

Flint – July 1, 2015 – Mayor D. Walling, J. Freeman, N. Henderson, R. Byrne, P. Dostine, E. Cline

- **Water & (U of M Flint story)**

Flint continues to work on the issue of water quality. By mid-July, 6 of the 12 new filters will have been installed.

U of M Flint. U of M staffer and students found presence of TTHM, levels higher than the MCL allows. The story got picked-up in the media. Henderson said the university meant no harm, that the media put the story in a negative light. Flint and the U of M will continue to work together. Flint will continue to test its sites as well.

Flint is going to push back the date to start the 24' water main replacement. The city will re-bid the project. Why? Project would interfere with current, ongoing transportation projects, the current construction season is already half over, and the original bid came in higher because of the current KWA project. Henderson said the re-bid should save the city as much as \$1.5M.

- **Election**

The scheduled election is moving along. Henderson doesn't anticipate any issues. The last day to register is Monday, July 6.

- **Police and Fire**

Crime report. Henderson said while overall crime is down, other serious crime incidences are up, like homicide.

Mayor Walling reported that Flint was selected (1 of 5 cities in Michigan) to participate in a U.S. Dept. of Justice-sponsored, multi-federal agency collaborative intensive crime intervention. Presently, Dept. of Justice officials have been meeting with Flint officials including law enforcement and performing problem assessment. According to the Mayor, it will be a two-year "engagement". The official announcement of the program will be in Detroit sometime in September. Much of the federal help will be in the form of in-kind: coaching and technical assistance.

- **Budget**

Council adopted the FY '16 budget. The fund balance was \$495,000. Council adopted an amendment to utilize \$250,000 of the fund balance for weed and grass abatement. Henderson opposed council's decision (Mayor is not going to veto) and said the issue will have to be handled at the July 15 RTAB. Henderson noted that the city's overall fund balance -- \$1.5M of a total budget of \$ 55M -- represents 3% of the total budget. That's well below the 12% in the EM Final Order. Henderson said council's actions are "not financially responsible."

About the unmowed grass issue. Henderson said \$100,000 was found in DPW's FY '16 budget that can go to partially mitigate the issue of unmowed grass. (The mayor estimated it would cost the city \$1M to cut the whole city, one time!) She also said they are exploring other avenues like CDBG funds. The county Land Bank maintains its properties.

Plant Jul 1 9AM WED

R Byrnes, E Cline P Dostine
MATTHEW Josh Freeman Mayor WALKER

Priorities

N - water - cont to work on quality of water

- U of M testing they found:

- TTHM - higher levels over the MCL

- Plant will still test their site

- U of M still working

- MSH Comm. College - they haven't said anything negative

by mid-July

6 of 12 filters installed

▷ project begin end of July
put off till

Do point

TTHM -

\$1.5M to do FT NEW it would

also interfere

cost

rebid it - to do.

(2)

KWA

MAYOR

Kurt project did entirely consumed
our MID-MICH. capacity.
Duthers water rates sens. will
resid and get cheaper rate - less \$1.54
Detroit raised their water rates?
Flint still want DWSO?
(mayor) yes.

Electron

N/
don't see probs. Ele - working along
last day to register & Mon. 4d6.

Police + Fire

Police - down overall in crime stats
- homicides are still up.

MAYOR

selected
Flint ~~selected~~ one of 5 intensive
focus By Dept. of Justice

Coaching + tech asst. program
assigned liaison Dept. of Justice



**City of Flint
Water Quality Update
Wednesday July 1st 2015**

Leak Detection

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

Status: Expected start date – mid / late July

The Contract and RFP should be to vendor "Echologics" by next week.

The vendor has several questions regarding assurance of payment. Their requests have been forwarded to the Finance Director.

The vendor maintains a window of 10 – 14 weeks following mobilization to complete the full scope of work.

Next steps: Complete the contract signing and schedule mobilization.

GAC Installation

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

Status: Ahead of schedule

The filter testing has been completed by the vendor and the final media has been determined and forwarded to DEQ. Preliminary testing has shown that for optimal GAC performance, filter media sand will also be replaced. This will be a complete filter media replacement.

Installation has been scheduled to start the week following the 4th of July, with vendor committing to complete 6 filters by July 17th. The remaining 6 filters are to be complete by mid-August. Six filters can treat up to 18 MGD, and current usage is ranging from 13 -15 MGD.

The measurement of success will be determined by the level of TTHM leaving the plant tap. When traveling through the distribution system the levels can reach as high as twice the plant tap level leaving this as the control point.

The test results indicate that the installation will serve the desired purpose and allow the City to control TTHM levels in the summer months. Testing will occur weekly during the installation to measure the success rate and determine the actual effectiveness of the filters.

Next steps: Installation is scheduled to begin on the week following the 4th of July (one week ahead of original projections).

WPC Incinerator Shutdown

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

Status: In construction phase

Concrete pours are underway, and will be ongoing the next few weeks.

Building footings are poured, and further progress will continue when the concrete has cured.

Panels for the upper section of the facility have started to arrive on site.

Next steps: Completion of underground infrastructure followed by more concrete.

Water Meter Installation

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

Status: On schedule with tentative start date of July 20th.

The vendor "Metron" has signed the contract and is working with City staff to develop a written installation plan

The plan will be to replace the 9000 meters that are currently producing irregular reads in a scheduled and efficient manner.

The City will install an additional 3000 meters annually over the next three years.

The plan is expected to be completed by mid-July with installation planned for the end of July.

Next steps: Complete written installation plan, and develop notification letter to coordinate installation with customers.

Dupont St. 24' Water Main Replacement

The recent decision to re-bid the project was based on a number of issues discussed on 6/26/15 with DPW staff and Rowe Engineering.

- Interference with current ongoing Transportation projects:

- Saginaw St. paving project (MDOT)
- Dupont St. paving project
- Stewart Ave. to Bishop St. project
- Stewart Ave. to Andrew St. project

With the late start many of these newly paved roads will be impacted, and will need to be repaired to specs at extra cost to the project.

- Last bid for project perceived as too high.

- Industry professionals believe the current KWA project drove the price up due to contractor's schedules and equipment already allocated to other projects.
- Bidding timeframe was not optimal, *most projects of this nature are bid out in January*. At this time most contracting firms have an open schedule, therefore more bids are usually returned and the bidding is more competitive.
- It was discussed to bid phase 1 again in January, and then bid phase 2 in February. This may increase the ability to save money overall on both projects

- Late start may push project into the winter months if issues arise.

Mike Glasgow
Utilities Administrator

RESOLUTION STAFF REVIEW

DATE: 7-1-15

Agenda Item Title: Repair Clamp and Water Service Parts

Prepared By: Cheri Priest, Water Service Center

Background/Summary of Proposed Action: The City of Flint Water Service Center requests that a purchase order be issued for the purchase of stainless steel repair clamps and miscellaneous service parts which are used in the repair of water mains and service lines.

Financial Implications: Adequate funding has been allocated for this purchase

Budgeted Expenditure? Yes ☒ No ☐ Please explain if no:

Account No.: 591-540,202-726-000 \$130,000.00

Pre-encumbered? Yes ☒ No ☐ **Requisition #** 150000608

Other Implications (i.e., collective bargaining): None

Staff Recommendation: Recommend Approval

Staff Person: Robert Benish
(Dept Head or other authorized staff)

SEALED PROPOSALS RECEIVED FINANCE DEPT/PURCHASING & SUPPLIES ON SEPTEMBER 10, 2015
ANNUAL SUPPLY OF WATER DISTRIBUTION PIPE STAINLESS STEEL REPAIR CLAMPS AND REPAIR PARTS
#16000529

	Michigan Pipe and Valve 4040 Eagles Nest Flushing, MI 48433	Etna Supply Co. 529-32nd St. Grand Rapids, MI 49548 (Flint branch) 2395 Lepeer Rd, Flint, MI 48503	HD Supply c/o Don Napier 6575 - 23 Mile Rd. Shelby Township, MI 48316
Unit Pricing of various repair clamps as requested	\$6,065.31	\$5,756.00	\$5,675.31 *(\$6,0725.58)

*7.0% price advantage given to Etna Supply based on local preference ordinance

Byrne, Randall (Treasury)

From: Cline, Richard (Treasury)
Sent: Tuesday, July 07, 2015 2:02 PM
To: Byrne, Randall (Treasury)
Subject: FW: KWA Update

Eric Cline | Department Manager

State of Michigan | Michigan Department of Treasury | Office of Fiscal Responsibility

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From: Natasha Henderson [mailto:nhenderson@cityofflint.com]

Sent: Tuesday, July 07, 2015 2:01 PM

To: Cline, Richard (Treasury)

Subject: KWA Update

KWA UPDATE

July 7, 2015

This KWA update is given with information provided by the Genesee County Drain Commissioner Jeff Wright who is also the CEO of the Authority.

The Kwa Pipeline is on schedule to provide Lake Huron water to the Flint Treatment Plant by **June of 2016**.

Intake – The intake, which is the entry point for Lake Huron water a mile down is nearly 90% completed and will be finished in the next several months. Additional regulatory procedures have slowed the timing but this aspect is on target.

Pump Stations – There are two pump stations along the pipeline that have to be finished and each is approximately 75% complete. Current timeline has each station done by the end of this calendar year.

Underground Pipe – Twenty-six of seventy (70) miles of underground pipe has been installed including the majority of the pipe from the Genesee County line to the Flint Treatment Plant.

Installation of the remaining pipe stands out as the determining factor as to how soon water can be delivered from Lake Huron to the Flint Treatment Plant.

- If the weather remains mild then the possibility exists to have water delivered by the first quarter of 2016.
- If there is a significant amount of rain, then the timing of water delivery could be pushed back to the third quarter of 2016.
- Conservative estimates and current pace of construction maintains that the pipeline will be complete to the Flint Water Plant by

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Flint telephone call, July 8, 2015, 9AM

Randy, Patrick, Carmen

Natasha Henderson, Mayor Walling

- Priorities for the upcoming week
- Ecologic update. Contact signed?
- Water issue at U of M Flint

Nothing new, continuing to work closely with – didn't have enough consumption on campus to get water flowing

- Councilman Kincaid's lawsuit, update

Nothing new, moving forward

- Re-assessment

Received a letter, will send RFP from City of Detroit, stated we accept your letter – closer it is to \$3M, the harder it will be to get done. Natasha inquired about funding assistance for this project – FDCVT program has \$5M funding for next fiscal year, call for project in fall? Randy will discuss with Treasury contact re: timing

- KWA – Estimated completion date is June 2016, one of twelve filters installed – this portion should be completed in a couple weeks
- New RFP for water main replacement
- Updates from the City Charter Commission

Meet every week, and have subcommittee meetings weekly as well, 3-4 meetings per week

Budget request – \$59,000 allocated, asking for double – Mott Foundation may help with funding, Natasha will keep OFR updated on

Looking at Pontiac's charter – Council didn't go out and support it, wasn't explained what it would do (reasons for denial)

- Miscellaneous
- Transportation Millage MTA

Same millage rate – Natasha will report back OFR on length of renewal

Deadline to approve request to get on ballot is August 11, would need to be addressed at July RTAB Meeting

- Refiling for Coalition for Clean Water – Federal Judge dismissed request for injunctive relief, former City Attorney Young resubmitted suit (30 pages of allegations) to Circuit Court, Mayor and Natasha named in suit
- RTAB Meeting

Natasha had concerns regarding a budget amendment, 12-15% fund balance, with Council's actions it will only be at 3%

Mayor stated that June 30 has already passed, \$200,000 is unspent, will not change end of year balance, need to move forward with audit and close books

- Preparing Year-End Strategic Plan Update & Summary
- Jodi is doing a good job so far – Jerry is still on call and will be coming in today to help with 911 or Courts
- Flint Firebirds are announcing their new sponsor tomorrow (formerly Pirani), also making improvements to building, ie locker rooms, media box, etc.
- A lot of people are watching the OPRA issue, Mayor feels RTAB support is crucial

Randy will ask Eric which member will be absent from meeting, Natasha would like them to vote still

- Phone call next week will be canceled due to RTAB Meeting

①

Flint tele call 7.8.2015
CARMEN, RANDY, MAYOR, NATASHA, ~~JOHN~~

Water / v of M Flint

- still working close with them
- No New developments

Re-assessment

- Flint received letter from tax commission
- Forwarding Det RFP to Flint

Q. CAN Flint get funding to help with re-assessment project?

A. Maybe some new funding under existing distressed community treasury grant

From
NATASHA

KINCARD lawsuit

No New developments

Lawsuit update

• Coalition of Cleanwater

• They have re-filed (lawsuit to circuit court

- 30 pgs of "suspect allegations"
- Mayor has been added to lawsuit

(2)

- KWA completion - June 2016
- water treatment project
- one of the 12 filters has been installed.
- Natasha thinks it will be completed next couple of weeks

Charter Commission

- Meet weekly incl. subcommittees
- They made budget requests - they want double the amount (\$59000) for funding - Flint cannot afford that - Flint told Charter Commission to seek money from foundations

MTA Millage renewal

- asking for same amount, ~~no~~ ^{no} increase
- Can we have this on RTAB? ^{may be asked} _{millage}
- Aug. 11th deadline to OK for upcoming election

Dayne Walling
Mayor



Natasha L. Henderson
City Administrator

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

For Immediate Release

**Granulated Activated Carbon Filter Installation Underway at Flint's
Water Treatment Plant, Expected to be Completed by Mid-Month**

Flint, Michigan – July 9, 2015 – Installation of the Granulated Carbon filter media (GAC) is underway at Flint's Water Treatment Plant. The first phase of the new filter media will be installed and operational within a couple of weeks. The GAC filter media will immediately begin greatly reducing the amount of Total Organic Carbon (TOC) in the water which is expected to significantly reduce the formation of total trihalomethanes (TTHM).

The City of Flint and LAN Engineering designed the plan for installing the GAC and work was coordinated with the Michigan Department of Environmental Quality. Installation of the GAC was a key recommendation by water service firm Veolia North America for addressing the issue of TTHM. The cost of the filters is approximately \$1.6 million.

Recent testing has shown that Flint's water is meeting all regulatory safety standards, with TTHM levels being significantly below the maximum level accepted. Flint has been under the that level at all eight sampling sites during the last two quarters of testing, however a violation notice was required to be sent at the beginning of this month due to the average being high at one site from levels experienced in 2014.

TTHM is the colorless, odorless byproduct gas created by the reaction between TOC and the chlorine used for disinfecting water during treatment. By drastically reducing the amount of TOC in the water through the GAC, the formation of TTHM is expected to be reduced. Installation of the GAC is one of many improvements to the water system which are call for in the City's Capital Improvement Plan.

—END—

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Dayne Walling
Mayor



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For Immediate Release

City of Flint Statement on Amended Water Lawsuit

Flint, Michigan – July 10, 2015 – The Coalition for Clean Water has filed a new lawsuit against the City of Flint in which they have abandoned all previous federal claims. In response to the updated complaints, city officials issue the following statements:

"Only one month ago, plaintiffs filed a lawsuit claiming the City violated federal laws. Now they have admitted their claims lacked merit, just as the U.S. District Court said. The plaintiffs' new claims are equally baseless and devoid of legal merit. The taxpayers of this community can ill afford yet another lawsuit and any assertion that water decisions by the City of Flint were made without the public's best interest in mind is misleading and damaging to the public trust."

– Pete Bade, City Attorney

"Every step has been taken to ensure the safety of the water. The City has worked closely with authorities to make certain all safety and quality guidelines are followed. Flint's commitment to providing safe, quality and affordable water has not wavered. The City has taken numerous steps and invested a substantial amount, more than \$30 million over 5 years, to improve its water system. These steps have and will include:

- Upgrades to the Water Treatment Plant ahead of water source switch
- Construction of a new intake at the WTP ahead of the KWA connection
- The regular flushing of hydrants

—CONTINUE—

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Dayne Walling
Mayor



Natasha L. Henderson
City Administrator

- Exercising and repairing of valves
- Repair of mains damaged during the spring thaw
- The ongoing hydraulic modeling of the distribution system
- Creation of both a citizens' and a technical advisory committee in order to share information with the community
- In-home water testing to monitor distribution system
- On-site testing for TTHM at the Water Treatment Plant
- Approval of a leak detection system set to begin in August
- The creation of a dedicated water webpage, complete with documents and timeline of events, to share this information with the public

In addition, the new granulated activated carbon (GAC) filters are being installed at Flint's Water Treatment Plant. The first round of filters will be installed by mid-July and will have an immediate impact greatly reducing the amount of total organic compound (TOC) and thus reducing the formation of trihalomethanes. These filters, along with the others proactive measures being undertaken to address issues in the system, were the concurrent recommendation of the various parties who evaluated Flint's treatment operation.

– Howard Croft, DPW Director

–END–



STATE OF MICHIGAN
DEPARTMENT OF TREASURY

RICK SNYDER
GOVERNOR

NICK A. KHOURI
STATE TREASURER

DATE: July 10, 2015
TO: Rick Snyder, Governor
FROM: Wayne Workman, Deputy State Treasurer
SUBJECT: Status of Financially Distressed Local Governments

EMERGENCY MANAGER

Lincoln Park

Emergency Manager: Brad Coulter

Appointed: July 3, 2014

Anticipated Exit: January 2016

Recent Developments

- The city ended FY 15 with an estimated \$100K General Fund Balance.
- An actuarial analysis published on May 20, 2015 shows a further decline in pension funding, down to 23%. More conservative actuarial assumptions were used in this report.
- EM Coulter has modified retiree collective bargaining agreements to reduce healthcare benefits. These changes are to be implemented in July 2015 and will reduce retiree healthcare costs from \$4.1M to \$600K annually.
- City Manager interviews have been conducted. Mathew Coppler, City Manager of Enfield, Connecticut was offered the position and accepted. His contract has been finalized and he will begin work in late September.
- The Lincoln Park Retiree Associations have filed a lawsuit against the State of Michigan, Treasury, and the City of Lincoln Park regarding the reduction of city retiree healthcare.

