STATE OF MICHIGAN
EXECUTIVE OFFICE
LANSING

RICK SNYDER
GOVERNOR

BRIAN CALLEY
LT. GOVERNOR

In the spirit of transparency and accountability, I am releasing my emails related to Flint from 2014 and 2015.

The Flint water crisis is an extraordinary circumstance and therefore I'm taking this unprecedented step of releasing my emails to ensure that the people of Michigan know the truth.

I am committed to solving this crisis and look forward to working with all Michiganders to help the residents of Flint.

Date: 1/20/16

Richard D. Snyder
Governor

Maintenance of Privilege

- One document, an email from January 3, 2014, has been produced in a redacted format because it contains privileged attorney-client communications about the matter of *Welch v Brown*, Case No. 13-1476 (6th Circuit, 2014), a matter not related to the Flint water situation.

- The release of these documents is not a waiver by the Governor or the Executive Office of the attorney-client privilege, the executive privilege, the deliberative process privilege, or any other legal privilege.

- These documents do not, are not intended to, and cannot be relied upon to, create any right or benefit, substantive or procedural, enforceable by any external party.

Date: 1/20/16

James Redford
Legal Counsel to Governor Snyder

Snyder, Rick (GOV)

From: Gadola, Michael (GOV)
Sent: Friday, January 03, 2014 2:21 PM
To: Snyder, Rick (GOV); Muchmore, Dennis (GOV); Roberts, John (GOV); Wurfel, Sara (GOV)
Cc: Scott, Allison (GOV)
Subject: FW: 13-1476 John Welch, et al v. Michael Brown, et al "signed opinion filed" (2:12-cv-13808)
Attachments: 201401030930.pdf; Welch Amicus Brief.pdf

Importance: High

[redacted]

[redacted]

Snyder, Rick (GOV)

From: Hollins, Harvey (GOV)
Sent: Wednesday, January 15, 2014 5:11 PM
To: Snyder, Rick (GOV); Muchmore, Dennis (GOV); Baird, Richard (GOV); Wurfel, Sara (GOV); Agen, Jarrod (GOV); Mcbride, Bill (GOV); Larkin, Brian (GOV)
Subject: FYI: Flint SC2

FYI

OBAMA ADMINISTRATION TO ANNOUNCE SEVEN ADDITIONAL CITIES PARTICIPATING IN THE STRONG CITIES, STRONG COMMUNITIES INITIATIVE
WASHINGTON – Tomorrow at 10:30 a.m. (EDT).

U.S. Department of Housing and Urban Development (HUD) Secretary Shaun Donovan and White House Domestic Policy Council (DPC) Director Cecilia Muñoz will host a media call to announce the expansion of the Strong Cities, Strong Communities Initiative (SC2) to seven new cities on 1-16-14. As part of the Obama Administration's commitment to help cities recover from the economic recession, the seven new locations will receive technical advice and expertise from federal inter-agency teams. Beginning in January 2014, SC2 teams will engage in the following locations: St. Louis, MO; Gary, IN; Flint, MI; Brownsville, TX; Rockford, IL; Macon, GA; and Rocky Mount, NC.

The primary goal of the SC2 Teams is to help these cities more effectively invest existing resources, provide advice and expertise in support of local priorities, better align federal programs and investments, and facilitate new partnerships and peer learning opportunities.

Best,
Harvey

Snyder, Rick (GOV)

From:	Hollins, Harvey (GOV)
Sent:	Friday, January 24, 2014 5:33 PM
To:	Snyder, Rick (GOV)
Cc:	Muchmore, Dennis (GOV); Etue, Kriste (MSP); Roberts, John (GOV); Clement, Elizabeth (GOV)
Subject:	RE: Followup to Flint Meeting on Public Safety
Attachments:	Flint Request Ltr 012414.pdf

I am having email, not sure if these are going through, but the last one was sent without the attachment, please note the attachment in this communication.

From: Hollins, Harvey (GOV)
Sent: Friday, January 24, 2014 5:29 PM
To: Snyder, Rick (GOV) ([redacted]
Cc: Muchmore, Dennis (GOV); Etue, Kriste (MSP); Roberts, John (GOV); Clement, Elizabeth (GOV)
Subject: Followup to Flint Meeting on Public Safety

Governor,
During the discussion on public safety in Flint on December 16, 2013, you asked the group to come together and present you with an ask that would enhance Flint's initiatives on public safety. Attached is a letter in response to your request.

Best,
Harvey

From: Hollins, Harvey (GOV)
Sent: Friday, January 24, 2014 5:33 PM
To: Snyder, Rick (GOV) <[redacted]
Cc: Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Etue, Kriste (MSP) <EtueK@michigan.gov>; Roberts, John (GOV) <robertsj9@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>
Subject: RE: Followup to Flint Meeting on Public Safety

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Best,
Harvey

CITY OF FLINT

OFFICE OF THE EMERGENCY MANAGER

Darnell Earley, ICMA-CM, MPA
Emergency Manager

January 24, 2014

Mr. Harvey Hollins
Office of the Governor

Mr. Hollins:

You asked that the City of Flint respond to the Governor's offer to the City of Flint and Genesee County to make an "ask" on behalf of public safety initiatives. These were to be strategies/ initiatives which were unfunded and which could penetrate the public consciousness.

We are presenting for the Governor's consideration three strategies/initiatives which fit these criteria:

1) Operation Fresh Start Regional Operation
   This is Community Benefit/Trust Building Initiative
   Request: $250,000/yr
2) Area Crime Team – A.C.T.
   This is a Crime Reduction Strategy
   Request: $1.02 million/yr
3) Lifeline Regional Crime Intervention Strategy
   This is Crime Prevention Strategy
   Request: $877,000/yr

Together, these three proposals would cost $2,147,000 per year.

In order for each of these activities to have lasting impact it will be necessary to receive funding to allow three continuous years of operation.

This priority order is the view of the City of Flint and we understand that these strategies/initiatives need to be reviewed and supported by the community members who participated in the Governor's Public Safety visit in December 2013.

We appreciate the Governor's continued support as we work to improve public safety conditions in the City of Flint and Genesee County.

Sincerely,

Darnell Earley, ICMA-CM, MPA
Emergency Manager

James Tolbert
Chief of Police

Attachments: Project details (3)

Operation Fresh Start Regional Operation

Introduction;

Flint Lifelines and the City of Flint Police Department would like to propose Operation Fresh Start. This is a collaborative initiative with the purpose of assisting City of Flint residents, and the surrounding suburbs who through various reasons, have found themselves in an untenable situation where they are included in the population of individuals who have active arrest warrants.

There are approximately 40,000 warrants countywide and 23,000 in the City of the Flint; the majority of warrants are misdemeanor warrants, victimless crimes, or civil infractions.

The failure to address these violations has resulted in warrants being issued and driver responsibility fines being levied. These warrants affect an individual's ability to become employed and their ability to seek employment and to provide financially for their families. Given these pressures, there is a high probability that criminal conduct can occur.

Purpose of Operation Fresh Start;

Operation Fresh Start is a means to address and eliminate these barriers and provide a starting point for individuals to improve their ability to become better citizens.

Operation Fresh Start will include the following agencies as stakeholders:

1. Flint Lifelines
2. Flint Police Department
3. 68th District Court/ 67th District Court
4. Secretary of State
5. City Prosecutor's office
6. County Prosecutor's office
7. Ecumenical community
8. Business community
9. Health Coalition
10. Dept. of Health and Human Services
11. Mental Health services
12. Educational
13. Genesee County Landbank
14. Genesee County Sheriff Department

Operation Fresh Start Implementation;

Operation Fresh start will focus on individuals with misdemeanor warrants punishable by less than 90 days & less than a $500.00 fine.

The operation will be based on targeting one (1) zip code at a time in the City of Flint/County of Genesee, on a specified day, and partnering with a faith based institution as a base of operation within the specified zip code. This scenario will repeat itself until each zip code has hosted the operation.

Persons within the zip code will come to the location and interact with the appropriate City, County or State representatives to recall warrants, adjudicate civil infractions, and settle fines and fees and apply for or receive a valid state license. Additionally, community service organizations will be present to offer assistance if services are needed.

The synergy of Lifelines and Operation Fresh Start will compliment each other and allow for sustainable solutions to the community of Flint and the county of Genesee.

Personnel and Cost: (projected 8 hour day)

Position	
(1) Flint PD Sergeant (site supv)	
(4) Flint PD Officer (site security)	
(2) Genesee County D/Sheriff (site security)	
(2) Genesee County D/Sheriff (Work force) (will deploy 20 hours per week for 52 weeks*)	
(2) Michigan State Troopers	
Lifeline (Media, Flyers etc...)	
I.T. (Equipment & services)	
67th District Court cost (Judges, admin staff etc...)	
68th District Court cost (Judges, admin staff etc...)	
Michigan Department of Secretary of State	
-Mobile Office	
-Staff	
Estimated Total	**$250,000.00**

Challenges to overcome prior to implementation:

1. 67th District court entanglements (Ward Chapman)
2. GCACP input (Chief Tolbert)
3. Video Conferencing from site to court (Chief Tolbert)
4. Hours of operation (when can the judges do this?) (67th/68th District Court Judges)
5. Will any other jurisdiction want their judges to hear their cases

* Depending on number of individuals electing to conduct community service in lieu of payment of fines.

The City of Flint Police Department
Crime Reduction Strategy
Area Crime Team / A. C. T.

The City of Flint Police Department is actively pursuing all relevant strategies in an effort to truly address crime and criminal behavior at their root cause and locations. Gone are the days of reactionary policing, we must be proactive in our approach. Identifying criminal trends through analysis and addressing them head on is our focus under this initiative.

The leadership of the City of Flint realizes that a complete law enforcement response relies upon a combination of a true data driven approach and boots on the ground efforts. This type of response shall allow for the realization of a true and sustainable reduction in all crimes within the City of Flint. This reduction in crime shall allow for the recapturing of neighborhoods by our concerned residents, the strengthening of community police partnerships and raised awareness and unity towards the common goal of safer neighborhoods through lasting crime reduction.

The City of Flint is proposing to assemble and utilize an Area Crime Team (A.C.T.). This highly trained and specialized unit shall deploy resources into very specific locations to address specific high crime targets. This can be exclusive to a singular target such as a known homicide suspect or a specific target of general crimes and trends such as gang behavior or other part one crimes elevated in data identified specific areas.

This initiative shall hire additional police resources to accomplish this targeted offensive in a collaborative effort. While the City of Flint shall be the lead agency and coordinator of this program, we shall form partnerships under this initiative with the Michigan State Police, the Genesee County Sheriff's Department, the Michigan Department of Corrections and the Genesee County Prosecutor's office. Each agency shall play a vital role towards our goal of true crime reduction. Through the hiring of additional resources for each agency, we also shall receive the ancillary benefit of each agency and all of their existing resources when applicable. Leveraging these agencies shall also allow for follow up within the entire Genesee County area when necessary through investigation and leads.

We propose to hire one Flint Police Sergeant and three Flint Police Officers, two Michigan State Police Troopers, one Genesee County Sheriff Deputy, one MDOC employee and one Genesee County Deputy Prosecutor. This program will be operational for a three year period.

We envision that this team of officers shall become a spearhead to address major offenders and trends with significant results. They shall work as a team and gain influence with the community through their transparency and ability to work closely with community partners. This team shall have laser focus and target extremely specific crimes and locations based on Flint Police gathered crime data as analyzed by the Michigan State Police. Once a crime or area has been identified, this unit shall saturate the determined area with a goal of total

disruption to the offending behavior. The officers shall perform the initial response, investigations and arrest of the perpetrators with the assistance of the MDOC resource. The prosecuting attorney shall have oversight of all cases involving this unit to ensure vertical prosecution. Additionally, a victim's assistance program will facilitate victim services for individuals victimized by crime in the targeted area. (Dependent on grant award)

The cost of this effort shall be primarily wage and fringe of these mission dedicated officers and staff. Their very existence shall be grant funded, and by design they will be deployed exclusively towards the goal of this program.

We request the following items to be funded for this program:

Position	**Wage and Fringe**	**1 Year Cost**	**3 Year Total**
One (1) Flint Police Sergeant:	$109,271.27 x 1 x 3yrs	$109,271.27	$327,813.81
Three (3) Flint Police Officers:	$100,979.82 x 3 x 3yrs	$302,939.46	$908,818.38
One (1) Genesee County Deputy:	$100,000.00 x 1 x 3yrs	$100,000.00	$300,000.00
Two (2) Michigan State Troopers: (Wage Only - Fringe not Included)	$64,435.00 x 2 x 3yrs	$128,870.00	$386,610.00
One (1) MDOC agent:	$106,303 x 1 x 3yrs	$106,303.00	$318,909.00
One (1) Genesee County Prosecutor:	$162,000.00 x 1 x 3yrs	$162,000.00	$486,000.00
One (1) crime analyst:	$45,000.00 x 1 x 3yrs	$45,000.00	$135,000.00
	Sub-Total	$954,383.73	$2,863,151.19
	Anticipated Grant Match		
Victim Assistance Program	$60,000 x 3yrs	$60,000.00	$180,000.00
	Total Cost	$1,014,383.73	$3,043,151.19

Lifeline Regional Crime Intervention Strategy

The City Flint is in a very advantageous position to enhance our community engagement program named Lifeline, this program is similar to the Cease Fire youth violence reduction program model.

This program model contains almost all of the elements of the Cease Fire model, and the community-based research, networking and consensus-building process this program model has proved successful in cities across the United States and in California (e.g., Stockton, with implementation also underway in Oakland and San Francisco) and consists of five (5) basic elements:

1. **Crime data collection and analysis related to gun violence, including the geographic location of violent incidents, demographic information on individuals involved in gun violence, and patterns of gang violence.** The Flint Police Department and has this data, but needs additional resources to analyze and present it in formats useful to staff and the community.

2. **Organization of a working group to design and implement the local strategy.** Flint has already started doing this, and must expand its current efforts to include employment training and placement providers, community and faith leaders and the Genesee County Sheriff's Department (we already have the other listed parties actively engaged in the process).

3. **Direct communication with gang members and youth most likely to commit gun violence.** This element features community outreach and community meeting to communicate directly to those most involved in youth violence. Meeting attendees are given a two-part message: a) gun violence must stop immediately or criminal justice agencies will intervene quickly and forcefully against those responsible; and b) the working group is there to support the gang members and youth with intensive services and employment. This phase will come once the program is implemented.

4. **Employment opportunities.** Meaningful employment opportunities are provided to gang members and youth participating in the program, with counseling, training and educational resources and programs used to prepare the youth for successful employment. Experience across the country shows that the universe of youth requiring these services is expanding rapidly.

5. **Build a strategic law enforcement partnership.** An effective strategic partnership with local law enforcement, county law enforcement and county probation is essential for long-term success. Law enforcement is encouraged to target resources to the small group of youth who "drive" youth violence, providing not only gang suppression, but also providing an incentive for youth to participate in gang diversion programs.

Ancillary coordinating issues:

Collaboration with other local agencies when needed: such as school districts, existing county juvenile justice coordinating committees, law enforcement agencies (city police, county sheriff, county probation, and district attorney), and community based organizations.

Collaboration with a research Major University, as a Research Partner to collect and analyze metrics.

Form a Coordinating and Advisory Council with members from all of the local agencies noted above, whose primary functions will include prioritizing the use funds.

Personnel/Budget:

Position	Wage and Fringe	1 Year Cost	Total
One (1) Flint Police Sergeant:	$109,271.27 x 1 x 3yrs	$109,271.27	$327,813.81
Two (2) Flint Police Officers: (Violence Prevention Ofcs)	$100,979.82 x 2 x 3yrs	$201,959.64	$605,878.92
One (1) Genesee County Deputy:	$100,000.00 x 1 x 3yrs	$100,000.00	$300,000.00
Two (2) Michigan State Troopers: (Wages Only - Fringes not included)	$64,435.00 x 2 x 3yrs	$128,870.00	$386,610.00
One (1) MDOC agent:	$106,303 x 1 x 3yrs	$106,303.00	$318,909.00
One (1) Genesee County Prosecutor:	$162,000.00 x 1 x 3	$162,000.00	$486,000.00
One (1) Crime Analyst:	$45,000.00 x 1 x 3yrs	$45,000.00	$135,000.00
	Total Wages and Fringes	$853,403.91	$2,560,211.73
Additional Cost:			
Administrative Supplied	Detail list available x 3 yrs	$3,333.33	$10,000.00
IT	Hardware and Software	$2,733.33	$8,200.00
Wireless Communication	Cellular Phones x 3 yrs	$2,019.67	$6,059.00
Operational equipment	Surv / Equip (one time cost)	$15,000.00	$45,000.00
	Total Additional Cost	$23,086.33	$69,259.00
	Total Cost	$876,490.24	$2,629,470.73

Snyder, Rick (GOV)

From: Hollins, Harvey (GOV)
Sent: Friday, April 25, 2014 4:27 PM
To: Snyder, Rick (GOV); Muchmore, Dennis (GOV)
Subject: Fw: PRESS RELEASE: Flint Officially Begins Using River
Attachments: Flint.River.Transition.4.25.14.pdf

Best,
Harvey Hollins

-----Original message-----

From: Jason Lorenz <jlorenz@cityofflint.com>
Sent: Fri, Apr 25, 2014 20:23:43 GMT+00:00
Subject: PRESS RELEASE: Flint Officially Begins Using River

For Immediate Release

City of Flint Officially Begins Using Flint River

as Temporary Primary Water Source

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

The Flint River was once the primary source of water for city residents up to the 1960s. Over the past 40 years, it has provided water to city residents as a back-up to water provided to us by Detroit. During

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

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

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

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

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

–END–

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

Darnell Earley
ICMA-CM, MPA
Emergency Manager

Dayne Walling
Mayor

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

For Immediate Release

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–CONTINUE–

Darnell Earley
ICMA-CM, MPA
Emergency Manager

Dayne Walling
Mayor

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–CONTINUE–

Darnell Earley
ICMA-CM, MPA
Emergency Manager

Dayne Walling
Mayor

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–END–

From: Scott, Allison (GOV)
Sent: Friday, January 23, 2015 1:41 PM
To: Snyder, Rick (GOV) [redacted]
Subject: FW: jim ananich

Follow up on the flint water from dick p

From: Posthumus, Dick (GOV)
Sent: Thursday, January 22, 2015 12:29 PM
To: Scott, Allison (GOV); Muchmore, Dennis (GOV); Clement, Elizabeth (GOV)
Subject: RE: jim ananich.

We have two meetings coming up on this next week Wed. The first is an internal meeting with Dennis, Beth, Tom Saxton, John Walsh, Harvey Hollins and myself. Later that day we are meeting with several people from Flint including the EM, Mayor, and Senator Ananich.
Dick

From: Scott, Allison (GOV)
Sent: Thursday, January 22, 2015 12:00 PM
To: Muchmore, Dennis (GOV); Clement, Elizabeth (GOV)
Cc: Posthumus, Dick (GOV)
Subject: jim ananich

Brought up the flint water topic – any update for Gov on this subject? Dennis, gov thought you were checking into this.

Thanks
ALS

89 (Rev. 11-13)

STATE OF MICHIGAN
DEPARTMENT OF TREASURY
LANSING

RICK SNYDER
GOVERNOR

R. KEVIN CLINTON
STATE TREASURER

February 3, 2015

FOR IMMEDIATE RELEASE
www.michigan.gov/treasury

Contact: Terry Stanton, Treasury
(517) 335-2167
Dave Murray, Governor
(517) 335-6397

draft

Gov. Rick Snyder announces grants helping distressed municipalities with water, public safety, appraisal issues

$8 million awarded for projects aimed at improving services, quality of life

LANSING, Mich. -- Gov. Rick Snyder today awarded $8 million to six municipalities to fund various improvement projects, including water system and street lighting enhancements and technology upgrades through the Financially Distressed Cities, Villages, and Townships Grant Program.

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

"Municipalities receiving this special funding are some of the areas hardest hit by the Great Recession," Snyder said. "I am pleased we can offer funding assistance to help these local governments improve various public services their taxpayers and residents expect and deserve."

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

The following communities will receive funding this year, with projects and amounts noted (alphabetical order):

Local Unit	Project Description	Amount
City of Benton Harbor	Complete a property reappraisal to provide updated and accurate assessing records. Additionally, community enhancement through blight management and sidewalk replacement.	$475,000
City of Benton Harbor	Water system enhancement through water main replacements and fire hydrant repairs.	$434,960

City of Ecorse	Public safety enhancement through improved street lighting.	$350,000
City of Flint	Water system enhancement through improved waste management.	$1,100,000
City of Flint	Water system enhancement through leak detection and pipe assessments.	$900,000
City of Hamtramck	Complete a property reappraisal to provide updated and accurate assessing records.	$167,860
City of Hamtramck	Upgrade City Hall security.	$50,000
City of Hamtramck	Public safety enhancement through improved street lighting.	$404,600
City of Highland Park	Water system enhancement through meter replacement, leak detection, and system repairs.	$2,000,000
City of Inkster	Complete a property reappraisal to provide updated and accurate assessing records.	$73,460
City of Inkster	Water system enhancement through fire hydrant repairs.	$150,000
City of Inkster	Provide a backup power source for public safety.	$30,000
City of Inkster	Public safety enhancement through the creation of a multi-jurisdictional narcotic team.	$240,000
City of Inkster	Public safety enhancement through police officer training.	$41,970
City of Inkster	Public safety enhancement through the deployment of an additional police officer.	$320,000
City of Lincoln Park	Public safety enhancement through updated technology.	$143,490
City of Melvindale	Public safety enhancement through fleet replacement of police vehicles and updated technology.	$88,000
City of Pontiac	Community enhancement through blight management.	$125,000
City of River Rouge	Public safety enhancement through improved street lighting. Additionally, infrastructure replacements to City Hall.	$591,508
Royal Oak Township	Public safety enhancement through improved street lighting	$86,559
Royal Oak Township	Public safety enhancement of police services.	$217,593

Applications for the next round of Financially Distressed Cities, Villages, and Townships Grant Program will be available on the Department of Treasury website this spring. Applications must be submitted to Treasury by the close of business on XXX, XXX 31, 2015.

Preference is generally given to applicants from local units in which:

- A financial emergency has been declared in the past five years;
- An approved deficit elimination plan for the general fund is currently in place; or,
- Two or more conditions indicating "probable financial distress" currently exist.

For more information about FDCVT grants, including an application for cities, villages, and townships, visit www.michigan.gov/revenuesharing.

####

*Conditions of "probable financial distress" relating solely to school districts are not included as conditions for FDCVT, as school districts are not eligible.

STATE OF MICHIGAN
EXECUTIVE OFFICE
LANSING

RICK SNYDER
GOVERNOR

BRIAN CALLEY
LT. GOVERNOR

CONTACTS:	FOR IMMEDIATE RELEASE
Sara Wurfel or Dave Murray, Governor's Office 517-335-6397 Terry Stanton, Department of Treasury 517-335-2167	January 18, 2016

Gov. Rick Snyder awards Flint $2 million in Distressed Cities grants for water system infrastructure improvements

Funding to be used for leak detection, waste incinerator replacement

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

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

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

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

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

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

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

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

##

Snyder, Rick (GOV)

From: Hollins, Harvey (GOV)
Sent: Wednesday, April 30, 2014 4:36 PM
To: Snyder, Rick (GOV); Muchmore, Dennis (GOV); Clement, Elizabeth (GOV); Baird, Richard (GOV); Agen, Jarrod (GOV); Wurfel, Sara (GOV)
Subject: Talking Points on budget 043014.doc
Attachments: Talking Points on budget 043014.doc

All:
The Flint EM will give a budget presentation tomorrow, attached are his basic talking points. I can get you details if needed. Please note that this presentation will result in an anticipated layoff, by December 2014, of 55 public safety personnel (19 fire and 36 police).

Harvey

Talking Points on City of Flint FY15 & FY16 budget Received from Flint Emergency Manager

- The city has an obligation to budget responsibly and that has led to a 2-year budget proposal. The budgets for these two fiscal years are balanced. The City remains in a budgetary crisis that impairs its ability to provide public safety and other city services. However, the city sees this as the beginning, not the end of this process.

- Over the next six months –
  - ✓ The city will work to prevent an immediate disruption in public safety – **reductions are to be achieved by December 2014, not immediate lay-off**[1], this will be a managed process.

  - ✓ The City is unable to fully fund its Police and Fire Departments at current levels and is unable to provide needed public safety services at current levels. A Comprehensive Police and Fire Study will recommend the most efficient use of the city's limited public safety resources.

  - ✓ The city will continue working toward a resolution of the retiree health care lawsuit – this is a $5 million additional (and increasing) expense across all City funds.

  - ✓ The Mayor and Emergency Manager will seek State support for increased revenue: opportunity for residents to vote on increased income tax rate, State assistance to participate in a voluntary OPEB pool, and increased shared revenue.

  - ✓ City will complete organizational restructuring to fully utilize City staff.

  - ✓ City will engage our partner organizations throughout the city, county and state for recommendations and support.

- Throughout the 2-year budget period the Michigan State Police have indicated that they will continue their directed patrol and investigative support for public safety in Flint. This support has been tremendously valuable to the City of Flint. The city will continue to work together cooperatively and look for ways to enhance this relationship for the safety and security of the residents and visitors.

- Beyond this budget period the City will still face significant financial challenges without major revenue increases. The 2-year budget gives the City stability while it works to achieve a long-term solution.

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[1] **Anticipated public safety layoffs are 19 fire and 36 police for a total public safety reduction of 55. Revenues needed to prevent the public safety layoffs is ca. $4 million]**

Snyder, Rick (GOV)

From: Agen, Jarrod (GOV)
Sent: Wednesday, July 16, 2014 4:48 PM
To: Snyder, Rick (GOV); Calley, Brian (GOV)
Cc: Scott, Allison (GOV); Muchmore, Dennis (GOV); Clement, Elizabeth (GOV); Wurfel, Sara (GOV); Brownfield, Michael (GOV); Ellison, Melanie (GOV)
Subject: Q2 Public Safety Stats
Attachments: 2014 Second Quarter Stats.doc

Governor,

Attached are the Q2 Public Safety numbers that you mentioned on your issues list and wanted to see.
Very positive signs in Flint (-9.9%), Saginaw (-31.2%), and Detroit (-18.7%) compared to last year.

MSP is also working on a report to show the monthly crime statistics since we went into the Secure Cities, which will give us even better context on the progress we have made.

We'll be working in Comms on ways to promote this progress.

Thanks
Jarrod

Snyder, Rick (GOV)

From:	Hollins, Harvey (GOV)
Sent:	Thursday, July 24, 2014 2:36 PM
To:	Snyder, Rick (GOV); Muchmore, Dennis (GOV); Clement, Elizabeth (GOV)
Subject:	PRESS RELEASE: Operation Fresh Start
Attachments:	OFS.Flyer.pdf; Operation Fresh Start Release.pdf

Governor,
During the Flint public safety/community meeting you attended in December 2013, Chief Tolbert talked about his idea to assist residents with certain misdemeanors that result in outstanding warrants. Operations. Below is information regarding the launch of Operation Fresh Start.

Best,
Harvey

For Immediate Release

Operation: Fresh Start Program will Help Residents in 48501 & 48502 Zip Codes with Certain Misdemeanors Find Resolution to

Outstanding Warrants

Flint, Michigan – July 23, 2014 – The City of Flint Police Department and Flint Lifelines have developed a program called Operation: Fresh Start which will offer residents with outstanding misdemeanor warrants in the City of Flint to find resolution and avoid jail time and court costs. The program will focus on warrants by zip code, the first two being 48501 and 48502 for this event. The event will be held on Monday, July 28, 2014 from 10:00am to 4:00pm at the Hubbard Building of the University of Michigan-Flint, off Chavez Drive near Campus Drive and Mill St.

Operation: Fresh Start features partners from the City of Flint, Genesee County, the State of Michigan and community-based organizations working together to offer settlement of minor civil infractions as well as help participants apply for a driver's license, find assistance for health and human services, employment

opportunities and continuing education advice. This means that anyone with a primary address in the zip codes above is invited to attend and seek resolution to their legal problem.

Police Chief James Tolbert recognized a need for a program such as this after learning that there are about 23,000 outstanding warrants in the City of Flint dating all the way back to the 1970s. "The failure to address these violations has resulted in warrants being issued and driver responsibility fines being levied," noted Chief Tolbert. "These warrants affect an individual's ability to become employed and their ability to seek employment and to provide financially for their families. Given these pressures, there is a high probability that criminal conduct can occur."

Chief Tolbert also plans on holding more Operation Fresh Start events for other zip code areas throughout Flint in the near future. Residents from the 48501 and 48502 zip codes interested in participating must bring a valid photo ID with their current address showing they live in those areas. Residents with felony warrants or misdemeanor warrants for child support, DUI and related offenses are not eligible.

Operation Fresh Start is made possible through collaborative efforts by the Flint Police Department, Flint Lifelines, Genesee County Prosecutor's Office, Michigan Secretary of State, Michigan Department of Corrections, Michigan Department of Human Services, Michigan Department of Treasury, Flint Area Congregations Together (FACT), Genesee County Land Bank, Community Resolution Center, Metro Community Development, Mott Community College Workforce Education Center, University of Michigan-Flint Department of Public Safety and the Michigan State Police.

–END–

MEDIA AVAILABILITY:

Police Chief James Tolbert and other Flint Lifelines members will be made available for interview and media appearances. Please respond to this message or call the number below for arrangements.

-Jason Lorenz

Public Information Officer
City of Flint
(810) 237-2039
jlorenz@cityofflint.com

Snyder, Rick (GOV)

From: Ellison, Melanie (GOV)
Sent: Friday, September 12, 2014 9:40 AM
To: Snyder, Rick (GOV)
Cc: Scott, Allison (GOV); Muchmore, Dennis (GOV); Clement, Elizabeth (GOV); Emmitt, Beth (GOV); Utley, Corey (GOV); Ellison, Melanie (GOV)
Subject: Fwd: Flint updates
Attachments: Gov Briefing - Flint.docx; ATT00001.htm

Governor,

Attached is additional information from MEDC re: Flint.

Please let us know if you have any questions.

Thanks,

Melanie

Sent from my iPad

Begin forwarded message:

> **From:** Melissa Dansereau <dansereaum@michigan.org>
> **Date:** September 12, 2014 at 9:18:41 AM EDT
> **To:** "Ellison, Melanie (GOV) (EllisonM2@michigan.gov)" <EllisonM2@michigan.gov>
> **Subject: Flint updates**
>
> Hi Melanie. Here are some Flint updates.
>
> **Melissa M. Dansereau**
> Business Analyst, Business Development - Sales Operations
> **Michigan Economic Development Corporation**
> 300 N. Washington Square | Lansing, MI 48913
> 517.489.9018
> melissa@michigan.org
>
>

Flint City update

EXECUTIVE SUMMARY

Staff Lead: Khalfani Stephens, Business Development Manager, 517-410-9377, stephensk@michigan.org

BACKGROUND

The City of Flint is on a slow but steady road to recovery. Governance has improved as they work to create a transition plan to move from Emergency Manager to local oversight. The work on the regional water system is proceeding well.

Business development is handled primarily by the Flint & Genesee Chamber of Commerce. The MEDC collaborates very closely with the Chamber, as they are the lead Collaborative Development Council (CDC) representative for MEDC Region 6. Region 6 also has the I-69 Corridor Next Michigan Development Corporation initiative. This initiative is led by the Flint & Genesee Chamber of Commerce. MEDC is currently working on the following projects in the Flint region:

[redacted]

[redacted]

Snyder, Rick (GOV)

From: Scott, Allison (GOV)
Sent: Wednesday, October 01, 2014 11:55 AM
To: Snyder, Rick (GOV)
Subject: Fwd: CITY OF FLINT DRINKING WATER, GOVERNOR'S OFFICE BRIEFING PAPER
Attachments: Governor Briefing - City of Flint 10-1-14.docx; ATT00001.htm; Governor Briefing - City of Flint 10-1-14.pdf; ATT00002.htm; Flint Monthly Pumpage Comparison.pdf; ATT00003.htm; ODWMA-399-022.pdf; ATT00004.htm

Sent from my iPad

Begin forwarded message:

From: "Thelen, Mary Beth (DEQ)" <THELENM2@michigan.gov>
To: "Scott, Allison (GOV)" <scotta12@michigan.gov>, "Muchmore, Dennis (GOV)" <muchmored@michigan.gov>, "Brader, Valerie (GOV)" <braderv@michigan.gov>
Cc: "Wurfel, Brad (DEQ)" <WurfelB@michigan.gov>, "Wyant, Dan (DEQ)" <WyantD@michigan.gov>, "Datema, Maggie (DEQ)" <DatemaM@michigan.gov>, "Sygo, Jim (DEQ)" <SygoJ@michigan.gov>, "Wisniewski, Wendy (GOV)" <wisniewskiw@michigan.gov>, "West, Samantha (GOV)" <WestS2@michigan.gov>
Subject: CITY OF FLINT DRINKING WATER, GOVERNOR'S OFFICE BRIEFING PAPER

Dear Governor, Dennis, and Val:

Per your request, the attached briefing paper is on the City of Flint drinking water situation. Director Dan Wyant has asked that I send this to you. A Word version as well as a pdf version is attached. We have also included a copy of the policy ODWMA-399-022 which specifically provides guidance regarding boil water advisory situations, and a chart showing the significant increase in the City of Flint's water demands following the extreme conditions experienced this past winter.

Allison, please forward to the Governor. Thank you.

If you have any questions or need further information, please let us know. Thank you.

Mary Beth

Mary Beth Thelen
Management Assistant to Director Dan Wyant
Department of Environmental Quality
Constitution Hall, 6th Floor South
Phone: 517-284-6712 or 284-6700 (new numbers)
Fax: 517-241-7401
Thelenm2@michigan.gov<mailto:Thelenm2@michigan.gov>

Attachments

DEPARTMENT OF ENVIRONMENTAL QUALITY

GOVERNOR'S OFFICE BRIEFING PAPER
CITY OF FLINT DRINKING WATER

What contributed to the Boil Water Advisories in the city of Flint?

A number of factors, not one specific cause, likely contributed to the Boil Water Advisories (BWAs) in the city of Flint during August and September 2014. While use of the Flint River has increased the amount of natural organic matter in the city's water, the Flint Water Treatment Plant (WTP) has performed well above treatment requirements for organic carbon removal. In addition, less than 20 percent of the water system was included in the advisory area. If treatment had been compromised, detections would have been widespread throughout the city, rather than in such a localized area.

The city's water distribution system has suffered from a lack of infrastructure investment and asset management. Most of the city's over 550 miles of water mains are now over 75 years old and constructed of cast iron piping. Cast iron pipe is subject to internal corrosion, called tuberculation, which causes buildup on the pipe interior, leading to water quality issues, reduced flow and pressures, and leakage. Tuberculation also encourages the development of biofilms, layers of bacteria that attach to the interior pipe wall. Biofilm growth is common in areas of piping with little or no disinfectant residual, and together with tuberculation can clog water lines to the point of insufficient water pressure.

The city has also experienced decades of a declining user base and water use associated with vacant homes, commercial businesses, and industrial property. Declining water use leads to excess residence time within the city's distribution pipes and water storage facilities, accelerating tuberculation, biofilm growth, and disinfectant residual degradation. While the city has recently seen an infusion of funding for blight removal, contractors completing this work have been improperly using fire hydrants, causing hydraulic disturbances that dislodged and suspended settled debris, which may have contributed to the bacterial contamination.

The winter of 2014 was also one of the coldest experienced by the water system. The city, which historically has unaccounted water losses of over 30 percent, has seen even greater losses since February 2014 due to an increase in cold weather-related water main breaks and leaks. The city lacks a formal maintenance program for its over 7,250 valves, which would normally be used to limit impacts during break repairs. Two valves on the transmission line used to supply the area of the BWAs were found to be closed during the city's investigation, causing longer residence time, reduced disinfectant residual, reduced flow, and reduced pressure. One of these valves has remained broken.

The BWAs also occurred during the warmest and, for 2014, relatively wet periods of August and September. Warm weather conditions are not only more conducive to bacterial growth but also degrade the water's disinfectant residual carried out from the WTP more quickly. Longer residence times, biofilms, and tuberculation also contribute to disinfectant residual degradation. Warm wet weather conditions also allow water contaminated with bacteria to pool around piping with leaks and breaks.

Process for Issuance and Cancelation of a Boil Water Advisory

There are a number of conditions that can trigger BWAs. This includes the following:

- Bacteria Monitoring Detections
- Bacteria Standards Violations
- Treatment System Failures
- Waterborne Disease Outbreaks
- Loss of System Pressure
- Water Main Breaks
- Other Interruptions in Service

The Department of Environmental Quality (DEQ) has developed a policy and procedure regarding BWAs to help guide staff, provide consistency, and maintain public health. A PDF of Policy and Procedure No. ODWMA-399-022 is being forwarded with this briefing paper.

BWAs may be self-initiated by the water system, issued collaboratively in consultation with the DEQ, or when necessary mandated by the DEQ. Requesting customers to boil the water when bacterial contamination has occurred provides an added barrier of public health protection.

The BWAs that recently occurred in the city of Flint were associated with bacteria monitoring detections and violations of bacteria standards. These advisories were issued by the city of Flint collaboratively in consultation with the DEQ.

Current regulations regarding monitoring and standards for bacteria in water distribution systems were developed by the U.S. Environmental Protection Agency, have been in effect since 1990, and were incorporated into the Michigan Safe Drinking Water Act, 1976 PA 399, as amended. There are a variety of bacteria, parasites, and viruses that can potentially cause health problems if humans ingest them in drinking water. Testing water for each of these potential pathogens would be difficult and expensive. Instead, water systems test for total coliform and *E.coli*. Total coliform bacteria react to water treatment in a manner similar to many pathogens. Therefore, the presence of total coliform in drinking water indicates there may be a pathway for pathogens or other contaminants to enter the system. The absence of total coliforms in the distribution system minimizes the likelihood that pathogens are present. *E.coli* is itself a pathogen, and its detection would be direct evidence of a health risk.

Once a BWA has been issued, time is needed to investigate potential causes and implement corrective measures. The larger the water system, the more time this may take. Once corrective measures have been taken, samples must be collected and analyzed to confirm that bacteria are no longer present. Using the most common analytical method, samples must be incubated for a period of 24 hours before results can be obtained. In situations where the bacterial contamination has been confirmed, two consecutive rounds of safe samples collected at least 24 hours apart are normally obtained before canceling a BWA. Adding each of these steps together, a normal response period to cancel a BWA under these circumstances would be expected to take at least 3 to 4 days.

Recent History of the City of Flint Water System

Historically, the city of Flint had been a customer of the Detroit Water and Sewerage Department (DWSD) while simultaneously maintaining the Flint WTP to provide emergency backup service using the Flint River. The WTP performed quarterly test operations to maintain readiness and was utilized twice in 2009, supplying water once for 2 days and the other for 3 days.

In April 2013 the city of Flint notified the DWSD that it would be terminating service in the future and contracting for raw water service from the Karegnondi Water Authority (KWA). Work on the KWA pipeline from Lake Huron broke ground in June 2013 and is expected to be completed with connection in late 2016.

In August 2013 Rowe Professional Services Company completed an engineering proposal for improvements to the Flint WTP that would allow continuous operation of the WTP utilizing the Flint River in lieu of continuing service from the DWSD until completion of the KWA pipeline. In March 2014 the city of Flint entered into a Consent Agreement with the DEQ regarding the Flint WTP's lime sludge facility. In April 2014 the DEQ issued a construction permit for improvements to the Flint WTP. On April 25, 2014, the city of Flint began continuous operation of the WTP, using water from the Flint River and discontinued the purchase of water from the DWSD.

A BWA was issued for August 15-20, 2014, for a portion of the city of Flint due to localized detections of total coliform and *E.coli* bacteria. Another BWA was issued for September 5-9, 2014, due to localized detections of total coliform bacteria in the same and adjacent portions of the city of Flint. The advisory covered an area of approximately six square miles. The city of Flint has a total land area of just over 34 square miles.

While many of the BWA contributing factors listed above require long-term solutions, the city has taken operational steps to limit the potential for a BWA to reoccur. The city has increased flushing of water mains to limit residence time, maintain disinfectant residual, and help remove buildup and deposits within the piping. The city is boosting chlorine disinfectant residual at locations in the distribution system as needed. The city continues to investigate water leaks and water main breaks and the status and condition of system valves.

Prepared by: Stephen Busch, P.E.
Lansing and Jackson District Supervisor
Office of Drinking Water and Municipal Assistance
Department of Environmental Quality
October 1, 2014

Snyder, Rick (GOV)

From: Posthumus, Dick (GOV)
Sent: Tuesday, November 25, 2014 5:05 PM
To: Snyder, Rick (GOV)
Subject: FW: Flint City Income Tax

Governor;
Have you talked to anybody indicating support of a bill that would allow Flint to increase its Income Tax from 1% to 1.5%? I talked to Dennis and he wasn't sure where you stood on it. And if you support it, do you want us to make it a priority to pass before the end of the year?
Dick

From: Ackerman, Darin (GOV)
Sent: Monday, November 24, 2014 12:49 PM
To: Posthumus, Dick (GOV)
Subject: Fwd: Flint City Income Tax

Just double checking to see if this is your understanding as well. Ananich has asked me about this, so I would like to report back to him.

Thanks,

Darin Ackerman, Deputy Director
Legislative Affairs Division
Office of Governor Snyder
State Capitol
Lansing, MI 48913
Phone: (517) 241-3950

Begin forwarded message:

> **From:** "Ryan, Howard (Treasury)" <RyanH1@michigan.gov>
> **Date:** November 24, 2014 at 12:30:36 PM EST
> **To:** "Posthumus, Dick (GOV)" <Posthumusd@michigan.gov>
> **Cc:** "Durfee, Sally (GOV)" <durfees@michigan.gov>, "Ackerman, Darin (GOV)" <ackermand3@michigan.gov>
> **Subject: Flint City Income Tax**
>
> I'm being told that the Governor has agreed to allow Flint to have a vote to increase its city income tax from 1.0% to 1.5%. The bill is 4868 and is a Stanley bill. The bill will raise approximately $6.5 million for the city and is a first house bill.....This is a new priority for us.

