology Studies - Uncertainty in using results of high-dose studies in animals to estimate risk to humans from chronic exposure to low doses in drinking water
- Epidemiology – Findings are contradictory. No conclusion of causal link between exposure and health effects.
- EPA determined evidence supports a potential hazard concern and establishment of standard.
- Considered best course of action at this time to reduce potential risks.

TTHM Violation Requirements

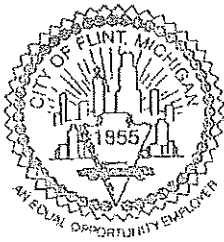
- Water supply must take steps to reduce the amount of TTHM so that they are below the standard.
- Water supply must notify customers of the violation within 30 days of after learning of the violation.

Operational Evaluation

- System treatment practices
- System distribution practices
- Storage tank operations
- Excess storage capacity
- Distribution system flushing
- Source water quality
- Treatment changes
- TTHM contributions
- Steps to minimize future standard violations

Public Notification

- Designed to provide information to the customer to make more informed decisions
- Short term exposure to long term contaminant has different impact on each individual based on their background
- If health effects had been acute notification would be provided in 24 hours with specific actions for customers



CITY OF FLINT

Dayne Walling
Mayor

January 18, 2015

The Honorable Rick Snyder
Governor, State of Michigan
P.O. Box 30013
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Dayne Walling, Mayor
City of Flint

CC: Flint City Council President Joshua Freeman; Congressman Dan Kildee; State Senator Jim Ananich; State Representative Sheldon Neeley; State Representative Phil Phelps; Flint Emergency Manager Jerry Ambrose



GENESEE COUNTY DRAIN COMMISSIONER'S OFFICE

- DIVISION OF -

WATER & WASTE SERVICES

G-4610 BEECHER ROAD - FLINT, MICHIGAN 48532-2617

PHONE (810) 732-7870 - FAX (810) 732-9773

JEFFREY WRIGHT
COMMISSIONER

December 23, 2014

Sue McCormick, Director
Detroit Water and Sewerage Department
735 Randolph Street
Detroit, MI 48226

Re: Term Agreement
Genesee County Drain Commissioner, County Agency

Dear Director McCormick:

We have received and reviewed your letter dated December 12, 2014. As stated in your letter, DWSD and GCDC have been working towards a mutually agreeable solution to a situation that is very unique. In essence, GCDC and DWSD are negotiating toward a short-term, full service contract and a long-term emergency service contract. DWSD currently does not have any contract like this, so there have been many details to work out during our negotiations. There remain two (2) issues that need to be resolved: the cost versus the benefit of the emergency service and the fixed fees that need to be paid during the full service period. During our last conversation with representatives of your office, the later issue may be resolved. With that said, GCDC has committed to negotiating with DWSD to try and reach a mutually acceptable contract for short-term, full service and long-term emergency water supply.

I think it is beneficial to review the time line of events that have transpired.

December 20, 1965

The City of Flint and City of DWSD signed a 35 year contract, which expired on December 31, 2000. The contract continued on a year to year basis thereafter with a one year termination notice provision.

A key item in this contract was that DWSD gave franchise rights to the City of Flint for all of Genesee County. As a result, Genesee County could not be a direct customer of DWSD.

April 12, 2013

After the announcement that Flint signed as a constituent member of the KWA, DWSD sent the City of Flint a notice of termination of the contract to be effective April 2014.

November 2013

DWSD/GCDC/DEQ/State met TO DISCUSS Flint's decision process for deciding to go to KWA or stay with DWSD. Also discussed transition if separation was to occur.

April 17, 2014

Contract terminated by DWSD, City of Flint still purchased water, GCDC still purchased water, and Detroit modified its rate to a non-contract customer rate.

Orig: Liane Shokte
Smith
DDWMA

cc: Director
S496
McDermott
Crew
4-1 MISC
Daterma
Wurfe
Liane
Steve B.

Sue McCormick, Director
December 23, 2014
Page 3

The State of Michigan requires a true cost of service in rate making for utilities serving greater than 1% of the State's population. DWSD falls into this category. For your 2013-2014 Budget, you set the rates for all customers by terminating Flint and charging an additional penalty – you received a windfall of revenue from the penalty. For your 2014-2015 Budget, you did not include Flint or GCDC in your rate calculation. The water revenue and penalty paid by GCDC is a windfall. Now mid-year, you are requesting an additional surcharge for the balance of the year – another windfall.

As you stated, we are unique. This uniqueness was identified in August of 2014 when you established a rate for GCDC outside of your rate model. In comparison to your contract customers, GCDC is unique. Contract customers are calculated by the model, even though GCDC rates are calculated by the model, GCDC pays a non-contract penalty as a percentage. This penalty is not paid by contract customers. Additionally, GCDC pays 80% of its rates in fixed fees. Contract customers pay 40% of its rates in fixed fees. Finally, it appears GCDC's rates can be changed arbitrarily at the whim of the Director and Board. Contract customers cannot.

This new proposed rate is vindictive, insulting and illegal. Both Genesee County and the City of Detroit are subdivisions of the State of Michigan. Should these punitive rates be put into effect, we will aggressively pursue all remedies available. With respect to the Governor, we have honored his request to not sue DWSD, but that is a request he can no longer expect us to honor.

Your statement that GCDC is in a fundamentally different position from Flint and other customers of DWSD as GCDC is correct, as GCDC has never been a contractual customer of DWSD. It is important here to recognize that due to the actions of DWSD in giving the franchise rights to the City of Flint for all of Genesee County, it was not possible for GCDC to be a customer. DWSD's actions are the only reason GCDC has never been a contract customer of DWSD. Flint was the only "old contract" customer that had their contract terminated. Why?

If it is the intent of DWSD to recapture capital costs associated with DWSD infrastructure investments, DWSD should have pursued these claims against the City of Flint when DWSD terminated its relationship with Flint. In essence, your argument is that any new customer to your system should be required to pay for prior improvements to the DWSD system even though the improvements were for a different customer of DWSD, the fact remains that the GCDC/Flint area uses 40% less water volume today than 8 months ago when Flint was also purchasing water from DWSD. DWSD has not needed to upgrade its infrastructure, nor has GCDC requested DWSD to do so, to furnish less water to the Genesee County area. Therefore, to establish another new rate for a non-contract customer to recoup capital investment that was never committed to that customer demonstrates clearly that this is a play to force GCDC into a long-term agreement with DWSD or results in a punitive charge.

GCDC and DWSD have been negotiating a short-term/long-term contract. GCDC does not need a backup supply from DWSD. We are willing to consider one if the cost is beneficial to our system. DWSD is the one that is requiring a thirty year agreement not GCDC. When GCDC separates from DWSD, there is significant infrastructure that will be mothballed or abandoned by

WSSN	System	Mon Prd	Collect Date	Site Code	Address	Analyte	Result	Unit	LRAA	Units
02310	FLINT, CITY OF	2Q2014	21-May-14	DBP1	3719 DAVISON ROAD	2950	0.162	MG/L	0.041	MG/L
02310	FLINT, CITY OF	2Q2014	21-May-14	DBP2	3302 SOUTH DORT HIGHWAY	2950	0.112	MG/L	0.028	MG/L
02310	FLINT, CITY OF	2Q2014	21-May-14	DBP3	6204 NORTH SAGINAW STREET	2950	0.097	MG/L	0.024	MG/L
02310	FLINT, CITY OF	2Q2014	21-May-14	DBP4	2501 FLUSHING ROAD	2950	0.106	MG/L	0.027	MG/L
02310	FLINT, CITY OF	2Q2014	21-May-14	DBP5	3606 CORUNNA RD	2950	0.079	MG/L	0.02	MG/L
02310	FLINT, CITY OF	2Q2014	21-May-14	DBP6	5018 CLIO RD	2950	0.088	MG/L	0.022	MG/L
02310	FLINT, CITY OF	2Q2014	21-May-14	DBP7	3216 MLK BLVD	2950	0.082	MG/L	0.021	MG/L
02310	FLINT, CITY OF	2Q2014	21-May-14	DBP8	822 S DORT HWY	2950	0.075	MG/L	0.019	MG/L
02310	FLINT, CITY OF	3Q2014	21-Aug-14	DBP1	3719 DAVISON ROAD	2950	0.145	MG/L	0.077	MG/L
02310	FLINT, CITY OF	3Q2014	21-Aug-14	DBP2	3302 SOUTH DORT HIGHWAY	2950	0.127	MG/L	0.06	MG/L
02310	FLINT, CITY OF	3Q2014	21-Aug-14	DBP3	6204 NORTH SAGINAW STREET	2950	0.118	MG/L	0.054	MG/L
02310	FLINT, CITY OF	3Q2014	21-Aug-14	DBP4	2501 FLUSHING ROAD	2950	0.196	MG/L	0.076	MG/L
02310	FLINT, CITY OF	3Q2014	21-Aug-14	DBP5	3606 CORUNNA RD	2950	0.181	MG/L	0.065	MG/L
02310	FLINT, CITY OF	3Q2014	21-Aug-14	DBP6	5018 CLIO RD	2950	0.144	MG/L	0.058	MG/L
02310	FLINT, CITY OF	3Q2014	21-Aug-14	DBP7	3216 MLK BLVD	2950	0.112	MG/L	0.049	MG/L
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02310	FLINT, CITY OF	4Q2014	20-Nov-14	DBP2	3302 SOUTH DORT HIGHWAY	2950	0.033	MG/L	0.068	MG/L
02310	FLINT, CITY OF	4Q2014	19-Nov-14	DBP3	6204 NORTH SAGINAW STREET	2950	0.041	MG/L	0.064	MG/L
02310	FLINT, CITY OF	4Q2014	19-Nov-14	DBP4	2501 FLUSHING ROAD	2950	0.094	MG/L	0.099	MG/L
02310	FLINT, CITY OF	4Q2014	20-Nov-14	DBP5	3606 CORUNNA RD	2950	0.034	MG/L	0.074	MG/L
02310	FLINT, CITY OF	4Q2014	19-Nov-14	DBP6	5018 CLIO RD	2950	0.054	MG/L	0.072	MG/L
02310	FLINT, CITY OF	4Q2014	19-Nov-14	DBP7	3216 MLK BLVD	2950	0.05	MG/L	0.061	MG/L
02310	FLINT, CITY OF	4Q2014	20-Nov-14	DBP8	822 S DORT HWY	2950	0.036	MG/L	0.056	MG/L

WSSN	System	MonPrd	Site Code	AveType	Analyte	ResultsUsed	LRAA	Units
02310	FLINT, CITY OF	4Q2014	DBP1	OEL	TTHM	3	0.106	MG/L
02310	FLINT, CITY OF	4Q2014	DBP2	OEL	TTHM	3	0.076	MG/L
02310	FLINT, CITY OF	4Q2014	DBP3	OEL	TTHM	3	0.074	MG/L
02310	FLINT, CITY OF	4Q2014	DBP4	OEL	TTHM	3	0.122	MG/L
02310	FLINT, CITY OF	4Q2014	DBP5	OEL	TTHM	3	0.082	MG/L
02310	FLINT, CITY OF	4Q2014	DBP6	OEL	TTHM	3	0.085	MG/L
02310	FLINT, CITY OF	4Q2014	DBP7	OEL	TTHM	3	0.074	MG/L
02310	FLINT, CITY OF	4Q2014	DBP8	OEL	TTHM	3	0.065	MG/L

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CITY OF FLINT WTP**TTHM Response Plan Meeting**

November 7, 2014

9:30 am

Discussion Topics

I. Introductions

II. Purpose/Overview

- A. KWA supply timing
 - 1. Expected completion fall 2015
- B. TTHM high level samples
- C. Levels at multiple sites indicate source / WTP issue
 - 1. Problem did not exist on Detroit water
 - 2. 8 sites likely to exceed OEL

III. Suspected Causes

- A. Source water
 - 1. TOC has remained consistent
 - 2. Turbidity has remained consistent
 - 3. pH has remained consistent
 - 4. Increase in total Coliform

*2004 Treatability Study
Raw Water Sampling Different Results*

FeCl₃ + 2 polymers ~ 50% TOC Removal

Raw Water

Period	Turbidity NTU	TOC Mg/l	Alkalinity Mg/l	Hardness Mg/l	pH	Total Col. Count/day
2001 Apr-Oct	7.9	9.4	215	272	8.1	870-1230 (7300 max)
2014 May-Sept	8.1	10.3 5/22/14	205	250	8.1	1500-5000 (22,398 max)

FeCl₃ only

1 mg/L O₃ 50% reduce 11-30

2 mg/L O₃

DTAM 380-440 max. 28 dose

B. WTP operation

- 1. Ozone feed not working properly
- 2. Recent increased chlorine feed *source of carrier water?*
- 3. Coag or floc polymer aids might not be optimized

C. Distribution problems

- 1. Low flow
- 2. Dead ends *unidirectional flushing*
- 3. Too much storage

IV. Operational Evaluation Report Requirements

- A. Distribution system evaluation
 - 1. Distribution evaluation and modeling by others
 - 2. Storage capacity evaluation
- B. Source water evaluation
- C. Treatment evaluation
 - 1. Jar testing
 - 2. No ozone piloting
 - 3. Experiment with coag and floc polymer aid dosages
- D. Timing / schedule

Ozone 600 lb/day max right now

1 w/60 lb

vs. 2600 lb/day design

Instrumentation

V. Possible Solutions

- A. Chlorine dioxide or chloramine
- B. Decreased chlorine feed rate
- C. pH adjustment
- D. Corrections/modifications to ozone
- E. Coag & floc polymer aids (better TOC removal)
- F. Enhanced TOC removal with softening
- G. UV??? [with chlorine after for residual]
- H. Flushing to decrease water age??
- I. Lower storage tank high water levels (use less volume)???

VI. Other

Flint Operational Evaluation Update Mtg 11-7-2014

- coagulant + polymer operation
- carbon use
- excess storage
- storage operation
- Cl Boost in Dist.
- Flushing
- Valving Issues
- pH adjustment
- ozone

Met w/ Flint EM

- Warren Green
 - EM Darnell Early
 - Howard Craft, Util. Dir.
 - Darnell Waring
 - Darryl Johnson Administrator
 - Samir
 - Brent Wright
 - Rob Biznick Dist OIC
 - Bob Case, Pollution Control
 - Dir Wyatt
 - Sygo
 - Lian
 - Busch
 - Wunkel
 - Mike Glasco, operations chief
- Communication by City
- Unintended Consequences

Warren Green

Howard's Position w/ Customers / Education

- Localized
- Transmission Valve
- Lake Huron DT vs. River + WTP DT

Reliability Study July 2013

Recomm. Budget

↳ Replacement prior to EM I vs. plan

Bacti SSP - Site Confidential

- Training

KWA - 2016
- 1 1/2 yrs.

DWSD

- BWA

Flinn River ~~water~~ can be treated

Mott Foundation



Water + Sewer Fund
Asset Management

- ① Tell people we met (from DEF?)
- ② OE → Mtg
- ③ Followup Meeting
- ④ work w/ other agencies

Call to Flint EM

- Howard Craft
- Duffy Johnson

Director

Jim Sygo

Liane Shetter-Smith

Steve Busch

- Mike Glasco

Wed. Morning in Flint
10-12

3 issues

① BWA

② TIRM

- OE Status

- Messaging after 3rd Round of samples

- Turn Around Perception + Communication

③ Legionella

- DCH Epidemiology Study

- Flint Water Not Likely

- McLaren Hospital

↳ Ability to chlorinate

↳ X-con Inspection

↳ contained

- Current Issue → copy of MCL to Flint Rep/Serv.

- TTHM November



- OEL Analysis

- EM Briefing

Mtg.

↳ Regroup Comm Approach

Flint TTHM (PPB)

Location	8/21/14	5/21/14	2/19/14	11/20/13	8/21/13	5/22/13
3719 DAVISON Rd	145.3	162.4	24.6	27.5	48.5	31.2
3342 S. DORT HWY	127.2	111.6	11.1	17.2	30.8	15.5
4501 Flushing Rd	196.2	106.4	12.2	19.1	29.7	17.5
204 N. Sag St.	118.3	96.5	10.0	17.0	28.8	15.7
1018 Clio Rd	144.4	88.2				
3216 MLK Blvd	112.4	82.2				
3606 COLUMNA Rd	181.3	79.2				
522 S. DORT HWY	112.0	75.1				

change to
Flint R.

Flint Compliance Options

- Source Management
 - DWSO
 - Blending?
 - Intake draw pts
- Distribution BMP's
 - Manage Water Age → NOM contact
 - Booster Disinfection
 - Flushing
 - Tank Maintenance + Management

- Pipe Rehab + Replacement

- pH adjustment & increase Cl potency
 ↳ good for Bromate

- Enhanced Coag
 - Dose
 - Chemical
 - Mixing
 - Oxidant
 - Polymer

Enhanced Softening

GAC Filter Cap

MS River Systems

- Ann Arbor (Mixed)

- Blissfield

- Dearfield

- Adrian (Impoundment)

- Alma (Mixed)

- Manistique

Thelen, Mary Beth (DEQ)

From: The Office of Senator Ananich <SenJAnanich@senate.michigan.gov>
Sent: Wednesday, October 21, 2015 12:43 PM
To: hedman.susan@epa.gov; mccarthy.gina@epa.gov
Cc: Jordan.Dickinson@mail.house.gov; mayor@cityofflint.com; HCroft@cityofflint.com; poy.thomas@epa.gov; Schock.michael@epa.gov; Lytle.darren@epa.gov; fortin.denise@epa.gov; Wyant, Dan (DEQ); aaron_suntag@stabenow.senate.gov; Bentley_Johnson@peters.senate.gov; Davis.CatherineM@epa.gov; repphelps@house.mi.gov; SheldonNeeley@house.mi.gov; snyder@michigan.gov
Subject: Letter Requesting EPA Review of Flint, MI Water
Attachments: 2015.10.21 EPA Review Request FINAL.PDF

Administrator McCarthy and Regional Director Hedman,

Please see the attached letter regarding a request for an EPA review of Flint, Michigan's water treatment.

Please do not hesitate to contact my office if you have any questions. Thank you for your time and attention.

Sincerely,

The Office of State Senator Jim Ananich
 Michigan Senate Minority Leader
 District 27



CC: S490

George K.

Liane Shellen

Steve Busch

Maggie Pollack

Brad Wunfel

Director asked
 that I
 provide you
 a copy.

nlt
 10-23

Orig: Desk

SENATE MINORITY LEADER
JIM ANANICH

517.373.0412
 senjananich@senate.michigan.gov
 senatedems.com/ananich

 /jimananich  @jimananich

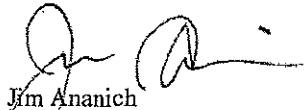
The State of Michigan has pledged to help reconnect the City of Flint to DWSD and take additional steps to help remediate the lead problem. However, these are stopgap measures that will never undo the damage already done.

Ultimately, the EPA retains the ability and responsibility to oversee the state's efforts to obtain and maintain safe drinking water for its residents. As such, I appreciate that the EPA has established the Flint Safe Drinking Water Task Force. However, it also is within the EPA's power to review the actions of MDEQ and the City of Flint as they pertain to lead testing and treatment under the Lead and Copper Rule. We want to ensure Flint remains compliant once it switches its permanent water source to the Karegnondi Water Authority.

I respectfully request that, under 40 CFR Sec. 142.19, Regional Administrator Hedman review MDEQ's determinations regarding corrosion control for lead in Flint, Michigan. Regardless of the findings, I am also requesting that Regional Administrator Hedman make public all evidence gathered during the course of that review. Michigan citizens deserve to know whether MDEQ is operating safely and effectively.

If you have any questions, please contact my office at senjananich@senate.mi.gov or (517) 373-0142. Thank you for your consideration.

Sincerely,



Jim Ananich
 Senate Democratic Leader
 District 27

cc:

Governor Rick Snyder
 U.S. Representative Dan Kildee
 U.S. Senator Debbie Stabenow
 U.S. Senator Gary Peters
 State Representative Sheldon Neeley, District 34
 State Representative Phil Phelps, District 49
 Mayor Dayne Walling, City of Flint
 Howard Croft, City of Flint
 Susan Hedman, EPA
 Thomas Poy, EPA
 Michael Schock, EPA-ORD
 Darren Lytle, EPA-ORD
 Denise Fortin, EPA
 Dan Wyant, MDEQ
 Liane Shekter-Smith, MDEQ
 Pat Cook, MDEQ
 Stephen Busch, MDEQ
 Brad Wurfel, MDEQ
 Marc Edwards, Virginia Tech

Congressional & Legislative Mtg. 9/21/05

- Kildoe
- Amannich

Phone

- Stabenow office
- Peters office
- Gov. Office
- Amannich office

Kildoe

What help can be provided
sig. problem w/ DW

- Floating Info
- Consistency in Gov's Approach

~~2~~

Multiple Things Going On

① DW

② - RWA impact?

- Better Understanding

③ - Realistic Options
Fed Role

Peters & Stabenow No More

Answer Ques.

- Med Issues

Major - Multilevel Approach
Clear Picture

- ① DWSD option
- ② Assurances
- ③ Long Term
- ④ Partnership

- Consumer Notice
- CCR
-

Dir. Summary

- EPA+DEQ

Mayor's Technical Advisory
Mayor SEQ+EPA set group?

- City's movement going fwd.
- Long Term Resource Need
- Lead Education

888 557-5511
2752012

- Congressman Response
- Instead of written do briefly
conversations
Friday or Monday
- Jan Mtg. w/ Matt Foundation Wed. / Thurs.
Mtg. tomorrow

FAQ
Format

- Briefing responding to congressman &
rep letter

- ①
- ② Mtg. w/ Director Wyatt
- ③ Mtg. w/ Gov Office
DHHS Treasury
- ④ Conversation w/ legislature

4:00 Mtg

call w/ Susan Hedman
↳ Joint Response Not Recommended

Wanted

Sample
Don't Supervise

135+ sample bottles
sent to customers

+ 2014 Round

every sample
called highest

- why not resampled

- Sampling pool decided

= 13 hours from initial pool

Understand Mr. Edwards has concerns about the low

sampling pool created in 1991 33 sites as part of
DWSD

last ~~2013~~ 2011 23 samples required

with over Tier 1 sites
15,000

↓
with change in source
+ treatment increased to
100 minimum

Director Briefing

(A)

Background

Tomorrow

Flint Issue Summary Document

(1) Timeline

(2) TTH ~~test~~

(3) Bacteria

(4) Lead + Corrosion

No safe level of lead

Treatment Installation

Simple bullet points

DHAS
Info

(B)

Diagram of Responsibilities (Flint specific)
EPA → State → Local → Citizen

(C) Letter to Kildee → tomorrow

EPA - meeting status

- protocol development
- committing resources

① Mott Mtg Wed, Infrastructure
 Presentation Thurs FTE Funding
 for DHS

② Mtg w/ Gov Office Friday 8:00-9:00
 - Treasury Call In
 - Office of Urban Development

③ Mtg on Monday 9:00 w/ legislators
 Tymka Hyde call Friday

TAC^{Mtg} w/ Edwards
 Dir. Mtg

LBWL

Flint $\approx$ \$60,000,000

WM 250 Miles

250,000,000

Directors

- 3 point

- Editorial ~~DEQ~~ DEQ & DHS
- Auditing
- City TAC
- EPA Audit DEQ
- Congressional Action

Wurfel, Brad (DEQ)

Subject: Flint Water Conf Call

Start: Fri 9/18/2015 8:00 AM

End: Fri 9/18/2015 9:00 AM

Recurrence: (none)

Meeting Status: Accepted

Organizer: Clayton, Stacie (GOV)

Required Attendees: Hollins, Harvey (GOV); Muchmore, Dennis (GOV); Posthumus, Dick (GOV); Brown, Eric (GOV); Lyon, Nick (DCH); Wyant, Dan (DEQ); Khouri, Nick (TREASURY); Wisniewski, Wendy (GOV); Rospond, Laurie (GOV); Grijalva, Nancy (DCH); Thelen, Mary Beth (DEQ); Doyle, Maureen (Treasury); Pallone, Maggie (DEQ); Wurfel, Brad (DEQ);

Optional Attendees: McBride, Bill (GOV)

Call In: 866-590-5055

Access: 3363768

Harvey will host

Agenda

DEQ update on Flint water and elected officials briefing

Dennis Muchmore update

Harvey Hollins update

Treasury update

DHHS update

Action steps going forward (DEQ)

Participants

Dennis Muchmore

Dick Posthumus

Harvey Hollins

Eric Brown

Bill McBride

Nick Lyon

Dan Wyant

Nick Khouri

Lizner

Wayne & Tom Treasury
Workman

DEQ and EPA Briefing on Flint Water

September 23, 2015

9:00am -10:00am

Introductions

Dan Wyant

EPA Update

Tinka Hyde

Elected Officials Updates

Congressman Kildee

US Senator Stabenow's office

Senator Ananich

Representative Neeley

Representative Phelps

DEQ Updates and Background

Liane Shekter-Smith, Steve Busch

Questions and Answers

All



RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING



DAN WYANT
DIRECTOR

September 16, 2015

VIA E-MAIL

The Honorable Daniel Kildee
United States House of Representatives
Washington, DC 20515

Dear Congressman Kildee:

Thank you for your September 9, 2015, letter regarding your concerns for the drinking water in the city of Flint (Flint). The Michigan Department of Environmental Quality (MDEQ) is working closely with Flint's water department as well as the U.S. Environmental Protection Agency (USEPA) to ensure Flint residents have ample water that meets state and federal drinking water standards.

The MDEQ's role is to administer its nearly 40-year-old state drinking water protection program based on federal guidelines. The MDEQ works with approximately 11,500 public water systems in the state to monitor for more than 90 primary drinking water contaminants and ensure that every supply consistently provides safe drinking water.

In Flint, the city made a decision 18 months ago to switch drinking water sources. This change required them to take specific measures under the federal Lead and Copper Rule, which was enacted in 1991 to monitor water as it interacts with lead service connections and home plumbing. Flint's test results were conducted according to the same testing protocols every Michigan community uses and the same protocols Flint has used to test its water every three years for the past 25 years.

While the results from Flint's testing show compliance with the federal action level for lead and copper, on August 17, 2015, the MDEQ instructed the city to move forward expeditiously with developing additional corrosion control treatment to minimize the corrosive effects between drinking water and lead service connections and home plumbing in the Flint service area.

We appreciate and share your concern for the situation, and the MDEQ looks forward to providing you a detailed briefing next week. If you have any additional questions in the meantime, please contact Ms. Maggie Pallone, Deputy Director, Policy and Legislative Affairs, at 517-284-6704 or pallonem@michigan.gov; or you may contact me.

Sincerely,

Dan Wyant
Director
517-284-6700

The Honorable Daniel Kildee

Page 2

September 16, 2015

cc: Senator Jim Ananich
Representative Sheldon Neeley
Representative Phil Phelps
Mayor Dayne Walling, City of Flint
Mr. Howard Croft, City of Flint
Dr. Susan Hedman, Regional Administrator, USEPA, Region 5
Mr. Thomas Poy, USEPA, Region 5
Ms. Denise Fortin, USEPA, Region 5
Mr. Michael Schock, USEPA
Mr. Darren Lytle, USEPA
Mr. Marc Edwards, Virginia Tech
Mr. Harvey Hollins, Governor's Southeast Michigan Office
Mr. Bill McBride, Governor's Washington Office
Mr. Eric Brown, Governor's Washington Office
Mr. Jim Sygo, Chief Deputy Director, MDEQ
Ms. Madhu R. Anderson, Deputy Director, MDEQ
Ms. Maggie Pallone, Deputy Director, MDEQ
Ms. Sarah M. Howes, Legislative Liaison, MDEQ
Mr. Brad Wurfel, Communications Director, MDEQ
Ms. Liane Shekter Smith, MDEQ
Mr. Stephen Busch, MDEQ
Mr. Pat Cook, MDEQ



United States Environmental Protection Agency
Regional Administrator
Region 5
77 West Jackson Boulevard
Chicago, IL 60604-3590

SEP 15 2015

The Honorable Daniel Kildee
Member, U.S. House of Representatives
Washington, D.C. 20515-1313

Dear Congressman Kildee:

Thank you for your September 9, 2015 letter regarding drinking water quality in the City of Flint. EPA is actively working with the Michigan Department of Environmental Quality (MDEQ) to help the City provide clean and safe water.

Consistent with the recommendations in the internal memorandum cited in your letter, EPA is working with MDEQ to monitor Flint's compliance with the federal Lead and Copper Rule. On August 17, 2015, MDEQ notified Flint that additional treatment will be required to optimize corrosion control and the City is taking steps to do so. Experts from EPA's Office of Research and Development are providing technical assistance to Flint to implement those corrosion control improvements.

Flint residents who are concerned about lead in drinking water may request water sampling by the local water utility. General information about lead in drinking water and tips to reduce lead exposure are available at <http://water.epa.gov/drink/info/lead/index.cfm>

Again, thank you for your letter. We look forward to a more detailed discussion at the meeting that is being set up on Monday. In the meantime, if you have further questions, please contact me or your staff may contact Denise Fortin or Ronna Beckmann, the Region 5 Congressional Liaisons, at (312) 886-3000.

Sincerely,

A handwritten signature in black ink, appearing to read "S. Hedman", is written over a horizontal line.

Susan Hedman
Regional Administrator

DANIEL T. KILDEE
5TH DISTRICT, MICHIGAN

**COMMITTEE ON
FINANCIAL SERVICES**

**SUBCOMMITTEE ON
HOUSING AND INSURANCE**

**SUBCOMMITTEE ON
MONETARY POLICY AND TRADE**

SENIOR WHIP

**DEMOCRATIC POLICY AND
COMMUNICATIONS COMMITTEE**



Congress of the United States
House of Representatives
Washington, DC 20515
September 9, 2015

WASHINGTON OFFICE

227 CANNON HOUSE OFFICE BUILDING
WASHINGTON, DC 20515
(202) 225-3611
(202) 225-6393 (FAX)

DISTRICT OFFICE

111 EAST COURT STREET #3B
FLINT, MI 48502
(810) 238-8627
(810) 238-8658 (FAX)

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f /REP DANKILDEE

t @REP DANKILDEE

Ms. Gina McCarthy
Administrator
Environmental Protection Agency
1200 Pennsylvania Ave. NW
Washington, D.C. 20460

DEQ
RESOURCE MANAGEMENT DIVISION
SEP 16 2015
LANSING DISTRICT

Mr. Dan Wyant
Director
Michigan Department of Environmental Quality
P.O. Box 30473
Lansing, MI 48909

Administrator McCarthy and Director Wyant:

The attached June 24, 2015, memorandum between two Environmental Protection Agency (EPA) employees, Miguel A. Del Toral and Thomas Poy, published recently by the American Civil Liberties Union of Michigan, suggests that there are high lead levels in the city of Flint, Mich., water transmission lines. Furthermore, this document reflects that children consuming this water had levels of lead in their blood in excess of three times what they were prior to the city of Flint switching its source water from the Detroit Water and Sewage Department (DWSD) to the Flint River.

In addition, this memorandum makes recommendations to Mr. Poy, Chief of the Ground Water and Drinking Water Branch of EPA Region 5, to do three things. First, for the EPA to work with the Michigan Department of Environmental Quality (MDEQ) to provide technical assistance to the city of Flint to deal with water quality issues. Second, it suggests the EPA review the compliance status of the city of Flint in respect to its compliance with the Lead and Copper Rule (LCR). Third, the memorandum recommends that the EPA conduct a review of the city of Flint testing procedures to ensure they are compliant with the LCR.

Regarding this memorandum and the surrounding water quality issues in the city of Flint, I have the following questions:

- Was this memorandum actually sent to Mr. Poy?



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

WG-15J

June 24, 2015

MEMORANDUM

SUBJECT: High Lead Levels in Flint, Michigan – Interim Report

FROM: Miguel A. Del Toral *[Signature]*
Regulations Manager, Ground Water and Drinking Water Branch

TO: Thomas Poy
Chief, Ground Water and Drinking Water Branch

The purpose of this interim report is to summarize the available information regarding activities conducted to date in response to high lead levels in drinking water reported by a resident in the City of Flint, Michigan. The final report will be submitted once additional analyses have been completed on pipe and water samples.

Following a change in the water source, the City of Flint has experienced a number of water quality issues resulting in violations of National Primary Drinking Water Regulations (NPDWR) including acute and non-acute Coliform Maximum Contaminant Level (MCL) violations and Total Trihalomethanes (TTHM) MCL violations as follows:

Acute Coliform MCL violation in August 2014
Monthly Coliform MCL violation in August 2014
Monthly Coliform MCL violation in September 2014
Average TTHM MCL violation in December 2014
Average TTHM MCL violation in June 2015

In addition, as of April 30, 2014, when the City of Flint switched from purchasing finished water from the City of Detroit to using the Flint River as their new water source, the City of Flint is no longer providing corrosion control treatment for lead and copper.

A major concern from a public health standpoint is the absence of corrosion control treatment in the City of Flint for mitigating lead and copper levels in the drinking water. Recent drinking water sample results indicate the presence of high lead results

for lead were 104 ug/L and 397 ug/L. The level of iron in the water also exceeded the capability of the measurement (>3.3 mg/L). The lead results were especially alarming given that the samples were collected using the sampling procedures described above, which minimize the capture of lead. When contacted by U.S. EPA Region 5, the MDEQ indicated that the lead was coming from the Walters' plumbing. Ms. Walters had previously indicated that all of the plumbing in the home was plastic.

Following the confirmation of the initial high lead results, U.S. EPA Region 5 conducted two visits to the Walters' home on April 27, 2015 and May 6, 2015. Based on an inspection of the plumbing and subsequent sampling conducted at the Walters' residence, it was determined that except for a few minor metallic connectors, all interior plumbing, including the pipes, valves and connectors are made of plastic certified by the National Sanitation Foundation (NSF) for use in drinking water applications. Subsequent sampling showed that the faucets in the home appear to be compliant with the new lead-free requirements and are also not the source for the high lead levels. Our inspection of the interior plumbing and analysis of follow-up sampling results demonstrate that the home plumbing network is not the source of the high lead levels found at the Walters' residence. The photographs and all sampling results will be included in the final report.

Based on the U.S. EPA inspection and documentation of the plastic plumbing at the Walters' residence, it was suspected that the high lead was being introduced into the Walters' home plumbing from outside the home, likely from a lead service line. Three portions of the service line were extracted during a subsequent trip on May 6, 2015 and sent for analysis, when the Walters' service line was replaced. Analyses performed to date indicate that a portion of the service line is made of galvanized iron pipe. Inspection of the remaining portion from the water main to the external shut-off valve confirmed that the portion from the water main to the external shut-off valve is a lead service line.

Ms. Walters has also provided U.S. EPA with medical reports on her child's blood lead testing indicating that the child had a low blood lead level (2 ug/dL) prior to the source water switch and an elevated blood lead level following the switch (6.5 ug/dL). Redacted copies of these reports will also be included in the final report.

Subsequent to the discovery of high lead levels in the Walters' drinking water, the water to the Walters' home was shut off on April 3, 2015. The water was briefly turned back on to collect additional samples on April 28, 2015. Since the water had stagnated for an extended period of time, the kitchen tap was flushed for 25 minutes the night before collecting the samples. Three sets of samples were collected at different flow rates (10 at low flow, 10 at medium flow and 10 at high flow).

As previously mentioned, the City of Flint currently has no mitigating treatment for lead and is also planning another source water change in the near future. U.S. EPA's Office of Research and Development in Cincinnati has extensive experience in corrosion and corrosion control treatment and distribution system issues and would be a valuable addition to the drinking water advisory group for the City of Flint. Copies of the qualifications and experience for Michael Schock and Darren Lytle have been forwarded to MDEQ.

2. U.S. EPA should review the compliance status of the City of Flint with respect to whether the system is in violation of the LCR requirement to install and maintain optimal corrosion control and whether the MDEQ is properly implementing the LCR provisions regarding optimal corrosion control treatment requirements for large systems. Pursuant to 40 CFR Section 141.82(i), the EPA Regional Administrator may review treatment determinations made by a State and issue federal treatment determinations consistent with the requirements of the LCR where the Regional Administrator finds: (1) A state has failed to issue a treatment determination by the applicable deadlines; (2) A State has abused its discretion in a substantial number of cases or in cases affecting a substantial population; or (3) The technical aspects of a State's determination would be indefensible in an expected Federal enforcement action taken against a system.
3. The U.S. EPA should review whether relevant resident-requested samples are being included by the City of Flint in calculating the 90th percentile compliance value for lead. Recent drinking water tests conducted at homes in Flint for lead that are not part of the compliance sampling pool have revealed high lead levels in the drinking water. The U.S. EPA memorandum signed on December 23, 2004 provides clarification on compliance determinations and states that customer-requested samples are to be included in the 90th percentile lead compliance calculation where the sampling is conducted during the monitoring period from sites and sampling procedures meeting the LCR criteria. Given the prevalence of lead service lines in the City of Flint, should these sample results be from homes with lead service lines, the sample results would be considered compliance samples under the LCR.

Also attached is a timeline of events for Flint, Michigan. Should you have any questions regarding the information or recommendations provided, please let me know.

cc: Liane Shekter-Smith (MDEQ)
 Pat Cook (MDEQ)
 Stephen Busch (MDEQ)
 Michael Prysby (MDEQ)
 Marc Edwards (Virginia Tech)
 Michael Schock, EPA-ORD
 Darren Lytle, EPA-ORD



STATE OF MICHIGAN

Rec'd 9/10 @ 12:57
Assigned to Maggie P
9/11 @ 2:08

September 10, 2015

Michigan Department of Environmental Quality
Executive Division
DEQ Director: Dan Wyant
P.O. Box 30473
Lansing, MI 48909-7973

Director Wyant,

In light of recently released findings by the American Civil Liberties Union, independent researchers and a troubling interim U.S. Environmental Protection Agency memo from June, we are requesting additional answers about the safety and treatment of the City of Flint's water.

Several disturbing points have been raised and we have a number of urgent questions, including:

1 • When did the MDEQ become aware of the June 24, 2015, interim EPA memo and whom was it shared with?

- A • Which Flint city officials also received this information?
- B • Why was the memo not immediately shared with the public?
- C • What response did MDEQ have to the EPA concerns raised in the memo?
- D • Were any actions taken by the MDEQ as a result of the issues mentioned in the memo?
- E • What steps, if any, were taken to determine the validity of the Virginia Tech study?

2 • Please explain why the pre-flushing method of sampling was used in this instance.

- A • Is it the same method that is applied to all sampling or does the agency have the discretion to decide?
- B • Who is responsible for making the decision to pre-flush?
- C • The EPA memo references the Lead Copper Rule requirement that systems greater than 50,000 users maintain "corrosion control treatment." As the regulator, why did the MDEQ choose not to enforce that standard?
- D • The EPA recommends allowing water to rest for at least six hours, but no more than 12 hours, before taking a sample. On MDEQ's Web site, it suggests flushing the line for five minutes before the six-hour rest. How did the department arrive at this method?

• According to a July 9, 2015, article on DeadlineDetroit.com, "Scary: Leaded Water and One Flint Family's Toxic Nightmare,"

"The EPA offered Flint officials the use of agency experts to help get the situation under control," said Del Toral, but added that, to his knowledge, the city has so far declined all help.

LeeAnne Walters said that when she asked why city officials weren't taking the EPA's offer of assistance, she was told, "We don't need it."



STATE OF MICHIGAN

Flint spokesman Lorenz, on the other hand, maintained "the city continues to work closely with the MDEQ and the EPA Regional Office."

- E** • Who refused the EPA's offer of expert assistance and why?
- 3** **A** • **Is the damage done to the pipes (as described in the EPA report) accurate?**
- B** • If yes, will damaged pipes continue to leach lead or will properly treated water safely reach consumers?
- B** • What is the plan and timeline to address it?
- 4** • **And most importantly, what can be done immediately to ensure safe, affordable drinking water for the citizens of Flint?**

Many of the decisions that led to the current situation occurred while a state-appointed manager was in control and MDEQ personnel were consulted about testing methods and how to address the situation. In addition, MDEQ also encouraged the method of water testing used by Flint officials. We believe that there is a heightened obligation by the state to make this right.

per the law

Due to the serious public health threats of this situation, we respectfully request a response to these matters by Monday, September 14, 2015.

We will do our best to accommodate meeting requests, if necessary, but would appreciate written responses to the above questions so that we can make informed decisions swiftly to address these serious concerns.

Sincerely,

Jim Ananich
Senate Democratic Leader
District 27

Sheldon Neeley
State Representative
District 34

Phil Phelps
State Representative
District 49

cc:

U.S. Representative Dan Kildee
Mayor Dayne Walling, City of Flint
Howard Croft, City of Flint
Susan Hedman, EPA
Thomas Poy, EPA
Michael Schock, EPA-ORD
Darren Lytle, EPA-ORD
Denise Fortin, EPA
Liane Shekter-Smith, MDEQ
Pat Cook, MDEQ
Stephen Busch, MDEQ
Brad Wurfel, MDEQ
Marc Edwards, Virginia Tech



RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING



DAN WYANT
DIRECTOR

September 17, 2015

VIA E-MAIL

The Honorable Jim Ananich
State Senator
State Capitol
P.O. Box 30036
Lansing, Michigan 48909-7536

The Honorable Sheldon Neeley
State Representative
State Capitol
P.O. Box 30014
Lansing, Michigan 48909-7514

The Honorable Phil Phelps
State Representative
State Capitol
P.O. Box 30014
Lansing, Michigan 48909-7514

Dear Senator Ananich and Representatives Neeley and Phelps:

Thank you for your letter of September 10, 2015, regarding water quality in the city of Flint (City). Your interest in this matter is appreciated. The Michigan Department of Environmental Quality (MDEQ) takes seriously its responsibility to ensure safe drinking water for all Michigan residents. The MDEQ maintains a robust public water supply regulatory program through long-standing partnerships with the United States Environmental Protection Agency (USEPA) and the state's regulated public water systems.

With respect to the draft memo referenced in your letter, the MDEQ does not review or receive draft memos from the USEPA, nor would we expect to while it is a draft.

Regulations associated with lead, copper, and corrosion control require communities to monitor water quality at customer taps. The monitoring protocols for sampling home water attempt to represent actual home water use, and they allow the MDEQ to get consistent results for year-over-year comparisons.

It is important to recognize that any home with lead plumbing or service connections will impart some amount of lead to water samples. While the compliance monitoring for lead in the City has not exceeded the federally-established Action Level, either before or after the City switched sources and treatment methods, there has always been

The Honorable Jim Ananich
The Honorable Sheldon Neeley
The Honorable Phil Phelps
Page 2
September 17, 2015

detectable lead in the City's water sampling program for homes that have lead plumbing or service connections. The City's monitoring program's purpose is to show aggregated levels throughout the entire system, not individual home levels.

