

Pleyte, Beth (Treasury)

From: Wurfel, Brad (DEQ)
Sent: Monday, August 03, 2015 2:49 PM
To: Muchmore, Dennis (GOV); Saxton, Thomas (Treasury); Workman, Wayne (TREASURY); Hollins, Harvey (GOV); Wurfel, Sara (GOV); Agen, Jarrod (GOV)
Cc: Clement, Elizabeth (GOV); Wyant, Dan (DEQ)
Subject: RE: dennis muchmore has sent you - Flint pastors tell residents to get their water tested - from Detroit News

That AP brief came from this Flint Journal story:

http://www.mlive.com/news/flint/index.ssf/2015/08/concerned_pastors_urge_flint_r.html#incart_river

Here's one that showcases the local clergy. I presume most of these folks will be with us tomorrow?

http://www.mlive.com/news/flint/index.ssf/2015/06/judge_says_flint_doesnt_have_t_1.html#incart_related_stories

Just had a pre-meet with Stephen Busch, our drinking water expert who oversees the staff regulating Flint. He's planning to bring some information on the history of the water / lead issue in Flint, as well as some data about the most recent statutorily required testing. He'll be able to discuss the state program (which implements the federal statute), what we've been doing by way of testing, what we're finding, and what residents should do if they have concerns.

Anything else anyone wants us to be prepared for?

b

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

From: Muchmore, Dennis (GOV)
Sent: Monday, August 03, 2015 11:55 AM
To: Saxton, Thomas (Treasury); Workman, Wayne (TREASURY); Hollins, Harvey (GOV); Wurfel, Sara (GOV); Wurfel, Brad (DEQ); Agen, Jarrod (GOV)
Cc: Clement, Elizabeth (GOV)
Subject: FW: dennis muchmore has sent you - Flint pastors tell residents to get their water tested - from Detroit News

Here's part of our on-going problem.

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

From: do-not-reply@detroitnews.com [mailto:do-not-reply@detroitnews.com]
Sent: Monday, August 3, 2015 11:49 AM
To: Muchmore, Dennis (GOV)
Subject: dennis muchmore has sent you - Flint pastors tell residents to get their water tested - from Detroit News

Message from: muchmored@michigan.gov

Flint pastors tell residents to get their water tested

Some area pastors held a rally Sunday to urge residents to get their tap water tested

Check out this story on detroitnews.com: <http://detne.ws/1SAH1K6>

Weekly Conference Call Notes – August 3, 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 30 – K. Powell, R. Byrne, P. Dostine, D. Van de Grift

- **Absentee Ballots:**
 - There is reason to believe that a portion of absentee ballots received for the upcoming election are fraudulent. Hundreds of ballots have been returned, many with similar-looking signatures. The Hamtramck Police are currently involved; Katrina may also call the FBI.
- **Sewer:**
 - Katrina and the Finance Director spoke with S&P regarding the bond ratings for the sewer project. Their response was “not positive”, but another discussion is scheduled for August 11. If worse comes to worse, the City may have to pledge its general revenue sharing.
- **Police Study Update/Meeting with the Wayne County Sheriff:**
 - Katrina recently met with the Wayne County Sheriff and would like to negotiate that they take over the intake and processing of Hamtramck prisoners. Currently, higher-ranking City police are performing these tasks; Katrina would rather have them patrolling the streets.
 - As the City pays three different taxes to the County, including the jail millage; Katrina feels that the Sheriff’s Office should be responsible for this or reimburse the City for their cost.
 - A meeting is scheduled with the Sheriff and Wayne County Executive to further discuss this matter. Katrina stated that the Sheriff is sympathetic to her concerns.
- **Reassessment of Parcels:**
 - The City Assessor hired a contractor to reassess the City’s residential and commercial properties. The project is moving along well.
- **Meetings with Councilmembers:**
 - Katrina will schedule meetings with Randy and Eric.

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 29 – B. Coulter, P. Dostine, D. Van de Grift

- **FAC & Wayne County Future Road Projects:**
 - Brad and the DPW Director will begin attending these meetings.
- **New City Manager:**
 - Mr. Coppler will start October 1. Brad has started forwarding informational emails to begin the acclimation process.
- **Five-Year Plan/90-Day Plan:**
 - Both will be submitted soon; the five-year is nearly complete.
 - Projected fund balance this year is \$100K, \$500K-\$700K for next year, and \$400K-\$500K the year after.
 - If the projected fund balances don't materialize, there are areas that can be modified to reduce expenses. The fire contract allows for modification, first responders could be eliminated, FTEs could be reduced from 18, police shifts could be shortened, and could begin charging for HazMat cleanups.
 - Healthcare costs were decreased by \$600K this year.
 - If pension payments cannot be made, a judgement levy should be considered.
- **Order Concerning the New City Manager:**
 - Brad will add language to the Final Order detailing the City Manager's authority.
- **Rental & Vacant Property Ordinances:**
 - Two ordinances, will help to control/monitor the number of rental/vacant properties in the City; this will hopefully help stabilize and perhaps increase property values.
 - It is estimated that between 6-15% of properties in the City are currently vacant.
- **TJ Adams Final Invoice:**
 - The final invoice for the City Manager search will be forwarded to Treasury.
- **Gabriel, Roeder, Smith & Co:**
 - The City is considering filing for the full amount of pension underfunding, \$90M.
 - Legal fees would range from \$75K-\$100K.
 - May or may not be a good risk to take.

Pontiac – July 31 – Mayor Waterman, J. Sobota, N. Nazarko, E. Cline, P. Dostine, R. Widigan, C. Porubsky

- **Weekly Priorities:**
 - Council is no longer on strike; meeting went quick.
 - Law Committee is working on giving early retirement to the “group of 69” – which is now up to 300 individuals.
 - OPEB Litigation – Steve Hitchcock is to meet with the opposing attorney so see where they are in their proposal.
 - The City will hold a department head retreat next Friday afternoon.
 - The Mayor has not posted for the two Community Development positions as of yet. Wishes to go back to Council.
 - The City is working on their two-year rolling budget.
 - The City is advertising on MML and their own website for the Income Tax Administrator position, but has not received any applications as of yet.
- **Deputy Mayor Position:**
 - Will be interviewing candidates for Dep. Mayor next week. Would like to bring two Community Development individuals and the Dep. Mayor candidate to Council and RTAB together.
 - The Mayor is unsure of the timing of these hires. Likely a minimum of 60-90 days to hire.
 - Would like to hire local candidate – only one individual for Dep. Mayor is local.
- **Phoenix Center:**
 - The Mayor met with John Clark yesterday to discuss what the judgment meant.
 - Manager of the Ottawa Towers purchased 8 of the vacant Pontiac schools building.
 - The center and the schools will be discussed at the next economic development meeting.
- **In-House DPW:**
 - No business plan has been started – looking to see what the RTAB thinks.
 - The City was reminded that the RTAB is reactionary not proactive.

Royal Oak Township – July 27 – R. Burgess, D. Squalls, R. Byrne, P. Dostine, C. Porubsky

- **Priorities for the Week/Miscellaneous Items:**
 - Set up meetings for this week or next with potential developers.
 - Code enforcement officers currently have dealership in court over taxes – Donna thinks the best scenario would be for someone to buy both the dealership and motel next to it and demolish the motel.
 - Donna: Finish F&O Plan.
 - Robert: Spoke with Finance on Thursday, need a cash flow analysis for the remainder of the year and to create an amended budget.
 - Current on all bills with the exception of one.
 - Revenue sharing is anticipated to be the only income, but Robert thinks there is enough money to make it thru the year.
 - Randy reminded the Twp. that a monthly financial report is required.
 - General fund renewal is on the ballot August 4; Donna and Robert would like to send a flyer out. Randy cautioned them on the wording
- **Audit:**
 - Completed; Donna said that it was better than last years’ and didn’t highlight many problems.

- Robert stated that one of the things the audit noted was that an inventory needed to be completed.
- Donna wanted to know if the Board had to approve the audit – Randy said to ask Mr. Wilkerson.
- **Police Update**
 - Donna will know soon after August 4 (election) more regarding Hazel Park.
 - Oak Park is not interested; very short meeting where annexation was suggested.
 - Ferndale: Over \$1M, have not talked to.
 - Deadline is August 31; if not completed money will need to be returned.
- **Street Lighting:**
 - Completed last Friday, grant should close this week.
 - A rebate of \$9700 is anticipated.
 - Bills should start being lower in September; the entire \$10K budgeted for these may not be needed.

Workman, Wayne (TREASURY)

From: Muchmore, Dennis (GOV)
Sent: Monday, August 03, 2015 11:52 AM
To: Lyon, Nick (DHHS); Workman, Wayne (TREASURY); Wurfel, Brad (DEQ); Clement, Elizabeth (GOV); Hollins, Harvey (GOV)
Cc: Saxton, Thomas (Treasury); Wisniewski, Wendy (GOV); Grijalva, Nancy (DHHS)
Subject: RE: Updated Memo on Water Coalition Questions - July 29

Can I reprint Nancy's email?

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

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) 243-8450 | Traverse City Office (231) 922-5228
E-mail cliner1@michigan.gov

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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

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	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.

Byrne, Randall (Treasury)

From: Byrne, Randall (Treasury)
Sent: Friday, August 07, 2015 9:49 AM
To: Dempkowski, Angela (Treasury)
Subject: Additional Memo updates

Angela:

Here are a few more updates:

Flint

The city is implementing the 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 has installed a \$1.5M granulated active-charcoal filter system to improve water quality. All of the filters were completely installed in early August.

Allen Park

On May 15, 2015, an updated five year budget projection from the city was received. The RTAB approved this item at their August 5, 2015 meeting.

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. A Settlement Conference was held between all parties on July 20, 2015 but no resolution to this case has been announced by the city. Treasury continues to monitor this case.

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

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Byrne, Randall (Treasury)

From: Byrne, Randall (Treasury)
Sent: Monday, August 10, 2015 2:53 PM
To: Byrne, Randall (Treasury)
Subject: meeting notes
Attachments: Meeting with Suzanne August 10.docx



Randall Byrne | State Administrative Manager
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Weekly Meeting with Suzanne—August 10, 2015

- **Staff**—Restructuring Specialist 13, Analyst 9 interview update? The way forward.
- **Allen Park**—issues include information for the Fire Contract discussion, Tender Offer this week, in three weeks we will know the result. City Administrator interviews this week. We are looking for two additional RTAB members. The EM Order on City Hall property—a draft revised Order has been prepared by Eric. Gatos vs Allen Park \$1.2M to \$1.8M, Beaton vs the City.
- **Benton Harbor**—issues include lawsuit with former Public Safety Director and two former employees. Very good Annual evaluation discussion with Darwin and the Mayor. Meeting with three Council members on Tuesday. Filling of key positions and election? I will suggest AL Mooney as a possible temporary finance director.
- **Ecorse**—The five- year budget questions for city administrator. Discussion last week with River Rouge on merging fire service did not go well. We have a conference call with Wayne on Tuesday. RFP for legal services. We need at least one to two names for RTAB members.
- **Flint**— issues include meeting with Natasha on Thursday in Flint, the Community and Economic Development Director is leaving. Lawsuit on water rates may cause the city to rebate \$51M and repay \$15.7M, water system issues are getting resolved, and tax assessment problems.
- **Hamtramck**— issues include the status of pension consulting work, police study a new RFP needs to be sent out, meeting with City Council in August. I have two names for possible RTAB members.
- **Highland Park**— an RFP for a collection company has been sent. The amnesty program has expired. We have received another high school cost estimate for preparation of plans and specs, demolition, and project management. It is much cheaper than original estimate. State Office space in the City. Storm sewer lawsuit filed against MDOT. The second E-Loan closing is less than two months away. We are working on requirements for the loan agreement. Cathy's meeting with Bob Daddow. I have asked Cathy for a status report on all issues. Initial purchase of new water meters for \$300K.
- **Lincoln Park**— Matt Coppler will start in late September, his contract was approved by the Treasurer. The 345 request will hopefully be on the November ballot and Charter amendments may have to wait. Brad has a plan for the last five months. Police Chief has retired.
- **Inkster**— issues include Chief Riley of Selma Alabama accepted the position and begins work on Monday. Richard Marsh has accepted a buyout and will now be a special advisor to the City agreement has been reached to place a judgement levy on the December tax roll to repay Wayne County for sewer charges, and Order 5 implementation. Patrick will participate in the assistance to Inkster on housing and economic development along with MSHDA and the MEDC...
- **Pontiac**— issues include interview of candidates by the City Council. Phoenix Center discussions, Exit plan is being prepared. City DPW issue.
- **River Rouge**—issues include five year budget and discussion on exit from Consent Agreement, tax base loss and assessment problems. Contracts have been approved now we need to see the savings. The Mayor believes it may reach up to 1M on health insurance.

Cline, Richard (Treasury) *Quacs, Josh, CA, Mayor*

From: Dostine, Patrick (TREASURY)
Sent: Tuesday, August 11, 2015 1:24 PM
To: Cline, Richard (Treasury), Byrne, Randall (Treasury)
Cc: Porubsky, Carmen (TREASURY)
Subject: (so far) TPs Flint call Aug 12

Flint telephone call, Aug. 12, 9 AM.

- Priorities
- Kincaid lawsuit. Next move? — Monday hearing to finalize order; Appeal prepared; Att outreach to AL
- Aug 11 special council meeting to discuss adding police — Progress being made, 5-1 vote Shift of FD to PD
- Mayor, MSHDA, MEDC mtg about blight removal, update
- Sale of pipe
- Averill Refuse and Recycling Lawsuit
- Council request to have rep at RTABs, update
- Miscellaneous - Hiring & Spending Freeze - All shifts except planned Dec of specific funding

Patrick Dostine

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water
Filter working
Levels very low

No water bill payments being made

\$15.7M GF to SF

\$12M/yr on rates for 4 yrs

No Ready to Serve

No Turn off

FLINT WKLY CALL 8-12 9AM



° JOSH

KUCIAD LAWSUIT

- ° Mon. Hearing set - will finalize ^{ORDER} ~~judgment~~
- ° FINANCIAL IMPACT
- ° prepared a motion to appeal -
CITY WANTS A STAY
- ° when finally appeal maybe MONDAY?
- 1. ↳ \$15.7 M → directly impact G.F.
pay back to SEWER FUND
- Happening in 2007
- City
- 2. RATES - that would be negotiable
the impact \$12M per year
from '11 to present
- 3. READY to serve Fee - can't collect
AND CAN'T do any turn-offs

ORDER "would bankrupt the city"

ORDER
HAS
HUGE
legal

illegality of actions taken under PAY
Judge said that

FLINT

- ° have done spending / hiring freeze
- ° No one are paying their water bills
- ° have seen an IMMEDIATE IMPACT!!!

(2)



MAYOR Police adding

- o Flint met w State Pol - Mon morn.
- o common feeling - last 2 years all progress w Flint Pol + State Pol is AT RISK of slipping BACK.

- o State pol are stepping up w Recent violence
 - helicopter
 - K-9 unit

- o 15 positions FIRE approved budgets
 - 6 to 8 unfilled for several months
 - fires are down
 - discussed how best to use unfilled fire positions

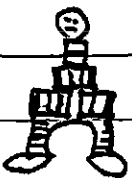
Spike
in
Homicide

- o Budget Amendment was presented
8 out of 9 supported but Amend

- o recruiting positions already

- o Chief COX fire chief verified
he was gotten by with these unfilled positions —

-
- o GACs ARE NOW in-use —
Levels ARE ALOT better!!



Byrne, Randall (Treasury)

From: Natasha Henderson <nhenderson@cityofflint.com>
Sent: Wednesday, August 12, 2015 9:21 AM
To: Dayne Walling; Joshua Freeman; Cline, Richard (Treasury); Byrne, Randall (Treasury)
Subject: Utilities Update 8_12_15.pdf
Attachments: Utilities Update 8_12_15.pdf

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



**City of Flint
Water Quality Update
Wednesday August 12th 2015**

Leak Detection

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

Status: Work commencing

The vendor "echologics" has mobilized in the City and is prepping to begin working this week.