Snyder, Rick (GOV)

From: Scott, Allison (GOV)
Sent: Wednesday, December 03, 2014 11:24 AM
To: Snyder, Rick (GOV)
Subject: FW: Farrington - Flint income tax bill - LUNCHTIME TOPIC

From: Durfee, Sally (GOV)
Sent: Wednesday, December 03, 2014 11:23 AM
To: Scott, Allison (GOV)
Cc: Posthumus, Dick (GOV)
Subject: Farrington - Flint income tax bill

Governor,

As you know Flint would like to increase its city income tax from 1.0% to 1.5% - like Grand Rapids and Saginaw. The bill is 4868 and is a Stanley bill. The bill will raise approximately $6.5 million for the city. The Flint EM as well as Saxton over in Treasury support the passage of this bill.

Farrington, Chair of House Taxation – said he would take up this bill over his dead body. Then he said he would take up if you asked directly.

You are having lunch with him today – can you just mention the importance of getting this bill done before we adjourn.

Sally

Snyder, Rick (GOV)

From: Scott, Allison (GOV)
Sent: Thursday, December 18, 2014 8:43 PM
To: Snyder, Rick (GOV)
Subject: flint doc from Dennis
Attachments: Flint info.pdf

City of Flint

Steps to Prepare for Transition From Emergency Manager to Receivership Transition Advisory Board

	Target	Completion	7 Pt. Trans. Plan #	Comments
Chief Administrative Officer			4	
* National Recruitment	9/1/14	12/18/2014		Started 9/1/14, open until filled
* Appoint Selection Committee	10/1/14	11/4/2014		
* Select finalists	11/10/14	11/4/2014		
* Conduct Interviews	11/24/14	11/12/2014		
* Recommend Candidate	12/15/14	12/1/2014		
* EM Appoints Selected Candidate	12/15/14	12/18/2014		
Organizational Development				
* EM/Mayor determine recommended City organizational structure	5/17/14	5/17/2014	4	
* EM/Mayor recommend Council action on ordinance changes to implement organizational structure		6/26/2014	4	
* Council to review and adopt revised organizational structure	5/17/14	6/26/2014	4	
* Finalization organizational structure roles: Mayor, Council, Administration	6/26/14	6/26/2014	4	
Complete Bargaining Units Contracts			4	
* Local 1600	7/1/14	Ratified		
* Local 1799	7/1/14	Ratified		
* FPOA	7/1/14	Imposed		
* PD - Sgts.	7/1/14	Ratified		
* PD -Capts & Lts.	7/1/14	Ratified		
* Fire Union	7/1/14			

City of Flint

Steps to Prepare for Transition From Emergency Manager to Receivership Transition Advisory Board

	Target	Completion	7 Pt. Trans. Plan #	Comments
Comprehensive Public Safety Study			4	
* Contract with ICMA for Study		5/8/2014		
* Collect Data	5/9/14-9/30/14	9/30/2014		
* Receive Draft Report	9/30/14	11/1/2014		
* Receive Final Report	11/1/14			
* Plan Implementation				
* Determine best, most appropriate use of $1.1 million State Allocation				
Retiree Health Care Lawsuit			5	
* City Notified of Lawsuit				
* Injunction Received		1/13/2014		
* Injunction Modified		6/30/2014		
Cornerstone determines impact on FY15				
* & 16 Budget	9/1/14			
* Implement Modifications	11/1/14			
* Scheduling Conference				
*				
Mayor and Council to support City's position on retiree health care or adopt measures offsetting increased costs	6/26/14	6/26/2014	5	
Biennial Budget Implementation			6	
* Biennial Budget Adopted		6/26/2014		
* 1st Quarter Status	10/1/14	10/13/2014		
* 2nd Quarter Status	1/1/15			
FY 14 Budget Close Out				
* Preliminary Close				FY14 closed on June 30, 2014
* Audit Received	11/30/14			
* Audit Presentation to City Council	12/15/14			

City of Flint

Steps to Prepare for Transition From Emergency Manager to Receivership Transition Advisory Board

	Target	Completion	7 Pt. Trans. Plan #	Comments
Governance				
* EM receives BRC Final Report	7/18/14	7/18/2014	3	
* Present Report to Mayor and City Council	7/28/14	7/28/14		
* Mayor and Council Submit Comments to EM	7/28/14	7/28/14	3	
* EM Orders BRC Recommended Charter Admendments and Charter Commission Initiative on Nov. Ballot	7/30/14	8/5/2014		Charter Review Cmte. approved by voters 11/4/14
* EM develops proposed governance structure and sends to governor			3	Part of Final Order
* Mayor and Council Comments on EM Proposal	7/28/14	7/28/2014	3	
* Define and incorporate financial and organizational best practices	3/25/13	3/25/2014	7	Reso on TAB
Deficit Elimination/Reserve Accumulation Plan			1	
* EM Submits Plan to Treasury	7/1/14	7/1/2014		
* Treasury Approval Received		7/16/2014		
* EM Orders DE/RAP Adoption		7/15/2014		
* City Council passes resolution of support for DE/RAP		3/25/2014	1	Reso on TAB
* Confirmation by Mayor and Council that DE/RAP actions will be a top priority in budgeting	6/26/14	6/26/2014	1	

City of Flint

Steps to Prepare for Transition From Emergency Manager to Receivership Transition Advisory Board

	Target	Completion	7 Pt. Trans. Plan #	Comments
City Council Activity				
* Council to receive quarterly reports from Mayor/Fin. Director on progress of achieving strategic objectives and priorities	9/22/14	10/13/2014	6	
* Completion of City Ordinance Review by Council as proposed by EM	9/22/14		3	
* Review Strategic Plan, FY16 Budget	1/20/15		6/7	
* 6 mos. FY15 Budget Review/Amendments	1/20/15		6/7	
* Strategic Plan to be updated annually	2/20/15		6	
* FY17 Budget Development	2/20/15			
* Completion of MML Level One Education Award per EM Order 2	3/28/14		7	
Five Year Financial Analysis			2	
* City Council adopts 5 Year Analysis	6/1/14	6/1/2014	2	
* Finance/Adm Cmte shall annually review analysis in February each year and Send to Council for approval	2/20/15		2	
Issue outgoing EM Order	4/8/2015			

7 Point Transition Management Plan

Goal: To provide a strategy for determining and evaluating relevant and specific criteria for assessing when the City of Flint might be prepared to emerge from Emergency Manager (EM) oversight to a Transition Advisory Board (TAB), as provided in Public Act 436. The seven points identified provide comprehensive and well defined benchmarks to be reviewed before the determination is made. The Plan also defines a data-driven and measurable process for the objective, results-oriented determination of facts. The Plan establishes the criteria now so that it is clear what the conditions are that will have to be satisfied before the Emergency Manager recommends the establishment of a Transition Advisory Board.

GOAL	STRATEGY	OBJECTIVES	STATUS
1. Deficit Elimination Plan	Deficit Elimination Plan and Reserve Accumulation Plan will be presented by the EM/Mayor/Finance Dir. to City Council through its Finance Committee to receive Council support. Also a commitment by the Mayor and Council to implement the plan will be required.	City Council to pass resolution of support for DEP/RAP from EM/Mayor/Fin. Dir.	X
		Receive Treasury acceptance of the DEP/RAP.	X
		Confirmation by Mayor and Council that DEP/RAP actions will be a top priority in budgeting.	X
2. Five-Year Financial Analysis	The development, monitoring and updating of a five-year financial analysis is critical to the ongoing challenges of financial solvency. It must remain an ongoing process to measure the City's ability to fund services, produce budgets, and proactively manage expenditures. It should be an expectation of the Council that the EM/Mayor/Fin. Dir. shall annually prepare and Council shall review and adopt said projection; and shall continue to use the projection as a basis for future budgeting actions.	EM/Mayor/Fin. Dir to annually prepare a 5 yr. R/E projection.	X
		Council-Finance Committee review 5 yr. analysis and move to Council.	X
		City Council adopts 5 Year Analysis.	X
		Finance Committee shall annually review analysis in February each year and send to Council for approval.	
3. Governance	The EM will consider recommendations from the Blue Ribbon Committee, National Civic League Model Charter, proposed charter amendments, review of electoral structure, Executive appointments, etc. It is expected that a formal agreement would be reached among the EM, Mayor, and Council as to what governance revisions are to be implemented, including time frames for implementation.	Blue Ribbon Cmte. Complete Report and Submit to EM	X
		Mayor and Council Submit Comments on Report to EM	X
		EM developes proposed governance structure and sends to Governor.	
		Mayor and Council have an opportunity to review and comment on EM proposal.	X
		Completion of City Ordinance review by Council as proposed by EM.	

GOAL	STRATEGY	OBJECTIVES	STATUS
4. Organization Development	Review the City's organizational structure including: Public Safety, 9-1-1 plan, courts consolidation plan, recommendations on other long-term services, and role of the city administrator (who will be appointed prior to the TAB). Finalize the organizational relationship among Mayor, Administration and Council. This will result in an agreed upon detailed description of the roles and responsibilities of the Mayor and Council, including items such as respective roles in strategic planning, budgeting, monitoring and assessment of results, appointments, and protocols for addressing citizen complaints.	EM/Mayor determines recommended City organizational structure. EM/Mayor to recommend Council action (ordinance changes) to implement organizational structure. Council to review and adopt revised organizational structure. EM/Mayor to hire City Administrator/Manager. Finalize organization structure and roles: Mayor, Council, Administration. Labor contracts to be completed for all City unions	 X
5. Legacy Costs	Retiree Health Care remains the biggest challenge to managing legacy costs and the City is currently facing a legal challenge. It will be unlikely that the financial emergency will be declared resolved until this issue is settled in a manner which does not risk the solvency of the City. Sustaining the changes within RHC are essential to the City's future solvency.	Mayor and Council to support City's position on retiree health care or adopt measures offsetting the increased costs. Annual budgets to include payment of appropriate pension and health care costs and liabilities.	
6. Strategic Plan	The adoption of a long-range strategic plan by the Emergency Manager, Mayor, and Council for the governing actions of the City will provide a guidance mechanism for determining budgeting, priorities, goals and objectives.	EM/Mayor/Fin. Dir. to present 5 yr Strategic Plan through Finance Cmte. to Council for approval. Council to set spending priorities. EM/Mayor to utilize Strategic Plan to develop budget. Council to adopt budget in line with Strategic Plan and budget priorities. Council to receive quarterly reports from Mayor/Fin. Dir. on progress of achieving strategic objectives and priorities. Strategic Plan to be updated annually.	X X X X X

GOAL	STRATEGY	OBJECTIVES	STATUS
7. Sustainability	Factors for determining sustainability are rooted in the 7 points. More specifically, the measures that will be evaluated include: achievement of consensus decision-making on the part of the Mayor and the Council, adoption of best practices, continuing commitment to training and development for the Mayor and Council members, ongoing monitoring and updating of plans necessary for the financial stability of the City including but not limited to 2-year budgets, 5-year financial analyses, and the ongoing implementation of the Master Plan.	Council and Mayor update methods to develop policy recommendations and achieving consensus.	
		Council and Mayor attend all training sessions as scheduled by EM.	
		Council and Mayor to actively participate in development and adoption of 2 yr. budget.	X
		Implement Master Plan (evidence of Master Plan implementation in annual budget).	X
		Define and incorporate financial and organizational best practices.	X
		Implement system of performance measurement.	
		Utilize data-driven methods of decision making and performance measurement.	

Snyder, Rick (GOV)

From: Scott, Allison (GOV)
Sent: Friday, January 16, 2015 11:02 AM
To: Snyder, Rick (GOV)
Subject: FW: HUD ANNOUNCEMENT-FLINT
Attachments: CN Planning Grant Release-FLINT.docx

fyi

From: Mcbride, Bill (GOV)
Sent: Friday, January 16, 2015 10:58 AM
To: Scott, Allison (GOV)
Subject: HUD ANNOUNCEMENT-FLINT

Here is what I have found:
HUD will announce today that the City of Flint will receive a $500,000 planning grant to help revitalize and transform distressed neighborhoods.
Nice to get the grant. MSHDA will be involved in this.
No need for the Governor to have been there for announcement or for all the drama involved in getting this information from HUD!

http://portal.hud.gov/hudportal/documents/huddoc?id=FY14PGSummaries.pdf

EMBARGOED UNTIL 11:30 am ET

HUD NEWS

U.S. Department of Housing and Urban Development – Julián Castro, Secretary
Office of Public Affairs, Washington, DC 20410

HUD RV No. 01
Gina Rodriguez
(312) 913-8332 / gina.rodriguez@hud.gov
http://www.hud.gov/news/index.cfm

FOR RELEASE
Friday
January 16, 2015

HUD AWARDS CHOICE NEIGHBORHOOD GRANT IN FLINT

The City of Flint and partners will develop transformation plan for South Saginaw

WASHINGTON – Building on a commitment to help local communities redevelop distressed public or assisted housing and transform neighborhoods, U.S. Housing and Urban Development (HUD) Secretary Julián Castro announced seven new Choice Neighborhoods Planning Grant awards, including $500,000 to the City of Flint. These awards will help grantees craft comprehensive, locally driven plans to revitalize and transform distressed neighborhoods. Part of the Obama Administration's effort to build Ladders of Opportunity to the middle class, HUD's *Choice Neighborhoods Initiative* promotes a comprehensive approach to transforming neighborhoods struggling to address the interconnected challenges of distressed housing, inadequate schools, poor health, high crime, and lack of capital.

Secretary Castro made the announcement at the Louisville Metro Housing Authority, one of the grantees that will use the funding to improve the Russell neighborhood in Louisville, Kentucky.

"These Choice Neighborhood grants will spark the creation of community plans for progress," said Castro. "We look forward to working with local leaders to breathe new life into struggling neighborhoods, transforming them into places where residents can flourish and dreams can thrive."

"We are fortunate to have a phenomenal interagency federal partnership through the White House Council on Strong Cities, Strong Communities (SC2) working in lockstep with Flint to effectuate change in the Atherton East and the South Saginaw Corridor; The Choice Neighborhood grant will help support our joint-efforts and Transformation Plan" said Antonio R. Riley, HUD's Midwest Regional Administrator.

"Decades ago Flint made the mistake of putting its public housing in some of the most isolated parts of the city, and now we're seeing the results – high crime, concentrated poverty, and limited economic opportunity. In just the past few weeks, we've seen three murders at Atherton East. This grant gives us the opportunity to work hand in hand with the Flint Housing Commission and residents to break the cycle and reconnect families to opportunity," said Mayor Dayne Walling.

The City of Flint and the Flint Housing Commission are partnering to address the historic challenges facing the Atherton East public housing development and the surrounding community. The neighborhood struggles with significant crime. These challenges are magnified as the poverty rate is nearly 40 percent. Further, South Saginaw and the City are experiencing a declining population resulting in increased blight and large tracts of vacant land.

However, the South Saginaw Corridor also has key assets. The City has recently completed its first master plan since 1960 and has identified the South Saginaw Corridor as a priority area. Created in 2012, the South Saginaw Task Force has been instrumental in identifying opportunities for improvement within the community. The Choice Neighborhoods Transformation Plan will serve as a detailed extension of the recently established City Master Plan. These efforts will build on the comprehensive work underway through the federal

Strong Cities, Strong Communities initiative – which aims to create new partnerships between federal agencies and localities to spark economic development.

Read local summaries of the grants announced today.

Choice Neighborhoods is HUD's signature place-based initiative and its vision builds on the work that has been done by the Neighborhood Revitalization Initiative, an interagency partnership between HUD, the Department of Education, the Department of Health and Human Services, the Department of Justice, and Treasury, since 2009. Choice Neighborhoods also supports the Ladders of Opportunity plan, which will help community partners rebuild neighborhoods, expand early learning opportunities, create pathways to jobs, and strengthen families. Choice Neighborhoods is focused on three core goals:

- **Housing**: Replace distressed public and assisted housing with high-quality mixed-income housing that is well-managed and responsive to the needs of the surrounding neighborhood.

- **People**: Improve educational outcomes and intergenerational mobility for youth with services and supports delivered directly to youth and their families.

- **Neighborhood**: Create the conditions necessary for public and private reinvestment in distressed neighborhoods to offer the kinds of amenities and assets, including safety, good schools, and commercial activity, that are important to families' choices about their community.

HUD's commitment to teamwork means local residents and leaders are leading the way in revitalizing their communities. In order to develop a plan that meets the core goals of Choice neighborhoods, broad civic engagement will be needed. Local leaders, residents, and stakeholders, such as public housing authorities, cities, schools, police, business owners, nonprofits, and private developers come together to create a plan that transforms distressed HUD housing and addresses the challenges in the surrounding neighborhood. This Transformation Plan is the guiding document for the revitalization of the public and/or assisted housing units, while simultaneously directing the transformation of the surrounding neighborhood and positive outcomes for families.

###

From: Murray, David (GOV)
Sent: Sunday, February 01, 2015 5:15 PM
To: Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Snyder, Rick (GOV) [redacted] Wurfel, Sara (GOV) <Wurfels@michigan.gov>; Scott, Allison (GOV) <scotta12@michigan.gov>
Subject: Background information and draft press releases for Tueday water event in Flint

Good afternoon Governor,

Here is background on the planned Tuesday event in Flint regarding the $2 million Distressed Cities grant and other issues connected to the water situation.

There are plans for two press releases on Tuesday. The first will detail the two Flint grants and will be released by the governor's communications office. The other release, which would detail the other grants, would follow from Treasury with a quote. Both drafts are attached, and we are considering approaching the Flint mayor or emergency manager to contribute a quote.

Mayor Walling has agreed to speak at the event, with Harvey Hollins and Dan Wyant representing the administration. Sen. Ananich has asked to speak, and it has been suggested that Rep. Neeley would speak and it might be better to add him to the program. Others, such as Deputy Director Workman and Emergency Manager Ambrose, would be present and available.

The attached document includes details about the planned event, as well as background on the grants from Treasury and on the entire water issue from DEQ as well as Mayor Walling's Facebook post and links to the stories in the media about the issue.

We have a room reserved and are working with the communications team in Flint to have microphones and other items needed for the event.

Please let me know if there is any information you think should also be included, or anything that should be changed.

Thank you very much,

Dave Murray

Dave Murray
Deputy Press Secretary | Executive Office of Governor Rick Snyder
MurrayD1@michigan.gov
517-335-6397, office
[redacted]

Twitter:@michigandmurray

Briefing: Grant announcement in Flint

Tuesday, Feb. 3, 2015, 3-4 p.m.
Haskell Community Center, 2201 Forest Hills Ave. Flint
Governor's communications: Dave Murray, murrayd1@michgian.gov [redacted]
DEQ communications: Brad Wurfel, wurfelb@michigan.gov, [redacted]
Treasury communications: Terry Stanton, stantont@michigan.gov, [redacted]

Purpose

The state government is providing support for the Flint government as it addresses issues with its water system. The state on Tuesday is announcing that Flint is receiving two grants totaling $2 million related to water system improvements through the Financially Distressed Cities, Villages and Townships grant program. DEQ Director Dan Wyant will address ongoing efforts with his agency to test Flint water and explain why the city is facing some of its problems. Senate Minority Leader Jim Ananich, D-Flint, will discuss his appreciation for the ongoing support for the city and its residents.

Attending

- Harvey Hollins, director of the Michigan Office of Urban Initiatives
- Dan Wyant, director of the Michigan Department of Environmental Quality
- Wayne Workman, deputy treasurer, Michigan Department of Treasury
- Jerry Ambrose, Flint emergency manager
- Dayne Walling, Flint mayor
- State Sen. Jim Ananich
- State Rep. Sheldon Neeley
- State Rep. Phil Phelps

Agenda

3:00 PM – 3:05 PM:	Harvey Hollins announces that Flint has received two grants totaling $2 million.
3:05 PM – 3:10 PM:	Dan Wyant discusses the state's ongoing role in monitoring Flint's water and any assistance that has been provided and will continue to be provided.
3:10 PM – 3:15 PM:	Mayor Dayne Walling remarks about appreciation for state assistance.
3:15 PM – 3:20 PM:	Sen. Jim Ananich remarks about appreciation for state assistance.
3:20 PM – 3:25 PM:	Rep. Neeley remarks.
3:25 PM – 3:35 PM:	Harvey Hollins closing remarks, opens floor to media questions.
3:35 PM	Event ends, though this might be optimistic.

Background

- The quality of Flint water has been a high-profile concern in recent weeks, with residents complaining about the color, taste and smell of tap water since a switch to Flint River water as a temporary source as a pipeline is built to Lake Huron as a water source starting in 2016.
    - Residents have attended meetings with jugs of brownish water.
    - U.S. Kildee has worked with labor and community groups to distribute bottled water.

- Mayor Walling has issued a letter (included below) calling for state and federal assistance for the city, including forgiveness of some $20 million in debt through the Drinking Water Revolving Loan Fund and calling for the governor to come to Flint personally.
    - Walling also submitted a guest column to the Flint Journal with similar requests.
        - He said the loan forgiveness is needed for the city to upgrade its water treatment process.
    - Governor and Mayor Walling had a telephone conversation on Friday, and the mayor has pledged to work together on solutions.

- Rep. Sheldon Neeley also has sent the governor a letter, saying that his constituents "are on the verge of civil unrest."

- The Department of Environmental Quality has been monitoring the water situation, with a detailed backgrounder and talking points attached below.

- The Treasury Department is announcing Tuesday that Flint is among the cities receiving a combined $8 million the Financially Distressed Cities, Villages and Townships grant program.
    - The announcement of the other grants will follow the Flint announcement.
        - The Flint grants are $1.1 million to allow the city to replace the functions of the old incinerator with new water pollution control facility allowing for the disposal of waste to landfills.
        - The other is $900,000 to allow the city to hire a contractor to perform a leak detection survey, which will lead to prioritizing repairs.
    - A breakdown of the grants is included below.

Treasury breakdown of Flint grants

Flint Incinerator: The grant project entails shutting down the current Water Pollution Control Facility Incinerator (due to the incinerator not being up to new EPA standards). In order to meet EPA standards, it would cost roughly $8.8M in upgrades to the current incinerator. The grant funding will allow them to replace the functions of the old incinerator by constructing new facilities which will allow for the disposal of waste to landfills.

Budget Breakdown	
Construction Contractor	$1,050,000
Project Management	$50,000
Total	$1,100,000

Flint Leak Detection: The grant project will allow the city to hire a contractor to perform a leak detection survey of the city water lines. The city will receive a map of leak locations and an assessment of leak severity. This data will allow the city to prioritize leak repair. The project also covers the expense of conducting a water pipe line wall thickness condition assessment on a portion of the city's pipes. The assessment will guide the city's water main replacement program.

Budget Breakdown	
Project Planning	$90,000
Mobilization of Crew to Site	$27,000
Leak Detection < 16" diameter	$378,000

Leak Detection 16" diameter or >	$270,000
Pipe Condition Assessments	$135,000
Total	$900,000

DEQ backgrounder on Flint water

Following the formal approval of Flint into the KWA in 2012, DWSD sent Flint a letter saying their contract was thereby terminated (by early 2013).

Genesee County has been using DWSD water without a contract since May 2014. But Flint took the letter to imply a water cutoff, and promptly turned to DEQ with a proposal to use the Flint River (their historic backup system).

This proposed shift was pitched primarily as a money saver. But it put the city in the business of water production, where they historically had been in the business of water transmission. DEQ approved the use of the river as a source, based on the treatment plant's past performance as a standby facility and the improvements we outlined prior to a switchover.

Several municipalities around the state use surface water supplies (rivers): Blissfield near Monroe, Manistique, and Alma to name a few.

The city completed the upgrades at the water plant the facility and DEQ approved it April 2014.

There were some initial hiccups. Last summer, there were a couple of 'boil water' notices issued. One for a water test that showed e. coli, one for a break in the water main.

The challenge to using the Flint River as a source is that the condition of the water is variable and changes with season and weather. It has substantially more organic matter than deep lake sources like Lake Huron. This organic matter is mobilized by high water events, and warm weather also can account for more organic material in the water.

The treatment of the organic matter is done with chlorine. One might conclude that the continual answer is just to use more chlorine to achieve water safety. However, at some point on the continuum, the chlorine and organic matter create TTHM – total trihalomethanes – as a byproduct. When the standard for those is exceeded over several consecutive quarters of testing, the supply is required by law to issue public notice and submit an approved plan for addressing the situation.

You'll note that this regulatory approach means TTHM testing is done quarterly. That means people who use the system are exposed to TTHM for several months before the public notice is required. It's because TTHM is a chronic health threat. Over the long term (measured in decades), continued exposure can contribute to some known health problems. If this were an immediate health threat, customers would receive immediate notification to boil their water or not use it.

Put in context, the EPA (which established the standard and the rule) estimates the existence of the TTHM standard prevents an estimated 280 bladder cancer cases each year ... out of more than 330 million people who use public water supplies around the country.

It's not "nothing." State and federal law requires quarterly testing for TTHM and that the public be informed of it when the annual average of four quarters' worth of consecutive testing shows TTHM

levels exceeding 80 parts per billion. Flint's results managed to exceed the annual average in three quarters, and they must develop a plan to address it.

But it's not like an eminent threat to public health. Unlike an e. Coli or even total coliform bacteria maximum contaminant level, which require immediate public notification and response and are part of daily / hourly testing of public water supplies, TTHMs pose a public health concern with chronic, long-term exposure.

It's clear the nature of the threat was communicated poorly. It's also clear that folks in Flint are concerned about other aspects of their water – taste, smell and color being among the top complaints.

The Safe Drinking Water Act requires public water supplies be tested for more than 90 regulated contaminants, including microbial contaminants. The act, and the program here in Michigan, work to ensure that water is safe to drink. The act does not regulate aesthetic values of water. Here are some factors affecting the aesthetics of water in Flint.

1. It's the Flint River. The water supplied by DWSD historically came from Lake Huron. It's softer. With hard water, you get a different flavor and feel. It's why General Motors suspended use of Flint Water – it was rusting their parts. Also, there's the 'organics' factor (discussed previously).
2. The system is old. Flint has more than 500 miles of water pipes. More than half of those pipe miles are more than 75 years old. Much of it is cast iron. Hard water can react with cast iron and exacerbates the rusty factor, which creates that brown water that angry residents were holding up in jugs for the media cameras last week. Valve failure has also been a key challenge. The system has an estimated 7,500+ valves. When they stick open or stick shut, it affects the hydraulics of the system and increase areas of stagnation. The city has a backlog of valves that need to be addressed. They've done half a dozen or so since November.
3. Flint is old. Many of the homes served by the system are old. Brown water complaints may also be attributable to cast iron pipes in customers' service connection to the city lines. The DEQ has been encouraging people with water coloration concerns to contact the city and see whether it is the service line or the City's line causing the issue. Again, discoloration is not an indicator of water quality or water safety, but we recognize that nobody likes it.

In summary, the City of Flint has tremendous need to address its water delivery system. We are not aware that they have any capital improvement funds for preventative maintenance in place, much less line replacement project monies that will require hundreds of millions.

The City was approved for a Revolving Fund loan in 2008 or 2009. As a Distressed Community, they qualified for flexible terms and 2 percent interest rate Revolving Fund Loan. After they were notified they were approved for the loan, they declined it. Previous SRF loans from the state to Flint bear an outstanding balance of $20.7 million today.

The DEQ continues working with the city to address the TTHM issue. They can take interim steps – from scrubbing the insides of transmission lines to carefully monitoring the hydraulic challenges in their system – to address customers' aesthetic concerns. Their TTHM numbers already are showing dramatic improvement; the November testing showed only one of seven sample points exceeding the standard.

The key now is that the standard is an average of three quarters' worth of results. It will be some time before they are officially "not in violation." However, depending on weather in 2015, it's not unforeseeable that we will be having this conversation again by next Christmas.

The key to the conversation is that TTHM is not a top health concern. That's key because residents need to understand TTHM in context, and it is key because it appears the mayor has seized on the public panic (sparked, frankly, by their poor communication of the violation notice) to ask the state for loan forgiveness and more money for their infrastructure improvement.

Another key thing to remember is that once the city connects to the new KWA system in 2016, this issue will fade in the rearview.

Key messages:

1. The DEQ Drinking Water program works with communities around the state to ensure that municipalities provide customers with clean, safe drinking water.
2. Municipal water supplies are tested rigorously and regularly for more than 90 regulated contaminants, including microbial contaminants that pose an immediate public health concern.
3. Flint's exceedance of the TTHM standard should reassure residents that the testing program is effective.
4. TTHM is not an immediate health threat. It is a chronic concern, one that can be problematic over the course of several decades of exposure. The public was notified because the law requires the city to make public notification, so that everyone can make informed decisions. This is particularly true for people with infants or those with compromised immune systems.
5. The DEQ is working with the City to address the situation. Recent tests show the TTHM numbers dropping rapidly. The department will continue working with the city in the months ahead, and residents should feel confident that their water is safe to drink unless the DEQ or City notifies them otherwise.
6. The discoloration and odor issues some Flint residents are experiencing are separate issues from the TTHM issue. TTHM is odorless, colorless and measured in parts per billion.
7. Flint water customers who have questions or concerns about their water should first contact the city to get answers and help. They also can contact the Michigan DEQ.

Mayor Walling's Facebook post

Friend,

Access to clean, safe, affordable water is a basic human right.

That's why I just sent Gov. Snyder my Flint Water Improvement Plan. It focuses on the areas of safety, quality, access, investment and education. My letter urges the governor to quickly implement these ideas so that Flint's water is 100% safe.

Please contact Gov. Snyder by calling (517) 335-6397 (or by clicking here) and ask him to take action immediately to implement my plan and ensure Flint's water is safe.

My plan offers new ideas and also builds on successful models of utility, energy and assistance programs at the state and federal levels. Here is my plan:

Safety & Quality

- 100% Safety is the standard

- City of Flint releases testing data to assure safety and expands testing to households with support from the Michigan Department of Environmental Quality
- Support alternatives for those advised not to drink the water by their doctors through the Michigan Health Endowment Fund and community partners to protect the vulnerable like seniors and infants
- Bring on experienced river water treatment operational management in the City of Flint
- Require water testing data to be released quarterly by law in all Michigan communities

Access

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

Investment

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

Education

- Develop a community partnership to provide household and business customers with information on testing and conservation
- Ongoing partnership with Michigan Department of Human Services, United Way, Salvation Army and community organizations to provide information on water assistance
- Expand youth energy initiative to assist households with conservation and efficiency (piloted in summer 2014 with Northwestern High School students, EcoWorks and Consumers Energy)

The struggle with our water has gone on for too long. The state must take action and do its part. Please ask Gov. Snyder to take action immediately to implement my plan and ensure Flint's water is safe. Thank you for your ongoing support.

Links to coverage

- Mayor, governor have 'long, productive' talk about Flint's water problems, Jan. 30
- 2,000 more gallons of water headed to Flint for giveaway, Jan. 30, 2015
- Flint emergency manager says there are two big reasons not to reconnect Detroit water, Jan. 29
- Flint Democracy Defense League plans four meetings on city's water problems, Jan. 29
- Environmentalist sends out new warnings about Flint water, NBC, Jan. 27
- Erin Brockovich says on Facebook she's prepared to come to Flint, MLive, Jan. 27
- Mott Community College not waiting for Flint to ensure safe water, MLive, Jan. 26
- Detroit water chief says she's willing to sell emergency water to Flint -- no strings attached, Jan. 26
- Mayor says governor needs to visit Flint to see water crisis first hand, MLive, Jan. 26
- Need water? Flint groups collect 600 cases, plan distribution this week, MLive, Jan. 26

- Incoming Flint water expert would have 'continual oversight' until new pipeline connected, Jan. 25
- Looking back at Flint's water problems (photo gallery), MLive, Jan. 25
- Flint water problems: Switch aimed to save $5 million -- but at what cost?, MLive, Jan. 23
- State says its already 'working diligently' on Flint's water problems, MLive, Jan. 22
- Officials say Flint water is getting better, but many residents unsatisfied, MLive, Jan. 21

Snyder, Rick (GOV)

From: Snyder, Rick (GOV)
Sent: Thursday, April 30, 2015 5:43 PM
To: Calley, Brian (GOV)
Cc: Clement, Elizabeth (GOV); Muchmore, Dennis (GOV); Scott, Allison (GOV); Agen, Jarrod (GOV); Wurfel, Sara (GOV)
Subject: Re: City of Flint Mayor issue

May want to consider giving this issue to Ananich.

Thanks
Rick

Sent from my iPad

> On Apr 30, 2015, at 5:41 PM, Calley, Brian (GOV) <[redacted]
>
> This is a big enough problem that we might want to consider changing state law - at least to allow for a primary election for write-ins. Too much progress has been made in Flint to let it go to this guy.
>
>
>
>> On Apr 30, 2015, at 5:28 PM, Clement, Elizabeth (GOV) <clemente@michigan.gov> wrote:
>>
>> Governor,
>>
>> Mike Senyko from Ruth Johnson's office just called me to let me know of a filing deadline issue in the city of Flint. The city clerk erroneously informed candidates that the filing deadline for the mayoral election was April 28th when it was actually the 21st. Mayor Dayne Walling filed on the 28th and will therefore not be on the ballot. Eric Mays, the Flint city councilman who was jailed last year and has been very problematic to both our EM and secure cities efforts, is the only candidate who filed by the April 21st deadline. Mike Senyko indicated that since there is only one candidate on the ballot, there will not be a primary election that Mayor Walling can do a write in campaign for so his only option is a write in campaign for the general. Mike was not sure if Mayor Walling had been informed yet but he expects the news to break this evening. There is no provision in state law that allows for a situation like this to be rectified. Please let me know if you have any questions.
>>
>> Thanks,
>>
>> Beth
>>
>>
>>

Snyder, Rick (GOV)

From: Snyder, Rick (GOV)
Sent: Thursday, June 11, 2015 8:33 AM
To: Etue, Kriste (MSP)
Cc: Muchmore, Dennis (GOV); Clement, Elizabeth (GOV)
Subject: Re: MSP bike patrols make their debut in Flint this week

Glad to see it. Good work. Let me know how things are going in the our cities. Hopefully, we won't have significant summer issues.

Also, thanks for the good work with the sexual assault summit. Seemed to go very well.

Thanks
Rick

Sent from my iPad

> On Jun 10, 2015, at 9:46 PM, Etue, Kriste (MSP) <EtueK@michigan.gov> wrote:
>
> Governor:
>
> I think you will like this new approach for the summer...
>
> http://www.abc12.com/home/headlines/Bike-patrols-make-their-debut-in-Flint-this-week-306705041.html?device=phone&c=y
>
>
> Sent from my iPhone

-----Original Message-----
From: Hollins, Harvey (GOV)
Sent: Saturday, September 05, 2015 3:14 PM
To: Snyder, Rick (GOV[redacted]
Cc: Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Clayton, Stacie (GOV) <claytons3@michigan.gov>
Subject: Re: Flint Water Filters

Governor, it went over extremely well with the residents. There is a demand for more.

Best,
Harvey

> On Sep 5, 2015, at 2:00 PM, Snyder, Rick (GOV)[redacted] wrote:
>
> Factually accurate update; but how did it go over with the residents?
>
> Thanks
> Rick
>
>> On Sep 2, 2015, at 3:13 PM, Hollins, Harvey (GOV) <hollinsh@michigan.gov> wrote:
>>
>> As you know[redacted] donated 1500 kitchen water filters for Flint residents as a way of providing added comfort amid concerns about Flint's water quality.[redacted] do not want any publicity or credit for the donation.
>>
>> The filters were delivered to the Concerned Pastors organization, who held an event yesterday to give away the filters. Residents were invited to come to a central location to pick up their filter. The Concerned Pastors targeted low income Flint residents.
>>
>> More than 1500 households showed up yesterday to pick up a filter; the Concerned Pastors exhausted the donated supply in 4 hours with 200 people still waiting to get a filter.
>>
>> Best,
>> Harvey
>

-----Original Message-----
From: Snyder, Rick (GOV)
Sent: Saturday, September 05, 2015 2:00 PM
To: Hollins, Harvey (GOV) <hollinsh@michigan.gov>
Cc: Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Clayton, Stacie (GOV) <claytons3@michigan.gov>
Subject: Re: Flint Water Filters

Factually accurate update; but how did it go over with the residents?

Thanks
Rick

> On Sep 2, 2015, at 3:13 PM, Hollins, Harvey (GOV) <hollinsh@michigan.gov> wrote:
>
> As you know, [redacted] donated 1500 kitchen water filters for Flint residents as a way of providing added comfort amid concerns about Flint's water quality. [redacted] do not want any publicity or credit for the donation.
>
> The filters were delivered to the Concerned Pastors organization, who held an event yesterday to give away the filters. Residents were invited to come to a central location to pick up their filter. The Concerned Pastors targeted low income Flint residents.
>
> More than 1500 households showed up yesterday to pick up a filter; the Concerned Pastors exhausted the donated supply in 4 hours with 200 people still waiting to get a filter.
>
> Best,
> Harvey

Scott, Allison (GOV)

From: Cline, Richard (Treasury)
Sent: Wednesday, September 16, 2015 3:13 PM
To: Saxton, Thomas (Treasury); Workman, Wayne (TREASURY)
Cc: Dempkowski, Angela (Treasury)
Subject: Updated Summary of September 15 Conference Call
Attachments: Summary of September 15 Conference Call.docx; Utilities Update 9_16_15-2.pdf

Importance: High

Tom/Wayne:

Attached, per your request, is an updated summary of the September 15 call with the City of Flint plus an update on utility upgrades, provided by the City.

If you need anything further, let me know.

Eric Cline | Department Manager
State of Michigan | Michigan Department of Treasury | Office of Fiscal Responsibility
430 W. Allegan Street, 3rd Floor | Lansing, MI 48922
Lansing Office (517) 335-2078 | [redacted]raverse City Office (231) 922-5228
E-mail clinerl@michigan.gov

City of Flint
Water Quality Update
Wednesday September 16TH, 2015

GAC Installation

What: ***$1,601,740 contract with LAN*** to design and install new filter media at the Water Plant

Status: Complete

Leak Detection

What: ***$900,000 Treasury Distressed City Grant*** for Leak Detection / Pipe Wall Assessment

Status: In Progress

The vendor "echologics" is nearly 1/3 complete with the leak detection

WPC Incinerator Shutdown

What: ***$1,100,000 Treasury Distressed City Grant*** for WPC Incinerator Shutdown

Status: In construction phase

The walls are nearly done being erected.

Next steps: Construction of the walls.

Water Meter Installation

What: ***$5,000,000 contract*** to purchase and install up to 18,000 water meters.

Status: In progress

The vendor has established a good routine and has installed approximately 3000 of the targeted 9000 meters have been installed

Installers are facing more resistance from customers about the change outs ~300 people are refusing the installation.

Small jumpers were added to the installation to protect plastic meters going in place of metal to protect electronics within the household.

The main focus of this contract was the $2,500,000 on the front end to complete the targeted 9000 meter installation. This was an FY15 expenditure.

Next steps: Continue with the progress.

Summary: Conference Call with City of Flint

September 15, 2015

Participating: Tom Saxton, Wayne Workman, Fred Headen, Eric Cline, Mayor Walling, City Administrator Natasha Henderson, Finance Director Jody Lundquist, City Attorney Pete Bade, Assistant City Attorney Tony Chubb

- The City of Flint is involved in two lawsuits regarding water and sewer rates: *Kincaid* and *Shears*.
    - It was stressed that the *Shears* and *Kincaid* lawsuits are both separate but are being litigated concurrently and that any developments mutually impact both suits.
- It was noted that in the opinion of the City, both cases will continue to be litigated for some time due to the complexity of the issues involved.
- In a related matter, the City Attorney noted that the Water Coalition lawsuit to force the City to purchase water from the City of Detroit was dismissed in Genesee County Circuit Court.

***Shears* Lawsuit**

- *Shears* was decided by the Genesee County Circuit Court by a non-final order on August 17, 2015.
    - Among other things, the Court enjoined City officials from any longer imposing a 35 percent increase in water and sewer rates; from disconnecting water or sewer service due to delinquent bills, dating back to September 16, 2011; and from placing liens on property due to delinquent bills, dating back to September 16, 2011.
    - City officials have filed an appeal with the Michigan Court of Appeals seeking, among other things, a stay of the Genesee County Circuit Court injunction.
    - In the interim, City officials are complying with the Court's order in *Shears*.
- The City's appeal is still being considered by the Court. No timeline for a decision is known.

***Kincaid* Lawsuit**

- *Kincaid* was decided by the Michigan Court of Appeals on June 11, 2015.
    - The Court held that a 35 percent increase in water and sewer rates imposed by City officials on September 16, 2011, violated the City charter and that Emergency Manager Mike Brown had no statutory authority to later ratify those rate increases in May of 2012.
    - The Court of Appeals remanded the case to Genesee County Circuit Court.
    - City officials intended to appeal this decision to the Michigan Supreme Court, but missed the filing deadline by one day.
- The City Attorney stated that litigation of this case must continue because some key issues have yet to be resolved, including:
    - The exact damages have not been clarified.
    - The issue of who has standing in this case remains unresolved.