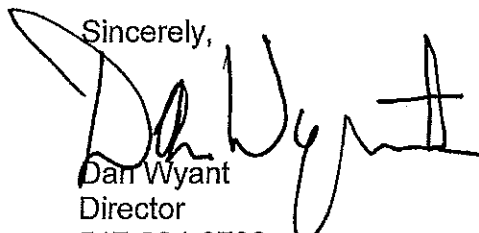
The law requires the City to provide individual lead results to customers whose homes are sampled for compliance with the Action Level. Each customer with an individual sample result that exceeds 15 parts per billion is provided information on actions they can take to limit lead exposure in their drinking water. System-wide results from the most recent lead compliance monitoring are included each year in the City's annual Consumer Confidence Report, which is provided to customers and available online.

It is important to note that the City performed extensive home water tests for lead and copper last year and this year, and is meeting state and federal drinking water standards. Local health departments also administer annual blood level testing on children in Flint; results show no discernable rise in levels that might be expected if there was an elevated lead level in the City water supply. The City currently has no unresolved violations of state and federal drinking water standards.

The MDEQ continues to work with the City and federal regulators on the shared goal of ensuring safe, reliable drinking water in this community.

I look forward to discussing this issue in greater detail at the meeting next week. If you should have additional questions before then, please contact Ms. Maggie Pallone, Deputy Director, Policy and Legislative Affairs, at 517-284-6715 or pallonem@michigan.gov; or you may contact me.

Sincerely,



Dan Wyant
Director
517-284-6700

The Honorable Jim Ananich
The Honorable Sheldon Neeley
The Honorable Phil Phelps
Page 3
September 17, 2015

cc: U.S. Representative Dan Kildee
Mayor Dayne Walling, City of Flint
Mr. Howard Croft, City of Flint
Dr. Susan Hedman, Regional Administrator, USEPA, Region 5
Mr. Thomas Poy, USEPA, Region 5
Ms. Denise Fortin, USEPA, Region 5
Mr. Michael Schock, USEPA
Mr. Darren Lytle, USEPA
Mr. Marc Edwards, Virginia Tech
Mr. Harvey Hollins, Governor's Southeast Michigan Office
Mr. Bill McBride, Governor's Washington Office
Mr. Eric Brown, Governor's Washington Office
Mr. Jim Sygo, Chief Deputy Director, MDEQ
Ms. Madhu R. Anderson, Deputy Director, MDEQ
Ms. Maggie Pallone, Deputy Director, MDEQ
Ms. Sarah M. Howes, Legislative Liaison, MDEQ
Mr. Brad Wurfel, Communications Director, MDEQ
Ms. Liane Shekter Smith, MDEQ
Mr. Richard Benzie, MDEQ
Mr. Stephen Busch, MDEQ
Mr. Pat Cook, MDEQ



RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING



DAN WYANT
DIRECTOR

September **, 2015

The Honorable Daniel T. Kildee
United States House of Representatives
Washington, DC 20515

Dear Representative Kildee:

Thank you for your letter of September 9, 2015, regarding water quality in the city of Flint (City). Your interest in this matter is appreciated. The Michigan Department of Environmental Quality (MDEQ) considers its responsibility to ensure safe drinking water for its citizens a top priority. The MDEQ maintains a robust public water supply regulatory program through long-standing partnerships with both the Region 5 Office of the United States Environmental Protection Agency (USEPA) and the state's regulated public water systems to achieve the shared goal of compliance with drinking water standards.

With respect to the draft memo referenced in your letter, the MDEQ never received copies of this draft memo from the USEPA Region 5, nor would we expect to while it is only a draft. The MDEQ became aware of the existence of this document because a reporter informed our Public Information Officer that it was available on the Web site of the American Civil Liberties Union. In subsequent discussions with the USEPA, our employees were told this draft memo was under further review by the USEPA's Region 5 managers. We were informed they would send copies when the document was final. We have yet to receive the final version.

Regulations associated with lead, copper and corrosion control (LCR) require communities to monitor water quality at customer taps. Compliance is determined by analyzing samples collected from targeted, high-risk residences that have been identified as having lead plumbing in the home, lead service connections, or copper piping with joints that used solder containing high concentrations of lead.

In an attempt to simulate worst case conditions, the LCR requires "first draw" samples be collected from designated taps after a period of no use that is representative of an overnight stagnation, typically six to eight hours. If more than ten percent of these compliance samples report lead above the federally established Action Level (AL) of 15 parts per billion (ppb), a water supply has an AL exceedance. An exceedance is not a violation. It triggers other requirements, including public notification, additional water quality sampling, and possibly further treatment.

The compliance monitoring for lead within the City has never exceeded this AL, either before or after the City switched sources and treatment methods. However, based on the population served by the Flint public water supply system, the City is required to not only comply with the lead AL of 15 ppb, but to also provide optimized corrosion control treatment.

When the LCR was first implemented, water systems had the opportunity to demonstrate they were already employing optimized corrosion control by sampling for lead concentrations using the monitoring requirements of this regulation. When Flint changed sources and modified

treatment from Lake Huron water treated conventionally by the Detroit Water and Sewerage Department, to the Flint River and lime softening treatment at the Flint Water Treatment Plant, the city was afforded the same opportunity of conducting lead monitoring during the first two 6-month monitoring periods to see if they were already providing optimal corrosion control.

The two monitoring periods during which lead samples were collected throughout Flint in accordance with these requirements were July through December 2014 and January through June 2015. As indicated above, neither round of lead compliance monitoring exceeded the AL. However, the results were unable to demonstrate that the City had optimized corrosion control treatment.

At that point, the MDEQ notified the City in correspondence dated August 17, 2015, that it must provide additional treatment to meet this optimized corrosion control requirement. Despite the LCR allowing a period of two years to evaluate, select and implement optimal corrosion control treatment, the City has committed to having this treatment in place by January 2016. The City also invited a USEPA representative from the Office of Research and Development to consult with the City's Technical Advisory Committee that will oversee the installation of additional corrosion control treatment at the water treatment plant.

Under the LCR, public water supplies like Flint are required to provide individual lead results to those customers whose homes are sampled for compliance with the AL. Each customer with an individual sample result that exceeds 15 parts per billion is also provided information on actions they can take to limit lead exposure in their drinking water. Furthermore, results from the most recent lead compliance monitoring determination are included each year in the annual consumer confidence report, also known as their annual water quality report that each community must provide to customers. As required by EPA, this report also includes general consumer awareness information regarding lead. You may access the latest report from Flint at: <https://www.cityofflint.com/wp-content/uploads/CCR-2014.pdf>. This report covers the results of water quality monitoring during May through December of 2014 when the city began using the Flint River.

Lead blood level monitoring is overseen by the Michigan Department of Health and Human Services (MDHHS). Their review of lead blood testing results for the 12 month period just after the City of Flint changed its water source (May 2014 – April 2015) showed no significant change in the pattern of lead blood levels in comparison with levels reported for the previous three years.

Additionally, analyses of water entering the distribution system after the water treatment plant continue to show no lead present. The lead being detected in water samples collected at peoples' homes is coming from service connection piping and household plumbing, the majority of which is the responsibility of the property owner. The Flint Water Department is responsible for providing high quality drinking water, but they cannot control the variety of materials used in plumbing components on private property. Even after the City initiates optimal corrosion control treatment, there will be circumstances where elevated lead may be present in customer taps as long as there are lead materials and lead components associated with service lines and home plumbing. Reducing public exposure to lead in drinking water cannot be achieved by public water supply regulation alone. The MDEQ has contacted the MDHHS in an attempt to develop an outreach campaign designed to inform civic leaders and City residents in Flint as well as other cities in Michigan about the primary sources of lead and actions they may take to minimize exposure.

As for the overall acceptability of the drinking water in Flint, the City currently has no unresolved violations of state and federal drinking water standards. The MDEQ continues to assist the City in providing a safe, reliable, and adequate supply for protecting public health, enhancing public safety, and as a pillar for economic development to advance the quality of life in this community.

If you should have additional questions, please contact Ms. Liane Shekter Smith, P.E., Chief, Office of Drinking Water and Municipal Assistance, at 517-284-6543; shekterl@michigan.gov; or MDEQ, P.O. Box 30241, Lansing, Michigan 48909-7741; or you may contact me.

Sincerely,

Dan Wyant
Director
517-284-6700

cc: State Senator Jim Ananich
State Representative Sheldon Neeley
State Representative Phil Phelps
Mayor Dayne Walling, City of Flint
Mr. Howard Croft, City of Flint
Ms. Susan Hedman, USEPA
Mr. Thomas Poy, USEPA
Mr. Michael Schock, USEPA
Mr. Darren Lytle, USEPA
Ms. Denise Fortin, USEPA
Mr. Marc Edwards, Virginia Tech
Mr. Jim Sygo, Chief Deputy Director, MDEQ
Ms. Madhu Anderson, Deputy Director, MDEQ
Ms. Maggie Pallone, Deputy Director, MDEQ
Mr. Brad Wurrel, Communications Director, MDEQ
Ms. Liane Shekter Smith, MDEQ
Mr. Richard Benzie, MDEQ
Mr. Stephen Busch, MDEQ
Mr. Pat Cook, MDEQ

8969302#
 988-808 6929

Call In @ 3:30

9-24-2015

- Dennis Muchmore →
 - John Walsh
 - Bill McBride
 - Harvey
 - Dan Wyant
 - Stan Busch
 - Eric Brown
- Flint Water Issue
 Talked - Brad + others
- State Responsibility

- Flint city 7-1 decision
 GC comm. decision

- Make this work for Flint
 withdrew DWSD → River
 perceived quality conditions

- Brown water
- disputed issues

- lead current issue

- federal protocol
- DEQ analysis not collection

Minister Coalition legitimate concerns

- DEQ + DHS

lead in general exposure

Hurley Hospital Tests?
↳ contacting

told Brad

talked to Dan/Nick/Brad

More Aggressive Approach

DW → Public Health Issue

KWA + DWSD decisions made by
- City Council

Ed Kurtz Walking

Baird Question

Physically

- 1500 Filters? by Meijer
- Go Fund Me

Baird

Meijer + Home Depot
Hurley Purchase Filters

Jerrilyn DHHS
- 3:00

- Hurley Press Conf
- Data being reviewed 2 part/1 yrs.

AHS 5 year period of time
more points of data sample pool

LHD → ~~PHD~~ ~~PHD~~

- Following Hurley press conf
- Health Officer can handle

want GCHD on ground not DHHS if possible

Leave w/ Brad + Jerrilyn

Getting Directors out

- Safety of citizens IS first priority

On stage (L to R):

Dan Kildee
 LPHD representative
 Susan Hedman
 Dan Wyant
 Harvey Hollins
 Nick Lyon
 Dr. Eden Wells
 Dayne Walling
 Sen. Ananich

10/2/2015
 Kettering Univ.
 Press Conf.
 DEQ + DHHS

Harvey Hollins

- Thank you all for being here today. I'm Harvey Hollins, Director of the Office of Urban Initiatives for Gov. Rick Snyder.
- We're here as representatives of local, state and federal government to talk about ensuring safe drinking water for everyone in Flint. We have with us today:
 - Nick Lyon, Director of the Michigan Department of Health and Human Services
 - Dr. Eden Wells, Chief Medical Executive for the Michigan Department of Health and Human Services
 - Dayne Walling, mayor of Flint
 - Susan Hedman, the Region 5 Administrator for the U.S. Environmental Protection Agency
 - Name, representing the Genesee County Health Department
 - Congressman Dan Kildee, representative for Michigan's 5th district.
 - State Sen. Jim Ananich, senator for Michigan's 27th district
 - And Dan Wyant, director of the Michigan Department of Environmental Quality. Dan?

Dan Wyant

- Thank you, Harvey. And thank you all for being here today.
- We know many residents are concerned about their health and the health of their children. We understand many have lost confidence in the drinking water system, and we need to build that back up. And we recognize we need to do more.
- We have an action plan to announce today that will address both the short- and long-term issues.
- It focuses on increasing water testing, offering additional precautions for families with lead plumbing in their homes, and providing long-term solutions to address the city's water infrastructure.
- The plan includes:

Talk about advisories issued, free water testing available, next meeting of the Citizen Advisory Committee.

Susan Hedman

Introduce technical expert who will serve on Citizen Advisory Committee.



Michigan Department of Health and Human Services
Flint Blood Lead Levels Communication Plan
October 1, 2015

Situation overview:

After a change in the water source for Flint residents, there have been concerns related to the level of lead in the water and its impact on the community. As a result, the Michigan Departments of Health and Human Services, and Environmental Quality, are working with the local health department and Hurley Children's Hospital to analyze the situation and determine next steps.

Goals/objectives:

- Ensure public health partners and the elected officials are aware of MDHHS data analysis.
- Announce availability of water filters for Flint residents.

Audiences:

- Media/Flint residents
- Governor's Office
- Congress and Legislature
- Public Health Partners: Genesee County Health Department and Hurley Children's Hospital
 - Mark Valacek, LHD Health Officer
 - Gary Johnson, LHD Medical Director
 - Mona Hanna-Attisha, MD
 - Lawrence Reynolds, MD
 - Paul Joice, Dept. of Housing and Urban Development

Action steps/tools with timeline:

1. Friday, October 2:
 - *Timing TBD*: Provide data to Hurley Children's Hospital and Genesee County Health Department
 - *Timing TBD*: Notify Congressman Kildee and local elected officials of announcement
 - 1:30 p.m.: Press event with MDHHS, DEQ, EPA
 - i. Issue joint Press Release
 - Schedule 1x1 Media Interviews with Dr. Eden Wells
 - i. Kristi Tanner, Detroit Free Press
 - ii. Ed White, Associated Press
 - iii. Ron Fonger, MLive
 - iv. Sarah Hulett, Michigan Radio
2. Week of October 5-9
 - Schedule visit at Flint MDHHS office and Director Lyon
 - i. Invite media?
 - Follow up with Kristi Tanner: Detroit Lead Analysis

MDHHS Topline Messages:

- Initial analysis of MDHHS data found that blood lead levels (BLLs) of children in Flint have followed the seasonal trend. While this analysis of Flint as a whole remains true, after a more comprehensive analysis by our epidemiologists, the MDHHS has found that state data is consistent with the data presented by Hurley for specific zip codes.
- Upon conducting an analysis to analyze the zip codes within Flint that Hurley used in their study, MDHHS data does show that since the water source change in Flint has occurred, there has been an increase in childhood elevated lead levels in these communities.
- MDHHS is recommending that residents follow the Public Health Advisory issued by the Genesee County Health Department, as well as take further steps to reduce exposures to all forms of lead in and around their homes.
 - We understand that cost may be a barrier to following the recommendations of the local health department. We are actively working with public and private partners to make resources available to those who may need assistance.

Flint Drinking Water Press Conference Communications Plan

Oct. 2, 2015

Situation overview:

In May 2014, the city of Flint began drawing its drinking water from the Flint River, and left the Detroit Water and Sewerage Department. Recently, some city residents and outside activists have expressed concern about levels of lead in the drinking water. Although repeated testing demonstrates the water leaving the city of Flint's plant is free of lead contamination, Flint contains many old homes with lead plumbing, and some lead gets into individual homes' drinking water.

Talking points:

- The water leaving Flint's water system is free of lead contamination; however, the state recognizes many older homes have lead pipes and therefore some measure of lead in the water that comes out of their taps
- While this is a problem with individual homes, the city, state and federal governments have come together to provide a number of actions to address the issue.
- This plan includes both short- and long-term solutions, and focuses on increasing water testing, offering additional precautions for families, and providing long-term solutions to address the city's water infrastructure.
- The action plan:
 - Gov. Rick Snyder names Dr. Eden Wells as the Flint Drinking Water Public Health Advisor.
 - Provide water filters to residents of Flint.
 - Continue to disseminate advisories recommending residents flush their cold water pipes before use, as well as use only water from the cold water tap for drinking, cooking and especially for making baby formula.
 - Immediately test Flint public schools to ensure that drinking water is safe. Testing also will be available at no cost to any other school in Flint.
 - Expand health exposure testing of individual residences.
 - Offer water testing at no cost to Flint residents to assure water is safe.
 - Fully optimize corrosion controls in the Flint drinking water system by Nov. 1, 2015.
 - Convene a "Safe Drinking Water Technical Advisory Committee" to ensure the best technology, practices and science are being utilized, and add an expert from the EPA's Office of Research and Development to the group.
 - Accelerate water system improvements to address replacement of lead service lines.
 - Expedite completion of Karegnondi Water Authority.

Audiences:

- Media
- City of Flint and surrounding communities

YouTube

- Video news release
- Footage of each speaker's comments

Blood Lead Levels in Flint Talking Points

October 1, 2015

- Initial analysis of MDHHS data found that blood lead levels (BLLs) of children in Flint have followed an expected seasonal trend; due to small numbers further analysis was initiated.
- While this analysis of blood lead levels in Flint as a whole remains true, after a comprehensive and detailed review down to the zip code level, we have found that the state analysis is consistent with that presented by Hurley;
- Director Lyon is working closely with DEQ and the administration to take active steps to reduce all potential lead exposures in Flint, and across the state.
- Our Chief Medical Executive has been in communication with the lead investigator at Hurley Children's Hospital, and we continue to work with Hurley, the city of Flint, local and state leaders to verify and analyze data trends.
- Zip code-level data does show that there has been an increase in elevated childhood blood lead levels in specific communities.
 - This does not conclusively mean that the water source change is the sole cause of the increase, but data does show an association.
 - There is an increased proportion of children with elevated Blood Levels (ELBs) in several zip codes, particularly 03 and -04. These appear to have increased over the last 1.5 years. *over 5 Not 1.5*
 - Lead exposure can occur from a number of different sources (such as paint, gasoline, solder, and consumer products) and through different pathways (such as air, food, water, dust, and soil). *others lower*
 - Although there are several exposure sources, lead-based paint is still the most widespread and dangerous high-dose source of lead exposure for young children in the US and Michigan.
- We reviewed MDHHS statewide data using the same methodology used by Hurley, looking at our numbers by zip code and age ranges, and filtering out non-Flint children.
- Routine surveillance of blood lead levels does not analyze data down to the zip code level. Detailed analysis like this occurs when there is reason to focus in on precise locations or populations.
- MDHHS will be working closely with the Michigan Department of Environmental Quality, Hurley Children's Hospital, the Genesee County Health Department, and community organizations to initiate further action steps.

- We understand that cost may be a barrier to following the recommendations of the local health department. We are actively working with public and private partners to make resources available to those who may need assistance.
- MDHHS is recommending that residents follow the Public Health Advisory issued by the Genesee County Health Department, as well as take further steps to reduce exposures to all forms of lead in and around their homes.

MDHHS Stats and Facts

- Data charts/breakdowns and explanations--
- Lead abatement through MDHHS was federally funded up until FY14 when Michigan began providing additional funds to abate homes.
- In FY14, \$1.25M General Fund was added. In FY15, General Fund was bumped up to \$1.75M and FY16, General Fund remains at \$1.75M.

Reducing and Removing Lead Exposure

- In housing built before 1978, it can be assumed that the paint has lead unless tests show otherwise.
- Make sure your child does not have access to peeling paint or chewable surfaces painted with lead-based paint.
- Children and pregnant women should not be present in housing built before 1978 that is undergoing renovation. They should not participate in activities that disturb old paint or in cleaning up paint debris after work is completed.
- Create barriers between living/play areas and lead sources. Until environmental clean-up is completed, you should clean and isolate all sources of lead.
 - Close and lock doors to keep children away from chipping or peeling paint on walls. You can also apply temporary barriers such as contact paper or duct tape, to cover holes in walls or to block children's access to other sources of lead.
- Regularly wash children's hands and toys. Hands and toys can become contaminated from household dust or exterior soil. Both are known lead sources.
- Regularly wet-mop floors and wet-wipe window components. Because household dust is a major source of lead, you should wet-mop floors and wet-wipe horizontal surfaces every 2-3 weeks.
 - Windowsills and wells can contain high levels of leaded dust. They should be kept clean. If feasible, windows should be shut to prevent abrasion of painted surfaces or opened from the top sash.
- Take off shoes when entering the house to prevent bringing lead-contaminated soil in from outside.

- Prevent children from playing in bare soil; if possible, provide them with sandboxes. Plant grass on areas of bare soil or cover the soil with grass seed, mulch, or wood chips, if possible.
 - Until the bare soil is covered, move play areas away from bare soil and away from the sides of the house. If you have a sandbox, cover the box when not in use to prevent cats from using it as a litter box. That will help protect children from exposure to animal waste.
- Avoid using makeup, containers, cookware, or tableware to store or cook foods or liquids that are not shown to be lead free.
- Remove recalled toys and toy jewelry immediately from children.
- Use only cold water from the tap for drinking, cooking, and making baby formula. Hot water is more likely to contain higher levels of lead. Most of the lead in household water usually comes from the plumbing in your house, not from the local water supply.
- Shower and change clothes after finishing a task that involves working with lead-based products such as stained glass, making bullets, or using a firing range.

WIC Children

- There are 855 infants participating in WIC in Flint
- In homes with infants on WIC, if the household has documentation from an official source of unsanitary water supply issues, that family may be eligible to receive ready-to-feed formula. Families should contact WIC to see if they are eligible.
- Each household would have to be looked at on an individual basis.
- WIC cannot cover bottled water.

Background

- The results of the Hurley Children's Hospital were reviewed by MDHHS after the study was released last week.
- The analysis that Hurley conducted was different from the initial MDHHS data regarding blood lead levels in Flint.
- MDHHS initial data looked at the entire blood lead levels for the Flint area for the past five years and showed the annual seasonal trends in the area.
- Seasonal exposure is higher in the summer for a variety of reasons including children playing outside in the soil, and when windows are open and lead paint is more likely to be in the air. Further, seasonal variations in water can occur due to changes in temperature, pH, and other factors

DRINKING WATER - LEAD - DISTRIBUTION OF RESPONSIBILITIES

Environmental Protection Agency

1. Promulgation of Federal Safe Drinking Water Act Rules
2. 1974 Safe Drinking Water Act
 - 1991 Lead and Copper Rule
 - 2000 Lead and Copper Rule Minor Revisions
 - 2007 Lead and Copper Rule Short Term Revisions
 - ??? Lead and Copper Rule Long Term Revisions
3. Granting Primacy of Federal Regulations to States
4. Auditing of State Public Water Supply Programs
5. Provide Funding to States

Michigan Department of Environmental Quality

1. Primacy - Michigan Safe Drinking Water Act and Administrative Rules
2. Oversight of public water systems
3. Inspections
4. Construction Permitting
5. Provide loans to water systems for public infrastructure improvements
6. State Laboratory Services
7. Laboratory Certification
8. Establish monitoring requirements, quantity and frequency
9. Verification of monitoring results and compliance determination
10. Notify water systems of Action Level Exceedance
11. Establish Water Quality Parameter Ranges, as necessary
12. State Reporting to EPA
13. Operator Training and Certification

City of Flint Water Customers

1. Certified Operation of public water system
2. Establish Water Rates
3. Obtain construction permits
4. Reporting to MDEQ
5. Coordination of lead and copper sampling
 - Establishing a Tiered Sampling Pool
 - Providing Sampling Kits and Instructions to customers
 - Obtain signed statements from participating customers
 - Obtain sample analysis
 - Provide individual lead sample result to participants
 - Comply with Action Levels for lead and copper
 - Provide lead monitoring and notice Certification to MDEQ
6. Provide Annual Report (CCR) to all customers
7. Conduct Water Quality Parameter Monitoring
8. Recommend and Install Optimized Corrosion Control Treatment
9. Provide Public Notification, as necessary
10. Replace public portion of lead service, as necessary

Water Customers

1. Participate in lead sampling as requested
2. Request lead testing if concerned
3. Follow lead sampling Instructions
4. Provide signed information on how sample was collected
5. Review individual result material
6. Follow instructions for reducing lead exposure
7. Replace private lead service line and plumbing materials with lead-free products
8. Obtain plumbing permits and comply with code requirements
9. Pay Water Bills
10. Read Annual Report (CCR)
11. Read and follow Public Notification materials

Flint Drinking Water Media Q&A

Is the city going back to DWSD?

That's something we're leaving open. It's certainly an option, but there are no moves at this time to do so. If it becomes something city leadership is interested in doing, the state is willing to act as a facilitator between Flint and DWSD to help come to conclusion that's best for the residents of Flint.

How did the state not see this problem sooner?

Right now, we're focusing on addressing the problem at hand. Every household in the city of Flint is going to receive a water filter. The Flint Water Treatment Plant is going to fully optimize its corrosion controls by Nov. 1. And we're going to accelerate water system improvements to address the replacement of lead service lines.

In the long term, we will work with the U.S. EPA to look at water testing protocol.

Is the water safe?

The water leaving the Flint Water Treatment Plant is safe to drink and meets federal guidelines for lead. However, we recognize some residents experience higher levels of lead in the water that comes out of their faucets because of lead plumbing in the home. We will expand water testing to better determine which areas have a problem; however, in the meantime, every home will receive a filter to ensure their drinking water is safe.

Does this mean Marc Edwards was right?

We aren't familiar with his testing protocol and have not seen his data. All we know is the state's data and the data Hurley Medical Center provided indicate a need to take action.

Why didn't you require corrosion controls from day one?

When the city switched water sources, they did begin using lime softening as a corrosion control. DWSD used phosphates, which is another form of corrosion control, but far from the only one. Flint was within federal protocols when it chose to use lime, and this is consistent with what every other community was required to do.

With more data in hand, the city can now work to optimize their corrosion control system, and has pledged to do so by Nov. 1.

How do you feel about the state and federal testing protocols now that you know there was a problem?

We're going to be taking a look at that, and that's why Susan Hedman is here today. What we're seeing is concerning. But in the meantime, we're going to...

Why are you requiring optimization now?

What will you do if the schools you are testing come back with lead?

Is the Governor going to give the city the \$30 million it asked for? Or the \$13 million state Sen. Ananich wants to include in the budget?

Why did the state ignore city residents who have been saying there's a problem for six months?

Why did the Governor hide the fact that he was involved in distributing filters previously?

Will you meet with Marc Edwards?

Do you trust the city's data?

Why did the state allow the city to switch away from DWSD initially?

Has the city put residents at risk?

What will the state do about my children? Lead poisoning causes irreversible damage.

Is lead just a problem in Flint?

Why isn't the Governor here today?

Does the Flint River have lead? Is it more corrosive than the water from DWSD?

If the lead is in individual homes' plumbing, how long will it take to fix this problem? Will the move to KWA fix it, or will we still see lead?

Will testing start over when we move to KWA?

Why aren't Kildee and Ananich here?

How much are we paying all these new consultants – Dr. Wells and the EPA expert?

DRAFT 9/17/2015

City of Flint Water System Background

Water Service Land Area 34 square miles
 550+ miles of public water mains
 250+ miles of water mains 75+ years old
 70% of public water mains are unlined cast iron pipe
 Service population 99,763
 Service connections 32,900
 Flint Water System established in 1883
 Flint Water Treatment Plant #2 completed in 1954
 Connection to Detroit Water and Sewerage Department 1967
 Flint Water Treatment Plant #2 rehabilitated 1999 – 2005

City of Flint Timeline

April 2013 – Flint notifies DWSD of contract discontinuation and joins the Karegnondi Water Authority
 April 2013 – DWSD sets termination of Flint water service contract to April 17, 2014
 June 2013 – Karegnondi Water Authority groundbreaking
 June 2013 – Flint notifies DEQ of intent to use of Flint Water Treatment Plant full time with Flint River
 May 2014 – Flint stops purchasing DWSD water. Starts using the City of Flint WTP and Flint River
 August 2014 – Flint E.Coli Bacteria violation, Partial System Boil Water Advisory
 August 2014 – Disinfection Byproducts, DEQ requests preemptive Operational Evaluation
 September 2014 – Flint Total Coliform Bacteria violation, Partial System Boil Water Advisory
 November 2014 – Disinfection Byproducts violation begins
 January 2015 – 1st 6 month lead and copper sampling completed 100 samples, 90th% = 6 ppb
 July 2015 – 2nd 6 month lead and copper sampling completed 69 samples, 90th% = 11 ppb
 August 2015 – Disinfection Byproducts return to compliance
 August 2015 – Flint required by DEQ to recommend and install Optimized Corrosion Control Treatment

 January 2016 – Flint plans to have Optimized Corrosion Control Treatment operational
 July 2016 – Planned connection to Karegnondi Water Authority (Lake Huron water to Flint WTP)

DRAFT
DRINKING WATER - LEAD - DISTRIBUTION OF RESPONSIBILITIES

Environmental Protection Agency Promulgation of Federal Safe Drinking Water Act Rules 1974 Safe Drinking Water Act 1991 Lead and Copper Rule 2000 Lead and Copper Rule Minor Revisions 2007 Lead and Copper Rule Short Term Revisions ???? Lead and Copper Rule Long Term Revisions Granting Primacy of Federal Regulations to States Auditing of State Public Water Supply Programs Provide Funding to States	Michigan Department of Environmental Quality Primacy - Michigan Safe Drinking Water Act and Administrative Rules Oversight of public water systems Inspections Construction Permitting Provide loans to water systems for public infrastructure improvements State Laboratory Services Laboratory Certification Establish monitoring requirements, quantity and frequency Verification of monitoring results and compliance determination Notify water systems of Action Level Exceedance Establish Water Quality Parameter Ranges, as necessary State Reporting to EPA Operator Training and Certification
City of Flint Water System Certified Operation of public water system Establish Water Rates Obtain construction permits Reporting to MDEQ Coordination of lead and copper sampling Establishing a Tiered Sampling Pool Providing Sampling Kits and Instructions to customers Obtain signed statements from participating customers Obtain sample analysis Provide individual lead sample result to participants Comply with Action Levels for lead and copper Provide lead monitoring and notice Certification to MDEQ Provide Annual Report (CCR) to all customers Conduct Water Quality Parameter Monitoring Recommend and Install Optimized Corrosion Control Treatment Provide Public Notification, as necessary Replace public portion of lead service, as necessary	Water Customers Participate in lead sampling as requested Request lead testing if concerned Follow lead sampling Instructions Provide signed information on how sample was collected Review individual result material Follow instructions for reducing lead exposure Replace private leaded service line and plumbing materials with lead-free products Obtain plumbing permits and comply with code requirements Pay Water Bills Read Annual Report (CCR) Read and follow Public Notification materials

Frequently Asked Questions about Customer Tap water lead levels in the City of Flint – DRAFT 9/17

How was the Lead and Copper Rule Established?

Under the Safe Drinking Water Act, EPA sets public health goals and enforceable standards for drinking water quality. The Lead and Copper Rule was established as a treatment technique rule because lead contamination of drinking water often results from corrosion of the plumbing materials belonging to water system customers, and there is no safe level of lead exposure. Therefore, instead of meeting a maximum contaminant level (MCL) for lead or copper, the rule requires public water supplies to take certain actions to minimize lead and copper in drinking water, to reduce water corrosivity and prevent the leaching of these metals from the premise plumbing. When that isn't sufficient, replacement of lead service lines under their control could be required. The current rule sets a monitoring action level (AL) which is not the same as an MCL. An MCL is based on health effects and feasibility; whereas an AL is a screening tool for determining when certain treatment technique actions are necessary.

What is the source of lead in customer tap water?

Lead enters or leaches into water from lead service lines, lead solder, and leaded plumbing materials including fixtures, faucets, and fittings. Sampling at the Flint Water Treatment Plant has shown no lead in its treated water.

How is lead compliance determined?

Compliance with the Action Level (AL) is based on a 90th percentile level calculation. For example, if 100 compliance samples were collected, the 90th percentile would be based on the result of the 11th highest lead sample for that monitoring period. Therefore, if more than ten percent of these compliance samples report lead above the AL of 15 parts per billion, a water supply has an AL exceedance. An exceedance is not a violation. It triggers other requirements which could include public notification, additional water quality sampling, and possibly further treatment.

What is the frequency of lead and copper sampling?

Sampling periods can be as frequent as every six months to as little as once every three years. Reduction in sampling frequency is based on continued compliance with the Action Level and normally follows a progression of two six month periods, followed by annual sampling for three additional years, then one period every three years. Compliance samples can be collected at any time during six month sampling periods. When sampling is conducted annually or once every three years, all compliance samples are required to be collected between June 1 and September 30. This is done to capture warmest water conditions likely to produce the most leaching.

Why are customers asked to collect lead and copper samples?

Compliance sampling for lead requires the water to, "have stood motionless in the plumbing system of each sampling site for not less than six hours." In order to achieve this requirement, residents are provided with detailed instructions and requested in general to collect the sample as the first thing they do when they wake up in the morning. It would be difficult for City water staff to otherwise collect such samples within the limits of the monitoring period.

How long has the City of Flint conducted lead monitoring?

The City of Flint first began compliance monitoring for lead levels in customer taps as part of the Detroit Water and Sewerage Department (DWSD) consecutive system in January 1992 following the enactment of the Lead and Copper Rule. Two six month periods were collected in 1992. Sampling resumed with two six month periods in 1997 following the installation of Optimized Corrosion Control Treatment by

DWSD. A six month period was collected in 1998 and again in 1999. Annual sampling was completed in 2000, 2001, and 2002. Then triennial sampling was completed in 2005, 2008, and 2011 before the City of Flint changed sources and treatment in May 2014.

Has the City's compliance monitoring ever exceeded the lead action level?

No. While some individual samples do exceed the 15 part per billion (ppb) lead Action Level (AL), the AL is not a standard. Compliance is determined based on the 90th percentile value of all valid compliance sample results obtain during the established monitoring period. The City of Flint 90th percentile level has ranged between 0 ppb (2008 and 2011) and 15 ppb (1992), but never exceeded the AL. This includes the two most recent six month periods in 2014 and 2015 of 6 ppb and 11 ppb, respectively.

Why are some samples not included in the compliance determination?

Lead and Copper compliance sample sites must meet specific criteria that target customers with the highest potential for lead leaching. The sample must also be collected from a commonly used kitchen or bathroom tap, and in accordance with the provided sampling instructions. Customers that employ certain types of additional treatment are not allowed as such samples are not representative of water quality supplied by the water system. Samples must also be collected within the established monitoring period.

What is the timeline for installation of corrosion control treatment?

Under the Lead and Copper Rule treatment technique requirements, steps to complete the installation of optimal corrosion control treatment and follow-up monitoring are allowed to take up to five years. The City of Flint has committed to completing installation of optimal corrosion control treatment in less than six months.

What will happen when Flint obtains water from the Karegnondi Water Authority?

The City has committed to having Optimized Corrosion Control Treatment in place prior to its connection with the Karegnondi Water Authority (KWA). The water provided by KWA will come from a new source, Lake Huron. This change in source will require the City to return to two six month periods of lead and copper sampling and continued compliance with the Action Levels. The City of Flint water treatment plant will continue to operate with uninterrupted Optimized Corrosion Control Treatment.

When is customer and public notification regarding lead required?

Under the Lead and Copper Rule, public water supplies are required to provide individual lead results to those customers whose homes are sampled for compliance with the action level. Each of these customers is also provided information on actions they can take to limit lead exposure in their tap water. Furthermore, results from the most recent lead compliance monitoring determination are included each year in the annual consumer confidence report (CCR), also known as the annual water quality report that each water system must provide to all customers. As required by EPA, this report also includes general consumer awareness information regarding lead.

How can I reduce lead in drinking water in homes with materials containing lead?

Flush your pipes before drinking, and only use cold water for consumption. The more time water has been sitting in your home's pipes, the more lead it may contain. When water in a particular faucet has not been used for six hours or longer, "flush" your cold-water pipes by running the water until it becomes as cold as it will get. This could take as little as five to thirty seconds if there has been recent water use such as showering or toilet flushing. Otherwise, it could take two minutes or longer. Use only water from the cold-water tap for drinking, cooking, and especially for making baby formula. Hot water

is likely to contain higher levels of lead. The two actions recommended above are very important to the health of your family. They should be effective in reducing lead levels because most of the lead in household water usually comes from the plumbing in your house, not from the local water supply.

How long would it take to replace lead service lines across Flint?

The City has approximately 32,900 service connections in total. Over 15,000 of these connections are considered lead service lines. Even if many crews were contracted it could take up to 15 years to complete this work.

What will it cost to have lead service lines replaced?

Average costs have ranged from \$2,000 - \$8,000. Cost will vary depending on the length and size of service line that is needed, as well as the ground cover and soil conditions encountered.

With over 15,000 lead service lines at an estimated cost of \$4,000 for each replacement, a total cost could be \$60 million or more.

Who is responsible for replacement of lead materials?

Replacement of service pipes on private property and any leaded plumbing materials within the building structure is the homeowner/property owner's responsibility. The City of Flint owns the service pipe from the water main to the curb stop valve. This valve is normally located two feet in from the street curb.

Why doesn't the City at least replace their portion of lead service lines?

Partial lead service line replacement has been shown to exacerbate lead exposure, increasing the potential for harm, rather than reducing lead exposure. Only full lead service line replacement has been demonstrated effective in achieving long-term reductions in drinking water lead levels.

How does blood lead level monitoring relate to customer tap water monitoring?

Monitoring of blood lead levels takes into account all sources of lead exposure, not just exposure through drinking water. Water customers who have elevated levels of lead in their tap water, or who have a lead service line or plumbing materials containing lead are encouraged to be screened for blood lead level monitoring through their local county health department.

Blood lead level monitoring is overseen statewide by the Michigan Department of Health and Human Services. Their review of blood lead level testing results for the 12 month period just after the City of Flint changed its water source (May 2014 – April 2015) showed no significant change in the pattern of blood lead levels in comparison with levels reported for the previous three years. This data suggests the recent changes in source and treatment by the City of Flint water system have not increased lead exposure.



Frequently Asked Questions: Water Lead Levels in the City of Flint September 2015

How can lead get into drinking water?

Lead detections in Flint drinking water exist at the home level. Sampling at the Flint Water Treatment Plant has shown no lead in its treated water. However, this contaminant leaches into water from a home's lead service lines, lead solder, and leaded plumbing materials including fixtures, faucets, and fittings.

Does the city meet federal drinking water standards for lead and copper?

Yes, the city is meeting state and federal guidelines for lead and copper.

The City of Flint has regularly monitored for lead and copper since federal law began requiring it in 1991.

When the City changed water sources in May 2014, state and federal law required the city to sample for lead and copper for a full year to determine how the water may be interacting with residential lead plumbing to increase lead levels. While the city's results show residential lead levels below the federal threshold for immediate response activities, Flint is moving quickly to optimize corrosion control measures in its water system.

Some individual homes showed high numbers for lead. Isn't that a concern?

For the homeowner, yes it is. There is no "safe" level for lead, and while the leading cause of lead poisoning around the country is lead paint, any source of lead ingestion is worthy of concern.

But the State and federal guidelines for lead and copper acknowledge an important reality: Any home that has a lead service connection or lead plumbing will impart some varying amount of lead into the home's water. The only way to eliminate lead in a home water system is to remove lead plumbing or replace lead service connections to the city system.

The lead and copper rule requires the local operator to sample dozens, sometimes hundreds of homes in the service area to get a general sense of how the water supply is interacting with lead plumbing and service connections. The tests are done specifically at homes with lead service connections. Individual results vary and all participants are

Who is responsible for replacement of lead materials?

Replacement of service pipes on private property and any leaded plumbing materials within the home is a **homeowner's responsibility**. The City of Flint owns the service pipe from the water main to the curb stop valve, and that is **the City's responsibility**. This valve is normally located two feet in from the street curb. From there to the house is private property and the responsibility of the homeowner.

Why doesn't the city at least replace its portion of lead service lines?

Partial lead service line replacement has been shown to mobilize more lead and make the situation worse. Only full lead service line replacement has been demonstrated effective in achieving long-term reductions in drinking water lead levels.

What is the City's timeline for installation of corrosion control treatment?

The federal government allows the steps to complete the installation of optimal corrosion control treatment and follow-up monitoring to take up to five years.

However, the City of Flint has committed to completing installation of Optimized Corrosion Control Treatment in **less than six months**.

What will happen when Flint joins the Karegnondi Water Authority next year?

The City has committed to having Optimized Corrosion Control Treatment in place prior to its connection with the Karegnondi Water Authority (KWA). The water provided by KWA will come from a new source, Lake Huron. The city will continue its lead and copper sampling every six months. Additionally, the city's water treatment plant will continue to operate with uninterrupted Optimized Corrosion Control Treatment.

How long would it take to replace lead service lines throughout Flint?

The city has about 32,900 service connections in total. **More than 15,000** of these connections are considered lead service lines. Even if many crews were contracted, it would likely take up to 15 years to complete this work.

What would it cost to replace the lead service line at my house?

Average costs to replace a lead service line at an individual home range from \$2,000 to \$8,000. Costs vary depending on the length and size of service line that is needed, as well as the ground cover and soil conditions encountered.

With more than 15,000 lead service lines at an estimated average cost of \$4,000 for each replacement, total cost could **be \$60 million or more**.

3:00 Mtg 9/28

Ananick

- Killee DWRF FLSLR
w/ Susan
- Susan Fast that source water irrelevant to CCT

Ananick

Filter

Consumer Awareness

DWSD Temp

- CCT speed up 10/7 TAC → Permit

②

Schools

- 13 buildings
K-5 first

→ Tony Sitko 810-392-8991 tsitko@flintschools.org
→ Wed. Morning

DEQ Pay

GCHD → testing larger institutions
operation

→ Andy

UM Flint no high lead

Thurs. Press Conf

- Script

- ~~When~~

Stace To-Do

- Enclume

Richard - 1 pg briefing to Gov?

- list of CWS > 50,000 w/LSL + % services
- time softening as CCT
- summary of recent samples
- summary of lead history
- AWWA - Flint Support? Brian
- ASDWA - MI Support?
- school testing
 - 2013 or 2014 Kellogg Foundation - Calhoun County school testing grant
- 1/1/2016 5+20yr CIP 2018 Asset Mgmt
- Flint WM Replacement Rate (permit history)
 - 500 years? → 100?
- 2011 Needs Survey
- Bottling company CWS source ~~at~~ no add'l reg., MDARD bottling regs.
- DWRP MI doesn't fund LSLR on private property
- GCHD Jim Henry + Cheryl

Press Conf

Friday 1:30

Kettering Univ. Innovation Center

Cherry Ave + ?

Media Invitation - Karen Drafted

Room Size + Format?

No Gov + LG Not confirmed Dan call Dennis

Kristi MSP involvement

Closed Press Conf

Harvey - Gov intro (MC-transition)

2-3 min

6 Dan - DEQ 11 items

3-5 min

4 Nick - DASH AHS 3-4 (filters)

≈ 30 min

Dr. Wells Blood levels

#? Mayor

Susanne EPA Tech Expertise: sample technique

Brad Q+A

Congressional

Public Health followed by Water 11 pts

reps

- Dr Wells

- Cold Water

- cooking

- ~~for water~~ supply issue covered by filters

(1)

Media Packet

- Release

- Infographic

IS YOUR CHILD SAFE FROM LEAD POISONING?