Significant Actions/Issues

- FY 14 ended with a General Fund accumulated deficit of \$736K, out of a total budget of \$21M. This is a significant increase from the FY 13 accumulated deficit of \$89K. Increases were in Public Safety - \$1.1M, Public Works - \$700K, and Culture and Recreation - \$600K.
- Voters rejected the Firefighters and Police Officers Retirement Act proposal last month by a 53% to 47% margin. Had it been approved, an additional \$3M annually would have helped fund fire/police pension and healthcare costs. EM Coulter is pursuing an alternative plan under provisions of PA 345 of 1927 to create a Board of Trustees to manage and operate the retirement system. If successful, a request for seven mills per year to fund public safety pensions will be placed on the November ballot.

Issues to Resolve before EM Exit

- Police CBAs must be finalized.
- Increase and stabilize pension funding levels.

FINANCIAL REVIEW COMMISSION (FRC)

Detroit

FRC Created: November 12, 2014

FRC Members: Nick Khouri, Bill Martin, Brenda Jones, Darrell Burks, John Roberts, Lorrion James, Mike Duggan, Stacy Fox, Tony Saunders

Recent Developments

- In reaction to the June 30, 2015 vote by Detroit City Council against increasing rates on water and sewerage costs, the Chairman of the FRC and State Treasurer, sent a letter to Detroit's Mayor and City Council on July 2, 2015. The purpose of the letter was to ask the Mayor and City Council to provide the FRC with either the necessary information to demonstrate the city's plan to comply with the approved budget for FY 16, or the basis upon which the city will seek an amendment to the FY 16 budget. If the vote is not reversed, this action will result in the Detroit Water and Sewerage Department Enterprise Fund being in a deficit position for FY 16.
- At the FRC's June 22, 2015 meeting, the city provided an update on the syndication of the city's \$275M bankruptcy exit financing. The city may elect to repay a portion of the exit refinancing before the public offering, which is expected to occur in mid-August, and will report back to the FRC at the July 27, 2015 meeting.
- The most intense work the FRC will perform going forward is measuring the effectiveness of restructuring initiatives in light of the large annual pension obligations the city will incur beginning in 2024.

Significant Action/Issues

- The first statutorily required biannual report on Detroit was filed by the Financial Review Commission (FRC) on May 28, 2015. The report detailed the FRC's activities and formal requirements since its appointment in November 2014. The FRC will file its second biannual report in December 2015.
- The city submitted its Four-Year Financial and Operating Plan (Plan) to the FRC in March. After reviewing the Plan and determining it was based on sound assumptions and met all statutory requirements, the FRC granted approval on April 20, 2015. The city's Plan encompassed the second year (FY 16) of Emergency Manager Orr's two-year budget and used this as its base year with no changes, plus three years (FY 17, FY 18, and FY 19).
- The City of Detroit Assessor's Office is currently conducting a multi-year project to reappraise all properties in Detroit, after the State Tax Commission found significant problems with property valuations. The reappraisal is scheduled to be completed in 2017.

RECEIVERSHIP TRANSITION ADVISORY BOARD (RTAB)

Allen Park

RTAB Appointed: September 26, 2014

RTAB Members: Suzanne Schafer, Joyce Parker, Fredrick Frank, Karen Barann

Recent Developments

- The City Council adopted the FY 16 Budget on May 26, 2015. It was approved by the RTAB on June 3, 2015.

- The city completed its move to a new temporary City Hall on June 8, 2015. Final inspections are scheduled for July 17, 2015.
- The city met with the police bargaining unit and is considering a one-year extension to the CBA.
- On May 15, 2015, an updated five-year budget projection from the city was received. The RTAB will be considering this item at their July 22, 2015 meeting.
- The RTAB approved the hiring of a professional search firm to assist with finding qualified City Administrator candidates. Treasury will participate in the selection process. Initial screening of applicants is expected to begin in July 2015.
- Completion of the bond tender process is projected for August 2015. The 2015 Refunding Bonds will be rated Single A, due to the city's pledge of distributable state aid.
- Standard & Poor's released its rating of the city on June 24, 2015, in anticipation of the bond tender release. The city's long-term rating for the existing bonds was downgraded with a negative outlook. The downgrading for these bonds is similar to the rating by Standard and Poor's on the City of Detroit's DWSD tender refinancing.
- A retired city employee has brought a breach of contract and age discrimination lawsuit against the city. The city's insurance policy covers only a small portion of the alleged damages.

Significant Actions/Issues

- There's a need to add one member to the RTAB to find additional Allen Park area diversity.
- In April, the RTAB approved creation of an Interim Deputy City Administrator position to oversee city operations until the bond tender and City Hall projects are complete. Mark Kibby, former City Manager of the City of Woodhaven, was appointed to this position.
- Litigation was filed by retirees challenging the EM's authority to reduce other post-employment benefit (OPEB) liabilities. A motion for summary disposition is pending. No date has been set to hear this motion.

Benton Harbor

RTAB Appointed: March 10, 2014

RTAB Members: Larry Steckelberg, Bret Witkowski, Marvin Raglon, Sharon Hunt

Recent Developments

- The City Council adopted the FY 16 budget on June 15, 2015. The RTAB approved the FY 16 budget on June 22, 2015.
- There is a vacancy on the City Commission due to the passing of Commissioner Mary Donald.
- Former Benton Harbor Public Safety Director Roger Lange has brought a Whistleblower and Elliot Larson Civil Rights case against the City of Benton Harbor and former Emergency Manager Tony Saunders. The mediation is expected to take place on July 17, 2015 with Jon March of Miller Johnson serving as the mediator.
- The Finance Director, Deputy Finance Director, several Public Safety Officers, and two Public Works Department employees have resigned due to other employment opportunities.
- The first annual evaluation from the RTAB will commence in July.

Significant Actions/Issues

- On April 6, 2015, the City Commission passed resolutions adopting a procurement policy, investment policy, and a credit card policy.
- FY 14 audited General Fund revenues exceed expenditures by \$1M, out of a total budget of \$6.1M.

Ecorse

RTAB Appointed: May 1, 2013

RTAB Members: Edward Koryzno, Robert Bovitz, Joyce Parker

Recent Developments

- On May 12, 2015, the RTAB approved a narrowly balanced FY 16 Budget. To balance the budget, the city increased an existing P.A. 33 levy by approximately 15 mills.
- The City has completed a balanced five-year financial plan. Difficult changes including the outsourcing of fire services must be realized soon to comply with this financial plan. This is the first time that the City has proposed a solvent path out of receivership.
- The City Administrator has requested a new City Controller (third in six months), however; the RTAB rejected this appointment at the May meeting. The Mayor has submitted a letter of protest, disagreeing with this RTAB decision, and Treasurer Khouri met with him on June 26, 2015. Treasury is considering changes to the final EM Order as a result of that meeting.
- A second annual evaluation from the RTAB will commence in the coming months.

Significant Actions/Issues

- The city continues to have difficulty attracting qualified candidates and filling higher level administrative positions.
- Municipal Employee's Retiree System pension contributions are anticipated to increase from \$1.8M in FY 15 to \$2.4M in FY 16 due to accelerated funding for closed plans.

Flint

RTAB Appointed: April 29, 2015

RTAB Members: Frederick Headen, Brian Larkin, David McGhee, Beverly Walker-Griffa, Robert McMahan

Recent Developments

- The City Council approved an amendment to the EM adopted FY 15 budget on June 29, 2015. The city ended FY 15 with an estimated \$495K General Fund balance. The RTAB will be reviewing the budget amendment at their July 15, 2015 meeting.
- The City Administrator has issued a Corrective Action Plan to the City Clerk to correct a number of operational deficiencies that resulted in the wrong election submission dates being provided to local candidates.
- Legislation has been signed that will allow candidates who submitted petitions by April 28, 2015 to have their names placed on the August Primary ballot.
- U.S. District Judge Stephen J. Murphy denied a motion for a preliminary injunction on June 23, 2015, to force the city to purchase water from the City of Detroit.
- On June 12, 2015, the Michigan Court of Appeals reversed a decision by Genesee County Circuit Judge Richard Yuille, who dismissed a claim that the city violated its own ordinances when the Emergency Manager raised water and sewer rates in 2011.
- The RTAB held its first meeting on June 11, 2015. Jodi Lundquist has assumed the position of CFO.

- As a result of a recent review, the State Tax Commission notified the city that it must maintain adequate assessment records in compliance with statute and State Tax Commission Rules, and must implement any corrective actions necessary. In addition, the city shall implement a full reassessment within a time frame agreed upon with the State Tax Commission. The city will be issuing an RFP for a reappraisal.
- The city continues to inform residents that it is in violation of the Clean Water Standards Act. Monthly testing is ongoing.
- The city is implementing Veolia recommended improvements to its water system, including water plant improvements, distribution system improvements, new policies and procedures, and better communication with customers. The city is installing a \$1.5M granulated active-charcoal filter to improve water quality. This filter installation will be completed in mid-July.
- The city hired Echologics at a cost of \$895,850 to perform a leak detection study. This project is scheduled to begin in July 2015.
- The KWA pipeline is expected to be completed in June 2016. The two pump stations are 75% complete and the intake should be completed in August 2015.

Significant Actions/Issues

- If the city loses a lawsuit over retiree healthcare, the EM's two-year budget does not assume an additional \$5M to \$6M annual expense.

Hamtramck

RTAB Appointed: December 18, 2014

RTAB Members: Deborah Roberts, Mark Stema, Cathy Square, Karen Young

Recent Developments

- The City Council adopted the FY 16 Budget on June 17, 2015. The RTAB approved the Budget on June 23, 2015. The city has also developed a long-term capital improvement plan.
- The city is undertaking a \$7M sewer infrastructure improvement project which is eligible for State Revolving Fund monies. The project will reduce storm water inflow into the sanitary sewers.

Significant Actions/Issues

- A suit was filed in federal court by Hamtramck retirees over changes to healthcare benefits made in October 2014. The potential exposure to the city is currently unknown.
- The annual pension liability is anticipated to increase from \$3.5M in FY 15 to \$4.3M by FY 19. This increase is a result of closing certain pension plans and the Michigan Employee's Retirement System (MERS) policy of accelerating the required contribution for closed plans. The increases were included in the Emergency Manager's two-year budget.

Pontiac

RTAB Appointed: August 19, 2013

RTAB Members: Edward Koryzno, Louis Schimmel, Keith Sawdon, Robert Burgess

Recent Developments

- Treasury staff met with members of the City Council on June 22, 2015 and June 23, 2015 to discuss the RTAB and transition to local control.
- On June 18, 2015 the City Council adopted the proposed FY 16 budget and 2015 tax rates. The RTAB held a special meeting on June 26, 2015 to approve the proposed FY 16 budget and 2015 tax rates.
- Initial screening of Deputy Mayor Candidates will begin in July. Treasury will participate in the selection process.
- The city lost the Supreme Court ruling on efforts to demolish the Phoenix Center. Treasury is working with the city to move forward with the sale to a private operator which frees up \$2M in demolition funds.

Significant Actions/Issues

- On May 21, 2015, the Securities and Exchange Commission (SEC) issued an Order to initiate proceedings against Gray & Company, the city's pension investment advisor. The proceedings involve Gray & Company's dealings with investments made by several Georgia pension plans in the Gray Co Alternative Fund II LP, a proprietary private equity fund. The Pension Board met with Mr. Gray to discuss the SEC proceedings, its effects on the Pontiac GERS portfolio, and how much is invested with Gray's firm. The Pension Board is reviewing options for withdrawal of pension assets from Grayson controlled funds.
- On May 20, 2015, the RTAB postponed consideration of an amendment to the city's retirement ordinance that would have granted early retirement status to 69 former employees. The amendment was adopted by City Council in April with no prior analysis or actuarial study being conducted. The best available estimates indicate an impact to the pension system of approximately \$9-\$13M per year. The ordinance amendment was sent back to committee for further review.
- The city lost a decision at the Michigan Court of Appeals which may make it liable for a \$3.5M payment to the Police and Fire VEBA. The city requested reconsideration but was denied. On May 20, 2015, the RTAB approved the city's request to appeal to the Michigan Supreme Court.
- On May 5, 2015, the city's Charter proposal was rejected by voters by a 55% to 45% margin.
- Per the city's FY 14 audit, the General Fund's accumulated fund balance is approximately \$5M out of a total budget of \$27M.
- The City of Pontiac Retired Employees Association v. City of Pontiac lawsuit (in U.S. District Court) was reassigned from Judge Lawrence P. Zatkoff to Judge Avern Cohn. The lawsuit challenges former EM Schimmel's elimination of retiree healthcare and replacement with an annual stipend. The General Employees Retirement System Pension Fund is significantly overfunded and the parties are exploring options to use the overfunded portion to fund retiree healthcare. Mediation is taking place under the supervision of Eugene Driker.

CONSENT AGREEMENT

Inkster

Date Executed: February 20, 2012

Consent Agreement Consultant: Mark Stuhldreher

Recent Developments

- The City Council approved the FY 16 budget on May 18, 2015.
- On May 14, 2015, the City Council agreed to settle the Dent lawsuit regarding police misconduct for \$1.37M. The cost of the settlement has been placed on the July tax roll by a judgement levy.
- Three Police Chief candidates were interviewed on June 11, 2015. There was a difference in opinion on the preferred candidate. Subsequently, contract negotiations with William Riley, Police Chief of Selma, Alabama are underway.
- On June 1, 2015, an Order was issued requiring the City Treasurer to approve all employment matters with city officials and employees, expenditure of funds, and all contracts.
- On June 29, 2015, an agreement was reached with Wayne County to place a judgment levy starting with the December 2015 tax roll, for five years, to repay the county \$4.9M in past due sewer charges.

Significant Actions/Issues

- On April 20, 2015, the city adopted a working capital reserve policy for the Water and Sewer Fund which will provide funds for emergency situations.

River Rouge

Date Executed: December 15, 2009

Consent Agreement Consultant: N/A (P.A. 72)

Recent Developments

- The city adopted its FY 16 budget on May 19, 2015. The budget is balanced at \$9,839,808. The city has prepared a proposed five-year budget that shows a deficit in FY 18 to FY 20 unless additional revenues can be found.

Significant Actions/Issues

- A fire union CBA was approved in March, resulting in a reduction in healthcare costs.

Royal Oak Township

Effective Date: April 21, 2014

Consent Agreement Consultant: Robert Burgess

Recent Developments

- The Township Supervisor recently provided a legal opinion from a former Township Attorney that the Township Board could legally spend the \$620K in reimbursed retirement assets received from MERS for capital improvement projects. A previous Consent Agreement Order prevented spending of these funds. The Township Board did not request this legal opinion. Treasury is assisting the Consultant in investigating this matter.
- An Order was issued on June 17, 2015, granting the Consultant broad authority to approve expenditures made by the township and ensure that obligations are being paid. The Order also gives the Consultant authority to return the \$620K in reimbursed retirement assets to MERS.
- Treasury has requested a work plan from the Consultant on how the township's Finance and Operating Plan will be implemented over the next six months.
- A report issued by the Rehmann Group, the township's financial consultant, noted that the township must make budget adjustments of \$164,275 to its FY 15 General Fund budget to

account for expenditures exceeding revenues in FY 14. The township adopted budget amendments on May 28, 2015 and implementation is pending.

Significant Actions/Issues

- Treasury learned that the Township Supervisor was regularly authorizing overtime for employees, though overtime was not included in the FY 15 budget and the Consent Agreement requires State Treasurer approval prior to overtime expenditures. An Order was issued May 20, 2015 requiring the Consultant to approve all requests for overtime prior to authorization.
- On May 11, 2015, Oakland County approved proposed ballot language for 4½ mills for the township's general operations. The current millage expires December 31, 2015. The election is scheduled for August 4, 2015.
- The City of Detroit has declined to provide police services to the township. Proposals from the cities of Ferndale and Hazel Park have been determined to be too expensive. The Michigan State Police continues to provide police services to the township in the interim.

NEUTRAL EVALUATION

Highland Park

Financial Review Team Appointed: December 2, 2013

Financial Emergency Declared: January 30, 2014

P.A. 436 Option Selected: Neutral Evaluation

Recent Developments

- On June 29, 2015, the City Council approved a substantial increase in water and sewer rates which will enable the city to provide funding for water and sewer operations.
- On July 6, 2015, Wade Trim took over the operation and maintenance of the water and sewer systems.
- Mr. Louis Schimmel was hired on June 29, 2015, to provide consulting services regarding water and sewer issues.
- The city will issue an RFP in July to contract-out the collection of past due water and sewer bills from residential and commercial customers.
- The DWSD Director has threatened to terminate water and sewer services if the city doesn't pay its arrearage and current charges. A Wayne County Circuit Judge issued a temporary restraining order on April 29, 2015 blocking DWSD's efforts to cut off water service to the city. The city was granted a stay on the \$20M judgement levy on June 3, 2015.

Significant Actions/Issues

- On May 18, 2015, the City Council adopted a resolution requesting MDOT to pay for storm water drainage from the highways and freeways under MDOT's jurisdiction in the city.
- On May 18, 2015, City Council approved a consultant's recommendation for an amnesty plan for residential customers to pay arrearage amounts owed to the city. The consultant has determined that if all customers take advantage of the amnesty plan, the city could collect \$2.08M. The city has extended the amnesty plan until July 31, 2015. This will allow more time for customers to pay past due accounts.

- There are concerns about the city's ability to successfully implement health insurance cost reductions as planned in FY 15.
The city's liabilities total \$99.9M. Some major components are: \$55.3M debt, including \$20.7M owed to the DWSD, and \$26.1M unfunded other post-employment benefits (OPEB).