Next steps: Work performance.

GAC Installation

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

Status: Six filters in use

Six of the twelve filters are completely installed and are now in use.

Internal testing has confirmed a significant drop in the TTHM level leaving the plant, levels were trending between 50 – 60 and have dropped to 20.

Installation has started on the remaining six filters.

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

Next steps: Install last 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: Continuation of construction work.

Water Meter Installation

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

Status: In progress

The vendor has established a good routine and has completed the installation of ~300 meters each week.

Next steps: Track the progress and maintain information flow.

Howard Croft
Public Works Director

Koryzno, Edward (Treasury)

From: Workman, Wayne (TREASURY)
Sent: Friday, August 14, 2015 11:38 AM
To: Snyder, Rick (GOV)
Cc: Muchmore, Dennis (GOV); Clement, Elizabeth (GOV); Scott, Allison (GOV); Khouri, Nick (TREASURY); Roberts, John (DTMB); Baird, Richard (GOV); Walsh, John (GOV); Redford, James (GOV); Allard, Claire (GOV); Wisniewski, Wendy (GOV); Saxton, Thomas (Treasury); Koryzno, Edward (Treasury); Durfee, Sally (TREASURY)
Subject: FW: Local Government Memo and Summary
Attachments: Gov Memo August 2015.docx; 201508_436Summary.docx

Governor Snyder, Attached is the latest update on distressed local governments along with a summary table. We can discuss in detail during our Tuesday briefing. Thank you, Wayne

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



STATE OF MICHIGAN
DEPARTMENT OF TREASURY

RICK SNYDER
GOVERNOR

NICK A. KHOURI
STATE TREASURER

DATE: August 14, 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

- A four-month plan has been developed, listing the priorities to be accomplished for the remainder of EM Coulter's term and beyond.
- The city is contemplating a lawsuit against the pension funds' actuary.
- PA 345 pension system millage of six mills will be on the November 2015 ballot. This is the second time PA 345 is going before Lincoln Park voters.
- The city ended FY 15 with an estimated \$100K General Fund operating surplus. The city has a General Fund deficit from previous years. EM Coulter will be submitting a Deficit Elimination Plan to Treasury.
- 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 were implemented in July 2015 and will reduce annual retiree healthcare costs from \$4.1M to \$600K.
- On August 10, 2015, the Lincoln Park Retiree Associations filed a lawsuit against the State of Michigan, Department of Treasury, and the City of Lincoln Park regarding the reduction of city retiree healthcare.
- Mathew Coppler, City Manager of Enfield, Connecticut, accepted the position of City Manager. His contract has been finalized and he will begin work October 1, 2015.

Lincoln Park (continued)

Significant Actions/Issues

- FY 15 ended with a General Fund accumulated deficit of \$636K, 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.
- Last May voters rejected the Firefighters and Police Officers Retirement Act proposal 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. A request for up to six mills per year to fund public safety pensions will be placed on the November ballot.

Issues to Resolve before EM Exit

- Increase and stabilize pension funding levels.
- Permanently eliminate structural deficit for future fiscal years.

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

- The Detroit City Council reconsidered the Detroit Water and Sewerage Department's proposed FY 16 water and sewer rate increase and approved it on July 21, 2015. This action eliminated a potential budget deficit, which was a concern raised by the State Treasurer in his July 2, 2015 letter to the city.
- The city issued its FY 14 Comprehensive Annual Financial Report (CAFR) on June 30, 2015 (following two three-month extensions granted by the State Treasurer). The city continued to have a deficit for FY 14 as that year closed prior to the bankruptcy confirmation in December 2014. The city expects to report a surplus in its FY 15 CAFR, which is currently underway and expected to be completed no later than March 2016.
- At the FRC's July 27, 2015 meeting, the city indicated it would reduce its bankruptcy exit financing debt by \$30M (from \$275M to \$245M) prior to its scheduled syndication in mid-August. The State Treasurer and FRC Executive Director are participating in the city's rating agency and investor presentations to discuss the State's oversight role.
- On July 29 and July 30, 2015, the city received its first post-bankruptcy credit ratings from S&P and Moody's. Only S&P rated the city's exit financing, for which it received an investment-grade "A" rating, with a stable outlook. The exit financing is secured by a statutory lien on city income tax revenue. Both rating agencies provided the city with updated underlying General Obligation (GO) ratings. S&P assigned a "B" rating, with a stable outlook. Moody's upgraded the city from "B3" to "B2," with a positive outlook.

Detroit (continued)

Significant Action/Issues

- The first statutorily required biannual report on Detroit was filed by the 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 has approved a new, four-year collective bargaining agreement with the police bargaining unit. Treasury reviewed the tentative agreements and had a number of concerns with the terms including the identification of over \$237K in increased costs in Year 1. Despite these concerns, the RTAB voted 2 to 1 to ratify the approval of these collective bargaining agreements.
- The city wishes to seek bids for retiree health insurance coverage after being informed by Blue Cross that a 23% rate increase of \$644K will become effective October 1, 2015. The RTAB has approved this request and Treasury is working with the city to identify potential legal ramifications in the lawsuit with retirees if coverage is changed to a new provider.
- The city was informed by Blue Cross that a billing oversight has resulted in the city underpaying for insurance coverage for retirees in the amount of \$853K.
- The city received a \$1.2M Staffing for Adequate Fire and Emergency Response Grant, which will allow them to retain six firefighters over the next two years.
- On May 15, 2015, an updated five-year budget projection from the city was received. The RTAB approved this item on August 5, 2015.
- The RTAB approved the hiring of a professional search firm to assist with finding qualified City Administrator candidates. Treasury is participating in the selection process. The City Council will be interviewing the finalists for the position in August 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 downgrade of these bonds is similar to the rating by Standard and Poor's on the City of Detroit's DWSD tender refinancing.

Allen Park (continued)

Recent Developments (continued)

- 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. A Settlement Conference was held between all parties on July 20, 2015, but no resolution was achieved. The court has ordered mediation proceedings.
- The city's current budget is balanced.

Significant Actions/Issues

- The city completed its move to a new temporary City Hall on June 8, 2015.
- The City Council adopted the FY 16 Budget on May 26, 2015, and the RTAB approved this action on June 3, 2015.
- Inquiries are being made to add one member to the RTAB.
- 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

- On August 3, 2015, the City Commission adopted a resolution requesting a hearing with the Department of Treasury to discuss financial assistance for decisions made during the tenure of emergency managers that resulted in legal fees and settlement costs.
- TAt-Large Commissioner Mary Donald passed away on June 12, 2015. On August 10, 2015, the City Commission appointed Edward Isom to finish her unexpired term, which ends December 31, 2015. On August 11, 2015, the RTAB approved the appointment.
- The first annual evaluation from the RTAB was conducted on July 29, 2015. It will be sent to the RTAB for review.
- The City Commission adopted the FY 16 Budget on June 15, 2015. The RTAB approved this action on June 22, 2015.

Significant Actions/Issues

- FY 14 audited General Fund revenues exceed expenditures by \$1M, out of a total budget of \$6.1M.
- Former Benton Harbor Public Safety Director Roger Lange brought a Whistleblower and Elliot Larson Civil Rights case against the City of Benton Harbor and former EM Tony Saunders. Mediation took place on July 17, 2015, with Jon March of Miller Johnson serving as the mediator. No settlement was reached.

Ecorse

RTAB Appointed: May 1, 2013

RTAB Members: Edward Koryzno, Robert Bovitz, Joyce Parker

Recent Developments

- The city has completed a balanced five-year financial plan. One challenge includes the outsourcing of fire services which must be realized soon to keep the financial plan solvent. This is the first time the city has proposed a viable path out of receivership.
- The degree of State oversight may be reduced if the city can convincingly show a commitment to the cost saving measures they have promised.
- The RTAB approved the city's choice for city controller at the August meeting. Tim Sadowski will commence work later this month.
- 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.
- On May 12, 2015, the RTAB approved a narrowly balanced FY 16 Budget. To balance the budget, the city increased an existing PA 33 levy by approximately 15 mills.

Flint

RTAB Appointed: April 29, 2015

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

Recent Developments

- At a special meeting held on August 11, 2015, the City Council approved the transfer of \$323K from the Fire Department to the Police Department to hire five additional patrol officers. The RTAB approved this transfer on August 12, 2015.
- On August 7, 2015, Genesee County Circuit Court invalidated the city's 35 percent water and sewer rate increases which were reverted back to 2011 rates. This decision could potentially cost the City's General Fund up to \$50M. The city expects to receive a final order from the Circuit Court on August 17, 2015, and is prepared to file an emergency appeal to the Court of Appeals. The City Administrator has instituted hiring and spending freezes across all departments, and Treasury is working with the city to identify the impact from this decision.
- In addition, on August 7, 2015, Genesee County Circuit Judge Archie Hayman issued an emergency injunction that prevents the city from further charging water service fees, instituted on all water bills to recoup funds used to settle a 2007 lawsuit. The ruling requires the city to repay \$15.7M from the General Fund to the Water Fund. The ruling also prohibits the city from disconnecting water service for late payment and prevents the city from placing liens on property for past due water bills. The city plans to appeal this decision.

Flint (continued)

Recent Developments (continued)

- 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 denied the budget amendment at their July 15, 2015 meeting because the City Council also approved the use of \$200K of the city's \$495K General Fund balance for grass and weed abatement throughout the city. The City Council reconsidered and adopted the budget amendments, which were approved by the RTAB on August 12, 2015. The City Administrator has also developed a plan to allocate additional resources toward grass and weed abatement.
- On July 15, 2015, the RTAB approved the issuance of an Obsolete Property Rehabilitation Act (OPRA) certificate for a downtown property. The City Council had initially rejected issuance of the OPRA certificate but an EM Order permits the RTAB to make the final determination on economic development projects.
- On July 15, 2015, the RTAB also approved ballot language for the renewal of the Regional Flint Mass Transportation Authority millage. The renewal is proposed for five years at the current 0.6 mills per year. This proposal will appear on the November 2015 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. Another lawsuit to force the city to purchase water from the City of Detroit was filed in Genesee County Circuit Court on July 16, 2015.
- The city's Economic and Community Development Director is leaving in August 2015. Current staffing vacancies also include the City Treasurer and the Human Resources Director.
- 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 is preparing to issue 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 installed a \$1.5M granulated active-charcoal filter to improve water quality. All twelve filters are completely installed and will be in use by August 17, 2015.
- The city hired Echologics at a cost of \$895,850 to perform a leak detection study. This project commenced on August 10, 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.

Flint (continued)

Significant Actions/Issues

- 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.
- 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 EM raised water and sewer rates in 2011.
- 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 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.
- The City is pursuing a third party police study which will help administrators reduce the overtime rates.
- A contractor is reassessing both residential and commercial properties.

Significant Actions/Issues

- The City Council adopted the FY 16 Budget on June 17, 2015. The RTAB approved this action on June 23, 2015. The city has also developed a long-term capital improvement plan.
- 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 EM two-year budget.

Pontiac

RTAB Appointed: August 19, 2013

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

Recent Developments

- On July 18, 2015, the City Council approved the recommendation of the Local Officer Compensation Commission to increase Council's compensation from \$7K to \$15K. The RTAB approved this action on July 27, 2015.
- Interviews for the Deputy Mayor position are being held in August 2015.
- 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.

Pontiac (continued)

Significant Actions/Issues

- 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.
- 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 & Company 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 has withdrawn its pension assets from Gray & Company controlled funds.
- 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.
- 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

- On August 3, 2015, the Inkster City Council voted to change the employment status of City Manager Richard Marsh to Special Advisor to the city. The City Council named City Treasurer Mark Stuhldreher to the position of Interim City Manager. A search firm will conduct a national search to fill the City Manager's position.
- The City Manager with the approval of the City Treasurer, hired William Riley, Police Chief of Selma, Alabama, to the position of Police Chief. Mr. Riley's start date was August 10, 2015.
- On June 29, 2015, a tentative 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. The city would like to postpone the levy until 2016 and are in discussions with Wayne County.
- The city is collaborating with MSHDA and MEDC to seek new housing developments and development of several vacant commercial parcels.

Inkster (continued)

Significant Actions/Issues

- The City Council approved the FY 16 Budget on May 18, 2015.
- 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.
- On June 29, 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.

River Rouge

Date Executed: December 15, 2009

Consent Agreement Consultant: N/A (PA 72)

Significant Actions/Issues

- A fire union collective bargaining agreement was approved in March, resulting in a reduction in healthcare costs.
- The city adopted its FY 16 Budget on May 19, 2015. The budget is balanced and has a beginning fund balance of \$1,967,613. 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.

Royal Oak Township

Effective Date: April 21, 2014

Consent Agreement Consultant: Robert Burgess

Recent Developments

- On August 4, 2015, voters approved a renewal of 4.5 mills for general operations.
- The township audit was completed. The auditors recommended that the township submit a Deficit Elimination Plan for 2014, select a firm to advise the Township on financial matters and perform an inventory of assets.
- 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.
- 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.

Significant Actions/Issues

- The Michigan State Police continues to provide police services to the township.
- 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.

NEUTRAL EVALUATION

Highland Park

Financial Review Team Appointed: December 2, 2013

Financial Emergency Declared: January 30, 2014

PA 436 Option Selected: Neutral Evaluation

Recent Developments

- On August 11, 2015, a report was issued by Meadowbrook Insurance on the progress of reducing the City's healthcare costs. When successfully implemented after October 1, 2015, the \$1.4M annual cost of healthcare could be reduced to \$630K.
- On July 6, 2015, Wade Trim began duties to operate and maintain the water and sewer systems.
- Louis Schimmel was hired on June 29, 2015, to provide consulting services regarding water and sewer issues.
- On July 31, 2015, the water and sewer amnesty program expired. City Administrator Cathy Square stated the city will work with customers to settle their past due accounts.
- The second phase of emergency loans is tentatively scheduled to take place on September 24, 2015. It would consist of approximately \$4.7M to restructure the city's three outstanding emergency loans and \$11.5M to refinance outstanding debt.
- The city has purchased the first quantity of water meters at a cost of \$343K.
- The city issued an RFP in July to contract-out the collection of past due water and sewer bills from residential and commercial customers.

Significant Actions/Issues

- On June 29, 2015, the City Council approved a substantial increase in water and sewer rates which will allow the city to fund water and sewer operations.
- 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.
- 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 July 21, 2015, the Review Team reported to the Governor that a financial emergency existed in the County.
- On July 22, 2015, the Governor confirmed the finding of a financial emergency in Wayne County. The County did not request a hearing on the findings as provided for in Public Act 436 of 2012, the Local Financial Stability and Choice Act.
- On August 6, 2015, the County Commissioners voted to choose the option of a consent agreement to address its financial emergency.
- On August 13, 2015, the County Board approved the Consent Agreement negotiated between the County Executive and State Treasurer.

Significant Actions/Issues

- 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, Treasury 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.
- 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.