Summary: Conference Call with City of Flint

September 15, 2015

Financial Impacts

- City officials estimate that nullification of the 35 percent increase in water and sewer rates is costing approximately $600K/month. Therefore, if the Court orders either refunds or credits against future water and sewer bills retroactive to September 16, 2011, the cost is estimated to be approximately $30M.
    - The Finance Director noted that since September 2011, the system has had a declining number of users, so the total potential refund is higher than basing calculations from the current number of users.
    - The City Administrator stated that the City has not developed a plan to issue a refund of this size because the City lacks sufficient funds to do so and they would be unable to operate at this point.
- The City Administrator noted that citizens are paying the latest monthly billing but that the City must contend with lower revenues for the foreseeable future.
- In addition, it was noted that if the City has to refund the Ready-to-Serve charge from September 2011 through July 1, 2015, that this amount is approximately $10M.
- It was noted that the amount of delinquent funds owed to the City that are over 30 days old has grown from $7.8M to $8.4M since the ruling in the Shears Lawsuit.
    - Further, the City Administrator stated that because the City is prohibited from shutting off service for non-payment, the amount of delinquent funds is expected to continue to grow.
- In addition, the City Administrator noted that the measures taken to reserve funds within the system to address the financial issues has delayed needed capital improvements, which further exacerbates the problems within the system, but the City cannot address these capital needs without additional revenue.
- The City Administrator further stressed the importance of the State assistance sought by the Mayor in his September 14, 2015, letter to the Governor.
    - The Mayor requested $30M for infrastructure and capital improvements related to the City's water and sewer system.
    - It was stressed by Treasury that existing funding options were very limited and we were not aware of anything short of a legislative appropriation.
        - State funding of the City's $30M request will likely invite requests from many other communities with similar needs.
        - The State recently awarded the City $2M in Distressed Cities grant funds to implement improvements to their system.
        - The State further provided the City with an additional $2M in relief for outstanding SRF/DWRF loans.
        - Treasury is not aware of any current Flint projects related to their water quality issues that could be funded through the DWRF program and DEQ is responsible for managing DWRF eligible projects.

-----Original Message-----
From: Muchmore, Dennis (GOV)
Sent: Friday, September 25, 2015 10:29 AM
To: Snyder, Rick (GOV) [redacted] Calley, Brian (GOV [redacted]
Cc: Scott, Allison (GOV) <scotta12@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>
Subject: Flint water

The issue of Flint water and its quality continues to be a challenging topic. The switch over to use Flint river water has spurred most of the controversy and contention. The DEQ and DCH feel that some in Flint are taking the very sensitive issue of children's exposure to lead and trying to turn it into a political football claiming the departments are underestimating the impacts on the populations and particularly trying to shift responsibility to the state.

We have put an incredible amount of time and effort into this issue because of the impacted neighbors and their children, and the KWA/DWSD controversy and Dillon's involvement in the final decision. Kildee is asking for a call with you. That's tricky because he's sure to use it publicly, but if you don't talk with him it will just fan the narrative that the state is ducking responsibility. I can't figure out why the state is responsible except that Dillon did make the ultimate decision so we're not able to avoid the subject.

The real responsibility rests with the County, city and KWA, but since the issue here is the health of citizens and their children we're taking a pro-active approach putting DHHS out there as an educator.

I'm not sure how much background you need on all this so I don't want to flood you with stuff. Jarrod and Dave have a lot of info that we can supplement your understanding and we can put a briefing or face to face with Wyant and Lyon if you want to go there.

Sent from my iPhone

-----Original Message-----
From: Muchmore, Dennis (GOV)
Sent: Friday, September 25, 2015 8:47 PM
To: Scott, Allison (GOV) <scotta12@michigan.gov>; Snyder, Rick (GOV) [redacted]
Cc: Mcbride, Bill (GOV) <mcbrideb@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Emmitt, Beth (GOV) <emmittb@michigan.gov>
Subject: Re: Flint water

We're collecting the information tonight and will send tomorrow.
Sent from my iPhone

> On Sep 25, 2015, at 3:44 PM, Scott, Allison (GOV) <scotta12@michigan.gov> wrote:
>
> governor spoke with Ananich this afternoon
>
> He would like to do a call Monday morning with Dennis and Dan Wyant to get latest and greatest info on this topic
>
> After that will be some combination of he and Wyant speaking with Ananich
>
> Any materials on this topic please share for over the weekend
>
> Beth please use call time mom for this purpose. This should precede the Kildee call as well
>
> Thanks
>
> Sent from my iPhone

From: Muchmore, Dennis (GOV)
Sent: Saturday, September 26, 2015 9:26 AM
To: Snyder, Rick (GOV) <[redacted]
Cc: Calley, Brian (GOV) [redacted]Scott, Allison (GOV) <scotta12@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Hollins, Harvey (GOV) <hollinsh@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>; Walsh, John (GOV) <WalshJ@michigan.gov>; Posthumus, Dick (GOV) <Posthumusd@michigan.gov>; Forstner, Nathaniel (GOV) <forstnern1@michigan.gov>
Subject: Flint updates

The memo and attachments below have captured the latest information from the departmental side on Flint succinctly. Kildee is engaged in his normal press hound routine, which is unfortunate because he's really a smart, talented guy who needs to roll up his sleeves while Ananich is looking for relief but doesn't know where it would come from and as usual is a positive force.

Frankly, I think both know that Walling went out on CYA effort due to the election, but of course can't say so. Neither has any idea where his $30M figure came from, or where we would get it even if you were so inclined.

Originally the thrust for the KWA came from the Genesee County commission and those involved in the planning for KWA including the Trades. By the time the council had voted 7-1 for it, Andy Dillon was in the position of signing off on it and did. However, it was still the right position for the long term benefit of the city and its future. They of course have not been particularly helpful in finding solutions to the issues. I will say that the Drain Commissioner has been a good partner and is working overtime on the problem.

They can't reconnect to DWSD even if they wanted to as they sold the connector line. And, especially with the new rate increases in Detroit, their citizens would be less able to pay than they already are. The water certainly has occasional less than savory aspects like color because of the apparently more corrosive aspects of the hard water coming from the river, but that has died down with the additional main filters. Taste and smell have been problems also and substantial money has been extended to work on those issues.

Now we have the anti everything group turning to the lead content which is a concern for everyone, but DEQ and DHHS and EPA can't find evidence of a major change per Geralyn's memo below. Of course, some of the Flint people respond by looking for someone to blame instead of working to reduce anxiety. We can't tolerate increased lead levels in any event, but it's really the city's water system that needs to deal with it. We're throwing as much assistance as possible at the lead problem as regardless of what the levels, explanations or proposed solutions, the residents and particularly the poor need help to deal with it.

It seems that continuing to find funds to buy local residents home filters is really a viable option and Harvey and all are pursuing more assistance in that work. Almost all the "experts" I've talked to are convinced the problem is in the old

lines leading to homes and short of a massive replacement CSO type bond that wouldn't resolve the issue for a couple of years, nature (temp reductions), filters and a final connect seem to be the best courses of action.

The residents are caught in a swirl of misinformation and long term distrust of local government unlikely to be resolved.

Sent from my iPhone

Begin forwarded message:

> **From:** "Lasher, Geralyn (DCH)" <lasherg@michigan.gov>
> **Date:** September 25, 2015 at 4:47:01 PM EDT
> **To:** "Muchmore, Dennis (GOV)" <muchmored@michigan.gov>, "Clement, Elizabeth (GOV)" <clemente@michigan.gov>, "Lyon, Nick (DCH)" <LyonN2@michigan.gov>, "Wyant, Dan (DEQ)" <WyantD@michigan.gov>
> **Cc:** "Wurfel, Brad (DEQ)" <WurfelB@michigan.gov>, "Wisniewski, Wendy (GOV)" <wisniewskiw@michigan.gov>, "Grijalva, Nancy (DCH)" <GrijalvaN@michigan.gov>, "Hertel, Elizabeth (DCH)" <HertelE@michigan.gov>
> **Subject: Update**
>
> Quick recap on the interactions this week from the MDHHS side on the Flint water issue.
>
> Today the City of Flint issued the attached "Lead Advisory" for residents to be aware of lead levels in drinking water and issued suggestions from the Genesee County Health Department as to what residents could do to reduce risk. These include:
> -- flushing cold-water pipes by running water for approximately 5 minutes,
> --using only water from the cold-water tap for drinking, cooking and making baby formula
> --installing a water filter that is NSF-certified for lead removal.
>
> We worked with the Genesee County Health Department throughout the week to get them in a more pro-active mode to provide this guidance publicly and to encourage citizens to have the City test their water if they were concerned about the quality of water at their home. The health department also issued this fact sheet
> http://www.gchd.us/docs/Popular_Pages/GCHD_Lead_in_Water_Fact_Sheet_2_.pdf on Thursday providing additional information on the issue.
>
> MDHHS epidemiologists continue to review the "data" provided by a Hurley hospital physician that showed an increase in lead activity following the change in water supply. While we continue to review this data, we have stated publicly that Hurley conducted their analysis in a much different way than we do at the department. Hurley used two partial years of data, MDHHS looked at five comprehensive years and saw no increase outside the normal seasonal increases. The Hurley review was also a much smaller sample than MDHHS data as ours includes all hospital systems in Flint as well as outside laboratories.
>
> We have also provide the attached data chart that outlines if the elevated blood lead levels were being driven by a change in water, we would have seen the elevated levels remain high after the change in water source.
>
> We have also communicated that for WIC beneficiaries in Flint with documentation of unsanitary water, they may be able to receive ready to feed formula and have encouraged families to contact WIC to see if they are eligible for this formula. SNAP beneficiaries are able to purchase bottled water with their SNAP funds.

Talking points from MDHHS are attached as well.

Thank you,
G

Dayne Walling
Mayor

Natasha L. Henderson
City Administrator

Jason Lorenz
Public Information Officer
Office: (810) 237-2039
Cell: (810) 875-2576
jlorenz@cityofflint.com

For Immediate Release

City of Flint Issues Lead Advisory

Flint, Michigan – September 25, 2015 – The City of Flint is issuing a Lead Advisory for residents to be aware of lead levels in drinking water after hearing concerns from the medical community. While the City is in full compliance with the Federal Safe Drinking Water Act, this information is being shared as part of a public awareness campaign to ensure that everyone takes note that no level of lead is considered safe.

The Genesee County Health Department has issued a fact sheet regarding lead precautions for residents. The fact sheet can be found on their website at www.gchd.us. Here are a few of the suggestions the Health Department recommends:

- Flush your cold-water pipes by running the water for approximately 5 minutes
- Use only water from the cold-water tap for drinking, cooking, and especially for making baby formula.
- Install a water filter that is NSF-certified for lead removal.

Lead contamination can leach into water from a home's lead water service lines, lead solder, and leaded plumbing materials including fixtures, faucets, and fittings. Older service lines with pipes and fixtures installed before 1986 can sometimes be more susceptible to lead issues due to materials used in the home such as lead based paint and lead pipes.

This message is meant as a precaution to residents and does not mean that all homes in the City will experience the same issue. Residents with concerns about lead service lines

and lead in home plumbing fixtures are encouraged to contact the City's Utilities Division to schedule a free water testing by calling the Water Treatment Plant at 810-787-6537 and pressing #1 after prompted or by emailing flintwater@cityofflint.com.

The City of Flint is working proactively along with the County Health Department, the Michigan Department of Environmental Quality, and the U.S. Environmental Protection Agency to improve the water system throughout the City. An accelerated plan to add a corrosion control agent to our water within 30 to 60 days with expedited approval from the Michigan Department of Environmental Quality is already underway. This will reduce corrosion which can cause lead in old pipes to leach into the water.

This plan is in addition to Mayor Walling's letter requesting $30 Million in water infrastructure assistance funding from the State of Michigan. $10 Million of that request would be for the replacement of lead service lines in households to ensure that lead no longer presents a danger to the drinking water of our residents. As the letter states, "It is the City's position that the abatement of lead through the removal of lead containing pipes and fixtures in homes is the best long term solution to keeping our residents' water safe."

Mayor Walling further stated: "I am extremely concerned about the risks around lead with Flint's children and I will be working tirelessly to ensure the water is safe and all of our families have the information they need. I also will continue to pursue funding for infrastructure improvements and a comprehensive healthy homes initiative that addresses lead in paint and pipes. We have to get the lead out of our community to eliminate the threat of childhood lead poisoning."

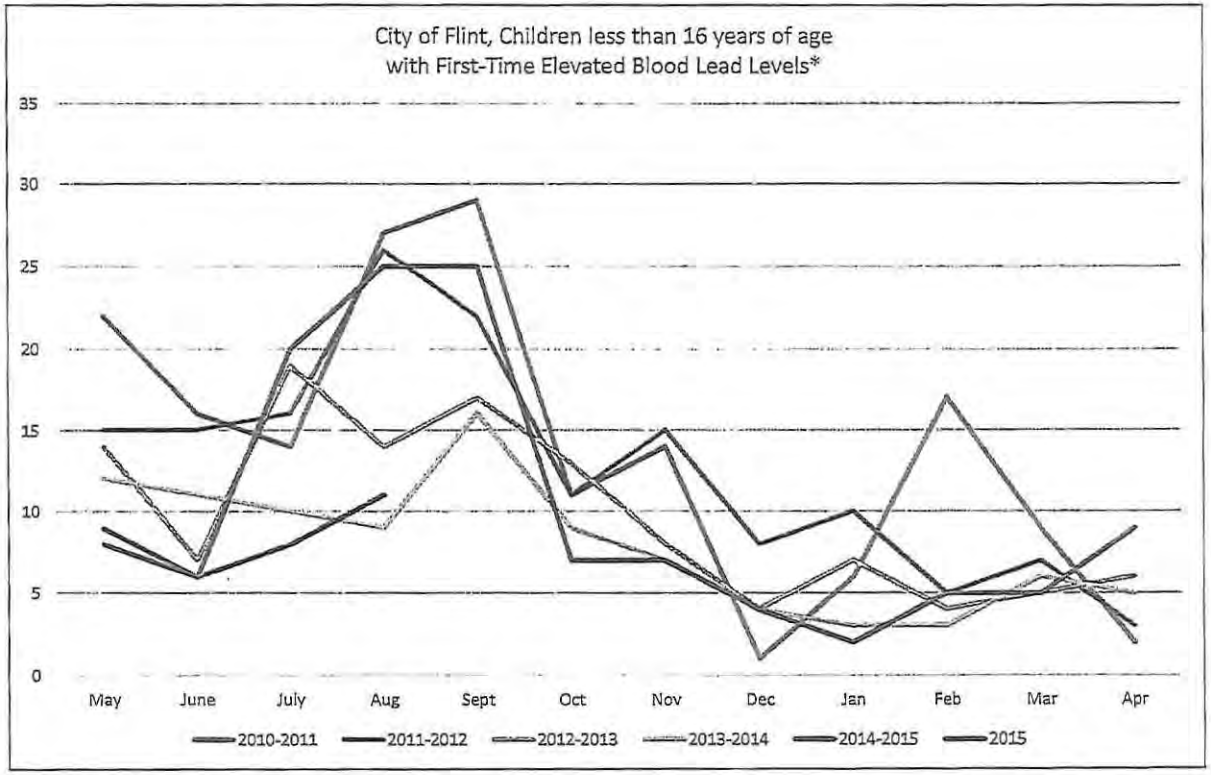
The City of Flint continues working proactively with the County Health Department, the Michigan Department of Environmental Quality, and the U.S. Environmental Protection Agency to improve the water system throughout the City. The City remains committed to working with all of our partners in the Water Technical Advisory Committee to address all

issues of public health and quality concerns that face the community. Updates on progress made in addressing this issue will be made during regular public meetings including City Council and other scheduled meetings. Information on this and all related matters will continue to be posted on the City of Flint's website, cityofflint.com.

–END–

Blood Lead Testing of Children in Flint, Before and After the Change in Flint's Water

- The change in Flint's water source occurred in April 2014. MDHHS looked at children's blood lead levels (BLL) before and after this event.
- The dark blue line (May 2014 – April 2015) and the green line (May-August 2015) reflect children's blood lead tests after the change. All other lines reflect tests before the change.
- An increase in childhood lead poisoning in summer (July, August, September) is typical throughout Michigan every year.
- While there is a dramatic difference between the numbers of elevated BLL in the summer before and after the event, a wider look that includes data back to 2010 shows that the year BEFORE the event (the yellow line) was more of an anomaly than the year after (the dark blue line).
- If elevated BLL were being driven by the change in water, we would expect the dark blue line to stay high rather than follow the seasonal pattern.
- All data included in this analysis were reported by laboratories directly to MDHHS, in accordance with State law.



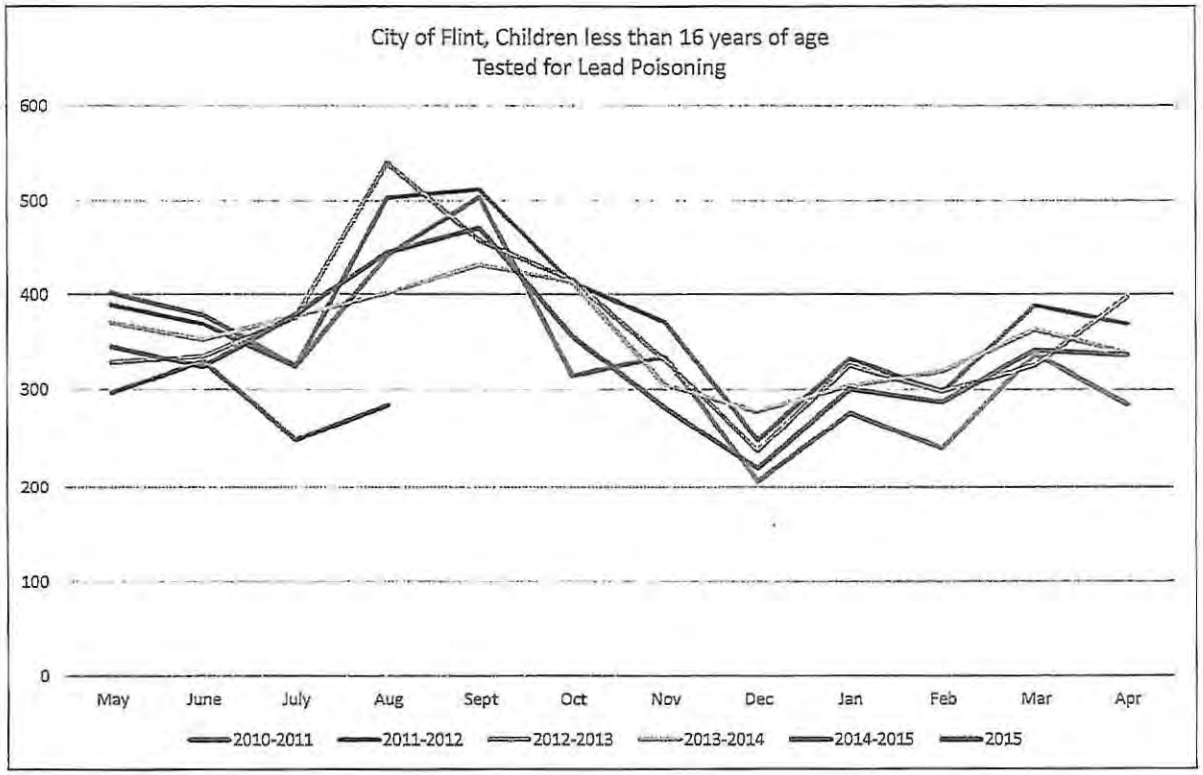
*This graph includes:
Children whose address is listed as "Flint"–may not conform exactly to Flint city limits
Children less than 16 years of age at time of test
Only first-time blood lead levels >= 5 ug/dL
All first-time elevated levels, regardless of sample type (venous, capillary or unknown)

September 24, 2015

Source: MDHHS Data Warehouse, Lead Specimen table

Blood Lead Testing of Children in Flint, Before and After the Change in Flint's Water

- Blood lead testing (regardless of elevated levels) also tends to rise during late summer (August, September, October).
- This graph shows that testing in Flint has remained fairly steady over the last five years, except for a recent decline(May – August 2015).



*This graph includes:
Children whose address is listed as "Flint"--may not conform exactly to Flint city limits
Children less than 16 years of age at time of test
The number of children tested within each month.
Some children are tested more than once, and may be included in more than one month or year.

September 24, 2015

Source: MDHHS Data Warehouse, Lead Specimen table

Blood Lead Levels in Flint Talking Points
September 24, 2015

- Promoting the health of our residents is a statewide priority – a priority that includes ensuring clean, safe drinking water for all residents and especially children.
- The results of the Hurley Children's Hospital are under review by the Michigan Department of Health and Human Services.
- The analysis that Hurley conducted is different from the way MDHHS has analyzed data regarding blood lead levels in Flint.
- MDHHS is looking to see if we can replicate the results of the Hurley study to see how they achieved their results.

MDHHS Blood Lead Testing Results in Flint

- MDDHS data shows a comprehensive look at the data since 2010, years before the change in Flint's water source occurred in April 2014.
- Each year shows a seasonal increase in childhood lead poisoning in the summer months, the highest seasonal increase of which occurred in 2010.
- If elevated blood lead levels were being driven by the change in water, we would expect to see the elevated levels remain high after the change in water source, rather than follow the seasonal pattern as they did by decreasing in the fall months.
- All data included in the MDHHS analysis were reported by laboratories directly to MDHHS, in accordance with State Law.

Differences in Analysis

- MDHHS data provides a much more robust picture of the entire blood lead levels for the Flint area, and specifically, accounts for data over the full course of the past five years.
- Looking at the past five years as a whole provides a much more accurate look at the seasonal trends of lead 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. This seasonal increase would be unrelated to the water system.
- Our data includes children from the entire city, including all medical facilities, rather than just Hurley, has a larger age group of children, and includes a much larger sample size.
- The MDHHS analysis looks specifically at the first elevated blood lead level for each child, which provides an accurate picture of when first exposure occurred.

- The Hurley data includes a smaller sample size, much more limited time period (January-September of 2013 and 2015 only), and a smaller age group of children.

WIC Children

- 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.

From: Muchmore, Dennis (GOV)
Sent: Sunday, September 27, 2015 11:29 AM
To: Snyder, Rick (GOV) [redacted]
Cc: Calley, Brian (GOV) [redacted] Scott, Allison (GOV) <scotta12@michigan.gov>
Subject: Treasury update on Flint

This is from our meeting last week on Flint.

Sent from my iPhone

Begin forwarded message:

> **From:** "Saxton, Thomas (Treasury)" <SaxtonT@michigan.gov>
> **Date:** September 16, 2015 at 5:18:54 PM EDT
> **To:** "Muchmore, Dennis (GOV)" <muchmored@michigan.gov>, "Khouri, Nick (TREASURY)" <KhouriN@michigan.gov>
> **Cc:** "Lyon, Nick (DCH)" <LyonN2@michigan.gov>, "Wyant, Dan (DEQ)" <WyantD@michigan.gov>, "Wurfel, Brad (DEQ)" <WurfelB@michigan.gov>, "Agen, Jarrod (GOV)" <AgenJ@michigan.gov>, "Clement, Elizabeth (GOV)" <clemente@michigan.gov>, "Hollins, Harvey (GOV)" <hollinsh@michigan.gov>, "Roberts, John (DTMB)" <RobertsJ9@michigan.gov>, "Workman, Wayne (TREASURY)" <WorkmanW@michigan.gov>
> **Subject: Flint**
>
> Attached is the summary (prepared by Wayne's staff) of the call we/Treasury had yesterday with Flint. I would say nothing 'enlightening' really came out of the call.
>
> As indicated they asked about the status of the $30mm request to the Governor. Which coincidently is the ballpark number they are at risk for in the rate lawsuit(s).
> We said we did not have an immediate response other than it would likely require an appropriation by the legislature. This would probably lead to similar requests from other urban communities; but, we are still looking at it.
>
> We are not aware of any existing qualifying projects that the City has sought funding for in the SRF-drinking water program. They had asked previously for some funds on the wastewater side but had withdrawn the request because they lacked match funds.

From: Muchmore, Dennis (GOV)
Sent: Monday, September 28, 2015 12:04 PM
To: Snyder, Rick (GOV [redacted]
Subject: FW: Letter to Governor Snyder: Flint Water

Just got this.

From: Andrew Leavitt [mailto:ALeavitt@senate.michigan.gov]
Sent: Monday, September 28, 2015 11:45 AM
To: Muchmore, Dennis (GOV) <muchmored@michigan.gov>
Subject: Letter to Governor Snyder: Flint Water

Hi Dennis,

Senator Ananich began drafting the attached letter on Sunday and thought it would be helpful to guide our 12pm call.

Thanks,

Andy

SENATE MINORITY LEADER
JIM ANANICH

517.373.0142
senjananich@senate.michigan.gov
senatedems.com/ananich

September 28, 2015

State of Michigan
Executive Office of the Governor
P.O. Box 30013
Lansing, MI 48909

Governor Snyder,

Access to safe, affordable drinking water is a basic necessity for every community. It is completely unacceptable that respected scientific experts and our trusted local physicians have verified that the City of Flint's drinking water is dangerous for our citizens, especially our most vulnerable young people.

As a result, I am formally requesting assistance as suggested by the experts on the frontline of this public health crisis. Here are the top priorities we should work together to address:

1. **Swift transfer to a safe source of water until the Karegnondi Water Authority (KWA) project is complete next year.** Your administration has the ability to ensure a financially acceptable and responsible contract between Flint and the Detroit Water and Sewerage Department, particularly in light of the public health implications with the Flint River supply.

2. **Equally urgent is the need for corrosion control as recommended by independent scientific experts.** There are chemical treatment additives that could help reduce this corrosion. I urge you to help the city implement anti-corrosion methods immediately. The current emergency makes the January timeline unacceptable.

3. **Filters and bottled water assistance.** Flint water touches the entire city. Whether it's a person's home, work, school, restaurant or place of worship, access to safe, clean drinking water should not be hindered. Water filters, used in conjunction with corrosion control methods, are necessary to help guard against toxic exposure.

   I have been working with the philanthropic community and private sector to secure donations to acquire filters and water; however, more funds will be necessary to effectively cover the thousands of residents impacted. I would like to formally request emergency funding to help supplement the acquisition of water filters and bottled water. Any and all appropriate state or federal money to help accomplish this feat should be considered.

SENATE MINORITY LEADER
JIM ANANICH

517.373.0142
senjananich@senate.michigan.gov
senatedems.com/ananich

4. **Support for completion of the KWA pipeline.** It is presumed that the upcoming KWA pipeline will solve a number of problems associated with the current sourcing of Flint's water from the Flint River. I am requesting a meeting between representatives from your office, KWA board members and project engineers to discuss any options to expedite the pipeline's construction.

5. **A long-term commitment to addressing outdated infrastructure.** A recent EPA report just outlined the billions of dollars necessary over the next several decades to adequately secure safe water for our entire state. You have the position and opportunity to be a national leader on moving the debate forward on this topic so that we can avoid the type of catastrophe my community is grappling with today.

I look forward to working with you to deliver on these concrete and urgent action items to alleviate the public health crisis facing our residents.

We jeopardize any progress and comeback for our cities and state if we cannot ensure safe, basic necessities for our families or if we cannot come together swiftly to fix an identified, severe threat to the safety of our people.

Sincerely,

Jim Ananich
Senate Democratic Leader
District 27

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

Governor Rick Snyder
September 28, 2015
Daily Briefing

Note: No changes from Weekend Briefing

Are there other ways the city monitors for lead exposure?
The County Health Department, overseen statewide by the Michigan Department of Health and Human Services, regularly monitors blood levels in children throughout Michigan communities. The leading cause of lead poisoning is exposure to lead paint.

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 Flint, compared to the previous three years. This data suggests the recent change in water source by the City of Flint has not contributed to an increase in lead exposure throughout the community.

How does the state decide if the water is creating a lead problem?
Compliance with the federal lead rule is based on a 90th percentile calculation. If more than 10 percent of samples report lead above the federal action level of **15 parts per billion**, a water supply has an "action level exceedance." An exceedance is not a violation. It triggers other requirements which could include public notification, additional water quality sampling, and possibly further treatment.

While some of Flint's individual samples exceeded the 15 parts-per-billion lead action level, compliance is based on **the 90th percentile of samples**. The City of Flint's 90th percentile level has ranged between 0 parts per billion in 2008 and 2011, and 15 parts per billion in 1992, but never exceeded the action level.

The two most recent sampling periods, in 2014 and 2015, were 6 parts per billion and 11 parts per billion, respectively.

Did the city use <u>every</u> sample they got back?
Sampling requirements for lead and copper are designed to target the most common pathways to lead ingestion in homes with the least protection. The sample must be collected from a commonly used kitchen or bathroom tap, and in accordance with the provided sampling instructions. Homes that employ filtration or additional treatment cannot be included. Samples must also be collected within the established monitoring period.

I have a lead service connection or lead plumbing. What should I do?
Replacement is the only way to eliminate lead exposure. However, here are some interim steps homeowners can take to reduce it:

Flush 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" cold-water pipes by running the water until it becomes as cold as it will get. This could take five to 30 seconds if there has been recent water use elsewhere in the home, such as showering or flushing toilets. 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.

Who is responsible for replacement of leaded 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.**

Blood Lead Levels in Flint Talking Points
September 24, 2015

- Promoting the health of our residents is a statewide priority – a priority that includes ensuring clean, safe drinking water for all residents and especially children.
- The results of the Hurley Children's Hospital are under review by the Michigan Department of Health and Human Services.
- The analysis that Hurley conducted is different from the way MDHHS has analyzed data regarding blood lead levels in Flint.
- MDHHS is looking to see if we can replicate the results of the Hurley study to see how they achieved their results.

MDHHS Blood Lead Testing Results in Flint

- MDDHS data shows a comprehensive look at the data since 2010, years before the change in Flint's water source occurred in April 2014.
- Each year shows a seasonal increase in childhood lead poisoning in the summer months, the highest seasonal increase of which occurred in 2010.
- If elevated blood lead levels were being driven by the change in water, we would expect to see the elevated levels remain high after the change in water source, rather than follow the seasonal pattern as they did by decreasing in the fall months.
- All data included in the MDHHS analysis were reported by laboratories directly to MDHHS, in accordance with State Law.

Differences in Analysis

- MDHHS data provides a much more robust picture of the entire blood lead levels for the Flint area, and specifically, accounts for data over the full course of the past five years.
- Looking at the past five years as a whole provides a much more accurate look at the seasonal trends of lead 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. This seasonal increase would be unrelated to the water system.
- Our data includes children from the entire city, including all medical facilities, rather than just Hurley, has a larger age group of children, and includes a much larger sample size.
- The MDHHS analysis looks specifically at the first elevated blood lead level for each child, which provides an accurate picture of when first exposure occurred.

- The Hurley data includes a smaller sample size, much more limited time period (January-September of 2013 and 2015 only), and a smaller age group of children.

WIC Children

- 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.

From: Scott, Allison (GOV)
Sent: Tuesday, September 29, 2015 11:06 AM
To: Snyder, Rick (GOV) [redacted]
Subject: FW: Flint Water Timeline

fyi

From: Wisniewski, Wendy (GOV)
Sent: Tuesday, September 29, 2015 11:00 AM
To: Scott, Allison (GOV) <scotta12@michigan.gov>
Cc: Agen, Jarrod (GOV) <AgenJ@michigan.gov>
Subject: Flint Water Timeline

Per our discussion, attached is the draft timeline that Tom Saxton sent to Dennis

Wendy Wisniewski
Executive Assistant to Dennis Muchmore
and Beth Clement
Executive Office of Governor Rick Snyder
George W. Romney Building, 2nd Floor
111 South Capitol Avenue
P.O. Box 30013
Lansing, MI 48909
(517) 241-5601
WisniewskiW@michigan.gov

STATE OF MICHIGAN
DEPARTMENT OF TREASURY
LANSING

RICK SNYDER
GOVERNOR

NICK A. KHOURI
STATE TREASURER

Flint Water Timeline (09-28-15)

June 26, 2012 – Letter from Flint EM Mike Brown to DWSD for permission to begin blending Flint River water with treated water from DWSD. The letter indicates that the DEQ is supporting this option and its implementation would save the City between $2M and $3M annually.

September 20, 2012 – Letter from Flint EM Ed Kurtz to DWSD requesting written permission to implement the blending option. Approval is requested by October 1, 2012.

October 31, 2012 – Analysis by the Flint Finance Director suggests that the annual cost to purchase water from DWSD will steadily increase to $23M per year by fiscal year 2020.

November 2012 – Treasury retains Tucker, Young, Jackson and Tull (TYJT) to evaluate the KWA proposal to the City of Flint.

November 6, 2012 – Letter from Flint Emergency Manager Ed Kurtz to State Treasurer Dillon that a proposal from DWSD is expected but that the initial assessment is that switching to KWA is in the best interest of the City of Flint.

February 2013 – TYJT issues a final report to Treasury on the comparison between Karegnondi Water Authority (KWA) and DWSD. Analysis suggests that the KWA option is the cheaper option for the City of Flint.

March 2013 – DWSD contacts the City of Flint to begin direct negotiations on a contract extension. Multiple options are provided to the Flint Emergency Manager (EM) Ed Kurtz.

March 26, 2013 – The Flint City Council endorses joining KWA.

April 11, 2013 – State Treasurer Andy Dillon authorizes Flint EM Ed Kurtz, pursuant to Section 12(3) of P.A. 436 of 2012, to enter into a contract with KWA if a final offer from DWSD is either not received for rejected in good faith based upon specific objections.

April 15, 2013 – DWSD provides a best and final offer to the City of Flint. Analyses by Flint EM Ed Kurtz, the Department of Environmental Quality and Treasury's Office of Fiscal Responsibility independently conclude that the KWA option is cheaper for the City of Flint.

April 16, 2013 –Flint EM Ed Kurtz informs the State Treasurer that the City will join KWA. This decision was officially announced May 1, 2013.

April 17, 2013 – DWSD transmits a letter to Flint EM Ed Kurtz terminating service to the City of Flint, effective April 17, 2014.

June 2013 – Groundbreaking for the Karegnondi Water Authority. Flint also requests full time use of the Flint Water Treatment Plant with Flint River water as a source.

June 28, 2013 – Financing Contract between the City of Flint and KWA is approved. Effective September 1, 2013. This document was signed by EM Mike Brown.

February 19, 2014 – The KWA Board of Directors adopts Resolution 2014-01, authorizing KWA to bond for water line construction on-behalf of the City of Flint.

April 17, 2014 – Water service from DWSD officially ends. The City of Flint also conducts two separate public forums regarding the use of Flint River water, upgrades to the City's water system and the overall cost of the switch to KWA.

April 25, 2014 – City conducts public event marking the transition to the use of Flint River water. DEQ information shows that transition complete by May 2015.

March 3, 2015 – Flint EM Jerry Ambrose provides a memorandum to Deputy State Treasurer Wayne Workman stating that a reconnection to DWSD will cost the City $10.1M/year and that water purchases could be as high as $1M/month.

March 12, 2015 – The City of Flint hires Veolia to conduct an operational evaluation of the City's water system.

From: Muchmore, Dennis (GOV)
Sent: Thursday, October 01, 2015 4:34 PM
To: Snyder, Rick (GOV) [redacted]
Cc: Agen, Jarrod (GOV) <AgenJ@michigan.gov>
Subject: FW: Flint financial update

Fyi

From: Workman, Wayne (TREASURY)
Sent: Thursday, October 1, 2015 2:15 PM
To: Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>; Durfee, Sally (TREASURY) <DurfeeS1@michigan.gov>; Khouri, Nick (TREASURY) <KhouriN@michigan.gov>
Cc: Saxton, Thomas (Treasury) <SaxtonT@michigan.gov>; Stanton, Terry A. (Treasury) <StantonT@michigan.gov>
Subject: Fwd: Flint update

So we don't forget the money; Flint is now running a $14,000,000 deficit in the WaterFund due to two lawsuits that have gone against the City. It has reduced what they can bill some folks have stopped paying believing they will be getting big credits or refunds. Also water cont be shut off for nonpayment under one suit

Sent from my iPhone

Begin forwarded message:

> **From:** "Byrne, Randall (Treasury)" <ByrneR1@michigan.gov>
> **Date:** October 1, 2015 at 10:29:51 AM EDT
> **To:** "Workman, Wayne (TREASURY)" <WorkmanW@michigan.gov>
> **Cc:** "Saxton, Thomas (Treasury)" <SaxtonT@michigan.gov>, "Schafer, Suzanne K. (Treasury)" <SchaferS7@michigan.gov>
> **Subject: Flint update**
>
> Wayne:
>
> The local television station reported this morning that the Flint Finance Director informed the City Council last night that they project a deficit of $14M in their Water and Sewer Fund at year end. I spoke to Natasha this morning and requested a copy of their budget report and a cash flow analysis to verify this information. I should have this information today.
>
> Randy,

Randall Byrne | **State Administrative Manager**
Local Government Services - Office of Fiscal Responsibility
State of Michigan | 430 W. Allegan Street, 3rd Floor | Lansing, MI 48922
(517) 335-2521 | (517) 373-0633 (fax) | ByrneR1@michigan.gov

Think Green! Don't print this e-mail unless you need to.

From: Muchmore, Dennis (GOV)
Sent: Thursday, October 01, 2015 4:31 PM
To: Snyder, Rick (GOV) [redacted]
Cc: Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Posthumus, Dick (GOV) <Posthumusd@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>; Hollins, Harvey (GOV) <hollinsh@michigan.gov>
Subject: Flint

I talked with Dayne Walling at length today a few minutes ago, and Harvey and I had separate meetings with one of the Flint minister groups and then Rep. Neely. Our conversations were cordial for the most with the normal concerns being expressed. I told Rep. Neely that I felt he hadn't gotten enough respect and insight into our thoughts on this and we expanded our backgrounder for him and he was very appreciative. He actually cancelled a Black Caucus meeting called for today on this due to Harvey and our meeting. I have Dan and Nick calling him just to update.

More importantly, we have the proposal back from DWSD for a reconnect:

1. Short term reconnect is ok until KWA starts operating;
2. No reconnect fee and immediate reconnect;
3. Expenses incurred at actual cost although no estimate at this time
4. A fixed monthly rate of $662,100 + a commodity rate of $8.93mcf for current 15-16 FY;
5. Rate is over and above water sales to Genesee County Drain Commission;
6. A water wholesale adjustment;
7. Only extends to Flint;
8. Rates for 16-17 FY would be the same as other customers.

Mayor Duggan is more than willing to lend his support.

I'm asking Saxton for a ballpark calculation. We would have to find them the money for this reconnect, but Dayne is more than open (as is Ananich to a lesser degree) to finding some revolving fund that they would repay perhaps on an extended basis or maybe using some guarantee to reduce the borrowing costs.

From: Paciorek, Josh (GOV)
Sent: Friday, October 02, 2015 10:31 AM
To: Snyder, Rick (GOV) <[redacted]
Cc: Scott, Allison (GOV) <scotta12@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>
Subject: Updated Flint Water posters/infographics

Governor,

Attached are the updated infographics/posters with the action items reordered the way you suggested.

Josh

TAKING ACTION ON FLINT WATER

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.
- **Expanding health exposure testing** of individual homes.
- **Offering free water testing** to Flint residents to assure their drinking water is safe.
- **Accelerating corrosion controls** in the Flint drinking water system.
- **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.
- **Accelerating water system improvements** to address replacing lead service lines.
- Expediting the completion of the **Karegnondi Water Authority** pipeline.
- Naming Dr. Eden Wells, chief medical executive for the Michigan Department of Health and Human Services, as the **Flint drinking water public health adviser**.
- **Providing water filters** to residents with concerns or who are included in state assistance programs.
- Creating 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

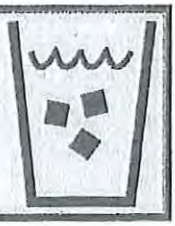
TAKING ACTION ON FLINT WATER

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 5 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 1 and 10 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

-----Original Message-----
From: Agen, Jarrod (GOV)
Sent: Friday, October 02, 2015 10:35 AM
To: Snyder, Rick (GOV) [redacted]
Cc: Scott, Allison (GOV) <scotta12@michigan.gov>
Subject: Re: Flint

Josh just sent infographics.
On filters -- Dan Wyant just called to tell me we can announce $1 million for filters out of a settlement fund in DEQ. Will be put into supplemental approps bill next week.
I'll get more on timing of availability.
Gettings answers on these others too.

> On Oct 2, 2015, at 7:12 AM, Snyder, Rick (GOV)[redacted] wrote:
>
> Do we have updated infographs?
>
> Do we have an answer as to how to reconcile what Genesse County said yesterday with what we are saying today?
>
> Any more info on the timing of filter availability?
>
> Best way to talk about discussions with GLWA?
>
> Thanks
> Rick
>
> Sent from my iPad

-----Original Message-----
From: Snyder, Rick (GOV)
Sent: Friday, October 02, 2015 12:33 PM
To: Muchmore, Dennis (GOV) <muchmored@michigan.gov>
Cc: Agen, Jarrod (GOV) <AgenJ@michigan.gov>
Subject: Re: Question to consider

We need Treasury to work with Dan and Flint on a clear side by side comparison of the health benefits and costs of GLWA vs. a more optimized Flint system. Also, we need to look at what financing mechanisms are available to Flint to pay for any higher cost actions. Please get people working on these two issues ASAP.

Thanks
Rick

Sent from my iPad

> On Oct 2, 2015, at 8:04 AM, Muchmore, Dennis (GOV) <muchmored@michigan.gov> wrote:
>
> Ok. Walling, Ananich and Kildee are pushing privately for that to be considered. We'll collect as much info as possible. Dayne is setting up a meeting with DWSD on his own and I thought that his initiation without our encouragement or leadership was the right way to approach it. I just told Dayne to be careful about some twist that hasn't yet been considered.
>
>> On Oct 2, 2015, at 10:57 AM, Snyder, Rick (GOV) <[redacted] wrote:
>>
>> We should help get all of the facts on the consequences of changing back vs. staying and then determine what financing mechanisms we have available. If we can provide the financing, then we should let Flint make the decision.
>>
>> Thanks
>> Rick
>>
>> Sent from my iPad
>>
>>> On Oct 2, 2015, at 7:38 AM, Muchmore, Dennis (GOV) <muchmored@michigan.gov> wrote:
>>>
>>> It appears on the surface (without the deep dive we'll definitely do on it) that for $11M we can reconnect to DWSD system for the intervening time before KWA comes on line. That may well be the only way to bring any confidence back to the community. If you choose to do so, what if we created or expanding some revolving fund where Flint wouldn't have to start repaying until 2020 or whenever in the future to stretch the liability? If we needed to have a guarantee perhaps we could use the Escheats of the bottle bill money as a set aside or guarantor without having to touch the principal?