LEARN HOW TO PROTECT YOUR FAMILY: CREATE A LEAD SAFE HOME

What causes lead poisoning?

There are many places in a home that can put babies and children in danger of lead poisoning.

Lead paint is the #1 cause of lead poisoning in Michigan and is often found in homes built before 1978. The older the home, the more likely that painted surfaces like windows, cupboards, doors and porches will contain lead paint.

Lead poisoning occurs most often when children come in contact with lead in the air, in dust particles and in lead paint. Lead dust is created when windows are opened and closed, or when surfaces age and paint chips or peels. When dust and chips fall on the floor they get on hands and toys. When a child puts hands or toys in their mouth, they can become lead poisoned.

How can I tell if my child has lead poisoning?

Talk to your doctor about testing your child's blood for lead poisoning.

When should my child be tested for lead poisoning?

Children should be tested at one and two years of age or if you think your child has been exposed to a lead hazard.



To learn more about lead poisoning prevention and blood lead testing, call the Childhood Lead Poisoning Prevention Project:

(517) 335-8885
(888) 322-4453

Take this quiz to see if your child may have lead poisoning:

Symptoms of lead poisoning can be silent—and hard to recognize. Preventing lead poisoning before it happens is the best way to keep your family safe. Take this quiz to see if your child may be at risk:

Does your child currently live in a home built before 1950 or have they lived in a home built before 1950 in the recent past? Do they spend time at or often visit a home built before 1950?

Yes No Don't know

Does your child currently live in a home built before 1978 that was recently remodeled? Have they lived in or often visited a home built before 1978 that was recently remodeled?

Yes No Don't know

Does your child have a brother, sister or playmate with lead poisoning?

Yes No Don't know

Does your child live with an adult whose job or hobby involves lead?

Yes No Don't know

Does you or your child's caregiver use home remedies that may contain lead?

Yes No Don't know

If you answered NO to all of these questions, your child is probably not at risk for lead poisoning. If you answered YES or DON'T KNOW to any of these questions, talk to your doctor about testing your child for lead poisoning.

SAFE CLEANING IN YOUR HOME

Use these steps to help keep your home clean and reduce your child's risk of exposure:



Put on gloves. If you do not have rubber gloves, wash your hands well after cleaning.

Use the right cleaners and disposable supplies. Use soapy cleaners or products made to remove lead dust.



Remove paint chips first. Window areas and porches often have peeling paint and lead dust. Pick up visible chips and dispose of them in a plastic bag.

Always wet-mop floors and window sills. Do not broom lead dust. Dispose of cloths after wiping each area. If using a mop, replace water frequently.



When using a vacuum, make sure it is a HEPA vacuum. Some health departments have HEPA vacuums available to borrow.

Rinse after cleaning. Use clean water and a new mop head or fresh paper towels to wipe away suds.

Always empty wash water down a toilet.



Repeat these steps often when dirt and dust appear on floors, porches, window wells, window sills, stairs and children's play areas.

Note: Areas that should be cleaned include windows, doors, floors, porches, stairs and child play areas.

Important: Do not use your vacuum. It will spread lead dust into the air you breathe.

What can I do to protect my child from lead?

- Wash hands, bottles, pacifiers and toys often.
- Always take off shoes before going into the house.
- Flush your pipes before drinking, and only use cold water for cooking and mixing formula. Flush pipes by running the water for approximately 5 minutes.
- Watch your child's diet. Foods high in calcium and iron help keep lead from being absorbed by a child's body.
- Avoid using power sanders, open-flame torches, heat guns, dry scrapers and dry sandpaper on painted surfaces.
- Fix peeling or chipping paint.
- Use a certified Repair and Remodeling Professional when making updates to your home.
- Practice safe cleaning methods.



Thinking about remodeling your home? Need advice about identifying and removing lead paint? Call the Lead and Healthy Homes Section: 866-691-LEAD.

www.michigan.gov/lead

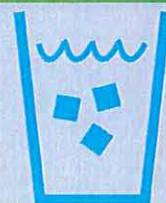
TAKING ACTION ON FLINT WATER

www.mi.gov/FlintWater

- Tips for Flint Residents -

Lead plumbing is common in homes built prior to 1986, and **anyone in the state with lead pipes in their home can take some extra precautions** to minimize lead in their drinking water.

1. Get your water tested at no cost to ensure water is safe. **To get your water tested**, please call the city of Flint Water Plant at (810) 787-6537 and then press 1.



2. To ensure safe drinking water, you can also get a free filter. Please visit mi.gov/FlintWater to find where you can get a free filter.

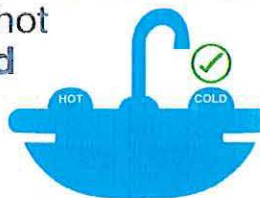
- 3.

It takes time for lead to accumulate in drinking water from plumbing, and so **flushing your pipes prior to using them** can minimize your exposure.

- To flush your pipes, run the water until it's as cold as it will go. This can take as little as 5 to 30 seconds if you have recently flushed the toilet or otherwise used water in your home, or as long as 2 to 5 minutes if you have not used any water in hours.
- In the city of Flint, **running the water for 5 minutes costs between 3 and 16 cents.**

- 4.

Additionally, more lead gets into hot water than cold water. **Use only cold water for drinking, cooking and making baby formula.**



To get your water tested for free, please call the city of Flint Water Plant at (810) 787-6537 and then press 1. You can also email flintwater@cityofflint.com

Visit www.mi.gov/FlintWater for more information



www.mi.gov/FlintWater

- The Action Plan -

- Testing in Flint public schools immediately to ensure that **drinking water is safe**, with testing also available at no cost to any other school in Flint.
- Offering **free water testing** to Flint residents to assure their drinking water is safe.
- Providing **free water filters** to residents with concerns or who are included in state assistance programs.
- Expanding **health exposure testing** of individual homes.
- Accelerating **corrosion controls** in the Flint drinking water system.
- Accelerating **water system improvements** to address replacing lead service lines.
- Expediting the completion of the **Karegnondi Water Authority** pipeline.
- Expanding a **Safe Drinking Water Technical Advisory Committee** to ensure the best technology, practices and science are being followed by adding an expert from the Environmental Protection Agency's Office of Research and Development to the group.
- Naming Dr. Eden Wells, chief medical executive for the Michigan Department of Health and Human Services, as the **Flint drinking water public health adviser**.
- Boosting a **comprehensive lead education program** to make sure residents have detailed information about how to protect themselves and their homes.

To get your water tested for free, please call the city of Flint Water Plant at (810) 787-6537 and then press 1.
You can also email flintwater@cityofflint.com

Visit www.mi.gov/FlintWater for more information

flint's WATER SYSTEM

Service
area

34

SQUARE
MILES

Public water mains
550+ MILES

Public water
mains that are
75+ years old
250+ MILES

Total service
connections:
32,900

1 drop = 1,000



Service connections
that are lead:
~15,000

Lead and copper sampling (6-month period)

COMPLETED: January 2015
QUANTITY: 100 samples
RESULTS: 90th percentile = 6 ppb

COMPLETED: July 2015
QUANTITY: 69 samples
RESULTS: 90th percentile = 11 ppb

on the horizon

JANUARY 2016: Flint plans to have optimized corrosion control treatment operational

JULY 2016: Flint plans to connect to Karegnondi Water Authority (which will bring in drinking water from Lake Huron)

Thelen, Mary Beth (DEQ)

From: Wyant, Dan (DEQ)
Sent: Monday, September 28, 2015 7:18 AM
To: Muchmore, Dennis (GOV); Lyon, Nick (DCH); Hollins, Harvey (GOV)
Cc: Wurfel, Sara (GOV); Wurfel, Sara (GOV); Lasher, GERALYN (DCH); Thelen, Mary Beth (DEQ)
Subject: Proposed Press Conference on Flint Drinking Water

Per the ongoing issues in Flint concerning their drinking water, I would offer the following recommendations. Let's discuss.

Recommendation

Press Conference in Flint – Wednesday, Thursday or Friday. *after 1100?*

Participants

- Mayor of Flint
- Dan Wyant – Michigan Department of Environmental Quality
- Nick Lyon – Department of Community Health
- Susan Hedman – Region 5 Administrator or EPA
- Harvey Hollins – Governor's office
- Local Public Health Department

Announcement

Federal – State – Local action plan to address Flint Drinking Water

1. Governor Snyder names Dr. *Dean Sienko* as Flint drinking water Public Health Advisor. *Public Health MICHAEL Medical Officer*
 2. *DEQ* All Flint schools water will immediately be tested to ensure that drinking water is safe. *Not likely? Copper w/ solder?*
 3. Advisories will be disseminated recommending citizens flush your cold water pipes, use only water from the cold water tap for drinking, cooking and especially for making baby formula. ✓
 4. *DEQ EPA* Implementation of fully optimized corrosion controls in the Flint drinking water system. ✓ *ortho*
 5. *DEQ* Expanded water testing of at risk properties. *More >60 min? IP so why*
 6. *Mayor* Offer water testing at no cost to Flint residents to assure water is safe. *City*
 7. *Mayor DEQ/EPA* Convene a safe drinking water "Technical Review Advisory" to ensure best technology, practices and science is being utilized, including EPA's expertise and assistance from their Office of Research and Development. *Comm. U.M. School of Public Health* *someone will attend (15)*
 8. *WDA* Offer bottled water and premixed formula if test results indicate high levels of lead. *City of Flint Bulk water/Bottle water* *WIC State Public* *to be defined*
 9. *DEQ* Accelerate water system improvements to address replacement of lead service lines. *Gov responding to B.M. requests* *Flint Specific?*
- WM?*
CIP? 5/2016
1/2016
Proposed Asset Mgmt 2018
Bill Young
1 - Ann Arbor
- GR
- Wyoming

Dan Wyant, Director
Department of Environmental Quality
517-284-6700 (New Number)

Oct. 1, 2015

Michigan leaders to announce action plan for Flint drinking water

Friday, Oct. 2 at 1:30 p.m.

Local, state and federal leaders will host a press conference to announce Gov. Rick Snyder's action plan for addressing drinking water concerns in Flint. Participants will include:

- Harvey Hollins, Director of the Office of Urban Initiatives for Gov. Rick Snyder
- Dan Wyant, Director for the Michigan Department of Environmental Quality
- Nick Lyon, Director for the Michigan Department of Health and Human Services
- Dr. Eden Wells, Chief Medical Executive for the Michigan Department of Health and Human Services
- Dayne Walling, Mayor of Flint
- Susan Hedman, Region 5 Administrator for the U.S. Environmental Protection Agency
- Name, Title for the Genesee County Health Department

Location:

Kettering University, Innovation Center

Corner of Bluff Street and Cottage Grove

Flint, MI 48504

Media who plan to attend this event must RSVP by noon Friday. Contact Karen Tommasulo at 517-599-5733 or tommasulok@michigan.gov.



STATE OF MICHIGAN
EXECUTIVE OFFICE
LANSING

RICK SNYDER
GOVERNOR

BRIAN CALLEY
LT. GOVERNOR

CONTACTS:

Sara Wurfel or Dave Murray
Governor's Office: 517-335-6397

Brad Wurfel, 517-284-6713
Department of Environmental Quality

Jennifer Eisner, 517-230-9804
Department of Health and Human Services

FOR IMMEDIATE RELEASE

Friday, Oct. 2, 2015

Gov. Rick Snyder: Comprehensive action plan will help Flint residents address water concerns

Collaborative effort with state, federal and city leaders focuses on testing, assistance

FLINT, Mich. – Flint residents need to have access to safe, clean, water now and long into the future, Gov. Rick Snyder said, announcing a comprehensive action plan created with state, federal and city leaders to address concerns about drinking water.

The water leaving Flint's drinking water system is safe to drink, but some families with lead plumbing in their homes or service connections could experience higher levels of lead in the water that comes out of their faucets.

The action plan focuses on increasing water testing, offering additional precautions for families with lead plumbing in their homes, and providing long-term solutions to address the city's water infrastructure challenges. The plan was created at Snyder's direction by the Michigan Departments of Environmental Quality (DEQ) and Health and Human Services (DHHS), the U.S. Environmental Protection Agency, and the city of Flint.

"We are focused on helping ensure safe, clean, accessible drinking water and addressing and mitigating concerns and protecting public health," Snyder said. "Today's action plan builds upon ongoing work with local, state and federal agencies and our partnership with city and community leaders. Together, we are working to ensure that all Flint residents have accurate information and know that help is available to address potential problems."

The city and the state also are working together to gather more data to ensure the water that leaves the treatment plant as well as the water that arrives in Flint homes is safe for all residents. The plan includes:

- Testing in Flint public schools immediately to ensure that drinking water is safe, with testing also available at no cost to any other school in Flint.
- Offering free water testing to Flint residents to assure their drinking water is safe.

- Providing free water filters to residents.
- Expanding health exposure testing of individual homes.
- Accelerating corrosion controls in the Flint drinking water system.
- Accelerating water system improvements to address replacing lead service lines.
- Expediting the completion of the Karegnondi Water Authority pipeline.
- Expanding a Safe Drinking Water Technical Advisory Committee to ensure the best technology, practices and science are being followed by adding an expert from the Environmental Protection Agency's Office of Research and Development to the group.
- Naming Dr. Eden Wells, chief medical executive for the Michigan Department of Health and Human Services, as the Flint drinking water public health adviser.
- Boosting a comprehensive lead education program to make sure residents have detailed information about how to protect themselves and their homes.

Residents can have their water tested by calling 810-787-6537 and pressing 1, or emailing flintwater@cityofflint.com. The DEQ is covering the cost of this testing.

State leaders have been working closely with state and federal lawmakers to tap resources at all levels of government to address concerns.

State health experts said there has been an increase in elevated childhood blood lead levels in some specific communities. Initial analysis of MDHHS data found that blood lead levels of children in Flint have followed an expected seasonal trend. While this analysis for Flint as a whole remains true, a comprehensive and detailed review breaking down data by ZIP codes with the city revealed that MDHHS data is consistent with a study presented recently by Hurley Children's Hospital.

"While we cannot conclusively say that the water source change is the sole cause of the increase, this analysis supports our efforts as we take active steps to reduce all potential lead exposures in Flint," MDHHS Director Nick Lyon said. "As part of this, we are working closely with our public and private partners to provide Flint residents on MDHHS assistance programs with free water filters and inform families about the steps they can take to reduce all lead exposures in their home."

As a part of the action plan, National Sanitation Foundation certified water filters will be made available to Flint residents through emergency state funds and coordinated efforts with local community agencies and donors. Information about how to obtain the filters will soon be available.

"This action plan offers concrete steps we will take in a local, state and federal partnership to ensure all Flint residents have safe water to drink," DEQ Director Dan Wyant said, "The DEQ will work closely with the city to gather further data to ensure the water that leaves Flint's system as well as the water that arrives in Flint homes is safe to drink."

Additional information is available at www.michigan.gov/flintwater.

###

10/8/2015

Mott

Press Conf

Gov.

10/6 or 10/7?
Gov Meeting w/ Mayor others
Announcement tomorrow
data out tomorrow

↳ Messaging of data implications

School + indiv.
test data
what did we find
where from
just screening

protocol
+ eval

- interim approach
15 unless other data

5:00

State Resources

① Water Filters

② 1/2 of DWSD

③ testing

④ ~~boots on ground~~ staff/human resources
multi dept

6:00

remediation not state responsibility

school admin
local utility → DWRF funds
ID problem

Schools outside Flint → state lab is
local cost. available

10/7/2015

Advisory Tonight

Event Plan

3 rooms on ground floor of Mott Foundation

Prebook Gov → Mayor

945-10 Speakers

Harvey MC

4 min for remarks

Mayor

Dean Wpant

Lyons

Dr Wells

Mott Foundation

10 Min Q+A

Gov out

Dir. 1 on 1 interviews

Media + 20 people in room

UM Flint Chancellor

- Pastors 111 (3)

- Annunzio, Kildner, Phelps, Wiley

- Natasha, Howard Croft

- United Way Director

- Hurley Dr?

Gov - collaboration

George

Mayor - Importance

DEQ - Next steps & When - DWSD

HHS - Involvement

- Process

- Flow to

Wells - Results

Mott - Contribution
\$4M

② Materials
- Press Release
- ?

2013 7-1 council to KWA

⇒ Early switched to Flint River on 2011

DWSD Switch Logistics

Next Steps

~~- CCT~~

- DWSD

+ changeover (2 weeks)

Geometry 4 pts.

To Gov.

1 - Budget

2 - call first

3 - 4 pts, School Results

4 - Reg History

5 - Response to CC Ques

⑥ TAC Summary

Press Conf. Call

10/16/20

- | | |
|-------------------------|----------------------|
| - Eric Brown DC Officer | |
| - Jeff Kelly | - Harvey Holmy |
| - Sam Hedman | - Dennis Muchmore |
| - Jeff Kelly | |
| - Tinka Hyde | |
| - Mayor Weir | → <u>Rema</u> |
| - Liane Shuster Smith | - County Health Dir |
| - Sue DHAS | - Co. Board of Comm. |
| | - Council Pres + VP |
| | - DPW + City Admin |

1:15 Pre-board
1:30 Start

30-40 person
room

- Gov. Office
- DEQ
- HAS
- } Q+A flow

NSF-53

Logistics contact May Beth

- State of Emergency
 ↳ DHAS Not considered
 ↳ mitigation activities but continue health advisory

- County Announcement @ 3:30
 Public Health Emergency

Mayor

- Working Together

- Flint City Advisory
- County Advisory

Susan - Clarification

OCCT
timing
pH + PA
dose?

Filters -

Thelen, Mary Beth (DEQ)

From: Shekter Smith, Liane (DEQ)
Sent: Wednesday, October 07, 2015 6:51 PM
To: Shaler, Karen (DEQ)
Cc: Pallone, Maggie (DEQ); Krisztian, George (DEQ); Thelen, Mary Beth (DEQ); Busch, Stephen (DEQ); Benzie, Richard (DEQ); Devereaux, Tracy Jo (DEQ); Dykema, Linda D. (DHHS)
Subject: RE: DRAFT Summary Protocol Document
Attachments: DRAFT Recommended Screening Strategies for Assessing and Reducing Lead in Drinking Water in Schools.docx

With the attachment....

From: Shekter Smith, Liane (DEQ)
Sent: Wednesday, October 07, 2015 6:50 PM
To: Shaler, Karen (DEQ)
Cc: Pallone, Maggie (DEQ); Krisztian, George (DEQ); Thelen, Mary Beth (DEQ); Busch, Stephen (DEQ); Benzie, Richard (DEQ); Devereaux, Tracy Jo (DEQ); Dykema, Linda D. (DHHS)
Subject: DRAFT Summary Protocol Document

For the Director. Not for inclusion in the Governor's package.

Strategy for Assessing and Reducing Lead in Drinking Water in Schools

Summary

Objective: To determine the levels of lead (Pb) at cooking and drinking water outlets within schools served by the city of Flint municipal water supply.

Action Steps:

- Develop a Sampling Plan

Detailed instructions will be provided to each school regarding actions to be taken the day prior to sampling and the day of sampling.

Each tap/outlet used for cooking or drinking water will be sampled.

Samples will be collected at prescribed intervals to determine whether (1) an outlet is a source of lead, (2) the supply pipe is a source of lead, (3) brief flushing may provide reduced lead levels. Other samples, as necessary, to identify a unique concern identified by the plumbing assessment.

All samples will be analyzed by the MDEQ certified drinking water laboratory.

- Develop a Plumbing Profile

By identifying what materials are used in facility plumbing, and where they are located, it is possible to determine where monitoring and what sampling regimen will be effective in analyzing water likely to contain lead.

A plumbing assessment will assist in determining how the potable water piping flows in the building and the order in which samples will be collected.

- Evaluate the Analytical Results

The analytical results will be evaluated and compared to the 15 ppb Pb action level benchmark established by U.S. EPA in the federal lead and copper rule in the Safe Drinking Water Act.

- Action in Response to Findings

Any tap/outlet with lead levels that exceed 15 ppb may be resampled, removed from service, or other measure(s) taken. Short term and more permanent measures/controls will be identified.

- Follow-up Sampling

Follow-up sampling may be necessary to ensure that any site specific measures/controls have been effective.

- Communication

An effective communications strategy is critical to explain potential risks, describe technical solutions and build trust among parents, school and local health department officials, and the water supplier. Public health agencies will provide information to assist schools with their communications.

Development of this summary protocol is based on U.S. EPA technical guidance entitled "3Ts for Reducing Lead in Drinking Water in Schools (EPA 816-B-05-008)", the American Water Works Association guidance "Assisting Schools and Child Care Facilities in Addressing Lead in Drinking Water" and other state and local health department school lead sampling and assessment guidance.

Thelen, Mary Beth (DEQ)

From: Wyant, Dan (DEQ)
Sent: Wednesday, October 07, 2015 7:09 PM
To: Scott, Allison (GOV); Muchmore, Dennis (GOV); Agen, Jarrod (GOV); Dickinson, Sarah (GOV); Emmitt, Beth (GOV)
Subject: Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Attachments: City of Flint Water Funding Solution.pdf; FLINT SCHOOL TESTING RESULTS.DOCX; Drinking Water Regulations for Monitoring of Lead in Schools and Child C....doc; Response to Corrosion Control Questions.docx; Fwd: TAC Meeting Highlights; CC Meeting Minutes 3-25-2013 (1).doc; Flint.pdf; KWA Contract (amended) 130165.2.pdf

Governor Snyder,

I wanted to provide you with the attached documents to address a number of the questions that you are asking today. A full briefing for the press conference, including press release, talking points, run of show, and frequently asked questions, will be provided by your team. Included in this e-mail are the following attachments:

1. Flint Drinking Water FY 2016 supplemental budget request summary
2. Summary of the Flint schools water testing results and our response to the results
3. Drinking water regulations for monitoring lead in schools and child care centers
4. Response to the questions on corrosion control
5. Summary of today's Safe Drinking Water Technical Advisory Committee meeting
6. Flint City Council Minutes from March 25, 2013; the Resolution to Purchase Capacity from Karegnondi Water Authority; and the Amended Contract

Other Updates

Mayor Duggan and Sue McCormick of DWSD were contacted, briefed, and are supporting tomorrow's announcement. Both have indicated they would provide positive comments supporting the decision.

Dan Wyant

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.



STATE OF MICHIGAN
EXECUTIVE OFFICE
LANSING

RICK SNYDER
GOVERNOR

BRIAN CALLEY
LT. GOVERNOR

CONTACTS:

Sara Wurfel or Dave Murray
Governor's Office: 517-335-6397

Brad Wurfel, 517-284-6713
Department of Environmental Quality

Jennifer Eisner, 517-230-9804
Department of Health and Human Services

FOR IMMEDIATE RELEASE

Thursday, Oct. 8, 2015

Gov. Rick Snyder: Move back to Detroit water provides best protection for public health in Flint State, Mott Foundation and city form partnership to fund switch

FLINT, Mich. – Flint families and children will be better protected by reconnecting with the Great Lakes Water Authority as the source of the city's drinking water, Gov. Rick Snyder said.

Snyder said Thursday that he will request the state Legislature to provide half, or \$6 million, of the \$12 million needed to reconnect with the authority. The Flint city government will provide \$2 million and the Charles Stewart Mott Foundation will donate \$4 million.

"All Flint residents need clean, safe drinking water," Snyder said. "The technical experts helping the city on its water advisory all agree this move back to the Great Lakes Water Authority provides the best public health protection for children and families. This effort today is the result of people coming together to solve a problem. I appreciate Detroit's willingness to reconnect with Flint, the Mott Foundation's generous donation, and the dedication of all parties to come together to protect Flint families and children."

The Michigan Departments of Environmental Quality and Health and Human Services today also committed an additional \$3.5 million for water filters, free lead testing through the state laboratory for Flint water customers, and hiring additional staff to conduct health exposure monitoring for lead in drinking water.

Flint city leaders requested the state's help to fund the reconnection after a Wednesday meeting of Flint's Technical Advisory Committee. Flint's move to the Great Lakes Water Authority is expected to cost about \$1.3 million per month until the Karegnondi Water Authority is completed next summer.

INSERT MAYOR QUOTE HERE

The move to Detroit water, which is drawn from Lake Huron, carries many public health benefits. As large bodies of water, the Great Lakes are naturally prone to fewer problems from large rain events and other runoff issues that can be present in shallower rivers. Additionally, the Great Lakes Water Authority has already fully optimized its corrosion control, using phosphates to help coat the insides of pipes and prevent lead from leaching into the water.

However, reconnecting with the authority will not completely resolve the city's problem with lead service lines or aging infrastructure. It will take time for pipes in Flint to become coated with the phosphate corrosion control. Additionally, some households in the city could experience lead in their drinking water until all lead pipes and plumbing are replaced.

INSERT MOTT FOUNDATION QUOTE HERE

To best protect public health, Snyder said state and local authorities will continue to carry out steps outlined on Oct. 2 in a comprehensive action plan, including continued testing, the use of faucet filters and providing residents with accurate information about steps to eliminate lead exposure.

Free filters are available for current MDHHS clients at the 125 E. Union St. or 4809 Clio Road MDHHS office locations. For residents who are not currently enrolled in MDHHS assistance programs, free filters are available at the Genesee County Community Action Resource Department offices at 2727 Lippincott and 601 North Saginaw in Flint. Staff will be at all four locations from 9 a.m. to 4 p.m., Monday through Friday, to distribute filters and assist residents who have questions about proper installation. At the Lippincott location only, extended hours will be offered this weekend, including until 7 p.m. on Thursday and Friday and from 10 a.m. to 2 p.m. on Saturday.

Other good practices for residents concerned about lead include turning on the cold water tap and running the water until it's as cold as it will go. Additionally, only use cold water for cooking, drinking and especially mixing baby formula.

School test results released; more investigation planned

The state today also released the first results from its lead screening program in schools and homes. Of 37 total samples taken at 13 buildings, four samples spread over three buildings exceeded the federal action level of 15 parts per billion.

However, this sampling provides only an initial screen, and the state is committing to further testing water and inspecting plumbing at these schools. Until testing is complete, schools are advised to continue using bottled water and filtration as a precaution to protect children.

In addition, free testing is still available for any other Flint school, including daycares and Head Starts. Free testing is also available for any Flint resident.

Additional information, including more detailed lead screening results, is available at www.michigan.gov/flintwater.

###

Flint

Flint City Council approves resolution to buy water from Karegnondi, state approval still needed



[<http://connect.mlive.com/staff/dadams1/index.html>] By Dominic Adams | dadams5@mlive.com [<http://connect.mlive.com/staff/dadams1/posts.html>]
Follow on Twitter [<http://www.twitter.com/dominicadams>]
on March 26, 2013 at 10:45 PM, updated March 26, 2013 at 1:28 AM

FLINT, MI — Flint is one step closer to getting its water from Lake Huron as part of the Karegnondi Water Authority.

The vote, approved 7-1 at the Flint City Council meeting Monday, March 25

[http://www.mlive.com/news/flint/index.ssf/2013/03/flint_city_council_again_delay.html], may have set in motion the end to Flint paying to get its water from Detroit.

Under the proposal, Flint would get 16 million gallons per day of raw water from Lake Huron, pipe it to Flint for treatment and then sell it to customers throughout the city. Another 2 million gallons per day would come from the Flint River and will be treated in Flint.

Mayor Dayne Walling said the Department of Environmental Quality must approve Flint's getting 2 million gallons per day from the Flint River.

Tuesday's meeting followed weeks of discussions and special meetings surrounding the resolution.

"We got there," Councilman Joshua Freeman said. "That's the important thing."

There were more than 50 people at Monday's meeting.

"Going with Karegnondi is the best decision. We have no opinion on the economics of the decision," said Rebecca Fedewa, Flint River Watershed Coalition executive director. "If we start drawing water out of the Flint River, we are at risk of having to start releasing water from our reservoirs."

Genesee County Drain Commissioner Jeff Wright said the decision must still be approved by a county water and waste advisory board. The KWA board will then be reconvened for final approval.

Wright said construction could start in May.

State treasury officials still must approve the city council's move because Flint has an emergency financial manager. All expenditures over \$50,000 must be approved.

Genesee County Drain Commissioner Jeff Wright has said that Flint would pay roughly \$6.4 million annually for water service if it joined the pipeline -- a nearly \$4 million savings on what it pays Detroit for water.

Walling previously said the city would save \$19 million over eight years

[http://www.mlive.com/news/flint/index.ssf/2013/03/flint_city_council_delays_dec.html] by getting water from the KWA.

"It's a historic night in the City of Flint," Walling said. "The savings will be less with the capacity level approved by city council because there will be increased treatment cost for the river water."

He said the DEQ told the city it needed to get 18 million gallons per day or there would have to be additional work done at Flint's water plant.

Flint's water plant and the Flint River is currently the backup for Flint and Genesee County, however, the plant only operates four times per year.

Councilman Bryant Nolden was the lone dissenting vote.



GENESEE COUNTY DRAIN COMMISSIONER'S OFFICE

JEFFREY WRIGHT

COMMISSIONER

G-4608 BEECHER ROAD, FLINT, MI 48532

PHONE (810) 732-1590 FAX (810) 732-1474



FOR IMMEDIATE RELEASE

CONTACT: Jeff Wright

March 26, 2013

810-287-1925

What: Jeff Wright Statement on Flint City Council Approving Resolution to Join KWA.

When: March 26, 2013

Additional Info: Jeff Wright, CEO of the KWA, today praised the Flint City Council for voting to approve a resolution to officially have the City of Flint join the KWA and its' water line.

"I have said from the beginning that this decision must be made by Flint's City Council and Mayor," said Wright. "I appreciate the council voting the way they did, but even more than that, I am glad the residents of Flint were able to have their voices heard via their elected officials." The next step in the process will come with the KWA Board executing the contract for the City.

"The most important aspect from the vote is the fact that we as an Authority can move forward knowing Flint's intentions," said Wright.

Despite Emergency Manager Ed Kurtz publicly supporting the project, Wright had made a vote by council a condition of Flint joining the KWA so the residents would have their say.

"There is a basic tenet that government is best when it has local control. We saw that with the council vote. Nobody, whether they live in Flint, Grand Blanc, Davison, Fenton, or anywhere in Genesee County, should have these types of decisions made by people who live outside of their community," said Wright.

At the next Water and Waste Advisory Board meeting a vote will be taken to award a contract for construction of the intake portion of the water line. All bids were submitted to the board at their last meeting for review.

Flint

Flint council supports buying water from Lake Huron through KWA



[<http://connect.mlive.com/staff/dadams1/index.html>] By Dominic Adams | dadams5@mlive.com [<http://connect.mlive.com/staff/dadams1/posts.html>]
Follow on Twitter [<http://www.twitter.com/dominicadams>]
on March 25, 2013 at 7:17 PM, updated March 25, 2013 at 7:43 AM

FLINT, MI -- Flint residents may soon get their water from Lake Huron.

The Flint City Council voted 7-1 to get 16 million gallons per day from the Karegnondi Water Authority.

"This is about compromise," said Councilman Sheldon Neeley.

Neeley got support from Councilman Joshua Freeman, after the two were previously at odds about the amount the city should withdraw from Lake Huron.

Councilman Bryant Nolden was the lone "no" vote.

"It was a protest vote," Nolden said. "I just feel like the Flint River is our best option."

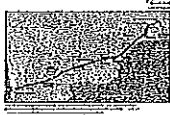
Genesee County Drain Commissioner said construction of the pipeline could start in May.

The city currently pays to get its water from Detroit.

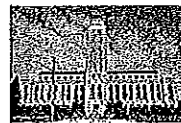
State treasury officials still must approve the city council's move because Flint has an emergency financial manager. All expenditures over \$50,000 must be approved.

Dominic Adams is a reporter for MLive-Flint Journal. Contact him at dadams5@mlive.com or 810-241-8803. Follow him on Twitter [<http://www.twitter.com/dominicadams>], Facebook [<http://www.facebook.com/dominic.adams.1865>] or Google+ [<https://plus.google.com/103690672506808729911?rel=author>].

Related Stories



Enbridge can begin piping tar sands oil along Lake Ontario north shore



Former Detroit American Motors Corp. headquarters being auctioned; starting bid \$500

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Resolution: 130165.2

Presented: 3-11-13

Adopted: 3-25-13

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

BY THE MAYOR:

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.

The City of Flint has decided that it is in its long term best interests to enter into a contract with the KWA to purchase SIXTEEN (16) units of capacity, plus TWO (2) units from the Flint River.

Thelen, Mary Beth (DEQ)

From: Sygo, Jim (DEQ)
Sent: Wednesday, October 07, 2015 6:00 PM
To: Thelen, Mary Beth (DEQ); Shaler, Karen (DEQ); Wyant, Dan (DEQ)
Subject: Fwd: TAC Meeting Highlights

Summary of advisory committee meeting

Sent from my iPhone

Begin forwarded message:

From: "Prysby, Mike (DEQ)" <PRYSBYM@michigan.gov>
Date: October 7, 2015 at 4:56:44 PM EDT
To: "Sygo, Jim (DEQ)" <SygoJ@michigan.gov>
Subject: TAC Meeting Highlights

Below is a summary of the Flint TAC meeting to obtain the committee's endorsement to switch back to Detroit water.

1. The TAC endorses the switch back to the DWSD
2. Marc Edwards of VA Tech supports the switchover to DWSD with conclusion that Flint River water with corrosion control will still be 4 times more corrosive than water from DWSD after 5 weeks of treatment.
3. Genesee County states two weeks to prepare pipeline for re-use (flush, disinfect, sample, etc)
4. Supplemental corrosion control still needed with DWSD water and ACT 399 submittal can be made in approx one week.
5. No pros were brought to the table for staying on the Flint River.

Sent from my iPhone

Response to Corrosion Control Questions

- Lime Softening can affect the pH in water
- The pH of the water is one physical characteristic that can affect the leaching of lead from pipes into the water
- As per the requirements in the Lead/Copper rule the Flint Water system was evaluated for two consecutive monitoring periods and the results of the monitoring demonstrated that further action was necessary.
- The DEQ promptly notified the Flint water system of the need for additional measures and the city of Flint promptly began putting together an action plan to address this need.

**City of Flint Water - Funding Solution
State of Michigan Commitment**

Agency	GF/GP	Gross	Comments
Filters:			
Health & Human Services	\$1,016,000	\$1,016,000	AY15 work project
Health & Human Services	\$0	\$1,000,000	DEQ State Restricted Settlement Funds provided to HHS Emergency Services local office (FY16 appropriation).
Subtotal Filters:	\$1,016,000	\$2,016,000	
Reconnect to DSW:			
Environmental Quality	\$5,000,000	\$6,000,000	Reconnection costs ~\$1.3m/month x 9 mos. to be shared by state & Flint
Subtotal Reconnect:	\$5,000,000	\$6,000,000	DEQ State Restricted Settlement Fund of \$1m; balance GF/GP
Testing Costs:			
Environmental Quality	\$1,000,000	\$1,000,000	Additional tests at state lab; cost per sample: \$26
Subtotal Testing:	\$1,000,000	\$1,000,000	
Additional Agency Support:			
LARA	\$0	\$200,000	Support for plumbing inspectors to do schools (public and parochial) and health facilities (hospitals, Long Term Care, etc.).
MSHDA	\$0	\$249,900	
Health & Human Services	\$600,000	\$600,000	Follow-up on children with elevated blood levels
Environmental Quality	\$300,000	\$300,000	Home and school inspections.
Subtotal Additional Support:	\$900,000	\$1,349,900	
ALL TOTAL	\$7,916,000	\$10,365,900	

FLINT SCHOOL TESTING RESULTS:

WHAT DID WE FIND?

- 1) The results of the initial screening conducted over the course of the last week are consistent with the last round of community lead and copper testing.
- 2) There were a total of 37 samples taken from 13 schools. Of those 37 samples, 4 exceeded the 15 ppb action level. There were 3 schools that had samples exceeding the action level: Eisenhower Elementary (which had two samples exceeding 15 ppb). Brownell STEM Academy and Freeman Elementary each had one sample exceeding 15 PPB. The sample from Freeman Academy was significantly higher than the other samples at 101 PPB.
- 3) Looking at the data from a health based perspective, the data clearly demonstrates that more detailed sampling needs to occur so that the various sources of lead contamination contained within each respective school's plumbing can be identified and addressed.

WHAT DOES THE DATA MEAN?

- 1) The data underscores the need for a complete and thorough evaluation of the plumbing system within each school.
- 2) We have developed a protocol for evaluating the plumbing systems and we will be working with schools to implement these protocols and to assist them in determining a corrective action plan to address this issue.
- 3) The State is identifying staff within DEQ, DHHS, LARA and Local County Health Departments to assist schools in conducting evaluations of their plumbing systems.

WHAT IS YOUR PROTOCOL?

- 1) DEQ's protocols are based on similar work done in Michigan and in other States.
- 2) Multiple samples from each tap used for cooking or drinking water will be collected at prescribed intervals to identify levels of lead and its likely source.
- 3) Once an evaluation is complete, we will be able to assist each School in developing a comprehensive plan to address issues on a site specific basis.

HOW DO SCHOOLS RESPOND?

- 1) Schools should continue protective measures that are currently in place until a complete study can be conducted at each school. This includes the continued use of bottled water for consumption purposes.
- 2) We will be reaching out to schools to schedule a complete evaluation, assessment and sampling, of their plumbing systems.

Drinking Water Regulations for Monitoring of Lead in Schools and Child Care Centers

There is no federal or Michigan law requiring sampling of drinking water in schools that receive water from other public water systems, although schools that have their own water supply are subject to regulation and sampling as non-community public water systems. Schools served by a public water system may be included as a sampling site (i.e., tap) for a public water system's lead and copper monitoring program if there are insufficient single-family homes that qualify. There are no federal requirements for more extensive testing.

The 1986 Amendments to the Safe Drinking Water Act (SDWA) required EPA to develop regulations to control for lead in drinking water. The Lead and Copper Rule (LCR), issued in 1991, is focused on controlling corrosion within the distribution system that delivers water to customers. The 1986 SDWA Amendments also required that only lead-free materials be used in new plumbing and in plumbing repairs.

In 1988, the SDWA was further amended by the Lead Contamination Control Act (LCCA), to reduce the exposure of lead to children in schools and child care facilities. The LCCA prohibited the sale of any drinking water cooler that is not lead-free and required that:

- the EPA identify each brand and model of drinking water cooler, indicating which are lead free and which have a lead-lined tank and distribute the list to states (SDWA Sec. 1463),
- the Consumer Product Safety Commission order that manufacturers and importers of all drinking water coolers identified as having a lead-lined tank repair, replace, or recall and provide a refund for such coolers (SDWA Sec. 1462),
- the EPA publish a guidance document and testing protocol to assist states in determining the source and degree of lead contamination in school drinking water (SDWA Sec. 1464), and
- states establish programs to assist schools and child care facilities to test for and remedy lead contamination problems, with public availability of results of such testing (SDWA Sec. 1464(d)).

As a result of a 1996 court decision, States are not required to establish testing programs. In its decision, the Fifth Circuit held that provisions in section 1464(d) were unconstitutional under the Tenth Amendment to the U.S. Constitution because they directly compelled the state to enact and enforce a federal regulatory program and provided no options for the State to decline the program. The decision did not, however, restrict states from developing and carrying out their own programs to assist schools.

In 1989 and subsequent years, EPA released guidance and information to inform states and school systems how to test for and reduce the risk of lead exposure in school drinking water. EPA's guidance provides a protocol for testing water in schools and recommends that schools take action at fixtures where the lead concentration exceeds 20 ppb. This concentration differs from the 15 ppb action level that public water systems are required to follow. ***The 20 ppb action level is based on a smaller sample collection volume of 250 milliliters (ml) and is designed to pinpoint specific fountains and outlets that require attention.***

In 1990, Michigan did provide schools and licensed child care centers with information to assist in testing and remediating potential lead contamination of their drinking water as required by the Lead Contamination Control Act of 1988. This information included a sampling protocol and guidance on flushing their system to minimize lead exposure.

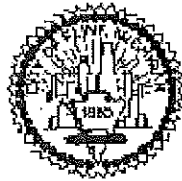
In 2004, EPA surveyed states to determine what additional programs may exist to control exposure to lead in drinking water at schools and child care centers. Forty-nine states, Puerto Rico, the District of Columbia and the Navajo Nation responded. Only 16 respondents indicated they have or will conduct special sampling or studies to target lead exposure at schools and child care centers. Michigan has not included any additional sampling programs or studies. However, some local agencies have conducted voluntary programs. For example, the W.K. Kellogg Foundation funded a program implemented by the Calhoun County Health Department that sampled schools in Battle Creek. In Michigan's response to this EPA survey, we included a recommendation for EPA to allow schools to be considered as a primary LCR monitoring site so that more information about lead levels in schools would become available. However, no changes in sampling criteria have occurred to date.

In 2005, a Memorandum of Understanding was signed between the EPA, the Department of Education, the Centers for Disease Control and Prevention (CDC), the American Water Works Association, the Association of Metropolitan Water Agencies, the Association of State Drinking Water Administrators, the National Association of Water Companies and the National Rural Water Association to facilitate actions that reduce children's exposure to lead from drinking water at schools and child care facilities.

Across the country and in Michigan, most schools and child care facilities receive water from other community water systems. However, those schools that have their own source of drinking water are considered non-transient non-community water systems and are subject to the LCR. In Michigan, there are 755 such schools and child care centers that must monitor for lead to demonstrate compliance.

City of Flint, Michigan

*Third Floor, City Hall
1101 S. Saginaw Street
Flint, Michigan 48502
www.cityofflint.com*



Meeting Minutes - Draft

Monday, March 25, 2013

5:33 PM

Agenda amended to include Board of Hospital Managers appointments

Council Chambers

CITY COUNCIL

Scott Kincaid, President, Ward 9
Bryant W. Nolden, Vice President, Ward 3

Claudia Croom, Ward 1

Joshua M. Freeman, Ward 4

Sheldon A. Neeley, Ward 6

Jacqueline Poplar, Ward 2

Bernard Lawler, Ward 5

Dale K. Weighill, Ward 7

Michael J. Sarginson, Ward 8

Inez M. Brown, City Clerk

Flint, Michigan, 48505, Genesee County, held by the estate of Myra Seals, Inc., 1028 Cora Dr., Flint, MI 48532, to Carisa Mays Bishop, Personal Representative. [NOTE: Approval order enclosed.]

This matter was Placed on File. The motion carried.

- 130202** Local Approval Notice/Michigan Liquor Control Commission (MLCC)/D & R Market, Inc./Ward 6

Local Approval Notice dated March 6, 2013, and received March 15, 2013, from MLCC to Flint City Clerk, re: The MLCC has received an application from 2 AAR, LLC, requesting to Transfer Ownership of a Specially Designated Distributor (SDD) and Specially Designated Merchant (SDM) licensed business with Sunday Sales permit (PM) and Direct Connection-I to D & R Market, Inc., located at 1402-1404 N. Chevrolet, Flint, Michigan, 48504, Genesee County, from 2 AAR, LLC, 3079 Shattuck Arms Blvd., Apt. 5, Saginaw, MI 48603. [NOTE: The application was cancelled pursuant to a request from an attorney.]