**SCHEDULE OF WATER RATES & CHARGES
EFFECTIVE FOR BILLS ISSUED AFTER AUGUST 17, 2015**

WATER CONSUMPTION RATES

Metered Water

Rates per 100 cubic feet (ccf)	Rates Effective July 1, 2014		Adjusted Rates per Court Order (8/17/2015)	
	Inside City Rate	Outside City Rate	Inside City Rate	Outside City Rate
Through 35 ccf	7.920	11.880	6.187	9.285
Next 1,965 ccf	7.620	11.420	5.935	8.939
Over 2,000 ccf	6.090	9.140	4.755	7.140

WATER MONTHLY SERVICE CHARGES

Remote Meter Monthly Charge

Meter Size	Rates Effective July 1, 2014		Rates Effective July 1, 2014	
	Inside City Charge	Outside City Charge	Inside City Rate	Outside City Rate
5/8"	22.900	34.170	22.900	34.170
3/4"	44.030	65.950	44.030	65.950
1"	58.150	87.080	58.150	87.080
1-1/2"	58.150	87.080	58.150	87.080
2"	58.150	87.080	58.150	87.080

Commercial & Industrial Monthly Charge

Meter Size	Rates Effective July 1, 2014		Rates Effective July 1, 2014	
	Inside City Charge	Outside City Charge	Inside City Rate	Outside City Rate
5/8"	55.790	83.740	55.790	83.740
3/4"	64.020	95.840	64.020	95.840
1"	78.480	117.740	78.480	117.740
1-1/2"	112.600	169.060	112.600	169.060
2"	157.400	236.260	157.400	236.260
3"	310.830	468.650	310.830	468.650
4"	547.050	820.710	547.050	820.710
6"	1,075.750	1,613.340	1,075.750	1,613.340
8"	1,560.050	2,340.240	1,560.050	2,340.240
10"	2,153.480	3,247.300	2,153.480	3,247.300
12"	2,605.310	3,907.770	2,605.310	3,907.770
16"	3,242.250	4,863.280	3,242.250	4,863.280
20"	3,501.980	5,709.670	3,501.980	5,709.670

1000/customer @ 31/month for 32 months
58/month for 32 months = \$55 million

SCHEDULE OF SEWER RATES & CHARGES
EFFECTIVE FOR BILLS ISSUED AFTER AUGUST 17, 2015

SEWAGE FLOW RATES

Residential Sewage Flow Rates

	Rates Effective July 1, 2014		Adjusted Rates per Court Order (8/17/2015)	
	Inside City Rate	Outside City Rate	Inside City Rate	Outside City Rate
Rate per 100 cubic feet (ccf) (Based upon metered water)	5 170	5 680	4 312	4 735

Commercial & Industrial Waste Rates

	Rates Effective July 1, 2014		Adjusted Rates per Court Order (8/17/2015)	
	Inside City Rate	Outside City Rate	Inside City Rate	Outside City Rate
Volume (per 100 cubic feet)	1 930	2 189	1 609	1 829
Suspended Solids (per pound)	0 591	0 589	0 493	0 489
Biological/Chemical Oxygen Demand (per pound)	1 257	1 410	1 048	1 180
Phosphorus (per pound)	1 781	1 809	1 485	1 509
Industrial Charge (per 100 cubic feet)	0 032	0 032	0 032	0 032

Wholesale Rates

Beecher Metro District Rate

SEWER MONTHLY SERVICE CHARGE

Residential - Remote Read Meter Charge

Meter Size	Rates Effective July 1, 2014		Rates Effective July 1, 2014	
	Inside City Charge	Outside City Charge	Inside City Charge	Outside City Charge
5/8"	34 480	44 190	34 480	44 190
3/4"	50 560	60 350	50 560	60 350
1"	70 410	82 960	70 410	82 960
1-1/2"	70 410	82 960	70 410	82 960
2"	70 410	82 960	70 410	82 960

Commercial & Industrial Charge

Meter Size	Rates Effective July 1, 2014		Rates Effective July 1, 2014	
	Inside City Charge	Outside City Charge	Inside City Charge	Outside City Charge
5/8"	55 900	62 570	55 900	62 570
3/4"	69 370	79 260	69 370	79 260
1"	91 200	105 560	91 200	105 560
1-1/2"	148 400	177 430	148 400	177 430
2"	211 190	250 240	211 190	250 240
3"	471 620	562 930	471 620	562 930
4"	777 140	953 890	777 140	953 890
6"	1,571 800	1,905 740	1,571 800	1,905 740
8"	2,312 790	2,849 270	2,312 790	2,849 270
10"	3,141 970	3,792 410	3,141 970	3,792 410
12"	3,688 720	4,449 170	3,688 720	4,449 170
16"	4,870 530	5,919 110	4,870 530	5,919 110
20"	5,734 960	7,032 440	5,734 960	7,032 440

Weekly Conference Call Notes – August 17, 2015

Allen Park –August 14 –B. Cady, E. Cline, P. Dostine

- **Weekly Priorities/Misc:**
 - Started construction on Park Street; grant funds are being used for this.
 - Water/sewer rate study has been completed. Rates will increase 6-7% over the next 5-6 years. The fund balance is currently around \$450K; an increase is necessary to build it up.
 - The City is working on closing the FY 2015 books, doing journal entries and preparing for the annual audit.
 - New gas pumps were installed at the DPW yard.
 - Making ice at the arena.
 - Council approved policy to sell approximately 35 residential and commercial lots that have been off the tax roll for years. This will be presented at the next RTAB meeting.
- **Humana/Prescription Drug Coverage/Retiree Healthcare**
 - Disruption report for drug coverage has been completed and forwarded to Humara.
 - According to Cady, there is no difference between the BCBS and Humana policies besides a cost savings to the City.
 - A bid went out for health coverage for active employees and retirees under 65. No provider wants to bid on this. If a cheaper provider cannot be identified, the City will self-insure.
 - Currently, there are 106 active members; 97 under 65 (29 single, 37 married, 35 families).
- **TPOAM Contract**
 - Simple contract. "Union didn't ask for much, AP didn't give them much."
 - 90-95% of the cost related to the 2.5% annual raise over four years.
 - \$80 for boots.
 - No FAC or pension changes.
- **Fire Contract:**
 - Two issues remain unsettled: duty-disability and the desire to have a voting member on the pension board.
 - Holiday pay and shift differential issues have been settled.
 - Cady committed to sending Treasury a final draft of the fire contract before Council approves it.
- **Gaydos Lawsuit:**
 - The plaintiff was awarded \$750K and the retiree healthcare plan; whatever the level coverage is when they reach 52.
 - The City will pay \$600K out of their fund balance; MML will pay the remainder.
- **Bond Tender:**
 - Launch was expected August 14 at 4:30.

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 – August 12 – N. Henderson, J. Freeman, Mayor Walling, P. Dostine, E. Cline, C. Porubsky

- **Councilman Kincaid's Lawsuit:**
 - Order should be finalized Monday, financial obligation should still be the same.
 - City attorneys have already prepared an appeal.
 - \$15.7M direct impact to GF – ordered to pay back to Sewer fund.
 - \$12M per year, 2011-present.
 - City Attorney has reached out to the AG's office.
 - CSR are not needed as no one is paying their water bill.
 - Hiring/spending freeze has already been implemented.
- **Police:**
 - Met with MSP Col. Etue Monday morning.
 - Found money to supplement manpower, would like to present budget amendment to RTAB today. Natasha will forward document after call.
 - Eleven homicides in two weeks.
- **Water Quality:**
 - People have noticed higher chlorine level – water is cleaner.

Hamtramck – July 30 – K. Powell, R. Byrne, P. Dostine, D. Van de Grift

- **Absentee Ballots:**
 - There is reason to believe that a portion of absentee ballots received for the upcoming election are fraudulent. Hundreds of ballots have been returned, many with similar-looking signatures. The Hamtramck Police are currently involved; Katrina may also call the FBI.
- **Sewer:**

- Katrina and the Finance Director spoke with S&P regarding the bond ratings for the sewer project. Their response was “not positive”, but another discussion is scheduled for August 11. If worse comes to worse, the City may have to pledge its general revenue sharing.
- **Police Study Update/Meeting with the Wayne County Sheriff:**
 - Katrina recently met with the Wayne County Sheriff and would like to negotiate that they take over the intake and processing of Hamtramck prisoners. Currently, higher-ranking City police are performing these tasks; Katrina would rather have them patrolling the streets.
 - As the City pays three different taxes to the County, including the jail millage; Katrina feels that the Sheriff’s Office should be responsible for this or reimburse the City for their cost.
 - A meeting is scheduled with the Sheriff and Wayne County Executive to further discuss this matter. Katrina stated that the Sheriff is sympathetic to her concerns.
- **Reassessment of Parcels:**
 - The City Assessor hired a contractor to reassess the City’s residential and commercial properties. The project is moving along well.
- **Meetings with Councilmembers:**
 - Katrina will schedule meetings with Randy and Eric.

Inkster – August 13 – M. Stuhldreher, R. Byrne, P. Dostine, C. Porubsky

- **Priorities/Misc.:**
 - DOJ employee came in to facilitate community group (resulted from Dent situation).
 - Richard Marsh is transitioning; Mark is getting used to new position/role.
 - Meeting with MSHDA on Monday; Mark will be in attendance.
 - Discussion will take place Monday at the Council meeting regarding Mark’s role as Interim City Manager.
 - Final billing for search has been processed.
 - Police training is needed, but it is hard to send as they are short-staffed. Randy suggested contacting Capt. Yes.
 - TIFA is declining; Mark will have to get money from GF. Debt was issued in 2010 and has about 20 years left. This was in the long-term forecast and is not a surprise. Initial projections were at 4-5%, actual rate of decline was 8-9%.
- **Police Chief:**
 - Started Monday. Interim Chief Thomas is completely separated from the agency now, but the two were able to spend some time together.
 - To Mark’s knowledge, the Chief has not met Captain Yesh yet, but has met some MSP members, include Lt. Shaw.
 - Mark stated that the new Chief is straightforward, about business, articulate, and has good people skills. Expects that the community will embrace him.
 - Randy would like to meet the new Chief and see the building.
- **Chargebacks:**
 - Came back lower than budgeted.
 - \$300K positive variance on GF, \$100K negative on Sewer; everything together is \$213K positive variance.

Lincoln Park – July 29 – B. Coulter, P. Dostine, D. Van de Grift

- **FAC & Wayne County Future Road Projects:**
 - Brad and the DPW Director will begin attending these meetings.
- **New City Manager:**
 - Mr. Coppler will start October 1. Brad has started forwarding informational emails to begin the acclimation process.
- **Five-Year Plan/90-Day Plan:**
 - Both will be submitted soon; the five-year is nearly complete.
 - Projected fund balance this year is \$100K, \$500K-\$700K for next year, and \$400K-\$500K the year after.
 - If the projected fund balances don't materialize, there are areas that can be modified to reduce expenses. The fire contract allows for modification, first responders could be eliminated, FTEs could be reduced from 18, police shifts could be shortened, and could begin charging for HazMat cleanups.
 - Healthcare costs were decreased by \$600K this year.
 - If pension payments cannot be made, a judgement levy should be considered.
- **Order Concerning the New City Manager:**
 - Brad will add language to the Final Order detailing the City Manager's authority.
- **Rental & Vacant Property Ordinances:**
 - Two ordinances, will help to control/monitor the number of rental/vacant properties in the City; this will hopefully help stabilize and perhaps increase property values.
 - It is estimated that between 6-15% of properties in the City are currently vacant.
- **TJ Adams Final Invoice:**
 - The final invoice for the City Manager search will be forwarded to Treasury.
- **Gabriel, Roeder, Smith & Co:**
 - The City is considering filing for the full amount of pension underfunding, \$90M.
 - Legal fees would range from \$75K-\$100K.
 - May or may not be a good risk to take.

Pontiac – August 14 – Mayor Waterman, J. Sobota, E. Cline, R. Widigan, C. Porubsky

- **Weekly Priorities:**
 - Working on the blight court ordinance.
 - The Mayor is working on educational opportunities for Council and department heads.
 - At last night's Council meeting, there was concern regarding budgeted projects that will not be moving forward as planned due to issues with obtaining an engineering firm.
 - Possible DEQ violations – Sobota is meeting with the engineering firm to resolve.
- **Deputy Mayor Position:**
 - Moving ahead; setting up a date to meet with Council.
 - The Mayor does not want to move forward with this position until the Community Development positions are moving forward as well.
- **Phoenix Center:**

- The Mayor met with attorneys; an outline has been drafted as to where the City is at in the process.
- Waiting on information from the Ottawa Towers owner.
- **Community Development Positions:**
 - The Mayor wants to post these positions along with the Deputy Mayor.
 - Treasury is looking to see if the salaries for these positions was approved by the RTAB.
- **Two-Year Rolling Budget:**
 - Council is working on a budget amendment, will be sent to the RTAB in September.
 - Will address the two Community Development positions.

Royal Oak Township – July 27 – R. Burgess, D. Squalls, R. Byrne, P. Dostine, C. Porubsky

- **Priorities for the Week/Miscellaneous Items:**
 - Set up meetings for this week or next with potential developers.
 - Code enforcement officers currently have dealership in court over taxes – Donna thinks the best scenario would be for someone to buy both the dealership and motel next to it and demolish the motel.
 - Donna: Finish F&O Plan.
 - Robert: Spoke with Finance on Thursday, need a cash flow analysis for the remainder of the year and to create an amended budget.
 - Current on all bills with the exception of one.
 - Revenue sharing is anticipated to be the only income, but Robert thinks there is enough money to make it thru the year.
 - Randy reminded the Twp. that a monthly financial report is required.
 - General fund renewal is on the ballot August 4; Donna and Robert would like to send a flyer out. Randy cautioned them on the wording
- **Audit:**
 - Completed; Donna said that it was better than last years' and didn't highlight many problems.
 - Robert stated that one of the things the audit noted was that an inventory needed to be completed.
 - Donna wanted to know if the Board had to approve the audit – Randy said to ask Mr. Wilkerson.
- **Police Update**
 - Donna will know soon after August 4 (election) more regarding Hazel Park.
 - Oak Park is not interested; very short meeting where annexation was suggested.
 - Ferndale: Over \$1M, have not talked to.
 - Deadline is August 31; if not completed money will need to be returned.
- **Street Lighting:**
 - Completed last Friday, grant should close this week.
 - A rebate of \$9700 is anticipated.
 - Bills should start being lower in September; the entire \$10K budgeted for these may not be needed.

Pleyte, Beth (Treasury)

From: Wurfel, Brad (DEQ)
Sent: Monday, August 17, 2015 2:47 PM
To: Muchmore, Dennis (GOV); Murray, David (GOV); Agen, Jarrod (GOV); Hollins, Harvey (GOV); Saxton, Thomas (Treasury)
Cc: Stanton, Terry A. (Treasury); Smith, Jennifer (DCH)
Subject: FW: Flint Lead Monitoring Letter
Attachments: City of Flint PbCu15 8_17_15.pdf

Heads up, here is a communication headed for Flint regarding lead & copper testing of their system and the need for 'optimizing' their treatment.

Good News: Based on two rounds of testing, they pass inspection for lead and copper.

Next News (there's no bad news here): They still need to provide a plan to optimize their treatment. This usually means adding phosphate to the water to minimize corrosion.

If you have questions, I'm happy to address them.

Thanks!

b

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

From: Busch, Stephen (DEQ)
Sent: Monday, August 17, 2015 2:36 PM
To: Wurfel, Brad (DEQ)
Cc: Sygo, Jim (DEQ); Benzie, Richard (DEQ); Cook, Pat (DEQ); Prysby, Mike (DEQ); Rosenthal, Adam (DEQ); Pallone, Maggie (DEQ); Shekter Smith, Liane (DEQ)
Subject: Flint Lead Monitoring Letter

Brad,

As there has been much interest regarding lead related to Flint drinking water, I have attached our latest letter which covers the most recent January – June 2015 monitoring period. The City is in compliance with the 15 part per billion action level for lead. Yet based on these results, the treatment cannot be deemed to provide fully optimized corrosion control treatment, and the City will need to recommend additional treatment to achieve this optimization under the Lead and Copper Rule requirements established under the Michigan Safe Drinking Water Act. This is all spelled out in the attached letter.

If you have any questions or would like any additional information you may contact me at the number below.

Stephen Busch, P.E.



RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING DISTRICT OFFICE



DAN WYANT
DIRECTOR

August 17, 2015

Mr. Brent Wright
City of Flint - DPW
Flint Water Plant
4500 North Dort Highway
Flint, Michigan 48505

Dear Mr. Wright:

SUBJECT: Flint, City of WSSN: 02310
Lead and Copper Monitoring of Drinking Water Taps

The Department of Environmental Quality (DEQ), Office of Drinking Water and Municipal Assistance (ODWMA), received your report for the monitoring period January 1, 2015, through June 30, 2015.