From: GOV Newsroom [mailto:govnewsroom@govsubscriptions.michigan.gov]
Sent: Friday, October 02, 2015 1:58 PM
To: Snyder, Rick (GOV)[redacted]
Subject: NEWS RELEASE: Gov. Rick Snyder: Comprehensive action plan will help Flint residents address water concerns

Governor Rick Snyder
REINVENTING MICHIGAN
Getting It Right. Getting It Done.

News Release

Contacts: Sara Wurfel or Dave Murray
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, October 2, 2015

Editor's Note: Click here for infographic and action plan.

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.

###

STAY CONNECTED:

-----Original Message-----
From: Snyder, Rick (GOV)
Sent: Friday, October 02, 2015 12:33 PM
To: Muchmore, Dennis (GOV) <muchmored@michigan.gov>
Cc: Agen, Jarrod (GOV) <AgenJ@michigan.gov>
Subject: Re: Question to consider

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Thanks
Rick

Sent from my iPad

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-----Original Message-----
From: Snyder, Rick (GOV)
Sent: Wednesday, October 21, 2015 7:38 AM
To: Wurfel, Sara (GOV) <Wurfels@michigan.gov>
Cc: Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>; Scott, Allison (GOV) <scotta12@michigan.gov>
Subject: Flint water question from Mildred

She claimed that two Flint children were in critical condition over lead. Her source was Rev. Bullock. I said I wasn't aware of that and that all of the identified children were being tracked by public health officials. Please check on the status of children with higher level of lead.

Thanks
Rick

Sent from my iPad

From: Scott, Allison (GOV)
Sent: Tuesday, October 06, 2015 8:21 AM
To: Snyder, Rick (GOV) [redacted]
Subject: Fwd: Flint Water updates

This will be daily plan

Sent from my iPhone

Begin forwarded message:

> **From:** "Agen, Jarrod (GOV)" <AgenJ@michigan.gov>
> **Date:** October 6, 2015 at 8:20:24 AM EDT
> **To:** "Scott, Allison (GOV)" <scotta12@michigan.gov>
> **Cc:** "Clement, Elizabeth (GOV)" <clemente@michigan.gov>, "Muchmore, Dennis (GOV)" <muchmored@michigan.gov>
> **Subject: Re: Flint Water updates**
>
> Update from Dan in briefing. Comms to also send update for briefing on stories or announcements upcoming. But Dan will have most accurate testing and analysis details to report.
>
> > On Oct 6, 2015, at 8:14 AM, Scott, Allison (GOV) <scotta12@michigan.gov> wrote:
> >
> > What is most effective accurate rout? Dan provided update for briefing each day or does Comms shop speak to DEQ Comms and provide?
> >
> > Sent from my iPhone
> >
> > > On Oct 6, 2015, at 8:05 AM, Snyder, Rick (GOV) [redacted] wrote:
> > >
> > > We need a better update system re Flint Water.

I saw in the press this am that DHHS announced yesterday that water filters would start being given out today. This should have come internally with more detail. I had press questions last night.

Overall, we should have a daily report on Flint until our recommendations are fully implemented.

For example:

1. What are the water test results from the public schools?

2. How many free test have been requested? How many have been done? How many remain and how long have they been waiting? What are the results - no lead, lead consistent with history, higher levels?

3. How many filters have been distributed? How many unfulfilled requests?

4. New blood test results? Especially in the two zip codes.

5. Analysis of tech advisory group

6. Analysis of the GLWA vs. Flint River vs. KWA.

Thanks

Rick

Sent from my iPad

-----Original Message-----
From: Lyon, Nick (DHHS)
Sent: Tuesday, October 06, 2015 9:23 PM
To: Snyder, Rick (GOV) <[redacted]; Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>; Scott, Allison (GOV) <scotta12@michigan.gov>; Hollins, Harvey (GOV) <hollinsh@michigan.gov>; Wyant, Dan (DEQ) <WyantD@michigan.gov>; Baird, Richard (GOV) <bairdr@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Roberts, John (DTMB) <RobertsJ9@michigan.gov>
Cc: Becker, Timothy (DHHS) <beckert1@michigan.gov>; Lasher, Geralyn (DHHS) <lasherg@michigan.gov>; Hertel, Elizabeth (DHHS) <HertelE@michigan.gov>; Grijalva, Nancy (DHHS) <GrijalvaN@michigan.gov>
Subject: Flint Water Filter Disfribution

The process of distributing water filters began on site today in Flint from the supply purchased by MDHHS.

909 were distributed at MDHHS offices.

1,869 were distributed at the local Community Action Agency locations.

1,624 were distributed to the Flint Housing Commission for installation at low income housing.

186 to early head start, Mott Park Neighborhood Association and Commissioners.

A total of 4,588 were distributed today.

It was a good first day and shows our commitment to action.

We will continue to provide updates on filters through Dan.

Nick

Scott, Allison (GOV)

From: Snyder, Rick (GOV)
Sent: Monday, January 18, 2016 11:26 AM
To: Scott, Allison (GOV)
Subject: FW: 2015-10-09 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Attachments: 2015-10-09 Action Steps Week of October 12-16.pdf

Importance: High

From: Wyant, Dan (DEQ)
Sent: Friday, October 09, 2015 4:57 PM
To: Scott, Allison (GOV) <scotta12@michigan.gov>; Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Dickinson, Sarah (GOV) <DickinsonS@michigan.gov>; Emmitt, Beth (GOV) <emmittb@michigan.gov>; Snyder, Rick (GOV) [redacted]
Cc: Wyant, Dan (DEQ) <WyantD@michigan.gov>
Subject: 2015-10-09 Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Importance: High

Dear Governor,

Attached is our update for today, October 9, 2015.

We have included more information to the 26 Action Steps that we sent to you yesterday.

If you have any questions, please let me know. Thank you.

Dan Wyant
Director

City of Flint Water
Action Steps for Week of October 12-16

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
1.	Identify schools and prioritize for assessment	GCISD, GCHD, DEQ, DHHS, and Flint	Steve Busch	
2.	Get DLARA plumbers organized	DEQ and DLARA	Steve Busch	
3.	Complete sampling instructions	DEQ, DHHS, and EPA	Pat Cook	
4.	MDARD information for restaurants	MDARD, DHHS, and DEQ	Dana DeBruyn	
5.	Update 2004 letter to EPA	DEQ	Dana DeBruyn	
6.	Approve Flint plan for water line	DEQ, Flint, and Genesee County	Mike Prysby	
7.	Lead education plan for schools for drinking water	DHHS and DEQ	Liane Shekter Smith	
8.	Begin regular meetings with Flint	DEQ and Flint	George Krisztian	
9.	Schedule Water Treatment Plant tour	DEQ and Flint	George Krisztian	
10.	Meet with schools and DLARA – invitation only	DEQ, DLARA, and Flint schools	Karen Tommasulo	
11.	Update DEQ Web page	DEQ	Karen Tommasulo	
12.	Contact DHHS to see where they are with United Way regarding emergency declaration	DEQ and DHHS	George Krisztian	
13.	Circulate protocol draft with EPA	DEQ and EPA	Liane Shekter Smith	
14.	Contact city about homeowner sample delivery	DEQ and Flint	George Krisztian	
15.	Communicate to MDARD and Flint that business samples should be coordinated though DEQ laboratory	DEQ, MDARD, and Flint	Liane Shekter Smith George Krisztian	Liane to call MDARD and George to call Flint

Step No.	Action Step	Involved Parties	DEQ Point(s) of Contact	Status
16.	Figure out number of samples from schools and child care facilities	DEQ	Liane Shekter Smith Pat Cook Steve Busch	
17.	Confirm Linda Dykema is Point of Contact for DHHS	DEQ	George Krisztian	Done
18.	Contact KWA to find out if there are any bottlenecks we need to remove	DEQ and KWA	Mike Prysby	
19.	Expedite 399 Plan and Phosphate Plan	DEQ and Flint	Mike Prysby	
20.	Get update on service line index card conversion and identify where partial replacements exist	DEQ and Flint	Steve Busch	
21.	Make sure DHHS gets information so they can cross reference	DEQ and DHHS	Steve Busch	
22.	Legislative contacts	DEQ	Maggie Pallone	Conference call with Sen. Jim Ananich scheduled for October 12 at 3 pm
23.	Legislative time line and summary	DEQ	Maggie Pallone	
24.	Reconnect with State Superintendent Brian Whiston	DEQ and Department of Education	Dan Wyant	Mary Beth Thelen to schedule
25.	Conduct After Action Plan	DEQ	George Krisztian	To be scheduled for October 15
26.	Change Part 54 of NREPA – Drinking Water Revolving Loan Fund	DEQ, Treasury, and EPA	Maggie Pallone Liane Shekter Smith Sonya Butler	

Snyder, Rick (GOV)

From: Duncan, Nancy (DTMB)
Sent: Thursday, October 08, 2015 8:41 AM
To: Roberts, John (DTMB); Snyder, Rick (GOV)
Cc: Muchmore, Dennis (GOV); Agen, Jarrod (GOV); Clement, Elizabeth (GOV); Posthumus, Dick (GOV); Wyant, Dan (DEQ); Scott, Allison (GOV)
Subject: RE: Flint Funding Request
Attachments: City of Flint Water Funding Solution.pdf

The DHHS number (for follow-up on children with elevated blood levels) increased slightly from $600k to $850k, bringing the total state commitment to $10.6m gross/$8.2m GF. Revised chart attached.

From: Roberts, John (DTMB)
Sent: Wednesday, October 07, 2015 7:20 PM
To: Snyder, Rick (GOV)
Cc: Muchmore, Dennis (GOV); Agen, Jarrod (GOV); Clement, Elizabeth (GOV); Posthumus, Dick (GOV); Wyant, Dan (DEQ); Duncan, Nancy (DTMB); Scott, Allison (GOV)
Subject: Flint Funding Request

Governor –

Attached is a summary of the funding recommendations, from the departments, to address the Flint Water situation. The total state commitment would be $10.4m; $7.9m of that amount is GF/GP. [The DHHS number needs to be verified tomorrow morning, but the final number should be close to this estimate.]

The funding will address 4 priority areas:

1. Provision of filters for residential service;

2. 50% of the estimated cost to reconnect temporarily to the Detroit Water System;

3. Funding for testing water samples; and

4. Other state assistance (e.g., home/school/health facility inspections and follow-up for children with elevated blood levels).

We are preparing a formal supplemental request to transmit to the Legislature tomorrow. I intend to talk with Rep. Pscholka and Sen. Hildenbrand about including this funding in HB 4102, the pending supplemental bill now awaiting House concurrence. Assuming that they agree, we would ask for final action next week.

Are you ok proceeding with these numbers?

John

Snyder, Rick (GOV)

From: Scott, Allison (GOV)
Sent: Wednesday, October 07, 2015 7:19 PM
To: Dickinson, Sarah (GOV); Snyder, Rick (GOV); Emmitt, Beth (GOV)
Subject: Fwd: Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED
Attachments: City of Flint Water Funding Solution.pdf; ATT00001.htm; FLINT SCHOOL TESTING RESULTS.DOCX; ATT00002.htm; Drinking Water Regulations for Monitoring of Lead in Schools and Child C....doc; ATT00003.htm; Response to Corrosion Control Questions.docx; ATT00004.htm; Fwd: TAC Meeting Highlights; ATT00005.htm; CC Meeting Minutes 3-25-2013 (1).doc; ATT00006.htm; Flint.pdf; ATT00007.htm; KWA Contract (amended) 130165.2.pdf; ATT00008.htm

We will put in pdf for you

Sent from my iPhone

Begin forwarded message:

> **From:** "Wyant, Dan (DEQ)" <WyantD@michigan.gov>
> **Date:** October 7, 2015 at 7:09:27 PM EDT
> **To:** "Scott, Allison (GOV)" <scotta12@michigan.gov>, "Muchmore, Dennis (GOV)" <muchmored@michigan.gov>, "Agen, Jarrod (GOV)" <AgenJ@michigan.gov>, "Dickinson, Sarah (GOV)" <DickinsonS@michigan.gov>, "Emmitt, Beth (GOV)" <emmittb@michigan.gov>
> **Subject: Flint Drinking Water Action Plan Update - FOIA EXEMPT AND ATTORNEY-CLIENT PRIVILEGED**
>
> 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

Governor Rick Snyder
October 8, 2015
Supplemental Briefing from DWyant

***NOTE: Other Update (from body of DWyant email; no document attached)

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.

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:			**Reconnection costs ~$1.3m/month x 9 mos. to be shared by state & Flint**
Environmental Quality	$5,000,000	$6,000,000	DEQ State Restricted Settlement Fund of $1m; balance GF/GP
Subtotal Reconnect:	**$5,000,000**	**$6,000,000**	
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 remedying 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.

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.

From:	Sygo, Jim (DEQ)
To:	Thelen, Mary Beth (DEQ); Shaler, Karen (DEQ); Wyant, Dan (DEQ)
Subject:	Fwd: TAC Meeting Highlights
Date:	Wednesday, October 07, 2015 6:00:30 PM

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

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 ***Jacqueline Poplar, Ward 2***
Joshua M. Freeman, Ward 4 ***Bernard Lawler, Ward 5***
Sheldon A. Neeley, Ward 6 ***Dale K. Weighill, Ward 7***
Michael J. Sarginson, Ward 8

Inez M. Brown, City Clerk

CALL TO ORDER

President Scott Kincaid called the meeting to order at 5:33 p.m.

ROLL CALL

Councilperson Michael Sarginson arrived at 5:37 p.m.

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

PLEDGE OF ALLEGIANCE

Councilperson Sheldon Neeley led the Pledge of Allegiance.

SPECIAL ORDER

130217 Special Order/Information & Discussion/Karegnondi Water Authority (KWA)

A Special Order as requested by Council President Scott Kincaid to continue discussion and review of information on the Karegnondi Water Authority (KWA).

Presented

PETITIONS AND UNOFFICIAL COMMUNICATIONS

130193 Change to Digital/All Limited Basic Service Channels/Comcast Cablevision

Communication dated March 6, 2013, from Gerald W. Smith, Government Affairs Manager, Comcast, to Flint City Clerk, re: On or shortly after April 9, 2013, Comcast will convert all Limited Basic service channels -- including Public, Government and Educational Access (PEG) channels to digital format, and will provide customers with digital equipment.

This matter was Placed on File. The motion carried.

130199 Certified Letter/Loyst Fletcher, Jr. & Associates

Communication received from Loyst Fletcher, Jr. to Chief Legal Officer, re: He questions the tax-exempt status of Word of Life Christian Church, which received a tax bill from the city.

This matter was Placed on File. The motion carried.

130200 Local Approval Notice/Michigan Liquor Control Commission (MLCC)/Time Square/Ward 3

Local Approval Notice dated March 14, 2013, from MLCC to Flint City Clerk, re: The MLCC has received a request to transfer all stock in 2012 Class C license with Sunday Sales Permit (PM) and Dance Permit, located at 4522 N. Saginaw,

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

Information Officer, re: The City of Flint has seven new police officers on the job from the public safety millage passed last November by voters. The city's next step is to hold a recruitment drive by working with a local college, which will set up a Police Academy when the city has gathered sufficient interest from its efforts.

This matter was Placed on File. The motion carried.

130195 Press Release/City of Flint/Sunday Sales of Alcohol Before Noon Not Permitted on St. Patrick's Day

Press Release dated March 12, 2013, from Jason Lorenz, City of Flint Public Information Officer, re: The City of Flint will not be able to permit Sunday alcohol sales before noon this Sunday, March 17, St. Patrick's Day. While the city adopted a resolution to allow a one-time exception to the Sunday morning alcohol ban, the Michigan Liquor Control Commission has taken the position that the city cannot create a one-day exemption.

This matter was Placed on File. The motion carried.

130196 Flint City Council/Public Notice/Special City Council Meeting/March 18, 2013

Public Notice posted March 14, 2013, re: The Flint City Council will hold a Special City Council Meeting, followed by a Finance Committee Meeting, at 5:30 p.m. Monday, March 18, 2013, in the City Council Chambers, 3rd Floor, City Hall, to consider a contract with the Karegnondi Water Authority (KWA).

This matter was Placed on File. The motion carried.

130201 Emergency Financial Manager (EFM) Order #10/Grant Applications

Order #10 issued by Emergency Financial Manager on March 15, 2013, "Grant Applications," re: "all city officials, department heads, division heads and employees shall adhere to ...requirements regarding the approval of any and all grant applications on behalf of the City of Flint or grant applications submitted by others which in any way involves the financial, programmatic or personnel support by the City of Flint." The five requirements, including the stipulation that only the Emergency Financial Manager or City Administrator are authorized to accept grants on behalf of the city, are included in the order.

This matter was Placed on File. The motion carried.

130203 Press Release/City of Flint/Flint Lifelines/Meeting Announcement

Press Release dated March 16, 2013, from Jason Lorenz, City of Flint Public Information Officer, re: Flint Lifelines, formerly CeaseFire Flint, will hold community meetings on the fourth Thursday of each month, beginning at 1 p.m. Thursday, March 28, 2013 at Flint Northwestern High School. The meetings are open to the public.

This matter was Placed on File. The motion carried.

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

1, 2011, and expiring September 1, 2014. [By way of background, Ms. Monk's term on the Zoning Board of Appeals expired in September 2011, but she has continued since that time to serve.] [Resolution amended to fix typographical error in first paragraph of resolution from "Board of Review" to "Zoning Board of Appeals."]

Sponsors: Sheldon A. Neeley

A motion was made by Councilperson Neeley, 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

130211 Appointment/Zoning Board of Appeals/Chris Zuwala (Ward 4)

Resolution resolving that the Flint City Council recommends the appointment of Chris Zuwala (3510 Whittier Avenue, Flint MI 48506 - Ward 4) to the Zoning Board of Appeals for a three-year term, expiring September 1, 2013. [NOTE: By way of background, Gloria Kelly's term as the 4th Ward representative expired in September 2007, but she continued to serve until resigning 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

130212 Reappointment/Zoning Board of Appeals/Birdie V. Brooks (Ward 5)

Resolution resolving that the Flint City Council recommends the reappointment of Birdie V. Brooks (1307 Columbia Lane, Flint MI 48503 - Ward 5), to the Zoning Board of Appeals for the remainder of a three-year term, expiring September 1, 2014. [By way of background, Ms. Brook's term on the Zoning Board of Appeals expired in September 2011, but she has continued since that time to serve.]

Sponsors: Bernard Lawler

A motion was made by Councilperson Lawler, seconded by Councilperson Neeley, 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

130213

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

130218 Reappointment/Hurley Board of Hospital Managers/Philip W. Shaltz

Resolution resolving that the Flint City Council approves the reappointment of Philip W. Shaltz (14144 Moffet Drive, Fenton, MI 48430) to an additional five-year term on the (Hurley) Board of Hospital Managers, with such term to commence May 1, 2013, and expire April 30, 2018.

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

130219 Appointment/Hurley Board of Hospital Managers/Delrico Loyd

Resolution resolving that the Flint City Council approves the appointment of Delrico Loyd (2641 Westwood Parkway, Flint, MI 48507) to a five-year term on the (Hurley) Board of Hospital Managers, with such term to commence May 1, 2013, and expire April 30, 2018. [By way of background, Carl E. Mason was appointed in June 2008; his term expires April 30, 2013.]

Approved

Substituted

A motion was made by Councilperson Neeley, seconded by Councilperson Lawler, that this matter be POSTPONED for March 27, 2013. The motion failed by the following vote:

Aye: 3 - Councilperson Lawler, Councilperson Neeley and Councilperson Sarginson

No: 5 - Councilperson Poplar, Vice President Nolden, Councilperson Freeman, President Kincaid and Councilperson Croom

Absent: 1 - Councilperson Weighill

Substituted

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

Aye: 5 - Councilperson Poplar, Vice President Nolden, Councilperson Freeman, President Kincaid and Councilperson Croom

No: 3 - Councilperson Lawler, Councilperson Neeley and Councilperson Sarginson

Absent: 1 - Councilperson Weighill

130220 Appointment/Hurley Board of Hospital Managers/Donna Poplar

Resolution resolving that the Flint City Council approves the appointment of Donna Poplar (5277 Kimberly Woods Circle, Flint, MI 48504) to a five-year term

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 Kincald 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

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 15 to 16 units of capacity.]

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

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

No: 1 - Vice President Nolden

Absent: 1 - Councilperson Weighill

130216 Approval/The First Amendment & Restated Rules Governing the Downtown Development Authority (DDA) of the City of Flint

Resolution that the City of Flint hereby approves and The First Amendment & Restated Rules Governing the Downtown Development Authority (DDA) of the City of Flint, attached hereto. [NOTE: The City of Flint created the DDA, in accordance with Public Act 197 of 1975, as amended, and approved The Rules Governing the DDA in 1977. Public Act 197 has been 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.]

A motion was made by Councilperson Freeman, seconded by Vice President Nolden, that this matter be Amended. 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

130216.1 Amended Resolution/Approval/The First Amendment & Restated Rules Governing the Downtown Development Authority (DDA) of the City of Flint

Amended resolution that the City of Flint hereby approves and The First Amendment & Restated Rules Governing the Downtown Development Authority (DDA) of the City of Flint, attached hereto. [NOTE: The City of Flint created the DDA, in accordance with Public Act 197 of 1975, as amended, and approved The Rules Governing the DDA in 1977. Public Act 197 has been

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

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.] [Six-page resolution amended for changes proposed by City Council, City Clerk and Mayor Dayne Walling.]

A motion was made by Councilperson Freeman, seconded by Councilperson Poplar, 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

MEETING SCHEDULE

ADDITIONAL COUNCIL DISCUSSION

ADJOURNMENT

Having no further business, Council President Scott Kincaid adjourned the meeting at 8:59 p.m.

Respectfully transcribed and submitted,

Janell Johnson, Administrative Secretary to City Council

EM SUBMISSION NO.: 2013EM041

PRESENTED: 3-28-13

ADOPTED: 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 then 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 then $32,300.00 per unit per year until such time as water is made available to the buyer. After water is made available, the buyer shall pay to the KWA an estimated amount not to exceed $355.300.00 per unit per year until such time that the bonds are paid in full. If it is determined that the costs per unit will exceed $355,300.00 the buyer has a right to cancel the contract.

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

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

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

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

APPROVED AS TO FORM:

Peter M. Bade, City Attorney

APPROVED AS TO FINANCE:

For **Gerald Ambrose, Finance Director**

EM DISPOSITION:

ENACT V **FAIL** _____ **DATED** 3-29-13

Edward L. Kurtz, Emergency Manager

S:\P. Bade\EM2013\Resolutions\KWA.03.28.13.doc

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 | dadams6@mlive.com [http://connect.mlive.com/staff/dadams1/posts.html]
Follow on Twitter [http://www.twitter.com/dominicadams]
on March 25, 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_deci.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.

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

Karengnondi is the regional water authority that includes Genesee, Lapeer and Sanilac counties and the cities of Flint and Lapeer.

Flint is the second municipality, behind Genesee County, to officially decide to purchase raw water through the KWA. Lapeer city officials said they intend to purchase water, but an agreement has been finalized.

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].

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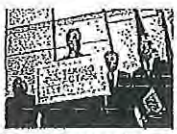

Price of Detroit water for Flint is $1.5 million a month, mayor says

[http://www.mlive.com/news/flint/index.ssf/2015/10/mayor_city_ad

Here's how that toxic lead gets into Flint water

[http://www.mlive.com/news/flint/index.ssf/2015/10/see_step_by_s

GENESEE COUNTY DRAIN COMMISSIONER'S OFFICE
JEFFREY WRIGHT
COMMISSIONER
G-4608 BEECHER ROAD, FLINT, MI 48532
PHONE (810) 732-1690 FAX (810) 732-1474

FOR IMMEDIATE RELEASE

March 26, 2013

CONTACT: Jeff Wright

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.

89 (Rev. 02-11)

STATE OF MICHIGAN
DEPARTMENT OF TREASURY
LANSING

RICK SNYDER
GOVERNOR

ANDY DILLON
STATE TREASURER

April 11, 2013

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

Dear Mr. Kurtz:

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

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

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

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

Sincerely,

Andy Dillon
State Treasurer

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 26, 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] .

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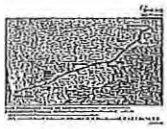
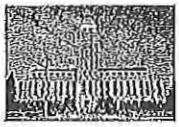


Enbridge can begin piping tar sands oil along Lake Ontario north shore

[http://www.mlive.com/news/index.ssf/2015/10/enbridge_can_beg



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

[http://www.mlive.com/news/detroit/index.ssf/2015/10/former_detr

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 then 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 then $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.

IT IS RESOLVED that City officials are authorized to enter into a contract with KWA to purchase SIXTEEN (16) units of capacity, plus TWO (2) units from the Flint River.

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

APPROVED AS TO FORM:

Peter M. Bade
Chief Legal Officer

APPROVED AS TO FINANCE:

Gerald Ambrose
Finance Director

APPROVED BY MAYOR:

Dayne Walling
Mayor

APPROVED BY CITY COUNCIL
ON: March 25, 2013

Inez Brown
Clerk, City of Flint

APPROVED BY
CITY COUNCIL
MAR 25 2013

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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.

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 remedying 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.

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.

From: Muchmore, Dennis (GOV)
Sent: Tuesday, October 13, 2015 3:51 PM
To: Snyder, Rick (GOV) <[redacted]
Cc: Calley, Brian (GOV) <[redacted]; Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>
Subject: FW: flint documents

FYI. For your background.

From: Workman, Wayne (TREASURY)
Sent: Tuesday, October 13, 2015 10:02 AM
To: Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Saxton, Thomas (Treasury) <SaxtonT@michigan.gov>
Subject: FW: flint documents

Here is the Interim report from February also

Wayne L. Workman
Deputy State Treasurer
Michigan Department of Treasury

From: Dempkowski, Angela (Treasury)
Sent: Tuesday, October 13, 2015 9:49 AM
To: Workman, Wayne (TREASURY) <WorkmanW@michigan.gov>
Subject: flint documents

Randy asked me to get these to you to give to Dennis Muchmore.

Angela Dempkowski
Senior Executive Management Assistant
Department of Treasury

From: Ducat, Penny (Treasury)
Sent: Tuesday, October 13, 2015 9:43 AM
To: Dempkowski, Angela (Treasury) <DempkowskiA@michigan.gov>
Subject: scan

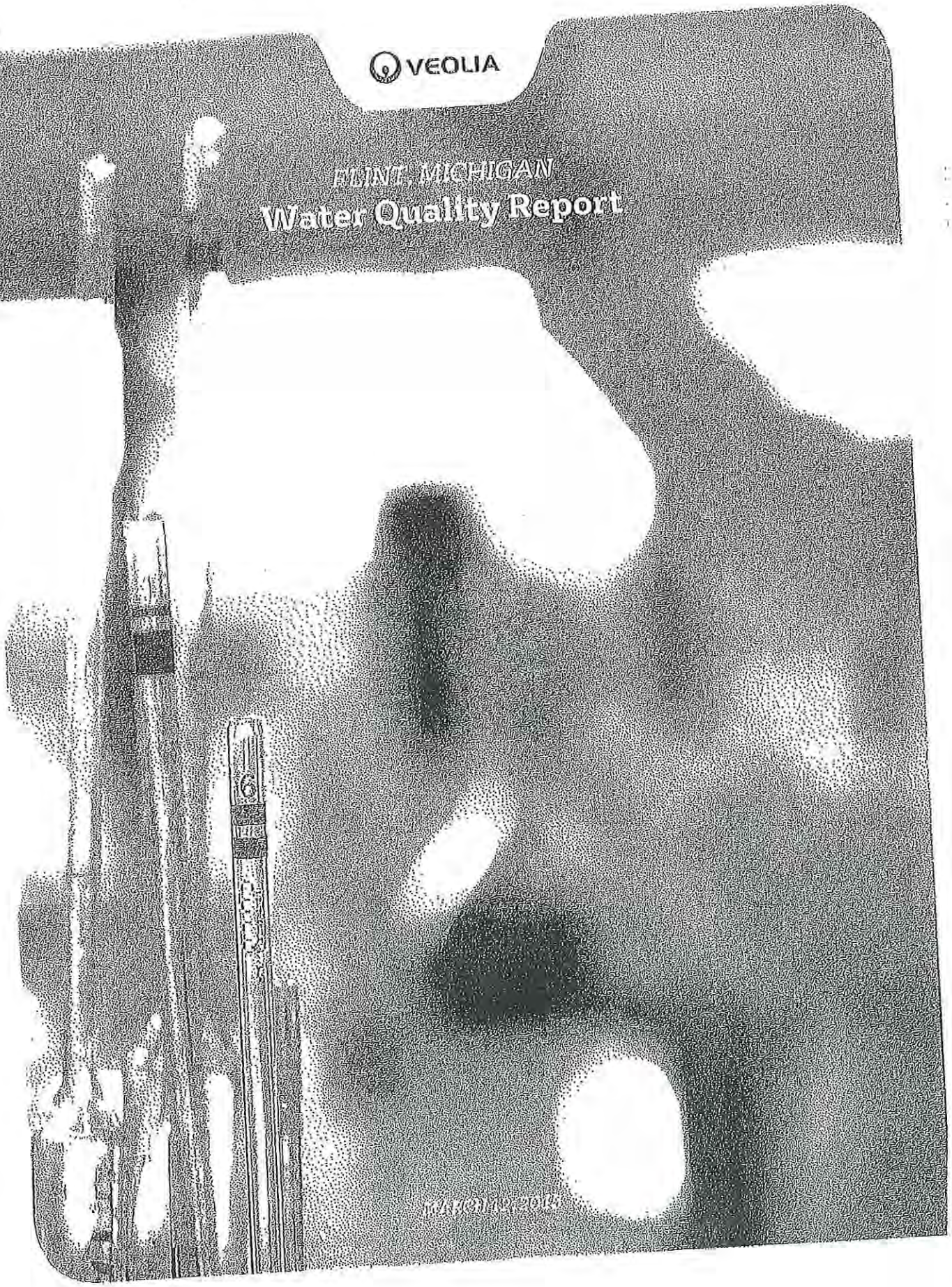
Penny L Ducat

Bureau of Local Government
430 W. Allegan
Lansing, MI 48922
Email: ducatp@michigan.gov
[redacted]

VEOLIA

FLINT, MICHIGAN

Water Quality Report



MARCH 2014

VEOLIA

Water Quality Report
March 12, 2015

FROM
Veolia North America

TO
Emergency Manager Gerald Ambrose

Executive Summary

The City of Flint changed water sources, transitioning from Detroit's system to the Flint River. This change created water treatment challenges that have resulted in water quality violations. Aging cast-iron pipe has compounded the situation, leading to aesthetic issues including taste, odor and discoloration. Public interest and scrutiny of the drinking water system intensified following the distribution of required public notices of violation.

The City of Flint has made a number of good decisions regarding treatment changes that have improved water quality. However, this is a very complex water quality issue and the City is seeking additional advice on what to do to ensure healthful drinking water for the community.

Veolia appreciates the City's decision to seek independent third parties to review current treatment processes, maintenance procedures and actions taken to date, and provide ideas for improvement. We are pleased to present this final report to the City of Flint following our experts' 160-hour assessment of the water treatment plant, distribution system, customer service and communications programs, and capital plans and annual budget.

This report provides recommendations and a roadmap for improvement, though our engagement was limited in scope. Our assessment included reviewing actions taken by the City to date, validating the City's plans going forward, and making recommendations for ideas not being considered.

Although a review of water quality records for the time period under our study indicates compliance with State and Federal water quality regulations, Veolia, as an operator and manager of comparable utilities, recommends a variety of actions to address improvements in water quality and related aesthetics including: operational changes and improvements; changes in water treatment processes, procedures and chemical dosing; adjustments in how current technologies are being used; increased maintenance and capital program activities; increased training; and, an enhanced customer communications program.

We are also providing a recommended schedule and estimated costs for implementing changes. It is our desire to help Flint residents and public officials better understand the current situation so that informed decisions can be made to ensure safe drinking water for the city's customers.

Review of Actions Taken to Date

To address water quality issues, the city has made operational changes, sought help from the State, hired engineering firm Lockwood, Andrews & Newnam, Inc. (LAN) to provide additional advice, and hired Veolia for an assessment from a utility operator's perspective. The City has also reached out to different specialty vendors (chemical suppliers, filter companies and tank aeration companies) for information about products to help with the TTHM issues. These are logical steps to take.

Flint is not alone in dealing with TTHM problems, as many utilities across the country are facing this challenge. The City appears to be following standard steps that many of those communities are taking to successfully correct the problem.

Although the primary focus of this review was based on solving the TTHM problem, the public has also expressed its frustration over discolored and hard water. Those aesthetic issues have understandably increased the level of concern about the safety of the water.

The review of the water quality records during the time of Veolia's study shows the water to be in compliance with State and Federal regulations, and, based on those standards, the water is considered to meet drinking water requirements.

The City has been proactive in its efforts to reach out to the medical community, to set up a phone number and email address to receive complaints, to post State Water Quality reports, to provide the list of EPA required water tests, and offer to test the water at customers' homes.

From our review, these numerous efforts demonstrate how the city is trying to be transparent and responsive beyond what many other communities might do in similar circumstances.

State Report

The Michigan Department of Environmental Quality (MDEQ) has requested specific actions be taken related to the total trihalomethane (TTHM) issues. The February 2015 report from LAN (*Operational Evaluation Report TTHM Formation Concern*) indicated apparent reasons for the elevated levels of TTHM in the distribution system. These generally relate to high Total Organic Carbon (TOC) in the water source, improperly operating equipment both in the plant and the distribution system, less-than-optimal plant TOC removal and old cast-iron pipe in the distribution system. **Our assessment confirms that these reasons are likely given our on-site laboratory testing and analysis, as well as our first-hand observations.**

Due to time constraints, LAN's report to the State was submitted prior to Veolia's final analysis and recommendations, and contained a number of key initial and contingent steps the City should consider, including:

Initial Actions

- Hire a Third Party Water Quality Expert to Complete Independent Audit
- Obtain a THM Analyzer
- Carry Out Jar Testing
- Water Plant Optimization Softening
- Water Plant Optimization Disinfection of Filter Beds (Pre-Chlorination)
- Water Plant Optimization Polymer Aid to Coagulation and Flocculation
- Increase Water Main Flushing
- Water Modeling Cedar Street Pump Recirculation
- Water Modeling West Side Pump Recirculation
- Broken Valve Locations
- Increase Flushing

Contingent Actions

- Fix Ozone System
- Start Feeding Coagulant and Flocculation Polymer
- Convert to Lime and Soda Ash Softening
- Change Disinfection to Chloramine or Chlorine Dioxide Temporarily
- Install Pre-Oxidant at Intake
- Replace Filter Media Implement Advanced Treatment
- Increase Main Flushing
- Continue Valve Replacement
- Emphasize Cast Iron Pipe Replacement

Veolia's Recommendations

While many of Veolia's recommendations match the initial assessment provided by LAN, our approach, as an operator and manager of comparable utilities, considers a more comprehensive solution. These improvements include operational changes, differences in water treatment regimes and chemical dosing, increased maintenance, and increased training.

- **Addition of Permanganate** – The addition of a permanganate chemical will help reduce ozone demand as well as chlorine demand. The reduction of ozone is needed to help eliminate the possibility of violating the bromate limit. The addition of the chemical will require state approval, submission of design documents for approval, procurement of the equipment and installation. The State has indicated they will work with the City on expediting review and approval of any requested changes. The required dosage of permanganate is estimated to range from 0.5 mg/L to 1.2 mg/L with a corresponding price of $160,000 to $320,000 per year. (Please note – The water in the river is dynamic which means it will change with weather, seasons and other factors. The estimates provided are based on bench testing at a given time and as such require the operators to test water and to verify chemical dosages on a frequent basis.)
- **Reduction of Ozone Feed** – Treating water is a delicate balance - increasing ozone to fix the TTHM problem can raise bromate levels to a point of violation. The introduction of permanganate is being recommended to reduce the demand for ozone so that feed rates will not exceed 5 mg/L. The current ozone dosing has been as high as 8 mg/L and, as such, if allowed to continue, will increase the risk of violating the bromate levels.
- **Increase of Ferric Chloride** – Four coagulants were tested by Veolia -ferric chloride, ferric sulfate, polyaluminum chloride (PACl) and aluminum chlorohydrate (ACH). Ferric chloride and ACH were found to be the best choice of product for effectiveness in removing TOC, a precursor to TTHM formation. Current ferric chloride dosages are too low and dosages of 100 mg/L or more are recommended. Again, please note, that the amount of chemical needed changes with the nature of the river and as such, water must be tested multiple times a day with corresponding changes in chemical dosages. This increase to 100 mg/L is twice what is currently being fed and much higher than what had previously been fed last year. The increase in chemical costs could be up to $1,000,000 per year. This change in dosage (using ferric chloride) can be made immediately without state permit review.
- **Reduction of Lime** – Lime is currently being overfed. A higher dosage of lime does not necessarily mean better treatment. A review of different dosages with jar testing indicates that the current dosage of 280 mg/L can be reduced to 230 mg/L. This represents a potential range of savings of up to $270,000 per year. This change can be made immediately. It should be noted that the current softening equipment is in poor condition, which does complicate the treatment process with a poor balance of flow between the two basins, weirs that are not level causing bypassing with the softener basins, and simply old mechanical equipment that periodically breaks down. This equipment is not going to be needed when a change to lake water occurs. Addition of soda ash to help further reduce hardness in cold weather might require dosages up to 40 mg/L with an annual chemical cost up to $320,000. There have also been some questions or complaints from the public regarding hard water. The water entering the plant is currently 360 mg/L and the plant is reducing that level of hardness to about 210 mg/L. Optimization of the dosage can reduce the hardness

further to about 180 mg/L. This reduction however has been sporadic as equipment breakdowns and high flows have caused problems keeping the softening process on-line. As we have noted before, the dosage needs to be adjusted daily or more often based on process control monitoring. The raw water hardness in the summer is much less than in the winter. For illustration purposes, the difference could be 360 mg/L in raw water in winter compared with 220 mg/Lin the summer.

- **Eliminate Pre-Chlorination on the Filters** – The reduction of pre-chlorination on the filters during the summer months can help reduce TTHM formation. This action has to be considered carefully with procedures documented and reviewed for engineering principles. As such, it will take time for the design engineer to determine what could be done to assure the proper chlorine contact time and document that other safety protocols in water are met. This requires state approval. Any submission should be considered along with a possible change in filter media. If Granulated Activated Carbon (GAC) is installed then the pre-chlorination would be stopped or drastically reduced because of the chlorine impact on the GAC filter media. Veolia's initial investigation into changes in chlorine feed point indicate that the recommended action can be accomplished while maintaining the required regulatory contact time for disinfection.
- **Change Filters to Granulated Activated Carbon (GAC)** – The object of the other changes being made is to reduce the TOC before chlorine is added into the process. The plant by design is limited on the amount of TOC removal possible. A maximum removal of only 60% is likely if the plant is properly optimized. The change of filter media to GAC would provide the best reduction possible and provide better than 90% removal dramatically reducing the potential for TTHM formation and thus ensuring compliance with that parameter for the water system. The change in filter media; however, is complicated requiring approval by the state, design of the changes, procurement of the media and a contractor to install it. That will take time and is likely in a range of $1.5 million (more or less) in cost. The use of GAC also requires more testing and monitoring of the media and the TOC than with the current media. GAC will accumulate TOC and begin to become in effective after a period of time. Depending upon the level of TOC reaching the filters this could be as short as 3 months and as long as 9 months. The amount of TOC is dependent upon the river water quality and operation of the other plant processes. Once the ability of the filters to remove TOC is diminished, the GAC media has to be replaced if river water continues as a source. The change to lake water will not require TOC removal and the media could continue to be used as filter media for that new water source.
- **Corrosion Control** – The primary focus of this study was to assure compliance with the TTHM limits. That is not the only problem facing the city and its customers though. Many people are frustrated and naturally concerned by the discoloration of the water with what primarily appears to be iron from the old unlined cast iron pipes. The water system could add a polyphosphate to the water as a way to minimize the amount of discolored water. Polyphosphate addition will not make discolored water issues go away. The system has been experiencing a tremendous number of water line breaks the last two winters. Just last week there were more than 14 in one day. Any break, work on broken valves or hydrant flushing will change the flow of water and potentially cause temporary discoloration.
- **Eliminate a Storage Tank** - The water system has more storage than it requires, due to excess capacity in the water lines in combination with the storage tanks. The City has already employed LAN to update the hydraulic model. The hydraulic model should be used to help determine if water levels can be lowered further and even to remove some storage tanks from service. That decision may need to be made

seasonally. For example demand during water main breaks last week required extensive amounts of water. The excess storage is more a problem with TTHM formation for the system in summer than winter.