This matter was Placed on File. The motion carried.

- 130204** Changes/Cable Channel Lineup/Comcast Cablevision

Communication dated March 18, 2013, from Gerald W. Smith, Government Affairs Manager, Comcast, to Flint City Clerk, re: effective on or about May 22, 2013, Fox Business Network/Fox Business Network HD (ch. 06/243) will from the Digital Preferred Service to the Digital Starter Service.

This matter was Placed on File. The motion carried.

- 130205** Media Alert/Flint Public Art Project/Announcement of Design Winner

Media Alert received via e-mail on March 19, 2013, from the American Institute of Architects (AIA), re: The Flint Public Art Project and the Flint Chapter of the AIA will announce the winner of the \$25,000.00 grand prize in the inaugural Flat Lot competition to design and build a temporary summer pavilion on Flint's central downtown parking lot at 9:30 a.m. Thursday, March 21, 2013, at the John Gazall & Associates, Mott Building, 503 S. Saginaw Street, Flint.

This matter was Placed on File. The motion carried.

- 130207** Damage Claims

MAYFIELD, LINDA, 2518 Walter Street, Flint, MI (WARD 2)
LANE, WILLIE C., 3130 Concord Street, Flint, MI (WARD 6)

This matter was Placed on File. The motion carried.

COMMUNICATIONS FROM CITY OFFICIALS

- 130194** Press Release/City of Flint/Hiring of New Police Officers/Recruitment of Others

Press Release dated March 11, 2013, from Jason Lorenz, City of Flint Public

130206 Flint City Council/Public Notice/Finance Committee Meeting/March 20, 2013

Public Notice posted March 19, 2013, re: The Flint City Council will hold a Finance Committee Meeting at 5:30 p.m. Wednesday, March 20, 2013, in the City Council Committee Room, 3rd Floor, City Hall.

This matter was Placed on File. The motion carried.

130208 Flint City Council/Public Notice/Special Affairs Committee Meeting/March 25, 2013

Public Notice posted March 22, 2013, re: The Flint City Council will hold a Special Affairs Committee Meeting at 5 p.m. Monday, March 25, 2013, in the City Council Committee Room, 3rd Floor, City Hall. A regular City Council meeting will immediately follow in the Council Chambers.

This matter was Placed on File. The motion carried.

130209 Traffic Engineering/Note for Bulletin/Street-Sidewalk-Lane Closures

Notes for Bulletin (3) dated February/March 2013, for street, sidewalk, or lane closures, re: (1) Harrison Street, Saginaw Street and Second Avenue (cable failure-March 11-March 20); (2) First Street, Harrison Street, Wallenberg, Kearsley, Crapo, Horrigan, and Harrison (St. Patrick's Day Pot O' Gold 4-Mil Run/Walk-March 17); and (3) Chevrolet Avenue (University Corner Grand Opening-March 22).

This matter was Placed on File. The motion carried.

Passed The Consent Agenda

A motion was made. The motion carried.

PUBLIC SPEAKERS**ROLL CALL**

Councilperson Dale Weighill left at approximately 7 p.m.

Present: Councilperson: Councilperson Poplar, Vice President Nolden, Councilperson Freeman, Councilperson Lawler, Councilperson Neeley, Councilperson Sarginson, Kincaid and Councilperson Croom

Absent: Councilperson: Councilperson Weighill

APPOINTMENTS**130169.1 Amendment/Reappointment/Zoning Board of Appeals/Christine Monk (Ward 6)**

Amended resolution resolving that the Flint City Council recommends the reappointment of Christine Monk (821 Frank Street, Flint MI 48504 - Ward 6), to the Zoning Board of Appeals for a three-year term, commencing September

Resolution resolving that the Flint City Council recommends the reappointment of Marcia Braden (984 Barney Avenue, Flint MI 48503 - Ward 8), to the Zoning Board of Appeals for the remainder of a three-year term, expiring September 1, 2014. [By way of background, Ms. Braden's term on the Zoning Board of Appeals expired in September 2011, but she has continued since that time to serve.]

Sponsors: Michael J. Sarginson

A motion was made by Councilperson Sarginson, seconded by Councilperson Freeman, that this matter be Approved. The motion carried by the following vote:

Aye: 8 - Councilperson Poplar, Vice President Nolden, Councilperson Freeman, Councilperson Lawler, Councilperson Neeley, Councilperson Sarginson, President Kincaid and Councilperson Croom

Absent: 1 - Councilperson Weighill

130214

Reappointment/Zoning Board of Appeals/David C. Veasley (Ward 9)

Resolution resolving that the Flint City Council recommends the reappointment of David C. Veasley (2618 Pinetree Drive, Flint MI 48507 - Ward 9), to the Zoning Board of Appeals for the remainder of a three-year term, expiring September 1, 2015. [By way of background, Mr. Veasley's term on the Zoning Board of Appeals expired in September 2009, but he has continued since that time to serve.]

Sponsors: Scott Kincaid

A motion was made by Councilperson Freeman, seconded by Vice President Nolden, that this matter be Approved. The motion carried by the following vote:

Aye: 8 - Councilperson Poplar, Vice President Nolden, Councilperson Freeman, Councilperson Lawler, Councilperson Neeley, Councilperson Sarginson, President Kincaid and Councilperson Croom

Absent: 1 - Councilperson Weighill

130215

Appointment/Genesee County Land Bank Citizens' Advisory Council/Anthony Tucker (Ward 4)

Resolution resolving that the Flint City Council recommends the appointment of Anthony Tucker (2960 Henry Street, Flint MI 48506 - Ward 4) to the Genesee County Land Bank Citizens' Advisory Council for the remainder of a three-year term, expiring in January 2016. [NOTE: By way of background, Dan Anderson's term as the 4th Ward representative expired in January 2013.]

Sponsors: Joshua M. Freeman

A motion was made by Councilperson Freeman, seconded by Councilperson Poplar, that this matter be Approved. The motion carried by the following vote:

Aye: 8 - Councilperson Poplar, Vice President Nolden, Councilperson Freeman, Councilperson Lawler, Councilperson Neeley, Councilperson Sarginson, President Kincaid and Councilperson Croom

Absent: 1 - Councilperson Weighill

on the (Hurley) Board of Hospital Managers, with such term to commence May 1, 2013, and expire April 30, 2018. [By way of background, Frances Gilcreast was appointed in August 2008; her term expires April 30, 2013.]

Approved

Substituted

A motion was made by Councilperson Lawler, seconded by Councilperson Neeley, that this matter be POSTPONED for March 26, 2013. The motion carried by the following vote:

Aye: 7 - Councilperson Poplar, Vice President Nolden, Councilperson Lawler, Councilperson Neeley, Councilperson Sarginson, President Kincaid and Councilperson Croom

No: 1 - Councilperson Freeman

Absent: 1 - Councilperson Weighill

RESOLUTIONS

130165.1 Amended Resolution/Contract/City of Flint/Karegnondi Water Authority (KWA)

Amended resolution resolving that city officials are authorized to enter into a contract with Karegnondi Water Authority (KWA) to purchase fifteen (15) units of capacity, AND, resolving 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. [NOTE: For each unit of capacity that a member purchases, the buyer shall pay to the KWA a one-time fee of \$32,300. 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. Over the next 25 years, it is expected that continuing with Detroit will cost the region \$2.1 billion, compared to \$1.9 billion with a pipeline.] [NOTE: Contract not included.] [NOTE: Resolution amended from 18 to 15 units of capacity.]

A motion was made by Councilperson Neeley, seconded by Councilperson Freeman, that this matter be Amended. The motion carried by the following vote:

Aye: 5 - Vice President Nolden, Councilperson Freeman, Councilperson Lawler, Councilperson Neeley and Councilperson Sarginson

No: 3 - Councilperson Poplar, President Kincaid and Councilperson Croom

Absent: 1 - Councilperson Weighill

130165.2 Amended Resolution/Contract/City of Flint/Karegnondi Water Authority (KWA)

Amended resolution resolving that city officials are authorized to enter into a contract with Karegnondi Water Authority (KWA) to purchase sixteen (16) units

amended and revised at various times since then, which required the proposed changes.] [NOTE: The First Amendment & Restated Rules Governing the Downtown Development Authority (DDA) of the City of Flint is attached.] [Resolution amended for changes to rules.]

A motion was made by Councilperson Freeman, seconded by Vice President Nolden, that this matter be Adopted. The motion carried by the following vote:

Aye: 8 - Councilperson Poplar, Vice President Nolden, Councilperson Freeman, Councilperson Lawler, Councilperson Neeley, Councilperson Sarginson, President Kincaid and Councilperson Croom

Absent: 1 - Councilperson Weighill

RESOLUTIONS - MAY BE REFERRED FROM S.A.

130210 Resolution/City Council/Mayor Dayne Walling/Request for Appointment of Transition Advisory Board

Resolution resolving that Mayor Dayne Walling and the Flint City Council request and recommend to Gov. Rick Snyder that a receivership transition advisory board be appointed for the City of Flint under Public Act 436 no later than July 1, 2013. [NOTE: On December 1, 2011, Gov. Snyder appointed Michael K. Brown as Emergency Manager under Public Act 4 for the City of Flint, due in part to a consistent deficit in the general fund, the decline in pooled cash, budget issues and unfunded liabilities for post-employment benefits. Due to the suspension and subsequent repeal of Public Act 4, Gov. Snyder appointed Edward J. Kurtz as Emergency Financial Manager under Public Act 72 for the City of Flint, effective August 9, 2012. Both the Emergency Manager and the subsequently appointed Emergency Financial Manager were authorized by virtue of their appointment to "act for and in the place and stead of the governing body and the office of chief administrative officer of the City of Flint." On March 28, 2013, Public Act 436 will become effective and provides that an emergency financial manager appointed and serving under state law immediately prior to the effective date shall continue to serve as an emergency manager under Public Act 436. As an alternative to continuation of an emergency manager, and if the financial emergency has been rectified, Public Act 436 authorizes the governor to appoint a receivership transition advisory board, which serves at the pleasure of the governor and monitors the affairs of the local government until the receivership is terminated.]

No vote was taken on this amendment.

Amended

130210.1 Amended Resolution/City Council/Mayor Dayne Walling/Request for Appointment of Transition Advisory Board

Amended resolution resolving that Mayor Dayne Walling and the Flint City Council request and recommend to Gov. Rick Snyder that a receivership transition advisory board be appointed for the City of Flint under Public Act 436 no later than July 1, 2013. [NOTE: On December 1, 2011, Gov. Snyder appointed Michael K. Brown as Emergency Manager under Public Act 4 for the

FAQs for Media Q&As

Switch to Great Lakes Water Authority

What finally pushed the state to this decision?

This was the City's request, and the Governor supports it, based on several key factors:

In the near term, DWSD water will be easier to manage. It comes from a more stable source than the river, it is fully optimized for corrosion control, and it is clear that residents of Flint have more confidence in this water source.

Will this solve Flint's water crisis?

In combination with the other short term, intermediate term and long-term steps outlined last week, this move represents a big step forward. Flint still has serious system maintenance challenges it must address.

If you're saying residents will still have lead because of their plumbing, does that mean every other city in this state has a lead problem?

Many areas of the state have lead in their infrastructure mix.

Where's the state getting the money to fund this?

We have submitted a formal request to lawmakers via the appropriations process.

Where's the city getting the money to fund this?

The city is contributing all it can, and is getting assistance for its match from the Mott Foundation.

How long will the switch take?

The switch will be completed by the City and Great lakes Water Authority, but our understanding is that it can be accomplished in the very near term once the arrangements are complete.

How long will it take before Detroit's corrosion controls provide protection for Flint?

It will take some time for the corrosion control additives to build on pipe walls throughout the system. Estimates vary. The state can assure we will commence monitoring of the system early 2016 and report results as we get them to keep the community updated.

Why do residents still need to use filters and bottled water?

The filters and bottled water are responsible precautions for any resident concerned about lead exposure.

Do the filters actually work? We've been hearing they don't protect for lead.

Yes, the filters work. They are all certified for lead removal by the National Sanitation Foundation.

The filters are only good for 100 gallons. What happens when they are used up?

They will need to be replaced. And residents can get a new filter.

What about restaurants?

What's going to be done about lead service lines?

Long term, this is the only permanent solution to lead exposure. The state has committed to helping the city accomplish this goal long term.

Do you wish you'd made this switch sooner?

We support the City's decision. We can't look backward. We feel the state has responded quickly and effectively as information has surfaced, been investigated and verified. While the City of Flint is, right now, in compliance with the federal Lead and

Copper Rule, we recognize there is a disparity between surveillance testing and other testing happening in the community that we need to better understand and we are working on developing our knowledge.

Schools testing**What do these results say?**

The results say we need to further investigate Flint schools and help the schools find clearer causes for some the results we got.

Any theories about what's going on?

It is possible there are specific points in the plumbing that have lead components which need to be replaced, but we can't say anything definitively until we perform an investigation at each school.

Do the schools have lead service lines? If not, why are they getting such high results?

The schools we tested initially do not have lead service lines. There are a few possible reasons why lead is being detected at specific points in the buildings and not others. When we know things definitively, we will make the information public.

How long do the schools have to stay on bottled water? Just until the switch to Detroit, or longer term?

We are encouraging the schools to continue their current protective measures as a precaution until we can get into the buildings and get more answers.

Why did you only test 13 schools?

That was what the Flint Public Schools requested.

What happens to other schools?

We will test all the schools in Flint if they request it.

What about the schools that can't afford to update their entire plumbing systems?

This is why we are having plumbing assessments completed. There is no way to know yet what each building will require.

How confident are you in your testing? You've got results all over the map.

We are confident that our testing meets the requirements for the federal Lead and Copper Rule, which is surveillance monitoring. The bigger question is whether surveillance monitoring meets the public health protection standards that Lead Exposure Testing methods do. The EPA is working on that question now, and we are engaged in that dialogue.

What do you mean by "health exposure testing"? What are you doing next?

The 90th percentile of your results is still below 15 ppb. Does that make you more or less confident in your testing and in your protocols?

It makes us confident that the testing protocol delivers consistent results. But again, it does raise questions about whether this testing method shows what people think it does or what they really want to know, which is actual lead exposure from lead plumbing in a home.

Any idea how long kids have been exposed to lead? Was it before the move to the Flint River?

That is possible. We don't know.

How does the state bring this new information into the broader picture of kids' lead exposure across the state?

Thelen, Mary Beth (DEQ)

Subject: RDS - REMARKS (AHeaton) Press Conference Re: Flint Water
Location: Mott Foundation Conference Center, 503 S. Saginaw, Flint
Start: Thu 10/8/2015 10:00 AM
End: Thu 10/8/2015 10:35 AM
Show Time As: Tentative
Recurrence: (none)
Meeting Status: Not yet responded
Organizer: GovCalendar
Required Attendees: Agen, Jarrod (GOV); Biehl, Laura (GOV); Wyant, Dan (DEQ); Thelen, Mary Beth (DEQ); Hollins, Harvey (GOV); Clayton, Stacie (GOV); Lyon, Nick (DHHS); Grijalva, Nancy (DHHS)

Purpose: Press conference regarding Flint water

Program Participants:

Flint Mayor Dayne Walling
 DEQ Director Dan Wyant
 DHHS Director Nick Lyon
 Dr. Eden Wells, DHHS
 Ridgeway White, Mott Foundation
 Harvey Hollins

Non-Speaking Invitees: (all attendance unconfirmed)

Sen. Jim Ananich
 Rep. Tim Greimel
 Rep. Phil Phelps
 Rep. Sheldon Neely
 Flint City Councilmembers
 Faith Based Community members
 U of M Flint Chancellor Susan Borrego (RDS talked to 10/7/15 at the Higher Ed Summit)
 Amy Hovey, Staff of Congressman Dan Kildee
 Jamie Gaskin, CEO of Genesee County United Way
 Tim Herman, CEO of Flint and Genesee Chamber of Commerce
 Brian Larkin, Flint and Genesee Chamber of Commerce (fmr. EO staff)

Agenda:

10:00 AM – 10:01 AM Harvey Hollins kicks off press conference; introduces Governor
 10:01 AM – 10:05 AM Governor gives remarks
 10:05 AM – 10:06 AM Harvey Hollins introduces Mayor Dayne Walling
 10:06 AM – 10:10 AM Mayor Walling gives remarks
 10:10 AM – 10:11 AM Harvey Hollins introduces DEQ Director Dan Wyant
 10:11 AM – 10:15 AM Director Wyant gives remarks
 10:15 AM – 10:16 AM Harvey Hollins introduces DHHS Director Nick Lyon
 10:16 AM – 10:17 AM Director Nick Lyon brief comments, introduces Dr. Eden Wells
 10:17 AM – 10:20 AM Dr. Eden Wells remarks

10:20 AM – 10:21 AM Harvey Hollins introduces Ridgway White of Mott Foundation
 10:21 AM – 10:25 AM Ridgway White gives remarks
 10:25 AM – 10:35 AM Q&A from the podium (SW to moderate)
 10:35 AM Event concludes; Governor departs

OPEN Press

High level points:

- Protecting the health and safety of our residents in Flint and across Michigan is always our top priority.
 - All Michigan residents need access to safe, clean water
- That's why today, in consultation with health and water experts in our state agencies, I'm advocating reconnecting the Flint drinking water with the Great Lakes Water Authority.
- I'm recommending to my partners in the Legislature that the state government provide \$6 million of the needed \$12 million to reconnect with authority.
 - The Flint city government has agreed to cover \$2 million of this cost, and the Charles Stewart Mott Foundation is generously offered to donate \$4 million.
- What you are seeing here today is a community coming together to work toward solving a problem.
 - I appreciate the assistance of Mayor Walling, and the U.S. Environmental Protection Agency.
 - This is a collaborative approach, and I appreciate that community organizations including the United Way and come forward to assist.

Attachments:

1. Briefing
2. FAQs for Media Q&As
3. Press Release



Briefing.pdf



FAQs for Media
QAs.pdf



Press Release.pdf

Staff/Detail

Venue POC: Kathryn Thomas (mobile?) 609-439-1150

Security POC: Phil Snyder (mobile) 810-444-7050

Advance: CLU

Comms: All

Briefing: Flint Water System Press Conference

Thursday, Oct. 8, 2015

Mott Foundation/Commerce Center Building Ground Floor

519 S. Saginaw St., Flint

Communications: Sara Wurfel, 517-599-3470, wurfels@michigan.govDave Murray, 517-449-8343, murrayd1@michigan.gov**Purpose:**

We're announcing the decision to reconnect Flint to the Detroit Water and Sewerage Department, a collaborative effort between the state government, Flint city government and the Mott Foundation.

High level points:

- Protecting the health and safety of our residents in Flint and across Michigan is always our top priority.
 - All Michigan residents need access to safe, clean water.
- That's why today, in consultation with health and water experts in our state agencies, I'm advocating reconnecting the Flint drinking water with the Great Lakes Water Authority.
- I'm recommending to my partners in the Legislature that the state government provide \$6 million of the needed \$12 million to reconnect with authority.
 - The Flint city government has agreed to cover \$2 million of this cost, and the Charles Stewart Mott Foundation is generously offered to donate \$4 million.
- What you are seeing here today is a community coming together to work toward solving a problem.
 - I appreciate the assistance of Mayor Walling, and the U.S. Environmental Protection Agency.
 - This is a collaborative approach, and I appreciate that community organizations including the United Way and come forward to assist.

Agenda:

9:00 AM - 9:45 AM	Gov meets with Mayor Walling in [Room 1]
9:45 AM - 10:00 AM	Pre-Brief in [Room 2]
10:00 AM - 10:01 AM	Harvey Hollins kicks off press conference; introduces Governor
10:01 AM - 10:05 AM	Governor gives remarks
10:05 AM - 10:06 AM	Harvey Hollins introduces Mayor Dayne Walling
10:06 AM - 10:10 AM	Mayor Walling gives remarks
10:10 AM - 10:11 AM	Harvey Hollins introduces DEQ Director Dan Wyant
10:11 AM - 10:15 AM	Director Wyant gives remarks
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10:16 AM - 10:17 AM	Director Nick Lyon introduces Dr. Eden Wells
10:17 AM - 10:20 AM	Dr. Eden Wells remarks
10:20 AM - 10:21 AM	Harvey Hollins introduces Ridgway White of Mott Foundation
10:21 AM - 10:25 AM	Ridgway White gives remarks.
10:25 AM - 10:35 AM	Q&A from the podium
10:35 AM	Event concludes; Governor departs

Attendees: Roughly 20 in audience

Susan	Borrego	Chancellor, U of M Flint
Oscar	Overton	Pastor
Alfred	Harris	Pastor

Latrelle	Holmes	Pastor
Jim	Ananich	Michigan Senate
Sheldon	Neely	Michigan House
Phil	Phelps	Michigan House
Jeff	Wright	Drain Commissioner, Genesee County
Amy	Hovey	Dan Kildee office
Jamie	Gaskin	Dan Kildee office
Tim	Herman	Flint Chamber of Commerce
Brian	Larkin	Flint Chamber of Commerce
Eric	Mays	Flint City Council
Jacqueline	Poplar	Flint City Council
Kerry	Nelson	Flint City Council
Joshua	Freeman	Flint City Council
Wantwaz	Davis	Flint City Council
Herbert	Winfrey	Flint City Council
Monica	Galloway	Flint City Council
Vicki	VanBuren	Flint City Council
Scott	Kincaid	Flint City Council

Speaker comments:

RDS – Collaboration led to solution, outline of solution

Mayor Walling – Importance of solution to Flint

Dan Wyant – School testing results, overview of steps on transition from Flint River to DWSD

Nick Lyon – DHHS involvement

Dr. Eden Wells – Testing of water going forward, use of filters approved by NSF

Ridgway White – Importance of collaboration/commitment to Flint

Talking points:

- Protecting the health and safety of our residents in Flint and across Michigan is always our top priority.
 - All Michigan residents need access to safe, clean water
- That's why today, in consultation with health and water experts in our state agencies, I'm advocating reconnecting the Flint drinking water with the Great Lakes Water Authority.
- I'm recommending to my partners in the Legislature that the state government provide \$6 million of the needed \$12 million to reconnect with authority.
 - The Flint city government has agreed to cover \$2 million of this cost, and the Charles Stewart Mott Foundation is generously offered to donate \$4 million.
 - The Michigan Department of Health and Human Services and the Department of Environmental Quality today also is committing an additional \$3.5 million for water filters, free lead testing through the state laboratory for Flint water customers, and hiring additional staff to conduct health exposure monitoring for lead in drinking water.
- What you are seeing here today is a community coming together to work toward solving a problem.
 - I appreciate the assistance of Mayor Walling, and the U.S. Environmental Protection Agency.
 - This is a collaborative approach, and I appreciate that community organizations including the United Way and come forward to assist.
- Today's announcement is an important step as we move forward together.
 - But it is not our first step, nor will it be our last.

- This announcement builds on work we've already set in place.
 - That includes \$4.2 million in state grants and loan restructuring to help identify and fix infrastructure problems.
 - State agencies have been working closely with Flint leaders and the community for more than a year.
- There will be more to do.
 - Flint has an aging water infrastructure system with challenges that we -- together -- will continue to address.
- We will continue to test Flint schools for lead levels in drinking water.
 - Schools across the state might also have questions.
 - The Department of Environmental Quality will work with districts across the state to provide testing.
 - Districts can send water samples and paperwork and the nominal charge. (It costs \$26 per sample).
- The steps outlined in the comprehensive action plan are still in effect.

Chemical testing could have predicted Flint's water crisis

By John Wisely and By Robin Erb, Detroit Free Press 7:14 a.m. EDT October 11, 2015



Buy Photo

(Photo: Ryan Garza, Detroit Free Press)

Chemical tests could have predicted the corrosion in the pipes that is now being blamed for endangering the health of thousands of vulnerable Flint residents by elevating lead levels in their water supply, experts say.

As the city scrambles to reconnect to the Detroit water system, the absence of such testing on the Flint River water is one of many missed opportunities that might have lessened or avoided the crisis, they say.

"Any competent person should have seen this water will eat up iron and eat up lead," Marc Edwards, a Virginia Tech professor and national expert on pipe corrosion, told the Free Press. Edwards said his own research shows that Flint River water, without additional controls, corrodes the lead inside pipes at 19 times the rate of water piped from Detroit.



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Why are lead levels in children higher in 2 Flint ZIP codes?

[\(http://www.freep.com/story/news/local/michigan/2015/10/10/lead-danger-basics/73683934/\)](http://www.freep.com/story/news/local/michigan/2015/10/10/lead-danger-basics/73683934/)

Among red flags that popped up over the last 18 months:

- General Motors announced in October 2014 that it was pulling its engine plant off Flint water after workers there began noticing rust spots on newly machined parts. The city approved letting GM switch to water from Flint Township, but didn't change its own water treatment procedures.
- The University of Michigan-Flint alerted city officials that it found elevated lead levels in its water in January, prompting the school to shut off some some drinking fountains and add water filters to others.
- Testing in the fall of 2014 found E. coli in the city's water system, prompting "boil water" notices. The city's procedures for killing the E. coli produced chemical by-products known as trihalomethanes, which can cause cancer with long-term exposure. The city had to adopt additional measures to reduce them.

"Common sense tells you that the Flint River is not your first choice of drinking water," said Shawn McElmurry, who teaches civil and environmental engineering at Wayne State University and has followed Flint closely.



DETROIT FREE PRESS

Q & A on Flint's water troubles

[\(http://www.freep.com/story/news/local/michigan/2015/10/10/flint-water-qa/73693500/\)](http://www.freep.com/story/news/local/michigan/2015/10/10/flint-water-qa/73693500/)

Experts say the testing could have been done before the switch from the Detroit system. But officials from the Michigan Department of Environmental Quality note that that kind of testing isn't required under federal drinking-water rules and has never been done in Michigan. What's more, they said, the Flint River water, treated in the city's plant, was already approved as a backup supply in case of interrupted service from Detroit.

Other experts said the testing is more nuanced, part art and part science. Still, they acknowledge that by examining things such as the acidity of water and other factors, engineers could have estimated how much corrosion to expect once water from the Flint River was pumped into homes and businesses across the city.

"Not every engineer in our field could do it, it's a pretty specialized area," said David Cornwell, a Virginia-based engineering consultant and a technical adviser to the National Drinking Water Advisory Council, a group of experts that works with the Environmental Protection Agency on drinking water issues.

DETROIT FREE PRESS

Flint doctor makes state see light about lead in water



[\(http://www.freep.com/story/news/local/michigan/2015/10/10/hanna-attisha-profile/73600120/\)](http://www.freep.com/story/news/local/michigan/2015/10/10/hanna-attisha-profile/73600120/)

The fix now will cost \$12 million — a combination of money from the state, the city and the Flint-based non-profit C.S. Mott Foundation, which has pledged \$4 million to help pay Detroit for the water while Flint waits to connect to a new water authority in partnership with Genesee County.

Water woes began shortly after switch from Detroit

Flint began using Flint River water as its main supply in April 2014. Before that, it bought Lake Huron water that was treated and delivered by the Detroit Water and Sewerage Department. Detroit ended that deal one day after Flint voted to join Genesee County in forming the Karegnondi Water Authority, which plans to build its own Lake Huron intake and pipe the water to the Flint Water Plant.

Flint officials wanted to remain on Detroit's system, but the two sides couldn't agree on a price and a contract length.

Once the switch to river water was made, the city, which was operating under a state-appointed emergency financial manager, faced one problem after another. Residents packed city council meetings and held protest marches to voice their anger about water quality.

Experts say Flint's lead problems could have been held in check if the city had added phosphates to the water, as Detroit has done for years. The treatment doesn't eliminate lead entirely, but it does form a film over the pipes themselves, effectively sealing in the lead and reducing the amount in the water to acceptable levels.

But when Flint switched to river water, it didn't add phosphates. Instead it added lime to soften the water.

"The lime softening process has the added benefit of some corrosion control," said Liane Smith, chief of Michigan's Office of Drinking Water and Municipal Assistance.

Smith said that once the switch was made, the state began testing for lead and copper, as is required by the federal Environmental Protection Agency.

"Any new supply that comes along has to do two six-month rounds of monitoring for lead and copper out in their distribution system," Smith said. If those tests show corrosion, additional steps, such as perhaps adding phosphates, are supposed to be followed.

The first round of testing completed in December 2014 showed lead levels of 6 parts per billion. The second round, completed in June of this year, showed they had almost doubled to 11 parts per billion. The EPA requires a remediation plan when levels reach 15 parts per billion and can demand action even below that mark on systems that serve more than 50,000 people.

Cornwell said phosphates are considered more effective than lime softening and they don't raise treatment costs substantially. But they have side effects, he said.

"The negative is that nobody really likes phosphates out in the environment," he said, noting they can find their way into rivers and lakes, fueling algae blooms such as the ones in Lake Erie.

"There is more to it than saying we're just going to pump phosphates," Cornwell said. "You may have to make other adjustments."



A man crosses a bridge over the Flint River near the Hamilton Dam in downtown Flint on Thursday, Oct. 8, 2015. Flint has been getting its drinking water from the river since last year. (Photo: Ryan Garza, *Detroit Free Press*)

Flint River water a challenge to clean up

Flint River water was always going to pose more treatment challenges than the cold, clear water that comes from the bottom of Lake Huron, experts said.

The river has been marked by decades of industrial pollution. Its tributaries channel farmland run-off into it and its temperature varies by season. Warmer water can promote bacteria growth. All of those factors make treating it to drinking-water standards more difficult.

"The city was doing the best it could" to clean up pollutants, Edwards said, but added that corrosivity was inevitable.

He blamed the problems on a lack of expertise rather than intentional wrongdoing.

"I think it started relatively innocently. They didn't understand testing and they didn't understand corrosivity," he said.

Last month, Edwards' research group released results of corrosion tests it conducted on Flint's water. For the test, researchers used copper pipe with lead solder, which is common in older homes.

The tests showed Flint River water without added phosphates corroded the lead at 19 times the rate of Detroit water. Even when phosphates were added, it corroded at 16 times the rate of the Detroit water.

"From the second it was switched, it was doomed from the lead problem," Edwards said.

When residents began complaining about the water, the city and state should have begun to rethink their testing, Edwards said.

Problems were evident soon after the switch.

In August last year, *E. coli* was found in the water and residents were urged to boil it before drinking it. The city treated it with disinfectant, but that produced by-products in the water known as trihalomethanes. Long-term exposure to them can cause cancer, so the city began making treatment adjustments.

Then as summer turned to fall, workers at Flint's GM engine plant began seeing rust on newly machined engine parts. GM's lab tests found high levels of chloride in the water used to wash down metal shavings and cool parts heated from the rapid machining action inside the plant, GM spokesman Tom Wickham said.

GM tried to treat the water in the plant. It had drinking water delivered and tankers brought water for operations, Wickham said.

But it eventually sought to connect to Flint Township's water system, which is supplied by Detroit.

In December the connection was finalized and Detroit water began flowing to the plant, via Flint Township.

In January 2015, lead was showing up at the University of Michigan's Flint campus. School leaders become concerned about the water supply after the city issued "boil water" advisories to kill E. coli and realized they'd never done routine, thorough water testing.

Tests in January and February showed elevated levels of lead and other problems in isolated areas —specifically in two infrequently used drinking fountains in two older buildings..

Follow-up testing found other elevated levels of lead, and those sinks and fountains then were either fitted with filters or removed, said Mike Lane, director of the environment, health and safety department

He said officials suspected the problem was in their pipes but notified the city anyway.

In June, Miguel Del Toral of the Environmental Protection Agency drafted an internal memo noting the problems Flint had experienced with E. coli and the by-products of the chemicals used to treat it.

"A major concern from a public health standpoint is lack of corrosion control treatment in the city of Flint for mitigating lead and copper levels in the drinking water," Del Toral wrote.

The memo caused a stir when the American Civil Liberties Union exposed it. But the EPA told the Free Press on Friday that the memo was a draft that was never delivered to MDEQ officials, including Smith, whose names appear on it.

The EPA did say it discussed the concerns raised in the memo with MDEQ officials in July, but the agency did not respond immediately to a request for details.

Leaching lead not unique to Flint

The problem of lead leaching into drinking water isn't unique to Flint. Across Michigan and around the country, pipes that carry water from the mains under the street into homes, businesses and schools often contain lead. Inside homes and business, many older plumbing fixtures and soldered pipes also contain it.

Cornwell said officials from across the nation have formed a working group to review the lead and copper rules and look for ways to improve them. Among the things being considered is a national effort to remove lead pipes from water systems.

But even if a national consensus formed around that idea, the process would take years, Cornwell said. A funding source for such a massive project also would be needed.

Still, he said, removing the pipes is the only surefire way to eliminate lead from the system.

"We can only do so much with water chemistry," he said. "We can only turn the knob so much."

Contact John Wisely: 313-222-6825 or jwisely@freepress.com

Contact Robin Erb: 313-222-2708 or rerb@freepress.com.

TIME LINE

April 16, 2013: Flint signs agreement to join the Karegnondi Water Authority.

April 17, 2013: Detroit terminates contract with Flint, giving it one year to find a new water source.

April 24, 2014: Flint switches from Detroit water to Flint River water.

April 30, 2014: Flint closes all valves connecting to Detroit water supply.

June-Sept. 2014: Flint residents complain about smell, taste and discoloration of water.

Dec. 16, 2014: Michigan Department of Environment Quality cites Flint for exceeding limits on disinfection by-products.

Dec. 27, 2014: Flint's General Motors engine plant, citing high chloride levels in the water, switches off its hook-up to Flint, drawing water instead from neighboring Flint Township.

Jan. 9, 2015: Concerned about Flint's water warnings, University of Michigan's Flint campus begins testing its water, detecting lead in isolated,

infrequently used areas.

June 24, 2015: Environmental Protection Agency drafts a report raising concerns about lead in Flint's water system as a result of corrosion. It doesn't send the report, but discusses its concerns with MDEQ officials in July.

Sept. 24, 2015: Dr. Mona Hanna-Attisha releases data showing spike in blood-lead levels in Flint children.

Oct. 2, 2015: State officials tell room packed with reporters that there's a problem with Flint's water.

Read or Share this story: <http://on.freep.com/1LoJP7S>



RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING



DAN WYANT
DIRECTOR

Background on City of Flint Water

After a change in the water source for Flint residents, there have been concerns related to the water quality, in particular lead in the water, and its impact of the community. As a result, Department of Health and Human Services (DHHS) and the Department of Environmental Quality (DEQ), working with local public health departments and the City of Flint (City), have put together an Action Plan to address public health concerns in the City.

While Flint water is meeting all state and federal drinking water standards, there is an increasing level of concern that the Flint River is not the best water source. The City's Technical Advisory Committee recommended the City switch back to DWSD. In addition, recent studies by Hurley Children's Hospital, and confirmed by DHHS, have indicated a rise in blood lead levels in some Flint children. Sample screening completed last week by the DEQ indicated that some Flint Public Schools have detectable lead levels in their water.

Action Plan:

Immediately, the City and State announced the following steps:

- Governor named Dr. Eden Wells as Flint Public Health Advisor
- Advisories issued recommending residents flush their cold water pipes before use, as well as only use water from the cold water tap for drinking, cooking and especially making baby formula.
- Schools are advised to not use the drinking water fountains and are using bottled water.
- Free filters are available to all households in Flint, along with replacement filters.
- Flint Public Schools were screened for lead exposure.

For the near term, the City and State are asking for/ doing the following:

- Switch the drinking water source from the Flint River to DWSD.
- Test and inspect all schools in Flint, including charter and parochial schools.
- Free water testing for all homes.
- Expand exposure testing to additional households in Flint.

For the long term health of all Flint residents, the City and State have committed to:

- Switching to the Karegnondi Water Authority in the summer of 2016 as the permanent water supply for the City of Flint
- Allow for Drinking Water Revolving Loan funds to be used to expedite the replacement of private residential lead service lines.
- Lead exposure campaigns for homes, schools and communities.

Flint Water FY 2016 Supplemental Budget Request

1. \$1 Million for Filters

The \$1 million for filters will be used to purchase filters for households in Flint that do not qualify for assistance under any of the DHHS assistance programs. Filters for those residents will be paid for out of funding already in place in DHHS' budget. Each filter is \$20 and they were ordered in bulk through Home Depot. Filters are being distributed through local public health departments, with documentation filed for each filter handed out.

2. \$6 Million for switch from Flint River to DWSD

The City of Flint estimates it will cost the City an additional \$1.3 million per month to use DWSD instead of the Flint River. The State and the City agreed to split the cost through June 2016, when the new Karegnondi Water Authority will be completed and Flint will switch to that water source. (\$1.3 million for 9 months)

3. \$1.35 Million for resources to do community Lead Exposure Testing

DEQ, DHHS and LARA are assembling a team to go into schools, childcare facilities, and other high lead exposure health risk locations to test and follow up on lead exposure.

4. \$1 Million for evaluating sample results at the State Lab

The new testing protocols for schools will require each faucet in the school to be tested and evaluated at the State lab. In addition, lead exposure testing in homes will result in tens of thousands more samples that will be need to processed. Each sample costs \$26 to process.

Total Ask: \$9.35 Million, \$7.15 GF



www.mi.gov/FlintWater

- The Action Plan -

- Immediately test all Flint public schools to ensure that **drinking water is safe**. Testing will also be available at no cost to any other school in Flint.
- **Expand health exposure testing** of individual residences.
- **Offer water testing** at no cost to Flint residents to assure water is safe.
- **Expedite optimizing corrosion controls** in the Flint drinking water system.
- **Assemble the "Safe Drinking Water Technical Advisory Committee"** to ensure the best technology, practices and science are being utilized, and add an expert from the EPA's Office of Research and Development to the group.
- **Accelerate water system improvements** to address replacement of lead service lines.
- Expedite completion of **Karegnondi Water Authority**.
- Gov. Rick Snyder names Dr. Eden Wells as the Flint Drinking Water Public Health Advisor to ensure safe drinking water.
- **Provide water filters** to residents of Flint.
- Expand a comprehensive lead education initiative.