Action Levels	Results this monitoring period			
	90th Percentile	# of Samples Above Action Level	# of Samples Required	# of Samples Collected
Lead 15 parts per billion (ppb)	11 ppb	6	60	69
Copper 1.3 parts per million (ppm)	0.16 ppm	0	60	69

Ninety percent or more of the sites you tested are within action levels under the administrative rules promulgated under the Michigan Safe Drinking Water Act, 1976 PA 399, as amended (Act 399). These results must be reported on your 2015 Consumer Confidence Report (CCR) due to our office, your customers, and the local health department, by July 1, 2016. Also include the following statement in the CCR, regardless of the lead and copper levels:

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Flint is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at 1-800-426-4791 or at <http://www.water.epa.gov/drink/info/lead>.

Recent changes to the Lead and Copper Rule (LCR) require the water supply to provide individual lead tap results to people who receive water from sites that were sampled, even if lead was not detected, within 30 days of learning of results. You must also send us a certification that you met all the delivery requirements along with a sample copy of your customer notice by three months after the end of the monitoring period. To download the *Lead and Copper Report and Consumer Notice of Lead Result Certificate* in Microsoft Word or PDF format, visit <http://www.michigan.gov/deq>. Click on Water, Drinking Water, Community Water Supply, and Reporting Forms under the Manuals, Forms and Brochures heading. Water supplies that fail to distribute the Consumer Notice of Lead Results must include the following statement in their CCR, "During the year, we failed to provide lead results to persons served at the sites that were tested as required by the Lead and Copper Rule."

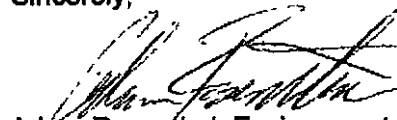
While the City's LCR compliance monitoring has continued to meet action level requirements, the LCR also requires all large systems (those serving over 50,000 people) to optimize corrosion control regardless of their 90th percentile lead concentration. One way to demonstrate fully optimized corrosion control treatment is through two consecutive six month rounds of LCR compliance monitoring in which the difference between the 90th percentile level and the highest source water lead concentration is less than the Practical Quantitative Level for lead (0.005 milligrams per liter). Since the City did not meet these criteria in both the July – December 2014, and January – June 2015, sampling periods, the City must now recommend a treatment to fully optimize corrosion control treatment within six months in accordance with requirements under Act 399, Administrative Rule 604f (R 325.10604f). **This recommendation must be provided to our office as soon as possible, but no later than January 1, 2016.**

However, given the past use of phosphate treatment by the Detroit Water and Sewerage Department (DWSD) to fully optimize corrosion control treatment when the City was a wholesale customer of DWSD, the ODWMA recommends the City select this as its recommended treatment option, and begin implementation as soon as possible to address ongoing concerns by customers regarding lead levels within their premise plumbing systems. Under the second step of this Rule, the DEQ can specify optimal corrosion control treatment.

Our office will inform you when monitoring needs to be conducted as part of the optimization of the implemented corrosion control treatment. Customer requested samples for lead shall continue to be collected and analyzed. Please make every attempt to select the same sites used in the previous monitoring period, giving Tier 1 sites first priority. If original sites are unavailable, select replacement sites based on the Tier 1, 2, and 3 criteria.

Please contact me at 517-284-6644 or rosenthala@michigan.gov at your earliest convenience to discuss how the City will be complying with the above requirements.

Sincerely,



Adam Rosenthal, Environmental Quality Analyst
Lansing District Office
Office of Drinking Water and Municipal Assistance

cc: Mr. Michael Glasgow, City of Flint

Weekly Critical Issues —August 24, 2015

- **Allen Park**— Tender Offer was launched, in three weeks we will know the result. Discussions with leading candidate did not work out due to cost which means Mr. Kibby will be likely choice. City Council wants to appoint a CA in August or early September. We have several names for serving on the RTAB. The revised draft EM Order on the sale of City Hall property has been prepared by Eric, it includes an appraisal and a survey. Gatos vs Allen Park \$600K City and \$150 K from the MML Insurance Pool. City intends to pay lawsuit cost out of their fund balance. I asked Mr. Cady to advise us on the new GF balance.
- **Benton Harbor**-The lawsuit with the former Public Safety Director and two former employees is a major issue for the City. Darwin has indicated that it will cost the City \$1M to settle these three cases. They are only partially insured. Commissioner Muhammad is responsible for the City Commission approving a resolution seeking a meeting with Treasury to discuss reimbursement of all costs associated the tenure of the EM's. See Eric's notes from our meeting with City Commission members. Filling of key positions is proving to be a real issue in the City. Darwin has scheduled a meeting to discuss the interim Finance Director's position with Al Mooney. I have offered financial assistance for a search for a Finance Director. The Assistant City Manager position will be reduced to part-time due to commuting distance.
- **Ecorse** – Fire fighters were at the City Council meeting last week complaining about discussions with River Rouge on fire service. They received and filed the Memo from Treasury. The City wants to hire the Pentiuk Law Firm. We have several names for filling the RTAB position.
- **Flint** – Lawsuit on water rates may cause the City to rebate \$51M and repay \$15.7M, water system issues are getting resolved. I have offered financial assistance to the City to assist in determining the financial impact of this court decision. The City has funding to hire five police officers and to place five candidates into the police academy.
- **Hamtramck**-We have several names for the RTAB position to replace Cathy. The pension study payment is in your in box. I am requesting that Segal move from Phase 1 into Phase 3. The City has prepared an RFP for audit services. Katrina wants to reorganize staff.
- **Highland Park**-The City has had difficulty finding a collection firm to collect the past due water and sewer bills, Cathy has one firm that is interested. Finding a collection firm is a requirement of the loan agreement. Cathy has indicated that the OPEB savings of approximately \$750K will not be implemented until October 1. The E-loan closing is one month away. Drew and Valerie are working with the AG's office to draft the agreement. We have a number of loan requirements that we are discussing, I have a meeting with Wayne this morning. The City has purchased \$300,000 of new water meters as part to the FDCVT grant award. DWSD and GLWA have approved a draft agreement regarding the City's debt to DWSD. Brian Lefler is preparing a financial analysis of the agreement for the City. City Council approval is likely in next two weeks.
- **Lincoln Park**-Brad is placing a PA 345 request on the November Ballot seeking approval of 6 mills to fund the City's pension system. Brad has prepared a four month plan which is being reviewed. Matt Coppler, CM of Enfield Connecticut will be the new City Manager. He will begin his duties in late September.

- **Inkster**—The new police chief, William Riley is on the job. Mark Stuhldreher was appointed as interim City Manager. Former CM Richard Marsh accepted a buyout and is now Special Advisor to the City. He will be working with Treasury, MEDC, and MSHDA on several development projects. Patrick has been assigned to assist on these projects as well. The City won its appeal on the water billing lawsuit. City will probably stop the credit to water and sewer customers. The City is negotiating with Wayne County on its \$4.9M sewer debt. A judgement levy for several years will be placed on the July tax roll.
- **Pontiac**—The Mayor has three Deputy Mayor Candidates, she is planning a one on one with each person and an interview with the City Council. We are discussing the exit plan. Jerry Ambrose will be hired as a transition advisor to the Mayor. Meeting in early September regarding the City and School District property on Woodward Avenue.
- **River Rouge**—the five year financial plan will have to be balanced in order to discuss an exit from the Consent Agreement, The City's plan for taking over fire service for the City of Ecorse is on hold for now. The Mayor believes the City may save up to \$1M on health insurance changes.
- **Royal Oak Township**— police service proposal from another community has been a problem. Additional discussions with Ferndale, Oak Park, and Hazel Park are planned. The FDCVT grant for police will expire at the end of the month. We have received Robert's six month plan and are reviewing it. He has sent a letter to the accounting firm advising them that their work has been terminated. Robert says that they won't have a deficit at the end of the year. The MERS issue has resurfaced, Robert wants to have a discussion with MERS to determine if they will take the \$600K back.
- **Miscellaneous Items**— Work is progressing on draft Consent Agreement template, the RTAB manual and the exit plan for Pontiac. I would like to discuss the status of Lansing, Harper Woods, Bangor, and Melvindale with you. I would like to discuss staffing with you as well.

Flint – August 26, N. Henderson, F. Headen, R. Byrne, E. Cline, P. Dostine

- **Priorities**
 - Flint's been highly focused on the Court Order about water/sewer.
 - Flint is hoping for an appellate stay ...
 - However, the city has already prepared bills that reflect the Court Order: 35% decrease in rate will go out on next billing.
 - Flint has also suspended all CIPs. That saves approximately \$7M.
 - 14 water/sewer positions have been frozen, that saves \$1M.
 - Flint estimates that approximately 70 different customers per day stop paying their bills. Which amounts to \$70K loss per day.
 - By the end of this week, Henderson said the city will have a better handle on the cost to the Water/Sewer fund from customers opting out to pay current bills.
 - Henderson said the city's plan is if the stay is granted, Flint would reinstate the 35% rate increase immediately. And the city would not escrow that increase because the revenue is needed to operate the department, resume the CIP plan, hiring personnel, etc.
- **Unpaid Water/Sewer Bills. Implications for cash flow, fund solvency**
 - Henderson said if customers keep refusing to pay and the new billing goes out with the 35% reduction, the Water/Sewer fund may possibly stay solvent and operate through the fiscal year.
 - \$85M is the estimated cost to the city if it loses the appeal. This doesn't include the \$15.7M the Order says is owed to Water/Sewer fund.
- **KWA Bond Payment**
 - In FY 16, Flint must make \$6M bond payment to KWA.
- **Finance assistant to help with recent Water/Sewer Court Order**
 - Henderson calling Randy to discuss further
- **Police issue**
 - A police officer has been fired by the city after making derogatory comments on social media during working hours. Henderson said the issue has been picked up by media.
- **PR and Water/Sewer**
 - There has not been much if any support for the City in the media regarding the potentially devastating impact an unsuccessful stay or an appeal would have on the city's financial future.
- **Have any additional police been hired yet?**
 - 5 new police officers have been hired. 5 more are going to be sent to the academy. After academy, will be offered positions.
- **Watermain break night of Aug. 25**
 - "We are doing what we have to do with the staff we have." Henderson
- **Dupont Street project**
 - Henderson said the project is still a-go. The city will request an extension. But no plans to suspend the project.
- **Miscellaneous**

Pleyte, Beth (Treasury)

Subject: HH/DM & others Re: KWA (Flint Water)
Location: Governor's Conference Room

Start: Wed 8/26/2015 1:30 PM
End: Wed 8/26/2015 2:00 PM

Recurrence: (none)

Meeting Status: Accepted

Organizer: Clayton, Stacie (GOV)
Required Attendees: Hollins, Harvey (GOV); Muchmore, Dennis (GOV); Workman, Wayne (TREASURY) (WorkmanW@michigan.gov); Saxton, Thomas (Treasury); Dempkowski, Angela (Treasury); Wendy Wisniewski (WisniewskiW@michigan.gov)

Call In: [REDACTED]
Access: [REDACTED]
Harvey will host

Attendees

Dennis Muchmore
Harvey Hollins
Tom Saxton
Wayne Workman – via phone
Jeff Wright, Genesee Drain Commissioner and Chair of KWA
John O'Brien, Genesee Drain Deputy Commissioner
Dave Jansen, assistant to J. Wright

Agenda Items:

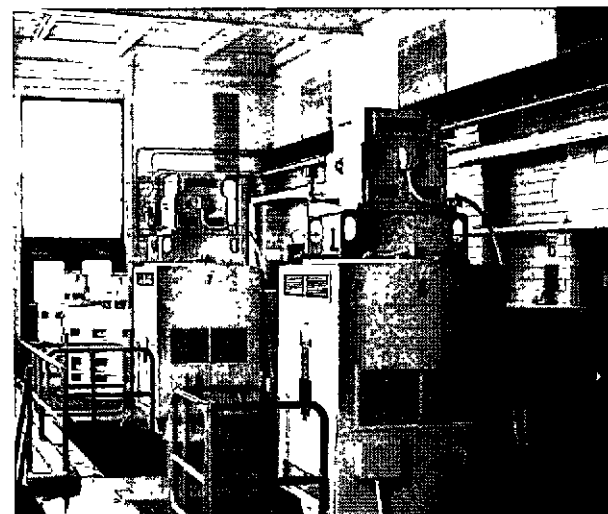
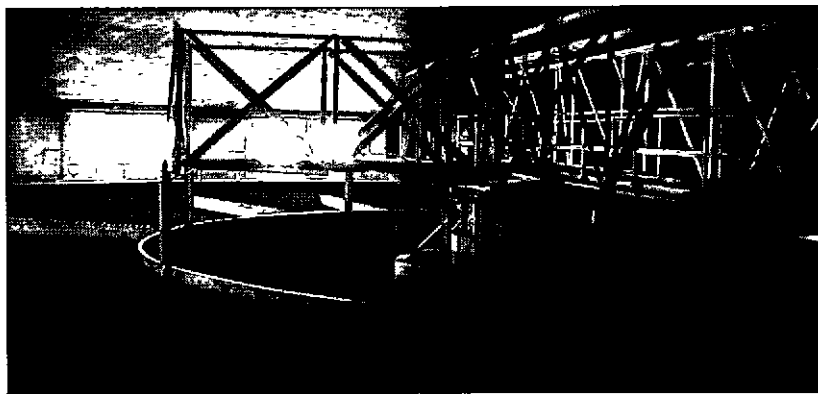
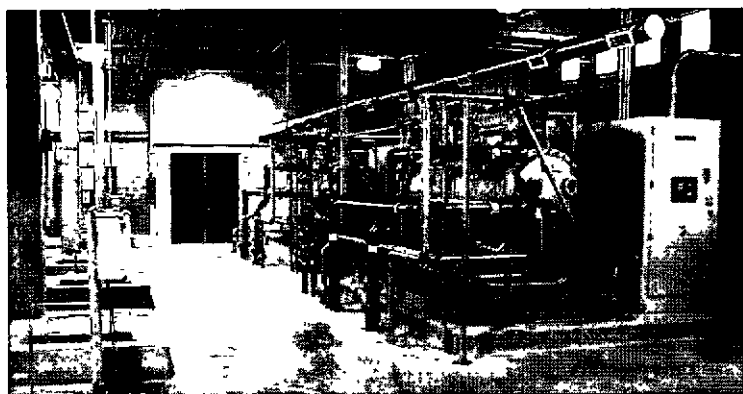
- 1) Financing of new water system
- 2) Governing of the new water system
- 3) Timeline for the build out of KWA

Operational Evaluation Report City of Flint



Trihalomethane Formation Concern

August 27, 2015
In Response to May 2015 Sample Results



Lockwood, Andrews
& Newnam, Inc.
A LEO A DALY COMPANY



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EXECUTIVE SUMMARY

Environmental Protection Agency (EPA) and Michigan Department of Environmental Quality (MDEQ) regulations require that public water suppliers test drinking water quarterly throughout the distribution system for disinfectant by-products (DBP's). Two categories of DBP's, tri-halomethanes (THM) and halo-acetic acids (HAA5), are regulated and must be tested for. The City of Flint began operation of their water treatment plant (WTP) full time with the Flint River as the source on April 25, 2014. Since that time, six quarters of samples taken have resulted in annual average violations for total THM. Prior to the first violation (Nov. 2014), the City hired Lockwood, Andrews & Newnam, Inc. (LAN) to complete this Operational Evaluation Report (OER) in conformance with EPA guidelines with the goal to determine the cause(s) of high levels of THM and evaluate possible solutions.

The EPA promulgated the Stage 2 Disinfectants and Disinfection By-Products Rule (DBPR) in January 2006 which set maximum contaminant levels (MCLs) for total trihalomethanes (TTHM) and HAA5 based on an annual running average, tested quarterly, for a given sampling location. The City of Flint reports levels from 8 sampling test locations. Of the six quarterly sampling cycles since Flint began operating the WTP full time, HAA5 levels have been acceptable but TTHM levels have exceeded the MCL. One sampling site was in violation following the May 2015 sampling cycle and results from August 2015 sampling indicate all sites are now within compliance.