- **Prioritize Valve Replacement** - The hydraulic model shows long water age in portions of the system that appear to be contributing to the TTHM problems. LAN has updated the model to include the location of broken valves and that added information is being used to identify other system problems. The City has a contract for valve turning and repair work that should be focused on known broken valves, particularly in sections of the distribution system with old water age. This activity however must wait until warmer weather in fear of causing problems in the water system with lines freezing.
- **Target and Increase Flushing** – Flushing the fire hydrants can be useful in cleaning out lines to minimize discolored water complaints and also helping reduce the age of water. This DOES NOT mean just opening hydrants. The hydraulic model needs to be used to determine which hydrants should be opened and for how long to ensure the lines are properly cleaned. For example, this might require 15 minutes or even several hours of flushing depending on location. The flushing of hydrants also needs to include records of hydrant condition, color of water initially and after periodic increments plus chlorine residual testing. All of that information will help provide information to the engineers on the effectiveness of the procedure. Each crew doing the work should be trained to help explain the process to the public and also warn neighborhoods about flushing so that staining of laundry can be avoided.
- **Change to Lake Water** – The changes being made now to the water plant will not be the same changes required to treat lake water once it becomes available. A thorough analysis and plan needs to be made in preparation of that switch. This is going to need to include changes in how the plant is operated, like eliminating lime softening and reducing the dosages of many chemicals. Consideration will also have to be given to algae treatment when lake water is being used.
- **Operating Programs** – All of the changes discussed above are based on testing and techniques proposed by engineers and skilled operators of both LAN and Veolia. The staff will need further training and implementation of detailed protocols to successfully implement the changes and to ensure long-term success at the plant. This means the City needs to implement a series of programs to ensure success in these changes.
    - **Process Control Management Plan** (PCMP) – The amount of testing and resulting changes in chemical dosages, along with monitoring the impact on the water, will require a well-documented process that all operators follow. An example of this is jar testing, which is used by the operators to identify the most effective chemicals and dosages to optimize treatment. The staff understands the basic treatment process but needs further practice and training to become proficient in the use of routine process control to adjust for water quality. This is commonly referred to as a PCMP and is used as a standard operating procedure so that the operators on the day shift can communicate with the night shift, that operators are following the same treatment plan for water, that the adjustments are unified between different shifts and different people, that a desired water treatment quality is defined and variations from it signal alarms and that the staff knows what to do when the water quality setpoints begin to drift away from its desired quality levels.
    - **Lab QA/QC** – The operation of the water plant is dependent upon accurate lab results. Standard operating procedure needs to be set and lab technicians trained in that process. EPA and the State

set procedures and standards to be met and the staff should strive to meet those standards. The City has already purchased a TTHM analyzer but should also consider a TOC analyzer that can be an online continuous device to provide immediate information on influent and effluent levels of TOC. Part of the lab records should be historical review of data to help operators better understand the changes they make in the plant.

- **Maintenance Management** – The key to water equipment is having all the equipment effectively maintained and functioning properly. The current capital program is fixing many broken pieces of equipment and updating the plant to current standards. This however must be followed with a rigorous maintenance program that ensures the proper preventive maintenance, is able to predict when maintenance is needed to keep equipment functioning properly and responsive to changes in flows and source water quality.
- **Training** – The changes being suggested are new to the staff and as such training needs to be provided in what the changes involve, why they are being made, the impact on the water quality, and how best to run the plant. A good demonstration of skill level is for the staff to become certified by the State as a licensed water plant operator. Many utilities now require all operators to hold at least the minimum certification level as a starting point and offer incentives to increase their certification level.

- **Communication Program** – The city should lay out an immediate, written strategy for communicating with the public in the short-term, as well as a 6-to-12 month strategy that contemplates known, future events like the KWA pipeline and switch to lake water. A wide range of activities are underway to work with the public but a comprehensive and coordinated effort, with a strategic focus, will help the utility and its customers.
  - **Dedicated Communications Personnel** – The City has a single, dedicated public information officer, tasked with providing service to all of city government. The current focus on communications support for Public Works, and the anticipated needs over the next several years, indicate the city would benefit from the hiring of a staff person in Public Works who could establish a communications program designed to provide clear and concise information to a broad audience though a number of different channels. In the interim, the city could hire a communications intern, local communications firm, or somebody with experience who is able to provide reduced or no-cost services for the immediate future.
  - **Communications Planning – Public Notification** – The City should be congratulated on its efforts to keep the public informed. It is posting its monthly reports on the web page to provide transparency, though these reports are highly technical – and may be too technical for the customer base at large. They are valuable to those customers who do want this level of detail. The city should create a single-page dashboard of information that outlines the water utility's performance for the previous month, post the dashboard on the website, print copies for distribution at customer service or other reception areas, and be provided during speaking engagements or other events. This dashboard should be easy to understand, and include:
    - The number of water quality tests conducted the previous month
    - The number of violations reported

- Whether these results are in or out of compliance
- Information about other proactive measures such as main and hydrant replacements, or other programs to improve performance of the water utility
- Benchmarking information so the reader has a greater understanding of how Flint compares with other similar utilities in the region and across the country

- **Public Meetings** –There should be additional, proactive coordination with neighborhood, community and civic groups to provide speakers on timely topics. Given the list of numerous responsibilities, the Public Works director cannot do it alone – the city should identify three or four other staff members, knowledgeable about the water utility who can also speak to various groups, provide information and answer questions. The development of an outreach strategy to target key neighborhood, community and civic groups also will advance the communications effort and the dissemination of information in both the short and long term.
- **Standard tools** – Work crews in the field are often the faces of the utility – the city should create standardized tools for communicating with the public that can be easily and quickly delivered to the community in the event of main breaks, flushing or pre-planned capital improvements. Tools should include:
  - Door hangers for individual distribution
  - Yard signs with simple messaging to be placed near work-sites
  - A simple tri-fold brochure with useful information about the utility and appropriate contact information
  - Specific flyers about a range of topics
  - Infographics about how the water system works, from the intake to the customer's site
- **Change in Billing Format** – The City currently has no real way to reach all customers on a regular basis and provide information. The city should consider changing from a billing postcard to using an envelope and bill stuffer. Monthly or bi-monthly bill inserts are typically used to provide educational material for customers and are standard ways to provide information. Understandably, budget considerations must be taken into account.
- **Use Public Affairs Programming and Opportunities** – The news media has been covering this topic quite extensively – there are other media-related opportunities that may reach a wider audience. Taking advantage of these opportunities will help the city relay information to its customers and the community.
  - Participate in regular editorial-board meetings to provide background information and updates on key milestones or events.
  - Identify a local weekly television program and offer to provide guests to speak about key milestones or upcoming events.

Conclusions and Next Steps

The focus of this report is to help assure TTHM compliance and then improve general water quality. The City had good results in its most recent TTHM tests, although that is to be expected with the changes made to date and the cooler weather which contributes to low TTHM formation. Warm weather will be a different situation both in the nature of the Flint River water quality and in the formation of TTHM. With those changes coming, the City needs to act quickly to make improvements before additional testing takes place this spring and summer. The summary below provides the recommended actions, a priority for their implementation and projected costs either operational or capital. The costs are rough orders of magnitude and will vary with changes in water quality, operational decisions, and engineering choices being made and in some cases require State approval. Although a priority is assigned many of these actions can take place simultaneously.

Priority	Action	Annual Operational Cost	One Time Capital Cost
1	Implement operating programs for process control, lab QA/QC, maintenance, and training. These programs are needed regardless of the TTHM issue and will help with transition to lake water. The City has decided upon a central maintenance software and the water system should be the first to utilize this program since costs are already budgeted. These programs should be initiated immediately.	$ 25,000	$ 250,000 - $ 350,000
2	Contract with your engineer and initiate discussions with the State on the reduction of chlorine prior to the filters and changing the filter media to GAC. This activity has the longest time frame for design and approval, but also is extremely critical to assuring reduced TTHM production. The current filter cleaning and maintenance project needs to be adjusted to take into consideration the change in filter media both to dispose of the anthracite instead of cleaning and to install the GAC. This entire project needs to be done by early July to assure a flow of water throughout the system. Several months are required for the engineering design, State approval, bidding of work and installation of GAC and as such needs to begin now.	$ 0	$1,500,000
	Contract with your engineer and initiate discussions with the State on the addition of 0.5 to 1.2 mg/L of either potassium permanganate (dry) or sodium permanganate (liquid). This will take time to get approved and to implement. The use of liquid tanks at the raw water pump station may be the quickest and least expensive alternative for a temporary measure.	$ 160,000 - $ 320,000	$ 50,000

	Contract with your engineer and initiate discussions with the State on the addition of a corrosion control chemical. This action can be submitted and discussed with the state at the same time as the other chemical and filter changes saving time and effort. A target dosage of 0.5 mg/L phosphate is suggested for improved corrosion control.	$ 50,000	$ 50,000
3	Increase the ferric chloride dosage to 100 mg/L depending on river water TOC levels. (Lower TOC levels can be treated with less ferric chloride.) This change can be made now and is allowed by the State.	$ 1,000,000	$ 0
	Reduce the ozone feed rate to 5 mg/. This change can be done now and does not require State approval.	($50,000 – $100,000	$ 0
	Reduce the lime dosage to minimize hardness levels after softening. This will eliminate magnesium removal during treatment, but will also reduce total hardness. A reduction in carbon dioxide dosing for recarbonation treatment also is expected due to the reduction in lime feed. This change can be made now and does not require State approval.	($270,000)	$ 0
4	Confirm with the engineer when the revised hydraulic model will be completed and if necessary for time to focus on areas of longest water age if that would speed up the effort. Identify impact of reducing tank levels or eliminating a tank seasonally to improve water age. Include with this effort a list of hydrants to flush along with time required to assure drawing fresh water through the system. The engineer has been assigned this task already and confirmation of the timing of a delivery is needed.	$ 0	Already Contracted
	Ask the engineer to identify closed valves on a map that are impacting water age and that can be bid for replacement as soon as weather permits. Have the engineer identify areas of the system where the valve contractor should be focused on finding and fixing closed valves.	$ 0	Already Budgeted
5	Implement the recommendations in the communications program including a person assigned to public works education, using envelopes instead of cards along with bill stuffers for education and provide training for staff. Envelopes and bill stuffers are expensive and might be done periodically and not every month. The cost of TTHM notices, Annual Water Quality Reports and City notices should be figured into if any additional costs would exist. Many of these changes are underway now by the City.	Position Being Budgeted	

Notes

- The costs provided are rough order of magnitude which final engineering will firm up but will fluctuate with final decisions on engineering, operating technique and water quality.
- The change from river to lake water will dramatically cut the chemical costs as less is needed once the change occurs. This means that potassium permanganate will likely not be needed, ferric will drop as much as it went up, ozone levels will be lower and little lime will be needed.

Results Expected

The real question is what changes can be expected from these results in lowering the TTHM, improving the aesthetics and preparing for the change to lake water.

- **TTHM** – The City has already made great strides in reducing the TTHM levels with the changes already made. The additional suggestions by Veolia will further reduce TTHM in the water and help get the city released from the notices being provided to customers.
- **Hardness** – The hardness entering the plant this winter is 360 mg/L with the current system reducing it to 210 mg/L and optimization will reduce to about 180 mg/L. During the summer the levels will be lower probably in the 140 mg/L to 150 mg/L range. The target set by the current best operating practices is 120 mg/L to 150 mg/L.
- **Discolored Water** – The discolored water is caused by the old unlined cast iron pipe. The water from the plant can have an impact on discolored water, but a greater concern is the breaks and construction work that disrupt the flow of water causing discoloration. A polyphosphate is suggested to help bind the old cast iron pipe reducing instances of discolored water. This along with improve flow of water and programmed hydrant flushing will help, BUT WILL NOT eliminate discolored water occurrences.
- **Change to Lake Water** – The recommendations include the suggestion of programs to help the staff better manage the treatment process, additional testing to adjust the plant and additional lab monitoring, a maintenance program focused on keeping equipment properly functioning and more training for staff to improve their skill level. Those actions will prepare the staff for the change of water sources when it comes next year in addition to developing a thorough plan for the switch.

Resourcing the world


VEOLIA
City of Flint, MI
City Council Public Works Committee
Interim Water Quality Report

Veolia Scope of Work

Week 1

- Provide a review of current actions
- Engage staff, visit facilities and analyze data
- Make interim report

Week 2

- Carry out more detailed study of initial findings
- Make recommendations for Improving water quality
- Provide a plan, cost and schedule for change

Items of Note

- **Not in scope** – studying why the change from DWSD or the history of the utility
- **What we found** – A very frustrated community and a staff trying to solve the problem, having some success but frustrated with the pace of change

Everybody Is Checking the Safety of Water

- City, state, news media, universities and other groups
- Safe = compliance with state and federal standards and required testing
  - *Latest tests show water is in compliance with drinking water standards*
  - *Monthly report available on web page*
- More than 20,000 tests required annually for city
- Strict testing requirements in place (what and how to test)

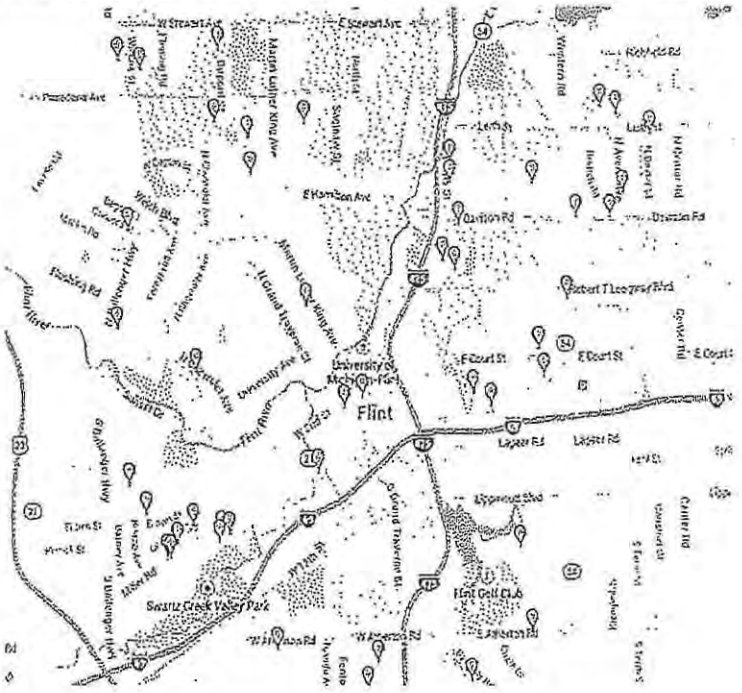
Why TTHM Notices?

- TTHM is formed as a result of the reaction between chlorine and organic material in the water
- City is required to test quarterly at 8 sites
  - *Last summer, several sites had more TTHM than allowed*
- City has reduced levels of TTHM and now all sites are in compliance
  - *Customer notification letters are required until tests are in compliance an average of four quarters*
- It will take at least 2 more quarters to lower average
  - *Even a change to DWSD water doesn't solve problem*
- Flint is not alone – hundreds of communities are facing TTHM issues

Why Discolored Water?

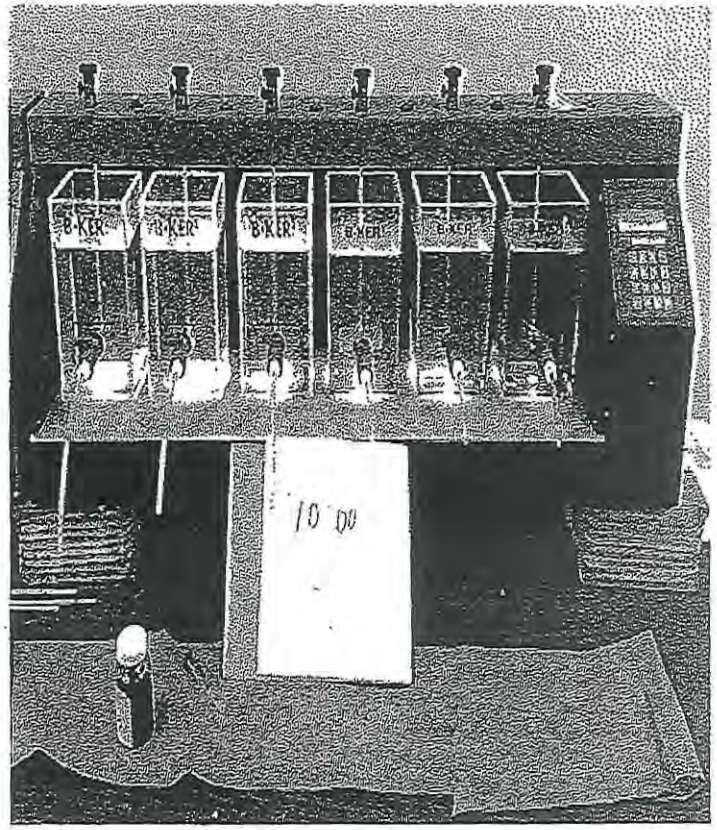
- Old cast iron pipes
- Always has been some discolored water problems – mostly after water breaks
- Efforts to reducing TTHM didn't help discoloration
  - *Doesn't mean the water is unsafe but it is not appealing and raises questions*
- City will test the water at your home – call 787-6537 or email flintwater@cityofflint.com
- Tracking customer complaints is important

Location of water quality complaints
The last 12 months – fewer than you think



Water Quality Can Be Improved

- Adjust the chemicals being fed – stop some, increase some and change some
- Provide better monitoring of water quality to help make adjustments
- Continue repair or replacement of broken parts
- Reduce the over capacity of the distribution system
- Do a better job explaining what is happening
- Do a better job of asking for help



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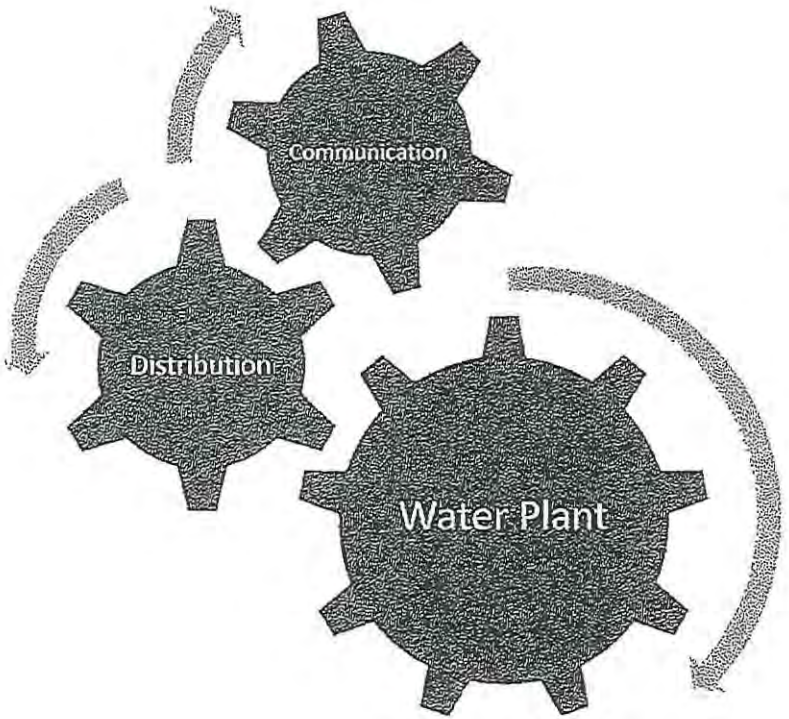
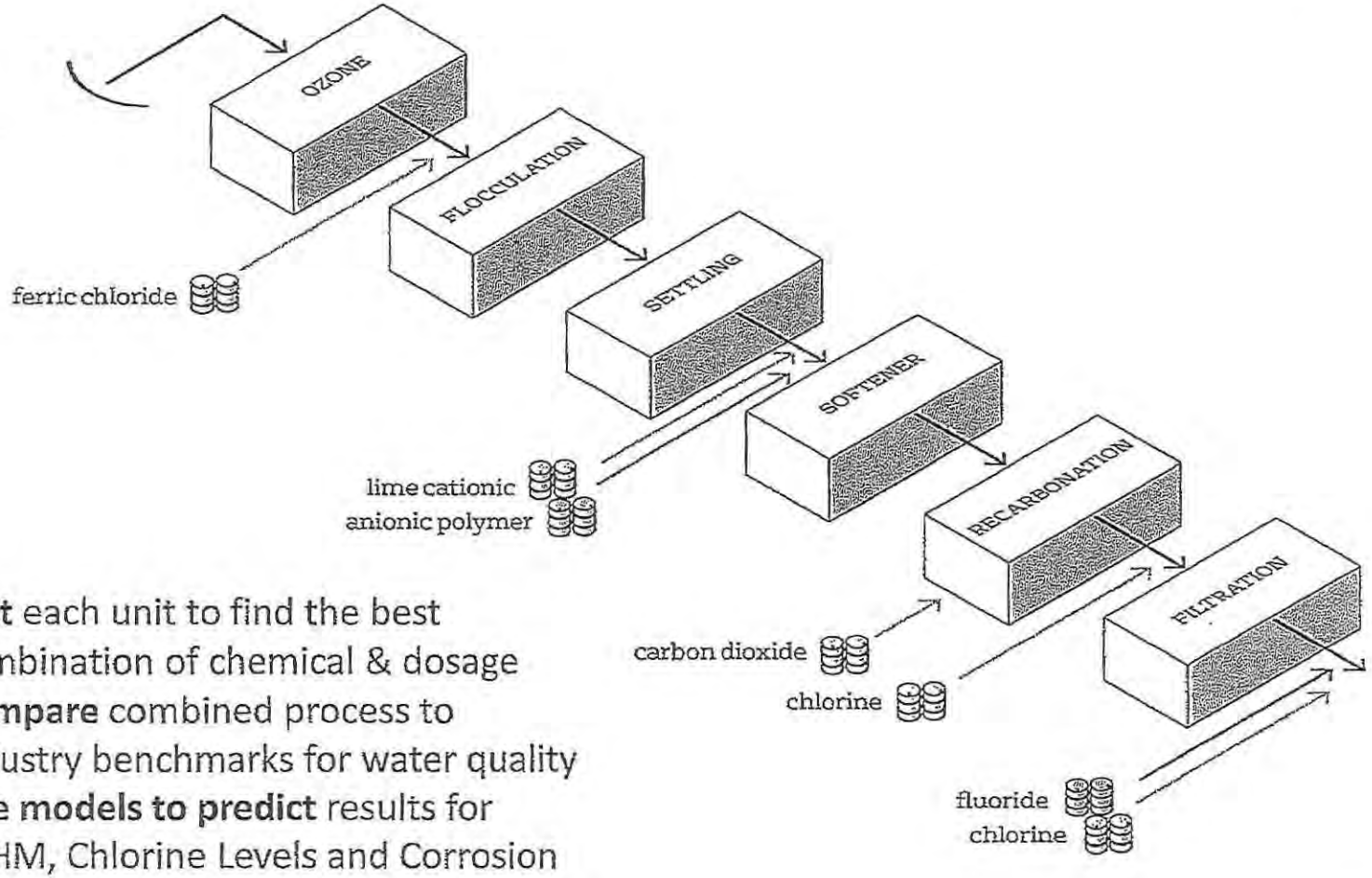
Further Explanation of Solutions

Solution Involves Coordination of 3 Activities



- Water plant improvements
  - *Optimize chemical dosages*
  - *Consider different chemicals*
  - *Change dosing points*
  - *Install granulated activated carbon*
  - *Complete plant upgrades*
  - *Implement best mgt practices*
- Distribution system improvements
  - *Fix broken valves*
  - *Ask for customer feedback*
  - *Reduce tank storage*
  - *Target line flushing*
  - *Run a hydraulic model*
- Better communication with customers
  - *Engage advisory committees*
  - *More accessible utility*
  - *Make it easy to access information*
  - *Better customer communication*

Optimize Plant Processes



- **Test** each unit to find the best combination of chemical & dosage
- **Compare** combined process to industry benchmarks for water quality
- **Use models to predict** results for TTHM, Chlorine Levels and Corrosion

Complete Plant Construction & Re Prioritize Capital

Cost effective plan in budget

- Complete water plant renovation
  - *Target SCADA and instrumentation in plant*
- Speed up valve turning contract & provide money for replacements
- Speed up hydraulic model update to reduce tank volume
- Evaluate installing of granulated activated carbon on filters

Weather can impact timing

Digging up a water valve for repair
Need good weather to start

Implement Best Management Practices

Activities to Help Operators Maintain Good Water Quality

- Process Control Management Plan
- Lab QA/QC Program
- Computerized Maintenance Management System
- Asset Management System
- Training and Certification Program
- Vulnerability Plan

Distribution System Improvements

- Speed up flow of water from plant to homes – 2 weeks plant to house
  - *Find closed valves & open them*
  - *Replace broken valves*
  - *Update hydraulic model*
  - *Reduce system storage*
- Track customer complaints
  - *Test customer water*
  - *Spot flush hydrants to clean areas of stagnant water in the system*

Flushing out discolored water

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Improving Customer Service

Make It Easy to Access Information and People

Develop a proactive customer communication plan

- Create advisory committees to help direct efforts and improve flow of information
- Establish a single point of contact to manage all water quality complaints
- Provide additional customer service training to staff
- Expand neighborhood and community outreach
- Change monthly billing statements from card to envelope with information

Example - Communicate in the field

NOTICE: ANNUAL FLUSHING PROGRAM

We are conducting our annual flushing program to enhance your water quality and clean the distribution system.

DC Water crews will be flushing hydrants in your area 10:00 p.m. to 6:30 a.m. on the following dates:

9/24 through 9/30

IMPORTANT INFORMATION

- Your water supply will not be shut off during hydrant flushing.
- You may notice slight water discoloration or low water pressure.
- During this time, customers can continue normal water usage, including drinking, bathing and laundry (unless water is discolored).

If you experience discolored water during this period:

- Run your cold water taps for 15 minutes. If it does not clear up, please contact our Drinking Water Division.
- Do not run your hot water. If you experience discolored water from your hot water tap for several hours, then it is recommended to drain and flush your water heater tank.

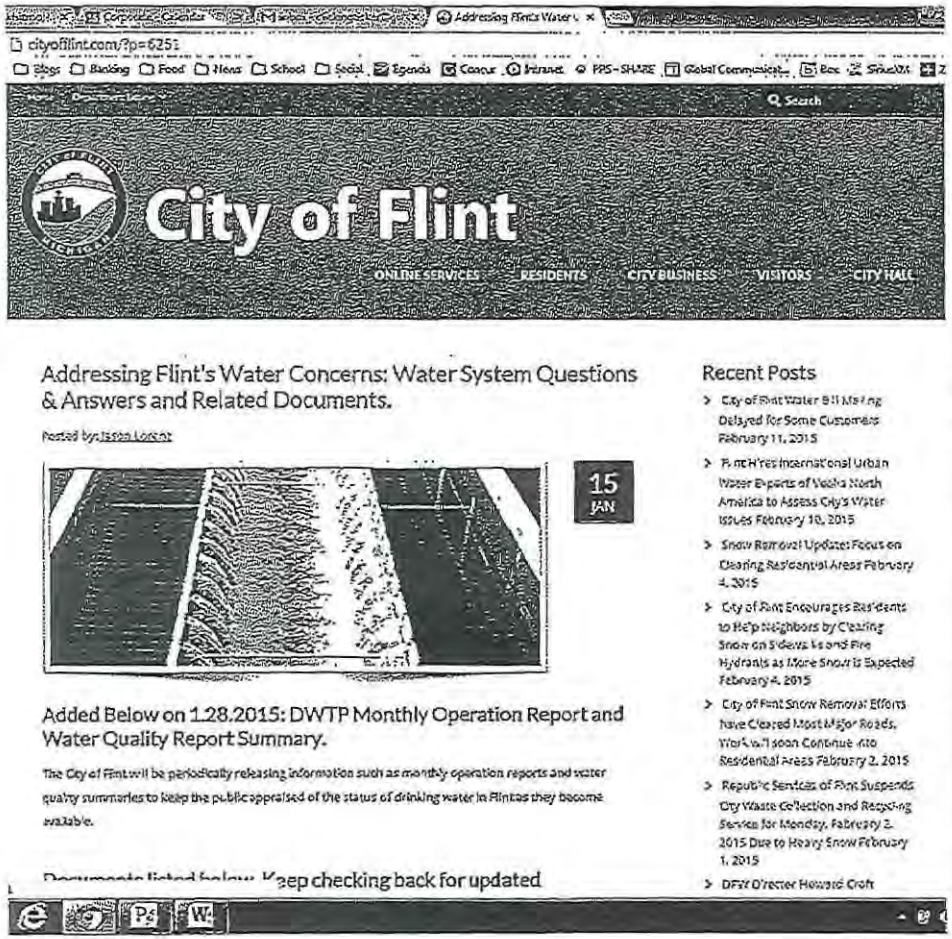
Provide field crews with additional communications tools to use to address questions or concerns from the public

Create door hangers, flyers, or yard signs to notify neighborhoods about main breaks, hydrant flushing, or system maintenance that may affect the public

Create a business card or other contact card with the name and phone number of the single point of contact with the Department of Public Works who is managing information flow

**sample door hanger provided by DC Water & Sewer Authority*

Clear, concise information is key



Simplify the reports on the web page dedicated to addressing water system questions

- *Create a single-page, easy to understand report for the public*
- *Use charts or provide other examples to demonstrate water quality testing and system or treatment plant improvements underway*
- *Provide name, phone number and email address for identified point of contact so customers can request more information*
- *Continue to provide Monthly Operation Report and Water Quality Report Summary for those customers interested in more technical information*
- *Use site to provide additional notice of field work that may impact customers*

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What Is Next

Next Steps

Week 1

- Provide a review of current actions
- Engage staff, visit facilities and analyze data
- Make interim report

Week 2

- Carry out more detailed study of initial findings
- Make recommendations for Improving water quality
- Provide a plan, cost and schedule for change

Questions Being Heard

REMEMBER

We just started. Might not have an answer yet to your question

- **When will water improve -** The water has improved with current actions. More changes will occur over weeks and months because of safety reviews
- **Date of next update and final report** – An update will be provided next week and a report the following week.
- **Time frame for implementing recommendations** – The City is already started. Others a few days and some weeks or months due to State approval being required or weather.
- **Cost of changes** – Don't know yet but we are aware of the financial concerns

More Questions Being Heard

- **How are TTHM formed –** It's the reaction of chlorine to organics (leafs, dirt) in the water.
- **How to reduce TTHM –** Reduce organics before introducing chlorine and shorten time chlorine has to react with the organics
- **What causes discoloration –** Older lines, the iron parts of the system will leach iron into the water causing the discoloration. Other times its just air built up.
- **Why no discoloration with DWSD –** There was. Flint had a bad time with breaks of old line and is doing lots of construction. This stirred up the water and caused discoloration.

More Questions Being Heard

- **Can you test my water** – The city will test your water for free. But, only 2 of 20 people have taken the city up on the offer since it began offering the service.
- **Medical problems** – Some people may be sensitive to any water. Talk to your doctor. The City is communicating with the medical community.
- **Confidence that future problems will be avoided** – Recommendations will include putting programs in place to better respond to water changes and assure quality

VEOLIA

Questions?

From: GOV Newsroom [mailto:govnewsroom@govsubscriptions.michigan.gov]
Sent: Thursday, October 15, 2015 4:55 PM
To: Snyder, Rick (GOV) [redacted]
Subject: NEWS RELEASE: Gov. Rick Snyder signs bill authorizing funding for Flint to move back to Detroit water system

Governor Rick Snyder
REINVENTING MICHIGAN
Getting It Right. Getting It Done.

News Release

Contacts: Sara Wurfel or Dave Murray
517-335-6397

FOR IMMEDIATE RELEASE
Thursday, Oct. 15, 2015

Gov. Rick Snyder signs bill authorizing funding for Flint to move back to Detroit water system

Temporary reconnection provides best protection for public health

LANSING, Mich. – Gov. Rick Snyder has signed bipartisan legislation that will direct funding to the City of Flint's emergency water services to reconnect the city's water supply to the Great Lakes Water Authority until the Karegnondi Water Authority pipeline is completed.

"This funding is a coordinated response to a serious problem and I'm pleased so many parties came together to help deliver safe drinking water to the city of Flint," Snyder said. "Reconnecting to the Great Lakes Water Authority is only the first step, as the state will continue testing and inspections to ensure Flint families and children have clean water in their homes and schools."

House Bill 4102, sponsored by state Rep. Al Pscholka, authorizes $6 million to move the city back to Detroit's water system until the new pipeline is finished.

In addition to the $6 million:

- $300,000 goes to the Department of Environmental Quality's drinking water and environmental health services;
- $1 million will provide for DEQ to test drinking water samples;
- $1 million allows the Department of Health and Human Services to purchase and distribute water filters to Flint residents;
- $850,000 will aid in follow-up services for children, including testing, investigations, and case management for those with elevated blood lead levels;
- $200,000 will fund state plumbing inspections for schools and health facilities.
- The City of Flint city government will provide $2 million toward reconnecting the water supply and the Charles Stewart Mott Foundation has committed $4 million.

The bill was approved unanimously in both the House and Senate and is now Public Act 143 of 2015.

For more information on this and other legislation, please visit www.legislature.mi.gov.

####

STAY CONNECTED:

This email was sent to [redacted] on behalf of: The Executive Office of the Governor · 111 South Capitol Avenue · Lansing, MI 48909 · 517-335-7858

From: Wyant, Dan (DEQ)
Sent: Sunday, October 18, 2015 4:30 PM
To: Snyder, Rick (GOV) [redacted]
Cc: Wurfel, Sara (GOV) <Wurfels@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>
Subject: FW: Detroit News Flint II

Governor,

Attached is our response to the Detroit News for a story that they are preparing for tomorrow. Part of that story looks at whether the DEQ staff followed appropriate federal protocols in light of Flint's population size.

My responses, enclosed here, are an effort to acknowledge something that has come out in the past week through internal review. Simply said, our staff believed they were constrained by two consecutive six-month tests. We followed and defended that protocol. I believe now we made a mistake. For communities with a population above 50,000, optimized corrosion control should have been required from the beginning.

Because of what I have learned, I will be announcing a change in leadership in our drinking water program. I've spoken with Dennis about this, and will be making that announcement as part of the Detroit News article that likely will be out tomorrow.

We've spoken with Jarrod and Sara about this today as well.

Call me if you have any questions. Thank you.
[redacted]

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

From: Wurfel, Brad (DEQ)
Sent: Sunday, October 18, 2015 3:54 PM
To: Agen, Jarrod (GOV); Clement, Elizabeth (GOV); Muchmore, Dennis (GOV)
Cc: Wyant, Dan (DEQ); Wurfel, Sara (GOV); Murray, David (GOV)
Subject: Detroit News Flint II

All,

Brad,

After reviewing the emails made available through FOIA, there are several things that seem to need addressing.

1. It appears DEQ staffers have essentially downplayed or ignored warning signs from EPA's water expert, Miguel Deltoral. We have been aware of Mr. Deltoral's unofficial memo that went public in April. But his email dated two months earlier on Feb. 27, to Jennifer Crooks and Mike Prysby, he seems to lay out exactly what's come to pass...

"(Particulate lead readings) Folks tend to discount these values as anomalies, but particulate lead release is a normal part of the corrosion process and it is universal (common) in all systems. It's just that it's not captured as often by the infrequent LCR sampling. If systems are pre-flushing the tap the night before collecting LCR compliance samples (MDEQ) still provides these instructions to public water systems) this clears particulate lead out of the plumbing and biases the results low by eliminating the highest lead values. If systems are pre-flushing and still finding particulate lead, the amount of particulate lead in the system can be higher than what is being detected using these "pre-flushed" first-draw samples.

"My point on that was that people are exposed to the particulate lead on a daily basis, but the particulate lead is being flushed away before collecting compliance samples which provides false assurance to residents about the true lead levels in the water."

Miguel goes on to address the optimal corrosion control situation in that same Feb 27 email.

"If I remember correctly, Detroit is feeding (phosphate) for the lead/copper rule, but since Flint is no longer part of that interconnection, I was wondering what their OCCT was. They are required to have OCCT in place which is why I was asking what they were using."

So what I'm seeing here is Miguel having raised these issues as far back as February. When unofficial April memo shows up, it's clear these issues still haven't been addressed.

Another email from the day before came from Jennifer Crooks at EPA which also highlights early concern about a lack of proper corrosion controls as well as the testing methods.
"The City can't just flush in advance of taking the compliance samples, they have to flush the lines on a regular basis."

Can you respond to the fact that it appears the state ignored or disregarded several warnings from EPA officials about testing deficiencies and insufficient corrosion controls?

Emails offer snapshots of a much broader conversation. The program staff did not ignore the information. They believed they were handling the situation in full accordance with federal protocols, and contacted EPA Region 5 officials promptly to seek guidance. They were more than halfway done with compliance sampling under the federal protocol and the 90th percentile samples to that point showed 6 pbb – barely in excess of the 5 pbb threshold.

2. Corrosion control, or the lack thereof, seems to be another major problem here. At the first of the recent press conferences, Dan Wyant said that lime was being used as a corrosion control method. But that is clearly contradicted by DEQ staff at several points. One of those is Pat Cook's email from April 24.
"Flint is currently not practicing corrosion control treatment at the (water treatment plant)."
This puts Dan's comments about the lime into question.
There's been some confusion on this point, and I think it was addressed in our previous response. This was a misunderstanding with technical staff. Lime was added to soften the water. While it adjusts pH and can have some impact on corrosivity, it was insufficient corrosion control.

3. I gather from several exchanges in here that EPA and DEQ disagree over that the state's responsibility was in ensuring there was optimal corrosion control. One of the emails from July includes notes from a meeting of all the parties shows that EPA was asking why that hadn't been used from the outset, and the state's response was something along these lines:

""MDEQ explained that they did not treat the switch to Flint River water as a "new system," but as a new source. It is their understanding that two rounds of 6-month testing is still needed to characterize the water quality. They don't know what optimized is until those two rounds of six month monitoring are completed."

Under the lead copper rule, was the state required to have phosphate treatment in place? It appears here that the state chose to interpret the CLR as not requiring corrosion control. That seems like a highly dubious conclusion.

And after concerns were raised repeatedly beginning (at least as early as February), why was nothing done?

What has become clear in recent weeks is that staff believed they were handling the situation in accordance with the proper protocol for a water provider using a new source, but the federal Lead and Copper rule has a particular provision for communities over 50,000 people; that the system operator must continue treating with full corrosion control even as they test the water.

What the staff did would have been the proper protocol for a community under 50,000 people. None of the DEQ staff in this division had ever worked on a water source switch for a community over 50,000 people – it's uncommon for our big communities to switch sources.

It's increasingly clear there was confusion here, but it also is increasingly clear that DEQ staff believed they were using the proper federal protocol and they were not.

The Governor will soon announce an independent, third party, after-action review to detail what happened and why, and offer steps to make sure Michigan's drinking water program is on a better course in the future.

4. Another area of concern, one I mentioned on the phone, is the pace of response. And I understand that the lead copper rule lays out response times. But you have concerns being

raised about lead by an EPA expert as far back as February. The state's response, in several instances, is that federal guidelines give us two six-month periods to collect samples, and then more time to submit an action plan, and then a year or more to enact that plan.

While those delays in making a change may be permitted under the law, given that we're talking about a possible public health crisis, why wasn't there more expediency? The responses in these emails appear to be without any sense of urgency at a time when Flint residents may have been drinking dangerous water.

The results of two rounds of water testing showed the city needed to move to optimizing its corrosion control. That order was issued Aug. 17.

5. At many points along the way, serious concerns are made about the state's testing methods. The Virginia Tech results were not the first time someone had indicated state testing – as approved by federal guidelines – might not be giving accurate readings.

   Miguel's April memo reads: "I wanted to follow up on this because Flint has essentially not been using any corrosion control treatment since April 30, 2014 and they have (lead service lines). Given the very high lead levels found at one home and the pre-flushing happening in Flint, I'm worried that the whole town may have much higher lead levels than the compliance results indicated, since they are using pre-flushing ahead of their compliance sampling."

There is substantial controversy over the lead and copper rule – the EPA has been working for years on ways to update it, and Michigan will be an active part of that conversation going forward. The situation in Flint is a snapshot of an issue affecting cities around the state and the nation. More than a dozen states use the sampling protocol Michigan uses – that's not a defense of the protocol, but rather an indication that even experts on the issue disagree about the most effective testing methods.

What everyone can agree on is that lead is a serious issue. And I think everyone can agree that when the state came to recognize that there could be a health threat in the city, we took appropriate action. We are now engaged in an unprecedented effort to protect kids and families in Flint, develop more knowledge about what has happened and how people were affected, and take steps to make sure it doesn't happen again – in Michigan, or anywhere else.

All the people who brought this issue forward deserve credit for bringing it to us. Our actions reflected inexperience, and our public response to criticism was the wrong tone early in this conversation. But the best we can do with the situation going forward is represented in our present course – the Governor's plan represents all the suggestions outlined in the draft EPA memo, the Virginia Tech report, and the guidance we've gotten from EPA.

We will learn from this. We will make necessary changes to see to it that our program becomes a national leader in protection.

Need your review of this document. It's our response to Detroit News story they're prepping for tomorrow.

Per Sara, Dan will call Jarrod shortly to discuss what we're proposing to do here.
Thanks,
b

From: Wurfel, Sara (GOV)
Sent: Wednesday, October 21, 2015 9:21 AM
To: Snyder, Rick (GOV)[redacted]
Cc: Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>; Scott, Allison (GOV) <scotta12@michigan.gov>
Subject: Re: Flint water question from Mildred

From DHHS on this particular Q/issue: Dr. Eden Wells spoke this am with Dr. Mona Hannah Attisha, Dr. Lawrence Reynolds and the lead Public Health nurse at the Genesee County Health Department and there is absolutely no information to support the claims made by the Reverend on Mildred Gaddis' show. Dr. Hannah Attisha also checked the Intensive Care Unit and there were no patients similar to what the Reverend described.

Additional Background:
MDHHS has daily communication with the Genesee Co. Health Department via daily calls at 3 p.m. and Dr. Eden Wells also communicates frequently with Dr. Mona Hanna Attisha of Hurley and Dr. Lawrence Reynolds who heads up Pediatrics of Hurley.

We will follow up with Mildred. And we should definitely consider if/who follows up with Rev Bullock as well - Harvey? Dennis?

Sent from my iPhone

> On Oct 21, 2015, at 8:00 AM, Wurfel, Sara (GOV) <Wurfels@michigan.gov> wrote:
>
> Would quickly add that DHHS has almost daily conference calls with the local public health department in Flint. Nothing like this has come up to date. But again they are working to double and triple check.
>
> Sent from my iPhone
>
> > On Oct 21, 2015, at 7:41 AM, Wurfel, Sara (GOV) <Wurfels@michigan.gov> wrote:
> >
> > Absolutely, had talked with Allison about that. DHHS is double checking just in case and will help track down ASAP.