OTHER COMMUNITIES

Wayne County

Recent Developments

- On June 10, 2015 the county reached a settlement with retirees on healthcare. The county will no longer provide health insurance but will instead provide a stipend to retirees. This will result in a savings of \$20M annually.
- On June 17, 2015 the Wayne County Executive requested a preliminary review under the Local Financial Stability and Choice Act, Public Act 436 of 2012. After notification to the county, the Department began its preliminary review of the County's finances on June 19, 2015. A final preliminary review report was issued on June 30, 2015.
- On July 1, 2015 the Local Emergency Financial Assistance Loan Board met and found that probable financial stress exists in the county.
- On July 2, 2015, a five member review team was appointed. The review team met with various county officials, commissioners, personnel, and union representatives July 9 and 10, 2015. A recommendation regarding the declaration of financial emergency will be forthcoming within seven to ten days.

Significant Actions/Issues

- The county's annual structural General Fund deficit is approximately \$52M prior to any of the proposed remedial actions.
- The county's proposed restructuring is approximately \$53M in General Fund savings, \$25M of which comes from changes to pension and healthcare benefits for active employees and healthcare benefits for retirees. The county has not yet proposed a long-term solution to its jail problems.

Cline, Richard (Treasury) *ES, SAM, Josh, CA, Mayor*

From: Dostine, Patrick (TREASURY)
Sent: Tuesday, July 21, 2015 7:58 AM
To: Cline, Richard (Treasury)
Subject: draft agendas for Flint & Allen Park

Eric,

Could you take a look at these two agendas and add/subtract? Send back.

Randy said something about me hosting the Flint call tomorrow morning, but he must have forgot that I will be out from 8 am till 10 am. I won't be on that call.

Pat

Flint telephone call, July 22, 9AM

- Priorities - 1) ^{Mission Statement} Eco? Dir leaving in Aug; 2)
- Water issue at U of M Flint. Any updates? - Resolved
- Councilman Kincaid's lawsuit, updates? - N/A
- Re-assessment - Received RFP from Tax comm → Template
- KWA - 1) GAC install to ready next week; 2) Next E in Aug; 3) Leak Det Contract, 4) Motors Started
- Updates from the City Charter Commission - Progressing
 - What about the budget request? Has the Commission approached any foundations? Mott Foundation, others? - No \$ available; Need Guidance ← Staff Assist?; New Attorney?
- Transportation Millage MTA
 - What's the length of renewal for the millage? - 5 years
- Year-End Strategic Plan Update & Summary
- Miscellaneous - 1) FDCVT Grant; 2) OPEB Suit - N/A update; 3) Blight update next week, 4) GM - \$500M investment announcing

Allen Park telephone call, July 24, 3:30pm

- Priorities
- Police & TPOAM contracts
 - Has a budget-impact analysis been done on proposed contracts?
 - Actuarial report completed?
 - Did police ratify contract?
- Update on bid for prescription drugs
- Elevator project
- What happen Jul 20 settlement conference?
- Bond tender still delayed?
- Miscellaneous

Water - Plant usage ↓; Some minor issues due to system Maint; N/A on legal

Byrne, Randall (Treasury)

From: Natasha Henderson <nhenderson@cityofflint.com>
Sent: Wednesday, July 22, 2015 9:01 AM
To: Dayne Walling; Joshua Freeman; Byrne, Randall (Treasury); Cline, Richard (Treasury)
Subject: Utilities Update 7_23_15.pdf
Attachments: Utilities Update 7_23_15.pdf

Natasha L. Henderson, City Administrator
City of Flint, Michigan
@Samsung Galaxy Note 4



**City of Flint
Water Quality Update
Wednesday July 23rd 2015**

Leak Detection

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

Status: Contract signing

The Contract has been signed internally and sent to the vendor.

The vendor maintains a window of 10 – 14 weeks following mobilization to complete the full scope of work.

Next steps: Complete the contract signing and schedule mobilization.

GAC Installation

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

Status: Installing

Six of the twelve filters are completely installed and will go into use at the beginning of next week. We need to relocate the mid-point chlorination prior to switching the water to running through the filters.

The filters are expected to immediately drop the TTHM level.

One the water has been redirected through the new GAC, the remaining six filters will begin installed

All twelve filters will be available for use in advance of our next quarterly testing period which is the third week in August.

Next steps: Introduce water through the six new filters, and begin installation of the next six filters.

WPC Incinerator Shutdown

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

Status: In construction phase

Construction continues, the weather has cooperated and the work is on schedule.

Next steps: Completion of concrete work.

Water Meter Installation

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

Status: On schedule

Letters have been sent to the printer for mailing.

A list of frequently asked questions is written and being posted to the website.

The installation of the first 9000 meters is scheduled to launch within the next week.

A kickoff meeting of all management personnel involved is set for this week.

Next steps: Hold a kickoff meeting with all management personnel involved prior to launch of installation program.

Howard Croft
Public Works Director

Pleyte, Beth (Treasury)

Subject: RDS/DM/EC/JW/NKhour/TSaxton/WWorkman - Local Government Update

Location: Governor's Office, Romney

Start: Wed 7/22/2015 3:30 PM

End: Wed 7/22/2015 4:15 PM

Recurrence: (none)

Meeting Status: Accepted

Organizer: GovCalendar

Required Attendees: Muchmore, Dennis (GOV); Clement, Elizabeth (GOV); Wisniewski, Wendy (GOV); Workman, Wayne (TREASURY); Saxton, Thomas (Treasury); Pleyte, Beth (Treasury); Doyle, Maureen (Treasury); Walsh, John (GOV); Khouri, Nick (TREASURY); Dempkowski, Angela (Treasury)

Agenda:

Wayne County

- PA 436

Highland Park

- Water System Privatization
- OPEB Reforms

Royal Oak Township

- Management Issues

Pontiac

- Budget Surplus
- Federal Litigation - OPEB

Flint

- Water System/KWA
- Federal Litigation - OPEB

Ecorse

- Home Rule Issues/RTAB

Benton Harbor

- Litigation – Former Employees v. City and Former EM

Allen Park

- Police Proposed New Contract

Lansing

- Pension and OPEB Discussion

Attachment: WWorkman Memo



**Local
Government Up...**

Pleyte, Beth (Treasury)

From: Muchmore, Dennis (GOV)
Sent: Friday, July 24, 2015 3:56 PM
To: Saxton, Thomas (Treasury)
Cc: Workman, Wayne (TREASURY)
Subject: RE: RDS/DM/EC/JW/NKhour/TSaxton/WWorkman - Local Government Update

OK

-----Original Message-----

From: Saxton, Thomas (Treasury)
Sent: Friday, July 24, 2015 3:35 PM
To: Muchmore, Dennis (GOV)
Cc: Workman, Wayne (TREASURY)
Subject: RE: RDS/DM/EC/JW/NKhour/TSaxton/WWorkman - Local Government Update

Next week sometime can Wayne & I have a follow up conversation with you re Flint water? Wayne & I had a call with Brad W. @ DEQ. He is getting back to us re some of the items on your list. So maybe mid-week? I think the bottom line is Wayne, Brad & I (we would "volunteer") to meet with your minister group here in Lansing [to the extent we can] provide info to some of the issues they raised with you. It may be better that you are not at the meeting. Of course that is your call but maybe let us 'peons' do it. Harvey could be there in your stead; since he knows them. I am sure whatever we convey they probably won't be happy.

-----Original Message-----

From: Muchmore, Dennis (GOV)
Sent: Wednesday, July 22, 2015 2:44 PM
To: Workman, Wayne (TREASURY)
Cc: Clement, Elizabeth (GOV); Wisniewski, Wendy (GOV); Workman, Wayne (TREASURY); Saxton, Thomas (Treasury); Pleyte, Beth (Treasury); Doyle, Maureen (Treasury); Walsh, John (GOV); Khouri, Nick (TREASURY); Dempkowski, Angela (Treasury)
Subject: Re: RDS/DM/EC/JW/NKhour/TSaxton/WWorkman - Local Government Update

Wayne-

We need to have more discussion relating to Flint water. There seem to be even more issues regarding the water than there should be. I'll have a series of questions that I really need some answers to if you can have someone who understands the problems there. The people there just seem to be getting a raw deal from the city particularly in terms of the information they are getting. I know you are as worried about their health as I am so we kind of need to get answers to some of these concerns.

> On Jul 22, 2015, at 2:08 PM, GovCalendar <GovCalendar@michigan.gov> wrote:

>

> Agenda:

> Wayne County

> • PA 436

> Highland Park

> • Water System Privatization

> • OPEB Reforms

> Royal Oak Township

> • Management Issues

- > Pontiac
 - > • Budget Surplus
 - > • Federal Litigation - OPEB
- > Flint
 - > • Water System/KWA
 - > • Federal Litigation - OPEB
- > Ecorse
 - > • Home Rule Issues/RTAB
- > Benton Harbor
 - > • Litigation – Former Employees v. City and Former EM
- > Allen Park
 - > • Police Proposed New Contract
- > Lansing
 - > • Pension and OPEB Discussion
- >
- > Attachment: WWorkman Memo
- >
- >
- > <Local Government Update.pdf>
- > <meeting.ics>

Pleyte, Beth (Treasury)

From: Saxton, Thomas (Treasury)
Sent: Friday, July 24, 2015 4:32 PM
To: Lyon, Nick (DCH)
Subject: FW: Need upate on lead / copper tests for Flint
Attachments: DWSD-CorrosionControlStudy.pdf; Flint lead history.pdf; DWSD-Flint-1993-Lead-Letter.pdf

Just fyi

From: Wurfel, Brad (DEQ)
Sent: Friday, July 24, 2015 4:18 PM
To: Saxton, Thomas (Treasury); Muchmore, Dennis (GOV); Wyant, Dan (DEQ)
Subject: FW: Need upate on lead / copper tests for Flint

Guys, here's an update and some clarification on the lead situation in Flint. Please limit this information to internal for now.

By the tenants of the federal statute, the city is in compliance for lead and copper. That aside, they have not optimized their water treatment (for the most part, this means adding phosphates to minimize the degree that the water Ph mobilizes lead and copper in people's home plumbing).

Compliance with the standard started with testing. A June-December run of tests (all in homes with lead in their premise plumbing) concluded in December. Another January – June round of sampling concluded last month. Everything checks out in terms of compliance, but now the next step is optimizing the water supply.

So, In about two weeks, DEQ will be sending a formal communication about the optimizing issue. The federal program has long timelines for action. A community water supplier gets 18 months to study the options, and two years thereafter to implement water system optimization measures.

My point: Conceivably, by the time we're halfway through the first timeline, the city will begin using a new water source with KWA ... and conceivably, the whole process starts all over again.

In terms of near-future issues, the bottom line is that residents of Flint do not need to worry about lead in their water supply, and DEQ's recent sampling does not indicate an eminent health threat from lead or copper. That said, anyone with lead pipes in their premise plumbing (this translates to tens of thousands of homes in our older urban centers, btw) should at least be aware that they have them, and to some limited degree that's going to impart minute parts per billion of lead in water no matter what. Its why nobody uses lead water pipes anymore.

The long version of this note is below. Let's connect next week. I'd like some thoughts about what more the state could be doing – most immediately, to convey the results of our testing and tell the story to the residents of Flint in an effort to quell some fears.

Thanks!

b

From: Busch, Stephen (DEQ)

Sent: Friday, July 24, 2015 3:46 PM

To: Wurfel, Brad (DEQ)

Cc: Shekter Smith, Liane (DEQ); Wyant, Dan (DEQ); Pallone, Maggie (DEQ); Prysby, Mike (DEQ); Benzie, Richard (DEQ)

Subject: RE: Need update on lead / copper tests for Flint

Brad,

As we discussed, the City has completed the last round of monitoring (Jan 1 – June 30, 2015). The last samples came in about a week ago. We have made the compliance determination that the 90th percentile level is 11 parts per billion, which is below the Action Level Standard of 15 parts per billion (there is no Lead maximum contaminant level standard). The federal rule requires measuring lead levels in water from household plumbing materials to determine the corrosivity of the City's water in order to limit exposure.

I have provided a summary of Flint's lead compliance monitoring from the last 20+ years since this regulation started in 1991. The City of Flint itself has never had a 90th percentile level exceed the 15 part per billion action level. Sampling requirements look at the worst case plumbing materials. Samples must be collected in accordance with the regulatory requirements and criteria in order to be used for compliance determinations.

Because the City of Flint serves a population of over 50,000 they are required to have Fully Optimized Corrosion Control. While it is possible to meet the fully optimized requirement without additional treatment, based on their two rounds of sampling since switching to the Flint River, we have determined they did not meet the eligibility for this per the regulation. They now have to complete a study (within 18 months) and are then allowed a period of additional time (2 additional years) to install the selected treatment for Fully Optimized Corrosion Control in accordance with the regulatory requirements. This is what DWSD was required to do back in 1993 – 1997 (see attached letter and study). We are planning to suggest the City directly submit a treatment process to shorten the timeline to achieve full optimization. This letter is currently being drafted but won't be ready to mail out for another week.

Liane and I had a conference call with EPA region V in Chicago on Tuesday to go over all of this and they are in support of these next steps with the City.

The matter will be potentially further complicated when the City switches over to water from the Karegnondi Water Authority next year to re-evaluate the continuing requirement to fully optimize corrosion control.

The DEQ recognizes that there is has been no level of lead exposure determined to be safe, but again the regulation was developed to optimize water corrosivity to limit exposure and the City is following the regulatory requirements.

Lead is not coming from the Flint River or the City's Water Treatment Plant or the public distribution system. It is from lead service lines into homes and from plumbing materials and fixtures within the private property of the household.

As watermains are replaced within the City lead services associated with that section of watermain would be replaced in order to reconnect to City water. This would also place burden on the homeowner to pay for having the service line re-plumbed. However, since 2000 only 16 miles of the City's 500 miles of watermain have been replaced as they did not have the financial means to do so.

Let us know if there are questions or you need any additional information.

Stephen Busch, P.E.

MDEQ Lansing District Coordinator
Office of Drinking Water and Municipal Assistance
Lansing and Jackson District Supervisor
517-643-2314
buschs@michigan.gov

From: Wurfel, Brad (DEQ)
Sent: Friday, July 24, 2015 12:09 PM
To: Busch, Stephen (DEQ); Prysby, Mike (DEQ)
Cc: Shekter Smith, Liane (DEQ); Wyant, Dan (DEQ); Pallone, Maggie (DEQ)
Subject: Need upate on lead / copper tests for Flint

Guys, the Flint Ministers met with the Governor's office again last week. They also brought along some folks from the community – a college prof and a GM engineer – who imparted that 80 water tests in Flint have shown high lead levels.

Could use an upate on the January / june testing results, as well as recap of the December testing numbers, and any overview you can offer to edify this conversation.

Call me or email today if possible. Thanks!

b

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



CITY OF DETROIT
WATER AND SEWERAGE DEPARTMENT
WATER BOARD BUILDING

735 RANDOLPH STREET
DETROIT, MICHIGAN 48226-2830
PHONE 313 • 224 • 4800/224 • 4801
FAX 313 • 224 • 6067

June 10, 1994

To: DWSD Wholesale Customers

RE: EXECUTIVE SUMMARY OF DETROIT'S CORROSION CONTROL STUDY

Enclosed is a copy of the Executive Summary prepared by our consultant, Tucker, Young, Jackson & Hull, detailing work to date on the Corrosion Control Study performed for Detroit and Detroit's wholesale customers.

The EPA required large utilities to test water samples in highest risk homes for lead and copper content in 1992 to determine if the action levels of 15 micrograms per liter and 1.3 milligrams per liter respectively were exceeded. Detroit complied with this requirement and determined that the action level for lead was exceeded in many communities. Therefore, DWSD conducted and continues to conduct a public education program designed to inform consumers how to reduce their exposure to lead.

The EPA further required large water suppliers to determine if their lead could be less corrosive and, if so, the utility was mandated by the Lead and Copper Rule to determine ways the water could be made less corrosive and report their recommendations to the primary agency. For DWSD, the primary agency is the Michigan Department of Public Health (MDPH).

After several years of study, DWSD is forwarding the complete study findings to the MDPH for their consideration. It was concluded that DWSD could reduce the corrosivity of the water in the most cost effective and efficient manner by the addition of ortho-phosphate, specifically in the form of phosphoric acid. The Executive Summary of these findings is being forwarded to you for your information. The MDPH has until the end of December 1994 to consider DWSD's recommendation. In the interim, DWSD plans on conducting a demonstration test of the corrosion control treatment in our distribution system to further assist the MDPH and to further safeguard public health.

Very truly yours,

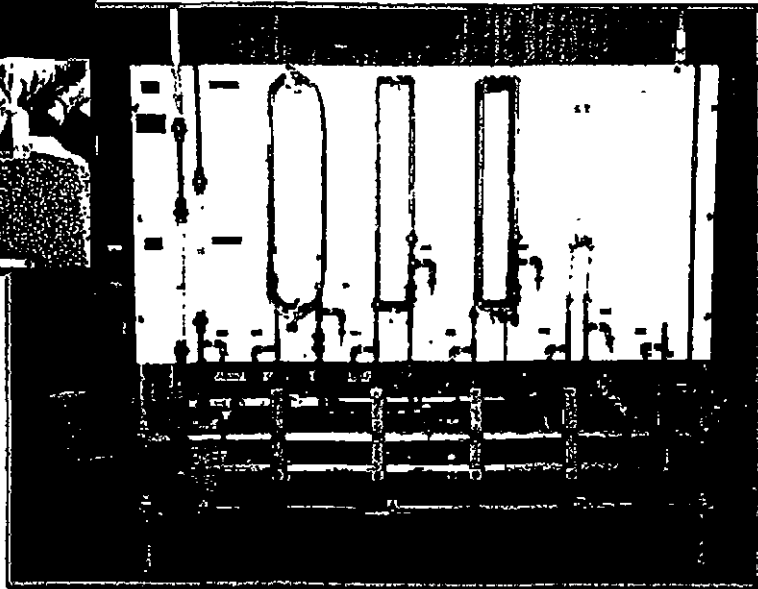
Judith Huddleston for
Irving M. Schuraytz, P.E.
Assistant Director, Water Supply Operations
Kathleen Leavey
Kathleen Leavey
Deputy Director

KL/IMS/JH/cs

DENNIS W. ARCHER, MAYOR

Executive Summary

Lead and Copper Corrosion Control Optimization Study



prepared by

**Tucker, Young, Jackson, Tull, Inc., in association with
CH2M HILL, INC., and Economic and Engineering Services, Inc.**

May 1984



Detroit Water and Sewerage Department

Introduction

As a result of the Safe Drinking Water Act (SDWA) Amendments of 1986, the U.S. Environmental Protection Agency (EPA) published final drinking water regulations for lead and copper in the June 7, 1991, *Federal Register*. Those regulations, known as the Lead and Copper Rule (LCR), require:

- Tap water monitoring, which is a new approach for water utilities
- Treatment optimization for lead and copper corrosion control
- Public education and lead service line removal if utilities exceed preset lead or copper levels

Large utilities, serving populations greater than 50,000, are required to conduct corrosion control studies to demonstrate that they are either already providing optimal treatment or to determine optimal treatment for their system.