A number of issues were identified as possibly contributing to the initial high THM levels measured.

1. Inefficient ozone system functionality which led to increased chlorine feed.
2. Upstream source influences in terms of increased chlorine demand.
3. Bypass stream around softening contributed to chlorine demand and increased total organic carbon (TOC) levels in the effluent.
4. Unlined cast iron pipes in the distribution system contributing to chlorine demand.
5. High water age in the distribution system due to:
 - a. Broken valves causing less than ideal flow patterns
 - b. Inefficient pump station pressure zones
 - c. Water storage volumes in excess of that needed for today's demands
 - d. Oversized water mains
 - e. Low water demands
6. High chlorine demand in filters.
7. High THM formation potential (THMFP) in source water.
8. Less than optimal removal of THM precursors.

A graphical representation of how the factors above relate to the timing of THM compliance sampling is shown as Table 1. Compliance sampling dates are hatched. Each row in Table 1 describes a factor that can lead to increased THM levels and the table defines when each of those factors applied. Note the convergence of nearly all factors around the second sampling period on August 21, 2014 to create what appears to have been a worst case scenario. The table also shows that the factors listed as those that the City can control have been addressed prior to 2015 sampling periods. Monthly operating report data up to August 1, 2015 is depicted on the Table



TABLE 1 - SUMMARY OF NEGATIVE INFLUENCES ON THM COMPLIANCE SAMPLING

FACTOR	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Softening bypass stream over 20% of plant flow												
Ozone system not feeding optimally												
Using full water storage capacity of WSR & CSR												
Chlorine feed at WTP 7.0 mg/l or more												
Ferric chloride feed rate less than 10 mg/l Fe3+												
Raw water temp 23 degrees C or more												
Raw water TOC levels above 8.0 mg/l												
Raw water coliform over 5000 counts/day												
Positive bacteria test in dist. system (boil water notice)												
Water demand less than 15 mgd												
Softening bypass stream over 20% of plant flow												
Ozone system not feeding optimally												
Using full water storage capacity of WSR & CSR												
Chlorine feed at WTP 7.0 mg/l or more												
Ferric chloride feed rate less than 10 mg/l Fe3+												
Raw water temp 23 degrees C or more												
Raw water TOC levels above 8.0 mg/l												
Raw water coliform over 5000 counts/day												
Positive bacteria test in dist. system (boil water notice)												
Water demand less than 15 mgd												

Dates of occurrence
 Expected dates of occurrence based on past data
 Compliance sampling date

Factors under Flint start control
 Flint River characteristics
 System factors



ACTION PLAN

The City of Flint has signed an agreement with the Karegnondi Water Authority (KWA) to purchase raw water drawn from Lake Huron. The KWA system is currently under construction and expected to be operational by late 2016. The water supply from Lake Huron will have entirely different water quality characteristics from the Flint River and those characteristics are expected to yield drastically reduced DPB formation. With that, non-structural options to help reduce THM levels are much preferred over solutions requiring new construction. Therefore, two categories of actions have been devised: Stage 1 being actions that can be completed relatively quickly without major construction and Stage 2 consisting of either long term actions or solutions requiring major construction. The City is actively working to complete Stage 1 actions as soon as possible. Stage 2 actions are to be implemented only if Stage 1 actions are ineffective in adequately reducing TTHM levels and therefore Stage 2 is contingent upon the outcome of Stage 1. As of the date of this report, status updates for action items are shown in red.

Stage 1 – Immediate Actions

- Hire third party water quality expert to complete independent 'water audit'
 - The City hired Veolia Water to review all water quality related operations, procedures, actions taken and planned responses. Recommendations from Veolia were provided in a report and technical memo dated 3/12/15 and 3/30/15 respectively.
- Obtain an in house THM analyzer to allow regular operational monitoring of THM levels
 - THM analyzer was installed 2/17/15
- Hire ozone system manufacturer to troubleshoot ozone system
 - Manufacturer and controls programmers performed on site evaluations followed by corrective modifications in January 2015.
- Bench scale jar testing
 - Match existing process and assess possible areas of improvement
 - Existing process was simulated and an evaluation of existing chemical feed dosages was completed by LAN.
 - Existing process TOC profile was developed by Veolia.
 - Simulate potential modifications to treatment process
 - Soda ash softening evaluation completed and PAC feed testing was completed by LAN.
 - Evaluate coagulation and flocculation polymer aid feeds to assist with TOC removal
 - Evaluations of polymer aids completed by LAN and PVS Technologies.
- WTP operational changes
 - Discontinue softening bypass stream to reduce chlorine demand
 - Operational directive has been set to soften no less than 80% of flow.
 - Disinfection of filter beds to reduce chlorine demand
 - Utility Service Group contracted by City and condition assessment completed. Controls improvements have been completed.
 - Begin coagulation and flocculation polymer aid feeds to assist with TOC removal if bench scale test results are positive
 - Jar testing completed to date has not indicated a meaningful benefit to feeding coagulation/flocculation polymer aids. Increased ferric doses have been implemented at the WTP based on positive jar test results



- Increase water main flushing efforts to minimize stagnant water
 - Flushing efforts are ongoing as needed based on chlorine residual levels measured in the system.
- Water system modeling to identify areas with high water age and potential solutions
 - The water model has been improved and preliminary results, including system wide water age, have been produced. Water demand updates and reconciliation with operator's data are underway with expected completion in mid June, 2015.
 - Cedar Street Pump Station potential recirculation
 - Water model analysis to be completed Sept-Oct, 2015.
 - West Side Pump Station potential recirculation
 - Water model analysis to be completed Sept-Oct, 2015.
 - Storage tank volume use
 - Operating levels of West Side and Cedar Street reservoirs have been lowered to reduce water age. Possible elimination of WS or CS to be evaluated Sept-Oct, 2015.
 - Possible broken closed valve locations
 - Model has been updated with known broken valve locations. Model results are being evaluated for indications of other possible broken valves. City has also initiated valve assessment program.
 - Locations in need of flushing
 - High water age areas have been identified in the water model. Further evaluation is expected to be done by November 1, 2015 to determine most effective flushing points.

Stage 2 – Contingent Actions

- Replace filter media with granular activated carbon (GAC) media
 - Filter anthracite media was replaced with GAC media July – August 2015.
- Fix ozone system
 - Repairs have been made to gauges and programming and the system is producing proper ozone and functioning under manual operation. Further minor repairs are planned for the 1st quarter 2015 to allow automatic operation.
- Start feeding coagulation and flocculation polymer aids to lower TOC, if not completed in Stage 1
 - Polymers evaluated by LAN did not demonstrate notable benefit.
 - PVS Technologies evaluated a proprietary polymer that showed little benefit.
- Convert to lime and soda ash softening
 - Option deemed unnecessary due to effectiveness of new GAC media.
- Change disinfectant to chloramine or chlorine dioxide until KWA
 - Option deemed unnecessary due to effectiveness of new GAC media.
- Install pre-oxidant feed (permanganate) at intake to optimize ozone disinfection
 - Option deemed unnecessary due to effectiveness of new GAC media.
- Implement advanced treatment for THM precursor removal
 - Option deemed unnecessary due to effectiveness of new GAC media.



- Increased main flushing based on water modeling results
 - Water model analysis to be completed Sept-Oct, 2015.
- Continue valve replacements with water model assistance
 - Water model analysis to be completed Sept-Oct, 2015.
- Emphasize cast iron pipes on water main replacement priority list
 - Flint has bid replacement of over 2 miles of 24" steel pipe along Dupont and Bishop Streets to be completed when and if the City can allocate funds. The water main section is considered a critical transmission main, and is expected to contribute to decreases in water age when complete

THM samples have been taken and tested 6 times for regulatory reporting since the City began using the Flint River for supply. Numerous additional sets of samples have been taken by the City for internal operational monitoring. Compliance samples were taken in May 2014, August 2014, November 2014, January 2015, February 2015, May 2015, and August 2015. The average of all eight sample sites in August 2014 was 142.1 ug/l and the most recent average of samples taken in August 2015 was 63.6 ug/l. The MCL defined by the EPA is 80 ug/l.



I. BACKGROUND

The City of Detroit Water and Sewer Department (DWSD) has historically provided drinking water for the City of Flint and Genesee County. In the late 1990's growing concern regarding the reliability of the DWSD supply prompted the City of Flint to upgrade their existing water treatment plant (WTP). Those improvements, defined as Phase I, were completed in 2005 and were intended to allow the Flint WTP to operate, using the Flint River as the source, for an extended period of time in the event that supply from the DWSD was temporarily interrupted. Additionally, the Phase I improvements set the stage for Flint to break free from dependence on the DWSD supply and water charges over which they had no control.

A. WATER SUPPLY TRANSITION

1. Detroit Water and Sewer Department (DWSD)

Prior to spring of 2014, the Genesee County and Flint region had been provided drinking water by the DWSD. However, due to excessive cost increases and reliability issues with the DWSD system other options had to be explored.

2. Karegnondi Water Authority (KWA)

In 2010 the Karegnondi Water Authority (KWA) was formed for the purpose of developing a new water supply from Lake Huron to serve the region in lieu of the DWSD supply and the City of Flint elected to join. The KWA expects the new system which is currently being constructed to become operational by the fall of 2016.

3. Flint River – Interim Period

With a renewing water supply agreement between Flint and the DWSD being terminated by the DWSD (effective April 30, 2014) and the KWA system not expected to be operational until late 2016, the City of Flint decided to initiate operation of the existing WTP full time utilizing the Flint River as the interim water source. A variety of WTP improvements were necessary for the Flint plant to become a full time plant. For purposes of this report, Phase II improvements to the Flint WTP are improvements intended to allow the plant to operate full time with either the Flint River as the source or the KWA supply as the source.

B. TTHM VIOLATIONS

The EPA and MDEQ method of determining if TTHM sample results exceed the MCL uses a locational running annual average (LRAA). Flint's first TTHM violation was cited by the MDEQ following the third cycle of sampling completed in November 2014. Of the 8 sampling sites, 4 were in violation. At that time the MDEQ used the following calculation for determining if the MCL had been violated:

$$(2 \times \text{current quarter value} + \text{previous 2 quarter values}) / 4 = \text{Operational Evaluation Value}$$

Flint has now completed tests for 6 quarters and a straight annual running average applies. Based on samples taken on August 18, 2015 there are no longer any sites in violation of the THM MCL limit. The August 2014 average across all test sites was 142.1 ug/l and the August 2015 average is 63.6 ug/l. Test results are tabulated in Table 2. HAA5 sample results are shown in Table 3, of which Flint has had no violations.



TABLE 2 – TTHM TEST RESULTS (ug/L)

Sample Location	5/21/14	8/21/14	11/21/14	2/17/15	5/18/15	8/18/15	May/15 LRAA	Aug/15 LRAA
WTP Tap	56	86	33	-	~35	~25	n/a	n/a
1) 3719 Davison McDonalds	162.4	145.3	58.6	16.2	51.4	75.5	67.9	50.4
2) 822 S. Dort Hwy BP Gas Sta	75.1	112.0	36.2	19.9	46.1	54.9	53.6	39.3
3) 3302 S. Dort Hwy Liquor Palace	111.6	127.2	33.3	16.8	63.5	53.2	60.2	41.7
4) 3606 Corunna Taco Bell	79.2	181.3	33.9	18.1	54.7	61.9	72.0	42.2
5) 2501 Flushing Univ. Market	106.4	196.2	93.6	24.5	59.8	70.6	93.5	62.1
6) 3216 MLK Salem Housing	82.2	112.4	50.1	28.5	72.7	90.3	65.9	60.4
7) 5018 Clio Rite Aid	88.2	144.4	53.6	19.2	60.5	59.5	69.4	48.2
8) 6204 N. Saginaw N. Flint Auto	96.5	118.3	41.1	14.9	45.2	42.6	54.9	36.0

TTHM MCL = 80 ug/l

TABLE 3 – HAA5 TEST RESULTS (ug/L)

Sample Location	5/21/14	8/21/14	11/21/14	2/17/15	5/18/15	8/18/15	May/15 LRAA	Aug/15 LRAA
WTP Tap	36 (taken June 14, 2014)						n/a	n/a
1) 3719 Davison McDonalds	64	43	16	9.0	16	15	21.0	14.0
2) 822 S. Dort Hwy BP Gas Sta.	38	40	21	9.0	16	11	21.5	14.3
3) 3302 S. Dort Hwy Liquor Palace	52	31	15	9.0	17	14	18.0	13.8
4) 3606 Corunna Taco Bell	50	24	15	9.0	16	13	16.0	13.3
5) 2501 Flushing Univ. Market	55	17	24	9.0	15	13	16.3	15.3
6) 3216 MLK Salem Housing	41	25	5	2.0	10	2	10.5	4.8
7) 5018 Clio Rite Aid	49	30	17	9.0	22	15	19.5	15.8
8) 6204 N. Saginaw N. Flint Auto	48	37	18	9.0	17	10	20.3	13.5

HAA5 MCL = 60 ug/l

C. WATER TREATMENT PLANT RECENT IMPROVEMENTS & STATUS

1. Phase I WTP Improvements

Since 1965, the Flint WTP has remained a secondary or backup supply system to the DWSD primary supply. Typically the secondary supply for a public water system is expected to be needed only during emergency situations and normally is designed for short term operation such as providing the average daily demand for a few days. Conversely, Phase I improvements were designed with the intent to upgrade the Flint WTP in order to allow for an extended short term period (6 weeks) because of the perceived high risk that the DWSD supply would fail and remain out of service for an



extended duration. Regardless, the Flint WTP was still intended to serve as a standby plant and as such the Phase I improvements lacked redundancies that would be required for a primary supply WTP.

2. Past Pilot Study & Testing

During design of the Phase I improvements a treatability study was completed by Alvord, Burdick & Howson, LLC (AB&H) in 2002. The Treatability Study evaluated the current treatment processes that are in place at the Flint WTP today with the Flint River as the source. The report recommended the following:

TABLE 4 – 2002 WTP TREATMENT RECOMMENDATIONS

Treatment	Purpose	Point of Application	Dosage (mg/l)
Sodium permanganate	Zebra mussel control	Intake	0.3
Ozone	Taste & odor removal, disinfection	Diffusor basin	1.5
Ferric chloride	Coagulation	Rapid mix	40
Coag aid polymer	Turbidity & TOC removal	Rapid mix	2.0
Floc aid polymer	Turbidity & TOC removal	Floc basin	0.05
Lime	Softening	Softening basin	175
Soda ash	Softening	Softening basin	52
Carbon dioxide	pH adjustment	Recarb basin	37
Media filters	Filtration	N/A	Na
Chlorine	Disinfection	Filter effluent	1.0

Of the recommended items, zebra mussel control, coagulant and flocculation polymer aids, and soda ash feed have not been incorporated into the treatment process.

3. Phase II WTP Improvements for Full Time Operation

Phase II WTP improvements are those needed to convert the Flint WTP from a back-up supply to a primary supply plant. A number of improvements have already been constructed as they were necessary to operate full time when treating water from the Flint River. The improvements under the title of Phase II that have been completed or are nearly complete include installation of the future raw water feed connection point and valving for the KWA supply, upgrades to the lime sludge lagoon, the lime sludge lagoon decant and disposal system, decant pump station and force main, installation of mid-point chlorination before filtration, new oxygen / nitrogen storage facilities for the ozone system, and upgrade of the electric feed sub-station.