Sent from my iPhone

On Oct 21, 2015, at 7:38 AM, Snyder, Rick (GOV) [redacted]

She claimed that two Flint children were in critical condition over lead. Her source was Rev. Bullock. I said I wasn't aware of that and that all of the identified children were being tracked by public health officials. Please check on the status of children with higher level of lead.

Thanks

Rick

Sent from my iPad

From: GOV Newsroom [mailto:govnewsroom@govsubscriptions.michigan.gov]
Sent: Wednesday, October 21, 2015 2:07 PM
To: Snyder, Rick (GOV) [redacted]
Subject: NEWS RELEASE: Gov. Rick Snyder announces Flint Water Task Force to review state, federal and municipal actions, offer recommendations

Governor Rick Snyder
REINVENTING MICHIGAN
Getting It Right. Getting It Done.

News Release

Contacts: Sara Wurfel or Dave Murray
517-335-6397

FOR IMMEDIATE RELEASE
Wednesday, Oct. 21, 2015

Gov. Rick Snyder announces Flint Water Task Force to review state, federal and municipal actions, offer recommendations

Experts in public health, water management, environmental protection to focus on steps to protect residents

LANSING, Mich. – Gov. Rick Snyder today announced the creation of an independent advisory task force charged with reviewing actions regarding water use and testing in Flint and offer recommendations for future guidelines to protect the health and safety of all state residents.

Task force members include experts in public health and medicine, water management, and environmental protection from both sides of the aisle, and will be co-chaired by Ken Sikkema of Public Sector Consultants and Chris Kolb, of the Michigan Environmental Council. Also serving will be Dr. Matthew Davis of the University of Michigan Health System, Eric Rothstein, of the Galardi Rothstein Group and Dr. Lawrence Reynolds of Mott Children's Health Center in Flint.

"Transitioning back to the Detroit Water and Sewerage Department-Great Lakes Water Authority is a good first step to protecting public health in Flint, but it's not the last step," Snyder said. "Bringing in outside experts to evaluate our actions and help monitor and advise on potential changes to law, procedures and practices will be key to continuing work on the comprehensive action plan and ensuring safe drinking water for all the residents in Flint and all of Michigan."

Snyder said the administration will fully cooperate with task force members, saying he wants an unbiased report focusing on steps taken in the past and recommendations that could improve practices to ensure all residents have access to safe, clean water.

Ken Sikkema is a senior policy fellow at Public Sector Consultants, where he specializes in public finance, environment, and energy policy. Prior to joining the firm, Sikkema served in both the Michigan House and Senate, culminating with four years as Senate majority leader. He has also served as both an adjunct and visiting professor at Grand Valley State University.

Chris Kolb is president of the Michigan Environmental Council, a statewide coalition of 70 environmental, public health and faith-based nonprofit groups. Before joining the MEC, Kolb represented Ann Arbor in the state House for six years and served six years on the Ann Arbor City Council. He has been president of the MEC for six years.

Matthew Davis, M.D., M.A.P.P., is professor of pediatrics and internal medicine at the University of Michigan Health System and professor of public policy at the Gerald R. Ford School at the University of Michigan, having joined the faculty in 2000. Davis also is a professor of health management and policy at the School of Public Health. He previously served as the chief medical executive of the Michigan Department of Community Health/Department of Health and Human Services.

Eric Rothstein is a national water issues consultant and principal at the Galardi Rothstein Group. He served as an independent advisor on the creation of the Great Lakes Water Authority. Rothstein also has served as Jefferson County, Alabama's rate consultant and municipal adviser for litigation related to the county's bankruptcy and issuance of $1.7 billion in sewer warrants and led strategic financial planning for the City of Atlanta's Department of Watershed Management. He has more than 30 years of experience in water, wastewater and stormwater utility finance and rate-making assessments.

Lawrence Reynolds, M.D., is a pediatrician in Flint who serves as president of the Mott Children's Health Center. He received his medical degree from Howard University College of Medicine and has been in practice for 36 years. He has served as president of the Genesee County Medical Society and the Michigan Chapter of the American Academy of Pediatrics. He has been honored for his humanitarian and advocacy efforts on behalf of children from the Community Foundation of Greater Flint.

Snyder has said reconnecting with the authority is a critical step to resolving water quality issues and addressing related health concerns. It will not immediately 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.

To best protect public health, 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. The Michigan Departments of Environmental Quality and Health and Human Services are continuing to provide

free 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.

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STAY CONNECTED:

From: Wurfel, Sara (GOV)
Sent: Tuesday, November 10, 2015 4:28 PM
To: Snyder, Rick (GOV) [redacted]
Cc: Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Murray, David (GOV) <MurrayD1@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>; Muchmore, Dennis (GOV) <muchmored@michigan.gov>
Subject: FW: Flint water school testing results
Importance: High

Governor –

Per our conversation at our comms meeting today, here is the news release and background/highlights of DEQ's schools water testing data that was released yesterday.

DEQ also has video that they're using for some footage of the testing with TV stations. Link here if you want to check out: https://youtu.be/Amy4cDW7RtA

Sill no exact word on timing of blood lead level data from DHHS – hopefully by late this week.

Please let us know if you have any Qs or would like anything else at all.

Freeman Elementary water testing shows lead exposure limited to fixtures

Experts release water testing results on schools and homes in Flint

As part of Gov. Rick Snyder's action plan for Flint drinking water, the DEQ today released water testing data from nearly 400 homes and businesses in Flint as well as comprehensive sampling results from Freeman Elementary School.

Both sets of data indicate the problems with lead are localized to individual buildings or even individual faucets, rather than system-wide issues.

"The results from this data underline the need for water testing at all homes, businesses, schools and other buildings in Flint," said George Krisztian, the DEQ's Flint Action Plan Coordinator. "Problems with lead exposure appear to be localized to individual service lines or plumbing fixtures, and we want to see all families in Flint take advantage of free water testing from the state."

Freeman Elementary testing results
At Freeman Elementary, 31 faucets were tested using a series of four samples each. Twenty-two outlets did not show elevated lead exposure, but nine faucets came back with initially high results.

Those nine outlets involve brass components, indicating the problem involves the fixtures or plumbing immediately surrounding the fixture. When the faucets and fountains were operated for several minutes, lead levels fell significantly, in some cases to non-detectable levels.

Additional testing designed to look deep into the school's plumbing did not suggest larger, systemic issues.

Freeman Elementary has several options for remedying the issues at these nine faucets and fountains. The school can elect not to use those particular fountains, or implement a formalized flushing regimen. The sampling results indicate that for all but one tap, a 3- to 4-minute flushing period each morning would drastically reduce lead exposure.

For a permanent solution, the school should opt to replace the faucets and fountains of concern.

"The safety and health of our students are our primary concern at Flint Community Schools, so we will start work as soon as possible to replace faucets, aerators and other related components where high lead levels were detected," FCS Superintendent Bilal Tawwab said. "Once those fixes have been made, the DEQ has offered to provide additional testing of the water at Freeman Elementary to ensure the water from every sample is safe for our students. Flint Community Schools appreciates the efforts by the DEQ, working with all stakeholders to make sure our water continues to be tested and that our students have access to safe, clean drinking water."

For Freeman Elementary's complete sampling results and more information about how sampling was conducted, visit www.michigan.gov/flintwater.

The DEQ and the DLARA also have conducted sampling at other Flint schools, and results will soon be available on the DEQ's website. Additionally, the state will test every other school in the Flint Community Schools district, as well as any school or daycare in the city. Interested schools and daycare centers should contact George Krisztian at krisztiang@michigan.gov.

Homeowner and other customer-requested testing results
Results from the 381 samples from homes, businesses, schools and other facilities that took advantage of free water testing through the state showed similar, localized results. More than 75 percent of the samples analyzed demonstrated lead results of 5 parts per billion or less, and more than 91 percent demonstrated lead results of 15 parts per billion or less.

This data suggests that while some homes experience elevated lead level results due to lead service lines or in-home plumbing, many other homes experience little to no lead. This can make it difficult for homeowners and businesses to predict their lead exposure.

"Since it's not easy to predict if an individual home's water is at risk for lead, the best thing all residents can do is get their water tested," Krisztian said. "It's a free test that provides valuable information for families."

Testing is available for free by contacting the Flint Water Plant at 810-787-6537 and pressing 1, or by emailing flintwater@cityofflint.com.

For more information about water samples received through the state's free testing program, visit www.michigan.gov/flintwater.

How school sampling was conducted
To conduct this comprehensive sampling, the DEQ and Michigan Department of Licensing and Regulatory Affairs began on Oct. 23 with a thorough plumbing assessment of the school to gain a comprehensive

understanding of how water moves through the building and what types of plumbing materials are used. The assessment also identified 31 faucets or fountains in the school that provide water for drinking, cooking and/or food preparation.

On Oct. 24, the DEQ and DLARA took four, 125-milliliter samples from each of the 31 identified faucets and fountains. The first two samples were taken immediately after turning on the faucet, followed by a 30-second flush and then the third sample, followed by a 2-minute flush and then the fourth sample. These samples provided information on the impact of any lead sources in or around each specific faucet and fountain as well as its connecting plumbing.

On Oct. 31, the DEQ and DLARA took an additional 30 samples, 10 each from three sites in the school. These 1-liter samples were taken consecutively, and provided information about the impact of any lead sources deep in the building's plumbing.

Talking Points on Freeman Announcement

Q: How do we describe the home tests?

A: The home tests are a surveillance-level screening tool. It is the same test used by the state to comply with the federal Lead and Copper Rule.

Q: SO, a safe reading doesn't mean my water is safe?

A: A low reading means there are no fixture-related issues. This screening may not catch impacts of a lead service line to the home. If a homeowner isn't sure whether they have a lead service line, the best way for homeowners to be absolutely sure is to have a certified plumber inspect their home.

Q: Does home plumbing inspection mean they dig up my yard?

A: Usually, no. A good plumber can usually assess the service line from the point of entry to the home.

Q: Was the inspection of the schools done with a different kind of testing? If so, how so?

A: Yes, the testing at the schools is a very thorough protocol designed to first determine if there are fixture-specific issues, then look deeper into the system to identify possible lead plumbing issues.

Q: What was learned by the testing at Freeman Elementary?

A: We identified 9 of 31 sites where the plumbing clearly was imparting lead into water. Importantly, we did repeated draws of the water at these spots over several minutes, and saw lead levels drop dramatically. This means the lead is in the fixtures, not in the water lines. It means the fixtures need to be addressed in some way – flushing for several minutes will help, but replacement of these fixtures offers a more permanent solution. And it means the water at Freeman is safe at 22 of the 31 sites inspected, which is of some reassurance to school officials.

Q: The City is now using water from Detroit. When will the water be free from lead again?

A: The water from Detroit is treated with phosphates, which coat the insides of lead home service lines and will reduce lead impacts. The City also will be adding additional phosphates to develop this coating more quickly, but it could take months for corrosion control to be achieved throughout the system. It is important to note that, even in systems where optimal corrosion control exists, lead components in home plumbing can still cause lead exposure. Removing lead from home plumbing is the only permanent solution to address lead in home water supplies. And testing is the best way to get an accurate sense of one's exposure. In Flint, blood testing for children is free, and surveillance testing of water for any resident also is free.

Michigan Department of Environmental Quality
News Release

Nov. 9, 2015

For More Information:
George Krisztian, 517-284-6719, krisztiang@michigan.gov

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From: Murray, David (GOV)
Sent: Thursday, November 19, 2015 7:09 PM
To: Snyder, Rick (GOV) <[redacted] Calley, Brian (GOV) <[redacted] Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>; Redford, James (GOV) <RedfordJ@michigan.gov>; Posthumus, Dick (GOV) <Posthumusd@michigan.gov>; Hollins, Harvey (GOV) <hollinsh@michigan.gov>; Baird, Richard (GOV) <bairdr@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Wurfel, Sara (GOV) <Wurfels@michigan.gov>; Forstner, Nathaniel (GOV) <forstnern1@michigan.gov>; Scott, Allison (GOV) <scotta12@michigan.gov>; Walsh, John (GOV) <WalshJ@michigan.gov>; Brownfield, Michael (GOV) <BrownfieldM2@michigan.gov>; Wisniewski, Wendy (GOV) <wisniewskiw@michigan.gov>; Mcbride, Bill (GOV) <mcbrideb@michigan.gov>
Subject: Information about Flint blood lead level testing results release

Good evening Governor and team,

We're working with the Department of Health and Human Services on its release of blood lead level testing results, with some continuing discussions about messaging and timing. I've attached the draft press release, an informational graphic and talking points.

This is a challenging situation to be sure, but I think these results are fairly encouraging considering some of the heated rhetoric on this issue. We are discussing a "people first" approach to messaging, and perhaps issuing early next week rather than on at 9:30 a.m. on a Friday so it doesn't look like we are burying news.

In a nutshell:

- Blood lead level testing results released today revealed that 24 of 963 adults and children tested in Flint in October had elevated levels, according to the Michigan Department of Health and Human Services.

- MDHHS is working closely with the Genesee County Health Department to reach out to families testing with higher levels and help them reduce their exposure to lead sources.

- Information was gathered from tests administered citywide to 963 children and adults between October 1 and October 30. Eighteen people age 17 or younger had elevated blood lead levels. Six adults over the age 18 were identified with elevated blood lead levels.

- The testing and follow-up work is part of our action plan.

Dave Murray
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Michigan Department of Health and Human Services (MDHHS) Blood Lead Level Test Results for Flint Zip Codes 48501-48507 Summary as of October 30, 2015

Executive Summary

This report is generated by MDHHS to track Blood Lead Level test results in Flint, Michigan.

- Counts on this report include both capillary and venous blood tests. People who have had multiple tests are counted only once.
- Since 10/1/2015, an additional 963 people have been tested in Flint.
- Continued testing efforts by Genessee County Health Department, MDHHS and local medical personnel have identified 18 children with blood lead levels greater than or equal to 5µg/dL since 10/1/2015.
- Three percent of the children younger than 6 years old tested since 10/1/2015 have had blood lead levels greater than or equal to 5µg/dL.
- Additional testing is ongoing. Counts will vary as new results are added.

Number of People Tested for Lead in Flint

Total number of people tested for lead from 1/1/2013 to 4/14/2014	4657
Total number of people tested for lead from 4/15/2014 to 9/30/2015	5017
Total number of people tested for lead since 10/1/2015:	**963**

Children Younger than 6 Years Old with Blood Lead Levels (BLL) ≥5µg/dL

Total number of children tested for lead from 1/1/2013 to 4/14/2014	3811
Number of child BLL test results ≥5µg/dL from 1/1/2013 to 4/14/2014	112
Total number of children tested for lead from 4/15/2014 to 9/30/2015:	4156
Number of child BLL test results ≥5µg/dL from 4/15/2014 to 9/30/2015:	181
Total number of children tested for lead since 10/1/2015:	**385**
Number of child BLL test results ≥5µg/dL since 10/1/2015:	**12**

Adults (18 Years or Older) with Blood Lead Levels (BLL) ≥5µg/dL

Total number of adults tested for lead from 1/1/2013 to 4/14/2014	170
Number of adult BLL test results ≥5µg/dL from 1/1/2013 to 4/14/2014	22
Total number of adults tested for lead from 4/15/2014 to 9/30/2015:	207
Number of adult BLL test results ≥5µg/dL from 4/15/2014 to 9/30/2015:	13
Total number of adults tested for lead since 10/1/2015:	**289**
Number of adult BLL test results ≥5µg/dL since 10/1/2015:	**6**

Children 6 to 17 Years Old with Blood Lead Levels (BLL) ≥5µg/dL

Total number of children tested for lead from 1/1/2013 to 4/14/2014	676
Number of child BLL test results ≥5µg/dL from 1/1/2013 to 4/14/2014	5
Total number of children tested for lead from 4/15/2014 to 9/30/2015:	654
Number of child BLL test results ≥5µg/dL from 4/15/2014 to 9/30/2015:	7
Total number of children tested for lead since 10/1/2015:	**289**
Number of child BLL test results ≥5µg/dL since 10/1/2015:	**6**

STATE OF MICHIGAN
DEPARTMENT OF HEALTH AND HUMAN SERVICES
LANSING

RICK SNYDER
GOVERNOR

NICK LYON
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FOR IMMEDIATE RELEASE
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MDHHS releases October data outlining blood lead levels in Flint

Results show 24 of 963 people tested had elevated levels

LANSING, Mich. – Blood lead level testing results released today revealed that 24 of 963 adults and children tested in Flint in October had elevated levels, according to the Michigan Department of Health and Human Services.

MDHHS is working closely with the Genesee County Health Department to reach out to families testing with higher levels and help them reduce their exposure to lead sources.

Information was gathered from tests administered citywide to 963 children and adults between October 1 and October 30. Eighteen people age 17 or younger had elevated blood lead levels. Six adults over the age 18 were identified with elevated blood lead levels.

The report is intended to inform residents about blood lead level testing efforts in Flint and provide cumulative total numbers.

"Our goal is to help families reduce their exposure to lead sources," said Dr. Eden Wells, chief medical executive with the MDHHS. "We have made progress in testing and identifying those with elevated blood lead levels, and the department will continue to work closely with county health department to reach these families. We will update these numbers on a regular basis and remain diligent in our ongoing outreach and education."

The data in the report include the total number of tests conducted and the total number of elevated blood lead levels greater than 5 micrograms per deciliter, and captures both capillary and venous blood tests. People who have had multiple tests are counted only once. The full report is posted online at www.michigan.gov/flintwater and will be updated as more data becomes available.

The testing is part of the state's action plan to address health concerns related to Flint's water infrastructure.

Last month, MDHHS collaborated with the county health department and local partners to distribute educational resources and informational letter to Flint parents regarding lead testing. GCHD nursing staff are conducting direct outreach to families when an elevated blood lead level has been detected, serving as an important resources by addressing questions and concerns, providing information, and meeting them in their home environment.

MDHHS continues to provide free water filters and replacement cartridges to Flint residents at four locations including the MDHHS Flint offices and the Genesee County Community Action

www.michigan.gov/flintwater.

To help residents properly install water filters, and to demonstrate how to replace the original when it expires, MDHHS has created an instructional on the MDHHS YouTube channel. For additional updates on Flint water including updates on blood lead levels and testing results, visit www.michigan.gov/flintwater.

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Blood Lead Levels in Flint Talking Points
November 18, 2015

Blood Lead Level Testing Results

- The Michigan Department of Health and Human Services is releasing a report regarding blood lead levels in Flint children and adults in zip codes 48501-48507.
- The purpose of the report is to inform residents about blood lead level testing efforts in Flint and provides cumulative total numbers.
- It is not intended to be a technical report but a technical description, and further analysis of the data in the report is underway.
- The data in the report include the total number of tests conducted and the total number of elevated blood lead levels ≥5µg/dL (micrograms per deciliter), broken down by date and age ranges.
    - Specifically, the current report breaks down the data by the 16 months prior to the switch in water source for Flint (January 1, 2013 through April 14, 2014), to the 17 months after the switch (April 15, 2014 through September 30, 2015), and after the lead exposure prevention campaign was initiated by the State in Flint October 1, 2015 to October 30, 2015. These numbers will continue to be updated.
    - The report also breaks down the number of tests and elevated blood lead levels by children younger than 6, children ages 6-17, and adults 18 years and older.
        - Lead exposure for children younger than 6 is of particular concern because they are more sensitive to the effects of lead and tend to absorb more than older children and adults.
- Data in the report includes both capillary and venous blood tests. People who have had multiple tests are counted only once.
- 963 people were tested in Flint between October 1, 2015, and October 30, 2015, 18 children 17 years of age or younger had elevated blood lead levels. Six adults over the age of 18 were identified with elevated blood lead levels during this time as well.
- With these testing results, MDHHS is working closely with the Genesee County Health Department to conduct case management to ensure that these families are receiving the follow up care they need - including additional blood testing and a home investigation to identify and help reduce the potential for additional lead exposure in their environment.

- In addition to this report, MDHHS has zip code level data available by quarter for 48503-48507 by request. Zip codes 48501-48502 do have some cases, but the numbers are too small to release by quarter.

Water Filters and Replacement Filters

- Our first action item is to work closely with our public and private partners to provide water filters to Flint residents and MDHHS clients.
- To meet this priority, the governor identified one million dollars in state funding to purchase water filters for Flint residents.
- The Brita SAFF-100 filters being distributed by the department and GCCARD do meet the NSF/ANSI 53 standards for drinking water treatment units.
- The Brita faucet filtration system we are distributing are National Sanitation Foundation certified to reduce lead in drinking water.
- Free water filters and replacement cartridges are available to current Michigan Department of Health and Human Services clients and Flint residents who are on the Flint water system at four locations:
    - Flint residents who are not current MDHHS clients should visit one of two Genesee County Community Action Resource Department offices to obtain a filter.
        - at 2727 Lippincott and 601 North Saginaw in Flint
    - Current MDHHS clients in the city of Flint should visit their local MDHHS office:
        - At 125 E. Union St. or 4809 Clio Road
- Staff will be onsite 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.
- Given the questions and concerns regarding the change in water source in Flint, MDHHS authorized the use of emergency services funding to provide water filters for MDHHS clients receiving assistance in the city of Flint.
- This funding will support active Family Independence Program (FIP), Food Assistance Program (FAP), Child Development and Care (CDC), State Disability Assistance (SDA), State Disability Assistance (SDA), or Social Security Insurance (SSI) recipients so that they can obtain filters that are National Sanitation Foundation (NSF) certified to remove lead and ANSI Standard 53.
- MDHHS has also posted an instructional video on the MDHHS YouTube channel to help residents properly install water filters, and to demonstrate how to replace the original filter when it expires.
    - https://www.youtube.com/watch?v=plsOvmH 0
- MDHHS currently serves approximately 25,000 households in Flint.

Background Information

- Initial analysis of MDHHS data found that blood lead levels 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 in several zip codes, particularly 03 and 04. These appear to have increased over the last 1.5 years.
    - 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).
    - 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 is 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 for drinking water, which is why NSF-certified filters are being distributed to residents on the Flint water system free of charge.

- 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

- 'High Risk' Zip codes (48503 and 48504)
    - Blood lead level rates among children under six years of age in the high risk zip codes (48503, 48504) were 2.7 times higher than the rest of Genesee County before the switch to Flint River Water.
    - After the switch to Flint River Water, rates in the high risk Zip codes were 3.2 times that of the rest of Genesee County.
- Other Zip codes in Flint
    - Rates of elevated blood lead levels among children under six years of age in other parts of the city of Flint were 2 times that of the rest of Genesee County before the switch to Flint River Water.
    - The magnitude of the elevated rate remained roughly the same during the period after the water source switch.
- 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

- Use only cold filtered water from the tap for drinking, cooking, and making baby formula. Hot water is more likely to contain higher levels of lead. The lead in household water usually comes from the service line that connects your house to the water main or the plumbing in your house, not from the local water supply.
- 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 can be 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 kept 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.
- 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.

If possible, shower and change before returning home if your job requires you to work with or around lead. These jobs can include painting, plumbing, and some factory work.

WIC Children

- There are 855 infants participating in WIC in Flint.
- We are working with partners at the United Way to ensure that WIC families have access to water filters and bottled water.
- In homes with infants on WIC, if the household has documentation from an official source documenting 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 will be considered on an individual basis.
- WIC cannot cover bottled water.

Snyder, Rick (GOV)

From: Muchmore, Dennis (GOV)
Sent: Tuesday, November 17, 2015 5:25 PM
To: Snyder, Rick (GOV)
Cc: Scott, Allison (GOV)
Subject: FW: Privileged Attorney-Client Communication - Outline of Flint Drinking Water Issues
Attachments: DEQ's Outline of Flint Drinking Water Issues for Flint Water Task Force - Attorney Client Privilege Work Product -11-16-2015.pdf

I thought you should see this. It's pretty interesting. Whether anyone accepts it as gospel is problematic, but it's good on background.

From: Anderson, Madhu (DEQ)
Sent: Tuesday, November 17, 2015 11:20 AM
To: Ken Sikkema (ksikkema@pscinc.com) <ksikkema@pscinc.com>
Cc: Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Baird, Richard (GOV) <bairdr@michigan.gov>; Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Weber, Travis (GOV) <WeberT7@michigan.gov>; Hollins, Harvey (GOV) <hollinsh@michigan.gov>; Murray, David (GOV) <MurrayD1@michigan.gov>; Wurfel, Sara (GOV) <Wurfels@michigan.gov>; Lyon, Nick (DHHS) <LyonN2@michigan.gov>
Subject: Privileged Attorney-Client Communication - Outline of Flint Drinking Water Issues

Ken – Attached is the outline of the Flint Drinking Water issue (in a question and answer format) we have prepared for you to share with your colleagues on the Governor's Flint Water Task Force. Please let me know if we can provide any other material in preparation for the meeting tomorrow.

Madhu

Madhu R. Anderson
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DEQ

City of Flint Drinking Water
Outline prepared by the
Michigan Department of Environmental Quality for the
Flint Water Task Force

I. INTRODUCTION

This document is intended to provide an overview of Michigan's implementation of the Safe Drinking Water Act, 1976 PA 399, as amended (Act 399), with respect to events in the city of Flint (City), Michigan.

II. BACKGROUND

1. How has Flint historically obtained its drinking water?

The water system in the City was organized and built under private ownership in 1883 as the Flint Water Works Company to pump raw water from the Flint River to their consumers. In 1903, the system was converted to a municipally-owned corporation which supplied drinking water to the City. In 1967, the City became a customer of the Detroit Water and Sewerage Department (DWSD) system.

After the switch to DWSD, the City operated its water treatment plant as a standby plant for purposes of reliability in the event of an emergency, such as an interruption in service of the single pipeline from DWSD. In the last ten years, the water treatment plant was used as an emergency backup during two weeks in 2009: June 18 through June 20 and September 10 through September 13.

As a backup emergency water treatment plant, the City was required to operate the water treatment plant quarterly to demonstrate the capability to produce drinking water in accordance with Act 399 and to keep mechanical equipment (such as valves, rubber seals, etc.) in good working order. Each quarter, the water treatment plant was test run and samples were taken of both raw water and finished water (post-filters). Since the water treatment plant was upgraded in the early 2000s, monitoring showed that the water treatment plant was performing as designed.

Contractual obligations with DWSD did not allow treated water to be put into the City's distribution system during these test runs. Treated water was discharged to the Flint River in accordance with a National Pollutant Discharge Elimination System (NPDES) Permit. The test runs were for demonstration purposes, to keep the water treatment plant operational, and staff familiar with operation in the event it was needed in an emergency.

2. What State and Federal laws or rules exist to ensure safe drinking water is provided to City residents?

The federal Safe Drinking Water Act (federal SDWA) is the primary law that ensures the quality of Americans' drinking water. Under the federal SDWA, the United States Environmental Protection Agency (USEPA) sets standards for drinking water quality and oversees the states, localities, and water suppliers who implement those standards.

The federal SDWA was originally passed by Congress in 1974 to protect public health by regulating the nation's public drinking water supply. The law was amended in 1986 and 1996 and requires many actions to protect drinking water and its sources: rivers, lakes, reservoirs, springs, and ground water wells. (The federal SDWA does not regulate private wells which serve fewer than 25 individuals.)

Originally, the federal SDWA focused primarily on treatment as the means of providing safe drinking water at the tap. The 1996 amendments greatly enhanced the existing law by recognizing source water protection, operator training, funding for water system improvements, and public information as important components of safe drinking water. This approach ensures the quality of drinking water by protecting it from source to tap.

The most direct oversight of water systems is conducted by state drinking water programs. States can apply to the USEPA for "primacy," - the authority to implement the federal SDWA within their jurisdictions - if they will adopt standards at least as stringent as the USEPA's and enforce those standards. Michigan adopted the Safe Drinking Water Act in 1976 through Act 399 and has maintained primacy for the program since that time.

3. **What is the USEPA's role as a regulatory agency in implementing the SDWA?**

Federal and state governments share responsibility for administering drinking water programs. Under the federal SDWA, the USEPA is given the responsibility for developing national standards and regulations that apply to the nation's public drinking water systems and enforcing those standards, by working with states.

Michigan's drinking water program is evaluated annually by the USEPA for compliance with the federal SDWA. Based upon these evaluations, the USEPA continues to find Michigan's drinking water program to be compliant with the federal SDWA.

4. **What is the Michigan Department of Environmental Quality's (DEQ) role as a regulatory agency in implementing the SDWA?**

The federal SDWA permits states to accept oversight of the drinking water program under an agreement with the USEPA giving states primary enforcement responsibilities (or primacy). In addition to this delegation of federal authority to the states, states also have the power to create additional regulations and programs governing drinking water suppliers through their own legislative and regulatory processes. Michigan has had regulatory authority of public water supplies since 1913 (Waterworks and Sewerage Systems, 1913 PA 98).

The DEQ has been granted primary enforcement authority in Michigan for the federal SDWA under the authority of Act 399. As such, the DEQ, Office of Drinking Water and Municipal Assistance, has regulatory oversight for all public water supplies, including approximately 1,400 community water supplies and 10,000 noncommunity water supplies. A community water supply provides year-round service to 15 or more living units (homes, apartments, dorm rooms, etc.) or 25 or more residents. A noncommunity water supply has 15 or more service connections or serves 25 or more individuals on an average daily basis for not less than 60 days per year.

The DEQ engages in a variety of activities to help water systems remain in, or return to, compliance. These activities include: conducting surveillance visits (inspections) at water systems and reviewing facilities, equipment, and operations; requiring the submission of plans and specifications for waterworks system improvements and issuing construction permits; providing for the training, examination, certification and regulation of persons operating water supplies; helping systems incorporate preventive measures; and since 1996, providing financial assistance for system improvements.

5. What is the City's role in implementing the federal SDWA and Act 399?

State and federal programs develop regulations and perform oversight and compliance activities, but do not treat or deliver water to customers. At the local level, public and private water utilities collect, treat, and deliver drinking water to consumers in compliance with state and federal regulations.

The federal SDWA and Act 399 set up multiple barriers against contamination. These barriers include: source water protection, multiple treatment components, distribution system integrity, proper operations oversight, and public information. As the owner of a public water system, the City is responsible for knowing and following all requirements under Act 399, such as ensuring proper design, construction, operations and maintenance, so that contaminants in tap water do not exceed the standards established by law. The City treats the water, and must test its water routinely for specified contaminants and report the results to the DEQ. If a water system is not meeting these standards, it is the water supplier's responsibility to notify its customers.

The federal SDWA and Act 399 recognize that customers have the right to know what is in their drinking water and where it comes from. The City, like all water suppliers, must notify consumers when there is a problem with water quality.

The City submits samples of its water for laboratory testing (monitoring) to verify the water it provides to residents meets all federal and state standards. How often and where samples are taken varies from system to system and from contaminant to contaminant. The DEQ provides an annual monitoring schedule to the City setting forth these requirements.

In addition, the City is required to employ properly certified water operators that are trained and experienced to operate the treatment and distribution systems associated with the City's water system.

6. What approvals were needed from the DEQ in order for the City to begin using its water treatment plant full time?

The City had long ago been issued construction permits for raw water pumps to withdraw water from the Flint River and the City was grandfathered under the water withdrawal program (Part 327, Great Lakes Preservation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended), as were all existing community public water systems at that time. There were no additional DEQ

permissions or authorizations required under Act 399 because the City already had approval to use the water treatment plant.

Under Act 399, there are no licenses or permits required to operate public water systems. The City did apply for and obtained two construction permits prior to the water treatment plant changing from an emergency backup plant to full-time operation. These permits were for new chemical feed equipment, changes to the electrical service, etc.

III. THE FLINT RIVER – IS IT A SAFE SOURCE OF DRINKING WATER?

Seventy-five percent of Michigan's population served by a public water supply receive their drinking water from surface water sources, the majority of which is withdrawn from the Great Lakes. However, several public water supplies in Michigan utilize water from inland rivers. All surface water sources require significant treatment in order to be safe for consumption.

While all surface water sources must receive a high level of treatment, inland river sources present a greater challenge than water withdrawn from one of the Great Lakes because of rapidly changing water quality conditions. Under most circumstances, rivers are prone to greater fluctuations in temperature, have higher amounts of organic material, greater turbidity (suspended solids), and are more vulnerable to microbiological and viral contamination than Lakes Huron, Erie, Michigan or Superior. While the water chemistry in the Flint River differs from that in Lake Huron, it can still be treated in accordance with the federal SDWA and Act 399. The waterworks industry has the technology to treat wide ranging source waters to provide potable and palatable drinking water, including direct reuse of treated wastewater. Regardless of source water quality, all public water systems must comply with the same drinking water standards in the finished water.

It is not the source water that reacts with the homeowners plumbing in the distribution system, but rather the finished water quality that is important. Treated water leaving the City's water treatment plant does not contain lead. In addition, the treatment process employed by the City includes lime softening to reduce the hardness in the river water. The City includes lime softening and pH adjustment primarily to improve aesthetic water quality associated with hardness. Lime softening is not a process that water supply professionals would expect to increase corrosivity of water. The City, however, does practice recarbonation to readjust pH at the end of the softening process.

pH levels of finished water leaving the City's water treatment plant averaged 7.7. Expanded water monitoring conducted quarterly at 25 sample sites located throughout the distribution system showed the following:

July – September 2014	average pH = 7.71	range: 7.56 – 7.86
October – December 2014	average pH = 7.88	range: 7.62 – 8.10
January – March 2015	average pH = 7.81	range: 7.60 – 7.99
April – June 2015	average pH = 7.63	range: 7.48 – 7.80

The data below was obtained at ten of the sampling locations throughout the City's distribution system, while they were still purchasing water from DWSD before the City switched to the Flint River as a source:

January – March 2014 (DWSD)	average pH = 7.47	range: 7.40 – 7.54
April 2014 (DWSD)	average pH = 7.49	range: 7.42 – 7.59

Note that the pH of the treated water produced while the City was using the Flint River did not differ significantly from pH values seen in the distribution system during the time the City purchased water from DWSD. Thus, pH monitoring provided no indication of a change in water corrosivity.

IV. *E. COLI* AND TOTAL COLIFORM BACTERIA VIOLATIONS

1. What caused the *E. coli* and total coliform bacteria violations experienced by the City in August and September 2014?

A number of factors, primarily related to distribution system operation and maintenance, likely contributed to the Boil Water Advisories in the City during August and September 2014 triggered by exceedances of bacteria standards in limited areas of the distribution system. In addition, the coliform detections were confined to less than 20 percent of the water system. Had the detections been the result of a failure in treatment, detections would have been expected throughout the City rather than in such a limited geographic area.

Instead, the violations seem to have been caused by other factors such as aging infrastructure. The City's water distribution system has suffered from a lack of infrastructure investment and asset management. Most of the City's over 550 miles of water mains are now over 75 years old, and constructed of unlined cast iron piping. This cast iron pipe is subject to tuberculation, which thins and weakens the pipe walls in some areas and causes a buildup of sediment and debris on the pipe walls in other areas. Tuberculation can lead to water quality issues as well as reduced flows and pressures. Tuberculation also encourages the development of biofilms. Biofilm growth may occur more frequently in areas where little or no disinfectant is maintained.

The City has also experienced decades of a declining customer base and water use, with vacant homes, commercial businesses, and industrial property. Declining water use leads to excess residence time (water age) within the City's distribution pipes and water storage facilities, accelerating tuberculation, biofilm growth, and reductions of disinfectant concentration in the distribution system. While the City has recently seen an infusion of funding for blight removal, contractors using fire hydrants to complete this work have been known to cause hydraulic disturbances that dislodge and suspend settled debris, which may contribute to the bacterial contamination. These hydraulic disturbances were also believed to be a source of the aesthetic water quality complaints both the City and the DEQ were receiving.

The winter of 2013-2014 was also one of the coldest experienced by the water system. The City, which historically has unaccounted water losses of over 30 percent, saw even greater losses since February 2014 due to an increase in cold weather-related water main breaks and leaks (City personnel reported 400 water

main breaks in calendar year 2014, with greater than 50 percent in the winter quarter). The City has also been lacking a formal maintenance program for its more than 7,250 valves, which are critical in limiting the areas impacted during water main repairs. As an example, two valves on the transmission line used to supply the area of the 2014 Boil Water Advisories were found to be closed during the City's investigation of possible sources, causing much longer residence times, reduced disinfectant concentrations, and reduced pressures – all potential avenues for contamination to enter a distribution system.

The Boil Water Advisories also occurred during the warmest and relatively wet periods of August and September 2014. Warm weather conditions are not only more conducive to bacterial growth but also degrade disinfectant concentrations more quickly. As already explained, longer residence times, biofilms, and tuberculation contribute to lowered disinfectant concentrations. Warm, wet weather conditions also allow water contaminated with bacteria to accumulate or pond around piping that leaks and breaks.

During the summer of 2014, the City was actively repairing the distribution system (City personnel reported 29 water main breaks in June through August 2014). After the switch to the Flint River, it was discovered that there were many broken or closed valves in the distribution system (City personnel reported 120 broken valves and 239 valves in an improper position). As the City began correcting these problems, they did detect the presence of coliform organisms in the distribution system in testing conducted as a result of the repairs. This sporadic detection is not an unusual occurrence. Many communities have experienced similar issues when significant repairs are made in the system and/or they suffer water main breaks and localized pressure losses.

2. How were the violations detected? What was the DEQ's response?

Federal SDWA regulations regarding monitoring and standards for bacteria in water distribution systems are incorporated into Act 399. There are a variety of bacteria, parasites, and viruses which can potentially cause health problems if humans ingest them in drinking water. Testing water for each of these potential pathogens would be difficult and expensive. Instead, community water systems are required to test monthly for total coliform and *E. coli*. Total coliform bacteria, while not pathogenic, often originate from the same sources as many pathogens. Therefore, the presence of total coliform in drinking water indicates there may be a pathway for pathogens or other contaminants to enter the system. The absence of total coliforms in the distribution system indicates a minimal likelihood that pathogens are present. *E. coli* is itself a pathogen and its detection is considered direct evidence of a health risk.

The Boil Water Advisories which occurred in the City were associated with bacteria monitoring detections and violations of bacteria standards. These advisories were issued by the City after consultation with the DEQ.

Upon receiving information indicating total coliform and *E. coli* bacteria had been detected, the DEQ advised the City to issue a Boil Water Advisory from August 15 through 20, 2014, for the affected portion of the City. Another Boil Water Advisory was issued from September 5 through 9, 2014, due to localized detections of total

coliform bacteria in the same and adjacent portions of the City. The advisories covered an area of less than 20 percent of the water department's service area.

Once a Boil Water Advisory has been issued, time is needed to investigate potential causes and implement corrective measures. The larger the water system, the more time this may take. Once corrective measures have been taken, samples must be collected and analyzed to confirm that bacteria are no longer present. Under approved analytical methods used by the City, samples must be incubated for 24 hours before results can be obtained. In situations where the bacterial contamination has been confirmed, two consecutive rounds of safe samples collected at least 24 hours apart are normally obtained before canceling a Boil Water Advisory. Adding each of these steps together, a normal response period to rescind a Boil Water Advisory under these circumstances would be expected to take 3 to 4 days.

V. TOTAL TRIHALOMETHANES (TTHM) VIOLATIONS

1. What caused the TTHM violations experienced by the City beginning in late summer 2014?

Disinfectants are an essential element of drinking water treatment because of the barrier they provide against waterborne disease-causing microorganisms. However, disinfection byproducts form when disinfectants used to treat drinking water react with naturally occurring organic materials in the water (e.g., decomposing plant material). The formation of disinfection byproducts continues to occur as water travels throughout water distribution systems.

A major challenge for water suppliers is how to provide protection from pathogens while simultaneously minimizing health risks to the population from disinfection byproducts. Total Trihalomethanes (TTHM – chloroform, bromoform, bromodichloromethane, and dibromochloromethane) and halogenated acetic acids (HAA5 – monochloro-, dichloro-, trichloro-, monobromo-, dibromo-) are widely occurring classes of disinfection byproducts. The amount of TTHM and HAA5 in drinking water can change depending on the season, water temperature, amount of chlorine added, the amount of plant material in the water, and a variety of other factors. All community water systems that chemically disinfect or purchase water that has been chemically disinfected are required to monitor for disinfection byproducts.

The Flint River has higher levels of organic material than water in the Great Lakes and as a result, the water produced by the City developed higher disinfection byproducts than the water purchased from DWSD. Because the water treatment plant was previously operating intermittently, it was not possible to predict disinfection byproduct levels at distribution system compliance points until the City began relying on its water treatment plant continuously.

As mentioned previously, the City became aware that there were numerous broken valves and closed valves that should have been open in the distribution system. At that time, the City also began a mapping effort to identify "water age" in the distribution system. The longer the residence time or "water age" the greater the opportunity for the formation of disinfection byproducts.

2. How were the violations detected? What was the DEQ's response?

Disinfection byproducts are monitored at eight sites throughout the distribution system. A locational running annual average is calculated for each individual site. Because TTHM and HAA5 maximum contaminant levels are calculated based on a running annual average at specific distribution system locations, the actual violation of the standard did not occur until the fall of 2014. However, because it was apparent in the summer of 2014 that the standard would eventually be exceeded; the DEQ asked the City to proactively implement measures to address the problem before the violation required them to do so.

As a result of maintenance efforts undertaken by the City to repair valves and correct improperly closed valves, the City was able to improve water flow in the distribution system and thereby reduce residence time or "water age" in the system. Operational changes made to reduce the amount of storage in the system also helped reduce residence time which contributed to a reduction in disinfection byproduct formation.

In addition to operational changes to minimize residence time in the distribution system, the City added granular activated carbon to its filters in July 2015. Levels of TTHMs and HAA5s were reduced and the City returned to compliance on September 1, 2015.