To get your water tested for free, please call the city of Flint Water Plant at (810) 787-6537 and then press 1

Visit www.mi.gov/FlintWater for more information

Eisenhower

Draft

SAMPLE NUMBER	ANALYTE	RESULT	Sample Description	SampleCollector	Site Code
LF89705	Lead	0.036	01CF014 RM104	M PRYSBY/L GRAHAM	P1
LF89706	Lead	0.036	01CF014 RM104	M PRYSBY/L GRAHAM	P2
LF89707	Lead	0.002	01CF014 RM104	M PRYSBY/L GRAHAM	F-01
LF89708	Lead	0.001	01CF014 RM 104	M PRYSBY/L GRAHAM	F-02
LF89709	Lead	0.009	02CF021 RM201	M PRYSBY/L GRAHAM	P-1
LF89710	Lead	0.009	02CF021 RM201	M PRYSBY/L GRAHAM	P2
LF89711	Lead	0.000	02CF021 RM201	M PRYSBY/L GRAHAM	F-01
LF89712	Lead	0.000	02CF021 RM201	M PRYSBY/L GRAHAM	F-02
LF89713	Lead	0.012	02DW023 RM202	M PRYSBY/L GRAHAM	P1
LF89714	Lead	0.009	02DW023 RM202	M PRYSBY/L GRAHAM	P2
LF89715	Lead	0.001	02DW023 RM202	M PRYSBY/L GRAHAM	F-01
LF89716	Lead	0.000	02DW023 RM202	M PRYSBY/L GRAHAM	F-02
LF89717	Lead	0.013	01CF010RM102	M PRYSBY/L GRAHAM	P1
LF89718	Lead	0.002	01CF010RM102	M PRYSBY/LOIS GRAHAM	P2
LF89719	Lead	0.000	01CF010RM102	M PRYSBY/L GRAHAM	F01
LF89720	Lead	0.000	01CF010RM102	M PRYSBY/L GRAHAM	F02
LF89721	Lead	0.043	01DW013 RM104	M PRYSBY/L GRAHAM	P1
LF89722	Lead	0.106	01DW013 RM104	M PRYSBY/L GRAHAM	P2
LF89723	Lead	0.003	01DW013 RM104	M PRYSBY/L GRAHAM	F-01
LF89724	Lead	0.002	01DW013 - RM104	M PRYSBY/L GRAHAM	F-02
LF89725	Lead	0.037	02DW020 RM201	M PRYSBY/L GRAHAM	P1
LF89726	Lead	0.024	02DW020 RM201	M PRYSBY/L GRAHAM	P2
LF89727	Lead	0.002	02DW020 RM201	M PRYSBY/L GRAHAM	F-01
LF89728	Lead	0.000	02DW020 RM201	M PRYSBY/L GRAHAM	F-02
LF89729	Lead	0.012	01CF012 RM103	M PRYSBY/L GRAHAM	P1
LF89730	Lead	0.012	01CF012 RM103	M PRYSBY/L GRAHAM	P2
LF89731	Lead	0.003	01CF012 RM103	M PRYSBY/L GRAHAM	F-01
LF89732	Lead	0.002	01CF012 RM103	M PRYSBY/L GRAHAM	F-02
LF89733	Lead	0.009	01DW009 RM102	PRYSBY M/L GRAHAM	P1
LF89734	Lead	0.003	01DW009 RM102	M PRYSBY/L GRAHAM	P2
LF89735	Lead	0.000	01DW009 RM102	M PRYSBY/L GRAHAM	F-01
LF89736	Lead	0.000	01DW009 RM102	M PRYSBY/L GRAHAM	F-02
LF89737	Lead	0.013	01DW011 RM103	M PRYSBY/L GRAHAM	P1
LF89738	Lead	0.004	01DW011 RM103	M PRYSBY/L GRAHAM	P2
LF89739	Lead	0.002	01DW011 RM103	M PRYSBY/L GRAHAM	F-01
LF89740	Lead	0.001	01DW011 RM103	M PRYSBY/L GRAHAM	F-02
LF89741	Lead	0.007	02CF022 RM202	M PRYSBY/L GRAHAM	P-1
LF89742	Lead	0.024	02CF022 - RM202	M PRYSBY	P2
LF89743	Lead	0.002	02CF022 - RM202	M PRYSBY/L GRAHAM	F-01
LF89744	Lead	0.001	02CF022 - RM202	M PRYSBY/L GRAHAM	F-02

Sink side
bubble

LF89745	Lead	0.014	01CF008 RM101	M PRYSBY/L GRAHAM	P1
LF89746	Lead	0.011	01CF008 - RM101	M PRYSBY/L GRAHAM	P2
LF89747	Lead	0.001	01CF008 RM101	M PRYSBY/L GRAHAM	F-01
LF89748	Lead	0.001	01CF008 - RM101	M PRYSBY/L GRAHAM	F-02
LF89749	Lead	0.011	01DW007 RM101	M PRYSBY/L GRAHAM	P1
LF89750	Lead	0.010	01DW007 RM101	M PRYSBY/L GRAHAM	P2
LF89751	Lead	0.002	01DW007 RM101	M PRYSBY/L GRAHAM	F-01
LF89752	Lead	0.000	01DW007 RM101	M PRYSBY/L GRAHAM	F-02
LF89753	Lead	0.032	01DW001 GYM	M PRYSBY/L GRAHAM	P1
LF89754	Lead	0.006	01DW001 GYM	M PRYSBY/L GRAHAM	P2
LF89755	Lead	0.005	01DW001 GYM	M PRYSBY/L GRAHAM	F-01
LF89756	Lead	0.003	01DW001 GYM	M PRYSBY/L GRAHAM	F-02
LF89757	Lead	0.017	01CF004 RO10M 109	M PRYSBY/L GRAHAM	P1
LF89758	Lead	0.010	01CF004 ROOM109	M PRYSBY/L GRAHAM	P2
LF89759	Lead	0.001	01CF004 ROOM109	M PRYSBY/L GRAHAM	F-01
LF89760	Lead	0.002	01CF004 ROOM109	M PRYSBY/L GRAHAM	F-02
LF89761	Lead	0.013	01DW003 ROOM109	PRYSBY M/L GRAHAM	P1
LF89762	Lead	0.003	01DW003 ROOM109	M PRYSBY/L GRAHAM	P2
LF89763	Lead	0.002	01DW003 ROOM109	M PRYSBY/L GRAHAM	F-01
LF89764	Lead	0.001	01DW003 ROOM109	M PRYSBY/L GRAHAM	F-02
LF89765	Lead	0.014	01CF006 CLINIC	M PRYSBY/L GRAHAM	P1
LF89766	Lead	0.003	01CF006 CLINIC	M PRYSBY/L GRAHAM	P2
LF89767	Lead	0.001	01CF006 CLINIC	M PRYSBY/L GRAHAM	F-01
LF89768	Lead	0.000	01CF006 CLINIC	M PRYSBY/L GRAHAM	F-02
LF89769	Lead	0.017	04KC043 UNIT2	M PRYSBY/L GRAHAM	P1
LF89770	Lead	0.003	04KC043 UNIT2	M PRYSBY/L GRAHAM	P2
LF89771	Lead	0.002	04KC043 UNIT 2	M PRYSBY/L GRAHAM	F-01
LF89772	Lead	0.003	04KC043-UNIT 2	M PRYSBY/L GRAHAM	F-02
LF89773	Lead	0.000	03DW039 - UNIT 1	M PRYSBY/L GRAHAM	P1
LF89774	Lead	0.000	03DW039 - UNIT 1	M PRYSBY/L GRAHAM	P2
LF89775	Lead	0.000	03DW039 - UNIT 1	M PRYSBY/L GRAHAM	F-01
LF89776	Lead	0.000	03DW039 - UNIT 1	M PRYSBY/L GRAHAM	F-02
LF89777	Lead	0.004	01KC005 - COMMUNITY	M PRYSBY/L GRAHAM	P1
LF89778	Lead	0.004	01KC005 COMMUNITY	M PRYSBY/L GRAHAM	P2
LF89779	Lead	0.001	01KC005 COMMUNITY	M PRYSBY/L GRAHAM	F-01
LF89780	Lead	0.000	01KC005 COMMUNITY	L GRAHAM/M PRYSBY	F-02
LF89781	Lead	0.017	01WC002 HALL	M PRYSBY/L GRAHAM	P1
LF89782	Lead	0.017	01WC002 HALL	M PRYSBY/L GRAHAM	P2
LF89783	Lead	0.012	01WC002 HALL	M PRYSBY/L GRAHAM	F-01
LF89784	Lead	0.003	01 WC002 HALL	M PRYSBY/L GRAHAM	F-02
LF89785	Lead	0.012	03KC041- UNIT 1	MIKE PRYSBY/LOIS GRAHAM	P1

Bubblers

Sink Faucet
w/ HotBrass
Bubble

LF89786	Lead	0.004	03KC041 - UNIT1	MIKE PRYSBY/LOIS GRAHAM	P2
LF89787	Lead	0.000	03KC041-UNIT1	MIKE PRYSBY/LOIS GRAHAM	F-01
LF89788	Lead	0.000	03KC041 - UNIT1	MIKE PRYSBY/LOIS GRAHAM	F-02
LF89789	Lead	0.005	03DW38 - UNIT1	M PRYSBY/L GRAHAM	P1
LF89790	Lead	0.001	03DW038 - UNIT 1	M PRYSBY/L GRAHAM	P2
LF89791	Lead	0.000	03DW038 - UNIT 1	M PRYSBY/L GRAHAM	F-01
LF89792	Lead	0.000	03DW038 UNIT1	M PRYSBY/L GRAHAM	F-02
LF89793	Lead	0.012	03KC040 UNIT 1	MIKE PRYSBY/LOIS GRAHAM	P1
LF89794	Lead	0.002	03KC040 UNIT1	MIKE PRYSBY/ LOIS GRAHAM	P2
LF89795	Lead	0.001	03KC040 UNIT 1	MIKE PRYSBY/LOIS GRAHAM	F-01
LF89796	Lead	0.000	03KC040 UNIT1	MIKE PRYSBY	F-02
LF89797	Lead	0.011	04KC044 - UNIT 2	M PRYSBY/L GRAHAM	P1
LF89798	Lead	0.003	04KC044-UNIT 2	M PRYSBY/L GRAHAM	P2
LF89799	Lead	0.001	04KC044 - UNIT 2	M PRYSBY/L GRAHAM	F-01
LF89800	Lead	0.000	04KC044 UNIT2	M PRYSBY/L GRAHAM	F-02
LF89801	Lead	0.007	02CF036 RM209	M PRYSBY/L GRAHAM	P7
LF89802	Lead	0.021	02CF036 RM209	M PRYSBY/L GRAHAM	P2
LF89803	Lead	0.005	02CF036 RM209	M PRYSBY/L GRAHAM	F07
LF89804	Lead	0.001	02CF036 RM209	M PRYSBY/L GRAHAM	F02
LF89805	Lead	0.012	02DW035 RM208	M PRYSBY/L GRAHAM	P1
LF89806	Lead	0.019	02DW035 RM208	M PRYSBY/L GRAHAM	P2
LF89807	Lead	0.006	02DW035 RM208	M PRYSBY/L GRAHAM	F01
LF89808	Lead	0.003	02DW035 RM208	M PRYSBY/L GRAHAM	F02
LF89809	Lead	0.019	02CF034 RM208	M PRYSBY/L GRAHAM	P1
LF89810	Lead	0.012	02CF034 RM208	M PRYSBY/L GRAHAM	P2
LF89811	Lead	0.003	02CF034 RM208	M PRYSBY/L GRAHAM	F01
LF89812	Lead	0.002	02CF034 RM 208	M PRYSBY/L GRAHAM	F02
LF89813	Lead	0.020	02DW033 RM207	M PRYSBY/L GRAHAM	P1
LF89814	Lead	0.004	02DW033 RM207	M PRYSBY/L GRAHAM	P2
LF89815	Lead	0.003	02DW033 RM207	M PRYSBY/L GRAHAM	F-01
LF89816	Lead	0.003	02DW033 RM207	M PRYSBY/L GRAHAM	F-02
LF89817	Lead	0.017	01KC019 RM108	M PRYSBY/L GRAHAM	P1
LF89818	Lead	0.005	01KC019 RM108	M PRYSBY/L GRAHAM	P2
LF89819	Lead	0.004	01KC019 RM108	M PRYSBY/L GRAHAM	F-01
LF89820	Lead	0.001	01KC019 RM108	M PRYSBY/L GRAHAM	F-02
LF89821	Lead	0.021	02CF032 RM207	M PRYSBY/L GRAHAM	P1
LF89822	Lead	0.023	02CF032 RM207	M PRYSBY/L GRAHAM	P2
LF89823	Lead	0.005	02CF032 RM207	M PRYSBY/L GRAHAM	F-01
LF89824	Lead	0.001	02CF032 RM207	M PRYSBY/L GRAHAM	F-02
LF89825	Lead	0.008	02DW037 RM209	M PRYSBY/L GRAHAM	P1
LF89826	Lead	0.002	02DW037 RM209	M PRYSBY/L GRAHAM	P2

LF89827	Lead	0.002	02DW037 RM209	M PRYSBY/L GRAHAM	F-01
LF89828	Lead	0.002	02DW037 RM209	M PRYSBY/L GRAHAM	F-02
LF89829	Lead	0.013	02DW025 RM203	PRYSBY M/L GRAHAM	P1
LF89830	Lead	0.004	02DW025 RM203	M PRYSBY/L GRAHAM	P2
LF89831	Lead	0.005	02DW025 RM203	M PRYSBY/L GRAHAM	F-01
LF89832	Lead	0.004	02DW025 RM203	PRYSBY M/L GRAHAM	F-02
LF89833	Lead	0.018	02DW027 RM204	PRYSBY M/L GRAHAM	P1
LF89834	Lead	0.008	02DW027 RM204	PRYSBY M/L GRAHAM	P2
LF89835	Lead	0.002	02DW027 RM204	M PRYSBY/L GRAHAM	F-01
LF89836	Lead	0.001	02DW027 RM204	M PRYSBY/L GRAHAM	F-02
LF89837	Lead	0.014	02CF026 - 4M 204	PRYSBY M/L GRAHAM	P1
LF89838	Lead	0.004	02CF026 RM204	PRYSBY M/L GRAHAM	P2
LF89839	Lead	0.000	02CF026 RM 204	M PRYSBY/L GRAHAM	F-01
LF89840	Lead	0.000	02CF026 RM204	M PRYSBY/L GRAHAM	F-02
LF89841	Lead	0.034	02DW031 RM206	M PRYSBY/ L GRAHAM	P1
LF89842	Lead	0.007	02DW031 RM206	M PRYSBY/ LGRAHAM	P2
LF89843	Lead	0.001	02DW031 RM206	M PRYSBY/L GRAHAM	F01
LF89844	Lead	0.000	02DW031 RM206	M PRYSBY/L GRAHAM	F02
LF89845	Lead	0.039	02DW029 RM205	M PRYSBY/L GRAHAM	P1
LF89846	Lead	0.014	02DW029 RM205	M PRYSBY/L GRAHAM	P2
LF89847	Lead	0.011	02DW029 RM205	M PRYSBY/L GRAHAM	F-01
LF89848	Lead	0.001	02DW029 RM205	M PRYSBY/L GRAHAM	F-02
LF89849	Lead	0.012	02CF028 RM205	M PRYSBY/L GRAHAM	P1
LF89850	Lead	0.005	02CF028 RM205	M PRYSBY/L GRAHAM	P2
LF89851	Lead	0.000	02CF028 RM205	M PRYSBY/L GRAHAM	F01
LF89852	Lead	0.000	02CF028 RM205	M PRYSBY/L GRAHAM	F02
LF89853	Lead	0.012	07DW017 RM107	M PRYSBY/L GRAHAM	P1
LF89854	Lead	0.009	01DW017 RM107	M PRYSBY/L GRAHAM	P2
LF89855	Lead	0.002	01DW017 RM107	M PRYSBY/L GRAHAM	F01
LF89856	Lead	0.001	01DW017 RM107	M PRYSBY/L GRAHAM	F02
LF89857	Lead	0.010	01DW015 RM106	M PRYSBY/L GRAHAM	P1
LF89858	Lead	0.002	01DW015 RM106	M PRYSBY/L GRAHAM	P2
LF89859	Lead	0.001	01DW015 RM106	M PRYSBY/L GRAHAM	F-01
LF89860	Lead	0.000	01DW015 RM106	M PRYSBY/L GRAHAM	F-02
LF89861	Lead	0.009	01CF018 RM107	M PRYSBY/L GRAHAM	P1
LF89862	Lead	0.006	01CF018 RM107	M PRYSBY/L GRAHAM	P2
LF89863	Lead	0.001	01CF018 RM107	M PRYSBY/L GRAHAM	F07
LF89864	Lead	0.000	01CF078 RM107	M PRYSBY/L GRAHAM	F02
LF89865	Lead	0.010	02CF030 RM206	M PRYSBY/L GRAHAM	P1
LF89866	Lead	0.008	02CF030 RM206	M PRYSBY/L GRAHAM	P2
LF89867	Lead	0.002	02CF030 RM206	M PRYSBY/L GRAHAM	F-01

LF89868	Lead	0.000	02CF030 RM206	M PRYSBY/L GRAHAM	F-02
LF89869	Lead	0.402	01CF016 - RM106	PRYSBY M/L GRAHAM	P1
LF89870	Lead	0.061	01CF016 - RM106	M PRYSBY/L GRAHAM	P2
LF89871	Lead	0.004	01CF016 - RM106	M PRYSBY/L GRAHAM	F-01
LF89872	Lead	0.001	01CF016 - RM106	M PRYSBY/L GRAHAM	F-02
LF89873	Lead	0.014	02CF024 RM203	M PRYSBY/L GRAHAM	P1
LF89874	Lead	0.015	02CF024 RM203	PRYSBY M/L GRAHAM	P2
LF89875	Lead	0.006	02CF024 RM203	PRYSBY M/L GRAHAM	F-01
LF89876	Lead	0.002	02CF024 RM203	PRYSBY M/L GRAHAM	F-02
LF89877	Lead	0.001	03KC040 - UNIT 1	M PRYSBY/L GRAHAM	A1
LF89878	Lead	0.000	03KC040 - UNIT 1	M PRYSBY/L GRAHAM	A2
LF89879	Lead	0.000	03KC040 - UNIT 1	M PRYSBY/L GRAHAM	A3
LF89880	Lead	0.000	03KC040 - UNIT 1	M PRYSBY/L GRAHAM	A4
LF89881	Lead	0.000	03KC040 - UNIT 1	M PRYSBY/L GRAHAM	A5
LF89882	Lead	0.000	03KC040 - UNIT 1	M PRYSBY/L GRAHAM	A6
LF89883	Lead	0.000	03KC040 - UNIT 1	M PRYSBY/L GRAHAM	A7
LF89884	Lead	0.000	03KC040 UNIT 1	M PRYSBY/L GRAHAM	A8
LF89885	Lead	0.000	03KC040 UNIT 1	M PRYSBY/L GRAHAM	A9
LF89886	Lead	0.000	03KC040 UNIT 1	M PRYSBY/L GRAHAM	A10
LF89887	Lead	0.002	04KC044 UNIT 2	M PRYSBY/L GRAHAM	B1
LF89888	Lead	0.000	04KC044 UNIT 2	M PRYSBY/L GRAHAM	B2
LF89889	Lead	0.000	04KC044 UNIT 2	M PRYSBY/L GRAHAM	B3
LF89890	Lead	0.000	04KC044 UNIT 2	M PRYSBY/L GRAHAM	B4
LF89891	Lead	0.000	04KC044 UNIT 2	M PRYSBY/L GRAHAM	B5
LF89892	Lead	0.000	04KC044 UNIT 2	M PRYSBY/L GRAHAM	B6
LF89893	Lead	0.001	04KC044 UNIT 2	M PRYSBY/L GRAHAM	B7
LF89894	Lead	0.001	04KC044 UNIT 2	M PRYSBY/L GRAHAM	B8
LF89895	Lead	0.000	04KC044 UNIT 2	M PRYSBY/L GRAHAM	B9
LF89896	Lead	0.000	04KC044 UNIT 2	M PRYSBY/L GRAHAM	B10
LF89897	Lead	0.003	01CF004 - RM 109	M PRYSBY/L GRAHAM	C1
LF89898	Lead	0.000	01CF004 - RM 109	M PRYSBY/L GRAHAM	C2
LF89899	Lead	0.000	01CF004 - RM 109	M PRYSBY/L GRAHAM	C3
LF89900	Lead	0.000	01CF004 RM 109	M PRYSBY/L GRAHAM	C4
LF89901	Lead	0.000	01CF004 RM 109	M PRYSBY/L GRAHAM	C5
LF89902	Lead	0.000	01CF004 RM 109	M PRYSBY/L GRAHAM	C6
LF89903	Lead	0.000	01CF004 RM 109	M PRYSBY/L GRAHAM	C7
LF89904	Lead	0.000	01CF004 RM 109	M PRYSBY/L GRAHAM	C8
LF89905	Lead	0.000	01CF004 RM 109	M PRYSBY/L GRAHAM	C9
LF89906	Lead	0.000	01CF004 R 109	M PRYSBY/L GRAHAM	C10
LF89907	Lead	0.002	01CF010 RM 102	M PRYSBY/L GRAHAM	D1
LF89908	Lead	0.000	01CF010 RM 102	M PRYSBY/L GRAHAM	D2

LF89909	Lead	0.000	01CF010 RM 102	M PRYSBY/L GRAHAM	D3
LF89910	Lead	0.000	01CF010 RM 102	M PRYSBY/L GRAHAM	D4
LF89911	Lead	0.000	01CF010 RM 102	M PRYSBY/L GRAHAM	D5
LF89912	Lead	0.000	01CF010 RM 102	M PRYSBY/L GRAHAM	D6
LF89913	Lead	0.000	01CF010 RM 102	M PRYSBY/L GRAHAM	D7
LF89914	Lead	0.000	01CF010 RM 102	M PRYSBY/L GRAHAM	D8
LF89915	Lead	0.000	01CF010 RM 102	M PRYSBY/L GRAHAM	D9
LF89916	Lead	0.000	01CF010 RM 102	M PRYSBY/L GRAHAM	D10
LF89917	Lead	0.003	02CF036 RM 209	M PRYSBY/L GRAHAM	E1
LF89918	Lead	0.001	02CF036 - RM 209	M PRYSBY/L GRAHAM	E-2
LF89919	Lead	0.001	02CF036 - RM 209	M PRYSBY/L GRAHAM	E3
LF89920	Lead	0.001	02CF036 RM 209	M PRYSBY/L GRAHAM	E4
LF89921	Lead	0.000	02CF036 RM 209	M PRYSBY/L GRAHAM	E5
LF89922	Lead	0.000	02CF036 RM 209	M PRYSBY/L GRAHAM	E6
LF89923	Lead	0.000	02CF036 RM 209	M PRYSBY/L GRAHAM	E7
LF89924	Lead	0.000	02CF036 RM 209	M PRYSBY/L GRAHAM	E8
LF89925	Lead	0.000	02CF036 RM 209	M PRYSBY/L GRAHAM	E9
LF89926	Lead	0.000	02CF036 RM 209	M PRYSBY/L GRAHAM	E10

OfficeMax

Eisenhower Elementary Sample Sequence

Brass Bubbler	1.	01DW001 (Gym Porcelain Bubbler)	
Delta Model Reg	2.	01WC002 (Between H.N. Restrooms in Hallway)	
11 Sink Faucet H/C	3.	01KC005 (Community Room Kitchen)	
Brass Bubbler	4.	01CF004 RM 109	
Separate H/C taps	5.	01DW003 RM 109	27. 01CF016 RM 106 Tall H/C Faucet
Bubbler w/ Regulator	6.	01CF006 (CLINIC)	28. 01DW015 RM 106 Bubbler w/ Reg
11 Sink Faucet H/C	7.	01DW007 RM 101	29. 01DW017 RM 107 Bubbler - Brass
Brass Bubbler	8.	01CF008 RM 101	30. 01CF018 RM 107 Short H/C Faucet
H/C Bar	9.	01DW009 RM 102	31. 02CF032 RM 207 Short H/C Faucet
Newer Faucet No Spray	10.	01CF010 RM 102	32. 02DW033 RM 207 Plastic Brass Bubbler
Short Faucet H/C	11.	02CF021 RM 201	33. 02DW035 RM 208 Push Bubbler Brass
Bubbler - Reg. Flow	12.	02DW020 RM 201	34. 02CF034 RM 208
Bubbler Brass	13.	02DW023 RM 202	35. 01KC019 RM 108 Delta 2-handled
Short Faucet H/C	14.	02CF022 RM 202	36. 02CF036 RM 209 Tall H/C Faucet
Tall H/C Faucet	15.	01CF012 RM 103	37. 02DW037 RM 209 Bubbler w/ control valve
Bubbler w Reg.	16.	01DW011 RM 103	Brass
Bubbler Brass	17.	01DW013 RM 104	UNIT 1 OUTBUILDING (03)
Tall H/C Faucet	18.	01CF014 RM 104	1. 03KC040 PRE K
Short H/C Faucet	19.	02CF024 RM 203	2. 03KC041 Delta 100 Mix Valve Brass Parts
Bubbler - Regulator	20.	02DW025 RM 203	3. 03DW038 Elkay water code separate supply
Bubbler Reg	21.	02DW027 RM 204	4. 03DW039 Elkay water code
Short H/C Faucet	22.	02CF026 RM 204	UNIT 2 OUTBUILDING (04)
Bubbler - Brass Bottom	23.	02DW029 RM 205	1. 04KC043 Delta 400 DHS Mix Valve
Short H/C Faucet	24.	02CF028 RM 205	2. 04KC044 Delta 400 Mix Valve
Faucet w. Mix Valve	25.	02CF030 RM 206	
Brass Bubbler Reg	26.	02DW031 RM 206	

- Brass Base Fanzel

- Delta 400

43 total

37

4

2

$18 > 15_{ppb}$

$43 - 18 = 25 \leq 15_{ppb}$

↓

$25 - 17 = 8$

Eisenham

01DW001 Gym

Bubbler - Brass - Chrome Plated Brass
No Access to connecting
Chuck →

01WC002

Elkay water cooler Model P
~~nothing unit not connecting~~

17, 17, 12, 3

Check connecting plumbing
30-sec flush should get into connecting
outside unit

01CF004

Sink Faucet w/ H+C
Brass connection ~~fit~~ T mixer fitting
all brass

02DW020 Rm 201 Sink side bubbler
flow regulator between tap & valve
↑ All brass (reason for higher results)
+ chrome plated brass

02CF022 Sink Faucet w/ H+C

Brass connector
+ Brass fittings + 50/50 lead solder

01 DW013 Room 104

Chrome Plated Brass

Brass Valves? $\approx$

copper w/ 50/50 lead solder

01 CF014 Room 104 Brass Faucet $\approx$
Faucet base + stem

02 DW027 Rm 204

Brass Flow Regulator

+ Chrome Plated Brass

02 DW029 Rm 205

Chrome Plated Brass w/ Brass Nipple

$\approx$ + check connecting plumbing in cabinet
under sink

02 DW031 Rm 206

Chrome Plated Brass

Flow Regulator

01CF016 Rm 106

Fanatic H/C w/ Brass base + Stem
 hose connection should be ok

Brass Valves copper w/ 50/50 lead solder
 + brass fittings

02CF032 Rm 207

- Brass Base + Stem
- connector + Nipples?

02DW033 Rm 207

Plastic Bubbler

w/ Brass connector

02DW035

Bubbler
~~Fanatic~~

Rm 208

Chrome Plated Brass

02CF034 ~~Fanatic~~ ~~Bubbler~~ Rm 208

- Brass Base + Stem?

01KC019 108

Delta 2-handled
Brass tube in deck body

02CF036 209

Brass Mixer connection
(see pic)

~~Brass~~

Unit 2 04 KC043

Delta 400 w/ Mixing Valve
Brass components

older 70's-80's

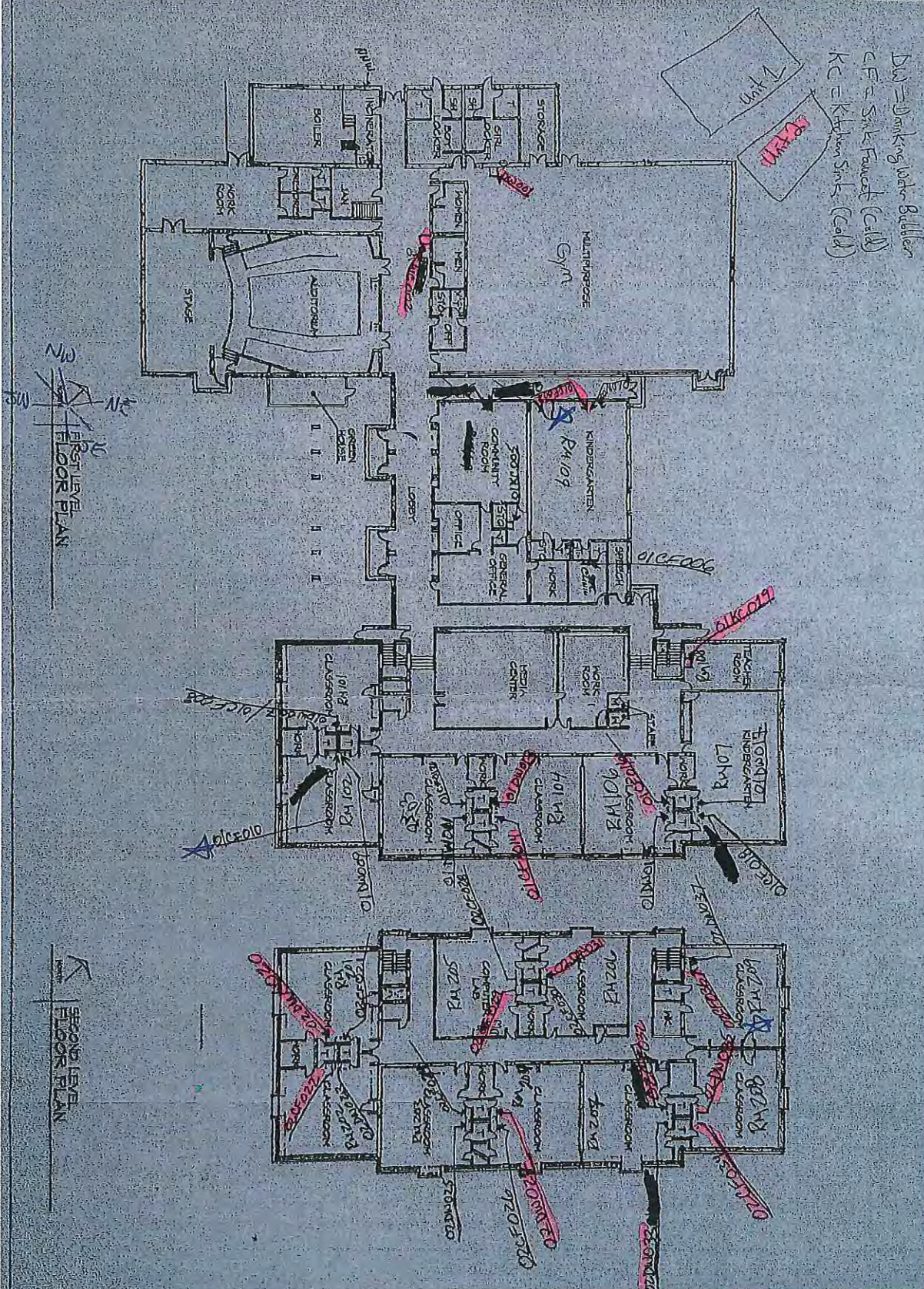
but unit
built in 1990s
lead free not met.

Lead	0.001	02DW027 RM204	F-02	Flush Sample taken 2 minutes after First Flush
Lead	0.014	02CF026 - 4M 204	P1	First Primary draw of 125 milliliters
Lead	0.004	02CF026 RM204	P2	Second Primary draw of 125 milliliters
Lead	0.000	02CF026 RM 204	F-01	Flush Sample taken 30 Seconds after Second
Lead	0.000	02CF026 RM204	F-02	Flush Sample taken 2 minutes after First Flush
Lead	0.007	02DW031 RM206	P1	First Primary draw of 125 milliliters
Lead	0.007	02DW031 RM206	P2	Second Primary draw of 125 milliliters
Lead	0.001	02DW031 RM206	F01	Flush Sample taken 30 Seconds after Second
Lead	0.000	02DW031 RM206	F02	Flush Sample taken 2 minutes after First Flush
Lead	0.014	02DW029 RM205	P1	First Primary draw of 125 milliliters
Lead	0.014	02DW029 RM205	P2	Second Primary draw of 125 milliliters
Lead	0.011	02DW029 RM205	F-01	Flush Sample taken 30 Seconds after Second
Lead	0.001	02DW029 RM205	F-02	Flush Sample taken 2 minutes after First Flush
Lead	0.012	02CF028 RM205	P1	First Primary draw of 125 milliliters
Lead	0.005	02CF028 RM205	P2	Second Primary draw of 125 milliliters
Lead	0.000	02CF028 RM205	F01	Flush Sample taken 30 Seconds after Second
Lead	0.000	02CF028 RM205	F02	Flush Sample taken 2 minutes after First Flush
Lead	0.012	01DW017 RM107	P1	First Primary draw of 125 milliliters
Lead	0.009	01DW017 RM107	P2	Second Primary draw of 125 milliliters
Lead	0.002	01DW017 RM107	F01	Flush Sample taken 30 Seconds after Second
Lead	0.001	01DW017 RM107	F02	Flush Sample taken 2 minutes after First Flush
Lead	0.010	01DW015 RM106	P1	First Primary draw of 125 milliliters
Lead	0.002	01DW015 RM106	P2	Second Primary draw of 125 milliliters
Lead	0.001	01DW015 RM106	F-01	Flush Sample taken 30 Seconds after Second
Lead	0.000	01DW015 RM106	F-02	Flush Sample taken 2 minutes after First Flush
Lead	0.009	01CF018 RM107	P1	First Primary draw of 125 milliliters
Lead	0.006	01CF018 RM107	P2	Second Primary draw of 125 milliliters
Lead	0.001	01CF018 RM107	F01	Flush Sample taken 30 Seconds after Second
Lead	0.000	01CF018 RM107	F02	Flush Sample taken 2 minutes after First Flush
Lead	0.010	02CF030 RM206	P1	First Primary draw of 125 milliliters
Lead	0.008	02CF030 RM206	P2	Second Primary draw of 125 milliliters
Lead	0.002	02CF030 RM206	F-01	Flush Sample taken 30 Seconds after Second
Lead	0.000	02CF030 RM206	F-02	Flush Sample taken 2 minutes after First Flush
Lead	0.004	01CF016 - RM106	P1	First Primary draw of 125 milliliters
Lead	0.004	01CF016 - RM106	P2	Second Primary draw of 125 milliliters
Lead	0.004	01CF016 - RM106	F-01	Flush Sample taken 30 Seconds after Second
Lead	0.001	01CF016 - RM106	F-02	Flush Sample taken 2 minutes after First Flush
Lead	0.014	02CF024 RM203	P1	First Primary draw of 125 milliliters
Lead	0.015	02CF024 RM203	P2	Second Primary draw of 125 milliliters
Lead	0.006	02CF024 RM203	F-01	Flush Sample taken 30 Seconds after Second
Lead	0.002	02CF024 RM203	F-02	Flush Sample taken 2 minutes after First Flush
Lead	0.001	03KC040 - UNIT 1	A1	First Sequential Sample
Lead	0.000	03KC040 - UNIT 1	A2	Second Sequential Sample
Lead	0.000	03KC040 - UNIT 1	A3	Third Sequential Sample
Lead	0.000	03KC040 - UNIT 1	A4	Fourth Sequential Sample
Lead	0.000	03KC040 - UNIT 1	A5	Fifth Sequential Sample
Lead	0.000	03KC040 - UNIT 1	A6	Sixth Sequential Sample
Lead	0.000	03KC040 - UNIT 1	A7	Seventh Sequential Sample
Lead	0.000	03KC040 UNIT 1	A8	Eighth Sequential Sample
Lead	0.000	03KC040 UNIT 1	A9	Ninth Sequential Sample
Lead	0.000	03KC040 UNIT 1	A10	Tenth Sequential Sample
Lead	0.002	04KC044 UNIT 2	B1	First Sequential Sample
Lead	0.000	04KC044 UNIT 2	B2	Second Sequential Sample
Lead	0.000	04KC044 UNIT 2	B3	Third Sequential Sample
Lead	0.000	04KC044 UNIT 2	B4	Fourth Sequential Sample
Lead	0.000	04KC044 UNIT 2	B5	Fifth Sequential Sample
Lead	0.000	04KC044 UNIT 2	B6	Sixth Sequential Sample
Lead	0.001	04KC044 UNIT 2	B7	Seventh Sequential Sample
Lead	0.001	04KC044 UNIT 2	B8	Eighth Sequential Sample
Lead	0.000	04KC044 UNIT 2	B9	Ninth Sequential Sample
Lead	0.000	04KC044 UNIT 2	B10	Tenth Sequential Sample
Lead	0.003	01CF004 - RM 109	C1	First Sequential Sample
Lead	0.000	01CF004 - RM 109	C2	Second Sequential Sample
Lead	0.000	01CF004 - RM 109	C3	Third Sequential Sample
Lead	0.000	01CF004 RM 109	C4	Fourth Sequential Sample
Lead	0.000	01CF004 RM 109	C5	Fifth Sequential Sample

Copper	0.00	02DW027 RM204	F-02	Flush Sample taken 2 minutes after First Flush
Copper	0.09	02CF026 - 4M 204	P1	First Primary draw of 125 milliliters
Copper	0.05	02CF026 RM204	P2	Second Primary draw of 125 milliliters
Copper	0.00	02CF026 RM 204	F-01	Flush Sample taken 30 Seconds after Second
Copper	0.00	02CF026 RM204	F-02	Flush Sample taken 2 minutes after First Flush
Copper	0.16	02DW031 RM206	P1	First Primary draw of 125 milliliters
Copper	0.05	02DW031 RM206	P2	Second Primary draw of 125 milliliters
Copper	0.00	02DW031 RM206	F01	Flush Sample taken 30 Seconds after Second
Copper	0.00	02DW031 RM206	F02	Flush Sample taken 2 minutes after First Flush
Copper	0.1	02DW029 RM205	P1	First Primary draw of 125 milliliters
Copper	0.11	02DW029 RM205	P2	Second Primary draw of 125 milliliters
Copper	0.13	02DW029 RM205	F-01	Flush Sample taken 30 Seconds after Second
Copper	0.05	02DW029 RM205	F-02	Flush Sample taken 2 minutes after First Flush
Copper	0.06	02CF028 RM205	P1	First Primary draw of 125 milliliters
Copper	0.05	02CF028 RM205	P2	Second Primary draw of 125 milliliters
Copper	0.00	02CF028 RM205	F01	Flush Sample taken 30 Seconds after Second
Copper	0.00	02CF028 RM205	F02	Flush Sample taken 2 minutes after First Flush
Copper	0.15	01DW017 RM107	P1	First Primary draw of 125 milliliters
Copper	0.16	01DW017 RM107	P2	Second Primary draw of 125 milliliters
Copper	0.06	01DW017 RM107	F01	Flush Sample taken 30 Seconds after Second
Copper	0.06	01DW017 RM107	F02	Flush Sample taken 2 minutes after First Flush
Copper	0.06	01DW015 RM106	P1	First Primary draw of 125 milliliters
Copper	0.06	01DW015 RM106	P2	Second Primary draw of 125 milliliters
Copper	0.00	01DW015 RM106	F-01	Flush Sample taken 30 Seconds after Second
Copper	0.05	01DW015 RM106	F-02	Flush Sample taken 2 minutes after First Flush
Copper	0.17	01CF018 RM107	P1	First Primary draw of 125 milliliters
Copper	0.3	01CF018 RM107	P2	Second Primary draw of 125 milliliters
Copper	0.21	01CF018 RM107	F01	Flush Sample taken 30 Seconds after Second
Copper	0.12	01CF018 RM107	F02	Flush Sample taken 2 minutes after First Flush
Copper	0.11	02CF030 RM206	P1	First Primary draw of 125 milliliters
Copper	0.14	02CF030 RM206	P2	Second Primary draw of 125 milliliters
Copper	0.05	02CF030 RM206	F-01	Flush Sample taken 30 Seconds after Second
Copper	0.00	02CF030 RM206	F-02	Flush Sample taken 2 minutes after First Flush
Copper	0.16	01CF016 - RM106	P1	First Primary draw of 125 milliliters
Copper	0.08	01CF016 - RM106	P2	Second Primary draw of 125 milliliters
Copper	0.06	01CF016 - RM106	F-01	Flush Sample taken 30 Seconds after Second
Copper	0.05	01CF016 - RM106	F-02	Flush Sample taken 2 minutes after First Flush
Copper	0.16	02CF024 RM203	P1	First Primary draw of 125 milliliters
Copper	0.25	02CF024 RM203	P2	Second Primary draw of 125 milliliters
Copper	0.11	02CF024 RM203	F-01	Flush Sample taken 30 Seconds after Second
Copper	0.05	02CF024 RM203	F-02	Flush Sample taken 2 minutes after First Flush
Copper	0.55	03KC040 - UNIT 1	A1	First Sequential Sample
Copper	0.3	03KC040 - UNIT 1	A2	Second Sequential Sample
Copper	0.28	03KC040 - UNIT 1	A3	Third Sequential Sample
Copper	0.27	03KC040 - UNIT 1	A4	Fourth Sequential Sample
Copper	0.26	03KC040 - UNIT 1	A5	Fifth Sequential Sample
Copper	0.25	03KC040 - UNIT 1	A6	Sixth Sequential Sample
Copper	0.25	03KC040 - UNIT 1	A7	Seventh Sequential Sample
Copper	0.25	03KC040 UNIT 1	A8	Eighth Sequential Sample
Copper	0.23	03KC040 UNIT 1	A9	Ninth Sequential Sample
Copper	0.24	03KC040 UNIT 1	A10	Tenth Sequential Sample
Copper	0.53	04KC044 UNIT 2	B1	First Sequential Sample
Copper	0.45	04KC044 UNIT 2	B2	Second Sequential Sample
Copper	0.42	04KC044 UNIT 2	B3	Third Sequential Sample
Copper	0.39	04KC044 UNIT 2	B4	Fourth Sequential Sample
Copper	0.37	04KC044 UNIT 2	B5	Fifth Sequential Sample
Copper	0.36	04KC044 UNIT 2	B6	Sixth Sequential Sample
Copper	0.36	04KC044 UNIT 2	B7	Seventh Sequential Sample
Copper	0.36	04KC044 UNIT 2	B8	Eighth Sequential Sample
Copper	0.33	04KC044 UNIT 2	B9	Ninth Sequential Sample
Copper	0.31	04KC044 UNIT 2	B10	Tenth Sequential Sample
Copper	0.08	01CF004 - RM 109	C1	First Sequential Sample
Copper	0.05	01CF004 - RM 109	C2	Second Sequential Sample
Copper	0.00	01CF004 - RM 109	C3	Third Sequential Sample
Copper	0.00	01CF004 RM 109	C4	Fourth Sequential Sample
Copper	0.00	01CF004 RM 109	C5	Fifth Sequential Sample

Lead	0.000	01CF004 RM 109	C6	Sixth Sequential Sample
Lead	0.000	01CF004 RM 109	C7	Seventh Sequential Sample
Lead	0.000	01CF004 RM 109	C8	Eighth Sequential Sample
Lead	0.000	01CF004 RM 109	C9	Ninth Sequential Sample
Lead	0.000	01CF004 R 109	C10	Tenth Sequential Sample
Lead	0.002	01CF010 RM 102	D1	First Sequential Sample
Lead	0.000	01CF010 RM 102	D2	Second Sequential Sample
Lead	0.000	01CF010 RM 102	D3	Third Sequential Sample
Lead	0.000	01CF010 RM 102	D4	Fourth Sequential Sample
Lead	0.000	01CF010 RM 102	D5	Fifth Sequential Sample
Lead	0.000	01CF010 RM 102	D6	Sixth Sequential Sample
Lead	0.000	01CF010 RM 102	D7	Seventh Sequential Sample
Lead	0.000	01CF010 RM 102	D8	Eighth Sequential Sample
Lead	0.000	01CF010 RM 102	D9	Ninth Sequential Sample
Lead	0.000	01CF010 RM 102	D10	Tenth Sequential Sample
Lead	0.003	02CF036 RM 209	E1	First Sequential Sample
Lead	0.001	02CF036 - RM 209	E-2	Second Sequential Sample
Lead	0.001	02CF036 - RM 209	E3	Third Sequential Sample
Lead	0.001	02CF036 RM 209	E4	Fourth Sequential Sample
Lead	0.000	02CF036 RM 209	E5	Fifth Sequential Sample
Lead	0.000	02CF036 RM 209	E6	Sixth Sequential Sample
Lead	0.000	02CF036 RM 209	E7	Seventh Sequential Sample
Lead	0.000	02CF036 RM 209	E8	Eighth Sequential Sample
Lead	0.000	02CF036 RM 209	E9	Ninth Sequential Sample
Lead	0.000	02CF036 RM 209	E10	Tenth Sequential Sample

Copper	0.00	01CF004 RM 109	C6	Sixth Sequential Sample
Copper	0.00	01CF004 RM 109	C7	Seventh Sequential Sample
Copper	0.00	01CF004 RM 109	C8	Eighth Sequential Sample
Copper	0.00	01CF004 RM 109	C9	Ninth Sequential Sample
Copper	0.00	01CF004 R 109	C10	Tenth Sequential Sample
Copper	0.09	01CF010 RM 102	D1	First Sequential Sample
Copper	0.00	01CF010 RM 102	D2	Second Sequential Sample
Copper	0.00	01CF010 RM 102	D3	Third Sequential Sample
Copper	0.00	01CF010 RM 102	D4	Fourth Sequential Sample
Copper	0.00	01CF010 RM 102	D5	Fifth Sequential Sample
Copper	0.00	01CF010 RM 102	D6	Sixth Sequential Sample
Copper	0.00	01CF010 RM 102	D7	Seventh Sequential Sample
Copper	0.00	01CF010 RM 102	D8	Eighth Sequential Sample
Copper	0.00	01CF010 RM 102	D9	Ninth Sequential Sample
Copper	0.00	01CF010 RM 102	D10	Tenth Sequential Sample
Copper	0.07	02CF036 RM 209	E1	First Sequential Sample
Copper	0.00	02CF036 - RM 209	E-2	Second Sequential Sample
Copper	0.00	02CF036 - RM 209	E3	Third Sequential Sample
Copper	0.00	02CF036 RM 209	E4	Fourth Sequential Sample
Copper	0.00	02CF036 RM 209	E5	Fifth Sequential Sample
Copper	0.00	02CF036 RM 209	E6	Sixth Sequential Sample
Copper	0.00	02CF036 RM 209	E7	Seventh Sequential Sample
Copper	0.00	02CF036 RM 209	E8	Eighth Sequential Sample
Copper	0.00	02CF036 RM 209	E9	Ninth Sequential Sample
Copper	0.00	02CF036 RM 209	E10	Tenth Sequential Sample



FLINT COMMUNITY SCHOOLS
**EDUCATION
 ASSESSMENT**

1255 PERSHING STREET
 FLINT, MICHIGAN 48903

DRAWING TITLE

EISENHOWER
 ELEMENTARY
 SCHOOL

DRAWN

RLH

CHECKED

JLB

REVIEWED

JLB

DATE

12/20/07



FLINT COMMUNITY SCHOOLS
 1255 PERSHING STREET
 FLINT, MI 48903 PH 313-317-5000 FAX 313-317-1333

PROJECT NO.
 07-006
 CLIENT NO.
 001
 DRAWING NO.
 001

SHEET NO.
 001

Background Information

On Friday, October 23, 2015, the Department of Licensing and Regulatory Affairs (DLARA) and the Department of Environmental Quality (DEQ) conducted an assessment of Freeman Elementary's plumbing system to gain a comprehensive understanding of how water moves through the building and what types of plumbing materials are used. The assessment identified the following potential sources of lead leaching into drinking water:

- Lead solder joints on copper piping
- Brass valves and brass fittings
- Brass components in fixtures
- Galvanized piping

The assessment also identified 31 faucets or fountains that provide water for drinking, cooking and/or food preparation. The team developed a sequence for sampling the 31 faucets based on how the water travels through the building.