DWSD made necessary public notices and embarked on studies to develop optimal treatment solutions.

In response to the regulations, the Detroit Water and Sewerage Department (DWSD) conducted two rounds of monitoring at home water taps for lead and copper and throughout the distribution systems for other water quality parameters. Monitoring was a cooperative effort between the DWSD, wholesale water customers, and the Michigan Department of Public Health (MDPH). Copper levels were well below EPA limits. Lead levels, however, exceeded EPA action levels

(ALs) and DWSD made necessary public notices and embarked on studies to develop optimal treatment solutions.

Lead exposure sources for humans include air, food, dust, paint, and drinking water. Elevated lead levels in blood have been associated with adverse health effects in humans. Federal health authorities have many programs to reduce lead exposure including low-lead gasoline and reduced lead content in paint. Although drinking water may not be the major source of lead, reducing lead levels in drinking water will have a positive health benefit. An additional benefit of corrosion control is prolonged life for water distribution pipes and home plumbing. This results in lower costs for water utilities and their customers.

In March 1992, the DWSD contracted with Tucker, Young, Jackson, Tull, Inc. (TYJT), in association with CH2M HILL, INC., and Economic and Engineering Services, Inc. (EES), to perform a lead and copper corrosion control study. The purpose of the study was to determine the optimal approach for reducing lead and copper concentrations in DWSD drinking water without adversely affecting other water quality characteristics. Major tasks in this study were to:

- Evaluate existing water quality data, existing distribution system pipe materials and the results of lead and copper sampling
- Identify and analyze feasible and practical treatment methods to reduce lead and copper corrosion (desktop analysis)
- Design and construct a pipe-loop testing apparatus to evaluate treatment alternatives identified in the desktop analysis

- Operate the pipe loops for 1 year to evaluate selected corrosion control treatments on different pipe materials
- Evaluate the effectiveness and feasibility of the tested treatment alternatives in reducing lead and copper concentrations
- Recommend an optimum lead corrosion control treatment
- Develop an implementation plan for full-scale corrosion control facilities

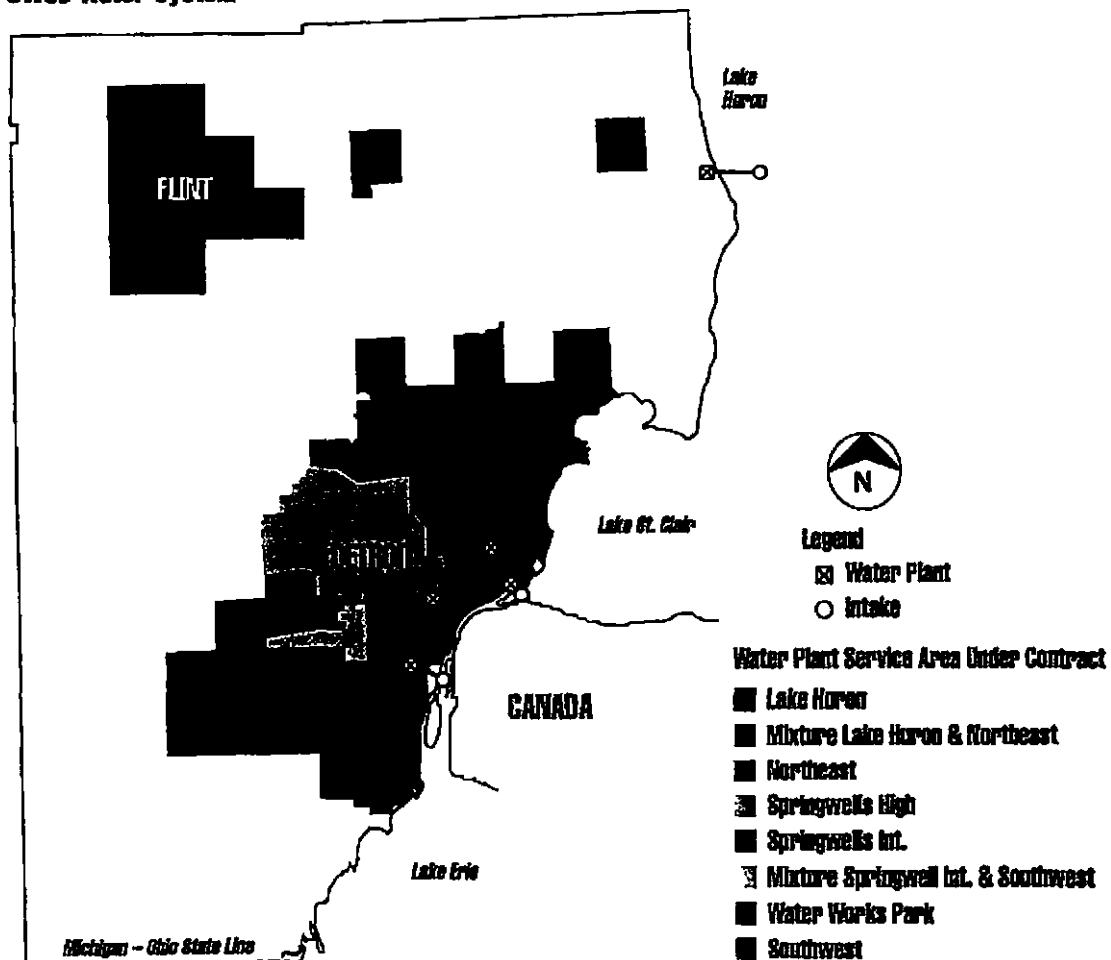
This report presents the results of the DWSD Lead and Copper Corrosion Control Optimization Study.

Existing Conditions

The DWSD obtains water from three intakes. Two of these, the Belle Isle and the Fighting Island Intakes, take water from the Detroit River. The third intake is on Lake Huron. Water is treated at five water treatment plants (WTPs) including the Water Works Park, Southwest, Springwells, Northeast, and Lake Huron WTPs. The water system is shown in Figure ES-1. Treated water from the 5 WTPs is distributed to the City of Detroit and 119 wholesale water customer systems. The DWSD water system serves about 4 million people.

Water leaving the WTPs is of good quality and considered moderately

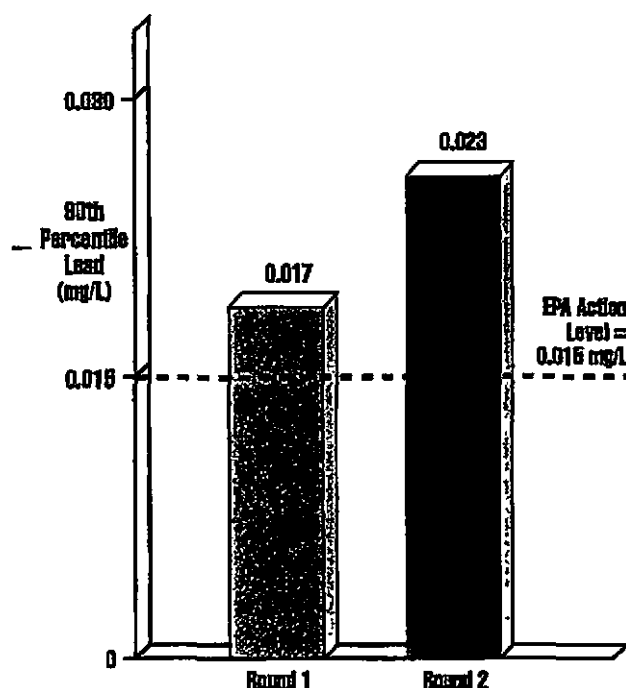
Figure ES-1
DWSD Water System



corrosive. For example, pH from the five WTPs averages 7.4, alkalinity averages 76 mg/L (CaCO_3), and hardness averages 100 mg/L (CaCO_3). Nevertheless, some increase in lead and copper is resulting from the corrosive action of the water, primarily on service pipe and household plumbing. The main sources of lead are 50:50 lead/tin solder, brass containing lead used in faucets, and lead service lines and plumbing.

The regulation lead AL is 0.015 mg/L at the 90th percentile in home water taps. During the LCR Compliance Monitoring conducted in 1992, DWSD's 90th percentile lead concentration was 0.017 mg/L in the first round and 0.023 mg/L in the second round of sampling (Figure ES-2). Looking at the data in a slightly different manner, 35 to 37 percent of the 119 purveyor water systems exceeded the AL for lead.

Figure ES-2
LCR Compliance Monitoring Results for Lead



For copper, the 90th percentile concentrations were 0.34 and 0.19 mg/L for two rounds of sampling—well below the copper AL of 1.3 mg/L (Figure ES-3). Lead uptake, therefore, is the major concern within the DWSD water system.

Determining the optimal lead control treatment is essential; it is the objective of conducting this corrosion control study. Further, there are an estimated 200,000 lead service lines (LSLs) in DWSD's direct service area and possibly more in areas served by wholesale customers. After corrosion treatment is optimized, the possibility exists that lead ALs may still be over 0.015 mg/L at the 90th percentile. Should this occur, the DWSD would need to embark on a removal program for LSLs, which could cost between \$300 and \$800 million.

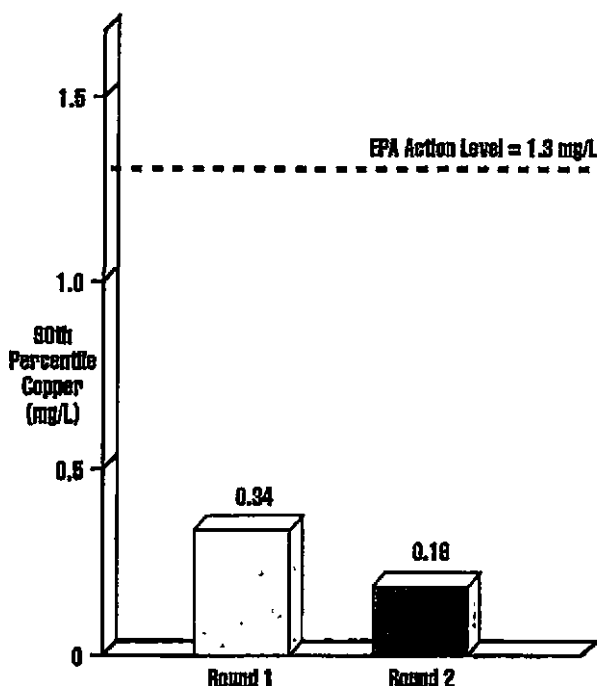
Desktop Analysis

To reduce the number of chemicals for long-term testing, a screening analysis was performed using desktop techniques recommended by U.S. EPA. Lead corrosion control treatment methods examined for their applicability to DWSD are as follows:

- Polyphosphates
- Orthophosphates
- Zinc orthophosphate
- Polyphosphate/orthophosphate blends
- Silicates
- pH adjustment
- Alkalinity adjustment
- Calcium adjustment

The main criteria for selecting a lead corrosion control method is performance for lead uptake reduction. Lead corrosion control methods were also evaluated

Figure ES-3
LCR Compliance Monitoring Results for Copper



based on effects on other drinking water regulations, industrial water users, wastewater treatment, water quality, water treatment operations, consecutive water systems, and multiple sources of supply and treatment.

Based on this evaluation, the following chemical treatments were eliminated from consideration for pipe-loop testing.

- **Polyphosphates.** These products are primarily used to sequester iron, calcium, and manganese and may actually do more to promote lead corrosion than to prevent it.
- **Polyphosphate/Orthophosphate Blends.** These products have not been proven to be more effective than orthophosphates alone for lead reduction, and their proprietary chemical composition makes selection of the optimum product difficult.

- **Silicates.** Sodium silicate inhibitors require a high dosage for lead control and, based on a survey of major industries, would have significant adverse effects on industrial water users.
- **Alkalinity Adjustment.** This technique would have marginal performance for lead reduction based on DWSD water quality and would be impractical for a system the size of DWSD.
- **Calcium Adjustment to Deposit a Calcium Carbonate Layer.** This technique is not a proven method for lead reduction, and would be difficult to produce a uniform layer throughout a distribution system the size of DWSD. Calcium carbonate deposition, however, can occur when pH is raised for lead reduction. This situation is addressed under the pH adjustment alternative.

Lead corrosion control treatment methods applicable for DWSD water are as follows:

- **Orthophosphates.** These products have been shown to be an effective means of lead reduction for water similar to that of the DWSD.
- **Zinc Orthophosphate.** These products are also a proven method of lead reduction, although there is concern about zinc in industrial water and wastewater.
- **pH adjustment.** This technique is also a proven method of reducing lead solubility, although higher pHs affect some industrial users and can increase calcium carbonate deposition.

A survey of 16 Great Lakes area water utilities using water of similar quality to that of DWSD demonstrated the effectiveness of orthophosphate, zinc orthophosphate, and pH adjustment in reducing lead concentrations at the consumers' taps. Those treatment methods, therefore, were retained for further testing in the pipe-loop apparatus.

Pipe-Loop Testing

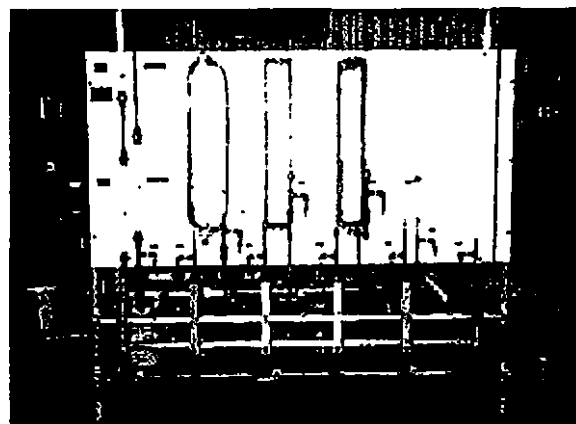
Based on the desktop analysis, it was concluded that the following treatments would be tested in the pipe loops:

- Adjusting pH to 8.1 using sodium hydroxide
- Adjusting pH to 8.7 using sodium hydroxide
- Adding zinc orthophosphate at doses of 0.4 mg/L for zinc and phosphorous (as P)
- Adding orthophosphate using phosphoric acid at a dose of 0.4 mg/L as P

Pipe-loop testing produces information on the corrosion control treatment most likely to effectively reduce lead levels.

It is important to understand that pipe-loop testing is conducted to provide information on the relative effectiveness of corrosion control treatments. The results cannot be used to predict actual lead levels that may occur at customers' taps in the water system. Pipe-loop testing, however, produces information on the corrosion control treatment most likely to effectively reduce lead levels and is an approved optimization technique.

Figure ES-4
Typical Testing Apparatus



A pilot-scale testing apparatus was designed and constructed to test each of the treatment techniques on different pipe materials. Five pipe-loop racks were constructed: one for each of the four methods and another for control (no treatment provided). Each pipe-loop rack included one new lead pipe loop, two identical copper pipe loops with lead soldered joints, one brass tester, and one section of old lead pipe. Three weight loss testers were also included for measuring corrosion rates of steel, galvanized steel, and copper. A typical testing apparatus is shown in Figure ES-4.

The pipe-loop facility was installed in the lower level of the Water Works Park High Service Pump Station and operated from January to November, 1993. After an initial period of passivation, water samples were collected on a weekly basis and analyzed for lead, copper, and zinc. The 1-liter water samples were taken after the water had been in contact with the pipe loop materials for 8 hours. This was done to represent the first-draw sampling required by the LCR. Additional sampling included daily monitoring for pH, chemical doses, and temperature. Disinfection

by-products (DBPs) and pipe insert weight loss were done quarterly. Flavor profile analyses to assess any changes in tastes or odors were run monthly.

Results of pilot testing indicated:

- The inhibitor treatments, zinc orthophosphate, and phosphoric acid are statistically better than the untreated control for both old and new lead piping (Figure ES-5).
- For lead solder and copper piping, the median lead levels were lowest in the water with inhibitors (zinc

orthophosphate and phosphoric acid), but only the phosphoric acid results were statistically better than the other loops (Figure ES-6).

- For brass, the results indicated that the treatments were no better than the control; however, lead levels were near the detection limit in the brass testers (Figure ES-6).
- Zinc orthophosphate and phosphoric acid were also found to be the most effective treatments in reducing copper (Figure ES-7).