VI. THE TASTE, ODOR, AND COLOR COMPLAINTS RECEIVED BY FLINT

1. What caused the taste, odor, and color complaints received by the City from residents?

Taste, odor, and color issues are very personalized. While water leaving the water treatment plant did not have any unusual taste, odor or color; during the summer after the switch to the Flint River, customer complaints increased. Construction in the distribution system, hydrant flushing, and changes in flow characteristics are all known causes of disturbances within the distribution system that can cause an increase in taste, odor, and color complaints. Aesthetics, such as taste, odor, and color, while a concern, by themselves are not a threat to public health.

2. What was the DEQ's response?

The DEQ consulted with the City regarding these complaints. The City indicated that they were offering to investigate such complaints for anyone that had issues; but City personnel informed the DEQ that they were not able to recreate these situations in the field. In addition, as a result of the repair work that was underway and the increased flushing to reduce water age in the system to help control TTHMs, it was anticipated that there would be short-term disturbances in the system that would cause color and odor complaints. All water supplies are advised to provide notice to residents prior to undertaking a flushing program because flushing (even routine flushing) often causes temporary problems as described. Based on information from City personnel, it appeared that the complaints were related to such operational activities occurring in the distribution system.

VII. LEAD ISSUES IN THE FLINT DRINKING WATER

1. What causes lead in drinking water?

Lead is rarely found in source water. Lead enters tap water through corrosion of plumbing materials. Homes built before 1986 are more likely to have lead fixtures and solder. Older homes built prior to World War II are more likely to contain lead pipes. The most common problem with newer construction is with brass or chrome-plated brass faucets and fixtures which can leach significant amounts of lead into the water, especially hot water. The amount of lead in tap water also depends on the types and amounts of minerals in the water, how long the water stays in the pipes, the amount of wear in the pipes, the pH of the water, and its temperature.

2. What is the Lead and Copper Rule?

On June 7, 1991, the USEPA published a regulation to control lead and copper in drinking water. This regulation is known as the Lead and Copper Rule (also referred to as the LCR). The treatment technique for the rule requires systems to monitor drinking water at customer taps. If the 90th percentile for lead exceeds an action level of 15 parts per billion (ppb) or the 90th percentile for copper exceeds an action level of 1.3 parts per million (ppm), the system must undertake a number of additional actions to control corrosion. If the action level for lead is exceeded, the water supply must also inform the public about steps they should take to protect their health and the water supply may have to replace lead service lines under their control.

3. What is the lead action level?

For most contaminants, the USEPA sets an enforceable regulation called a maximum contaminant level based on the maximum contaminant level goal. Maximum contaminant levels are set as close to the maximum contaminant level goals as possible, considering cost, benefits, and the ability of public water systems to detect and remove contaminants at the water treatment plant using suitable treatment technologies. Because lead contamination of drinking water often results from corrosion of the plumbing materials belonging to water system customers, the USEPA established a treatment technique rather than a maximum contaminant level for lead. A treatment technique is an enforceable procedure or level of technological performance which water systems must follow to control a contaminant. Although the maximum contaminant level goal for lead is zero, based upon the above factors, the USEPA has established the action level for lead at 15 ppb.

The treatment technique regulation for lead requires water systems that produce drinking water to control the corrosivity of the water. The regulation also requires systems to collect customer tap samples from sites served by the system that are more likely to have plumbing materials containing lead. If the 90th percentile action level for lead is exceeded, then water systems are required to take additional actions including:

- Optimizing corrosion control treatment (for water systems serving greater than 50,000 people that have not fully optimized corrosion control).

- Educating the public about lead in drinking water and actions consumers can take to reduce their exposure to lead.
- Replacing the portions of lead service lines (lines that connect distribution mains to customers) under the water system's control.

4. Did DWSD have optimized corrosion control treatment?

After the LCR passed in 1991, DWSD and all of its consecutive customer systems conducted two rounds of monitoring for lead and copper. Copper levels were well below action level limits, but lead levels exceeded the action level of 15 ppb for DWSD and many of its customer communities. As a result, DWSD installed corrosion control treatment. DWSD performed a corrosion control study and concluded that they could reduce the corrosivity of the water by the addition of an orthophosphate, a corrosion inhibitor.

5. Did the DEQ require the City to have corrosion control in place when it switched to the Flint River as its source of drinking water?

No. There are two ways under the LCR to deem a water supply as providing "optimal corrosion control" – either by sampling and determining through a calculation that the supply is "optimal" or by installing treatment if it is needed. The DEQ requested that the City perform two 6-month rounds of monitoring to demonstrate if the City was practicing optimal corrosion control treatment. According to state regulations [R325.10604f(2)(b)(iii)], a system can demonstrate optimized corrosion controls by sampling in two, consecutive 6-month monitoring periods and comparing the results of this monitoring to the lead level in the source. Optimal corrosion control under this scenario would be defined as having the 90th percentile in each of these monitoring periods lower than the sum of the lead in the source and the practical quantification limit for lead of 5 ppb. Since the source water has 0 ppb lead, the City would have been deemed optimal if its 90th percentile of lead was 5 ppb or less in these two consecutive periods. However, once a system has installed treatment, it would also be considered optimized regardless of the 90th percentile level achieved, as long as it does not exceed the action level of 15 ppb.

In this case, the City had been purchasing water from DWSD that was treated for corrosion control. It was the DWSD water system that was considered as having optimized corrosion control at that point. Since the City water system had not been the supplier of water before, the DEQ did not require the City to maintain corrosion control for which it was not responsible [R325.10604f(2)(b)]. It could not "maintain" operations undertaken elsewhere by a different entity for a different source of water. The DEQ's instructions to the City were consistent with past practices afforded to all other large water systems. At the beginning of the LCR, all large systems were initially granted the option to demonstrate optimal corrosion control treatment through full-scale monitoring under the applicable rules. For these reasons, two 6-month rounds of monitoring, as required by the LCR, were the required means to determine whether or not optimal corrosion control was being achieved.

6. How does the DEQ calculate the 90th percentile?

To determine the 90th percentile of a list of lead or copper results, the procedure below is followed:

Step 1: Place lead or copper results in ascending order
Step 2: Assign each sample a number, 1 for lowest value
Step 3: Multiply the total number of samples by 0.9 – this yields the 90th percentile sample. For example: 20 samples x 0.9 = 18th sample. This is the 90th percentile level.

Calculating the 90th percentile is easiest when a supply collects 10 samples (or a multiple of 10). Note that the 90th percentile must be interpolated if the number of samples is not a multiple of 10.

7. What was the result of the first round of monitoring conducted by the City?

The first 6-month round of lead and copper monitoring conducted by the City ended on December 31, 2014. One hundred samples were submitted and the 90th percentile lead level was calculated to be 6 ppb. The next step required by the DEQ was for the City to collect a second round of monitoring.

8. What was the result of the second round of monitoring conducted by the City?

The second 6-month round of lead and copper monitoring conducted by the City ended on June 30, 2015. Sixty-nine samples that complied with the site selection criteria were submitted and the 90th percentile lead level was calculated to be 11 ppb. The conclusion from these results was that the City, while in compliance with the action level, exceeded the level required to be deemed as having optimized corrosion control.

9. Why was the City required to collect 100 compliance samples for lead and copper in the first 6-month monitoring period of July through December of 2014 and then only 60 compliance samples in the second 6-month period of January through June of 2015?

The number of compliance samples required for lead and copper is based upon the population served by the water system as identified in the table below, taken from Rule 325.10710a of Act 399.

Supply Size (Number of People Served)	Number of Sites (Standard Monitoring)	Number of Sites (Reduced Monitoring)
More than 100,000	100	50
10,001 to 100,000	60	30
3,301 to 10,000	40	20
501 to 3,300	20	10
101 to 500	10	5
Fewer than 101	5	5

The number of samples the City was required to collect in the first round of monitoring after they began relying on the Flint River was based on the 2010 census, which listed the City's population as more than 100,000 residents. In March of 2015, the City provided updated information that indicated the City's population had decreased to less than 100,000. Therefore, they were only required to collect 60 samples. There is no rule prohibiting the collection of additional compliance samples – only establishing a minimum number necessary.

10. What actions did the DEQ order the City to undertake after the second round of monitoring?

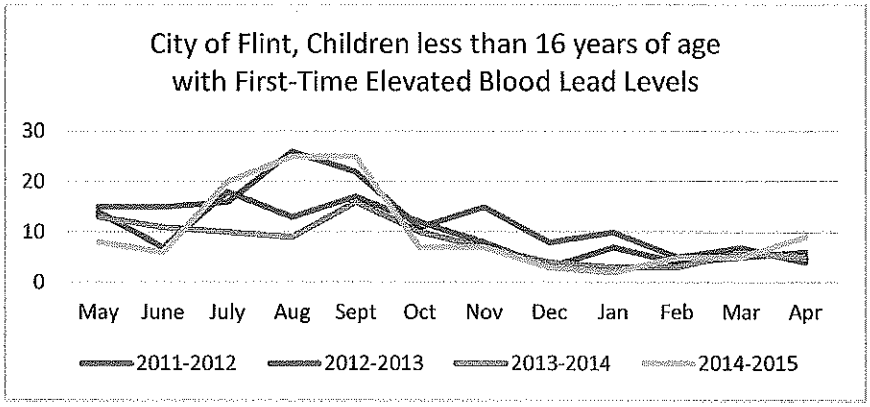
While the City's LCR compliance monitoring continued to meet action level requirements, the City exceeded the level required to be deemed as having optimized corrosion control. Following receipt of the City's compliance monitoring results, the DEQ sent a letter on August 17, 2015, requiring the City to install corrosion control treatment.

Under the LCR, the City has 6 months to let the DEQ know whether it intends to conduct a study, then 18 months to perform the study and make its recommendation, and 24 months to complete installation of the selected corrosion control. The DEQ requested the City accelerate this schedule. The City submitted plans and specifications to install corrosion control treatment and a construction permit was issued by the DEQ on October 28, 2015. The City is in the process of installing the necessary equipment and procuring the appropriate chemicals. Treatment is expected to be on-line by the end of November 2015. As of October 16, 2015, the City resumed purchasing water from DWSD that is already optimized and provides a corrosion inhibitor. The additional treatment by the City will further enhance the amount of inhibitor in the system.

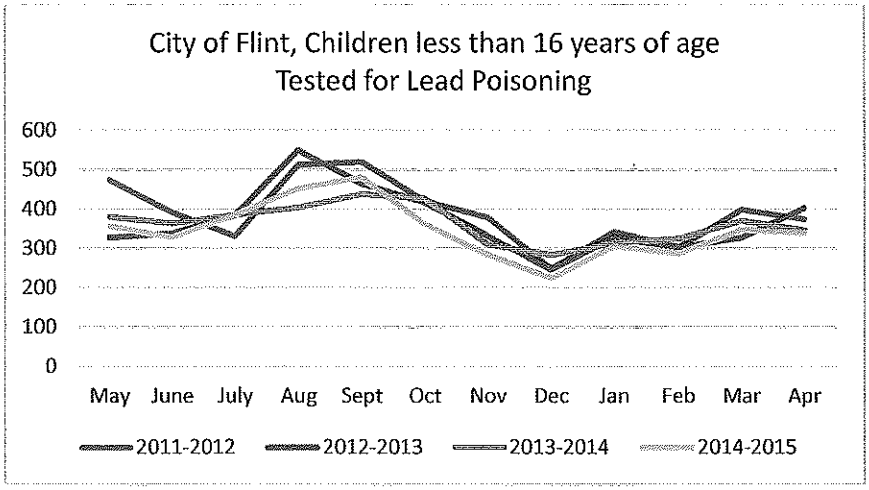
11. What had Michigan Department of Health and Human Services (DHHS) advised the DEQ regarding blood lead levels prior to the DEQ ordering the City to implement optimized corrosion control?

In an e-mail dated July 28, 2015, regarding blood lead testing, the Michigan DHHS indicated that they:

> "...compared lead testing rates and lead testing results to the same time frame for the previous 3 years, to see if there were any patterns that suggested that there were increased rates of lead poisoning after the water supply was switched. Per the attached charts –
>
> • Lead testing rates remained about the same from year-to-year...



- There was a spike in elevated blood lead tests from July-September 2014...



- However, that pattern was not terribly different from what we saw in the previous three years; especially in 2011-2012 (we are working with our Epidemiologist to statistically verify any significant differences).

- We commonly see a 'seasonal effect' with lead, related to people opening and closing windows more often in the summer, which disturbs old deteriorating paint on the windows, sills and sashes. Window fans frequently blow and spread the lead dust from the deteriorating paint to other parts of the room/house. We suspected that the summer data spike may be related to this effect.

- If the home water supply lines and/or river water were contributing to elevated blood lead tests, we expected that the increased rates would extend beyond the summer, but they drop quite a bit from September to October, stayed low over the winter, and are just starting to tail up again in the spring of 2015."

This e-mail from DHHS in concert with the completion of two 6-month rounds of lead compliance sampling data indicating that the City had not exceeded an action level for lead provided the basis for the DEQ to maintain that the water in the City continued to be in compliance with the federal SDWA and Act 399.

12. When did the DEQ first become aware of allegations of elevated blood levels being detected in certain children?

The DEQ was notified on August 23, 2015, by a professor from Virginia Tech that "over the next few months we will be studying Flint water quality issues..." Results indicating elevated lead levels in homes were reported as part of this study in late August. In September 2015, information was reported in news articles that

pediatricians in the City had data suggesting an increase in children's blood lead levels in two zip codes in the Flint area.

Prior to these dates, the City had already completed the required two 6-month rounds of monitoring and the DEQ had made a determination that the City must install corrosion control treatment as documented in correspondence dated August 17, 2015.

VIII. QUESTIONS RAISED REGARDING THE DEQ'S ACTIONS

1. **What was the DEQ's response to the USEPA's inquiry in February 2015 regarding the optimized corrosion control treatment being implemented by the City under the LCR?**

   The DEQ indicated that the City was complying with the LCR, the lead 90th percentile level was below the action level of 15 ppb, and the City was already conducting the second round of monitoring which would provide for a determination of whether additional treatment needed to be installed. It should be noted that once treatment is designated as optimal, there is no requirement in the LCR that lead results be lower than they were before treatment was installed. The 90th percentile only needs to be lower than the action level in the LCR.

2. **Did the DEQ attempt to mislead the USEPA in a February 27, 2015, e-mail responding to the USEPA's inquiry regarding Optimal Corrosion Control Treatment?**

   No. There was no attempt by the DEQ to mislead the USEPA. There is an e-mail from Steve Busch, Jackson and Lansing District Supervisor, Office of Drinking Water and Municipal Assistance, indicating that the City was practicing a corrosion control program. What was meant was that the City was performing the required monitoring to determine whether or not they were practicing optimized corrosion control. The DEQ subsequently clarified its position in follow-up e-mails and telephone conversations with the USEPA.

3. **When General Motors announced its intent to terminate water service from the City and purchase water from Genesee County, should this have been a sign that there were concerns with the quality of the water after the switch to the Flint River?**

   No. General Motors made a decision regarding the quality of water for its manufacturing processes. At the time, the company indicated that the chloride levels were above limits acceptable as part of the manufacturing facility's limit for production purposes. The level of chlorides in the water treated by the City was not a human health or aesthetic concern.

   Chloride does have a secondary maximum contaminant level established by the USEPA, not for health-related concerns but rather for taste and aesthetic concerns. Concentrations greater than the secondary maximum contaminant level of 250 milligrams per liter (mg/l) become objectionable due to taste. According to the City's records, the chloride concentration in the Flint River water is generally about 45 mg/l and the treated water chloride concentration leaving the water treatment

plant ranges between 55 and 65 mg/l. It should be noted that the City uses ferric chloride as its primary coagulant, although this does not add a significant amount of chloride to the finished water.

4. Has the USEPA subsequently admitted that the LCR is subject to differing interpretations such as that presented by the DEQ?

Yes. On November 3, 2015, the USEPA issued a memorandum regarding the "Lead and Copper Rule Requirements for Optimal Corrosion Control Treatment for Large Drinking Water Systems". This memorandum addresses concerns raised about the application of the LCR, specifically the requirements pertaining to maintenance of optimal corrosion control treatment, in situations in which a large water system ceases to purchase treated water and switches to a new drinking water source. The USEPA states that this type of situation rarely arises, that the language of the LCR does not specifically discuss such circumstances, and that there are differing possible interpretations of the LCR with respect to how the rule's optimal corrosion control treatment procedures apply to this situation. The memorandum is intended to clarify, on a prospective basis, steps agencies should take or apply in the future. USEPA's new guidance provides acknowledgement that the LCR is subject to differing interpretations. The DEQ's interpretation and application of the LCR in this situation was in compliance with the federal SDWA and Act 399.

5. Did the DEQ reject any of the samples submitted by the City?

Yes, samples at two locations were excluded from the compliance calculation in conformance with rules issued by the USEPA.

According to the LCR, compliance samples must be a first draw, 1-liter sample collected from a cold water, kitchen or bathroom tap after the tap has stood unused for not less than 6 hours. Federal and state rules require community public water systems to identify a pool of targeted high-risk sampling sites, called Tier 1 sampling sites. For a municipality such as the City, the Tier 1 sampling pool must consist of single family structures that are:

- served by a lead service line,
- contain lead pipes, or
- contain copper pipes soldered with lead installed after 1982 but before Michigan enacted the ban on solder containing high concentrations of lead (June, 1988).

As long as a community has Tier 1 sites that contain lead service lines, they are required to collect at least 50 percent of their compliance samples from these lead service line sites. Finally, federal and state rules specify that "Sampling sites may not include faucets that have point of use or point of entry treatment devices designed to remove inorganic contaminants." Such treatment devices include home softeners, iron filters, etc. Samples collected from multiple family residences, commercial buildings, institutional facilities, or single family structures with point-of-use or point-of-entry treatment can only be used if the community has insufficient Tier 1 sites available.

One of the samples submitted by the City was excluded from the 90th percentile compliance calculation in the latest monitoring period because it was taken from a tap at a non-residential site (non-Tier 1). The other sample result that was excluded was collected from a single family home that has a whole house treatment system. Both of these sites are, therefore, excluded from the compliance consideration based upon federal and state rules.

6. Did the DEQ review the information submitted by the City to ensure all samples were from Tier 1 sites?

Yes. The DEQ examined the information submitted and certified by the City that its LCR compliance monitoring sites consisted entirely of Tier 1 criteria sites, which met the requirements of this rule to maximize sampling of high-risk targeted sites.

During the initial implementation of the LCR approximately 25 years ago, water supplies were required to complete a materials evaluation of their distribution system to identify a pool of targeted, high-risk sampling sites. These sites were to be categorized into one of three Tiers (1, 2, or 3) based on risk. The DEQ created an LCR reporting template for water systems to identify each compliance sampling site by Tier, service line material, and building plumbing material.

If a water system has sufficient Tier 1 sites, they are required to sample them before using any lower Tier sites. Furthermore, if they have sufficient sampling sites with lead service lines, they are required to use them to make up at least 50 percent of their sampling pool each monitoring period. Water supplies are also required to use the same sampling sites each time or explain on their LCR reporting form why they were unable to do so. Finally, the water system is required to certify all of the information they provide on the LCR reporting form is factual.

The DEQ must rely upon the public water system to identify appropriate sampling sites for LCR monitoring. The DEQ public water supply program has no control or authority over service lines or domestic plumbing. As a result, we have no records on construction standards or materials used by customers for these components. If these records exist, they are kept by plumbing code enforcement officials.

In 2015, City employees again certified that the information submitted on their LCR monitoring reports for the two 6-month rounds of monitoring conducted after they began treating the Flint River were accurate, and DEQ staff review of that information indicated it was in compliance with the monitoring requirements. The DEQ had no reason to question the validity of the City's reports until the DEQ heard City employees revealing to the media that the City did not know for certain if its compliance monitoring was collected from homes with lead service lines. As a result, the DEQ began to investigate the City's monitoring sites. As the City began to transfer its customer information to electronic records, the DEQ determined from the information available that a significant number of these sites that had been listed as having lead service lines either did not have them or the information was unavailable. On November 9, 2015, the DEQ notified the City in writing that it would be necessary to conduct a complete assessment of its sampling pool and report back its findings by December 30, 2015. The DEQ is now awaiting the City's response.

7. Did the DEQ believe the levels of lead found at 212 Browning in April 2015 were indicative of a system-wide problem?

High levels of lead were collected in samples taken from this residence. It was determined to be coming from an unusually long lead service line. For some reason, this home was not connected to the water main that ran in front of the house, but rather to a main located on a street several houses away. The City replaced the lead service line May 6, 2015. Since the internal plumbing of the house is plastic, it was believed that replacement of the lead service line would resolve the problem, and subsequent sampling taken at this address showed that replacement of the service line did mitigate the problem. There was, therefore, no reason to believe that this was indicative of a system-wide problem.

8. Do the DEQ's sampling instructions comply with the LCR?

The DEQ continues to seek official clarification from the USEPA regarding the sampling protocols. The DEQ's sampling recommendations were developed to ensure compliance with the USEPA's guidance provided in the preamble to their lead and copper regulations that said that household use should be "typical" for a residential customer on the day before sample collection for lead and copper. Early in the implementation of the LCR, the DEQ had encountered too many situations where compliance samples had been collected from kitchen and bathroom taps that had not been used in days and in some cases, even weeks, resulting in excessively stagnated water and correspondingly high lead levels that did not represent typical exposure expected after overnight stagnation. To incorporate these results into further regulatory decision making could have led to actions that were not indicative of a true public health threat. Further complicating this issue was the USEPA's direct implementation of the LCR in Washington, D.C., where it was learned that some "valid" lead results were not always being included in compliance calculations. Subsequently, the USEPA made invalidation of samples for any reason much more difficult. In order to ensure samples were taken at customer taps representative of typical use, the DEQ devised the current recommendations for ensuring appropriate but not excessive stagnation for LCR monitoring.

The DEQ continues to believe it is appropriate to ensure that taps being sampled are representative of typical household use and are sampled during the recommended stagnation period of 6-18 hours. The LCR does not say the result should represent the "absolute worst case" condition – it talks about sampling the highest risk locations (lead plumbing, lead service lines, high lead content solder piping, etc.) after overnight stagnation and then collecting a first draw sample so as not to flush elevated lead from that tap at that point in time. There are a number of other states that share the DEQ's interpretation of the rule and the DEQ encourages the USEPA to provide official clarification directed at all states with primacy.

9. Does the DEQ require the use of small-neck bottles to obtain samples?

No. The DEQ does not mandate the use of small-neck bottles; it is the sampling method that is specified in both the federal SDWA and Act 399. Each certified drinking water laboratory provides bottles to their customers upon request for any particular analysis in accordance with the specifications in the SDWA. The bottles provided by the DEQ Drinking Water Laboratory for a lead and copper corrosion control sample meet these requirements.

From: Snyder, Rick (GOV)
Sent: Thursday, December 03, 2015 12:52 PM
To: Murray, David (GOV) <MurrayD1@michigan.gov>
Cc: Scott, Allison (GOV) <scotta12@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>
Subject: Re: ACTION NEEDED on Flint water documents

Please proceed as recommended.

Thanks
Rick

Sent from my iPad

On Dec 3, 2015, at 12:43 PM, Murray, David (GOV) <MurrayD1@michigan.gov> wrote:

> Good afternoon Governor,
>
> Sorry for the quick turnaround time on this, but DHHS is hoping to issue the release this afternoon to avoid issuing news on Friday. The DHHS team has answered the questions and made significant revisions to the press release at my request. I think this is far more reader friendly and people focused.
>
> Here are the specific answers to the questions:
>
> **Do the elevated lead levels stick with a person for life?**
> We do see blood lead levels decrease after education takes place and exposure to lead sources is reduced. The purpose of screening children for lead is to identify those with elevated levels. Removing potential sources of lead exposure and ensuring proper nutrition and healthcare leads to decreases in blood lead levels in follow-up testing, which is an important part of case management. Lead has a half-life in blood of approximately 25 days; in soft tissue, about 40 days; and in the non-labile portion of bone, more than 25 years.
>
> **Why do the lead levels spike on a seasonal basis?**
> When reviewing historical trend data, the risk of lead exposure is highest during the third quarter of each year – July through September. Seasonal variation is the result of a number of factors including increased exposure to lead in dust and soil in the summer months.
>
> DHHS is requesting to issue this at 2 p.m. with Dr. Wells available to answer questions.
>
> Thank you for your consideration.

Dave

The notifications will be timed as follows:

1:30 p.m.

- Send final embargoed release and summary report to:
  - Genesee County Health Department – Geralyn Lasher
  - Dr. Mona Hannah-Attisha – Geralyn Lasher
  - Task Force Members – Geralyn Lasher
  - City of Flint Mayor's Office – Geralyn Lasher
  - Congress and legislature – Elizabeth Hertel

2 p.m.

- Issue press release and summary report
- Post press release and summary report to MDHHS website newsroom and Flint Water website, www.michigan.gov/flintwater

Please let me know if you have any additional questions, edits or concerns.

Thank you,

Jennifer Eisner
Public Information Officer
Michigan Department of Health and Human Services
Office: 517-241-2112 or EisnerJ@michigan.gov
[redacted]

<Flint EBL Data Press Release V9.docx>

<Comms Plan - Flint EBL Data Summary 12315.docx>

<Flint Blood Lead Level Summary Report Dec.pdf>

From: Murray, David (GOV)
Sent: Thursday, December 03, 2015 12:44 PM
To: Snyder, Rick (GOV) [redacted]
Cc: Scott, Allison (GOV) <scotta12@michigan.gov>; [redacted], Jarrod (GOV) <AgenJ@michigan.gov>; Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>
Subject: ACTION NEEDED on Flint water documents

Good afternoon Governor,

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Here are the specific answers to the questions:

Do the elevated lead levels stick with a person for life?
We do see blood lead levels decrease after education takes place and exposure to lead sources is reduced. The purpose of screening children for lead is to identify those with elevated levels. Removing potential sources of lead exposure and ensuring proper nutrition and healthcare leads to decreases in blood lead levels in follow-up testing, which is an important part of case management. Lead has a half-life in blood of approximately 25 days; in soft tissue, about 40 days; and in the non-labile portion of bone, more than 25 years.

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When reviewing historical trend data, the risk of lead exposure is highest during the third quarter of each year – July through September. Seasonal variation is the result of a number of factors including increased exposure to lead in dust and soil in the summer months.

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- Congress and legislature – Elizabeth Hertel

2 p.m.

- Issue press release and summary report
- Post press release and summary report to MDHHS website newsroom and Flint Water website, **www.michigan.gov/flintwater**

Please let me know if you have any additional questions, edits or concerns.

Thank you,

Jennifer Eisner
Public Information Officer
Michigan Department of Health and Human Services
Office: 517-241-2112 or EisnerJ@michigan.gov
[redacted]

From: Ken Sikkema [mailto:ksikkema@pscinc.com]
Sent: Monday, December 07, 2015 3:31 PM
To: Snyder, Rick (GOV) [redacted]
Cc: Chris Kolb <chris@environmentalcouncil.org>; Matt Davis <mattdav@med.umich.edu>; Lawrence Reynolds <reynolds@mottchc.org>; Eric Rothstein <erothste@grg-ltd.com>; Baird, Richard (GOV) <bairdr@michigan.gov>
Subject: Flint Water Advisory Task Force Recommendation

Dear Governor Snyder:

We want to thank you for the recent conference call between members of the Flint Water Advisory Task Force (FWATF), yourself, and members of your administration. Attached is a follow-up letter to that conference call outlining an initial set of recommendations that we believe should be implemented in the very near future to focus the state's efforts to protect the public health in Flint.

We both acknowledge and appreciate your personal interest in this issue and your commitment, not only to assisting the Task Force in our review, but--most importantly--to ensuring that the full measure of state resources are brought forward to protect the public health in Flint and throughout the state.

Respectfully,

Ken Sikkema

Ken Sikkema
Senior Policy Fellow
Public Sector Consultants
PH: 517-484-4954
ksikkema@pscinc.com

December 7, 2015

Dear Governor Snyder:

On Wednesday, November 18, 2015, the Flint Water Advisory Task Force met with representatives of the Michigan Department of Environmental Quality (MDEQ) and the Michigan Department of Health and Human Services (MDHHS) to discuss elements of the 10-point Action Plan designed to address various issues related to the ongoing public health protection challenges precipitated by lead in the Flint water supply. These discussions were held at our request as part of our task to make recommendations to prevent a similar occurrence in Flint or elsewhere, and also to monitor ongoing mitigation efforts.

Subsequent to those meetings, on Tuesday, November 24, 2015, members of the Task Force participated in a conference call with yourself, members of the Administration, and representatives of these agencies to discuss the progress to date on the 10-point Action Plan, as well as several other related issues.

We want to acknowledge the steps that have already been taken to implement the action plan, specifically in the areas of outreach efforts to facilitate blood lead testing for children, communication with health care providers in the Flint community about the importance of testing children for lead, and the training of additional public health nurses in the Genesee County Health Department. We do believe, however, that additional steps need to be taken to reach additional children for blood lead testing, assure proper follow-up with children found to have elevated blood lead levels, and to continue water testing. We will continue to assess state and local efforts and make recommendations regarding specific steps that we believe are warranted.

One primary concern we have at this point is that the current efforts appear to be taking place in the absence of a larger project coordination framework that measures results and clearly delineates responsibilities for continuing actions to protect public health. We believe the state is best positioned to facilitate this larger framework, which should address the following:

1. The need for MDHHS and MDEQ—and, possibly, other state agencies--to set **goals** for actions in collaboration with local and federal agencies and organizations.
2. The need for a set of corresponding **timelines** for the goals.
3. The need to establish **responsibility** for meeting the goals in a timely fashion and for **contingency plans** for the state if the goals are not being met.
4. The need for clear, regular **communication** with the Flint community and stakeholder groups regarding action steps and updates.

We also believe it important that a single person or entity—potentially independent of any one particular state agency and mutually agreeable to this Task Force and you, Governor—be established to provide effective coordination of ongoing activities and reporting on the status of mitigation measures. For this, we also believe a readily understood "dashboard" should be developed that reports on the goals, timelines and assignments. This will enable members of the Flint community, public health providers, and state agencies to know about the status of the Flint water crisis mitigation program, as

well as promote coordination and accountability. The Task Force is prepared to assist in the development of that dashboard.

We believe it is vitally important that trusted members of the Flint community be engaged in communication on this issue, as well as the distribution of information conveyed by our suggested dashboard reporting. Accordingly, in advance of our final report, we would like to ensure the independent coordinator suggested above engage trusted community groups to begin rebuilding community trust in state actions.

We appreciate your personal interest in this issue, commitment to assisting the Task Force in our review, and—most importantly—commitment to ensuring that the full measure of state resources are brought forward to protect the public health in Flint and throughout the state.

Respectfully yours,

Flint Water Advisory Task Force:

Dr. Matt Davis

Chris Kolb

Dr. Larry Reynolds

Eric Rothstein

Ken Sikkema

From: Murray, David (GOV)
Sent: Thursday, December 10, 2015 3:56 PM
To: Snyder, Rick (GOV[redacted]; Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Holland, Meegan (GOV) <HollandM2@michigan.gov>
Subject: REVIEW, please -- Draft Flint Water Task Force response

Good afternoon, Governor,

Here is a draft response, pasted below and attached, to the letter from the Flint Water Task Force, incorporating suggestions from Rich and others. Please let me know if you want changes, and we'll prepare a version on letterhead.

Thank you for your time.

Dave

Dear Flint Water Advisory Task Force Members,

Thank you for your correspondence on Dec. 7, and, most importantly, for your hard work to promote public health and protect our residents as we move forward. Your efforts are both respected and appreciated.

As acknowledged in your letter, we have taken many steps to address the challenges in Flint as they relate to reducing lead exposure. I am pleased to see the progress since October, and recognize there is more work that must be done to ensure that this progress continues.

At the state level, there has been a confluence of efforts between Michigan Departments of Environmental Quality and Health and Human Services to coordinate with the Genesee County Health Department, local schools, and our partners in the non-profit community.

These partners are making progress, and we know we must always strive to improve practices and communication for continual improvement.

You make a solid suggestion about establishing a person who is independent of any one of the involved state agencies to serve as the point person to coordinate the ongoing work. I am recommending that Harvey Hollins, director of the Office of Urban Initiatives, carry out this effort. Harvey is well-versed in the issues and the challenges faced by our cities and will be effective in this role. Senior members of our executive team will continue to engage with your task force and provide direction and support to Harvey to ensure you will have continued support and cooperation. We also have retained Chris DeWitt, a veteran communications specialist, to strengthen community outreach efforts to make sure residents have access to the information they need.

I also support your suggestion of a dashboard to make information about [illegible]
Flint community. These are critical measures that can be used as we look the challenges and progress in Flint, but also can be a part of efforts moving forward in other areas of our state. It's important that people have confidence that we are working to address any problems and will take the necessary actions to improve interaction among city, state and federal agencies. We also will continue to work with the medical community to consider how we can work together on wraparound needs of children who might experience health problems.
People in Flint and across our state deserve safe, clean water. I want them to be confident that the water coming out of their tap is safe for their families. And I want them to trust that their government – at all levels – is working effectively to protect them.

I thank you again for investing your time and expertise in this vitally important effort.

Dave Murray
Press Secretary | Executive Office of Governor Rick Snyder
MurrayD1@michigan.gov
517-335-6397, office
[redacted]
Twitter:@michigandmurray

Flint Water Advisory Task Force Members,

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I also support your suggestion of a dashboard to make information about our work and progress more accessible to the Flint community. These are critical measures that can be used as we look the challenges and progress in Flint, but also can be a part of efforts moving forward in other areas of our state. It's important that people have confidence that we are working to address any problems and will take the necessary actions to improve interaction among city, state and federal agencies. We also will continue to work with the medical community to consider how we can work together on wraparound needs of children who might experience health problems.

People in Flint and across our state deserve safe, clean water. I want them to be confident that the water coming out of their tap is safe for their families. And I want them to trust that their government – at all levels – is working effectively to protect them.

I thank you again for investing your time and expertise in this vitally important effort.

Regards,

From: Murray, David (GOV)
Sent: Friday, December 11, 2015 2:58 PM
To: Snyder, Rick (GOV) [redacted] Calley, Brian (GOV) <[redacted]Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Posthumus, Dick (GOV) <Posthumusd@michigan.gov>; Redford, James (GOV) <RedfordJ@michigan.gov>; Baird, Richard (GOV) <bairdr@michigan.gov>; Hollins, Harvey (GOV) <hollinsh@michigan.gov>; Mcbride, Bill (GOV) <mcbrideb@michigan.gov>; Holland, Meegan (GOV) <HollandM2@michigan.gov>; Forstner, Nathaniel (GOV) <forstnern1@michigan.gov>; Brownfield, Michael (GOV) <BrownfieldM2@michigan.gov>; Walsh, John (GOV) <WalshJ@michigan.gov>
Cc: Scott, Allison (GOV) <scotta12@michigan.gov>; Wisniewski, Wendy (GOV) <wisniewskiw@michigan.gov>
Subject: New release on blood lead level testing in Flint.

Good afternoon Governor and team,

Just wanted to give you a heads up about a release DHHS is issuing today with updated blood lead level testing. About 500 more people have been tested since the last release, and eight more people had elevated levels.

The format and information is similar to the previous release. DHHS plans to issue such updates every three weeks for the time being to show transparency, remind people that testing is available if they are concerned, and that free filters and replacement cartridges are available.

I've pasted the release below.

Have a nice weekend,

Dave

December 11, 2015

MDHHS releases latest round of Flint blood lead level data

LANSING, Mich. – The Michigan Department of Health and Human Services today issued its newest summary report on lead testing in Flint. According to preliminary data, 39 of 1,836 adults and children tested had elevated blood lead levels since Oct. 1.

"As testing continues, our focus remains on helping families reduce all potential exp to lead," said Dr. Eden Wells, MDHHS chief medical executive. "We are working closely with the Genesee County Health Department to provide information and offer tools in the community, and encourage families to explore the resources that are available to them."

Both capillary and venous blood tests are included in the report, and people who have had multiple tests are counted only once. Tests and their results cover the time since the state action plan was put in place on Oct. 2, and capture the number of elevated blood lead levels greater than 5 micrograms per deciliter.

MDHHS is working closely with local partners to offer resources and distribute important lead testing and prevention information. Additional state funding has allowed for Genesee County Health Department (GCHD) nurses to work with families when an elevated blood lead level is detected. These families can also choose to have the nurse coordinate an environmental health investigation in their home to identify lead exposures, which could be lead from paint, soil, plumbing, and other sources.

To support these efforts, the state is coordinating with its Medicaid health plans and provider communities on enhanced screening and testing. In addition to mandated testing at ages one and two for the Medicaid population, MDHHS has recommended blood lead testing for any child younger than six years of age in Flint who has not previously been tested. The state, in coordination with GCHD, developed and issued a Health Alert Network (HAN) notification for local providers to help ensure consistent messaging and protocols among primary care providers.

Free water filters and replacement cartridges are still available to Flint residents. For a full list of locations and hours of distribution, or to view the full blood lead level report, visit www.michigan.gov/flintwater. The summary will be updated as more data becomes available.

To help residents properly install water filters, and to demonstrate how to replace the original when it expires, MDHHS has created an instructional video on its YouTube channel. For this and other updates, visit www.michigan.gov/flintwater.

###

Dave Murray
Press Secretary | Executive Office of Governor Rick Snyder
MurrayD1@michigan.gov
517-335-6397, office
[redacted]
Twitter:@michigandmurray

From: Holland, Meegan (GOV)
Sent: Tuesday, December 22, 2015 6:33 PM
To: Snyder, Rick (GOV) [redacted] Baird, Richard (GOV) <bairdr@michigan.gov>; Calley, Brian (GOV) [redacted] Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Hollins, Harvey (GOV) <hollinsh@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>; Scott, Allison (GOV) <scotta12@michigan.gov>
Subject: Briefing on Flint water blog post

Colleagues,

Here is a quick summary of a **blog post** that appears on flintwaterstudy.org, based on 159 pages of DHHS emails requested by Virginia Tech researcher Marc Edwards under the Freedom of Information Act.

The headline: "Michigan Health Department Hid Evidence of Health Harm Due to Lead Contaminated Water: Allowed False Public Assurances by MDEQ and Stonewalled Outside Researchers"

Major points:

- Lee Ann Walters contacted DHHS nurse Karen Lishinski to discuss her child's high lead level. The response: "He is barely lead poisoned. If CDC had not changed their lead poisoning standard from 10 down to 5, we would not be having this conversation ... I am working with kids in their 40's and 50's. It is just a few IQ points...it is not the end of the world."
- DHHS reached out to DEQ after some red flags about lead levels; Stephen Busch responded with inaccurate information. Even so, DHHS proceeded with studies on lead levels and found spiked levels for Q3 2014 and 2015 (third quarters – the summer months - often have season spikes). July 2015 memos indicate they could see something was awry, but the story implies that DHHS sat on the results.
- In September 2015, Brad Wurfel said a study was done and he used it to discredit data from Virginia Tech showing high lead levels. The blog post says Wurfel misrepresented the DHHS results and that DHHS "stood by and said nothing while MDEQ made false claims about what the blood lead data showed."
- Virginia Tech's Marc Edwards requested water data on 9/2/15. He waited for several weeks for the information, and the article talks about how the request caused a flurry of emails at DHHS, particularly between Robert Scott and Nancy Peeler (who work in the childhood lead prevention program). The story says the emails show the department was acting unethically because they appeared to be stonewalling Edwards and later Dr. Mona Hanna-Attisha.

DHHS' response:
"The Michigan Department of Health and Human Services has been, and continues to be, committed to full disclosure of information regarding the city of Flint and blood lead levels. To suggest otherwise is not consistent with how we have responded.

"When initially looking at the citywide and county elevated blood lead level numbers, the increase appeared to be consistent with the routine seasonal fluctuation seen in the summer months. It wasn't until the Hurley report came out that our epidemiologists took a more in-depth look at the data by zip code, controlling for seasonal variation, and confirmed an increase outside of normal trends. As a result of this process, we have determined that the way we analyze data collected needs to be thoroughly reviewed. Our after action report will help determine how we conduct this process in the future.

"Our department is focused on ensuring that appropriate case management and follow up is occurring in Flint. Summary reports outlining blood lead level testing are posted online on a bi-weekly basis, and we are working closely with local partners to fulfill data requests as we receive them.

"Regarding the FOIA, Mr. Edwards received all of the requested documents, with personal information redacted, on Friday, December 18."

Media response: We have received requests from The Flint Journal, The Detroit Free Press, Michigan Radio, Huffington Post, Rachel Maddow and Flint TV.

If there are any questions, please feel free to ask away.

- Meegan

Meegan Holland
Director of Communications for Gov. Rick Snyder
Office: 517-335-6397
[redacted]
Twitter: @meholland

From: Holland, Meegan (GOV)
Sent: Thursday, December 24, 2015 8:08 AM
To: Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Baird, Richard (GOV) <bairdr@michigan.gov>; Hollins, Harvey (GOV) <hollinsh@michigan.gov>; Walsh, John (GOV) <WalshJ@michigan.gov>; Calley, Brian (GOV) [redacted] Snyder, Rick (GOV) [redacted] Clement, Elizabeth (GOV) <clemente@michigan.gov>; Scott, Allison (GOV) <scotta12@michigan.gov>
Subject: BRIEFING: Auditor General answers on Flint water situation

Colleagues:

Here is a summary of answers from the Office of the Auditor General in response to questions mostly posed by Sen. Jim Ananich's office (the auditor added a few questions in the 11-page report). The questions came as the OAG conducts an audit of the Office of Drinking Water and Municipal Assistance's handling of the Flint water crisis.

Conclusions:

While the City Council voted in March 2013 to move to the KWA pipeline, it didn't designate the Flint River as an interim water source. But the DEQ had approved the river as a backup source for emergency purposes in 2006. The treated water met safety standards in quarterly tests by the Flint WTP, but Flint had never tested its effect on the distribution system.