On Saturday, October 24, 2015, the DEQ and the DLARA completed sampling of the 31 faucets/ fountains, in the order determined by the plumbing assessment from the previous day, following a stagnation period of 12 hours. At each of the 31 faucets/fountains identified, staff collected four samples. Two initial, 125-milliliter samples (P1 and P2), were collected immediately after turning on the tap. The water was then flushed for 30 seconds and a third, 125-milliliter sample (F1) was collected. Finally, the water was flushed for another two minutes, and the fourth 125-milliliter sample (F2) was collected. **These samples were used to determine the impact of any lead sources in and around each specific faucet/fountain and its connecting plumbing.**

On Saturday, October 31, the DEQ separately completed consecutive sampling at three of the 31 faucets/fountains following a stagnation period of approximately 12 hours. These three sites were selected based on their relative location within the school building plumbing; one site near the building service line, one site near the plumbing mid-point, and one site at the far end of the plumbing system. At each of these three locations, staff collected 10 samples. Each sample was one liter in volume, and the 10 samples were collected consecutively immediately after turning on the tap without letting water run down the drain. These samples were used to determine the impact of any lead sources from the larger diameter supply plumbing within the school building. (A, B, C)

Water Service Information

A four inch diameter cast iron water service line enters the school in the boiler room on the west wall. Piping in the boiler room immediately transitions into galvanized metal piping for cold water lines. Two separate galvanized cold water supply lines exit the boiler room. One in the northeast corner appears to serve the gym, auditorium, and proposed pre-K facilities on the north end of the school. The other exits the boiler room in the southwest corner and appears to serve the remainder of the school to the south, including the library. This line was also found to have grounding connections attached to the piping. Hot water is distributed in continuous loops that feed from and return to a central water heater in the boiler room. Hot water piping material where exposed was copper piping with 50/50 lead solder joints. Brass valves were seen throughout the building.

Results of the consecutive sampling conducted at three sites on October 31, listed in the table below, provide additional confirmation that the highest contribution of lead appears to be from the individual faucet/fountains themselves and not from the larger diameter supply plumbing within the school building. Results from the first one liter sample at each of these three

locations correlate with the respective four, 125 milliliter samples collected at the same locations with the larger one liter volume showing a more diluted result in comparison with the smaller more concentrated 125 milliliter samples.

The continued presence of lead in samples collected at location B in Room 11 (CF015) may be a result of lead particulates caught in the aerator/screen installed on the faucet outlet, or may also be from a source of lead further back in the plumbing system. However, non-detect results from consecutive samples collected at locations A and C suggest any additional source of lead associated with location B would be localized to the plumbing branch serving this faucet. The faucet aerator/screen at location B (CF015) should be removed and inspected before completing a more in depth plumbing analysis. Results regarding location B provide additional support regarding the specific use recommendations for this faucet outlined in the following section.

Sample No.	1	2	3	4	5	6	7	8	9	10
Location	Lead Result (parts per billion; ND = not-detected)									
A-Proposed Pre-K Rm (CF030)	2	1	ND	ND	ND	ND	ND	ND	ND	ND
B-Room 11 (CF015)	62	8	8	7	7	7	7	6	6	6
C-Room 21 (CF027)	2	ND	ND	ND	ND	ND	ND	ND	ND	ND

Outlets With Lead Levels Greater Than 15 Parts per Billion

MDEQ recommends that school facilities take action if samples from any drinking water outlets show lead levels greater than 15 parts per billion. Based on the sampling conducted at 31 faucets/fountains on October 24, 2015, the following nine drinking water outlets had lead water level results greater than 15 parts per billion. Each of these nine outlets is listed below with its sample results, including a description of the potential source(s) of lead, and recommended actions for the school to take.

Outlet: Bubbler Drinking Fountain, Left (DW001)

Location: Hallway outside Janitorial Room

Results: P1=40 parts per billion, P2=6 parts per billion,
F1=4 parts per billion, F2=1 part per billion

These results suggest the highest contribution of lead may be from the bubbler itself. This bubbler fixture is believed to have a brass valve. The connection underneath the sink also appears to have some brass components including the valve at the wall.

Replacement of this bubbler tap and its connection plumbing with lead-free materials will significantly reduce lead exposure at this location. If replacement is not currently feasible, sample results indicate that flushing this tap for 3 minutes following periods of stagnation is likely to reduce lead concentrations and lead exposure.



Outlet: Sink Faucet (CF029)

Location: DHHS Health Office, west wall

Results: P1=17 parts per billion, P2=12 parts per billion,
F1=2 parts per billion, F2= non-detect

These results suggest the highest contribution of lead may be from the faucet and its connecting plumbing. The faucet is a Delta 400. This model faucet valve has brass components. This style faucet also has a mixing valve that may allow mixing of hot and cold water. Connecting plumbing in the cabinet under the sink may also contain brass components.



This faucet also has an aerator at the outlet. The aerator should be removed, inspected for particulate accumulations, scrubbed clean, and reinstalled. If particulates are found, the aerator should be periodically checked and cleaned.

Replacement of this faucet and its connection plumbing with lead-free materials will significantly reduce lead exposure at this location. If replacement is not currently feasible, sample results indicate that flushing this tap for 3 minutes following periods of stagnation is likely to reduce lead concentrations and lead exposure.

Outlet: Integrated faucet and bubbler fountain (CF006)

Location: Classroom 2, south wall

Results: P1=16 parts per billion, P2=3 parts per billion,
F1=1 part per billion, F2=1 part per billion

These results were collected from the faucet portion of the fixture and suggest the highest contribution of lead may be from the fixture itself. The make and model of this fixture is unknown but appears to be made of chrome plated brass and may be connected on the underside of the sink using a brass nipple.



Replacement of this fixture and its connection plumbing with lead-free materials will significantly reduce lead exposure at this location. If replacement is not currently feasible, sample results indicate that flushing this tap for 3 minutes following periods of stagnation is likely to reduce lead concentrations and lead exposure.

Outlet: Integrated faucet and bubbler fountain (CF014)

Location: Classroom 10, north wall

Results: P1=27 parts per billion, P2=7 parts per billion,
F1=4 parts per billion, F2=3 parts per billion

These results were collected from the faucet portion of the fixture and suggest the highest contribution of lead may be from the fixture itself and its connecting plumbing. The make and model of this fixture is unknown but appears to be made of chrome plated brass and may be connected on the underside of the sink using a brass nipple. Connecting



plumbing in the cabinet under the sink may also contain brass components.

Replacement of this fixture and its connection plumbing with lead-free materials will significantly reduce lead exposure at this location. If replacement is not currently feasible, sample results indicate that flushing this tap for 3 minutes following periods of stagnation is likely to reduce lead concentrations and lead exposure.

Outlet: Sink Faucet (CF013)

Location: Classroom 10, north wall

Results: P1=9 parts per billion, P2=18 parts per billion
F1=3 parts per billion, F2=3 parts per billion

These results suggest the highest contribution of lead may be from the connecting plumbing with some contribution from the faucet itself. The faucet appears to be a Delta 500 series. This model faucet may have some brass components. This style faucet also has a mixing valve that may allow mixing of hot and cold water. Connecting plumbing in the cabinet under the sink should be checked for brass components including brass valves.



This faucet also has an aerator at the outlet. The aerator should be removed, inspected for particulate accumulations, scrubbed clean, and reinstalled. If particulates are found, the aerator should be periodically checked and cleaned.

Replacement of this faucet and its connection plumbing with lead-free materials will significantly reduce lead exposure at this location. If replacement is not currently feasible, sample results indicate that flushing this tap for 3 minutes following periods of stagnation is likely to reduce lead concentrations and lead exposure.

Outlet: Sink Faucet (CF015)

Location: Classroom 11, northeast corner

Results: P1=102 parts per billion, P2=326 parts per billion,
F1=14 parts per billion, F2=11 parts per billion

These results suggest the highest contribution of lead may be from the connecting plumbing and from the faucet itself. The faucet is an older design that uses a brass tube approximately 8 inches in length between the hot and cold water valves, and connects to the outlet under the sink. This brass tube may be the primary source of lead, explaining the higher second (P2) sample result. The faucet and valves may also contain brass components. Connecting plumbing in the cabinet under the sink should be checked for additional brass components including brass valves.



This faucet also has an aerator at the outlet. The aerator should be removed, inspected for particulate accumulations, scrubbed clean, and reinstalled. If particulates are found, the aerator should be periodically checked and cleaned.

Replacement of this faucet and its connection plumbing with lead-free materials will significantly reduce lead exposure at this location and needs to be completed. If replacement is not currently feasible, **DO NOT USE THIS FAUCET FOR DRINKING OR COOKING.**

Outlet: Integrated faucet and bubbler fountain (CF024)

Location: Classroom 19, east wall

Results: P1=23 parts per billion, P2=3 parts per billion,
F1=4 parts per billion, F2=3 parts per billion

These results were collected from the faucet portion of the fixture and suggest the highest contribution of lead may be from the fixture itself. The make and model of this fixture is unknown but appears to be made of chrome plated brass and may be connected on the underside of the sink using a brass nipple.



Replacement of this fixture and its connection plumbing with lead-free materials will significantly reduce lead exposure at this location. If replacement is not currently feasible, sample results indicate that flushing this tap for 3 minutes following periods of stagnation is likely to reduce lead concentrations and lead exposure.

Outlet: Bubbler fountain (CF026)

Location: Classroom 14, west wall

Results: P1=36 parts per billion, P2=30 parts per billion,
F1=17 parts per billion, F2=4 parts per billion

These results suggest the highest contribution of lead may be from the bubbler itself. This bubbler fixture appears to be made of chrome plated brass. This style bubbler typically has a 4-5 inch brass fitting that connects to a 3 inch brass nipple on the underside of the sink. This would explain the higher concentrations in the first two sample results. The connection underneath the sink may also have some brass components and should be checked including the valve.



Replacement of this bubbler tap and its connection plumbing with lead-free materials will significantly reduce lead exposure at this location and should be completed. If replacement is not currently feasible, sample results indicate that flushing this tap for 3 minutes prior to each use and for at least 4 minutes following periods of stagnation is likely to reduce lead concentrations and lead exposure. **In general, use of this fountain for drinking water should be discouraged.**

Outlet: Bubbler fountain (CF031)

Location: Proposed Pre-K room, south wall

Results: P1=57 parts per billion, P2=3 parts per billion,
F1=2 parts per billion, F2=non-detect

These results suggest the highest contribution of lead may be from the bubbler itself. This bubbler fixture appears to be made of chrome plated brass. This bubbler has a brass fitting connection to a brass nipple. The connector hose is not expected to be contributing lead.



Freeman Elementary School

- | | | | | | | |
|---|---|-------|---------|----------------|------------|--------------|
| 3 | X | DW001 | Hallway | 26 - CF025 | Rm #14 | F |
| 1 | | 2 | DW002 | Hallway | 27 - CF026 | Rm #14 |
| | | 3 | CF029 | DHS Office | 28 - CF027 | Rm #21 |
| | | 4 | CF004 | Room #1 | 29 - CF028 | Rm #21 |
| | | 5 | DW005 | Bubble | 30 - CF030 | Rainbow/Pick |
| | | 6 | KC003 | Community Room | 31 - CF031 | Rainbow/Pick |
| | | 7 | CF007 | Rm #3 | | |
| | | 8 | CF006 | Rm #2 | | |
| | | 9 | CF009 | Rm #5 | | |
| | | 10 | CF008 | Rm #4 | | |
| | | 11 | CF011 | Rm #7 | | |
| | | 12 | CF010 | Rm #6 | | |
| | | 13 | CF012 | Rm #9 | | |
| | | 14 | CF014 | Rm #10 | | |
| | | 15 | CF013 | Rm #10 | | |
| | | 16 | CF015 | Rm #11 | | |
| | | 17 | CF016 | Rm #11 | | |
| | | 18 | CF017 | Rm #15 | | |
| | | 19 | CF018 | Rm #15 | | |
| | | 20 | CF019 | Rm #17 | * Dripping | |
| | | 21 | CF020 | Rm #17 | | |
| | | 22 | CF021 | Rm #12 | | |
| | | 23 | CF022 | Rm #12 | | |
| | | 24 | CF023 | Rm #19 | | |
| | | 25 | CF024 | Rm #19 | | |

Integrated
Funct
Funct
Bubble
Funct
Bubble
Funct
Bubble
Funct
Bubble

Bubble
Funct
Bubble
Funct
Bubble

Freeman Elementary School

4001 Ogema St. Flint MI 48507

Outlet Sampling and Plumbing Assessment Recommendations



BACKGROUND INFORMATION

On Friday, October 23, 2015, the Department of Licensing and Regulatory Affairs (DLARA) and the Department of Environmental Quality (DEQ) conducted an assessment of Freeman Elementary's plumbing system to gain an understanding of how water moves through the building and what types of plumbing materials are used. The assessment identified the following potential sources of lead leaching into drinking water:

- Lead solder joints on copper piping
- Brass valves and brass fittings
- Brass components in fixtures
- Galvanized piping

The assessment also identified 31 faucets or fountains that provide water for drinking, cooking and/or food preparation. The team developed a sequence for sampling the 31 faucets based on how the water travels through the building.

On Saturday, October 24, 2015, the DEQ and the DLARA completed sampling of the 31 faucets/fountains, in the sequence determined by the plumbing assessment from the previous day, following a stagnation period of 12 hours. At each of the 31 faucets/fountains identified, staff collected four samples. Two initial, 125-milliliter samples (P1 and P2), were collected immediately after turning on the tap. The water was then flushed for 30 seconds and a third, 125-milliliter sample (F1) was collected. Finally, the water was flushed for another two minutes, and a fourth 125-milliliter sample (F2) was collected.

On Sat. Oct 31, DEQ staff collected sequential samples, 101L collected immediately after turning on the tap. Approx. 12 hr stagnation. These samples used to determine sources of lead in and around the building. These samples assess any, major, long supply plumbing within the school building.

WATER SERVICE INFORMATION

A four inch diameter cast iron water service line enters the school in the boiler room on the west wall. Piping in the boiler room immediately transitions into galvanized metal piping for cold water lines. Two separate galvanized cold water supply lines exit the boiler room. One in the northeast corner appears to serve the gym, auditorium, and proposed pre-K facilities on the north end of the school. The other exits the boiler room in the southwest corner and appears to serve the remainder of the school to the south, including the library. This line was also found to have grounding connections attached to the piping, these connections may enhance pipe corrosion. Hot water is distributed in continuous loops that feed from and return to a central water heater in the boiler room. Hot water piping material where exposed was copper piping with 50/50 lead solder joints. Brass valves were seen throughout the building.

sequential results and analysis

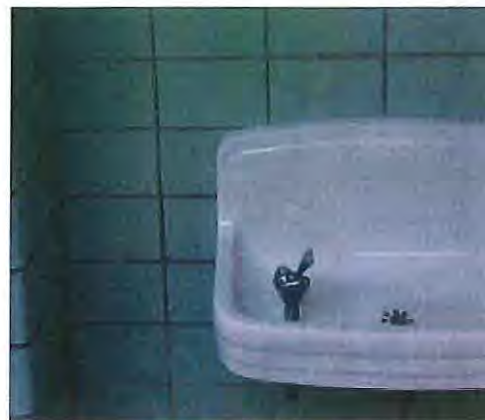
Outlets With Lead Levels Greater Than 15 Parts per Billion

Outlet: Bubbler Drinking Fountain, Left (DW001)

Location: Hallway outside Janitorial Room

Results: P1=40 parts per billion, P2=6 parts per billion,
F1=4 parts per billion, F2=1 part per billion

These results suggest the highest contribution of lead may be from the bubbler itself. This bubbler fixture is believed to have a brass valve. The connection underneath the sink also appears to have some brass components including the valve at the wall.



Replacement of this bubbler tap and its connection plumbing with lead-free materials will significantly reduce lead exposure at this location. If replacement is not currently feasible, sample results indicate that flushing this tap for 3 minutes following periods of stagnation is likely to reduce lead concentrations and lead exposure.

Outlet: Sink Faucet (CF029)

Location: DHHS Health Office, west wall

Results: P1=17 parts per billion, P2=12 parts per billion,
F1=2 parts per billion, F2= non-detect

These results suggest the highest contribution of lead may be from the faucet and its connecting plumbing. The faucet is a Delta 400. This model faucet valve has brass components. This style faucet also has a mixing valve that may allow mixing of hot and cold water. Connecting plumbing in the cabinet under the sink may also contain brass components.



This faucet also has an aerator at the outlet. The aerator should be removed, inspected for particulate accumulations, scrubbed clean, and reinstalled. If particulates are found, the aerator should be periodically checked and cleaned.

Replacement of this faucet and its connection plumbing with lead-free materials will significantly reduce lead exposure at this location. If replacement is not currently feasible, sample results indicate that flushing this tap for 3 minutes following periods of stagnation is likely to reduce lead concentrations and lead exposure.

Outlet: Integrated faucet and bubbler fountain (CF006)**Location:** Classroom 2, south wall**Results:** P1=16 parts per billion, P2=3 parts per billion,
F1=1 part per billion, F2=1 part per billion

These results were collected from the faucet portion of the fixture and suggest the highest contribution of lead may be from the fixture itself. The make and model of this fixture is unknown but appears to be made of chrome plated brass and may be connected on the underside of the sink using a brass nipple.



Replacement of this fixture and its connection plumbing with lead-free materials will significantly reduce lead exposure at this location. If replacement is not currently feasible, sample results indicate that flushing this tap for 3 minutes following periods of stagnation is likely to reduce lead concentrations and lead exposure.

Outlet: Integrated faucet and bubbler fountain (CF014)**Location:** Classroom 10, north wall**Results:** P1=27 parts per billion, P2=7 parts per billion,
F1=4 parts per billion, F2=3 parts per billion

These results were collected from the faucet portion of the fixture and suggest the highest contribution of lead may be from the fixture itself and its connecting plumbing. The make and model of this fixture is unknown but appears to be made of chrome plated brass and may be connected on the underside of the sink using a brass nipple. Connecting plumbing in the cabinet under the sink may also contain brass components.



Replacement of this fixture and its connection plumbing with lead-free materials will significantly reduce lead exposure at this location. If replacement is not currently feasible, sample results indicate that flushing this tap for 3 minutes following periods of stagnation is likely to reduce lead concentrations and lead exposure.

Outlet: Sink Faucet (CF013)**Location:** Classroom 10, north wall**Results:** P1=9 parts per billion, P2=18 parts per billion
F1=3 parts per billion, F2=3 parts per billion

These results suggest the highest contribution of lead may be from the connecting plumbing with some contribution from the faucet itself. The faucet appears to be a Delta 500 series. This model faucet may have some brass components. This style faucet also has a mixing valve that may allow mixing of hot and cold water. Connecting plumbing in the cabinet under the sink should be checked for brass components including brass valves.



This faucet also has an aerator at the outlet. The aerator should be removed, inspected for particulate accumulations, scrubbed clean, and reinstalled. If particulates are found, the aerator should be periodically checked and cleaned.

Replacement of this faucet and its connection plumbing with lead-free materials will significantly reduce lead exposure at this location. If replacement is not currently feasible, sample results indicate that flushing this tap for 3 minutes following periods of stagnation is likely to reduce lead concentrations and lead exposure.

Outlet: Sink Faucet (CF015)

Location: Classroom 11, northeast corner

Results: P1=102 parts per billion, P2=326 parts per billion,
F1=14 parts per billion, F2=11 parts per billion

These results suggest the highest contribution of lead may be from the connecting plumbing and from the faucet itself. The faucet is an older design that uses a brass tube approximately 8 inches in length between the hot and cold water valves, and connects to the outlet under the sink. This brass tube may be the primary source of lead, explaining the higher second (P2) sample result. The faucet and valves may also contain brass components. Connecting plumbing in the cabinet under the sink should be checked for additional brass components including brass valves.



This faucet also has an aerator at the outlet. The aerator should be removed, inspected for particulate accumulations, scrubbed clean, and reinstalled. If particulates are found, the aerator should be periodically checked and cleaned.

Replacement of this faucet and its connection plumbing with lead-free materials will significantly reduce lead exposure at this location and needs to be completed. If replacement is not currently feasible, **DO NOT USE THIS FAUCET FOR DRINKING OR COOKING.**

Outlet: Integrated faucet and bubbler fountain (CF024)

Location: Classroom 19, east wall

Results: P1=23 parts per billion, P2=3 parts per billion,
F1=4 part per billion, F2=3 parts per billion

These results were collected from the faucet portion of the fixture and suggest the highest contribution of lead may be from the fixture itself. The make and model of this fixture is unknown but appears to be made of chrome plated brass and may be connected on the underside of the sink using a brass nipple.



Replacement of this fixture and its connection plumbing with lead-free materials will significantly reduce lead exposure at this location. If replacement is not currently feasible, sample results indicate that flushing this tap for 3 minutes following periods of stagnation is likely to reduce lead concentrations and lead exposure.

Outlet: Bubbler fountain (CF026)**Location:** Classroom 14, west wall**Results:** P1=36 parts per billion, P2=30 parts per billion,
F1=17 parts per billion, F2=4 parts per billion

These results suggest the highest contribution of lead may be from the bubbler itself. This bubbler fixture appears to be made of chrome plated brass. This style bubbler typically has a 4-5 inch brass fitting that connects to a 3 inch brass nipple on the underside of the sink. This would explain the higher concentrations in the first two sample results. The connection underneath the sink may also have some brass components and should be checked including the valve.



Replacement of this bubbler tap and its connection plumbing with lead-free materials will significantly reduce lead exposure at this location and should be completed. If replacement is not currently feasible, sample results indicate that flushing this tap for 3 minutes prior to each use and for at least 4 minutes following periods of stagnation is likely to reduce lead concentrations and lead exposure. **In general, use of this fountain for drinking water should be discouraged.**

Outlet: Bubbler fountain (CF031)**Location:** Proposed Pre-K room, south wall**Results:** P1=57 parts per billion, P2=3 parts per billion,
F1=2 parts per billion, F2=non-detect

These results suggest the highest contribution of lead may be from the bubbler itself. This bubbler fixture appears to be made of chrome plated brass. This bubbler has a brass fitting connection to a brass nipple. The connector hose is not expected to be contributing lead.

Replacement of this bubbler tap and its connection plumbing with lead-free materials will significantly reduce lead exposure at this location and should be completed. If replacement is not currently feasible, sample results indicate that flushing this tap for 3 minutes following periods of stagnation is likely to reduce lead concentrations and lead exposure.



Outlets With Lead Levels 15 Parts per Billion or Less

While the remaining 22 outlets showed sample results to be at levels less than 15 parts per billion, several recommendations have been identified.

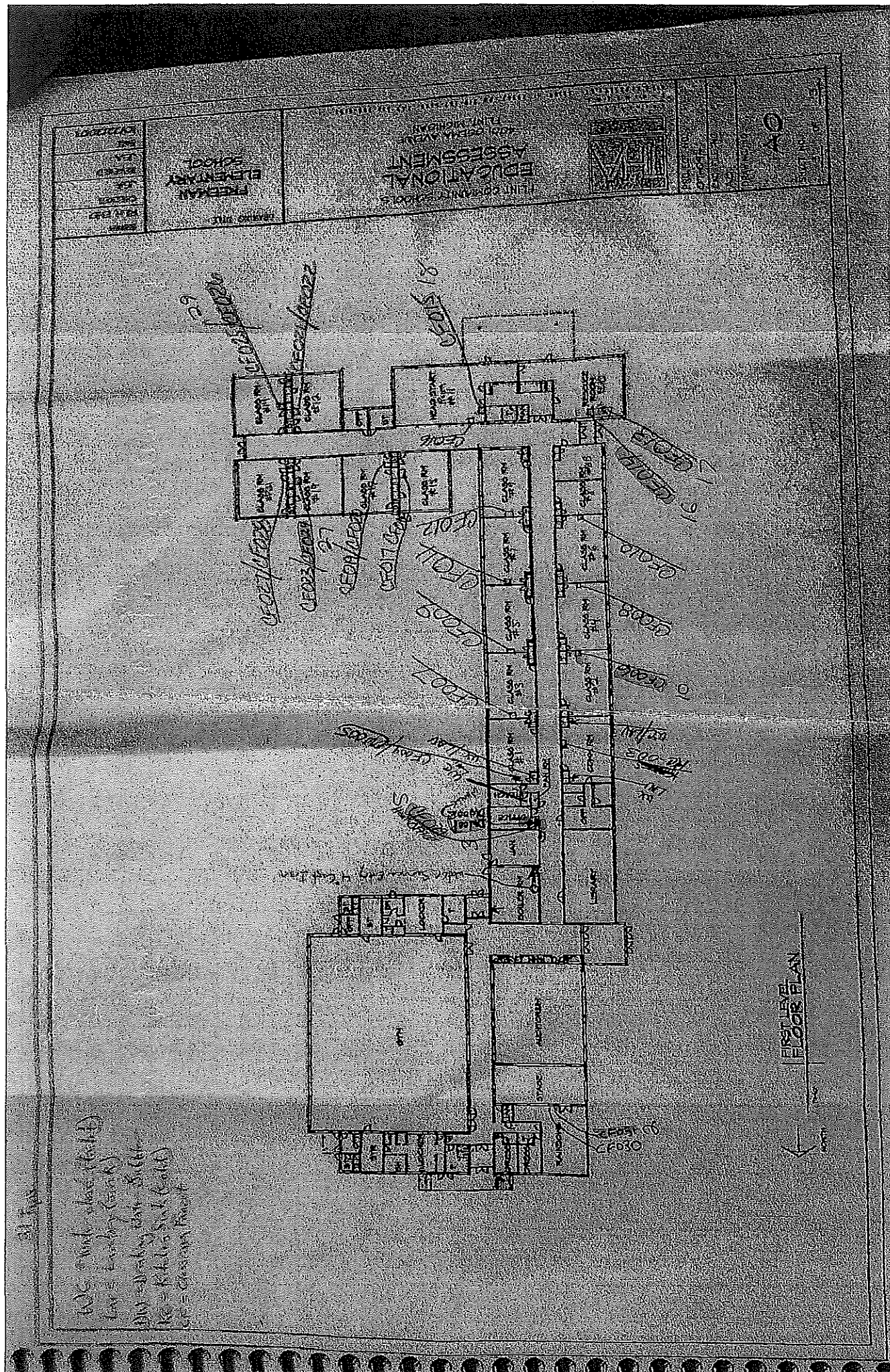
Several of these outlets are comprised of similar materials as the outlets listed above, and could potentially experience higher lead levels under extended periods of stagnation.

This includes:

- Sink Side Bubbler Units in Room 12 (CF022), Room 5 (CF009), Room 21 (CF028), Hallway Fountain (DW002), Room 15 (CF018), Room 17 (CF020), and Room 1 (DW005).
- Integrated Faucet Bubbler Fountain Units in Room 6 (CF010), Room 9 (CF012), Room 4 (CF008), Room 3 (CF007), and Room 7 (CF011)

Replacement of these fixtures with lead-free materials is also recommended.

The fourth sample at each of these 22 outlets following approximately 3 minutes of use and flushing at a reduced flow reduced lead concentrations to 4 parts per billion or less. This indicates that flushing of all taps used for drinking, cooking, and/or food preparation, for 4 minutes following periods of stagnation will further reduce lead exposure. It is recommended that a flushing operational procedure be developed for use by staff responsible for plumbing operations and maintenance.



**Freeman Elementary School
Outlet Sampling and Plumbing Assessment Recommendations**



Replacement of this bubbler tap and its connection plumbing with lead-free materials will significantly reduce lead exposure at this location and should be completed. If replacement is not currently feasible, sample results indicate that flushing this tap for 3 minutes following periods of stagnation is likely to reduce lead concentrations and lead exposure.

Outlets With Lead Levels 15 Parts per Billion or Less

While the remaining 22 outlets showed sample results to be at levels requiring no further action, several recommendations have been identified.

Several of these outlets are comprised of similar materials as the outlets listed above, and could potentially experience higher lead levels under extended periods of stagnation.

This includes:

- Sink Side Bubbler Units in Room 12 (CF022), Room 5 (CF009), Room 21 (CF028), Hallway Fountain (DW002), Room 15 (CF018), Room 17 (CF020), and Room 1 (DW005).
- Integrated Faucet Bubbler Fountain Units in Room 6 (CF010), Room 9 (CF012), Room 4 (CF008), Room 3 (CF007), and Room 7 (CF011)

Replacement of these fixtures with lead-free materials is also recommended.

The fourth sample at each of these 22 outlets following approximately three minutes of use and flushing at a reduced flow reduced lead concentrations to 4 parts per billion or less. This indicates that flushing of all taps used for drinking, cooking, and/or food preparation, for 4 minutes following periods of stagnation will further reduce lead exposure. It is recommended that a flushing operational procedure be developed for use by staff responsible for plumbing operations and maintenance.

Remain Sink Faucet (CFXXX) Classroom XX, NE Corner

SAMPNO	ACODE	ANALYTE	RESULT	Sample_Description	Site_Code
LF88751	PB	Lead	0.010	CF022 RM 12	P1
LF88752	PB	Lead	0.003	CF022 RM 12	P2
LF88753	PB	Lead	0.001	CF022 RM 12	F01
LF88754	PB	Lead	0.001	CF022 RM 12	F02
LF88755	PB	Lead	0.004	CF021 RM 12	P1
LF88756	PB	Lead	0.007	CF021 RM 12	P2
LF88757	PB	Lead	0.000	CF021 12	F01
LF88758	PB	Lead	0.000	CF021 RM 12	F02
LF88759	PB	Lead	0.009	CF009 RM 5	P1
LF88760	PB	Lead	0.002	CF009 RM 5	P2
LF88761	PB	Lead	0.002	CF009 RM 5	F01
LF88762	PB	Lead	0.001	CF009 RM 5	F02
LF88763	PB	Lead	0.102	CF015 RM 11	P1
LF88764	PB	Lead	0.326	CF015 RM 11	P2
LF88765	PB	Lead	0.014	CF015 RM 11	F01
LF88766	PB	Lead	0.011	CF015 RM 11	F02
LF88767	PB	Lead	0.003	CF016 RM 11	P1
LF88768	PB	Lead	0.003	CF016 RM 11	P2
LF88769	PB	Lead	0.005	CF016 RM 11	F01
LF88770	PB	Lead	0.004	CF016 RM 11	F02
LF88771	PB	Lead	0.009	CF027 RM 21	P1
LF88772	PB	Lead	0.007	CF027 RM 21	P2
LF88773	PB	Lead	0.000	CF027 RM 21	F01
LF88774	PB	Lead	0.000	CF027 RM 21	F02
LF88775	PB	Lead	0.012	CF010 RM 6	P1
LF88776	PB	Lead	0.004	CF010 RM 6	P2
LF88777	PB	Lead	0.002	CF010 RM 6	F01
LF88778	PB	Lead	0.000	CF010 RM 6	F02
LF88779	PB	Lead	0.009	CF028 RM 21	P1
LF88780	PB	Lead	0.002	CF028 RM 21	P2
LF88781	PB	Lead	0.001	CF028 RM #21	F01
LF88782	PB	Lead	0.001	CF028 RM #21	F02
LF88783	PB	Lead	0.023	CF024 RM #19	P1
LF88784	PB	Lead	0.003	CF024 RM #19	P2
LF88785	PB	Lead	0.004	CF024 RM #19	F01
LF88786	PB	Lead	0.003	CF024 RM #19	F02
LF88787	PB	Lead	0.005	KC003 COMMUNITY ROOM	P1
LF88788	PB	Lead	0.002	KC003 COMMUNITY ROOM	P2

Sink side
Bubbler

Sink
Faucet - cold only

Sink side
Bubbler

Old sink
Faucet
w/ connector (h/c)

Bubbler w/
timed valve (newer?)

Single valve cold only
Faucet w/ aerator

Integrated
Faucet/Bubbler

Bubbler
Sink side

Bubbler
Sink side

LF88789	PB	Lead	0.000	KC003 COMMUNITY ROOM	F01
LF88790	PB	Lead	0.000	KC003 COMMUNITY SCHOOL	F02
LF88791	PB	Lead	0.009	CF023 RM #19	P1
LF88792	PB	Lead	0.009	CF023 RM #19	P2
LF88793	PB	Lead	0.001	CF023 RM #19	F01
LF88794	PB	Lead	0.000	CF023 RM #19	F02
LF88795	PB	Lead	0.015	DW002 HALLWAY	P1
LF88796	PB	Lead	0.006	DW002 HALLWAY	P2
LF88797	PB	Lead	0.004	DW002 HALLWAY	F01
LF88798	PB	Lead	0.001	DW002 HALLWAY	F02
LF88799	PB	Lead	0.002	CF012 RM #9	P1
LF88800	PB	Lead	0.004	CF012 RM #9	P2
LF88801	PB	Lead	0.002	CF012 RM #9	F01
LF88802	PB	Lead	0.000	CF012 RM #9	F02
LF88803	PB	Lead	0.040	DW001 HALLWAY	P1
LF88804	PB	Lead	0.006	DW001 HALLWAY	P2
LF88805	PB	Lead	0.004	DW001 HALLWAY	F01
LF88806	PB	Lead	0.001	DW001 HALLWAY	F02
LF88807	PB	Lead	0.014	CF018 RM#15	P1
LF88808	PB	Lead	0.005	CF018 RM#15	P2
LF88809	PB	Lead	0.002	CF018 RM#15	F01
LF88810	PB	Lead	0.002	CF018 RM#15	F02
LF88811	PB	Lead	0.010	CF017 RM#15	P1
LF88812	PB	Lead	0.014	CF01 RM#15	P2
LF88813	PB	Lead	0.002	CF017 RM#15	F01
LF88814	PB	Lead	0.002	CF017 RM#15	F02
LF88815	PB	Lead	0.017	CF029 DHS OFFICE	P1
LF88816	PB	Lead	0.012	CF029 DHS OFFICE	P2
LF88817	PB	Lead	0.002	CF029 DHS OFFICE	F01
LF88818	PB	Lead	0.000	CF029 DHF OFFICE	F02
LF88819	PB	Lead	0.013	CF008 RM#4	P1
LF88820	PB	Lead	0.006	CF008 RM#4	P2
LF88821	PB	Lead	0.001	CF008 RM#4	F01
LF88822	PB	Lead	0.000	CF008 RM#4	F02
LF88823	PB	Lead	0.007	CF007 RM#3	P1
LF88824	PB	Lead	0.006	CF007 RM #3	P2
LF88825	PB	Lead	0.003	CF007 RM#3	F01
LF88826	PB	Lead	0.002	CF007 RM#3	F02
LF88827	PB	Lead	0.027	CF014 ROOM #10	P1

Sink faucet
sep. h/c aerator

sink faucet
cold only aerator

Bubbler - old

integrated
faucet + bubbler

Bubbler

Bubbler

faucet cold only
w/ aerator

faucet mix valve
+ aerator

Integrated
faucet + bubbler

Integrated
faucet + bubbler

LF88828	PB	Lead	0.007	CF014- ROOM #10	P2
LF88829	PB	Lead	0.004	CF014-ROOM #10	F01
LF88830	PB	Lead	0.003	CF014-ROOM #10	F02
LF88831	PB	Lead	0.036	CF026 ROOM #14	P1
LF88832	PB	Lead	0.030	CF026 ROOM #14	P2
LF88833	PB	Lead	0.017	CF026 ROOM #14	F01
LF88834	PB	Lead	0.004	CF026 ROOM #14	F02
LF88835	PB	Lead	0.005	CF019 ROOM #17	P1
LF88836	PB	Lead	0.003	CF019 ROOM #17	P2
LF88837	PB	Lead	0.001	CF019 ROOM #17	F01
LF88838	PB	Lead	0.000	CF019 ROOM #17	F02
LF88839	PB	Lead	0.000	CF025 ROOM 14	P1
LF88840	PB	Lead	0.003	CF015 ROOM #14	P2
LF88841	PB	Lead	0.003	CF025 ROOM #14	F01
LF88842	PB	Lead	0.002	CF025 ROOM #14	F02
LF88843	PB	Lead	0.009	CF013 ROOM #10	P1
LF88844	PB	Lead	0.018	CF013- ROOM #10	P2
LF88845	PB	Lead	0.003	CF013 ROOM #10	F01
LF88846	PB	Lead	0.003	CF013 ROOM #10	F02
LF88847	PB	Lead	0.013	CF020 ROOM #17	P1
LF88848	PB	Lead	0.004	CF020 ROOM #7	P2
LF88849	PB	Lead	0.005	CF020 ROOM #17	F01
LF88850	PB	Lead	0.003	CF020 ROOM #17	F02
LF88851	PB	Lead	0.016	CF006 ROOM#2	P1
LF88852	PB	Lead	0.003	CF006 ROOM #2	P2
LF88853	PB	Lead	0.001	CF006 ROOM #2	F01
LF88854	PB	Lead	0.001	CF006 ROOM #2	F02
LF88855	PB	Lead	0.002	CF011 ROOM #7	P1
LF88856	PB	Lead	0.000	CF011 ROOM #7	P2
LF88857	PB	Lead	0.002	CF011 ROOM #7	F01
LF88858	PB	Lead	0.000	CF011 ROOM #7	F02
LF88859	PB	Lead	0.057	CF031 RAINBOW PRE K	P1
LF88860	PB	Lead	0.003	CF031 RAINBOW PREK	P2
LF88861	PB	Lead	0.002	CF031 RAINBOW PREK	F01
LF88862	PB	Lead	0.000	CF031 RAINBOW PRE K	F02
LF88863	PB	Lead	0.010	CF030 RAINBOW PRE K	P1
LF88864	PB	Lead	0.003	CF030 RAINBOW PRE K	P2
LF88865	PB	Lead	0.007	CF030 RAINBOW PRE K	F01
LF88866	PB	Lead	0.000	CF030 RAINBOW PRE K	F02

Integrated
faucet/bubble

Bubbler

Faucet
cold only
aerator

Faucet
cold only aerator

Faucet
mixing valve
aerator

Bubbler

Integrated
Faucet/Bubble-

Integrated
Faucet bubbler

Bubbler

Faucet
mixing valve
aerator

LF88867	PB	Lead	0.012	CF004 ROOM #7	P1
LF88868	PB	Lead	0.007	CF004 ROOM #1	P2
LF88869	PB	Lead	0.004	CF004 ROOM #1	F01
LF88870	PB	Lead	0.002	CF004 ROOM #1	F02
LF88871	PB	Lead	0.005	DW005 ROOM #1	P1
LF88872	PB	Lead	0.003	DW005 ROOM #1	P2
LF88873	PB	Lead	0.003	DW005 ROOM #1	F01
LF88874	PB	Lead	0.002	DW001 ROOM #1	F02

Funct
H/C separate
aerator

~~Funct~~
Bubble

SAMPLE #	ACODE	ANALYTE	RESULT	Sample Description	Sample Collector(s)	Site Code
LF88751	PB	Lead	0.010	CF022 RM 12	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P1
LF88752	PB	Lead	0.003	CF022 RM 12	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P2
LF88753	PB	Lead	0.001	CF022 RM 12	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F01
LF88754	PB	Lead	0.001	CF022 RM 12	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F02
LF88755	PB	Lead	0.004	CF021 RM 12	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P1
LF88756	PB	Lead	0.007	CF021 RM 12	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P2
LF88757	PB	Lead	0.000	CF021 #12	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F01
LF88758	PB	Lead	0.000	CF021 RM 12	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F02
LF88759	PB	Lead	0.009	CF009 RM 5	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P1
LF88760	PB	Lead	0.002	CF009 RM 5	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P2
LF88761	PB	Lead	0.002	CF009 RM 5	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F01
LF88762	PB	Lead	0.001	CF009 RM 5	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F02
LF88763	PB	Lead	0.102	CF015 RM 11	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P1
LF88764	PB	Lead	0.326	CF015 RM 11	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P2
LF88765	PB	Lead	0.014	CF015 RM 11	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F01
LF88766	PB	Lead	0.011	CF015 RM 11	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F02
LF88767	PB	Lead	0.003	CF016 RM 11	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P1
LF88768	PB	Lead	0.003	CF016 RM 11	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P2
LF88769	PB	Lead	0.005	CF016 RM 11	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F01
LF88770	PB	Lead	0.004	CF016 RM 11	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F02
LF88771	PB	Lead	0.009	CF027 RM 21	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P1
LF88772	PB	Lead	0.007	CF027 RM 21	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P2
LF88773	PB	Lead	0.000	CF027 RM 21	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F01
LF88774	PB	Lead	0.000	CF027 RM 21	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F02
LF88775	PB	Lead	0.012	CF010 RM 6	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P1
LF88776	PB	Lead	0.004	CF010 RM 6	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P2
LF88777	PB	Lead	0.002	CF010 RM 6	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F01
LF88778	PB	Lead	0.000	CF010 RM 6	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F02
LF88779	PB	Lead	0.009	CF028 RM #21	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P1
LF88780	PB	Lead	0.002	CF028 RM #21	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P2
LF88781	PB	Lead	0.001	CF028 RM #21	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F01
LF88782	PB	Lead	0.001	CF028 RM #21	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F02
LF88783	PB	Lead	0.023	CF024 RM #19	JOE MADZIAR/ANDY NEWMAN	P1
LF88784	PB	Lead	0.003	CF024 RM #19	JOE MADZIAR/ ANDY NEUMAN	P2
LF88785	PB	Lead	0.004	CF024 RM #19	JOE MADZIAR/ ANDY NEUMAN	F01
LF88786	PB	Lead	0.003	CF024 RM #19	JOE MADZIAR/ ANDY NEUMAN	F02
LF88787	PB	Lead	0.005	KC003 COMMUNITY ROOM	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P1
LF88788	PB	Lead	0.002	KC003 COMMUNITY ROOM	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P2
LF88789	PB	Lead	0.000	KC003 COMMUNITY ROOM	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F01
LF88790	PB	Lead	0.000	KC003 COMMUNITY ROOM	TRACY JO DEVEREAUX/ GEORGE KRISZTIAN	F02