Figure ES-5
Relative Lead Levels from Lead Pipe

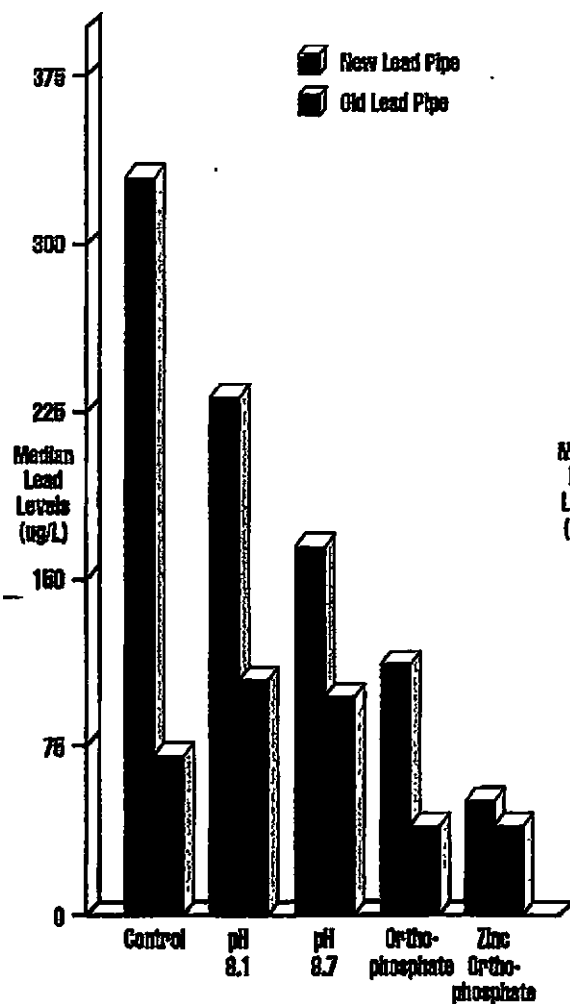


Figure ES-6
Relative Lead Levels from Soldered Copper and Brass

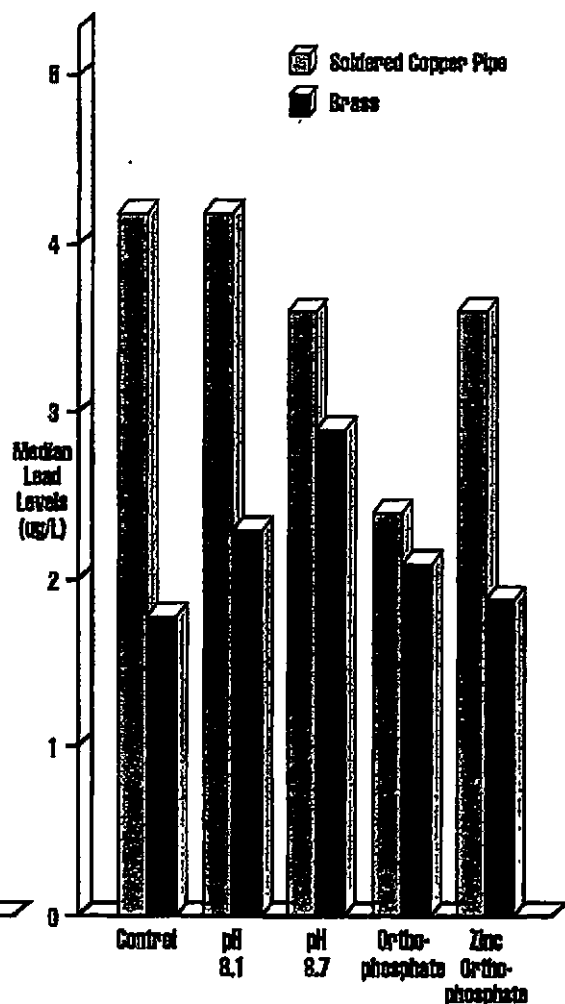
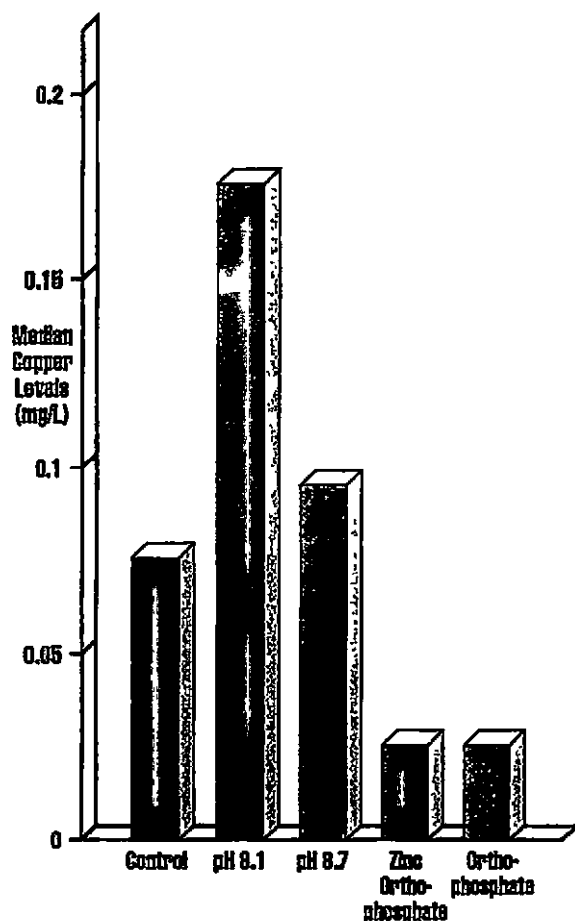


Figure ES-7
Relative Copper Levels from Copper Pipe



- DPBs were increased for the pH adjustment treatments as expected. The DBPs formed as a result of this increase, however, did not exceed EPA-proposed limits. The orthophosphate and zinc orthophosphate did not increase DBPs.
- None of the corrosion control treatments had an adverse effect on the taste and odor of the water produced.

Evaluating Corrosion Control Treatment

The four corrosion control treatments tested in the pipe loops were evaluated based on the following criteria:

- Performance for lead uptake reduction
- Feasibility of implementation within regulatory and functional constraints
- Reliability in terms of operational consistency and continuous corrosion control protection
- Cost

Pipe-loop data analyses indicated orthophosphate and zinc orthophosphate are most likely to yield the best results for lead reduction. pH adjustment was not as effective for lead control. Orthophosphate and zinc orthophosphate were effective at reducing copper levels.

A feasibility analysis indicated that industrial water users would be affected adversely by zinc or a higher water pH. Wastewater operations would be adversely affected by zinc and orthophosphates loadings. There were no major effects of corrosion control treatment on drinking water regulations. pH adjustment could, however, decrease disinfection effectiveness and increase DBP formation.

The reliability of zinc orthophosphate and sodium hydroxide chemicals is less than would be expected for orthophosphates. Zinc orthophosphate is a proprietary chemical with price and supply constraints. Sodium hydroxide availability and price depend on market conditions. Orthophosphate (phosphoric acid) is available as a generic chemical and is commonly used in the food and beverage

age industry; therefore, price and availability are more stable. From a WTP-operations standpoint, pH adjustment is less reliable because pH can change with raw water quality and treatment conditions.

The chemical cost of each treatment alternative is shown in Figure ES-8. Phosphoric acid addition is less than half the cost of pH adjustment to 8.1, the next lowest chemical cost. This represents an

average cost savings of about \$2,400 per day. Phosphoric acid could save the DWSD about \$10 million in present worth in the next 20 years compared to the next lowest cost alternative.

Selecting Corrosion Control Treatment

The relative ranking of alternatives for the four criteria (performance, feasibility, reliability, cost) is summarized in Figure ES-9. Values of 1 through 4 were assigned for each treatment alternative in each criteria category (1 was best; 4 worst). Because performance for lead reduction was the main criteria, it was given a weight of 2. Each of the other criteria was given a weight of 1.

Orthophosphates were ranked highest overall. Zinc orthophosphate was second, mainly because of its adverse effects on industry, wastewater plant operations, and higher costs. pH adjustment was ranked lowest because it is less effective for lead reduction, less reliable, and demonstrates more adverse effects on industry and drinking water regulatory compliance.

Orthophosphates were selected as the optimal treatment alternative for full-scale lead corrosion control.

Based on corrosion control theory, comparison with analogous water systems, and the extensive pilot plant studies, orthophosphates were selected as the optimal treatment alternative for full-scale lead corrosion control.

Figure ES-8
Treatment Alternatives Costs

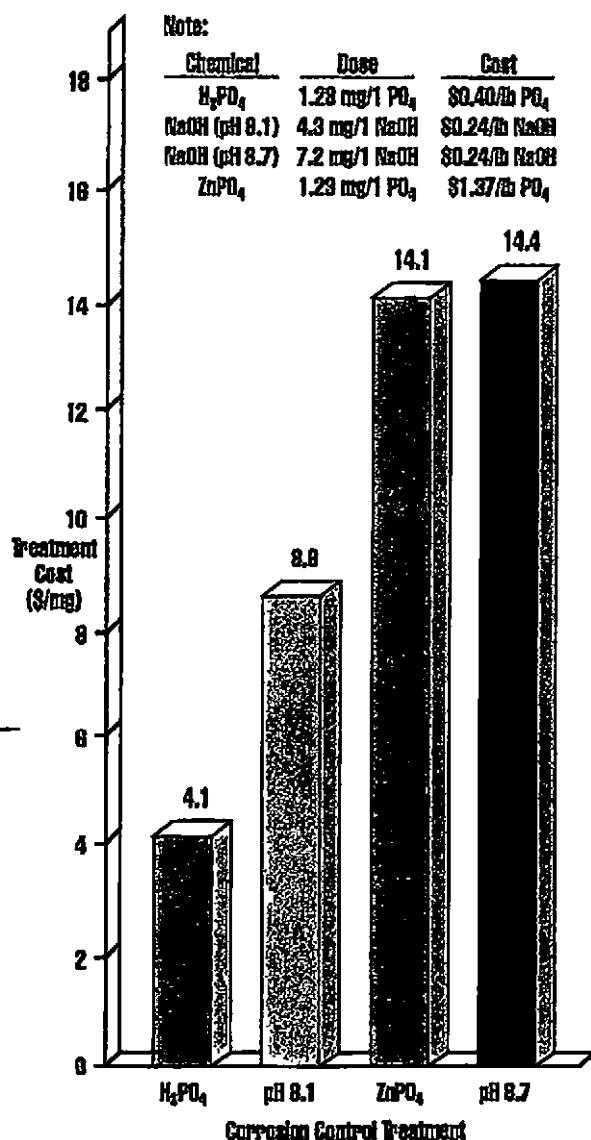


Figure ES-9
Alternatives Ranking
by Criteria

Treatment	Evaluation Criteria				Weighted
	Performance wt.= 2	Feasibility wt.= 1	Reliability wt.= 1	Cost wt.= 1	
Phosphoric Acid	2	1	1	1	7
Zinc Orthophosphate	1	4	2	3	11
pH 8.1	4	2	3	2	15
pH 8.7	3	3	4	4	17

Legend: 1 = Best; 4 = Worst

Phosphoric acid is the recommended form of adding orthophosphate. It is a generic chemical and can be bid competitively. It does not add sodium to the water and costs less than any other form of orthophosphate. In addition, the finished water pH is already in the optimal range for lead solubility reduction by phosphates, so pH adjustment is not required.

The recommended dose of phosphoric acid is 1.2 mg/L as P for initial passivation and a sustained dose of 0.4 mg/L as P for maintaining control of lead uptake. Values may be adjusted based on full-scale results.

Full-Scale Implementation

The LCR requires optimal corrosion control treatment installation by January 1, 1997. To meet this deadline, the implementation schedule in Figure ES-10 is proposed. The first element of implementation is to conduct full-scale demonstration testing in the distribution system served

by one of the WTPs before installing chemical feed facilities in the other four plants. Operation of lead corrosion control facilities at all plants is planned for May 1996. This will provide additional time to optimize the system before lead monitoring is required in 1997.

The chemical equipment required for each WTP is summarized in Table ES-1. A schematic of a typical liquid chemical system is shown in Figure ES-11.

The cost of lead corrosion control chemicals is estimated to be about \$0.87 per year per household.

The estimated capital cost for corrosion control facilities at the five WTPs is \$3,740,000. The estimated cost of chemicals is \$868,000 per year. The cost of lead corrosion control chemicals is estimated to be about \$0.87 per year per household.

A monitoring program will be established before and after corrosion control treatment is implemented to determine performance for lead reduction and effects on other water quality parameters. If lead is reduced to below the EPA AL of 0.015 mg/L for two consecutive 6-month monitoring periods, other methods

of lead reduction, such as removing lead service lines, will not be required.

If the lead AL is still exceeded after optimization and stabilization, a program for lead service line removal should be developed in addition to an ongoing public education program.

Operation of lead corrosion control facilities at all plants is planned for May 1996.

Figure ES-10
Implementation Schedule

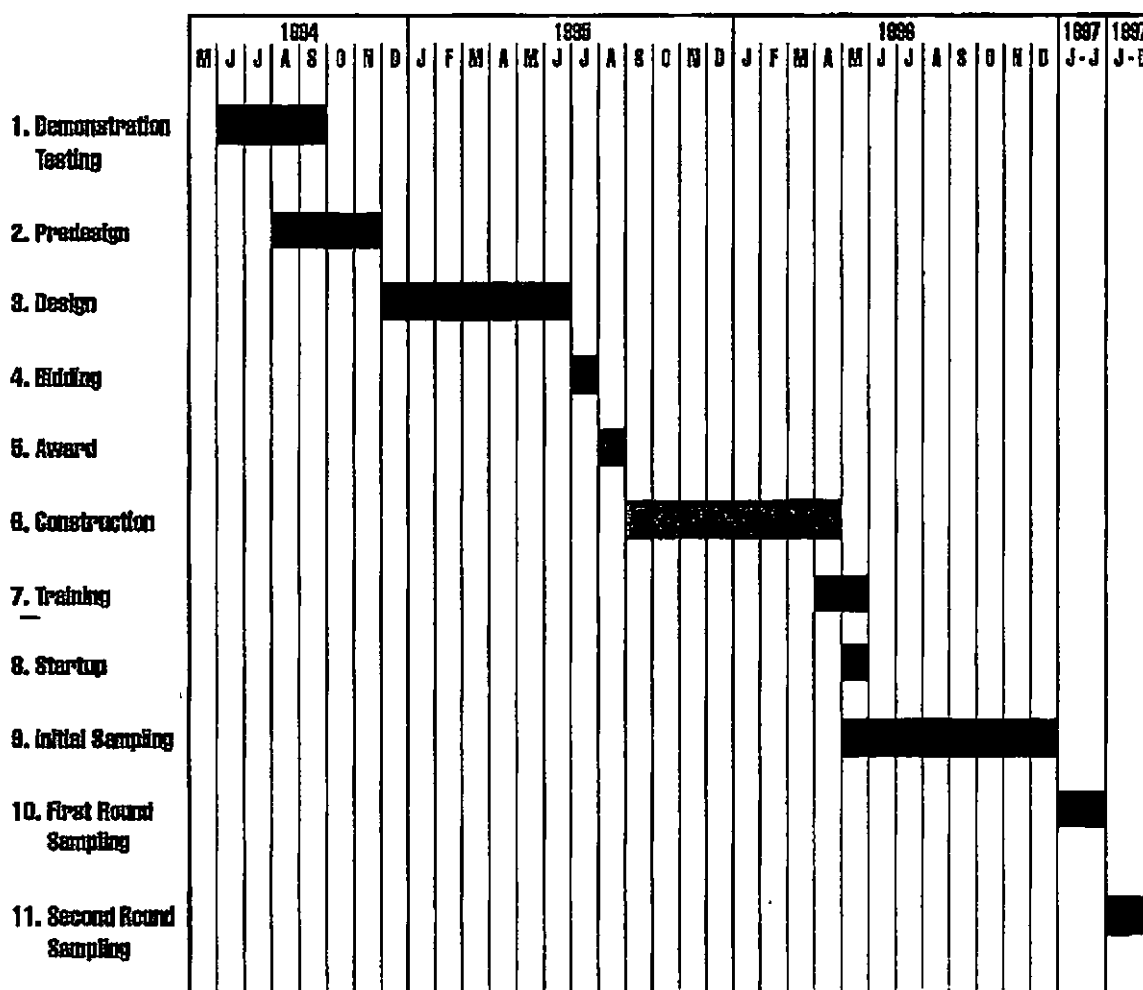
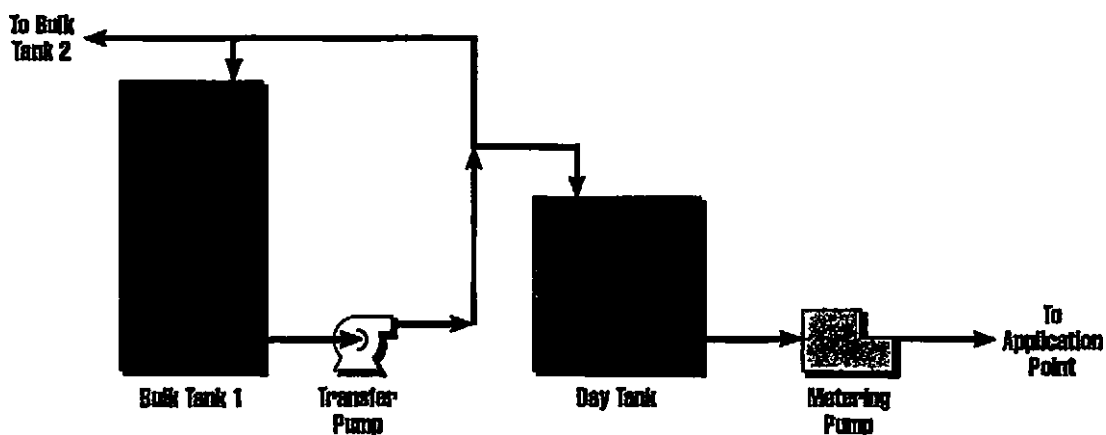


Table ES-1
Chemical Equipment Summary

	Southwest Water Plant	Water Works Park Water Plant	Northeast Water Plant	Springwells Water Plant	Lake Huron Water Plant
Number of bulk tanks	2	2	2	2	2
Bulk tank capacity, each (gal)	4,000	4,000	4,000	6,000	4,000
Number of day tanks	1	1	1	1	1
Day tank capacity (gal)	200	200	200	400	200
Number of feeders	3	3	3	3	3
Feeder capacity, each (gpd)	1 @ 200 2 @ 650	1 @ 300 2 @ 650	1 @ 250 2 @ 800	1 @ 600 2 @ 1,500	1 @ 350 2 @ 650
Number of transfer pumps	2	2	2	2	2
Transfer pump capacity each (gpm)	15	15	15	30	15

Figure ES-11
Liquid Chemical System Schematic



City of Flint Lead and Copper Rule Monitoring History									
Monitoring Period	90th Percentile (parts per billion)	Number of Samples above 15 ppb	Samples Required	Samples Collected	Required Frequency				
Jan. - June 2015	11 ppb	6	60	68					*Unofficial
July - Dec. 2014	6 ppb	2	100	100	6 months				
New Source and Treatment - Flint River and Flint WTP									
June - Sept. 2011	0 ppb	0	23	23	3 years				
June - Sept. 2008	0 ppb	0	33	33	3 years				
June - Sept. 2005	1.4 ppb	0	33	33	3 years				
June - Sept. 2002	4 ppb	1	33	33	3 years				
June - Sept. 2001	4.4 ppb	0	33	33	1 year				
June - Sept. 2000	7 ppb	2	33	33	1 year				
Jan. - June 1999	5 ppb	0	33	33	1 year				
July - Dec. 1998	7.4 ppb	1	33	33	6 months				
July - Dec. 1997	5 ppb	1	33	33	6 months				
Jan. - June 1997	4.5 ppb	1	33	33	6 months				
DWSD Study and OCC Treatment									
July -Dec. 1992	14.4 ppb	3	33	33	6 months				
Jan. - June 1992	15 ppb	4	33	33	6 months				

STATE OF MICHIGAN



JOHN ENGLER, GOVERNOR
DEPARTMENT OF PUBLIC HEALTH

3423 N. LOGAN/MARTIN L. KING JR., BLVD.
P.O. BOX 30185, LANSING, MICHIGAN 48909
Vernice Davis Anthony, Director

March 15, 1993

City of Flint
1101 South Saginaw Street
Flint, Michigan 48502

WSSN: 2310

Attention: Mr. Charles Smith, Utilities Superintendent

Subject: Lead/Copper Monitoring

Gentlemen:

We have reviewed the results of the second round of the lead and copper monitoring completed for your water supply for the period of July 1, 1992, through December 31, 1992. The samples were collected and analyzed to comply with the U.S. Environmental Protection Agency's Lead and Copper Regulation. The action levels specified in the regulation require that the 90th percentile results from the distribution system samples for lead and copper not exceed 15 and 1300 ug/l, respectively.