Additional improvements to the Flint WTP that are to be completed to become part of the normal treatment process using water supplied by the KWA are:

- New coagulant feed system
- Electrical
 - Pump Station #4 upgrades (under construction)
 - SCADA and controls upgrades
 - Filter transfer pump station feeders
- Pump replacements and VFD installation in the low and high service pump station (under construction)
- Filter transfer pump station to Dort Reservoir
- Facility security improvements



II. SOURCE WATER EVALUATION

A. DATA ANALYSIS

Based on past data collected and the 2002 Treatability Study by AB&H, the Flint River water quality varies seasonally with higher hardness and alkalinity experienced in the winter. Higher magnesium concentrations are also experienced in the winter, adding difficulty to the settling process due to neutrally buoyant floc. General water quality average characteristics recorded for the 2002 Treatability Study as compared with average characteristics recorded in 2014 are shown in Table 5 below.

TABLE 5 – FLINT RIVER WATER QUALITY CHARACTERISTICS							
Period	Turbidity NTU	TOC Mg/l	Alk. Mg/l	Hardness Mg/l as CaCO ₃	pH	Total Col. Count/day	THMFP Mg/l
2001 Apr–Oct	7.9	9.4	215	272	8.1	870-1230 (7300 max)	410
2014 May–Oct	8.3	10.3 5/22/14	207	252	8.2	1900-9000 (48,300 max)	187

The Flint River characteristics do not appear to have changed significantly over the past 10+ years. Note that near the time Flint initiated withdrawal from the Flint River investigation by City staff revealed a sewer leak upstream of the plant that may have contributed to the total Coliform count. The leak was subsequently repaired.

B. CONCLUSIONS

Considering the minor changes in Flint River water quality, much of the information contained in the 2002 Treatability Study by AB&H remains relevant today. Data from that report assumed to be consistent today include the following:

- Flint River is influenced by groundwater from a dolomitic aquifer
- Hardness varies seasonally with higher hardness and alkalinity in the winter
- Hardness, alkalinity, magnesium concentrations tend to be reduced by run-off

In development of the 2002 Treatability Study, processes were simulated which resulted in low THM levels. Therefore, information contained in that report was used to assist with establishing a baseline jar testing procedure as discussed further in Section III.



III. TREATMENT PROCESS EVALUATION

A. EXISTING PROCESS DESCRIPTION

The existing WTP consists of an intake with screening from the Flint River, low lift pumping, ozonation, rapid mix, flocculation, settling, softening, recarbonation, filtration, storage and high service pumping. A process diagram is shown as Figure 1.

1. Intake

A 72" diameter pipe draws water from the Flint River through 2 traveling screens to the low lift pump structure. No chemicals are currently fed for Zebra mussel control or pre-oxidation as recommended by the 2002 Treatability Study. Manual removal of zebra mussels is more economical than installation of chemical feed equipment considering the short term need.

2. Ozone

There are 2 ozone generators designed to provide adequate ozone for a WTP flow of up to 36 mgd. There are 3 ozone contact basins. The ozone generators were designed to produce 900 lbs/day at 10% concentration and up to 1300 lbs/day at 6% concentration each. Prior to recent repairs, readings indicated a production rate of approximately 700 lbs/day at 4% concentration. It is possible that before the recent improvements the ozone feed might not have been optimized. In fact, it is known that less than optimal ozonation previously led to increased chlorine feed which would have contributed to THM formation.

3. Rapid Mix

East and West rapid mix chambers allow chemical feed prior to the flocculation basins. Each rapid mix chamber is equipped with a 5 hp mixer.

4. Coagulation / Flocculation

The WTP contains two equally sized flocculation basins, east and west, and each basin provides tapered or gradually slowed mixing from inlet to outlet. There are fifteen 2 hp mixers for each basin with VFDs to control mixing speed. The 2002 Treatability Study recommended feeding both coagulation and flocculation polymer aids. Neither polymer aid is being used today because turbidity and TOC removals have been sufficient to meet regulatory requirements.

5. Settling

Primary clarification takes place within 3 basins containing plate settlers. The settlers are operating as designed but are due for cleaning.

6. Softening

Again, there are two basins for softening: east and west. Each basin is 120' in diameter and contains a solids contact softening unit. Each softening basin/unit has a design capacity of 18 mgd. The east clarifier has an effluent weir imbalance that the City intends to fix when low demands allow for construction. Low lift pumping limitations, flow control to the basins, malfunctioning polymer feed pumps, control restrictions on residuals removal, and fluctuating demands have made it difficult for WTP staff to stabilize the softening process. Softening is accomplished by feeding lime. The decision was made by the City not to feed soda ash in order to remove non-carbonate hardness because acceptable hardness levels could be achieved with lime feed only and softening is short term until Lake Huron water becomes available. Lime and soda ash softening is a possible consideration to assist with TOC removal and thus reduce THM formation.



7. Recarbonation

Recarbonation for pH adjustment is accomplished in east and west recarbonation basins between and to the north of the softening basins. Carbon dioxide storage and feed equipment is located west of the recarbonation basins.

8. Filtration

Filtration is accomplished with 12 dual media filters, equally sized and designed to filter 3.0 mgd each. Sand and anthracite media was replaced in July and August 2015 with new sand and GAC at depths of 12" and 18" respectively. Prior to spring of 2014, the filters had been operated intermittently over the years due to the standby nature of the WTP and until recently, chlorine injection took place downstream of the filters. It is possible some microbial growth had developed in the filters leading to increased chlorine demand which could have contributed elevated TTHM. Late 2014, the City recently hired a contractor to upgrade the electrical controls for the filters and that work has been completed.

9. Disinfection

Disinfection is provided by ozonation and by feeding chlorine. Ozonation occurs at the front end of the WTP. Chlorine is fed prior to filtration and prior to finish water storage / high service pumping. The intermediate chlorine injection location was recently constructed under the Phase II, Segment 1 contract.

10. Clear Well & Pumping

The pump building sits adjacent to a 3 MG clear well and contains both low and high service pumps.

B. JAR TESTS / EXPERIMENTS

1. Approach

There are several well practiced methods by which DBPs can be reduced. First, the disinfectant can be changed to an alternate that has a lower tendency to form DBPs. Second, additional treatment systems such as activated carbon or air stripping (depending on the nature of the precursors) can be added to remove DBP precursors. Lastly, the existing treatment processes can be optimized to remove as much DBP precursor as possible. Of these options, optimizing existing treatment processes is the only strategy that does not require the construction of new and expensive facilities. It is anticipated that Flint will be receiving Lake Huron water by late 2016 and this water will have a completely different chemistry from the Flint River. Major process changes instituted to address THM levels using Flint River water are likely to be unnecessary for Lake Huron water and may even be inappropriate. Therefore, those options which require addition of new treatment processes are undesirable at this time. In recognition of this upcoming change in water source, efforts for this study have concentrated on improving the existing processes, rather than adding new ones. New treatment processes will only be recommended if operational changes to the existing treatment train prove ineffective.

Recent sample test results suggest that most of the DBPs are formed in the distribution system rather than within the treatment plant. Therefore, the most logical approach is to reduce the DBP formation potential (DBFPF) rather than simply lowering the levels of DBPs leaving the plant. During bench scale testing, formation potential (FP) levels were the primary indicator of success or failure of proposed process modifications.



2. Protocol

Bench scale pilot testing is intended to reflect actual plant operating and hydraulic conditions so the bench scale treatment units were sized based on various dimensionless factors to ensure the pilot treatment matched the actual system. Bench scale ozonation was not practical due to time and cost limitations. Therefore, water samples were withdrawn from the plant ozone basin effluent. These samples were transported to the laboratory and dispensed into square testing jars. The jars were used to simulate rapid mix, three-stage flocculation, and settling. Rapid mix and flocculation conditions were matched to the plant based on "Gt" values. The "G" value is a measure of the mixing intensity and is a function of mix time, viscosity of the liquid, and mixing power applied to the water. "Gt" then, is a size scaling factor where time has been accounted for. Settling time was scaled to match the shorter settling depth of the testing jars. After settling, samples were decanted from the test jars. The decanted samples were then lime softened; softening conditions were similarly matched on the basis of "Gt". Carbon dioxide was sparged into the samples to reduce the pH. The water was then vacuum filtered through filter paper, sized to simulate the plant's dual media filters. The samples were dosed with excess chlorine and allowed to react for seven days at 25° C before testing for DBPs to determine the formation potential.

The following conditions were applied during testing to properly match small scale testing to actual plant processes.

TABLE 6 – BENCH SCALE TEST MIXING INTENSITIES

Process	G	Duration	Mix RPM
Ozonation	Plant	-	-
Rapid Mix	200	44 sec	160
Flocculation, Stage 1	50	9 min	55
Flocculation, Stage 1	25	9 min	30
Flocculation, Stage 1	12	9 min	19
Settling	N/A	10 min	-
Softening	TBD	10 min	-
Recarbonation	N/A	N/A	-

The primary variables during testing were chemical additions and chemical dosages. Specific chemicals and dosages used for initial testing conditions were selected to reflect current plant usage and the recommendations of the 2002 Treatability Study:

TABLE 7 – BENCH SCALE TEST CHEMICAL FEED RATES

Chemical	Current Usage	2002 Study	Test Values
Ozonation	4.66 mg/l	1.5 mg/l	
Ferric Chloride	7.7 mg/l Fe3+	40 mg/l Fe3+	7.7 – 80 mg/l Fe3+
Coagulant Aid Polymer	Not used	2.0 mg/l	1 – 2 mg/l
Flocculation Aid Polymer	Not used	0.05 mg/l	0 – 0.05 mg/l
Powdered Activated Carbon	Not used	N/A	20 – 100 mg/l
Lime	120 mg/l	175 mg/l	120 – 175 mg/l
Soda Ash	Not used	52 mg/l	0 – 52 mg/l
Cationic Softening Polymer	3.13 mg/l	Not used	3.13 mg/l
Anionic Softening Polymer	0.88 mg/l	Not used	0.88 mg/l
Fluoride	0.45 mg/l	1 mg/l	Not used
Carbon Dioxide	32 mg/l	37 mg/l	Fed to reach pH of 7.5 +/- 0.3
Chlorine	6.3 mg/l	1 mg/l	10 mg/l



3. Considerations

The 2002 Treatability Study did not note significant formation of DBPs. This may be a function of different Flint River water chemistry at that time. However, recognizing the considerable differences in chemical usage and dosages between that study and current operations, those differences in chemical use and dosage are an obvious starting point for optimizing treatment to prevent DBP limit exceedance.

Although it is believed that optimization of current treatment can correct the DBP issue, should optimization of present treatment prove insufficient, alternate residual disinfectants (chloramines and chlorine dioxide) could be investigated as additional treatment measures.

4. LAN Test Results

Two rounds of jar testing were completed by LAN during the weeks of December 15, 2014 and January 26, 2015. Detailed test data is included in Appendix A. Testing results can be summarized as follows:

- Increased dosages of ferric chloride resulted in higher reduction of THMFP.
- The currently utilized feed rate of lime at 120 mg/l is appropriate
- Softening with soda ash in addition to lime resulted in minor additional THMFP reduction – in the range of 0% - 10%.
- The benefits of using a cationic polymer during softening at a dosage range of 0.31 - 3.13 mg/l to help reduce THM's are unclear
- The benefits of using an anionic polymer during softening at a dosage range of 0.09 – 0.88 mg/l to help reduce THM's are unclear
- Feeding PAC was ineffective in reducing THMFP within the dosage range of 20 – 100 mg/l.

5. Testing by Others

In addition to jar testing completed by LAN, the chemical supplier who provides ferric chloride for the City, PVS Technologies, ran tests using their recommended flocculant polymer aid. Plus, Veolia Water completed jars testing of their own the week of February 16th to analyze other process details and current WTP parameters. Experiments completed by PVS Technologies showed very little TOC removal beyond that obtained with straight ferric chloride feed.

6. Conclusions

Increasing the dose rate of ferric chloride is an operational change that can easily be implemented without the need for any additional equipment. Test results show that over 40% THMFP removal can be obtained with a dosage of 60 mg/l Fe³⁺ or higher. Increased dosing of ferric chloride would be most ideal coupled with regular raw water TOC monitoring so that TOC levels would dictate the appropriate ferric chloride feed rate.

Softening with soda ash in addition to lime is another option the City should consider if increased ferric chloride doses are not adequate to maintain THM levels under the MCL, particularly during warmer months. Again, monitoring of TOC in the raw water could provide useful information of when lime/soda ash softening is necessary.



IV. DISTRIBUTION SYSTEM EVALUATION

EPA guidance for the distribution evaluation portion of an OER is focused on identification and isolation of a specific portion of the distribution system that led to the exceedance. The circumstances of Flint's apparent pending TTHM exceedances are unusual in that a new supply has been implemented which clearly corresponds to the high TTHM sample results. Although the new source is one element in increased TTHM levels, value remains in evaluating the distribution system since water age is also a critical factor. Additionally, there may be distribution improvements that can be made to help alleviate the problem.

A. INFRASTRUCTURE

1. Piping

According to the most recent MDEQ Sanitary Survey, the distribution system is estimated to contain 70% cast iron, 20% ductile iron, 2% concrete and 8% steel water mains. Based on discussions with City staff, the percentage of cast iron pipe may be higher than that stated in the MDEQ Sanitary Survey. Unlined cast iron pipe can become pitted, allowing colonization sites for microorganisms leading to chlorine demand. Additionally, much of the piping in the system is aged and in poor condition. Increased chlorine demand could be resulting from biofilm in older pipes and from main breaks/repairs. The extent of contribution is not known but any water main replacement project will decrease chlorine demand somewhat if constructed properly. Unfortunately, water main breaks may also assist with decreasing water age by providing unintentional flushing. All things considered, it is impossible to quantify the impact existing piping has on THM formation without extensive research and long term study.

The City utilizes City Point software and GPS equipment to document main breaks and prioritize replacements. However, main break information is more pertinent to rusty water complaints and has little relevance to THM levels. Areas that have been targeted for main replacements include the transmission main from the WTP west to Dupont and south to the West Side reservoir, Fenton Road, Atherton Road, Dort Highway, Averil Street, and Boulevard Drive.

2. Storage

There are 4 finish water storage tanks and 1 raw water tank as tabulated below:

TABLE 8 – STORAGE TANKS							
Name	Type	Water	Volume (MG)	Operating		Absolute	
				LWL	HWL	Bottom	OF
Dort Reservoir	Ground	Raw	20	-	-	730	750
WTP Tank	Elevated	Finished	2	883.0	896.0	863.0	898.0
WTP Clear Well – PS #4	Ground	Finished	3	11'	15'	708.5	726.0
Cedar Street Reservoir	Ground	Finished	20	-	11'	737.2	757.2
Westside Reservoir	Ground	Finished	12	-	12'	761.8	779.0

The MDEQ typically recommends providing a minimum finish water storage volume of 1/3 the maximum daily demand (MDD). According to the 2013 MDEQ Sanitary Survey, the 5 and 10 year MDDs are 21.57 mgd and 30.05 mgd respectively. A common rule of thumb for clear well storage volume at a WTP is 10% of the design flow rate. Another general guideline for reliability is to provide total storage to allow for 2 X the average daily demand plus fire flow demand. For this analysis, fire flow is assumed to be 2,500 gpm for either one industrial fire (2,500 gpm) or a combination of one residential (1,000 gpm) and one commercial (1,500 gpm) fire at a 4 hour



duration which results in a total volume of 600,000 gallons. These go-by approximations are summarized below with the applicable flow rates and are compared to the existing storage volumes currently being utilized.

<u>Common Practice</u>	<u>Flow Rate</u>	<u>Recommended Volume by ROT</u>	<u>Volume In Use</u>
Clear well 10% of Design Flow	18 MGD	1.8 MG	3.0 MG
Finish Storage = 1/3 MDD	30.05 MGD	10.0 MG	37 MG
Total Storage = 2 * ADD + FFD	13.87 MGD	28.3 MG	57 MG

Based on the values above, it appears the storage volume used in the Flint system could be decreased without negatively effecting reliability. The appropriate volumes of individual tanks will be further evaluated using the water system model and discussed in Section V (C).

All reservoirs have baffling to minimize stagnant water. Also, all tanks have been maintained and are in reasonable condition. The Westside reservoir has an exposed roof that is in need of rehabilitation, but its current condition has no influence on THM formation.