LF88791	PB	Lead	0.009	CF023 RM #19	JOE MADZIAR/ ANDY NEUMAN	P1
LF88792	PB	Lead	0.009	CF023 RM #19	JOE MADZIAR/ ANDY NEUMAN	P2
LF88793	PB	Lead	0.001	CF023 RM #19	JOE MADZIAR/ ANDY NEUMAN	F01
LF88794	PB	Lead	0.000	CF023 RM #19	JOE MADZIAR/ ANDY NEUMAN	F02
LF88795	PB	Lead	0.015	DW002 HALLWAY	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P1
LF88796	PB	Lead	0.006	DW002 HALLWAY	TRACY JO DEVEREAUX/ GEORGE KRISZTIAN	P2
LF88797	PB	Lead	0.004	DW002 HALLWAY	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F01
LF88798	PB	Lead	0.001	DW002 HALLWAY	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F02
LF88799	PB	Lead	0.002	CF012 RM #9	JOE MADZIAR/ ANDY NEUMAN	P1
LF88800	PB	Lead	0.004	CF012 RM #9	JOE MADZIAR	P2
LF88801	PB	Lead	0.002	CF012 RM #9	JOE MADZIAR/ ANDY NEUMAN	F01
LF88802	PB	Lead	0.000	CF012 RM #9	JOE MADZIAR/ ANDY NEUMAN	F02
LF88803	PB	Lead	0.040	DW001 HALLWAY	TRACY JO DEVEREAUX/ GEORGE KRISZTIA	P1
LF88804	PB	Lead	0.006	DW001 HALLWAY	TRACY JO DEVEREAUX	P2
LF88805	PB	Lead	0.004	DW001 HALLWAY	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F01
LF88806	PB	Lead	0.001	DW001 HALLWAY	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F02
LF88807	PB	Lead	0.014	CF018 RM#15	JOE MADZIAR	P1
LF88808	PB	Lead	0.005	CF018 RM#15	JOE MADZIAR/ ANDY NEUMAN	P2
LF88809	PB	Lead	0.002	CF018 RM#15	JOE MADZIAR/ ANDY NEUMAN	F01
LF88810	PB	Lead	0.002	CF018 RM#15	JOE MADZIAR/ ANDY NEUMAN	F02
LF88811	PB	Lead	0.010	CF017 RM#15	JOE MADZIAR/ ANDY NEUMAN	P1
LF88812	PB	Lead	0.014	CF017 RM#15	JOE MADZIAR/ ANDY NEUMAN	P2
LF88813	PB	Lead	0.002	CF017 RM#15	JOE MADZIAR/ ANDY NEUMAN	F01
LF88814	PB	Lead	0.002	CF017 RM#15	JOE MADZIAR/ ANDY NEUMAN	F02
LF88815	PB	Lead	0.017	CF029 DHS OFFICE	JOE MADZIAR/ ANDY NEUMAN	P1
LF88816	PB	Lead	0.012	CF029 DHS OFFICE	JOE MADZIAR /ANDY NEUMAN	P2
LF88817	PB	Lead	0.002	CF029 DHS OFFICE	JOE MADZIAR/ ANDY NEUMAN	F01
LF88818	PB	Lead	0.000	CF029 DHF OFFICE	JOE MADZIAR/ ANDY NEUMAN	F02
LF88819	PB	Lead	0.013	CF008 RM#4	JOE MADZIAR/ ANDY NEUMAN	P1
LF88820	PB	Lead	0.006	CF008 RM#4	JOE MADZIAR/ ANDY NEUMAN	P2
LF88821	PB	Lead	0.001	CF008 RM#4	JOE MADZIAR/ ANDY NEUMAN	F01
LF88822	PB	Lead	0.000	CF008 RM#4	JOE MADZIAR/ ANDY NEUMAN	F02
LF88823	PB	Lead	0.007	CF007 RM#3	JOE MADZIAR/ ANDY NEUMAN	P1
LF88824	PB	Lead	0.006	CF007 RM #3	JOE MADZIAR/ ANDY NEUMAN	P2
LF88825	PB	Lead	0.003	CF007 RM#3	JOE MADZIAR/ ANDY NEUMAN	F01
LF88826	PB	Lead	0.002	CF007 RM#3	JOE MADZIAR/ ANDY NEUMAR	F02
LF88827	PB	Lead	0.027	CF014 ROOM #10	MIKE PRYSBY/ LOIS GRAHAM	P1
LF88828	PB	Lead	0.007	CF014- ROOM #10	MIKE PRYSBY / LOIS GRAHAM	P2
LF88829	PB	Lead	0.004	CF014-ROOM #10	MIKE PRYSBY/ LOIS GRAHAM	F01
LF88830	PB	Lead	0.003	CF014-ROOM #10	MIKE PRYSBY/ LOIS GRAHAM	F02
LF88831	PB	Lead	0.036	CF026 ROOM #14	MIKE PRYSBY/ LOIS GRAHAM	P1

LF88832	PB	Lead	0.030	CF026 ROOM #14	MIKE PRYSBY/ LOIS GRAHAM	P2
LF88833	PB	Lead	0.017	CF026 ROOM #14	MIKE PRYSBY/ LOIS GRAHAM	F01
LF88834	PB	Lead	0.004	CF026 ROOM #14	MIKE PRYSBY/ LOIS GRAHAM	F02
LF88835	PB	Lead	0.005	CF019 ROOM #17	MIKE PRYSBY/ LOIS GRAHAM	P1
LF88836	PB	Lead	0.003	CF019 ROOM #17	MIKE PRYSBY/ LOIS GRAHAM	P2
LF88837	PB	Lead	0.001	CF019 ROOM #17	MIKE PRYSBY/ LOIS GRAHAM	F01
LF88838	PB	Lead	0.000	CF019 ROOM #17	MIKE PRYSBY/ LOIS GRAHAM	F02
LF88839	PB	Lead	0.000	CF025 ROOM #14	MIKE PRYSBY/ LOIS GRAHAM	P1
LF88840	PB	Lead	0.003	CF025 ROOM #14	MIKE PRYSBY/ LOIS GRAHAM	P2
LF88841	PB	Lead	0.003	CF025 ROOM #14	MIKE PRYSBY/ LOIS GRAHAM	F01
LF88842	PB	Lead	0.002	CF025 ROOM #14	MIKE PRYSBY/ LOIS GRAHAM	F02
LF88843	PB	Lead	0.009	CF013 ROOM #10	MIKE PRYSBY/ LOIS GRAHAM	P1
LF88844	PB	Lead	0.018	CF013- ROOM #10	MIKE PRYSBY/ LOIS GRAHAM	P2
LF88845	PB	Lead	0.003	CF013 ROOM #10	MIKE PRYSBY/ LOIS GRAHAM	F02
LF88846	PB	Lead	0.003	CF013 ROOM #10	MIKE PRYSBY/ LOIS GRAHAM	F01
LF88847	PB	Lead	0.013	CF020 ROOM #17	MIKE PRYSBY/ LOIS GRAHAM	P1
LF88848	PB	Lead	0.004	CF020 ROOM #17	MIKE PRYSBY/ LOIS GRAHAM	P2
LF88849	PB	Lead	0.005	CF020 ROOM #17	MIKE PRYSBY/ LOIS GRAHAM	F01
LF88850	PB	Lead	0.003	CF020 ROOM #17	MIKE PRYSBY/ LOIS GRAHAM	F02
LF88851	PB	Lead	0.016	CF006 ROOM#2	MIKE PRYSBY/ LOIS GRAHAM	P1
LF88852	PB	Lead	0.003	CF006 ROOM #2	MIKE PRYSBY/ LOIS GRAHAM	P2
LF88853	PB	Lead	0.001	CF006 ROOM #2	MIKE PRYSBY/ LOIS GRAHAM	F01
LF88854	PB	Lead	0.001	CF006 ROOM #2	MIKE PRYSBY/ LOIS GRAHAM	F02
LF88855	PB	Lead	0.002	CF011 ROOM #7	MIKE PRYSBY/ LOIS GRAHAM	P1
LF88856	PB	Lead	0.000	CF011 ROOM #7	MIKE PRYSBY/ LOIS GRAHAM	P2
LF88857	PB	Lead	0.002	CF011 ROOM #7	MIKE PRYSBY/ LOIS GRAHAM	F01
LF88858	PB	Lead	0.000	CF011 ROOM #7	MIKE PRYSBY/ LOIS GRAHAM	F02
LF88859	PB	Lead	0.057	CF031 RAINBOW PRE K	MIKE PRYSBY/ LOIS GRAHAM	P1
LF88860	PB	Lead	0.003	CF031 RAINBOW PRE K	MIKE PRYSBY/ LOIS GRAHAM	P2
LF88861	PB	Lead	0.002	CF031 RAINBOW PRE K	MIKE PRYSBY/ LOIS GRAHAM	F01
LF88862	PB	Lead	0.000	CF031 RAINBOW PRE K	MIKE PRYSBY/ LOIS GRAHAM	F02
LF88863	PB	Lead	0.010	CF030 RAINBOW PRE K	MIKE PRYSBY/ LOIS GRAHAM	P1
LF88864	PB	Lead	0.003	CF030 RAINBOW PRE K	MIKE PRYSBY/ LOIS GRAHAM	P2
LF88865	PB	Lead	0.007	CF030 RAINBOW PRE K	MIKE PRYSBY/ LOIS GRAHAM	F01
LF88866	PB	Lead	0.000	CF030 RAINBOW PRE K	MIKE PRYSBY/ LOIS GRAHAM	F02
LF88867	PB	Lead	0.012	CF004 ROOM #1	MIKE PRYSBY/ LOIS GRAHAM	P1
LF88868	PB	Lead	0.007	CF004 ROOM #1	MIKE PRYSBY/ LOIS GRAHAM	P2
LF88869	PB	Lead	0.004	CF004 ROOM #1	MIKE PRYSBY/ LOIS GRAHAM	F01
LF88870	PB	Lead	0.002	CF004 ROOM #1	MIKE PRYSBY/ LOIS GRAHAM	F02
LF88871	PB	Lead	0.005	DW005 ROOM #1	MIKE PRYSBY/ LOIS GRAHAM	P1
LF88872	PB	Lead	0.003	DW005 ROOM #1	MIKE PRYSBY/ LOIS GRAHAM	P2

LF88873	PB	Lead	0.003	DW005 ROOM #1	MIKE PRYSBY/ LOIS GRAHAM	FO1
LF88874	PB	Lead	0.002	DW005 ROOM #1	MIKE PRYSBY/ LOIS GRAHAM	FO2

SAMPNO	ACODE	ANALYTE	RESULT	Sample Description	Sample Collector(s)	Site Code
LF88751	CU	Copper	0.32	CF022 RM 12	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P1
LF88752	CU	Copper	0.17	CF022 RM 12	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P2
LF88753	CU	Copper	0.15	CF022 RM 12	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F01
LF88754	CU	Copper	0.15	CF022 RM 12	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F02
LF88755	CU	Copper	0.09	CF021 RM 12	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P1
LF88756	CU	Copper	0.15	CF021 RM 12	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P2
LF88757	CU	Copper	0.14	CF021 #12	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F01
LF88758	CU	Copper	0.15	CF021 RM 12	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F02
LF88759	CU	Copper	0.31	CF009 RM 5	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P1
LF88760	CU	Copper	0.28	CF009 RM 5	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P2
LF88761	CU	Copper	0.08	CF009 RM 5	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F01
LF88762	CU	Copper	0.07	CF009 RM 5	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F02
LF88763	CU	Copper	0.43	CF015 RM 11	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P1
LF88764	CU	Copper	0.66	CF015 RM 11	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P2
LF88765	CU	Copper	0.19	CF015 RM 11	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F01
LF88766	CU	Copper	0.13	CF015 RM 11	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F02
LF88767	CU	Copper	0.99	CF016 RM 11	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P1
LF88768	CU	Copper	0.89	CF016 RM 11	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P2
LF88769	CU	Copper	0.16	CF016 RM 11	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F01
LF88770	CU	Copper	0.13	CF016 RM 11	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F02
LF88771	CU	Copper	0.19	CF027 RM 21	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P1
LF88772	CU	Copper	0.21	CF027 RM 21	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P2
LF88773	CU	Copper	0.16	CF027 RM 21	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F01
LF88774	CU	Copper	0.15	CF027 RM 21	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F02
LF88775	CU	Copper	0.24	CF010 RM 6	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P1
LF88776	CU	Copper	0.22	CF010 RM 6	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P2
LF88777	CU	Copper	0.17	CF010 RM 6	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F01
LF88778	CU	Copper	0.12	CF010 RM 6	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F02
LF88779	CU	Copper	0.17	CF028 RM #21	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P1
LF88780	CU	Copper	0.16	CF028 RM #21	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P2
LF88781	CU	Copper	0.15	CF028 RM #21	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F01
LF88782	CU	Copper	0.15	CF028 RM #21	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F02
LF88783	CU	Copper	0.23	CF024 RM #19	JOE MADZIAR/ANDY NEWMAN	P1
LF88784	CU	Copper	0.17	CF024 RM #19	JOE MADZIAR/ ANDY NEUMAN	P2
LF88785	CU	Copper	0.16	CF024 RM #19	JOE MADZIAR/ ANDY NEUMAN	F01
LF88786	CU	Copper	0.16	CF024 RM #19	JOE MADZIAR/ ANDY NEUMAN	F02
LF88787	CU	Copper	0.31	KC003 COMMUNITY ROOM	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P1
LF88788	CU	Copper	0.27	KC003 COMMUNITY ROOM	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P2
LF88789	CU	Copper	0.14	KC003 COMMUNITY ROOM	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F01
LF88790	CU	Copper	0.13	KC003 COMMUNITY ROOM	TRACY JO DEVEREAUX/ GEORGE KRISZTIA	F02

LF88791	CU	Copper	0.13	CF023 RM #19	JOE MADZIAR/ ANDY NEUMAN	P1
LF88792	CU	Copper	0.18	CF023 RM #19	JOE MADZIAR/ ANDY NEUMAN	P2
LF88793	CU	Copper	0.15	CF023 RM #19	JOE MADZIAR/ ANDY NEUMAN	F01
LF88794	CU	Copper	0.15	CF023 RM #19	JOE MADZIAR/ ANDY NEUMAN	F02
LF88795	CU	Copper	0.21	DW002 HALLWAY	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P1
LF88796	CU	Copper	0.10	DW002 HALLWAY	TRACY JO DEVEREAUX/ GEORGE KRISZTIAN	P2
LF88797	CU	Copper	0.07	DW002 HALLWAY	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F01
LF88798	CU	Copper	0.00	DW002 HALLWAY	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F02
LF88799	CU	Copper	0.23	CF012 RM #9	JOE MADZIAR/ ANDY NEUMAN	P1
LF88800	CU	Copper	0.16	CF012 RM #9	JOE MADZIAR	P2
LF88801	CU	Copper	0.11	CF012 RM #9	JOE MADZIAR/ ANDY NEUMAN	F01
LF88802	CU	Copper	0.08	CF012 RM #9	JOE MADZIAR/ ANDY NEUMAN	F02
LF88803	CU	Copper	0.41	DW001 HALLWAY	TRACY JO DEVEREAUX/ GEORGE KRISZTIA	P1
LF88804	CU	Copper	0.29	DW001 HALLWAY	TRACY JO DEVEREAUX	P2
LF88805	CU	Copper	0.17	DW001 HALLWAY	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F01
LF88806	CU	Copper	0.00	DW001 HALLWAY	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F02
LF88807	CU	Copper	0.20	CF018 RM#15	JOE MADZIAR	P1
LF88808	CU	Copper	0.17	CF018 RM#15	JOE MADZIAR/ ANDY NEUMAN	P2
LF88809	CU	Copper	0.14	CF018 RM#15	JOE MADZIAR/ ANDY NEUMAN	F01
LF88810	CU	Copper	0.14	CF018 RM#15	JOE MADZIAR/ ANDY NEUMAN	F02
LF88811	CU	Copper	0.17	CF017 RM#15	JOE MADZIAR/ ANDY NEUMAN	P1
LF88812	CU	Copper	0.29	CF017 RM#15	JOE MADZIAR/ ANDY NEUMAN	P2
LF88813	CU	Copper	0.17	CF017 RM#15	JOE MADZIAR/ ANDY NEUMAN	F01
LF88814	CU	Copper	0.15	CF017 RM#15	JOE MADZIAR/ ANDY NEUMAN	F02
LF88815	CU	Copper	0.59	CF029 DHS OFFICE	JOE MADZIAR/ ANDY NEUMAN	P1
LF88816	CU	Copper	0.40	CF029 DHS OFFICE	JOE MADZIAR /ANDY NEUMAN	P2
LF88817	CU	Copper	0.08	CF029 DHS OFFICE	JOE MADZIAR/ ANDY NEUMAN	F01
LF88818	CU	Copper	0.00	CF029 DHF OFFICE	JOE MADZIAR/ ANDY NEUMAN	F02
LF88819	CU	Copper	0.28	CF008 RM#4	JOE MADZIAR/ ANDY NEUMAN	P1
LF88820	CU	Copper	0.54	CF008 RM#4	JOE MADZIAR/ ANDY NEUMAN	P2
LF88821	CU	Copper	0.17	CF008 RM#4	JOE MADZIAR/ ANDY NEUMAN	F01
LF88822	CU	Copper	0.15	CF008 RM#4	JOE MADZIAR/ ANDY NEUMAN	F02
LF88823	CU	Copper	0.17	CF007 RM#3	JOE MADZIAR/ ANDY NEUMAN	P1
LF88824	CU	Copper	0.27	CF007 RM #3	JOE MADZIAR/ ANDY NEUMAN	P2
LF88825	CU	Copper	0.09	CF007 RM#3	JOE MADZIAR/ ANDY NEUMAN	F01
LF88826	CU	Copper	0.07	CF007 RM#3	JOE MADZIAR/ ANDY NEUMAR	F02
LF88827	CU	Copper	0.11	CF014 ROOM #10	MIKE PRYSBY/ LOIS GRAHAM	P1
LF88828	CU	Copper	0.10	CF014- ROOM #10	MIKE PRYSBY / LOIS GRAHAM	P2
LF88829	CU	Copper	0.10	CF014-ROOM #10	MIKE PRYSBY/ LOIS GRAHAM	F01
LF88830	CU	Copper	0.08	CF014-ROOM #10	MIKE PRYSBY/ LOIS GRAHAM	F02
LF88831	CU	Copper	0.75	CF026 ROOM #14	MIKE PRYSBY/ LOIS GRAHAM	P1

LF88832	CU	Copper	0.66	CF026 ROOM #14	MIKE PRYSBY/ LOIS GRAHAM	P2
LF88833	CU	Copper	0.35	CF026 ROOM #14	MIKE PRYSBY/ LOIS GRAHAM	F01
LF88834	CU	Copper	0.20	CF026 ROOM #14	MIKE PRYSBY/ LOIS GRAHAM	F02
LF88835	CU	Copper	0.16	CF019 ROOM #17	MIKE PRYSBY/ LOIS GRAHAM	P1
LF88836	CU	Copper	0.15	CF019 ROOM #17	MIKE PRYSBY/ LOIS GRAHAM	P2
LF88837	CU	Copper	0.14	CF019 ROOM #17	MIKE PRYSBY/ LOIS GRAHAM	F01
LF88838	CU	Copper	0.14	CF019 ROOM #17	MIKE PRYSBY/ LOIS GRAHAM	F02
LF88839	CU	Copper	0.14	CF025 ROOM #14	MIKE PRYSBY/ LOIS GRAHAM	P1
LF88840	CU	Copper	0.25	CF025 ROOM #14	MIKE PRYSBY/ LOIS GRAHAM	P2
LF88841	CU	Copper	0.17	CF025 ROOM #14	MIKE PRYSBY/ LOIS GRAHAM	F01
LF88842	CU	Copper	0.18	CF025 ROOM #14	MIKE PRYSBY/ LOIS GRAHAM	F02
LF88843	CU	Copper	0.06	CF013 ROOM #10	MIKE PRYSBY/ LOIS GRAHAM	P1
LF88844	CU	Copper	0.07	CF013- ROOM #10	MIKE PRYSBY/ LOIS GRAHAM	P2
LF88845	CU	Copper	0.10	CF013 ROOM #10	MIKE PRYSBY/ LOIS GRAHAM	F02
LF88846	CU	Copper	0.19	CF013 ROOM #10	MIKE PRYSBY/ LOIS GRAHAM	F01
LF88847	CU	Copper	0.19	CF020 ROOM #17	MIKE PRYSBY/ LOIS GRAHAM	P1
LF88848	CU	Copper	0.16	CF020 ROOM #17	MIKE PRYSBY / LOIS GRAHAM	P2
LF88849	CU	Copper	0.16	CF020 ROOM #17	MIKE PRYSBY/ LOIS GRAHAM	F01
LF88850	CU	Copper	0.14	CF020 ROOM #17	MIKE PRYSBY/ LOIS GRAHAM	F02
LF88851	CU	Copper	0.17	CF006 ROOM#2	MIKE PRYSBY/ LOIS GRAHAM	P1
LF88852	CU	Copper	0.22	CF006 ROOM #2	MIKE PRYSBY/ LOIS GRAHAM	P2
LF88853	CU	Copper	0.11	CF006 ROOM #2	MIKE PRYSBY/ LOIS GRAHAM	F01
LF88854	CU	Copper	0.11	CF006 ROOM #2	MIKE PRYSBY/ LOIS GRAHAM	F02
LF88855	CU	Copper	0.20	CF011 ROOM #7	MIKE PRYSBY/ LOIS GRAHAM	P1
LF88856	CU	Copper	0.15	CF011 ROOM #7	MIKE PRYSBY/ LOIS GRAHAM	P2
LF88857	CU	Copper	0.11	CF011 ROOM #7	MIKE PRYSBY/ LOIS GRAHAM	F01
LF88858	CU	Copper	0.06	CF011 ROOM #7	MIKE PRYSBY/ LOIS GRAHAM	F02
LF88859	CU	Copper	0.38	CF031 RAINBOW PRE K	MIKE PRYSBY/ LOIS GRAHAM	P1
LF88860	CU	Copper	0.21	CF031 RAINBOW PRE K	MIKE PRYSBY/ LOIS GRAHAM	P2
LF88861	CU	Copper	0.27	CF031 RAINBOW PRE K	MIKE PRYSBY/ LOIS GRAHAM	F01
LF88862	CU	Copper	0.19	CF031 RAINBOW PRE K	MIKE PRYSBY/ LOIS GRAHAM	F02
LF88863	CU	Copper	0.38	CF030 RAINBOW PRE K	MIKE PRYSBY/ LOIS GRAHAM	P1
LF88864	CU	Copper	0.42	CF030 RAINBOW PRE K	MIKE PRYSBY/ LOIS GRAHAM	P2
LF88865	CU	Copper	0.59	CF030 RAINBOW PRE K	MIKE PRYSBY/ LOIS GRAHAM	F01
LF88866	CU	Copper	0.21	CF030 RAINBOW PRE K	MIKE PRYSBY/ LOIS GRAHAM	F02
LF88867	CU	Copper	0.27	CF004 ROOM #1	MIKE PRYSBY/ LOIS GRAHAM	P1
LF88868	CU	Copper	0.25	CF004 ROOM #1	MIKE PRYSBY/ LOIS GRAHAM	P2
LF88869	CU	Copper	0.21	CF004 ROOM #1	MIKE PRYSBY/ LOIS GRAHAM	F01
LF88870	CU	Copper	0.08	CF004 ROOM #1	MIKE PRYSBY/ LOIS GRAHAM	F02
LF88871	CU	Copper	0.10	DW005 ROOM #1	MIKE PRYSBY/ LOIS GRAHAM	P1
LF88872	CU	Copper	0.09	DW005 ROOM #1	MIKE PRYSBY/ LOIS GRAHAM	P2

LF88873	CU	Copper	0.09	DW005 ROOM #1	MIKE PRYSBY/ LOIS GRAHAM	F01
LF88874	CU	Copper	0.06	DW005 ROOM #1	MIKE PRYSBY/ LOIS GRAHAM	F02

3 * DW001 Hallway

2 DW002 Hallway

3 CF009 DHS Office

4 CF004 Room #1 Faint

5 DW005 Bubblex

6 KC003 Community Room

7 CF007 RM #3

8 CF006 RM #2

9 CF009 RM #5

10 CF008 RM #4

11 CF011 RM #7

12 CF010 RM #6

13 CF012 RM #9

14 CF014 RM #10

15 CF013 RM #10

16 CF015 RM #11

17 CF016 RM #11

18 CF017 RM #15

19 CF018 RM #15

20 CF019 RM #17 * Drifting

21 CF020 RM #17

22 CF021 RM #12

23 CF022 RM #12

24 CF023 RM #19

25 CF024 RM #19

26 - CF025 RM #14

27 - CF026 RM #14

28 - CF027 RM #21

29 - CF028 RM #21

30 - CF030 Rainbow/Pink ①

31 - CF031 Rainbow/Pink ②

Integrated

Faint

Faint

Bubble

Faint

Bubble

Faint

Bubble

Faint

Bubble

Faint

Bubble

Faint

Bubble

Bubble

Faint

Bubble

Faint

Bubble

SAMPNO	ACODE	ANALYTE	RESULT	Sample_Description	Site_Code
LF88751	PB	Lead	0.010	CF022 RM 12	P1
LF88752	PB	Lead	0.003	CF022 RM 12	P2
LF88753	PB	Lead	0.001	CF022 RM 12	F01
LF88754	PB	Lead	0.001	CF022 RM 12	F02
LF88755	PB	Lead	0.004	CF021 RM 12	P1
LF88756	PB	Lead	0.007	CF021 RM 12	P2
LF88757	PB	Lead	0.000	CF021 12	F01
LF88758	PB	Lead	0.000	CF021 RM 12	F02
LF88759	PB	Lead	0.009	CF009 RM 5	P1
LF88760	PB	Lead	0.002	CF009 RM 5	P2
LF88761	PB	Lead	0.002	CF009 RM 5	F01
LF88762	PB	Lead	0.001	CF009 RM 5	F02
LF88763	PB	Lead	0.102	CF015 RM 11	P1
LF88764	PB	Lead	0.326	CF015 RM 11	P2
LF88765	PB	Lead	0.014	CF015 RM 11	F01
LF88766	PB	Lead	0.011	CF015 RM 11	F02
LF88767	PB	Lead	0.003	CF016 RM 11	P1
LF88768	PB	Lead	0.003	CF016 RM 11	P2
LF88769	PB	Lead	0.005	CF016 RM 11	F01
LF88770	PB	Lead	0.004	CF016 RM 11	F02
LF88771	PB	Lead	0.009	CF027 RM 21	P1
LF88772	PB	Lead	0.007	CF027 RM 21	P2
LF88773	PB	Lead	0.000	CF027 RM 21	F01
LF88774	PB	Lead	0.000	CF027 RM 21	F02
LF88775	PB	Lead	0.012	CF010 RM 6	P1
LF88776	PB	Lead	0.004	CF010 RM 6	P2
LF88777	PB	Lead	0.002	CF010 RM 6	F01
LF88778	PB	Lead	0.000	CF010 RM 6	F02
LF88779	PB	Lead	0.009	CF028 RM 21	P1
LF88780	PB	Lead	0.002	CF028 RM 21	P2
LF88781	PB	Lead	0.001	CF028 RM #21	F01
LF88782	PB	Lead	0.001	CF028 RM #21	F02
LF88783	PB	Lead	0.023	CF024 RM #19	P1
LF88784	PB	Lead	0.003	CF024 RM #19	P2
LF88785	PB	Lead	0.004	CF024 RM #19	F01
LF88786	PB	Lead	0.003	CF024 RM #19	F02
LF88787	PB	Lead	0.005	KC003 COMMUNITY ROOM	P1
LF88788	PB	Lead	0.002	KC003 COMMUNITY ROOM	P2

Sink side
BubblerSink
faucet - cold onlySink side
bubblerOld sink
faucet
w/connector (h/c)Bubbler w/
timed valve (newer?)Single valve cold only
faucet w/ aeratorIntegrated
Faucet/BubblerBubbler
Sink sideBubbler
Sink side

LF88789	PB	Lead	0.000	KC003 COMMUNITY ROOM	F01
LF88790	PB	Lead	0.000	KC003 COMMUNITY SCHOOL	F02
LF88791	PB	Lead	0.009	CF023 RM #19	P1
LF88792	PB	Lead	0.009	CF023 RM #19	P2
LF88793	PB	Lead	0.001	CF023 RM #19	F01
LF88794	PB	Lead	0.000	CF023 RM #19	F02
LF88795	PB	Lead	0.015	DW002 HALLWAY	P1
LF88796	PB	Lead	0.006	DW002 HALLWAY	P2
LF88797	PB	Lead	0.004	DW002 HALLWAY	F01
LF88798	PB	Lead	0.001	DW002 HALLWAY	F02
LF88799	PB	Lead	0.002	CF012 RM #9	P1
LF88800	PB	Lead	0.004	CF012 RM #9	P2
LF88801	PB	Lead	0.002	CF012 RM #9	F01
LF88802	PB	Lead	0.000	CF012 RM #9	F02
LF88803	PB	Lead	0.040	DW001 HALLWAY	P1
LF88804	PB	Lead	0.006	DW001 HALLWAY	P2
LF88805	PB	Lead	0.004	DW001 HALLWAY	F01
LF88806	PB	Lead	0.001	DW001 HALLWAY	F02
LF88807	PB	Lead	0.014	CF018 RM#15	P1
LF88808	PB	Lead	0.005	CF018 RM#15	P2
LF88809	PB	Lead	0.002	CF018 RM#15	F01
LF88810	PB	Lead	0.002	CF018 RM#15	F02
LF88811	PB	Lead	0.010	CF017 RM#15	P1
LF88812	PB	Lead	0.014	CF01 RM#15	P2
LF88813	PB	Lead	0.002	CF017 RM#15	F01
LF88814	PB	Lead	0.002	CF017 RM#15	F02
LF88815	PB	Lead	0.017	CF029 DHS OFFICE	P1
LF88816	PB	Lead	0.012	CF029 DHS OFFICE	P2
LF88817	PB	Lead	0.002	CF029 DHS OFFICE	F01
LF88818	PB	Lead	0.000	CF029 DHF OFFICE	F02
LF88819	PB	Lead	0.013	CF008 RM#4	P1
LF88820	PB	Lead	0.006	CF008 RM#4	P2
LF88821	PB	Lead	0.001	CF008 RM#4	F01
LF88822	PB	Lead	0.000	CF008 RM#4	F02
LF88823	PB	Lead	0.007	CF007 RM#3	P1
LF88824	PB	Lead	0.006	CF007 RM #3	P2
LF88825	PB	Lead	0.003	CF007 RM#3	F01
LF88826	PB	Lead	0.002	CF007 RM#3	F02
LF88827	PB	Lead	0.027	CF014 ROOM #10	P1

sink faucet
sep. h/c aerator

sink faucet
cold only aerator

Bubbler - old

integrated
faucet + bubbler

Bubbler

Bubbler

faucet cold only
w/ aerator

faucet mix valve
+ aerator

integrated
faucet + bubbler

integrated
faucet + bubbler

LF88828	PB	Lead	0.007	CF014- ROOM #10	P2
LF88829	PB	Lead	0.004	CF014-ROOM #10	F01
LF88830	PB	Lead	0.003	CF014-ROOM #10 -	F02
LF88831	PB	Lead	0.036	CF026 ROOM #14	P1
LF88832	PB	Lead	0.030	CF026 ROOM #14	P2
LF88833	PB	Lead	0.017	CF026 ROOM #14	F01
LF88834	PB	Lead	0.004	CF026 ROOM #14	F02
LF88835	PB	Lead	0.005	CF019 ROOM #17	P1
LF88836	PB	Lead	0.003	CF019 ROOM #17	P2
LF88837	PB	Lead	0.001	CF019 ROOM #17	F01
LF88838	PB	Lead	0.000	CF019 ROOM #17	F02
LF88839	PB	Lead	0.000	CF025 ROOM 14	P1
LF88840	PB	Lead	0.003	CF015 ROOM #14	P2
LF88841	PB	Lead	0.003	CF025 ROOM #14	F01
LF88842	PB	Lead	0.002	CF025 ROOM #14	F02
LF88843	PB	Lead	0.009	CF013 ROOM #10	P1
LF88844	PB	Lead	0.018	CF013- ROOM #10	P2
LF88845	PB	Lead	0.003	CF013 ROOM #10	F01
LF88846	PB	Lead	0.003	CF013 ROOM #10	F02
LF88847	PB	Lead	0.013	CF020 ROOM #17	P1
LF88848	PB	Lead	0.004	CF020 ROOM #7	P2
LF88849	PB	Lead	0.005	CF020 ROOM #17	F01
LF88850	PB	Lead	0.003	CF020 ROOM #17	F02
LF88851	PB	Lead	0.016	CF006 ROOM #2	P1
LF88852	PB	Lead	0.003	CF006 ROOM #2	P2
LF88853	PB	Lead	0.001	CF006 ROOM #2	F01
LF88854	PB	Lead	0.001	CF006 ROOM #2	F02
LF88855	PB	Lead	0.002	CF011 ROOM #7	P1
LF88856	PB	Lead	0.000	CF011 ROOM #7	P2
LF88857	PB	Lead	0.002	CF011 ROOM #7	F01
LF88858	PB	Lead	0.000	CF011 ROOM #7	F02
LF88859	PB	Lead	0.057	CF031 RAINBOW PRE K	P1
LF88860	PB	Lead	0.003	CF031 RAINBOW PREK	P2
LF88861	PB	Lead	0.002	CF031 RAINBOW PREK	F01
LF88862	PB	Lead	0.000	CF031 RAINBOW PRE K	F02
LF88863	PB	Lead	0.010	CF030 RAINBOW PRE K	P1
LF88864	PB	Lead	0.003	CF030 RAINBOW PRE K	P2
LF88865	PB	Lead	0.007	CF030 RAINBOW PRE K	F01
LF88866	PB	Lead	0.000	CF030 RAINBOW PRE K	F02

Integrated
faucet / bubble

Bubbler

Faucet
cold only
aerator

Faucet
cold only aerator

Faucet
mixing valve
aerator

Bubbler

Integrated
Faucet / Bubble -

Integrated
Faucet bubble

Bubbler

Faucet
mixing valve
aerator

LF88867	PB	Lead	0.012	CF004 ROOM #7	P1
LF88868	PB	Lead	0.007	CF004 ROOM #1	P2
LF88869	PB	Lead	0.004	CF004 ROOM #1	F01
LF88870	PB	Lead	0.002	CF004 ROOM #1	F02
LF88871	PB	Lead	0.005	DW005 ROOM #1	P1
LF88872	PB	Lead	0.003	DW005 ROOM #1	P2
LF88873	PB	Lead	0.003	DW005 ROOM #1	F01
LF88874	PB	Lead	0.002	DW001 ROOM #1	F02

Funct
H/C separate
aerator

~~Funct~~
Bubble

SAMPLE #	ACODE	ANALYTE	RESULT	Sample Description	Sample Collector(s)	Site Code
LF88751	PB	Lead	0.010	CF022 RM 12	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P1
LF88752	PB	Lead	0.003	CF022 RM 12	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P2
LF88753	PB	Lead	0.001	CF022 RM 12	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F01
LF88754	PB	Lead	0.001	CF022 RM 12	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F02
LF88755	PB	Lead	0.004	CF021 RM 12	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P1
LF88756	PB	Lead	0.007	CF021 RM 12	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P2
LF88757	PB	Lead	0.000	CF021 #12	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F01
LF88758	PB	Lead	0.000	CF021 RM 12	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F02
LF88759	PB	Lead	0.009	CF009 RM 5	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P1
LF88760	PB	Lead	0.002	CF009 RM 5	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P2
LF88761	PB	Lead	0.002	CF009 RM 5	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F01
LF88762	PB	Lead	0.001	CF009 RM 5	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F02
LF88763	PB	Lead	0.102	CF015 RM 11	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P1
LF88764	PB	Lead	0.326	CF015 RM 11	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P2
LF88765	PB	Lead	0.014	CF015 RM 11	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F01
LF88766	PB	Lead	0.011	CF015 RM 11	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F02
LF88767	PB	Lead	0.003	CF016 RM 11	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P1
LF88768	PB	Lead	0.003	CF016 RM 11	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P2
LF88769	PB	Lead	0.005	CF016 RM 11	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F01
LF88770	PB	Lead	0.004	CF016 RM 11	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F02
LF88771	PB	Lead	0.009	CF027 RM 21	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P1
LF88772	PB	Lead	0.007	CF027 RM 21	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P2
LF88773	PB	Lead	0.000	CF027 RM 21	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F01
LF88774	PB	Lead	0.000	CF027 RM 21	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F02
LF88775	PB	Lead	0.012	CF010 RM 6	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P1
LF88776	PB	Lead	0.004	CF010 RM 6	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P2
LF88777	PB	Lead	0.002	CF010 RM 6	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F01
LF88778	PB	Lead	0.000	CF010 RM 6	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F02
LF88779	PB	Lead	0.009	CF028 RM #21	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P1
LF88780	PB	Lead	0.002	CF028 RM #21	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P2
LF88781	PB	Lead	0.001	CF028 RM #21	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F01
LF88782	PB	Lead	0.001	CF028 RM #21	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F02
LF88783	PB	Lead	0.023	CF024 RM #19	JOE MADZIAR/ANDY NEWMAN	P1
LF88784	PB	Lead	0.003	CF024 RM #19	JOE MADZIAR/ ANDY NEUMAN	P2
LF88785	PB	Lead	0.004	CF024 RM #19	JOE MADZIAR/ ANDY NEUMAN	F01
LF88786	PB	Lead	0.003	CF024 RM #19	JOE MADZIAR/ ANDY NEUMAN	F02
LF88787	PB	Lead	0.005	KC003 COMMUNITY ROOM	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P1
LF88788	PB	Lead	0.002	KC003 COMMUNITY ROOM	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P2
LF88789	PB	Lead	0.000	KC003 COMMUNITY ROOM	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F01
LF88790	PB	Lead	0.000	KC003 COMMUNITY ROOM	TRACY JO DEVEREAUX/ GEORGE KRISZTIAN	F02

LF88791	PB	Lead	0.009	CF023 RM #19	JOE MADZIAR/ ANDY NEUMAN	P1
LF88792	PB	Lead	0.009	CF023 RM #19	JOE MADZIAR/ ANDY NEUMAN	P2
LF88793	PB	Lead	0.001	CF023 RM #19	JOE MADZIAR/ ANDY NEUMAN	F01
LF88794	PB	Lead	0.000	CF023 RM #19	JOE MADZIAR/ ANDY NEUMAN	F02
LF88795	PB	Lead	0.015	DW002 HALLWAY	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P1
LF88796	PB	Lead	0.006	DW002 HALLWAY	TRACY JO DEVEREAUX/ GEORGE KRISZTIAN	P2
LF88797	PB	Lead	0.004	DW002 HALLWAY	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F01
LF88798	PB	Lead	0.001	DW002 HALLWAY	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F02
LF88799	PB	Lead	0.002	CF012 RM #9	JOE MADZIAR/ ANDY NEUMAN	P1
LF88800	PB	Lead	0.004	CF012 RM #9	JOE MADZIAR	P2
LF88801	PB	Lead	0.002	CF012 RM #9	JOE MADZIAR/ ANDY NEUMAN	F01
LF88802	PB	Lead	0.000	CF012 RM #9	JOE MADZIAR/ ANDY NEUMAN	F02
LF88803	PB	Lead	0.040	DW001 HALLWAY	TRACY JO DEVEREAUX/ GEORGE KRISZTIA	P1
LF88804	PB	Lead	0.006	DW001 HALLWAY	TRACY JO DEVEREAUX	P2
LF88805	PB	Lead	0.004	DW001 HALLWAY	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F01
LF88806	PB	Lead	0.001	DW001 HALLWAY	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F02
LF88807	PB	Lead	0.014	CF018 RM#15	JOE MADZIAR	P1
LF88808	PB	Lead	0.005	CF018 RM#15	JOE MADZIAR/ ANDY NEUMAN	P2
LF88809	PB	Lead	0.002	CF018 RM#15	JOE MADZIAR/ ANDY NEUMAN	F01
LF88810	PB	Lead	0.002	CF018 RM#15	JOE MADZIAR/ ANDY NEUMAN	F02
LF88811	PB	Lead	0.010	CF017 RM#15	JOE MADZIAR/ ANDY NEUMAN	P1
LF88812	PB	Lead	0.014	CF017 RM#15	JOE MADZIAR/ ANDY NEUMAN	P2
LF88813	PB	Lead	0.002	CF017 RM#15	JOE MADZIAR/ ANDY NEUMAN	F01
LF88814	PB	Lead	0.002	CF017 RM#15	JOE MADZIAR/ ANDY NEUMAN	F02
LF88815	PB	Lead	0.017	CF029 DHS OFFICE	JOE MADZIAR/ ANDY NEUMAN	P1
LF88816	PB	Lead	0.012	CF029 DHS OFFICE	JOE MADZIAR /ANDY NEUMAN	P2
LF88817	PB	Lead	0.002	CF029 DHS OFFICE	JOE MADZIAR/ ANDY NEUMAN	F01
LF88818	PB	Lead	0.000	CF029 DHF OFFICE	JOE MADZIAR/ ANDY NEUMAN	F02
LF88819	PB	Lead	0.013	CF008 RM#4	JOE MADZIAR/ ANDY NEUMAN	P1
LF88820	PB	Lead	0.006	CF008 RM#4	JOE MADZIAR/ ANDY NEUMAN	P2
LF88821	PB	Lead	0.001	CF008 RM#4	JOE MADZIAR/ ANDY NEUMAN	F01
LF88822	PB	Lead	0.000	CF008 RM#4	JOE MADZIAR/ ANDY NEUMAN	F02
LF88823	PB	Lead	0.007	CF007 RM#3	JOE MADZIAR/ ANDY NEUMAN	P1
LF88824	PB	Lead	0.006	CF007 RM #3	JOE MADZIAR/ ANDY NEUMAN	P2
LF88825	PB	Lead	0.003	CF007 RM#3	JOE MADZIAR/ ANDY NEUMAN	F01
LF88826	PB	Lead	0.002	CF007 RM#3	JOE MADZIAR/ ANDY NEUMAR	F02
LF88827	PB	Lead	0.027	CF014 ROOM #10	MIKE PRYSBY/ LOIS GRAHAM	P1
LF88828	PB	Lead	0.007	CF014- ROOM #10	MIKE PRYSBY / LOIS GRAHAM	P2
LF88829	PB	Lead	0.004	CF014-ROOM #10	MIKE PRYSBY/ LOIS GRAHAM	F01
LF88830	PB	Lead	0.003	CF014-ROOM #10	MIKE PRYSBY/ LOIS GRAHAM	F02
LF88831	PB	Lead	0.036	CF026 ROOM #14	MIKE PRYSBY/ LOIS GRAHAM	P1