Since the 90th percentile lead level for your water system is 14.4 ug/l, the lead action level of 15 ug/l has not been exceeded. Also, the 90th percentile copper level was significantly below the copper action level of 1300 ug/l. This means that your water system has met both action levels for the first two monitoring periods.

Although many of the Detroit Water and Sewerage Department (DWSD) customers have met the action levels, DWSD is required to conduct a study to determine whether their water treatment processes can be improved to further reduce corrosion. The study is to be completed by July 1, 1994, and any recommended treatment modifications must be in place by January 1, 1997.

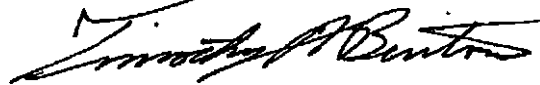


City of Flint
Page 2
March 15, 1993

Further monitoring of your water system for lead and copper will not be required until the DWSD study is complete and any additional corrosion control treatment has begun. We will inform you when monitoring is again required. This may be as late as January 1997.

If you have any questions, please call me at (517) 335-8309.

Sincerely,

A handwritten signature in dark ink, appearing to read "Timothy A. Benton". The signature is fluid and cursive, with a large initial "T" and "B".

Timothy A. Benton, P.E.
District Engineer
Division of Water Supply
Bureau of Environmental and
Occupational Health

TAB:im

cc: John Weisenberger, Water Plant Supervisor
cc: Genesee County Health Department

Weekly Conference Call Notes – July 27, 2015

Allen Park – July 24 – Mayor Matakas, M. Kibby, B. Cady, R. Byrne, E. Cline, P. Dostine, C. Porubsky

- **Weekly Priorities/Misc:**
 - Engineering bids are in. Wade Trim is the City's current engineer.
 - Master Plan bids are due July 28.
 - Five-year financial plan: the City expects to have hard copies available at the next RTAB meeting; Eric asked them to also provide a brief verbal summary.
 - RFP for sewer project due October 5.
 - Master Plan RFP due in August.
 - Salary survey is coming up.
 - Bids are open for engineer.
- **Police Contract Negotiations:**
 - Tentative agreement reached, but have not ratified, lawyers will work on again in August.
 - PPOAM reached an agreement today.
- **FDCVT:**
 - The City was informed that \$5M would be available in grant money soon; applications should be available in late August or early September.
- **Retiree Healthcare:**
 - If the City does not switch from BCBS, their costs will increase by 23%, or \$644K on October 1. Bob needs the okay from Treasury to proceed with Humana or the deal may not happen.
 - BCBS discovered an \$834K arrearage.
 - If the deal with Humana goes through, 192/220 65+ retirees would be switched to that plan.
- **Prescription Drug Bid:**
 - Treasury has received the information, but hasn't had a chance to review yet.
- **Bond Issue:**
 - This should be completed next week, by Thursday or Friday.
 - The City has due diligence questions to turn in by Monday, the lender will have the same by Wednesday.
- **Settlement Conference:**
 - Did not go well; mediation was ordered by the Judge and will take place July 31.
 - The League is willing to pay \$75K; the City is hoping for more, however it has not been authorized yet. Settlement is expected to come in around \$375K.
- **City Hall Elevators & Status:**
 - The waterproofing work is complete. There is still a little water, but the crew says that it's okay. Walls are going up now, but the inspection was moved back another week.
 - Handicap rails are open, waiting for railing on stairs, cameras have been installed.
- **Boji/City Hall:**

- Eric drafting an amendment to the Order concerning this sale in lieu of recent interest in property.
- **Roof at Community Center:**
 - Only one wing, approximately \$30K job.
 - City is soliciting bids, will hopefully go before RTAB in August.

Benton Harbor – July 16 – D. Watson, R. Byrne, R. Widigan, C. Porubsky

- **Weekly Priorities:**
 - At the 07/15/15 Legislative Committee meeting it was discussed that the City will send a resolution to the State saying that the State owes the City for the actions of the former EM and the costs of the lawsuits.
 - Commissioners have been tabling items because they know that the City Manager and State can't force them to act on them.
 - Rob will review the Final Order for a possible amendment to allow the City Manager to act if the Commission refuses to do so.
 - The Commission is concerned about drones.
 - Neighborhood development is picking up with a number of new homes being built.
 - Darwin will remind the Commissioners that the State is looking to set up meetings.
- **Dept. of Labor Settlement:**
 - \$19K to settle – will be on the agenda at Monday's meeting.
- **Lange, O'Brien, Unruh Mediation (07-17-15):**
 - Mediation in Grand Rapids – Darwin, Mayor, Mayor Pro-Temp, and Commissioner Muhammad to attend.
 - Outcome will be discussed at Monday's City Commission meeting.
 - Commissioner Muhammad was requested to attend in hopes he will see the need to settle.
 - Will update OFR next week.
 - Insurance – aggregate coverage for back wages up to \$50K.
- **Update on Vacant Positions:**
 - Darwin is looking for head hunting firms to help the City find a finance director, assessor, and water department superintendent.
 - He should have a list of possible firms with costs the first part of next week.
- **Status of FDCVT Grants:**
 - Advertisements for water-main projects have been sent out.
 - Hydrant RFPs have been sent out.
 - City appraisal is being developed and a RFP will be sent out.
 - List of blighted structures is completed.
 - \$50K for sidewalks doesn't go very far, looking into which sidewalks to do.
 - Randy stated another round of funding (\$5M) will open up in August or September.

Ecorse – June 30 – W. O'Neal, R. Byrne, P. Dostine, D. Van de Grift, C. Porubsky

- **Priorities for the week:**
 - Working on five-year budget
 - FBI and AG were there yesterday, Wayne is not at liberty to discuss why they were there.
- **Fire consolidation**
 - No meeting set; Mayor was meeting with Howard Shipman after seeing Wayne last week, but has not heard from since.
- **Five-Year Budget:**
 - Would like to finish this week. Wayne promised he will have it to OFR by next week.
- **PPT/Discussion with Howard Heideman:**
 - John Pepperman contacted Mr. Heideman and was told monies for FY15-16 would be available in the beginning of FY16-17.
- **Sewer Project/Flooding Issues**
 - No calls, positive project
- **Miscellaneous Items:**
 - Loss of Packaging Specialties Inc.: The MEDC gave money to relocate to Romulus, approximately 50 jobs – company wanted to expand, but City would not entertain. Wayne stated the company backs up to DNR property and the City would not be able to sell even if they wanted to. He was not aware that they had decided to relocate.
 - Wayne and the Mayor met with Treasury last Friday, said meeting went well. Wayne stated Tidwell is the best mayor he's worked with. Stated they need to get through the election; Miller is also running, Wayne classified Miller as the "Old Guard." Thirteen people are running for Council.

Flint – July 22 – Mayor D. Walling, N. Henderson, J. Freeman, R. Byrne, P. Dostine, E. Cline, C. Porubsky

- **Priorities/Miscellaneous:**
 - KWA filter installation continues. 6/12 will be completed by next week, the remaining will start in August.
 - Moving forward with leak detection.
 - Usage from plant has decreased, will be able to shut part down soon.
 - The City is getting complaints of water discoloration.
 - No change with the U of M issue.
 - Megan Hunter, Director of Community & Economic Development, is leaving the end of August.
 - The City was giving information on the upcoming FDCVT grant money that will be available.
 - No update on OPEB lawsuit.
 - The Mayor will participate in a blight roundtable update next week with MSHDA and MEDC. He invited Treasury to attend and will forward the information.
 - According to a call from John Blanchard; on August 4, GM will announce an \$800M investment.
- **Re-assessment:**
 - Received RFP from Tax Commission.
 - Moving forward, looking for funding.
- **Updates from the City Charter Commission:**

- Commission meets every week, and has subcommittee meetings weekly as well, 3-4 meetings per week.
- Budget request -- \$59,000 allocated, asking for double. Flint cannot afford the new request. Natasha suggested Commission approach foundations, Mott Foundation may help with funding, Natasha will keep OFR updated.
- The Commission is operating like a City Council. Natasha thinks they would benefit from a more relaxed set up, and possibly a different attorney that will provide more guidance.
- **Transportation Millage MTA:**
 - Approved; the renewal is for five years.
- **Coalition for Clean Water Lawsuit in Circuit Court:**
 - A Federal Judge dismissed request for injunctive relief, former City Attorney Young resubmitted suit (30 pages of allegations). Mayor Walling and Natasha are both named in the suit. (Nothing new to report this week).
- **Primary Election:**
 - Will be held in a couple weeks.
 - It was noted that the absentee ballot count was lower than anticipated; approximately 200-250 received.

Hamtramck – July 17 – K. Powell, R. Byrne, P. Dostine, D. Van de Grift, C. Porubsky

- **Update on Audit:**
 - Drew explained to Katrina that she does not have a duty to bargain, and advised speaking with labor attorney John Clark. Katrina has talked with the Michigan Management Labor Association.
- **City Council Members:**
 - Per the Final Order, Members need to complete MML Level One training within the first year of receivership. Katrina states that she gave the forms to members, but is having trouble with them complying. She would like the matter to be addressed at the upcoming RTAB meeting.
- **Sewer Projects:**
 - Bids have been received. According to a number of neighboring communities, the lowest bidder is not a good candidate for the project. Katrina would like to use the second lowest bidder, and will be presenting the information to the RTAB.
- **Year-End Fund Balance Estimate:**
 - Still closing the books – Katrina is not comfortable with the numbers right now and hopes that some of former EM Cathy Square's spending allocations does not alter it much.
 - Katrina was encouraged to inquire about income from charge backs.
- **FDCVT Grants:**
 - Street lighting will be completed by August.
 - Assessment is complete.
 - Katrina would like to apply for new round of FDCVT grant money.
- **Police Study:**
 - Mark Nottley, Evergreen, and ICMA are all unable to complete a study this year. Katrina stated that Mark Nottley gave her some tips on how to conduct a study, and she is attempting to do it herself.

- **Police Overtime:**

- There are still some costs for this, however \$83K in tickets has offset that cost and created additional revenue. Katrina stated that she would like to switch to 12 hour shifts, and believes this will decrease overtime by 32 hours.

Inkster – May 28 – M. Stuhldreher, R. Byrne

- Interviews for the Police Chief position are scheduled for June 11. The City has a travel and lodging line item that will pay the travel and expenses of the two out-of-town candidates.
- Wayne County has contacted Mark regarding the City's outstanding sewer debt (\$4.9M).
- The FDCVT grant projects are moving forward toward completion.
- A manufacturer from Madison Heights will be purchasing a building in Inkster that will bring up to 250 jobs over the next five years.
- Mark intends to issue an order on June 1 granting additional authority to approve contract and expenditures.

Lincoln Park – July 1 – B. Coulter, R. Byrne

- Brad made an offer to Mathew Coppler to become the next City Manager. He will be having another discussion with him later today. He was asked to send Treasury a copy of the proposed contract.
- He indicated that the City has ended the Fiscal Year with a General Fund Balance of \$100,000.
- Brad stated that the Police Chief had retired.
- The DDA Director's contract will not be renewed.
- Health insurance reductions went into effect today; Brad expects a lawsuit from the retirees next week.
- The City's required pension payment may be late by a month.

Pontiac – July 24 – Mayor Waterman, J. Sobota, N. Nazarko, R. Byrne, P. Dostine, R. Widigan, C. Porubsky

- **Weekly Priorities:**

- Follow-up from this week's RTAB meeting
- Finish up blight court ordinances
- HR Specialist – hoping the RTAB can meet to revisit, waiting on a call from E. Koryzno
 - The employee will stay if the RTAB will meet to revisit the decision
- The Mayor discussed at length why the Board should justify their decision when they deny agenda items.
- J. Sobota inquired about Jim Mills – R. Byrne directed him to call Jim directly.
- Council is on strike again – postponed any items that the Mayor and J. Sobota brought to the table.
- City can purchase pothole equipment for \$22K – would like to do pothole repair in house.
 - Mayor says it would help with the workforce development problem

- J. Sobota sees a movement to bring DPW in-house. Currently the City only has staff to supervise contractors.
- The Mayor inquired on if there are other cities in the state and/or country that have their services 100% contracted out.
- **Deputy Mayor Position:** TJ Adams will be at the City today with a list of 3-5 people to review and pick for interviews. R. Byrne will be in attendance.
- **Phoenix Center:** Will meet with John Clark next week on the matter.
 - Owner of Ottawa Towers has purchased 8 schools that were for sale from the Pontiac School District
 - The Mayor will meet one on one with the owner of Ottawa Towers
 - Owner of the Towers said they may want to buy the Phoenix Center but would like to be reimbursed for \$9M in 'damages'
 - They claim that it's the City's fault for the owners not being able to rent out their building to the State
- **North Oakland County Water Authority (NOCWA) Project:** Moving ahead – City is not a signatory on the agreement and are not eligible to vote because they don't own a part of the water system. They have received significant savings from the deal.
- Pat and Randy will visit the City on Tuesday.

Royal Oak Township – June 29 – R. Burgess, D. Squalls, R. Byrne, P. Dostine, C. Porubsky

- **Priorities for the Week:**
 - Audit due tomorrow, also finishing up last part of F & O plan.
- **On-site Visit; Week of July 13th**
- **Police Update**
 - Should hear from Donna by next week, they have not heard from Detroit. Donna will contact Southfield, but doesn't expect much, as well as Hazel Park and Huntington Woods. She plans to talk to State Reps and ask for help.
- **Overtime, School, and Grant Updates:**
 - Street Lighting Grant: DTE will start converting on July 6, will take 4-5 days.
 - Should hear back from AG on demolition project by tomorrow, June 30.
 - Robert would like to know if there is a centralized area to learn about SOM grants, Randy is unsure of this but suggested going to the SOM website and will check for more information.
- **Miscellaneous Items:**
 - Ferndale Schools Adult/Alternative Education moving today, room used for code enforcement will be given up for a total of three rooms.
 - Budget amendments are with the Clerk, Robert will check to see that they've actually been placed in the system.

Koryzno, Edward (Treasury)

From: Byrne, Randall (Treasury)
Sent: Tuesday, July 28, 2015 9:16 AM
To: Workman, Wayne (TREASURY)
Cc: Koryzno, Edward (Treasury); Cline, Richard (Treasury)
Subject: Flint Water Memeo
Attachments: Memo on Water Coalition Questions 07-27-15.docx

Wayne:

I have attached the Memo on Flint Water that Eric prepared. Please let me know if you have any suggested changes.

Thanks,
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.

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RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF TREASURY
LANSING

NICK A. KHOURI
STATE TREASURER

TO: Randall Byrne, State Administrative Manager, Office of Fiscal Responsibility
FROM: Eric Cline, Department Manager, Office of Fiscal Responsibility
SUBJECT: Questions Regarding City of Flint Water System
DATE: July 28, 2015

At a July 23, 2015 meeting, Deputy Treasurer Workman posed several questions regarding the City of Flint's water system. This memo is a response to those questions.

The annual cost to the City of Flint to reconnect to the DWSD system

In a March 3, 2015 memo to Deputy Treasurer Workman, Emergency Manager Ambrose noted that he had been informed by DWSD that such a reconnection would immediately levy a fixed cost on the City of \$10.1-million per year.

Actual water purchases would be in addition to the fixed cost fee and would be dependent upon actual usage, but the annual cost was estimated to be as high as \$1-million/month; making the entire total of a one year connection back to DWSD as high as \$22-million. This cost would be reduced to approximately \$19-million/year once the City's \$3-million annual expense of operating the water system itself was offset.