In an email review of key DEQ managers to determine if there was an effort to conceal information, only one email exchange raised red flags. The EPA had asked DEQ in February 2015 if Flint had a corrosion control program; the DEQ responded the city had an optimized program in place. But in April the EPA asked again, and the DEQ said that the Flint Water Treatment Plant (WTP) was not doing corrosion control. DEQ later explained that its first response referred to its program to monitor a new water source (in this case, the Flint river) for lead/copper for two consecutive six-month periods to determine optimal corrosion treatment. The report says there's no reason to believe that DEQ willfully misrepresented information to the EPA. It also concludes that ODWMA employees appeared to have notified management properly about the unfolding Flint water situation.

DEQ did not consult with the EPA on how best to apply the Lead and Copper Rule (LCR) monitoring practices after the switch to Flint water, but from past experience, DEQ believed it was doing so correctly by doing two rounds of six-month monitoring on the new water source before determining optimal corrosion control. The EPA disagreed with DEQ's interpretation of the LCR, but later stated that the LCR was open to interpretation. It then clarified the rule; the upshot: corrosion controls already in place when Flint was on Detroit water should have been maintained after the switch.

DEQ should have notified the Flint WTP to start corrosion controls once the first round of six-month sampling results arrived in late March 2015 and showed the water exceeded acceptable lead levels.

DEQ doesn't oversee the Flint WTP so it doesn't have any accountability measures to ensure the WTP is collecting water samples from tier 1 homes, i.e., residences with lead service lines, soldering or plumbing. Instead, DEQ relies on Flint's certification of sample sites. The auditor suggests DEQ should consider an independent verification of the sampling pool or Flint's certifications. In November 2015, Flint admitted that it had no way to ensure the sites were all tier 1. Water samples came from 175 randomly distributed testing bottles. DEQ has asked Flint to verify its prior samples by this Wednesday (12/30).

There's been controversy that DEQ dropped two sampling sites with high lead levels from its second six-month review. It was appropriate for DEQ to do so because those sites did not meet federal criteria. It was also appropriate for DEQ to require flushing taps the night before sampling to ensure faucets didn't contain overly stagnant water.

Charts show that most water samples were taken in the sixth month of the six-month testing period. The report said it's tough to determine if the lateness of the sampling affects the accuracy.

The report ends with an excellent timeline. I have attached the report in case you want to review the timeline on page 11.

Meegan Holland
Director of Communications for Gov. Rick Snyder
Office: 517-335-6397
[redacted]
Twitter: @meholland

From: Wyant, Dan (DEQ)
Sent: Monday, December 28, 2015 9:49 AM
To: Snyder, Rick (GOV) <[redacted]; Scott, Allison (GOV) <scotta12@michigan.gov>; Agen, Jarrod (GOV) <AgenJ@michigan.gov>; Baird, Richard (GOV) <bairdr@michigan.gov>; Muchmore, Dennis (GOV) <muchmored@michigan.gov>; Hollins, Harvey (GOV) <hollinsh@michigan.gov>; Posthumus, Dick (GOV) <Posthumusd@michigan.gov>; Murray, David (GOV) <MurrayD1@michigan.gov>; Holland, Meegan (GOV) <HollandM2@michigan.gov>; Lyon, Nick (DHHS) <LyonN2@michigan.gov>
Cc: Wyant, Dan (DEQ) <WyantD@michigan.gov>
Subject: FW: Auditor General Letter – City of Flint Drinking Water

FYI – Please see the attached letter. The Auditor General findings are consistent with the DEQ's own internal review. The Auditor General delivered the letter to Senator Ananich late Wednesday, December 23, 2015.

Please call me if you have any questions.

Dan Wyant
Director

Attachment

From: MI_Office_of_the_Auditor_General [mailto:mi_auditor_general@audgen.michigan.gov]
Sent: Wednesday, December 23, 2015 3:18 PM
To: aleavitt@senate.michigan.gov; sstudley@senate.michigan.gov
Cc: Hirst, Laura (OAG); Ringler, Doug (OAG); Wyant, Dan (DEQ); Sygo, Jim (DEQ)
Subject: Auditor General Letter – City of Flint Drinking Water

Please see the attached letter, which addresses your questions about the City of Flint's drinking water.

We stand ready to answer any questions that you may have. Thank you.

OAG
Office of the Auditor General
201 N. Washington Square, Sixth Floor • Lansing, Michigan 48913 • Phone: (517) 334-8050 • www.audgen.michigan.gov

Doug A. Ringler, CPA, CIA
Auditor General

December 23, 2015

The Honorable Jim Ananich
Senate Minority Leader
State Capitol, Room S-105
Lansing, Michigan

Dear Senator Ananich:

Enclosed are answers to the questions you posed in your October 20, 2015 letter to our office regarding the audit we are conducting of the Office of Drinking Water and Municipal Assistance (ODWMA), Department of Environmental Quality (DEQ), specific to lead contamination in the City of Flint's drinking water. Also enclosed are additional questions we developed that are relevant to these issues, along with five exhibits:

- A map showing Flint water samples by zip code.
- A map showing lead counts of 5 parts per billion or higher.
- Two charts showing the number of samples by time period and zip code.
- A time line of the Flint water review.

We appreciate the opportunity to assist you in answering questions regarding this topic. If you have further questions or a request for other services, please do not hesitate to contact our office.

Sincerely,

Doug Ringler

Doug Ringler
Auditor General

Enclosures

Q1: How does ODWMA ensure the data it receives is accurate?

A: With regard to the United States Environmental Protection Agency (EPA) Lead and Copper Rule (LCR) monitoring requirements, DEQ relies on the following key controls to ensure the accuracy of test results:

- State-owned laboratories test water samples.
- State-owned laboratories send test results directly to DEQ.
- The City of Flint Water Treatment Plant (Flint WTP) certifies whether sample sites are classified as tier 1*.

The current Flint WTP LCR sampling process includes:

1. DEQ informs the Flint WTP of the required water lead and copper sample size.
2. The Flint WTP determines the pool of tier 1 sites for sampling.
3. The Flint WTP selects the sample.
4. The Flint WTP sends out sample kits and instructions to residents for collecting water samples.
5. Residents leave samples and signed sampling forms outside their front doors.
6. The Flint WTP employee picks up samples and forms from residents.
7. The Flint WTP employee reviews sample forms for completeness.
8. The Flint WTP employee sends samples to the State-owned laboratories.
9. State-owned laboratories test samples and provide results directly to DEQ.
10. DEQ receives water lead and copper sample results, which include the following information: date collected, date received, address where collected, type of residence (e.g., single family or apartment), and sample point (e.g., kitchen sink or bathroom sink).
11. DEQ tracks, and follows up if necessary, the number of samples collected by the Flint WTP to help ensure that the required minimum number of samples are collected by the monitoring period deadline.

* Single-family or multiple-family residence with lead service line, lead solder copper piping constructed after 1982, or lead plumbing.

12. The Flint WTP submits lead and copper report to DEQ that certifies whether sample sites meet tier 1 criteria.

13. DEQ prepares the LCR 90th percentile calculation report.

During our review, we noted two potential improvements for the Flint WTP sampling process (see Question 5 of the additional questions answered by the OAG regarding tier 1 sample validity):

- DEQ could verify that the sampling pool was limited to only tier 1 sample sites to ensure that the Flint WTP is in compliance with the LCR (Title 40, Part 141, section 86(a)(3) of the *Code of Federal Regulations* [*CFR*]).

- DEQ could independently verify the validity of sample site certifications.

Q2: What accountability measures are in place for ODWMA staff who fail to follow data verification protocols?

A: DEQ does not provide any direct oversight over the Flint WTP and, therefore, does not have any accountability measures over the Flint WTP's LCR data verification protocols. DEQ's data verification protocol for lead and copper water sampling is limited to verification that the WTP certifies samples submitted to the State-owned laboratories for analysis (see steps 7 and 12 in the Flint WTP LCR sampling process noted in Question 1 above). We did not identify any instances in which ODWMA staff failed to verify that submitted samples were certified by the Flint WTP.

Q3: What accountability measures are in place for ODWMA staff who lie or misrepresent information to the EPA?

A: As with all classified employees, ODWMA staff must adhere to the rules and regulations established by the Michigan Civil Service Commission. If any ODWMA staff were determined to misrepresent information to the EPA, they would be subject to Civil Service Rule 2-6, Discipline, which allows an appointing authority to discipline an employee for just cause up to and including dismissal. We are not aware of any DEQ-established measures that are in addition to the Civil Service Rules.

We gained access to the e-mail accounts of key DEQ management (DEQ Director, Deputy Director, ODWMA Chief, and other key ODWMA staff) extending back to January 1, 2013. We did so to identify the key decision points and conversations that occurred leading up to and through the situation in Flint. Our review was also intended to determine whether State, Flint, or other officials attempted to conceal key test results or other information.

We noted one e-mail exchange between DEQ and the EPA that appears to be a significant contributor to the concern that DEQ misrepresented information to the EPA. The EPA requested clarification on February 26, 2015 regarding the type of optimized corrosion control **treatment** the Flint WTP was using. DEQ responded on February 27, 2015 that the city had an optimized corrosion control **program** in place, but DEQ did not provide any program details. DEQ informed us that the Flint WTP corrosion control **program** included performing

lead and copper monitoring for two consecutive six-month periods to determine whether corrosion control **treatment** would be necessary in the future. However, it appears the EPA interpreted corrosion control **program** to mean that corrosion control **treatment** was being performed.

On April 23, 2015, the EPA again inquired as to what the Flint WTP was doing for corrosion control **treatment**. DEQ responded on April 24, 2015 that the Flint WTP was not practicing corrosion control **treatment**.

Based on our review of this and other e-mails, we have no specific reason to believe that DEQ willfully misrepresented the information to the EPA.

Q4: What policies do DEQ and ODWMA have in place to escalate major infractions up the chain of command?

A: We did not note any instances of major infractions (i.e., intentional disregard of policies, laws, regulations or specific directions) committed by DEQ staff during the course of our review. DEQ does not have a formal policy or procedure in place to escalate major infractions performed by ODWMA employees; however, our review of DEQ correspondence confirmed the escalation of key issues up the chain of command related to the Flint situation. DEQ stated that its informal policy is for staff to notify the proper level of management of infractions to determine necessary action.

Application of the LCR

Q1: How did the Flint WTP become the primary water supplier for the City of Flint?

A: Upon notification of the City of Flint's plans to switch to the Karegnondi Water Authority (KWA) in April 2013, the Detroit Water and Sewerage Department (DWSD) submitted a letter to the City of Flint stating that it would terminate its agreement to provide water services on April 17, 2014.

According to DEQ management, the Flint WTP attempted to negotiate with the DWSD to maintain it as the City of Flint water supplier; however, after negotiations were unsuccessful, the City of Flint notified DEQ through a permit request of its intent to operate the Flint WTP full time using the Flint River. Although the Flint City Council voted in March 2013 in support of moving to the KWA pipeline, the vote was silent on the use of the Flint River as a temporary drinking water source.

DEQ informed us that in the 1990s, the City of Flint upgraded the Flint WTP to serve as a backup source of water for emergencies. In 2006, the Flint WTP began quarterly testing of the treated Flint River water at the Flint WTP to ensure water quality standards were met; however, the Flint WTP did not test the water's effect on the distribution system at consumer tap locations.

Q2. Did DEQ consult with the EPA prior to determining how to apply the LCR?

A: DEQ did not consult with the EPA on how to apply the LCR prior to implementing two consecutive six-month monitoring periods of the Flint WTP beginning July 1, 2014. Based on past experiences applying the LCR monitoring requirements, DEQ believed that it had appropriately applied the LCR requirements of a large water system.

Q3: When Flint switched to the Flint River water source, should corrosion control treatment have been maintained?

A: We believe that corrosion control treatment should have been maintained.

According to the LCR, a water system can achieve optimized corrosion control if it submits results of tap water monitoring for two consecutive six-month monitoring periods with acceptable lead levels. However, a water system that has optimized corrosion control, and which has treatment in place, should continue to operate and maintain optimal corrosion control treatment.

DEQ staff explained that they did not treat the switch to Flint River water as a new system, but as a new source. DEQ further stated that because the Flint River was a new water source and there was a change in chemicals needed to treat the new source, a corrosion control study was needed to determine the impact on the water distribution system. Therefore, it was DEQ's interpretation that two rounds of six-month monitoring were still needed to evaluate the water quality and determine optimal corrosion control treatment.

The Flint water system had optimal corrosion control treatment when the DWSD WTP was the water supplier. Based on our review of notes from a July 21, 2015 EPA and DEQ conference call on DEQ's implementation of the LCR regarding whether the Flint WTP should have continued to maintain corrosion control treatment, it appeared that the EPA did not agree with DEQ's interpretation of the LCR. Region 5 EPA staff explained that they would talk to the EPA headquarters about the interpretation of regulations and believes that systems that have been deemed optimized need to "maintain" corrosion control. The Region agreed to provide supporting regulatory citations for the language about maintaining corrosion control.

On November 3, 2015, the EPA issued a memorandum stating that the LCR had differing possible interpretations; however, the EPA concluded that it is important for large water systems to take the steps necessary to ensure that appropriate corrosion control treatment is maintained at all times, thus ensuring that public health is protected. Based on this clarification, it appears that corrosion control treatment should have been maintained.

Q4: Should DEQ have required the Flint WTP to start pursuing optimized corrosion control treatment after the first round of six-month sampling results were above the lead action level of 5 parts per billion (ppb)?

A: Yes. According to DEQ's application of the LCR, within six months after the end of the monitoring period in which the water sample results exceeded the acceptable lead level, DEQ should have required the Flint WTP to start pursuing optimized corrosion control treatment.

The LCR states that the lead action level is exceeded if the lead level, as determined by the 90th percentile calculation, is greater than 15 ppb. If the lead action level is exceeded, water systems are required to take additional actions including educating the public about lead in drinking water as well as commencing lead service line replacement if the water system has already installed corrosion control and/or source water treatment. However, for water systems that have not yet implemented corrosion control treatment, they can be deemed to have optimized corrosion control without installing treatment if they can demonstrate lead levels below 5 ppb for two consecutive six-month periods.

The first round of six-month sampling results was received in late March 2015. Because the results were 1 ppb over the lead action level of 5 ppb, DEQ would not be able to achieve two consecutive six-month periods below 5 ppb. Therefore, DEQ should have notified the Flint WTP to start pursuing optimized corrosion control treatment. However, DEQ waited until the second round of sampling was completed (June 30, 2015) to assess whether water sample results improved.

Water Samples

Q5: Did DEQ verify that only tier 1 sample sites were selected by the Flint WTP in the two rounds of six-month samples?

A: DEQ did not verify that only tier 1 sample sites were selected. DEQ relies on the Flint WTP's certification of sample sites and does not perform any independent verification of those certifications.

In a November 19, 2015 *Flint Journal* article, the Flint WTP indicated that it did not have the ability to ensure that all sites were tier 1. In fact, water samples came from the random distribution of 175 testing bottles without regard for whether the homes were at risk for high lead levels. DEQ issued a formal memorandum on November 9, 2015 requesting that the Flint WTP verify the classification of all prior sample items. The results are due back from the Flint WTP on December 30, 2015.

Q6: DEQ dropped two water sampling sites from its second six-month sample (January 1, 2015 through June 30, 2015). Was this appropriate?

A: Yes, it was appropriate for DEQ to drop these two water sampling sites. Federal regulation 40 *CFR* 141.86(a) states:

> ". . . each water system shall complete a materials evaluation of its distribution system in order to identify a pool of targeted sampling sites that meets the requirements of this section . . . All sites from which first draw samples are collected shall be selected from this pool . . . Sampling sites may not include faucets that have point-of-use or point-of-entry treatment devices designed to remove inorganic contaminants."

This regulation also requires that a water system's targeted sampling pool consist of only tier 1 sampling sites if an adequate number is available to meet monitoring requirements.

According to federal regulation 40 *CFR* 141.86(f), the State may invalidate a water sample if it determines that the sample was taken from a site that did not meet the site selection criteria. A sample invalidated per this regulation does not count toward determining lead or copper 90th percentile levels or toward meeting the minimum monitoring requirements.

DEQ dropped one water sample site from its 90th percentile calculations because the site was from a business that does not meet the tier 1 requirements of being a single-family or multiple-family residence. The second sample site was dropped because the home had a point-of-entry treatment device to filter contaminants. Based on the criteria specified above, it appears that DEQ's rationale for dropping the samples from these two sites appropriately met the requirements for invalidating samples per federal regulation 40 *CFR* 141.86.

Q7: Was flushing of the taps the night before drawing a sample an appropriate sample methodology?

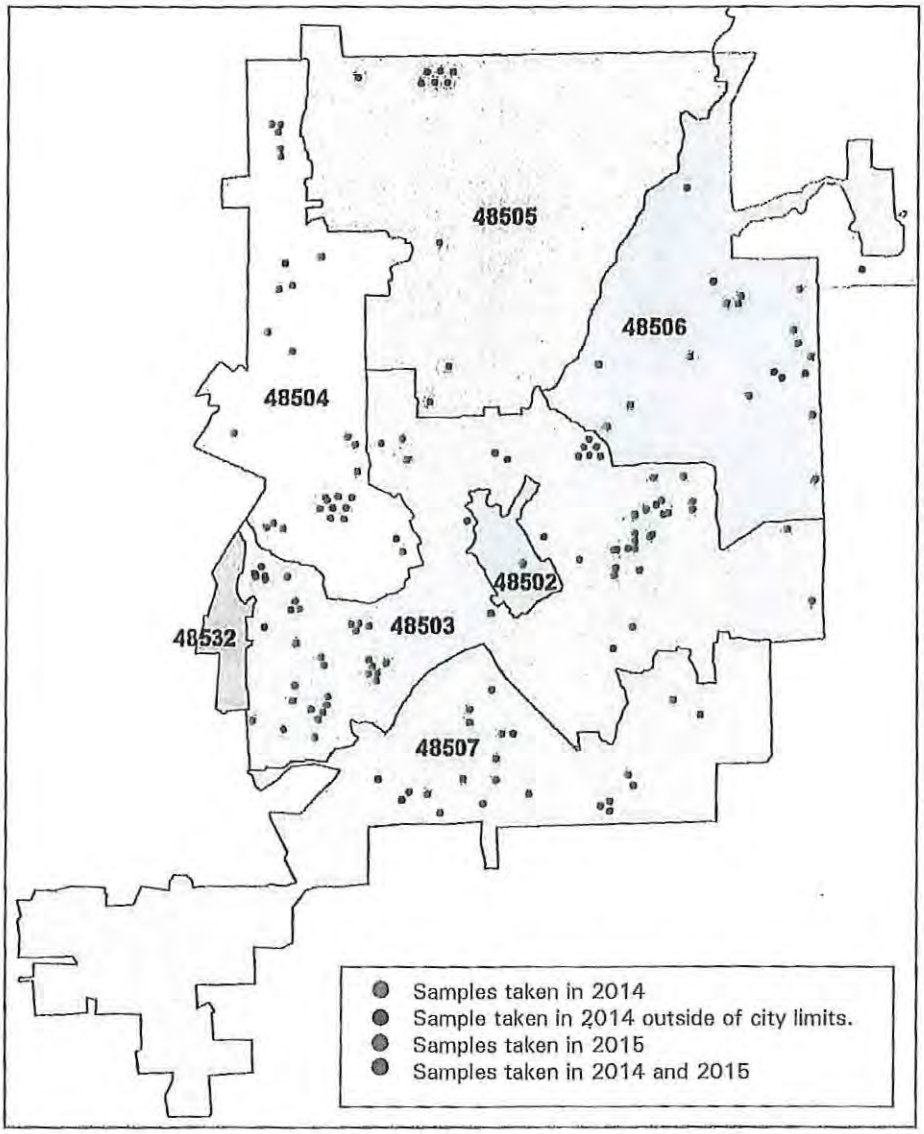
A: Yes. The LCR requires that samples be a first draw of water after six hours of stagnation. The LCR does not indicate whether or not the water line should be flushed prior to collecting the sample. In the sample instructions, DEQ required preflushing to ensure that sampled faucets were not stagnant for an excessive period of time beyond the targeted six hours (e.g., rarely used faucets or when a homeowner has been gone for an extended period of time.)

The LCR requires six hours of stagnation; however, it does not preclude DEQ from instructing residents to flush prior to stagnation.

Flint WTP 2014 and 2015 Sample Locations (Exhibit #1)

In calendar year 1992, the Flint WTP established a tier 1 sample site pool for LCR monitoring. With the change to the Flint River water, the Flint WTP needed to increase the pool of sample locations because of additional sampling requirements. The following exhibit documents the 2014 and 2015 sample locations for LCR monitoring. Based on the data obtained during our review, we could not determine how the locations were selected or whether they were properly classified as tier 1 sample sites.

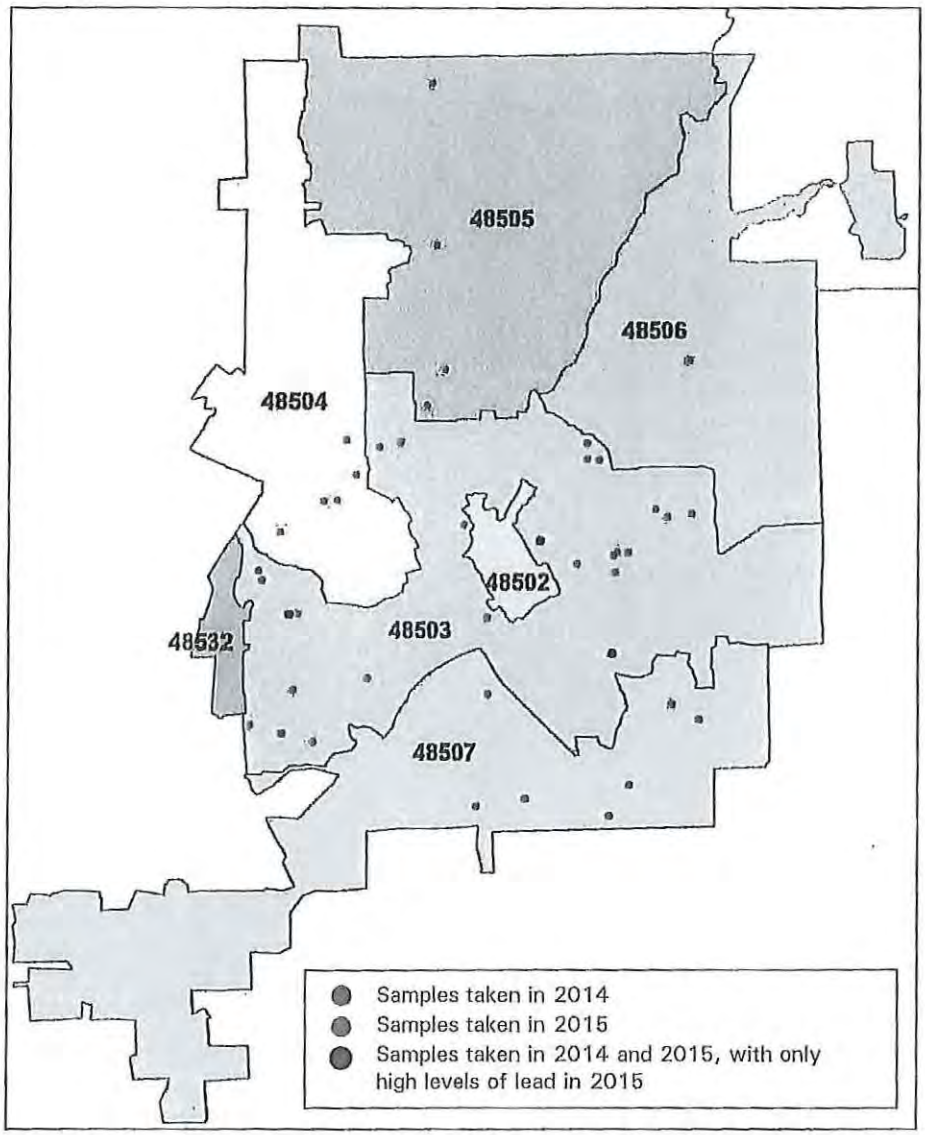
As noted in Question 5 of the additional questions answered by the OAG, DEQ has requested the Flint WTP to verify the tier 1 classification of all prior sample items.



Source: The OAG prepared this map using data obtained from DEQ and ©OpenStreetMap contributors (opendatacommons.org). The sample locations are approximate.

Flint WTP 2014 and 2015 Sample Locations With Lead Counts of 5 Parts Per Billion or Higher (Exhibit #2)

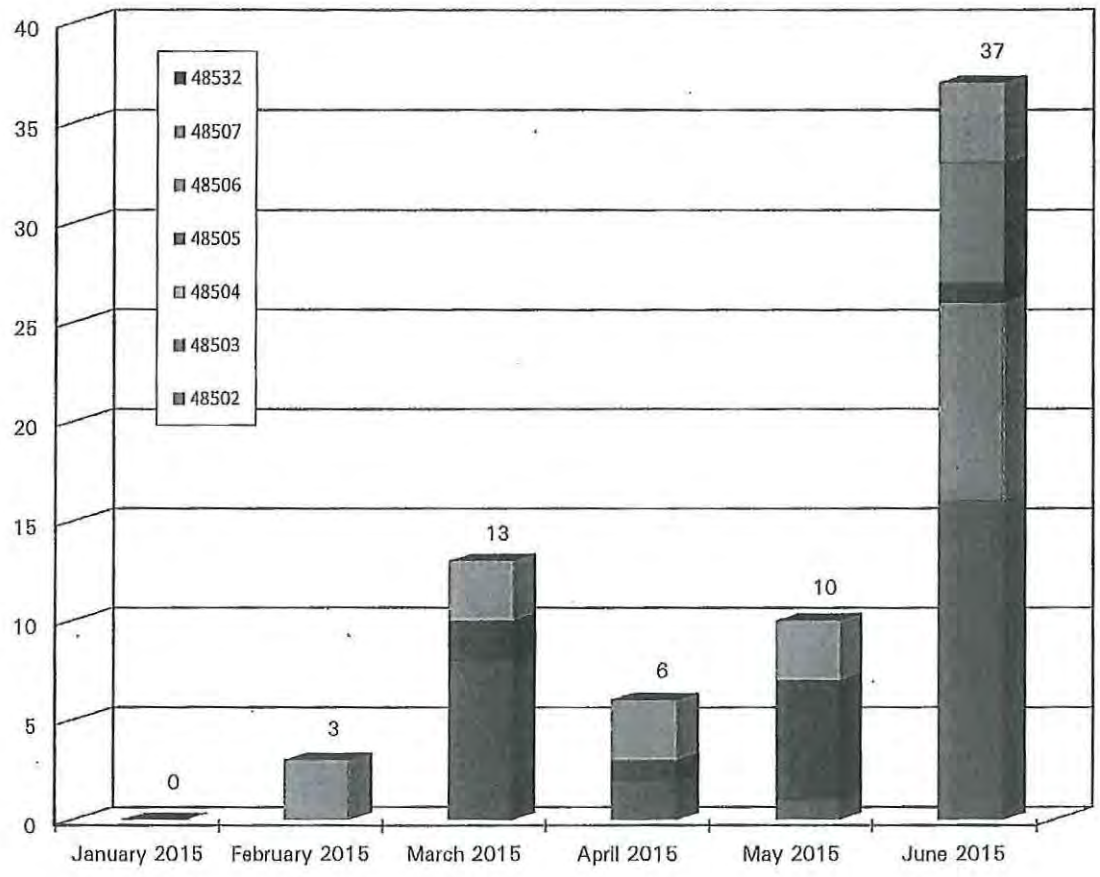
This exhibit documents the 2014 and 2015 sample locations with lead counts of 5 ppb or higher. This information is used in aggregate by DEQ to determine if the city has optimized lead levels.



Source: The OAG prepared this map using data obtained from DEQ and ©OpenStreetMap contributors (opendatacommons.org). The sample locations are approximate.

Flint WTP 2015 Number of Samples by Time Period and Zip Code (Exhibit #3)

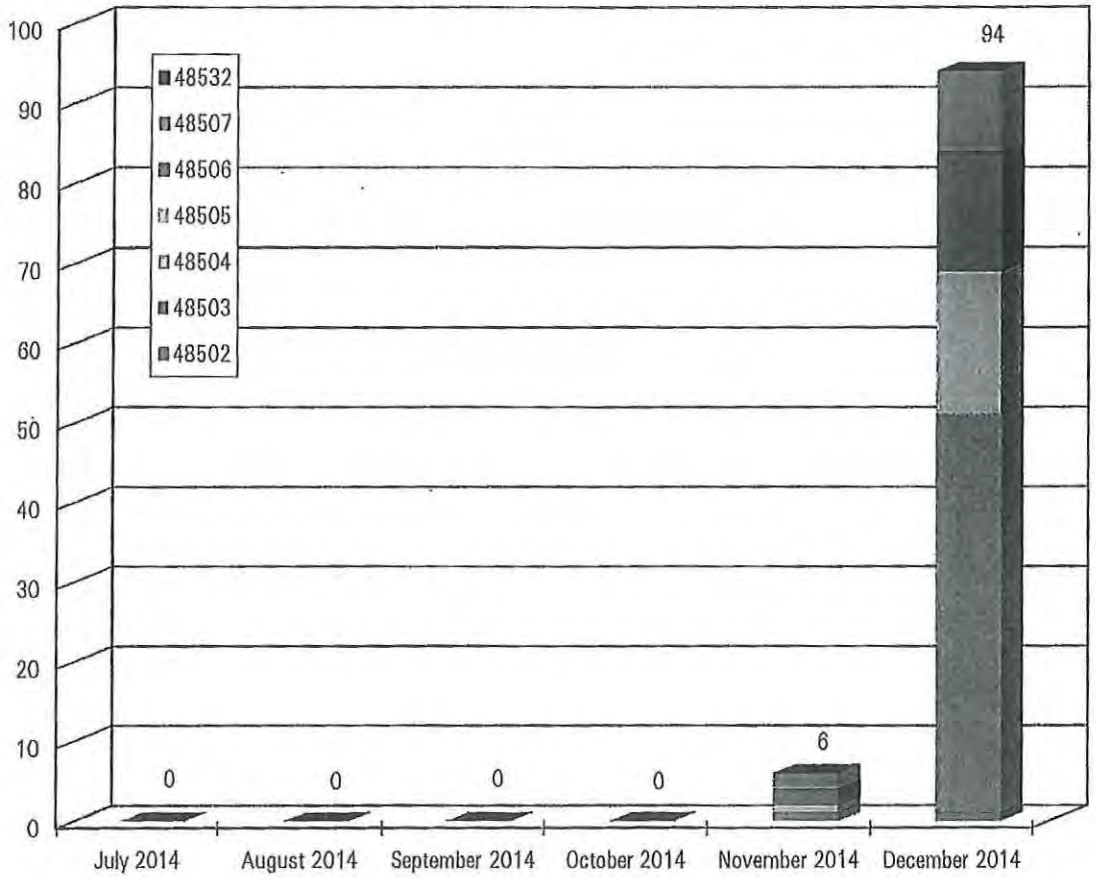
This chart expands on Exhibit #1 to show a summary by zip code and time of selection within the sampling period. Based on the data obtained during our review, we could not determine if the lateness of selection within the monitoring period affected the appropriateness of the sample items.



Source: The OAG prepared this chart using data obtained from DEQ.

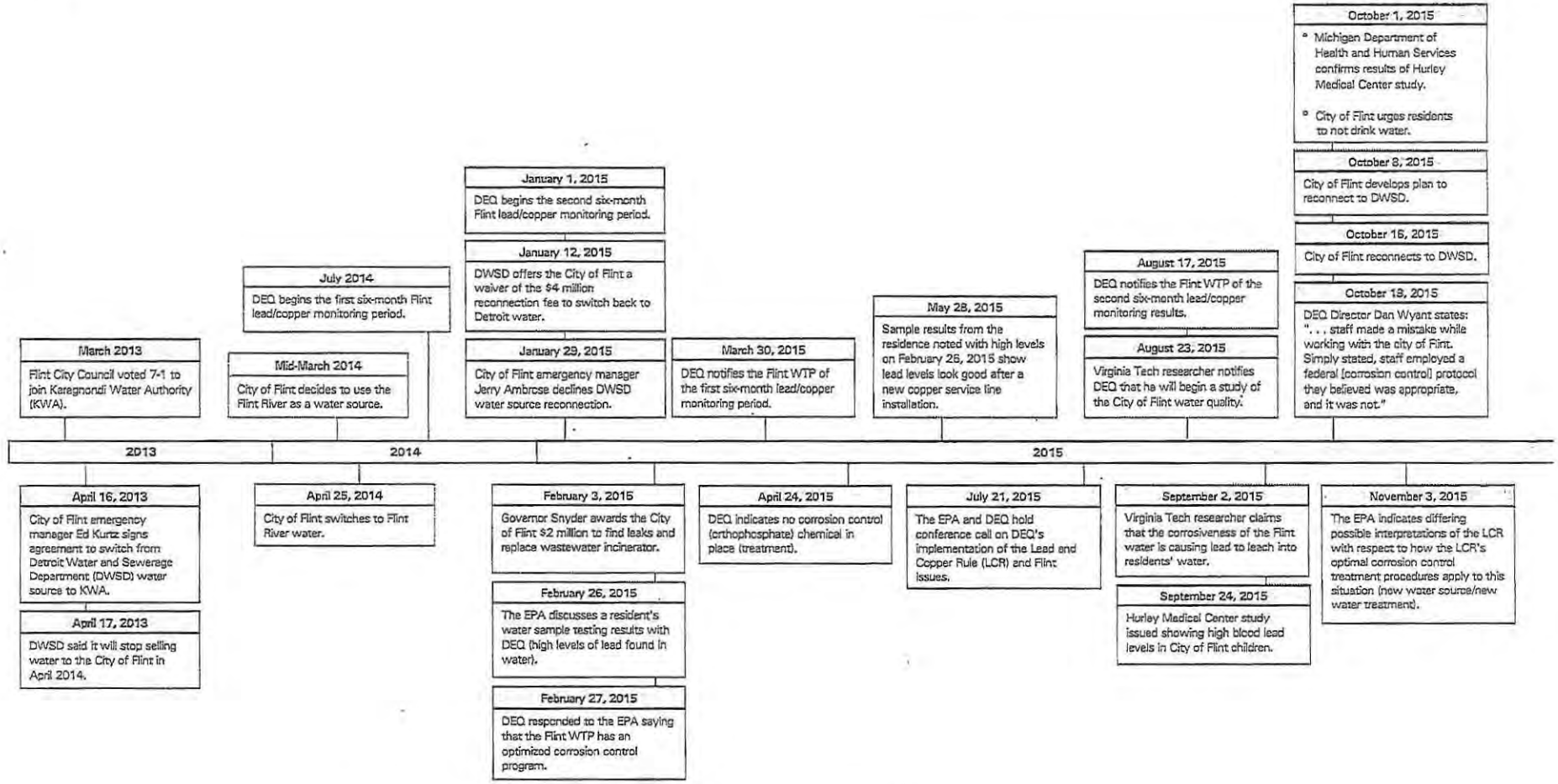
Flint WTP 2014 Number of Samples by Time Period and Zip Code (Exhibit #4)

This chart expands on Exhibit #1 to show a summary by zip code and time of selection within the sampling period. Based on the data obtained during our review, we could not determine if the lateness of selection within the monitoring period affected the appropriateness of the sample items.



Source: The OAG prepared this chart using data obtained from DEQ.

Flint Water Review Time Line (Exhibit #5)



Source: The OAG prepared this time line using data (e-mails, meeting notes, and letters) obtained from DEQ, newspaper and press release articles, the Flintwaterstudy.org, and the Hurley Medical Center survey results.

From: Ken Sikkema [mailto:ksikkema@pscinc.com]
Sent: Tuesday, December 29, 2015 12:26 PM
To: Snyder, Rick (GOV) [redacted]
Cc: Chris Kolb <chris@environmentalcouncil.org>; Matt Davis <mattdav@med.umich.edu>; Eric Rothstein <erothste@grg-ltd.com>; Lawrence Reynolds <reynolds@mottchc.org>
Subject: Attached Letter from Flint Water Advisory Task Force

Dear Governor:

The Flint Water Advisory Task Force, which you appointed on October 21, 2015, has devoted considerable time and effort to our review of the contamination of the Flint Water supply. Our focus has been on assessing what happened, why it happened, and what is needed to prevent any recurrence in Flint or elsewhere in the state. We have also, as you know, been assessing on-going mitigation efforts.

Attached is a letter reporting our finding as to who bears the primary responsibility for what happened in Flint. We are sending this letter now because it has become clear to us that ascribing responsibility and ensuring accountability is both critical and urgent, and simply cannot wait for our final report. Establishing responsibility and accountability is the first step in re-establishing the trust between the citizens of Flint and their government and the agencies whose responsibility it is to protect their health. The current level of distrust also serves to compromise the effective delivery of protected services designed to address ongoing public health issues.

Thank you for the support you have given us and your demonstrated commitment to respond to our findings and recommendations.

On behalf of the Task Force

Ken Sikkema

--

Ken Sikkema
Senior Policy Fellow
Public Sector Consultants
PH: 517-484-4954
ksikkema@pscinc.com

December 29, 2015

Dear Governor Snyder:

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

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

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

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

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

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

The MDEQ failed in three fundamental ways.

<u>Regulatory Failure</u>

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

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

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

Failure in Substance and Tone of MDEQ Response to the Public

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

Failure in MDEQ Interpretation of the Lead and Copper Rule

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

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

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

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

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

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

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

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

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Respectfully yours,

Flint Water Advisory Task Force:

Matt Davis
Chris Kolb
Larry Reynolds
Eric Rothstein
Ken Sikkema

From: Agen, Jarrod (GOV)
Sent: Monday, December 28, 2015 8:25 PM
To: Snyder, Rick (GOV) [redacted]
Cc: Baird, Richard (GOV) <bairdr@michigan.gov>; Scott, Allison (GOV) <scotta12@michigan.gov>; Clement, Elizabeth (GOV) <clemente@michigan.gov>
Subject: Flint letter

Governor,

Attached is a letter from the Flint Water Task Force which will be formally sent to you tomorrow. The Task Force then plans to release this letter publicly on Wednesday morning.

You will see the letter is harsh against DEQ.

Rich, Redford, Harvey, Meegan, and myself all just gathered on a conference call to discuss our upcoming actions regarding Flint. While we don't think this letter should change any of our actions, we agreed we may need to accelerate some of the structural changes at DEQ.

Our suggestions:

1) **Make structural changes at DEQ as early as tomorrow:** The recommendations in this letter suggest profound change at DEQ and openly criticize Director Wyant. If this is the path that the Task Force is on, it is best to make changes at DEQ sooner rather than later. That likely means accepting Dan's resignation. It also means moving up the termination of the 3 DEQ personal previously planned for Jan 4 to tomorrow.

2) **Still do statement tomorrow from you regarding Flint:** This statement will be slightly revised by Meegan to acknowledge we received feedback from the Task Force and reiterate that we created the Task Force with the intent of getting honest independent feedback. More importantly, if we are making changes at DEQ, they can also be announced in the statement.

If you have a moment, it is probably best that Rich & I discuss with you over the phone tomorrow morning. But I wanted to get you some of our thinking tonight.

Let me know if there is a good time to discuss tomorrow.

Thanks
Jarrod

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Flint Water Advisory Task Force:

Ken Sikkema
Chris Kolb
Matt Davis
Larry Reynolds
Eric Rothstein

Snyder, Rick (GOV)

From: Holland, Meegan (GOV)
Sent: Tuesday, December 29, 2015 1:32 PM
To: Snyder, Rick (GOV)
Subject: The Flint water statement

Here is the statement. It's going to senior and executive staff, plus directors, very soon. It will go to the media around 2:30 p.m.

Rich will respond to the task force in person at tomorrow's task force meeting. We don't plan a written response; however, I'll be compiling talking points from various senior staff for Rich.

The statement:

When I became aware that the city of Flint's water showed elevated lead levels and that the state's handling of the situation was being questioned, I requested funding to switch the source back to the Great Lakes Water Authority and appointed an independent task force to identify possible missteps and areas for improvement.

The task force has done an exceptional job, reviewing stacks of documents and interviewing scores of Flint, Genesee County, state and federal officials.

Although the task force's final report is not yet completed, it has made me aware of some interim findings and corrective steps that I have decided to take immediately in order to restore trust in how the state keeps its citizens safe and informed.

We'll continue to work with the community members to make sure we hear and respond to their concerns.

In addition, MDEQ Director Dan Wyant has offered his resignation, and I've determined that it's appropriate to accept it. I'm also making other personnel changes at MDEQ to address problems cited by the task force.

But changes in leadership and staff are not enough. I understand there can be disagreements within the scientific community. That is why I have directed both the departments of Environmental Quality and Health and Human Services to invite every external scientist who has worked on this issue to be our partners in helping us improve Flint water. Let's share research on water and blood lead level testing so we can arrive at accurate and mutually supported conclusions. Together, we should work to affirm that we're using the very best testing protocols to ensure Flint residents have safe drinking water and that we're taking steps to protect their health over the short and long term.

I want the Flint community to know how very sorry I am that this has happened. And I want all Michigan citizens to know that we will learn from this experience, because Flint is not the only city that has an aging infrastructure.

I know many Flint citizens are angry and want more than an apology. That's why I'm taking the actions today to ensure a culture of openness and trust. We've already allocated $10 million to test the water, distribute water filters, and help in other ways. Last week, I called Flint Mayor Karen Weaver, and we're going to meet soon to discuss other ways the state can offer assistance.

These are only initial steps - we fully expect to take more actions following the recommendations of our task force. When it comes to matters of health and quality of life, we're committed to doing everything we can to protect the well-being of our citizens.

Meegan Holland
Director of Communications for Gov. Rick Snyder
Office: 517-335-6397
Mobile: 517-420-2714
Twitter: @meholland