LF88832	PB	Lead	0.030	CF026 ROOM #14	MIKE PRYSBY/ LOIS GRAHAM	P2
LF88833	PB	Lead	0.017	CF026 ROOM #14	MIKE PRYSBY/ LOIS GRAHAM	F01
LF88834	PB	Lead	0.004	CF026 ROOM #14	MIKE PRYSBY/ LOIS GRAHAM	F02
LF88835	PB	Lead	0.005	CF019 ROOM #17	MIKE PRYSBY/ LOIS GRAHAM	P1
LF88836	PB	Lead	0.003	CF019 ROOM #17	MIKE PRYSBY/ LOIS GRAHAM	P2
LF88837	PB	Lead	0.001	CF019 ROOM #17	MIKE PRYSBY/ LOIS GRAHAM	F01
LF88838	PB	Lead	0.000	CF019 ROOM #17	MIKE PRYSBY/ LOIS GRAHAM	F02
LF88839	PB	Lead	0.000	CF025 ROOM #14	MIKE PRYSBY/ LOIS GRAHAM	P1
LF88840	PB	Lead	0.003	CF025 ROOM #14	MIKE PRYSBY/ LOIS GRAHAM	P2
LF88841	PB	Lead	0.003	CF025 ROOM #14	MIKE PRYSBY/ LOIS GRAHAM	F01
LF88842	PB	Lead	0.002	CF025 ROOM #14	MIKE PRYSBY/ LOIS GRAHAM	F02
LF88843	PB	Lead	0.009	CF013 ROOM #10	MIKE PRYSBY/ LOIS GRAHAM	P1
LF88844	PB	Lead	0.018	CF013- ROOM #10	MIKE PRYSBY/ LOIS GRAHAM	P2
LF88845	PB	Lead	0.003	CF013 ROOM #10	MIKE PRYSBY/ LOIS GRAHAM	F02
LF88846	PB	Lead	0.003	CF013 ROOM #10	MIKE PRYSBY/ LOIS GRAHAM	F01
LF88847	PB	Lead	0.013	CF020 ROOM #17	MIKE PRYSBY/ LOIS GRAHAM	P1
LF88848	PB	Lead	0.004	CF020 ROOM #17	MIKE PRYSBY / LOIS GRAHAM	P2
LF88849	PB	Lead	0.005	CF020 ROOM #17	MIKE PRYSBY/ LOIS GRAHAM	F01
LF88850	PB	Lead	0.003	CF020 ROOM #17	MIKE PRYSBY/ LOIS GRAHAM	F02
LF88851	PB	Lead	0.016	CF006 ROOM#2	MIKE PRYSBY/ LOIS GRAHAM	P1
LF88852	PB	Lead	0.003	CF006 ROOM #2	MIKE PRYSBY/ LOIS GRAHAM	P2
LF88853	PB	Lead	0.001	CF006 ROOM #2	MIKE PRYSBY/ LOIS GRAHAM	F01
LF88854	PB	Lead	0.001	CF006 ROOM #2	MIKE PRYSBY/ LOIS GRAHAM	F02
LF88855	PB	Lead	0.002	CF011 ROOM #7	MIKE PRYSBY/ LOIS GRAHAM	P1
LF88856	PB	Lead	0.000	CF011 ROOM #7	MIKE PRYSBY/ LOIS GRAHAM	P2
LF88857	PB	Lead	0.002	CF011 ROOM #7	MIKE PRYSBY/ LOIS GRAHAM	F01
LF88858	PB	Lead	0.000	CF011 ROOM #7	MIKE PRYSBY/ LOIS GRAHAM	F02
LF88859	PB	Lead	0.057	CF031 RAINBOW PRE K	MIKE PRYSBY/ LOIS GRAHAM	P1
LF88860	PB	Lead	0.003	CF031 RAINBOW PRE K	MIKE PRYSBY/ LOIS GRAHAM	P2
LF88861	PB	Lead	0.002	CF031 RAINBOW PRE K	MIKE PRYSBY/ LOIS GRAHAM	F01
LF88862	PB	Lead	0.000	CF031 RAINBOW PRE K	MIKE PRYSBY/ LOIS GRAHAM	F02
LF88863	PB	Lead	0.010	CF030 RAINBOW PRE K	MIKE PRYSBY/ LOIS GRAHAM	P1
LF88864	PB	Lead	0.003	CF030 RAINBOW PRE K	MIKE PRYSBY/ LOIS GRAHAM	P2
LF88865	PB	Lead	0.007	CF030 RAINBOW PRE K	MIKE PRYSBY/ LOIS GRAHAM	F01
LF88866	PB	Lead	0.000	CF030 RAINBOW PRE K	MIKE PRYSBY/ LOIS GRAHAM	F02
LF88867	PB	Lead	0.012	CF004 ROOM #1	MIKE PRYSBY/ LOIS GRAHAM	P1
LF88868	PB	Lead	0.007	CF004 ROOM #1	MIKE PRYSBY/ LOIS GRAHAM	P2
LF88869	PB	Lead	0.004	CF004 ROOM #1	MIKE PRYSBY/ LOIS GRAHAM	F01
LF88870	PB	Lead	0.002	CF004 ROOM #1	MIKE PRYSBY/ LOIS GRAHAM	F02
LF88871	PB	Lead	0.005	DW005 ROOM #1	MIKE PRYSBY/ LOIS GRAHAM	P1
LF88872	PB	Lead	0.003	DW005 ROOM #1	MIKE PRYSBY/ LOIS GRAHAM	P2

LE88873	PB	Lead	0.003	DW005 ROOM #1	MIKE PRYSBY/ LOIS GRAHAM	FO1
LE88874	PB	Lead	0.002	DW005 ROOM #1	MIKE PRYSBY/ LOIS GRAHAM	FO2

SAMPNO	ACODE	ANALYTE	RESULT	Sample Description	Sample Collector(s)	Site Code
LF88751	CU	Copper	0.32	CF022 RM 12	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P1
LF88752	CU	Copper	0.17	CF022 RM 12	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P2
LF88753	CU	Copper	0.15	CF022 RM 12	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F01
LF88754	CU	Copper	0.15	CF022 RM 12	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F02
LF88755	CU	Copper	0.09	CF021 RM 12	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P1
LF88756	CU	Copper	0.15	CF021 RM 12	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P2
LF88757	CU	Copper	0.14	CF021 #12	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F01
LF88758	CU	Copper	0.15	CF021 RM 12	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F02
LF88759	CU	Copper	0.31	CF009 RM 5	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P1
LF88760	CU	Copper	0.28	CF009 RM 5	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P2
LF88761	CU	Copper	0.08	CF009 RM 5	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F01
LF88762	CU	Copper	0.07	CF009 RM 5	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F02
LF88763	CU	Copper	0.43	CF015 RM 11	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P1
LF88764	CU	Copper	0.66	CF015 RM 11	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P2
LF88765	CU	Copper	0.19	CF015 RM 11	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F01
LF88766	CU	Copper	0.13	CF015 RM 11	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F02
LF88767	CU	Copper	0.99	CF016 RM 11	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P1
LF88768	CU	Copper	0.89	CF016 RM 11	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P2
LF88769	CU	Copper	0.16	CF016 RM 11	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F01
LF88770	CU	Copper	0.13	CF016 RM 11	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F02
LF88771	CU	Copper	0.19	CF027 RM 21	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P1
LF88772	CU	Copper	0.21	CF027 RM 21	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P2
LF88773	CU	Copper	0.16	CF027 RM 21	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F01
LF88774	CU	Copper	0.15	CF027 RM 21	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F02
LF88775	CU	Copper	0.24	CF010 RM 6	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P1
LF88776	CU	Copper	0.22	CF010 RM 6	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P2
LF88777	CU	Copper	0.17	CF010 RM 6	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F01
LF88778	CU	Copper	0.12	CF010 RM 6	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F02
LF88779	CU	Copper	0.17	CF028 RM #21	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P1
LF88780	CU	Copper	0.16	CF028 RM #21	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P2
LF88781	CU	Copper	0.15	CF028 RM #21	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F01
LF88782	CU	Copper	0.15	CF028 RM #21	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F02
LF88783	CU	Copper	0.23	CF024 RM #19	JOE MADZIAR/ANDY NEWMAN	P1
LF88784	CU	Copper	0.17	CF024 RM #19	JOE MADZIAR/ ANDY NEUMAN	P2
LF88785	CU	Copper	0.16	CF024 RM #19	JOE MADZIAR/ ANDY NEUMAN	F01
LF88786	CU	Copper	0.16	CF024 RM #19	JOE MADZIAR/ ANDY NEUMAN	F02
LF88787	CU	Copper	0.31	KC003 COMMUNITY ROOM	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P1
LF88788	CU	Copper	0.27	KC003 COMMUNITY ROOM	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P2
LF88789	CU	Copper	0.14	KC003 COMMUNITY ROOM	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F01
LF88790	CU	Copper	0.13	KC003 COMMUNITY ROOM	TRACY JO DEVEREAUX/ GEORGE KRISZTIA	F02

LF88791	CU	Copper	0.13	CF023 RM #19	JOE MADZIAR/ ANDY NEUMAN	P1
LF88792	CU	Copper	0.18	CF023 RM #19	JOE MADZIAR/ ANDY NEUMAN	P2
LF88793	CU	Copper	0.15	CF023 RM #19	JOE MADZIAR/ ANDY NEUMAN	F01
LF88794	CU	Copper	0.15	CF023 RM #19	JOE MADZIAR/ ANDY NEUMAN	F02
LF88795	CU	Copper	0.21	DW002 HALLWAY	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	P1
LF88796	CU	Copper	0.10	DW002 HALLWAY	TRACY JO DEVEREAUX/ GEORGE KRISZTIAN	P2
LF88797	CU	Copper	0.07	DW002 HALLWAY	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F01
LF88798	CU	Copper	0.00	DW002 HALLWAY	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F02
LF88799	CU	Copper	0.23	CF012 RM #9	JOE MADZIAR/ ANDY NEUMAN	P1
LF88800	CU	Copper	0.16	CF012 RM #9	JOE MADZIAR	P2
LF88801	CU	Copper	0.11	CF012 RM #9	JOE MADZIAR/ ANDY NEUMAN	F01
LF88802	CU	Copper	0.08	CF012 RM #9	JOE MADZIAR/ ANDY NEUMAN	F02
LF88803	CU	Copper	0.41	DW001 HALLWAY	TRACY JO DEVEREAUX/ GEORGE KRISZTIA	P1
LF88804	CU	Copper	0.29	DW001 HALLWAY	TRACY JO DEVEREAUX	P2
LF88805	CU	Copper	0.17	DW001 HALLWAY	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F01
LF88806	CU	Copper	0.00	DW001 HALLWAY	TRACY JO DEVEREAUX/GEORGE KRISZTIAN	F02
LF88807	CU	Copper	0.20	CF018 RM#15	JOE MADZIAR	P1
LF88808	CU	Copper	0.17	CF018 RM#15	JOE MADZIAR/ ANDY NEUMAN	P2
LF88809	CU	Copper	0.14	CF018 RM#15	JOE MADZIAR/ ANDY NEUMAN	F01
LF88810	CU	Copper	0.14	CF018 RM#15	JOE MADZIAR/ ANDY NEUMAN	F02
LF88811	CU	Copper	0.17	CF017 RM#15	JOE MADZIAR/ ANDY NEUMAN	P1
LF88812	CU	Copper	0.29	CF017 RM#15	JOE MADZIAR/ ANDY NEUMAN	P2
LF88813	CU	Copper	0.17	CF017 RM#15	JOE MADZIAR/ ANDY NEUMAN	F01
LF88814	CU	Copper	0.15	CF017 RM#15	JOE MADZIAR/ ANDY NEUMAN	F02
LF88815	CU	Copper	0.59	CF029 DHS OFFICE	JOE MADZIAR/ ANDY NEUMAN	P1
LF88816	CU	Copper	0.40	CF029 DHS OFFICE	JOE MADZIAR /ANDY NEUMAN	P2
LF88817	CU	Copper	0.08	CF029 DHS OFFICE	JOE MADZIAR/ ANDY NEUMAN	F01
LF88818	CU	Copper	0.00	CF029 DHF OFFICE	JOE MADZIAR/ ANDY NEUMAN	F02
LF88819	CU	Copper	0.28	CF008 RM#4	JOE MADZIAR/ ANDY NEUMAN	P1
LF88820	CU	Copper	0.54	CF008 RM#4	JOE MADZIAR/ ANDY NEUMAN	P2
LF88821	CU	Copper	0.17	CF008 RM#4	JOE MADZIAR/ ANDY NEUMAN	F01
LF88822	CU	Copper	0.15	CF008 RM#4	JOE MADZIAR/ ANDY NEUMAN	F02
LF88823	CU	Copper	0.17	CF007 RM#3	JOE MADZIAR/ ANDY NEUMAN	P1
LF88824	CU	Copper	0.27	CF007 RM #3	JOE MADZIAR/ ANDY NEUMAN	P2
LF88825	CU	Copper	0.09	CF007 RM#3	JOE MADZIAR/ ANDY NEUMAN	F01
LF88826	CU	Copper	0.07	CF007 RM#3	JOE MADZIAR/ ANDY NEUMAR	F02
LF88827	CU	Copper	0.11	CF014 ROOM #10	MIKE PRYSBY/ LOIS GRAHAM	P1
LF88828	CU	Copper	0.10	CF014- ROOM #10	MIKE PRYSBY / LOIS GRAHAM	P2
LF88829	CU	Copper	0.10	CF014-ROOM #10	MIKE PRYSBY/ LOIS GRAHAM	F01
LF88830	CU	Copper	0.08	CF014-ROOM #10	MIKE PRYSBY/ LOIS GRAHAM	F02
LF88831	CU	Copper	0.75	CF026 ROOM #14	MIKE PRYSBY/ LOIS GRAHAM	P1

LF88832	CU	Copper	0.66	CF026 ROOM #14	MIKE PRYSBY/ LOIS GRAHAM	P2
LF88833	CU	Copper	0.35	CF026 ROOM #14	MIKE PRYSBY/ LOIS GRAHAM	F01
LF88834	CU	Copper	0.20	CF026 ROOM #14	MIKE PRYSBY/ LOIS GRAHAM	F02
LF88835	CU	Copper	0.16	CF019 ROOM #17	MIKE PRYSBY/ LOIS GRAHAM	P1
LF88836	CU	Copper	0.15	CF019 ROOM #17	MIKE PRYSBY/ LOIS GRAHAM	P2
LF88837	CU	Copper	0.14	CF019 ROOM #17	MIKE PRYSBY/ LOIS GRAHAM	F01
LF88838	CU	Copper	0.14	CF019 ROOM #17	MIKE PRYSBY/ LOIS GRAHAM	F02
LF88839	CU	Copper	0.14	CF025 ROOM #14	MIKE PRYSBY/ LOIS GRAHAM	P1
LF88840	CU	Copper	0.25	CF025 ROOM #14	MIKE PRYSBY/ LOIS GRAHAM	P2
LF88841	CU	Copper	0.17	CF025 ROOM #14	MIKE PRYSBY/ LOIS GRAHAM	F01
LF88842	CU	Copper	0.18	CF025 ROOM #14	MIKE PRYSBY/ LOIS GRAHAM	F02
LF88843	CU	Copper	0.06	CF013 ROOM #10	MIKE PRYSBY/ LOIS GRAHAM	P1
LF88844	CU	Copper	0.07	CF013- ROOM #10	MIKE PRYSBY/ LOIS GRAHAM	P2
LF88845	CU	Copper	0.10	CF013 ROOM #10	MIKE PRYSBY/ LOIS GRAHAM	F02
LF88846	CU	Copper	0.19	CF013 ROOM #10	MIKE PRYSBY/ LOIS GRAHAM	F01
LF88847	CU	Copper	0.19	CF020 ROOM #17	MIKE PRYSBY/ LOIS GRAHAM	P1
LF88848	CU	Copper	0.16	CF020 ROOM #17	MIKE PRYSBY / LOIS GRAHAM	P2
LF88849	CU	Copper	0.16	CF020 ROOM #17	MIKE PRYSBY/ LOIS GRAHAM	F01
LF88850	CU	Copper	0.14	CF020 ROOM #17	MIKE PRYSBY/ LOIS GRAHAM	F02
LF88851	CU	Copper	0.17	CF006 ROOM#2	MIKE PRYSBY/ LOIS GRAHAM	P1
LF88852	CU	Copper	0.22	CF006 ROOM #2	MIKE PRYSBY/ LOIS GRAHAM	P2
LF88853	CU	Copper	0.11	CF006 ROOM #2	MIKE PRYSBY/ LOIS GRAHAM	F01
LF88854	CU	Copper	0.11	CF006 ROOM #2	MIKE PRYSBY/ LOIS GRAHAM	F02
LF88855	CU	Copper	0.20	CF011 ROOM #7	MIKE PRYSBY/ LOIS GRAHAM	P1
LF88856	CU	Copper	0.15	CF011 ROOM #7	MIKE PRYSBY/ LOIS GRAHAM	P2
LF88857	CU	Copper	0.11	CF011 ROOM #7	MIKE PRYSBY/ LOIS GRAHAM	F01
LF88858	CU	Copper	0.06	CF011 ROOM #7	MIKE PRYSBY/ LOIS GRAHAM	F02
LF88859	CU	Copper	0.38	CF031 RAINBOW PRE K	MIKE PRYSBY/ LOIS GRAHAM	P1
LF88860	CU	Copper	0.21	CF031 RAINBOW PRE K	MIKE PRYSBY/ LOIS GRAHAM	P2
LF88861	CU	Copper	0.27	CF031 RAINBOW PRE K	MIKE PRYSBY/ LOIS GRAHAM	F01
LF88862	CU	Copper	0.19	CF031 RAINBOW PRE K	MIKE PRYSBY/ LOIS GRAHAM	F02
LF88863	CU	Copper	0.38	CF030 RAINBOW PRE K	MIKE PRYSBY/ LOIS GRAHAM	P1
LF88864	CU	Copper	0.42	CF030 RAINBOW PRE K	MIKE PRYSBY/ LOIS GRAHAM	P2
LF88865	CU	Copper	0.59	CF030 RAINBOW PRE K	MIKE PRYSBY/ LOIS GRAHAM	F01
LF88866	CU	Copper	0.21	CF030 RAINBOW PRE K	MIKE PRYSBY/ LOIS GRAHAM	F02
LF88867	CU	Copper	0.27	CF004 ROOM #1	MIKE PRYSBY/ LOIS GRAHAM	P1
LF88868	CU	Copper	0.25	CF004 ROOM #1	MIKE PRYSBY/ LOIS GRAHAM	P2
LF88869	CU	Copper	0.21	CF004 ROOM #1	MIKE PRYSBY/ LOIS GRAHAM	F01
LF88870	CU	Copper	0.08	CF004 ROOM #1	MIKE PRYSBY/ LOIS GRAHAM	F02
LF88871	CU	Copper	0.10	DW005 ROOM #1	MIKE PRYSBY/ LOIS GRAHAM	P1
LF88872	CU	Copper	0.09	DW005 ROOM #1	MIKE PRYSBY/ LOIS GRAHAM	P2

LF88873	CU	Copper	0.09	DW005 ROOM #1	MIKE PRYSBY/ LOIS GRAHAM	F01
LF88874	CU	Copper	0.06	DW005 ROOM #1	MIKE PRYSBY/ LOIS GRAHAM	F02

DW001 - Bubble Valve Brass?

P1-40ppb

Supply Piping underneath may also have some brass parts including valve at wall

DHHS Room

CF029 - ~~Sink~~ Sink Faucet w/

P1-17ppb

P2-12ppb

- delta 400 valve brass components

- mixing valve

- aerator

- connecting plumbing also check

P1-16ppb

CF006

Unknown tap

← (similar to others)

chrome plated brass?

check connection below for brass connections
mipple

P1-27ppb CF014

same as CF006

P1 9ppb CF013

Sink Faucet

P2 18ppb

- delta 500 series? potential brass

- mixing valve

- aerator

- connecting plumbing check &

Sink Faucet

: CF015

- Brass connector ^{tube approx. 8"} between hot & cold

P1 102 ppb

- Aerator

P2 326 ppb

- Check connecting piping

P1 23 ppb CF024 see CF006

CF026 diff. bubbler but same as CF006

P1- 36 ppb

3" Brass nipple into 4-5" Bubbler fitting?

P2 30 ppb

check ~~plumbing~~ plumbing connections below *

P1 17 ppb

CF031

- CF006 comments

- Brass connections in fire & brass nut

- connector hose should be ok.

New Bubbblers are gumby plastic material

Lead	0.007	DW009-DRINKING FOUNTAIN	P2	Second Primary draw of 125 milliliters
Lead	0.003	DW009-DRINKING FOUNTAIN	F01	Flush Sample taken 30 Seconds after Second
Lead	0.002	DW009-DRINKING FOUNTAIN	F02	Flush Sample taken 2 minutes after First Flush
Lead	0.002	CF010-RM 27	P1	First Primary draw of 125 milliliters
Lead	0.002	CF010-RM 27	P2	Second Primary draw of 125 milliliters
Lead	0.002	CF010-RM 27	F01	Flush Sample taken 30 Seconds after Second
Lead	0.000	CF010-RM 27	F02	Flush Sample taken 2 minutes after First Flush
Lead	0.004	CF007-RM 26	P1	First Primary draw of 125 milliliters
Lead	0.004	CF007-RM 26	P2	Second Primary draw of 125 milliliters
Lead	0.015	CF007-RM 26	F01	Flush Sample taken 30 Seconds after Second
Lead	0.001	CF007-RM 26	F02	Flush Sample taken 2 minutes after First Flush
Lead	0.007	CF003-RM 15	P1	First Primary draw of 125 milliliters
Lead	0.011	CF003-RM 15	P2	Second Primary draw of 125 milliliters
Lead	0.001	CF003-RM 15	F01	Flush Sample taken 30 Seconds after Second
Lead	0.000	CF003-RM 15	F02	Flush Sample taken 2 minutes after First Flush
Lead	0.000	CF012	P1	First Primary draw of 125 milliliters
Lead	0.014	CF012	P2	Second Primary draw of 125 milliliters
Lead	0.000	CF012	F01	Flush Sample taken 30 Seconds after Second
Lead	0.000	CF012	F02	Flush Sample taken 2 minutes after First Flush
Lead	0.011	WC011-DRINKING FOUNTAIN	P1	First Primary draw of 125 milliliters
Lead	0.014	WC011-DRINKING FOUNTAIN	P2	Second Primary draw of 125 milliliters
Lead	0.014	WC011-DRINKING FOUNTAIN	F01	Flush Sample taken 30 Seconds after Second
Lead	0.002	WC011-DRINKING FOUNTAIN	F02	Flush Sample taken 2 minutes after First Flush
Lead	0.004	DW008-DRINKING FOUNTAIN	P1	First Primary draw of 125 milliliters
Lead	0.011	DW008-DRINKING FOUNTAIN	P2	Second Primary draw of 125 milliliters
Lead	0.004	DW008-DRINKING FOUNTAIN	F01	Flush Sample taken 30 Seconds after Second
Lead	0.001	DW008-DRINKING FOUNTAIN	F02	Flush Sample taken 2 minutes after First Flush
Lead	0.010	CF004-RM #17	CA1	First Sequential Sample
Lead	0.003	CF004-RM #17	CA2	Second Sequential Sample
Lead	0.003	CF004-RM #17	CA3	Third Sequential Sample
Lead	0.003	CF004-RM #17	CA4	Fourth Sequential Sample
Lead	0.002	CF004-RM #17	CA5	Fifth Sequential Sample
Lead	0.002	CF004-RM #17	CA6	Sixth Sequential Sample
Lead	0.002	CF004-RM #17	CA7	Seventh Sequential Sample
Lead	0.002	CF004-RM #17	CA8	Eighth Sequential Sample
Lead	0.002	CF004-RM #17	CA9	Ninth Sequential Sample
Lead	0.002	CF004-RM #17	CA10	Tenth Sequential Sample
Lead	0.002	CF012 -	CB1	First Sequential Sample
Lead	0.000	CF012	CB2	Second Sequential Sample
Lead	0.000	CF012	CB3	Third Sequential Sample
Lead	0.000	CF012	CB4	Fourth Sequential Sample
Lead	0.000	CF012	CB5	Fifth Sequential Sample
Lead	0.000	CF012	CB6	Sixth Sequential Sample
Lead	0.000	CF012	CB7	Seventh Sequential Sample
Lead	0.000	CF012	CB8	Eighth Sequential Sample
Lead	0.000	CF012	CB9	Ninth Sequential Sample
Lead	0.000	CF012	CB10	Tenth Sequential Sample
Lead	0.002	CF023	CC1	First Sequential Sample
Lead	0.000	CF023	CC2	Second Sequential Sample
Lead	0.000	CF023	CC3	Third Sequential Sample
Lead	0.000	CF023	CC4	Fourth Sequential Sample
Lead	0.000	CF023	CC5	Fifth Sequential Sample
Lead	0.000	CF023	CC6	Sixth Sequential Sample
Lead	0.000	CF023	CC7	Seventh Sequential Sample
Lead	0.000	CF023	CC8	Eighth Sequential Sample
Lead	0.000	CF023	CC9	Ninth Sequential Sample
Lead	0.000	CF023	CC10	Tenth Sequential Sample

Copper	0.09	DW009-DRINKING FOUNTAIN	P2	Second Primary draw of 125 milliliters
Copper	0.00	DW009-DRINKING FOUNTAIN	F01	Flush Sample taken 30 Seconds after Second
Copper	0.00	DW009-DRINKING FOUNTAIN	F02	Flush Sample taken 2 minutes after First Flush
Copper	0.19	CF010-RM 27	P1	First Primary draw of 125 milliliters
Copper	0.16	CF010-RM 27	P2	Second Primary draw of 125 milliliters
Copper	0.00	CF010-RM 27	F01	Flush Sample taken 30 Seconds after Second
Copper	0.00	CF010-RM 27	F02	Flush Sample taken 2 minutes after First Flush
Copper	0.00	CF007-RM 26	P1	First Primary draw of 125 milliliters
Copper	0.00	CF007-RM 26	P2	Second Primary draw of 125 milliliters
Copper	0.78	CF007-RM 26	F01	Flush Sample taken 30 Seconds after Second
Copper	0.06	CF007-RM 26	F02	Flush Sample taken 2 minutes after First Flush
Copper	0.14	CF003-RM 15	P1	First Primary draw of 125 milliliters
Copper	0.11	CF003-RM 15	P2	Second Primary draw of 125 milliliters
Copper	0.09	CF003-RM 15	F01	Flush Sample taken 30 Seconds after Second
Copper	0.00	CF003-RM 15	F02	Flush Sample taken 2 minutes after First Flush
Copper	0.06	CF012	P1	First Primary draw of 125 milliliters
Copper	0.13	CF012	P2	Second Primary draw of 125 milliliters
Copper	0.00	CF012	F01	Flush Sample taken 30 Seconds after Second
Copper	0.00	CF012	F02	Flush Sample taken 2 minutes after First Flush
Copper	0.56	WC011-DRINKING FOUNTAIN	P1	First Primary draw of 125 milliliters
Copper	0.67	WC011-DRINKING FOUNTAIN	P2	Second Primary draw of 125 milliliters
Copper	0.39	WC011-DRINKING FOUNTAIN	F01	Flush Sample taken 30 Seconds after Second
Copper	0.06	WC011-DRINKING FOUNTAIN	F02	Flush Sample taken 2 minutes after First Flush
Copper	0.42	DW008-DRINKING FOUNTAIN	P1	First Primary draw of 125 milliliters
Copper	0.10	DW008-DRINKING FOUNTAIN	P2	Second Primary draw of 125 milliliters
Copper	0.00	DW008-DRINKING FOUNTAIN	F01	Flush Sample taken 30 Seconds after Second
Copper	0.00	DW008-DRINKING FOUNTAIN	F02	Flush Sample taken 2 minutes after First Flush
Copper	0.17	CF004-RM #17	CA1	First Sequential Sample
Copper	0.07	CF004-RM #17	CA2	Second Sequential Sample
Copper	0.18	CF004-RM #17	CA3	Third Sequential Sample
Copper	0.19	CF004-RM #17	CA4	Fourth Sequential Sample
Copper	0.20	CF004-RM #17	CA5	Fifth Sequential Sample
Copper	0.19	CF004-RM #17	CA6	Sixth Sequential Sample
Copper	0.19	CF004-RM #17	CA7	Seventh Sequential Sample
Copper	0.19	CF004-RM #17	CA8	Eighth Sequential Sample
Copper	0.18	CF004-RM #17	CA9	Ninth Sequential Sample
Copper	0.17	CF004-RM #17	CA10	Tenth Sequential Sample
Copper	0.00	CF012 -	CB1	First Sequential Sample
Copper	0.00	CF012	CB2	Second Sequential Sample
Copper	0.00	CF012	CB3	Third Sequential Sample
Copper	0.00	CF012	CB4	Fourth Sequential Sample
Copper	0.00	CF012	CB5	Fifth Sequential Sample
Copper	0.00	CF012	CB6	Sixth Sequential Sample
Copper	0.00	CF012	CB7	Seventh Sequential Sample
Copper	0.00	CF012	CB8	Eighth Sequential Sample
Copper	0.00	CF012	CB9	Ninth Sequential Sample
Copper	0.00	CF012	CB10	Tenth Sequential Sample
Copper	0.00	CF023	CC1	First Sequential Sample
Copper	0.00	CF023	CC2	Second Sequential Sample
Copper	0.00	CF023	CC3	Third Sequential Sample
Copper	0.00	CF023	CC4	Fourth Sequential Sample
Copper	0.00	CF023	CC5	Fifth Sequential Sample
Copper	0.00	CF023	CC6	Sixth Sequential Sample
Copper	0.00	CF023	CC7	Seventh Sequential Sample
Copper	0.00	CF023	CC8	Eighth Sequential Sample
Copper	0.00	CF023	CC9	Ninth Sequential Sample
Copper	0.00	CF023	CC10	Tenth Sequential Sample

Brownell

Draft

SAMPLE NUMBER	ANALYTE	RESULT	Sample Description	SampleCollector	Site Code
LF89583	Lead	0.027	DW013-DRINKING FOUNTAIN	TJD / GLK	P1
LF89584	Lead	0.015	DW013-DRINKING FOUNTAIN	TJD / GLK	P2
LF89585	Lead	0.008	DW013-DRINKING FOUNTAIN	TJD / GLK	F01
LF89586	Lead	0.002	DW013-DRINKING FOUNTAIN	TJD / GLK	F02
LF89587	Lead	0.038	DW021-DRINKING FOUNTAIN	TJD / GLK	P1
LF89588	Lead	0.027	DW021-DRINKING FOUNTAIN	TJD / GLK	P2
LF89589	Lead	0.002	DW021-DRINKING FOUNTAIN	TJD / GLK	F01
LF89590	Lead	0.002	DW021-DRINKING FOUNTAIN	TJD / GLK	D02
LF89591	Lead	0.008	CF023-RM #7	TJD / GLK	P1
LF89592	Lead	0.012	CF023-RM #7	TJD / GLK	P2
LF89593	Lead	0.000	CF023-RM #7	TJD / GLK	F01
LF89594	Lead	0.000	CF023-RM #7	TJD / GLK	F02
LF89595	Lead	0.016	DW014-DRINKING FOUNTAIN	TJD / GLK	P1
LF89596	Lead	0.003	DW014-DRINKING FOUNTAIN	TJD / GLK	P2
LF89597	Lead	0.002	DW014-DRINKING FOUNTAIN	TJD / GLK	F01
LF89598	Lead	0.001	DW014-DRINKING FOUNTAIN	TJD / GLK	F02
LF89599	Lead	0.016	KC019-RM #4	TJD / GLK	P1
LF89600	Lead	0.010	KC019-RM #4	TJD / GLK	P2
LF89601	Lead	0.000	KC019-RM #4	TJD / GLK	F01
LF89602	Lead	0.000	KC019-RM #4	TJD / GLK	F02
LF89603	Lead	0.033	DW020-DRINKING FOUNTAIN	TJD / GLK	P1
LF89604	Lead	0.015	DW020-DRINKING FOUNTAIN	TJD / GLK	P2
LF89605	Lead	0.020	DW020-DRINKING FOUNTAIN	TJD / GLK	F01
LF89606	Lead	0.002	DW020-DRINKING FOUNTAIN	TJD / GLK	F02
LF89607	Lead	0.012	DW002-DRINKING FOUNTAIN	TJD / GLK	P1
LF89608	Lead	0.007	DW002-DRINKING FOUNTAIN	TJD / GLK	P2
LF89609	Lead	0.004	DW002-DRINKING FOUNTAIN	TJD / GLK	F01
LF89610	Lead	0.001	DW002-DRINKING FOUNTAIN	TJD / GLK	F02
LF89611	Lead	0.011	CF022-RM #6	TJD / GLK	P1
LF89612	Lead	0.006	CF022-RM #6	TJD / GLK	P2
LF89613	Lead	0.002	CF022-RM #6	TJD / GLK	F01
LF89614	Lead	0.000	CF022-RM #6	TJD / GLK	F02
LF89615	Lead	0.009	CF006-RM 26	TJD / GLK	P1
LF89616	Lead	0.010	CF006-RM 26	TJD / GLK	P2
LF89617	Lead	0.004	CF006-RM 26	TJD / GLK	F01
LF89618	Lead	0.000	CF006-RM 26	TJD / GLK	F02
LF89619	Lead	0.056	CF004 RM 17	TJD / GLK	P1
LF89620	Lead	0.029	CF004-RM 17	TJD / GLK	P2
LF89621	Lead	0.007	CF004-RM 17	TJD / GLK	F01
LF89622	Lead	0.003	CF004-RM 17	TJD / GLK	F02

LF89623	Lead	0.011	KC016-RM-#1	TJD / GLK	P1
LF89624	Lead	0.003	KC016-RM-#1	TJD / GLK	P2
LF89625	Lead	0.002	KC016-RM-#1	TJD / GLK	F01
LF89626	Lead	0.000	KC016-RM-#1	TJD / GLK	F02
LF89627	Lead	0.013	KC017-RM #2	TJD / GLK	P1
LF89628	Lead	0.008	KC017-RM #2	TJD / GLK	P2
LF89629	Lead	0.001	KC017-RM #2	TJD / GLK	F01
LF89630	Lead	0.000	KC017-RM #2	TJD / GLK	F02
LF89631	Lead	0.010	CF018-RM #4	TJD / GLK	P1
LF89632	Lead	0.007	CF018-RM #4	TJD / GLK	P2
LF89633	Lead	0.000	CF018-RM #4	TJD / GLK	F01
LF89634	Lead	0.000	CF018-RM #4	TJD / GLK	F02
LF89635	Lead	0.007	KC015-RM #1	TJD / GLK	P1
LF89636	Lead	0.002	KC015-RM #1	TJD / GLK	P2
LF89637	Lead	0.002	KC015-RM #1	TJD / GLK	F01
LF89638	Lead	0.002	KC015-RM #1	TJD / GLK	F02
LF89639	Lead	0.031	CF005-RM 17	TJD / GLK	P1
LF89640	Lead	0.006	CF005-RM 17	TJD / GLK	P2
LF89641	Lead	0.002	CF005-RM 17	TJD / GLK	F01
LF89642	Lead	0.001	CF005-RM 17	TJD / GLK	F02
LF89643	Lead	0.064	DW001-DRINKING FOUNTAIN	TJD / GLK	P1
LF89644	Lead	0.004	DW001-DRINKING FOUNTAIN	TJD / GLK	P2
LF89645	Lead	0.002	DW001-DRINKING FOUNTAIN	TJD / GLK	F01
LF89646	Lead	0.000	DW001-DRINKING FOUNTAIN	TJD / GLK	F02
LF89647	Lead	0.023	DW009-DRINKING FOUNTAIN	TJD / GLK	P1
LF89648	Lead	0.007	DW009-DRINKING FOUNTAIN	TJD / GLK	P2
LF89649	Lead	0.003	DW009-DRINKING FOUNTAIN	TJD / GLK	F01
LF89650	Lead	0.002	DW009-DRINKING FOUNTAIN	TJD / GLK	F02
LF89651	Lead	0.025	CF010-RM 27	TJD / GLK	P1
LF89652	Lead	0.034	CF010-RM 27	TJD / GLK	P2
LF89653	Lead	0.002	CF010-RM 27	TJD / GLK	F01
LF89654	Lead	0.000	CF010-RM 27	TJD / GLK	F02
LF89655	Lead	0.164	CF007-RM 26	TJD / GLK	P1
LF89656	Lead	0.166	CF007-RM 26	TJD / GLK	P2
LF89657	Lead	0.015	CF007-RM 26	TJD / GLK	F01
LF89658	Lead	0.001	CF007-RM 26	TJD / GLK	F02
LF89659	Lead	0.007	CF003-RM 15	TJD / GLK	P1
LF89660	Lead	0.011	CF003 RM 15	TJD / GLK	P2
LF89661	Lead	0.001	CF003-RM 15	TJD / GLK	F01
LF89662	Lead	0.000	CF003-RM 15	TJD / GLK	F02
LF89663	Lead	0.000	CF012	TJD / GLK	P1

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Check w/George

LF89664	Lead	0.014	CF012	TJD / GLK	P2
LF89665	Lead	0.000	CF012	TJD / GLK	F01
LF89666	Lead	0.000	CF012	TJD / GLK	F02
LF89667	Lead	0.011	WC011-DRINKING FOUNTAIN	TJD / GLK	P1
LF89668	Lead	0.014	WC011-DRINKING FOUNTAIN	TJD / GLK	P2
LF89669	Lead	0.014	WC011-DRINKING FOUNTAIN	TJD / GLK	F01
LF89670	Lead	0.002	WC011-DRINKING FOUNTAIN	TJD / GLK	F02
LF89671	Lead	0.046	DW008-DRINKING FOUNTAIN	TJD / GLK	P1
LF89672	Lead	0.011	DW008-DRINKING FOUNTAIN	TJD / GLK	P2
LF89673	Lead	0.004	DW008-DRINKING FOUNTAIN	TJD / GLK	F01
LF89674	Lead	0.001	DW008-DRINKING FOUNTAIN	TJD / GLK	F02
LF89694	Lead	0.010	CF004 - RM #17	TJD/GLK	CA1
LF89677	Lead	0.002	CF004 - RM #17	TJD/GLK	CA10
LF89702	Lead	0.003	CF004 - RM #17	TJD/GLK	CA2
LF89700	Lead	0.003	CF004 - RM #17	TJD/GLK	CA3
LF89691	Lead	0.003	CF004 - RM #17	TJD/GLK	CA4
LF89680	Lead	0.002	CF004 - RM #17	TJD/GLK	CA5
LF89693	Lead	0.002	CF004 - RM #17	TJD/GLK	CA6
LF89687	Lead	0.002	CF004 - RM #17	TJD/GLK	CA7
LF89688	Lead	0.002	CF004 - RM #17	TJD/GLK	CA8
LF89699	Lead	0.002	CF004 - RM #17	TJD/GLK	CA9
LF89695	Lead	0.002	CF012 -	TJD/GLK	CB1
LF89678	Lead	0.000	CF012	TJD/GLK	CB10
LF89689	Lead	0.000	CF012	TJD/GLK	CB2
LF89683	Lead	0.000	CF012	TJD/GLK	CB3
LF89676	Lead	0.000	CF012	TJD/GLK	CB4
LF89686	Lead	0.000	CF012	TJD/GLK	CB5
LF89696	Lead	0.000	CF012	TJD/GLK	CB6
LF89692	Lead	0.000	CF012	TJD/GLK	CB7
LF89681	Lead	0.000	CF012	TJD/GLK	CB8
LF89679	Lead	0.000	CF012	TJD/GLK	CB9
LF89697	Lead	0.002	CF023	TJD/GLK	CC1
LF89685	Lead	0.000	CF023	TJD/GLK	CC10
LF89701	Lead	0.000	CF023	TJD/GLK	CC2
LF89682	Lead	0.000	CF023	TJD/GLK	CC3
LF89690	Lead	0.000	CF023	TJD/GLK	CC4
LF89675	Lead	0.000	CF023	TJD/GLK	CC5
LF89698	Lead	0.000	CF023	TJD/GLK	CC6
LF89704	Lead	0.000	CF023	TJD/GLK	CC7
LF89684	Lead	0.000	CF023	TJD/GLK	CC8
LF89703	Lead	0.000	CF023	TJD/GLK	CC9

BROWNELL STEM Academy Sample Sequence

1.	DW001	(Next to Invitor closest North Hallway)	Butter Bubble
2.	DW002	Next to Storage Room North Hallway	Butter Bubble
3.	GF003	RM 15	Short Green Body Fruit H/C
4.	GF004	RM 17	Lab Sink
5.	GF005	RM 17	Lab Normal Sink
6.	GF006	RM 26	Tall Green Body Fruit H/C
7.	GF007	RM 26	Tall Green Body (DHF) Fruit H/C
8.	DW008	Hallway Access From RM #26	Butter Bubble
9.	DW009	Hallway Access From RM #26	Side Yellow Bubble
10.	GF010	Lounge RM 27	Green Body H/C
11.	WC 011	(Hallway by Gym)	Oasis Water cooler
12.	GF012	Community Room	Central Green Fruit
13.	DW013	Closest to RM 1	Butter Bubble
14.	DW014	Closest to RM 2	Butter Bubble
15.	KC015	RM #1	DeHa 100
16.	KC016	RM #1	DeHa 100
17.	KC017	RM #2	Moon
18.	GF018	RM #4	Post Room
19.	KC019	RM #4	Green Body H/C
20.	DW020	Next to RM 7	Butter Bubble
21.	DW021	Next to RM 6	Butter Bubble
22.	GF022	RM #6	Tall Green Body Fruit H/C
23.	GF023	RM #7	Tall Green Body Fruit H/C

CF007
 Brass Body Chrom Plated Tall H/C
 New Workage?
 - Brass Valve
 - Brass connecting
 - 50/50 lead sold in community Pharmacy

CF003 Rm 17
~~Lab Sink Faucet~~ Lab Nozzle Faucet
 cold only (Nopie)

CF004 Rm 17
 Lab Sink Faucet Brass?
 Under Sink not accessible
 cold only

JL0001
~~bottom~~ Chrom Plated Brass
 Brass Nipple Brass Fittings
 Brass Valve

Brass
 Rm #17
 Lead End
 w/ little use
 capped 50/50 lead sold

DW 028

Bubble-Button Brass-w/ Chrome Plate

SS hose connection OK

Brass valve Shutoff

DW 029 Brass side valve Bubble

Brass valves on side

+ shutoff

Brass Fittings

CF 010

Brass Body Faucet H/C

No Aerator

Brass connection Fittings + Brass Valves

DW 013

~~Brass~~ Button

Brass Nipple

+ Valve

Brass connection

SS tubing OK

DW 014

Button

Brass Nipple

+ Valve

SS tubing OK
Brass connection

DW 021 Button

Brass Nipple Brass Valve

Brass connection

RC 019 Brass Body Tall H/C Faucet
Do the work - check completely. Ready