3. Pump Stations

All pump stations are in good condition but pumps are generally oversized. As an independent consideration, oversized pumps are not a contributing factor to high THM levels. Control of pumps and pressure zones are discussed in detail below.

B. OPERATIONS AND MAINTENANCE

1. Pump Station & Storage Operations

Pump stations and storage tank levels are controlled as shown in Table 9.

TABLE 9 – PUMP STATION CONTROLS			
PS Name	Control Point	On Point	Off Point
PS No. 4 Raw	Operator	-	-
PS No. 4 Finish	Match plant flow	-	-
Westside	System pressure (elevated tank)	22.5'	33'
Cedar Street	System pressure (elevated tank)	22.5'	33'
Torrey Road	Distr. – Brown/Bradley	< 45 psi	> 45 psi

Prior to the first TTHM violation, Cedar Street and Westside pump stations were operated as needed and were alternated. Typically, Cedar Street was run in the morning and Westside was run in the evening and reservoirs for each were filled during low demand periods at night.

Westside, Cedar Street and Torrey Road pump stations are used to boost system pressure when high demands warrant it, but there are not well defined pressure zones within the system. Therefore, the possibility exists that water is being recirculated allowing for increased water age.



2. Booster Disinfection Practices

Booster disinfection is provided at the Cedar Street and Westside pump stations. When sustained residuals are not provided by chlorine feed at the WTP, sodium hypochlorite is applied at the reservoirs while being filled.

3. Changes in System Demands

Water demands in the City have been declining since the 1960's as the population has dropped. As a result, many of the water system components are oversized including storage tanks and water mains which both increase the time for water to reach the user.

From a short term perspective, Flint demands tend to increase in summer as is ordinarily expected but also in the winter due to water main breaks. The MDD for Flint often occurs in winter. Regarding THM formation, with lower temperatures and higher flows in the winter, THM levels taken at the distribution sample points are expected to be lowest for February sampling quarters than all others.

C. WATER SYSTEM HYDRAULIC MODELING

As part of this report, the City provided a hydraulic water model, originally developed by Potter Consulting, for LAN to update. Thus far, LAN has modified the model to be capable of extended period simulations, modified controls to reflect current operations, revised the piping to include known broken valve locations, updated pump curves, checked pipe diameters, updated system demands, and developed preliminary water age results throughout the entire system. Water age shown in the revised model corresponds for the most part to TTHM levels at the sampling sites. However, LAN has also identified several issues affecting the model that require further attention to allow for usable and reliable results. Those issues include accurate quantification of lost water and confirmation of the status of valves throughout the system. Preliminary water age results are presented in Table 10. Revised results will be provided when the hydraulic model has been fully updated.

TABLE 10 – PRELIMINARY WATER AGE FROM WATER MODEL

Sample Point	Location	Address	Water Age (Hrs)	May/15 LRAA THM (ug/l)
1	McDonalds	3719 Davison	25	68
2	BP Gas Station	822 S. Dort Hwy	18	54
3	Liquor Palace	3302 S. Dort Hwy	14	60
4	Taco Bell	3606 Corunna	340	72
5	Univ. Market	2501 Flushing	305	94
6	Salem Housing	3216 MLK	45	66
7	Rite Aid	5018 Clio	41	69
8	N. Flint Auto	6204 N. Saginaw	37	55

It is anticipated that topics shown below in italicized font will be detailed after the model is updated in Sept-Oct, 2015.

1. Simulation of Existing System

Match existing conditions. Chlorine and THM data may be used to verify model results. We have chlorine feed data at plant and residuals at 10 locations in each MOR, May 2014 – July 2015.



2. Identification of Water System Deficiencies

Specific issues to look at.

Water age in entire system

Possible recirculating water through pump stations

Use of storage tanks – volumes in particular

Indications of broken valves

Effectiveness of booster disinfection



V. RECOMMENDATIONS TO MINIMIZE FUTURE OEL EXCEEDANCES

A. SOURCE

The City of Flint has already committed to the change from the Flint River as the water source to Lake Huron under the KWA system, planned for late 2016. The risk of future THM limit violations will decline substantially with the use of water from Lake Huron due to much lower DBP precursors. It is important to recognize that the Flint River will become strictly an emergency supply when the KWA supply becomes available and any investments toward the Flint River should be contemplated accordingly. Recommendations discussed below in this section apply to the Flint River as the source.

Reverting to supply from the DWSD until the KWA supply is available as an option. However, based on information provided by the City of Flint, the annual cost to receive water from the DWSD would be at least \$16,000,000/year or \$1,333,000/month. Therefore, utilizing the DWSD for interim supply is cost prohibitive under the terms defined by the DWSD.

1. Watershed Management

A volunteer group entitled the Watershed Coalition performs various tasks related to managing the Flint River watershed such as spring cleanups and annual benthic studies to evaluate the river 'health'. No additional action is recommended at this time.

2. Monitoring

The City documents daily raw water flow, pH, alkalinity, carbonate and non-carbonate hardness, chloride, temperature, turbidity and coliform count as part of standard preparation of Monthly Operating Reports (MOR). WTP staff have obtained and installed TOC and THM analyzers. The THM analyzer is set up as an on-line plant tap monitor and operations personnel have begun taking samples most days to track TOC levels throughout the treatment process. It is recommended to implement TOC tracking as a strict daily procedure which would provide staff the data needed to establish correlations to predict distribution system THM formation.

3. Intake Operations

The 2002 Treatability Study recommended pre-oxidation in the form of sodium permanganate as a feed at the intake. It is possible the addition of a pre-oxidant such as hydrogen peroxide or some type of permanganate could enhance the ozone process. Veolia evaluated permanganate demand during jar testing the week of February 16th, 2014 and recommended implementation at a dosage of 0.5 mg/l – 1.2 mg/l to achieve 10% additional TOC removal.

4. Seasonal Strategies

Past data indicates the Flint River is influenced by groundwater and in particular, dolomitic spring water. The result is hard water with high concentrations of magnesium and sulfate. Also, hardness and alkalinity are higher during the winter. Upon initiation of supply from the Flint River, the City made the decision to soften with just lime to focus on removal of carbonate hardness. One potential modification that could assist with TOC removal and thus decrease THMFP would be lime and soda ash softening. A temporary caustic soda feed system is recommended to be put in place in case the need for optimized softening arises.



5. Upstream Contamination Issues

Upstream contamination issues are extremely difficult to prevent and even if detected are difficult to locate. Evaluation of raw water data collected for MORs is the easiest manner in which to detect upstream contamination issues because the data is already collected for treatment purposes. In fact, high total Coliform readings in the past have signaled potential issues that the City was able to identify and remove.

An upstream monitoring and warning system could be established to attempt to detect water quality issues or spill event type contamination early enough to adjust treatment procedures or cease intake prior to the contamination reaching the WTP. However, given the imminent conversion to the KWA supply, the period of full time use would likely be far too short to achieve payback on the capital expenditures.

B. TREATMENT PROCESS

1. Operational Recommendations

- Increase ferric chloride dosage: Previous testing in the 2002 Treatability Study, jar testing completed by LAN, and a review of 2014 ferric chloride dosages compared to THM levels leaving the WTP support that increasing the ferric chloride dosage would help reduce THM formation.
- Increased monitoring: Currently, the MDEQ does not require daily reporting of raw water TOC or finished water TTHM levels. However, daily tracking of such levels would allow the City to develop a correlation between the two, thus providing a predictive tool to help manage TTHM levels.
- Coagulation and flocculation polymer aids: The 2002 Treatability Study suggested the use of coagulation and flocculation polymer aids. These polymer aids were shown in the 2002 Treatability Study to increase TOC removal and thereby reduce THMFP but jar testing by LAN and PVS Technologies did not indicate clearly defined benefits. Addition of coagulation and flocculation polymer aids should be categorized as a future consideration that would require further evaluation.
- Discontinue softening bypass: In early summer of 2014 the City was bypassing a portion of flow around the softening basins because hardness levels did not warrant softening of the full stream. However, this practice was discontinued because it was believed the bypass stream was contributing to chlorine demand and preliminary data has supported that belief. Chlorine demand dropped 0.5 – 1.0 mg/l following elimination of the bypass stream in early November 2014.
- Soften with lime and soda ash: Research has shown that enhanced softening with both lime and soda ash may provide additional TOC removal. Veolia did not recommend this option after conducting jar tests.
- Disinfection of filter beds: Recommendation is no longer applicable since media has been replaced.
- Optimization of all existing treatment processes: Depending on bench scale testing conditions and results, slight modifications to all treatment processes might in order to replicate lower DPBFP.
- Discontinue or adjust softening anionic polymer feed: Some anionic polymers have been found to increase TOC. However, Veolia provided no recommendation to change polymers following their evaluation.



2. Infrastructure Change Recommendations

- Fix and/or replace faulty ozone equipment: Since the ozone equipment was installed it had not been used extensively on a full time basis. Following minor complications, the City hired the equipment manufacturer and a programmer to troubleshoot the system. Replacement of faulty gauges and redesign of the control program have allowed the system to operate properly since January 2015.
- Replace filter media with GAC media: GAC media could help reduce THM levels by reducing both TOC and chlorine demand. For this consideration, the intermediate chlorine feed location should be relocated to a point downstream of the filters. The City elected to pursue this option and 6 filters were completed in July 2015 and the remaining 6 were completed in August 2015. Provisions are also being considered for adding more GAC media and/or regeneration of media next summer.
- Change disinfectant to chloramine or chlorine dioxide: If other options prove to be ineffective, conversion to another disinfectant should be fully evaluated. Various characteristics of chloramination indicate an advantage over chlorine dioxide, but a full analysis would provide clarity as to which would be preferred.
- Install pre-oxidant chemical feed: Hydrogen peroxide or a form of permanganate as a pre-oxidant can enhance the activity of the ozone. Chemical feed could be installed at the intake structure or low service pump station, depending on the reaction time required. Use of a pre-oxidant at the intake might also provide the additional benefit of disinfection credit for ozonation with the MDEQ if an ozone residual can be obtained at the ozone process effluent as a result.
- Repair upstream sewer leak: a sewer leak upstream of the WTP intake was discovered in early summer 2014 and has been repaired by the City.

C. DISTRIBUTION SYSTEM

Potential distribution issues related to water quality issues discussed in Section IV included old cast iron pipe, oversized infrastructure, and remote storage/pump station locations and operations that might be less than ideal. Recommendations to address those issues are offered in this section.

1. Manage Water Age

a) Storage Tanks

Considering the excess storage capacity discussed in Section IV, in the short term it is recommended that operational changes be implemented immediately to reduce the overall volume of water stored to decrease water age. Immediate operational recommendations include lowering high water levels of reservoirs other than the elevated tank, to reduce the total system wide usable storage volume to 30-37 MG.

In the long term, LAN recommends development of the most ideal options for water model evaluation. Excess storage volume and tank locations within the water system afford Flint numerous options to reduce the amount of storage volume utilized. As a starting point, two recommendations are presented below.



Option 1

- Take West Side reservoir and pump station out of service
- Cut storage volume used in half at Cedar Street reservoir
- Adjusted system wide storage volume would be 35 MG

Option 2

- Take Cedar Street reservoir and pump station out of service
- Adjusted system wide storage volume would be 37 MG

b) Residence Time in Pipes

Completely redesigning and replacing the water system to match today's demands is not feasible financially and would be a waste of infrastructure with remaining useful life. Going forward, it is recommended that any future main replacement projects be evaluated for possible downsizing. When the water model is fully updated, it will provide a valuable tool in determining which mains can be downsized and to what extent. Replacement of broken valves and valve exercising are also recommended, which are programs that have already been implemented into Flint's regular operations.

Operationally, hydrant flushing is recommended as needed to minimize water age in low flow areas. Again, the updated water model should be used to locate high water age areas and optimal flushing points.

2. Reduce Disinfectant Demand

Recommendations to reduce disinfectant demand are similar to those described above to reduce water age. Replacement of old cast iron pipes would lead to a reduction of disinfectant demand on the distribution side, but realistically can only be accomplished over a prolonged period of time. In the meantime, hydrant flushing is the most viable means of reducing disinfectant demand in piping. From a storage standpoint, all reservoirs and tanks should be regularly inspected and maintained to prevent entrance of any outside contamination that would contribute to disinfectant demand. Cleaning of all tanks is recommended as well as investigation into stagnant water prevention options.

3. Water Modeling of Recommendations [yet to be completed]

Determine best flushing locations to reduce water age

Evaluate changes in storage tank operations to reduce water age

Valves to close/add to improve pressure zones, reduce recirculation

Optimization of pump station use – smaller pumps? Shut down?

Evaluate booster disinfection

D. BOOSTER DISINFECTION

Decreasing chlorine feed at the WTP and adding booster disinfection in the distribution system is an alternative intended to reduce the reaction time at higher concentrations of chlorine to reduce DPB formation. Extensive looping and branching within the existing system complicate how to best implement and utilize booster disinfection. Water system modeling is recommended to gauge the effectiveness of existing feed point locations and dosages. Further discussion and details will be provided when the distribution evaluation results are available.