These calculations were outlined in a March 2015 memo from the Emergency Manager to Deputy Treasurer Workman and update cost projections provided in a February 11, 2015 memo to Chief Deputy Treasurer Tom Saxton.

The Emergency Manager also stated his concern that for the City to be able to pay these costs that water rates charged to Flint residents would need to be increased by a minimum of 30%. Water rate increases between 2010 and 2015 are illustrated in the table attached.

In addition, DWSD was requiring that the City of Flint negotiate a 30-year contract for the provision of back-up services.

The City of Flint's degree of participation in the management of the KWA system

Mayor Dayne Walling is the City's official representative to the Karegnondi Water Authority (KWA). The participation of the Mayor as the official representative for the City of Flint is established in the KWA Articles of Incorporation. Mayor Walling is the current Chair of the Board of the KWA Board of Directors.

Continued use of Flint River water after the City is connected to the KWA system

The City Administrator has confirmed that once the City is fully connected to the KWA system they will no longer continue to use Flint River water.

The Flint River, however, will be the City's primary back-up water source in the event that a major disruption in the KWA system temporarily prevents the City from receiving water.

The process used to hire Veolia

Veolia responded on January 29, 2015, to a Request for Proposal issued by the City of Flint. Emergency Manager Ambrose made the final decision to retain Veolia.

The importance of hydrant flushing

Fire hydrant flushing is an important part of distribution system maintenance. It is useful in determining flow conditions in water mains.

According to information from the American Water Works Association (AWWA), there are two types of hydrant flushing utilized. The most comprehensive method is fire-flow testing.

Fire-flow testing requires hydrants to be opened, flushed, pressure and flow data to be collected and the potential fire flow at a particular point in a water main to be determined.

Hydrant flushing permits any debris to be cleared from a water main. The process of collecting fire flow data allows the determination of water pressure and flow capabilities for fighting fires at any location within a distribution system. It can also help determine the general condition of a system by detecting reduced water flows in a given area.

Status of the GAC carbon filter installation

Six of the twelve filters will be operational by no later than the first week of August.

Activation of the filters is expected to immediately drop the levels of TTHM within the system.

The remaining six filters are projected to be installed and operational by the end of August.

Status of the DuPont Street Water Main Replacement

After an internal review, the City made the decision to rebid this project.

There were multiple reasons for this decision, which included interference with current road projects, the determination that project bids were too high, and bidding timelines which were not favorable to secure quality bids or contractors.

This project will be rebid by the City later this fiscal year.

If you have any questions or need additional information on this topic, let me know. Thank you.

Attachment

Dempkowski, Angela (Treasury)

From: Workman, Wayne (TREASURY)
Sent: Tuesday, July 28, 2015 5:16 PM
To: Cline, Richard (Treasury)
Cc: Dempkowski, Angela (Treasury)
Subject: Re: water

Yes thanks

Sent from my iPhone

> On Jul 28, 2015, at 5:08 PM, Cline, Richard (Treasury) <cliner1@michigan.gov> wrote:

>

> Wayne,

>

> I am happy to correct.

>

> Do you want the information on the filtration system and the piping in the memo?

>

> The latest information I have is one week old but I may get an update in the next day or two.

>

> Also, regarding the cost of buying from DWSD, I note that the memo you sent was dated February 11. I have attached a memo dated March 3, which uses the numbers that I cited.

>

> I will insert whichever you prefer, but I was trying to use the most recent information that I can locate.

>

> Please advise.

>

> Thanks.

>

> 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 | Cell Phone (517) 243-8450 | Traverse City Office

> (231) 922-5228 E-mail cliner1@michigan.gov

>

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>

> From: Workman, Wayne (TREASURY)

> Sent: Tuesday, July 28, 2015 4:42 PM

> To: Cline, Richard (Treasury)

> Subject: Fwd: water

>

> Will you double check

>

> Sent from my iPhone
>
> Begin forwarded message:
> From: "Saxton, Thomas (Treasury)"
> <SaxtonT@michigan.gov<mailto:SaxtonT@michigan.gov>>
> Date: July 28, 2015 at 4:40:29 PM EDT
> To: "Workman, Wayne (TREASURY)"
> <WorkmanW@michigan.gov<mailto:WorkmanW@michigan.gov>>
> Cc: "Dempkowski, Angela (Treasury)"
> <DempkowskiA@michigan.gov<mailto:DempkowskiA@michigan.gov>>, "Pleyte,
> Beth (Treasury)" <PleyteB@michigan.gov<mailto:PleyteB@michigan.gov>>
> Subject: water
> Do you still have a typo ? (i.e., depended vs dependent?)
>
> I found the chart (in the attached)
>
> Did they get the new water filtration system installed yet ?
> Where does that 2 miles of bad pipe replacement stand ?
> <Workman Communication.pdf>

Workman, Wayne (TREASURY)

From: Workman, Wayne (TREASURY)
Sent: Tuesday, July 28, 2015 5:31 PM
To: Cline, Richard (Treasury)
Cc: Dempkowski, Angela (Treasury)
Subject: Re: water

Lets use most recent and explain the diference

Sent from my iPhone

On Jul 28, 2015, at 5:20 PM, Cline, Richard (Treasury) <cliner1@michigan.gov> wrote:

Wayne,

Regarding Tom's question about the filters, 6 of the 12 filters may yet be operational this week. If not, likely next week. I will probably be able to confirm this in the next day or so.

Regarding the pipe replacement, if Tom is referring to the DuPont Road 24" line replacement, the City determined that the bids they received were too high and they are going to rebid the project later this fiscal year.

Based on your email that I just received, I will insert this into the memo.

Regarding the cost to buy from DWSD, do you wish to use my original numbers (per the March 3 memo) or the numbers from the February memo?

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 | Cell Phone (517) 243-8450 | Traverse City Office (231) 922-5228

E-mail cliner1@michigan.gov

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From: Workman, Wayne (TREASURY)

Sent: Tuesday, July 28, 2015 4:42 PM

To: Cline, Richard (Treasury)

Subject: Fwd: water

Will you double check

Sent from my iPhone

Begin forwarded message:

From: "Saxton, Thomas (Treasury)" <SaxtonT@michigan.gov>

Date: July 28, 2015 at 4:40:29 PM EDT

To: "Workman, Wayne (TREASURY)" <WorkmanW@michigan.gov>

Cc: "Dempkowski, Angela (Treasury)" <DempkowskiA@michigan.gov>, "Pleyte, Beth (Treasury)" <PleyteB@michigan.gov>

Subject: water

Do you still have a typo ? (i.e., depended vs dependent?)
I found the chart (in the attached)
Did they get the new water filtration system installed yet ?
Where does that 2 miles of bad pipe replacement stand ?

Byrne, Randall (Treasury)

From: Natasha Henderson <nhenderson@cityofflint.com>
Sent: Wednesday, July 29, 2015 9:03 AM
To: Byrne, Randall (Treasury); Cline, Richard (Treasury); Dayne Walling; Joshua Freeman
Subject: Utilities Update 7_29_15.pdf
Attachments: Utilities Update 7_29_15.pdf

Natasha L. Henderson, City Administrator
City of Flint, Michigan
@Samsung Galaxy Note 4



**City of Flint
Water Quality Update
Wednesday July 29th 2015**

Leak Detection

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

Status: Contract signing

The vendor Echologics is ready to mobilize and has set the week of August 10th as the time to begin the project.

The vendor maintains a window of 10 – 14 weeks following starting in order to complete the full scope of work.

Next steps: Mobilization.

GAC Installation

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

Status: Installing

Six of the twelve filters are completely installed

The filters are expected to immediately drop the TTHM level.

The timing of putting the filters into use is designed to get the maximum impact at the time of the next testing period which is scheduled for the third week of August.

Next steps: Introduce water through the six new filters, and begin installation of the next six filters.

WPC Incinerator Shutdown

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

Status: In construction phase

Construction continues, the weather has cooperated and the work is on schedule.

Next steps: Completion of concrete work.

Water Meter Installation

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

Status: On schedule

Letters have been sent to the public and posted online.

The installation of the first 9000 meters started this week.

A kickoff meeting of all management personnel involved is set for today to evaluate all aspects and possible issue that could occur.

Next steps: Kickoff meeting with all management today.

Howard Croft
Public Works Director

Dempkowski, Angela (Treasury)

From: Lyon, Nick (DCH)
Sent: Friday, July 31, 2015 10:57 AM
To: Muchmore, Dennis (GOV); Workman, Wayne (TREASURY); Wurfel, Brad (DEQ); Clement, Elizabeth (GOV); Hollins, Harvey (GOV)
Cc: Saxton, Thomas (Treasury); Wisniewski, Wendy (GOV); Grijalva, Nancy (DCH)
Subject: Re: Updated Memo on Water Coalition Questions - July 29
Attachments: Flint Testing and EBLs_2.xlsx

Our Public Health staff followed up a bit more on the lead question. Below is their email update to me.

From: Grijalva, Nancy (DCH)
Sent: Wednesday, July 29, 2015 11:23 AM
To: Lyon, Nick (DCH)
Subject: FW: Director's Office Assignment -- Flint - need update asap
FYI.....

-----Original Message-----

From: Peeler, Nancy (DCH)
Sent: Tuesday, July 28, 2015 2:57 PM
To: Anderson, Paula (DCH); Miller, Corinne (DCH); Travis, Rashmi (DCH); Moran, Susan (DCH); Grijalva, Nancy (DCH); Fink, Brenda (DCH)
Cc: Priem, Wesley F. (DCH); Dykema, Linda D. (DCH); Bouters, Janese (DCH); Barr, Jacqui (DCH)

Subject: RE: Director's Office Assignment -- Flint - need update asap

I apologize for the delay in responding more specifically to this assignment, it took some time to review our Childhood Lead Poisoning Prevention program data to see if it might contribute to the understanding of the situation in Flint with their water supply. Here is what we found:

We looked at lead testing results for May 2014-April 2015, which is the 12 month time frame just after Flint started drawing their water from the river (water source changed in April 2014).

We 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 (chart on the right).
- There was a spike in elevated blood lead tests from July-September 2014 (chart on the left, gold line).
- 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 suspect 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.

So upon review, we don't believe our data demonstrates an increase in lead poisoning rates that might be attributable to the change in water source for Flint. We recognize that lead exposure via the water is only a small piece of what may be happening for families in Flint, however, we hope the information is helpful.

Nancy Peeler

From: Muchmore, Dennis (GOV)
Sent: Wednesday, July 29, 2015 9:02 AM
To: Workman, Wayne (TREASURY); Wurfel, Brad (DEQ); Lyon, Nick (DCH); Clement, Elizabeth (GOV); Hollins, Harvey (GOV)
Cc: Saxton, Thomas (Treasury); Wisniewski, Wendy (GOV)
Subject: RE: Updated Memo on Water Coalition Questions - July 29

I think this information is very helpful. It will not answer the main question about the quality of the water (DEQ is working on that through Brad I believe), and the color and smell of the present water, but it does get us to the answers to the less subjective issues. Frankly, the only way the issues will be totally resolved is when the KWA comes on line and the water is perceived to be cleaner and healthier.

I am somewhat surprised that the leadership in Flint has not responded better to the community questions, which don't seem unreasonable at all. Seems like Harvey has a better network into some of the neighborhoods than the city does. The KWA PR department definitely needs to do some outreach or they're headed down the same road as DWSD. Do you know if they go out on a regular basis to the community and talk about the rates, costs, etc.?

From: Workman, Wayne (TREASURY)
Sent: Wednesday, July 29, 2015 8:36 AM
To: Muchmore, Dennis (GOV); Wurfel, Brad (DEQ); Lyon, Nick (DCH); Clement, Elizabeth (GOV)
Cc: Saxton, Thomas (Treasury); Wisniewski, Wendy (GOV)
Subject: FW: Updated Memo on Water Coalition Questions - July 29
Importance: High

All, Attached is a memo and water rate summary answering several of the questions raised by the Flint pastors. Please let me know if you have any questions. Wayne

Wayne L. Workman
Deputy State Treasurer
Michigan Department of Treasury

From: Cline, Richard (Treasury)
Sent: Wednesday, July 29, 2015 8:21 AM
To: Workman, Wayne (TREASURY)
Cc: Dempkowski, Angela (Treasury); Byrne, Randall (Treasury)
Subject: Updated Memo on Water Coalition Questions - July 29
Importance: High

Wayne,

Attached is the water rate table you asked for and I have updated the memo to reference this as an attachment.

If you need anything else, please let me know.

Note that Rob, Randy and I will be in Benton Harbor for a portion of today conducting their annual RTAB evaluation.

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 | Cell Phone (517) [REDACTED] Traverse City Office (231) 922-5228

E-mail cliner1@michigan.gov

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City of Flint Water Rate History

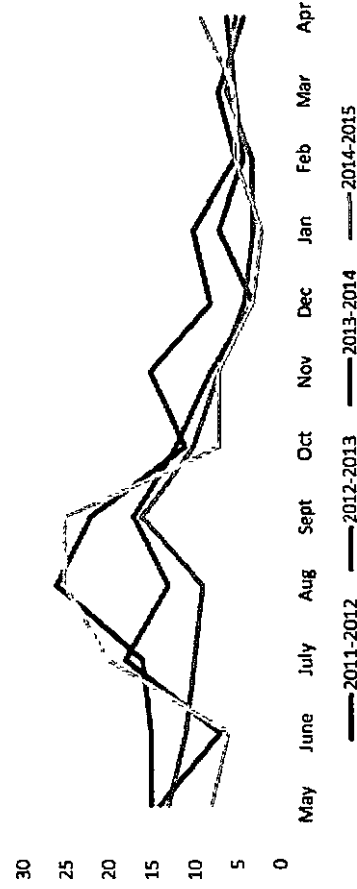
Year (Date Effective)	Average Monthly Water/Sewer Bill*	Percentage Change in Water/Sewer Rates	Water Fund** Total Operating Revenue	Water Fund** Unrestricted Net Position	Water Fund** Capital Improvements
2010	\$64	12%	\$31,956,754	-\$5,795,973	\$2,091,160
1/15/2011	\$82	29%	\$36,762,663	-\$12,443,265	\$1,403,916
9/16/2011	\$111	35%			
7/1/2012	\$111	26%	\$44,854,439	-\$8,758,091	\$755,681
2013	\$140	0%	\$49,903,868	\$834,447	\$147,462
07/01/13 to 06/30/14	\$140	0%	\$43,552,152	\$760,745	\$3,301,700
07/01/14 to 06/30/15	149***	6%	N/A	N/A	N/A

Note* Water rate information is based on average usage of 7 units per month with a 5/8" residential remote meter.

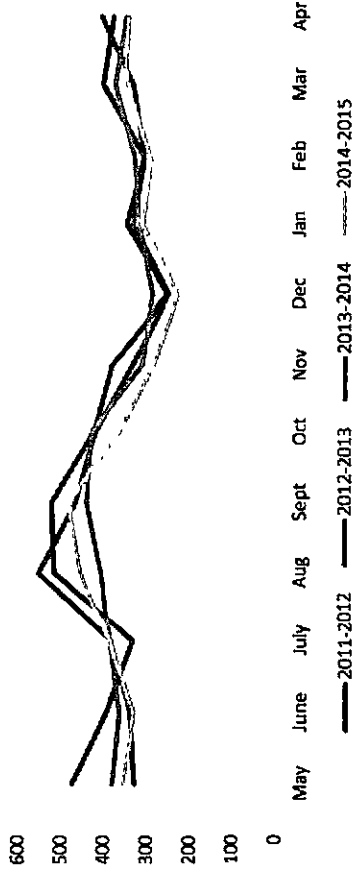
Note** Water fund information was compiled from the City of Flint's CAFR filed with the Michigan Department of Treasury.

Note*** Billing breakdown contained in attached memo.

City of Flint, Children less than 16 years of age
with First-Time Elevated Blood Lead Levels



City of Flint, Children less than 16 years of age
Tested for Lead Poisoning



	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr
2011-2012	15	15	16	16	22	11	15	8	10	5	7	4
2012-2013	14	7	18	13	17	12	8	3	7	4	5	6
2013-2014	13	11	10	9	16	10	7	4	3	3	6	5
2014-2015	8	6	20	25	25	7	7	3	2	5	5	9

	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr
2011-2012	474	393	332	513	520	420	379	249	343	303	399	375
2012-2013	328	338	383	550	464	417	332	246	328	303	328	402
2013-2014	380	363	385	404	438	427	310	283	313	325	371	346
2014-2015	356	329	386	452	480	361	283	224	305	287	348	339

Byrne, Randall (Treasury)

From: Workman, Wayne (TREASURY)
Sent: Friday, July 31, 2015 1:16 PM
To: Cline, Richard (Treasury)
Cc: Dempkowski, Angela (Treasury); Byrne, Randall (Treasury)
Subject: Re: Update: KWA Board Members

Great work. Thanks

Sent from my iPhone

On Jul 31, 2015, at 1:11 PM, Cline, Richard (Treasury) <cliner1@michigan.gov> wrote:

Wayne,

Per your request, I researched the affiliation of all KWA Board members.

My results are as follows:

Jeff Wright, Genesee County Drain Commissioner, is the CEO of KWA.

The Board members are:

1. Dayne Walling, Chairperson; Mayor, City of Flint
2. Greg Alexander, Vice Chairperson; Sanilac County Drain Commissioner
3. Jamie Curtis; Chair, Genesee County Board of Commissioners
4. Ted Henry; Commissioner, Genesee County
5. Joseph Suma; Lapeer County Drain Commissioner
6. Joshua Freeman; Council President, City of Flint
7. Steve Landaal; President, Landaal Packaging
8. Larry Green; Supervisor, Mt. Morris Township
9. Sheldon Neeley; State Representative
10. Thomas Svrcek; Swartz Creek Director of the Department of Public Works
11. Richard E. Hammel; Former State Representative
12. Marilyn "Micki" Hoffman; Supervisor, Grand Blanc Township
13. Paula Zelenko; Mayor, City of Burton
14. Dale Kerbyson; City Manager, City of Lapeer
15. Tracey Tucker; Building Administrator, Flint Township

If you need anything else, 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 | Cell Phone (517) 243-8450 | Traverse City Office (231) 922-5228
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From: Cline, Richard (Treasury)
Sent: Thursday, July 30, 2015 10:34 AM
To: Byrne, Randall (Treasury)
Subject: KWA Board Members
Importance: High

<http://www.karegnondi.com/#!about/c20r9>

Randy,

Here is a list of the KWA Board members:

Jeff Wright is the CEO of KWA.

The Board members are:

1. Dayne Walling, Chairperson
2. Greg Alexander, Vice Chairperson
3. Jamie Curtis
4. Ted Henry
5. Joseph Suma
6. Joshua Freeman
7. Steve Landaal
8. Larry Green
9. Sheldon Neeley
10. Thomas Svrcek
11. Richard E. Hammel
12. Marilyn "Micki" Hoffman
13. Paula Zelenko
14. Dale Kerbyson
15. Tracey Tucker

I have also included a link to the Board's page.

If you need more information, please 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 | Cell Phone (517) [REDACTED] Traverse City Office (231) 922-5228
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CITY of FLINT WATER TREATMENT PLANT MONTHLY OPERATION REPORT

SUPPLY NAME: CITY of FLINT WATER PLANT

WSSN: 2310

Michael Glasgow

Operator-in-Charge

July 2015

Month/Year

F-1R, F-2

Certification of Operator-in-Charge

F-1

Water Plant Classification

Signature of Operator-in-Charge

Genesee

County

Treatment Rate and Filter Data

Maximum Treatment Rate	18.5	Million Gallons per Day
Rated Plant Capacity	36	Million Gallons per Day
Average Filter Run	124	Hours
Average Head Loss	n/a	Feet *(filter head loss meters not operational)
Average Filtration Rate	2.5	Gallons Per Square Feet per Minute
Maximum Filtration Rate	3.3	Gallons Per Square Feet per Minute
Average Wash Water Use	1.0%	Percent of Treated Water

Chemical Data

Chlorine on hand	24,000	lb	Est supply	28	days
Primary Coagulant (Ferne Chloride) on hand	153,000	lb	Est supply	10	days
Lime (CaO) on hand	197	tons	Est supply	17	days
Fluoride on Hand	6,000	lb	Est supply	13	days
Cost of All Chemicals per Million Gallons	n/a	dollars			
Total Power Cost per Million Gallons	n/a	dollars			

Remarks

Confluence Point # 1 (N)

Confluence Point # 2 (S)

Number of filter confluence samples > 0.3 NTU

1

0

Number of filter confluence samples collected

218

218

Percent of filter confluence samples > 0.3 NTU

0.5%

0.0%

Number of filter confluence samples > 1 NTU

0

0

Did any individual filter exceed:

1.0 NTU in two consecutive measurements taken 15 minutes apart?

NO

If yes, attach specific filter(s) information and indicate required follow-up status

0.5 NTU in two consecutive measurements taken 15 minutes apart after 4 hours of operation?

NO

If yes, attach specific filter(s) information and indicate required follow-up status

1.0 NTU in two consecutive measurements taken 15 minutes apart for 3 consecutive months?

NO

If yes, attach specific filter(s) information and indicate required follow-up status

2.0 NTU in two consecutive measurements taken 15 minutes apart for 2 consecutive months?

NO

If yes, attach specific filter(s) information and indicate required follow-up status

Was continuous (every 15 minutes) filter monitoring equipment off-line during the month?

NO

If yes, indicate date(s), duration, and individual filter grab sampling frequency on a separate sheet

Did POE disinfectant residual fall below 0.2 ppm during the month?

NO

If yes, indicate date(s) and duration on a separate sheet.

Was minimum C*T credit achieved for the entire month?

YES

If no, indicate on a separate sheet the date(s) not achieved

Was continuous POE chlorine residual monitoring equipment off-line during the month?

NO

If yes, indicate date(s) and duration on a separate sheet.

[illegible]

Date	Turbidity, Units												
	Confluence Point, No.1 (N) North						Confluence Point, No.2 (S) South						Point of Entry
	Number of Samples	Avg.	Max	No. of 4 Hr. Compliance periods	No. of 4 Hr. Compliance periods >0.3 NTU	No. of Samples >0.3 NTU	Number of Samples	Avg.	Max	No. of 4 Hr. Compliance periods	No. of 4 Hr. Compliance periods >0.3 NTU	No. of Samples >0.3 NTU	Plant Tap NTU
1	7	0.10	0.13	6	0	0	7	0.09	0.12	6	0	0	0.11
2	7	0.11	0.15	6	0	0	7	0.09	0.12	6	0	0	0.09
3	8	0.09	0.11	6	0	0	8	0.09	0.11	6	0	0	0.13
4	8	0.09	0.13	6	0	0	8	0.08	0.09	6	0	0	0.11
5	8	0.08	0.09	6	0	0	8	0.08	0.11	6	0	0	0.09
6	7	0.09	0.12	6	0	0	7	0.08	0.09	6	0	0	0.10
7	7	0.10	0.12	6	0	0	7	0.09	0.10	6	0	0	0.10
8	6	0.11	0.13	6	0	0	6	0.10	0.11	6	0	0	0.09
9	7	0.11	0.15	6	0	0	7	0.10	0.10	6	0	0	0.11
10	7	0.11	0.11	6	0	0	7	0.10	0.12	6	0	0	0.12
11	7	0.12	0.25	6	0	0	7	0.11	0.13	6	0	0	0.10
12	6	0.08	0.11	6	0	0	6	0.10	0.13	6	0	0	0.08
13	7	0.10	0.11	6	0	0	7	0.10	0.12	6	0	0	0.10
14	7	0.18	0.31	6	1	1	7	0.11	0.11	6	0	0	0.11
15	7	0.14	0.20	6	0	0	7	0.12	0.16	6	0	0	0.13
16	7	0.14	0.20	6	0	0	7	0.12	0.15	6	0	0	0.12
17	7	0.13	0.15	6	0	0	7	0.12	0.14	6	0	0	0.18
18	7	0.14	0.20	6	0	0	7	0.12	0.16	6	0	0	0.15
19	7	0.16	0.19	6	0	0	7	0.14	0.18	6	0	0	0.18
20	7	0.13	0.18	6	0	0	7	0.12	0.16	6	0	0	0.12
21	7	0.14	0.17	6	0	0	7	0.14	0.19	6	0	0	0.12
22	7	0.15	0.20	6	0	0	7	0.15	0.19	6	0	0	0.16
23	7	0.14	0.18	6	0	0	7	0.13	0.15	6	0	0	0.15
24	7	0.17	0.19	6	0	0	7	0.17	0.20	6	0	0	0.16
25	7	0.17	0.19	6	0	0	7	0.16	0.19	6	0	0	0.14
26	7	0.14	0.17	6	0	0	7	0.13	0.15	6	0	0	0.13
27	7	0.16	0.22	6	0	0	7	0.15	0.21	6	0	0	0.16
28	7	0.15	0.16	6	0	0	7	0.14	0.16	6	0	0	0.13
29	7	0.13	0.17	6	0	0	7	0.12	0.13	6	0	0	0.12
30	7	0.12	0.14	6	0	0	7	0.13	0.16	6	0	0	0.13
31	7	0.08	0.10	6	0	0	7	0.10	0.13	6	0	0	0.12
Avg.	7	0.12	0.16	6	0	0	7	0.11	0.14	6	0	0	
Max.	8	0.18	0.31	6	1	1	8	0.17	0.21	6	0	0	0.18
Min.	6	0.08	0.09	6	0	0	6	0.08	0.09	6	0	0	

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Date	pH (S.U.)		Total Hardness as CaCO ₃ (mg/L)		Total Alkalinity as CaCO ₃ (mg/L)		Non-Carbonate Hardness as CaCO ₃ (mg/L)		Calcium as Ca ²⁺ (mg/L)		Magnesium as Mg ²⁺ (mg/L)		Chloride as Cl ⁻ (mg/L)	
	Raw	Tap	Raw	Tap	Raw	Tap	Raw	Tap	Raw	Tap	Raw	Tap	Raw	Tap
1	8.37	7.59	232	148	190	56	42	92	67.3	46.5	15.6	7.8	45	84
2	8.12	7.36	260	150	220	54	40	96	77.8	50.5	16.0	5.8	47	87
3	8.40	7.43	260	155	218	55	42	100	89.0	56.9	9.2	2.9	43	89
4	8.35	7.40	252	153	210	52	42	101	80.2	52.1	12.6	3.9	42	86
5	8.18	7.49	258	156	216	54	42	102	89.8	52.1	8.3	6.8	42	86
6	8.19	7.48	264	156	208	56	56	100	85.8	57.7	12.2	2.9	44	88
7	8.06	7.68	258	156	212	50	46	106	87.4	50.5	9.7	7.3	48	85
8	7.98	7.52	252	148	208	54	44	94	85.0	51.3	9.7	4.9	43	77
9	8.18	7.49	246	152	208	52	38	100	80.2	52.9	11.2	4.9	43	82
10	8.22	7.47	244	150	202	52	42	98	84.2	55.3	8.3	2.9	43	77
11	8.30	7.54	250	150	206	62	44	88	85.8	48.9	8.7	6.8	47	81
12	8.21	7.45	256	144	214	48	42	96	79.4	47.3	14.1	6.8	42	89
13	8.36	7.60	242	142	200	50	42	92	79.4	47.3	10.7	5.8	45	83
14	7.83	7.45	250	144	208	50	42	94	75.4	39.3	15.1	11.2	50	84
15	8.13	7.38	250	134	212	48	38	86	81.8	41.7	11.2	7.3	44	81
16	8.16	7.43	252	156	212	48	40	108	78.6	44.1	13.6	11.2	44	79
17	8.05	7.36	256	140	206	52	50	88	82.6	45.7	9.2	8.7	43	78
18	8.07	7.42	248	132	206	42	42	90	80.2	40.1	11.7	7.8	41	80
19	8.13	7.45	252	134	212	44	40	90	80.2	47.3	12.6	3.9	43	76
20	8.21	7.53	248	142	214	46	34	96	78.6	43.3	12.3	8.3	42	79
21	8.15	7.35	250	134	220	54	30	80	82.6	41.7	10.7	7.3	42	79
22	8.31	7.42	252	132	216	44	36	88	76.2	36.9	15.1	9.7	44	80
23	8.33	7.35	252	136	214	36	38	100	81.8	40.1	11.7	8.7	43	84
24	8.28	7.34	246	136	206	34	40	102	79.4	39.3	11.7	9.2	43	83
25	8.24	7.52	248	149	208	47	40	102	76.2	38.5	14.1	8.7	43	81
26	8.15	7.43	254	153	212	51	42	102	85.0	47.3	10.2	7.3	43	89
27	8.14	7.40	258	146	216	48	42	98	77.0	48.9	16.0	5.8	45	88
28	8.19	7.42	248	162	210	58	38	104	79.4	61.7	12.2	1.9	45	96
29	8.03	7.32	242	152	206	50	36	102	79.4	54.5	10.7	3.9	47	100
30	7.97	7.37	240	158	206	60	34	98	70.5	58.5	15.6	2.9	51	98
31	7.91	7.37	248	156	212	52	36	104	75.4	55.3	14.6	4.4	51	99

Avg	8.17	7.45	251	147	210	50	41	97	80.4	48.2	12.1	6.4	44	85
Max.	8.40	7.68	264	162	220	62	56	108	89.8	61.7	16.0	11.2	51	100
Min.	7.83	7.32	232	132	190	34	30	80	67.3	36.9	8.3	1.9	41	76

Date	Total Coliform						Standard Plate Count (Simpla MPN)		Conductivity (mS)	Temp. C	Color		Odor	
	Raw (Colilert MPN)		Filter Confluence (N&S)		Plant Tap									
	# Samples	Count	# Samples	# pos	# Samples	# pos	Raw	Tap	Tap	Raw	Raw	Tap	Raw	Tap
1	1	4884	12	0	1	0	2870	< 2	0.44	22.5				
2	1	3448	12	0	1	0	2020	< 2	0.44	22.3				
3	1	3654	12	0	1	0	2390	< 2	0.45	22.1				
4	1	4611	12	0	1	0	1830	< 2	0.44	23.5				
5	1	5172	12	0	1	0	1830	< 2	0.45	22.5				
6	1	3873	12	0	1	0	1890	< 2	0.45	22.8				
7	1	5794	12	0	1	0	1460	< 2	0.43	23.5				
8	1	3654	12	0	1	0	1950	< 2	0.41	22.0				
9	1	6867	12	0	1	0	2990	< 2	0.43	22.5				
10	1	4106	12	0	1	0	1830	< 2	0.41	23.3				
11	1	3654	12	0	1	0	2090	< 2	0.43	23.5				
12	1	3654	12	0	1	0	1510	< 2	0.42	22.9				
13	1	4884	12	0	1	0	1510	< 2	0.41	24.8				
14	1	11191	12	0	1	0	7380	< 2	0.40	23.3				
15	1	8164	12	0	1	0	3390	< 2	0.40	23.1				
16	1	6867	12	0	1	0	2020	< 2	0.40	25.9				
17	1	3873	12	0	1	0	1460	< 2	0.41	23.8				
18	1	3873	12	0	1	0	5550	< 2	0.39	24.4				
19	1	5794	12	0	1	0	3390	< 2	0.39	24.4				
20	1	6867	12	0	1	0	2870	< 2	0.39	24.4				
21	1	8664	12	0	1	0	2870	< 2	0.39	24.5				
22	1	4884	12	0	1	0	2870	< 2	0.39	25.1				
23	1	6480	12	0	1	0	3550	< 2	0.40	24.9				
24	1	6480	12	0	1	0	3390	< 2	0.40	25.1				
25	1	7270	12	0	1	0	4440	< 2	0.42	25.2				
26	1	8164	12	0	1	0	4140	< 2	0.44	25.1				
27	1	7270	12	0	1	0	2230	< 2	0.43	26.0				
28	1	5172	12	0	1	0	2660	< 2	0.47	27.6				
29	1	6867	12	0	1	0	6230	< 2	0.45	27.2				
30	1	17329	12	0	1	0	3240	< 2	0.48	26.2				
31	1	19863	12	0	1	0	4700	< 2	0.46	25.5				

Avg									0.42	24.2				
Max.		19863					7380	< 2	0.48	27.6				
Min.									0.39	22.0				

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Date	Free Chlorine Residual at Bacteriological Monitoring Stations mg/l										Number of Samples
	1	2	3	4	5	6	7	8	CS	WS	
1	0.5	1.0	1.1	0.3	0.2	0.2	0.6	1.3	0.7	1.4	10
2											0
3											0
4											0
5											0
6											0
7	0.1	1.1	1.0	0.2	1.9	0.2	0.5	1.0	1.3	4.0	10
8	1.1	0.3	1.2	0.1	0.8	0.3			0.5	1.2	8
9	0.1	0.7	1.2	0.2	0.1	0.2	0.4	1.1	0.2	1.3	10
10											0
11											0
12											0
13											0
14	0.9	1.0	1.0	0.1	0.2	0.2	0.5	1.3	0.3	1.2	10
15	0.1	0.9	1.0	0.4	0.6	0.1	0.2	1.3	0.6	1.2	10
16											0
17											0
18											0
19											0
20											0
21											0
22	0.5	0.5	0.9	0.2	0.1	0.1	0.3	1.0	0.6	1.6	10
23	0.6	0.7	0.9	0.2	0.1	0.1	0.1	1.2	0.1	1.3	10
24											0
25											0
26											0
27											0
28	0.6	0.9	1.0	0.3	0.3	0.1	0.5	1.0	0.9	1.0	10
29											0
30	0.6	0.7	0.8	0.1	0.1	0.5	0.3	1.7	0.1	1.2	10
31				0.2	0.4	0.2					3

Distribution Sample Summary

Total # of routine distribution samples analyzed	101
Total # of routine distribution samples required	100

Distribution Bacteriological Summary

Total # of positive routine distribution samples	1
Percent of routine distribution samples positive	1%

See page 9 for positive sample information.

Distribution Disinfectant Total Residual Summary

Percentage of samples with a detectable disinfectant residual	100%
Average disinfectant residual this month	0.67

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Date	Total Chlorine Residual at Bacteriological Monitoring Stations mg/l										
	1	2	3	4	5	6	7	8	CS	WS	Number of Samples
1	0.9	1.3	1.4	0.6	0.4	0.4	0.9	1.7	1.0	1.7	10
2											0
3											0
4											0
5											0
6											0
7	0.1	1.4	1.2	0.3	2.2	0.4	0.8	1.3	1.6	4.0	10
8	1.4	0.6	1.6	0.4	1.0	0.5			0.8	1.5	8
9	0.2	1.0	1.5	0.4	0.2	0.5	0.6	1.4	0.4	1.6	10
10											0
11											0
12											0
13											0
14											0
15	1.3	1.3	1.3	0.3	0.4	0.4	0.8	1.7	0.5	1.5	10
16	0.2	1.2	1.3	0.7	0.9	0.2	0.5	1.5	0.9	1.5	10
17											0
18											0
19											0
20											0
21											0
22	0.8	0.8	1.3	0.5	0.3	0.2	0.5	1.4	0.9	2.0	10
23	0.9	1.1	1.2	0.5	0.4	0.3	0.3	1.5	0.1	1.6	10
24											0
25											0
26											0
27											0
28	0.8	1.3	1.3	0.5	0.5	0.2	0.8	1.4	1.3	1.3	10
29											0
30	1.0	1.2	1.3	0.3	0.3	0.2	0.6	2.3	0.3	1.5	10
31				0.4	0.6	0.4					3

Distribution Disinfectant Total Residual Summary

Percent samples with a detectable disinfectant residual 100%

Average disinfectant residual this month 0.9

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