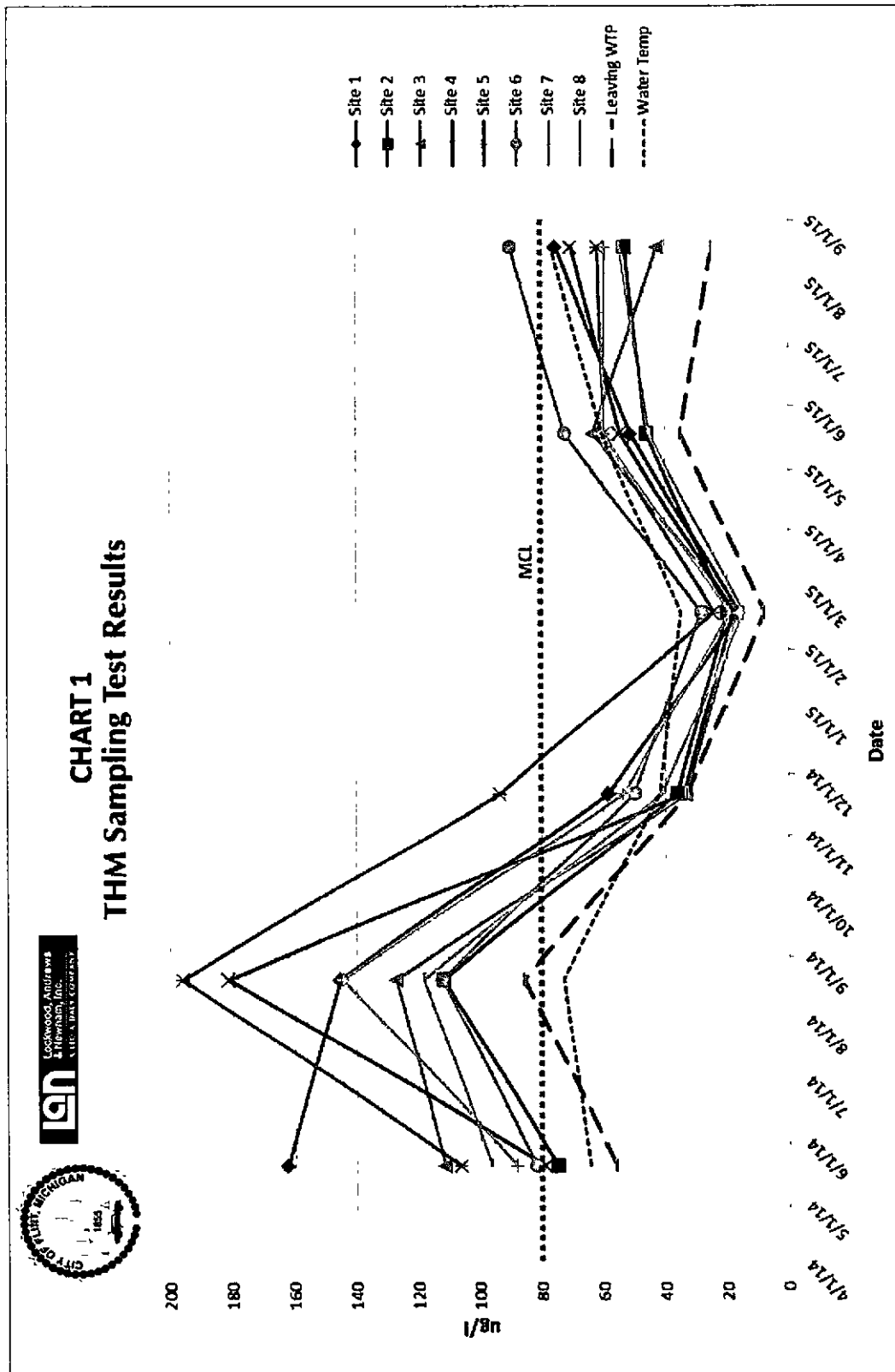


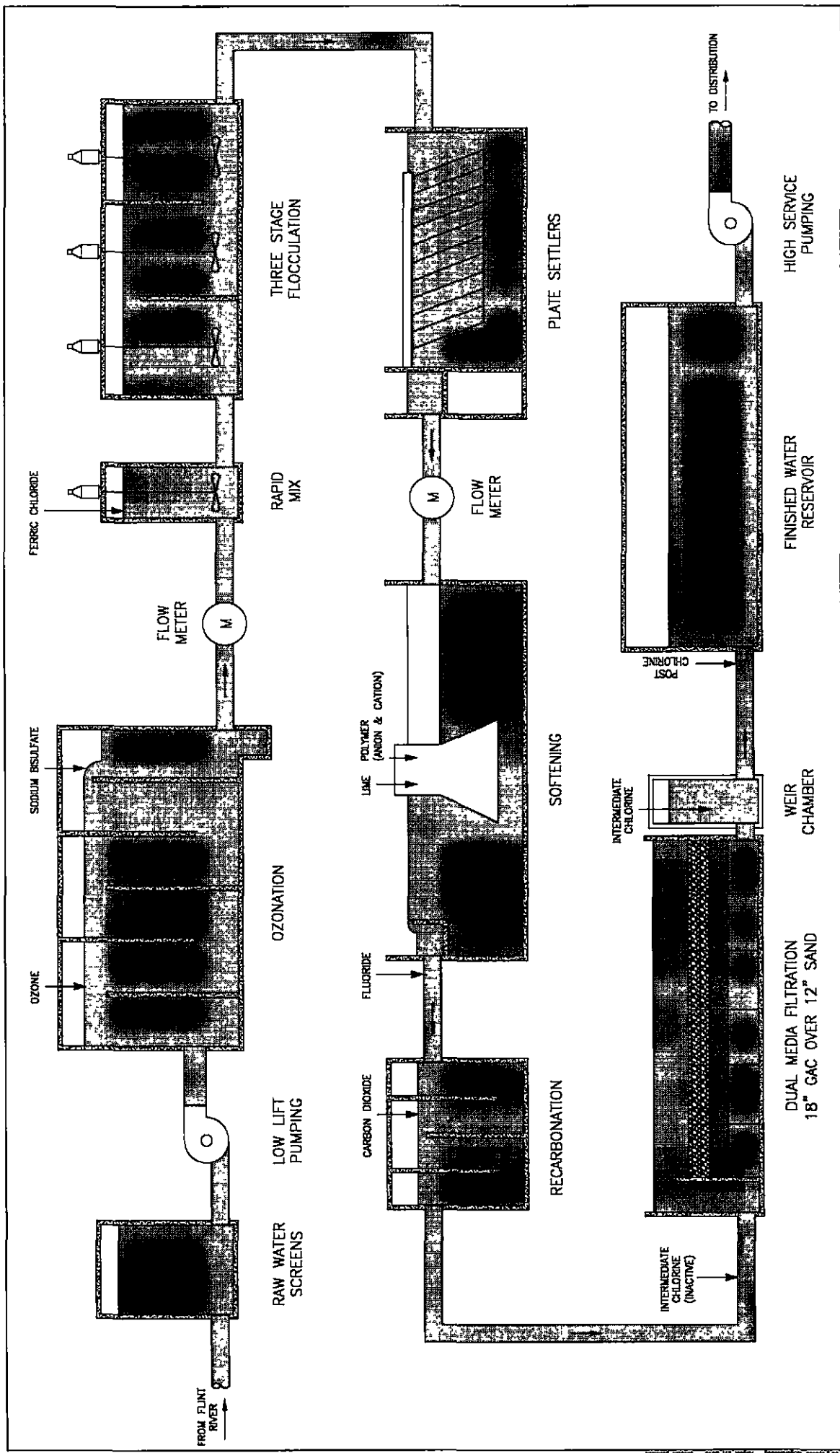
E. CATEGORIZATION OF ACTIONS

Considering that the Flint River is being used as the water source only until the KWA supply is available (expected late 2016), options to address high THM formation that require new construction or extensive time to implement are not preferred. On the other hand, the City understands THM sample results to date dictate that some action is necessary. Two categories have been developed to assist the City in prioritizing actions to take. Stage 1 consists of actions that can be completed relatively quickly without major construction and Stage 2 actions are either long term actions or solutions requiring major construction. Stage 1 actions are to be completed first followed by evaluation of the results prior to consideration of Stage 2 actions. Grouping of actions are shown in the table below.

TABLE 11 – ACTION PLAN			
	Action	Purpose	Status
Stage 1	Hire water consultant to complete 'water audit'	Third party review of actions and operations to make sure no options are being missed	Complete
	Increased water quality monitoring – obtain THM and TOC analyzers	Provide information needed to adjust WTP operations to match changing raw water quality	Complete
	Troubleshoot ozone feed system	Reduce chlorine feed and increase TOC removal	Complete
	Bench scale jar testing	Optimize treatment process and evaluate possible modifications	Complete
	Discontinue softening bypass	Reduce chlorine demand	Complete
	Disinfect filters	Reduce chlorine demand	Complete
	Increased water main flushing	Reduce water age / stagnant water	Ongoing
	Water system modeling evaluation	Determine areas with high water age and reasons	Partially complete
	Modify booster disinfection feeds, if appropriate	Decrease water age	Not yet evaluated
Stage 2	Repair ozone system	Reduce chlorine feed and increase TOC removal	Complete
	Continue increased water main flushing	Reduce water age / stagnant water	Ongoing
	Replace filter media with GAC	Reduce TOC and chlorine demand	Complete
	Continue valve replacements based on water model	Reduce water age / stagnant water	Ongoing
	Convert to lime and soda ash softening	Increase TOC removal	Future consideration
	Change disinfectant to chlorine dioxide	Reduce THMFP	Future consideration
	Install pre-oxidant feed at intake	Optimize ozone disinfection, reduce chlorine	Future consideration
	Implement coag. & floc. polymer aids, if appropriate	Increase TOC removal	Future consideration
	Place priority on replacing cast iron water mains	Reduce chlorine demand	Ongoing

Samples were taken August 18th, 2015 for the latest round of quarterly testing. The City has implemented many of the Stage 1 actions and installed GAC media in the filters and THM test results have significantly improved (decreased) since May and August 2014. All sampling results are shown on Chart 1.







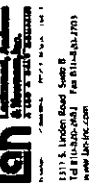
CITY OF FLINT
WATER TREATMENT PLANT

WATER TREATMENT PLANT
PROCESS DIAGRAM

Project No. 130-0701-001
Date: Aug 27, 2011

SHEET
FIG 1

REVISIONS		FILE LOG	
NO.	DESCRIPTION	DATE	BY



L&N
Engineering & Construction
1311 S. Linden Road, Suite B
Flint, MI 48906-9853 Fax 810.433.2703
www.lninc.com

WATER TREATMENT PLANT
PROCESS DIAGRAM

Project No. 130-0701-001
Date: Aug 27, 2011

SHEET
FIG 1



APPENDIX A JAR TEST DATA

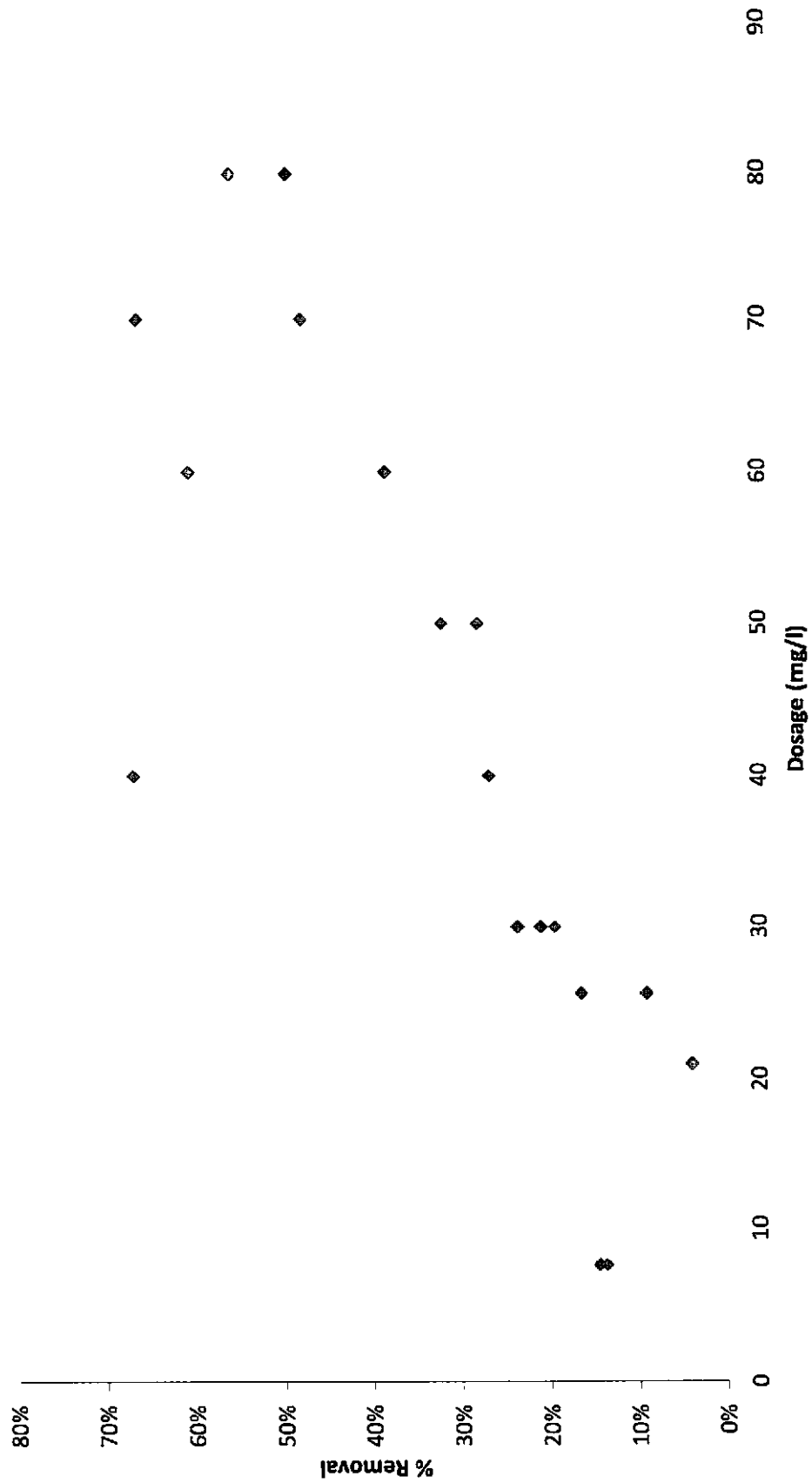


LEONARDO ANDREWS
& ASSOCIATES, INC.
A 100% BLACK COMPANY



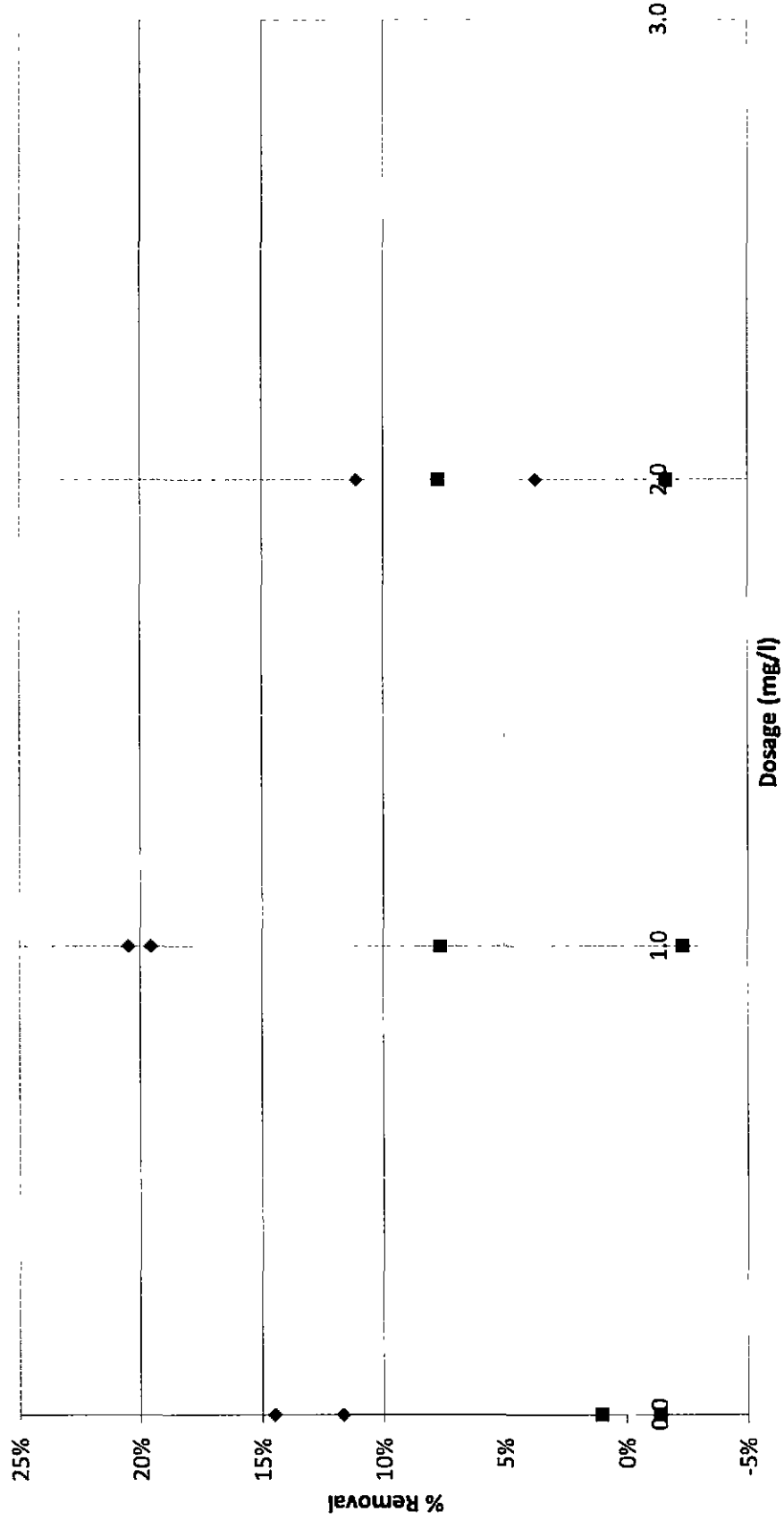
Charles F. Lawrence P.E.

Ferric Chloride Feed THM Removal





Coag/Floc Polymer Aid THM Removal



◆ Rapid Mix Polymer P25 @ 7.7 mg/l Ferric ■ Rapid Mix Polymer P25 @ 30 mg/l Ferric

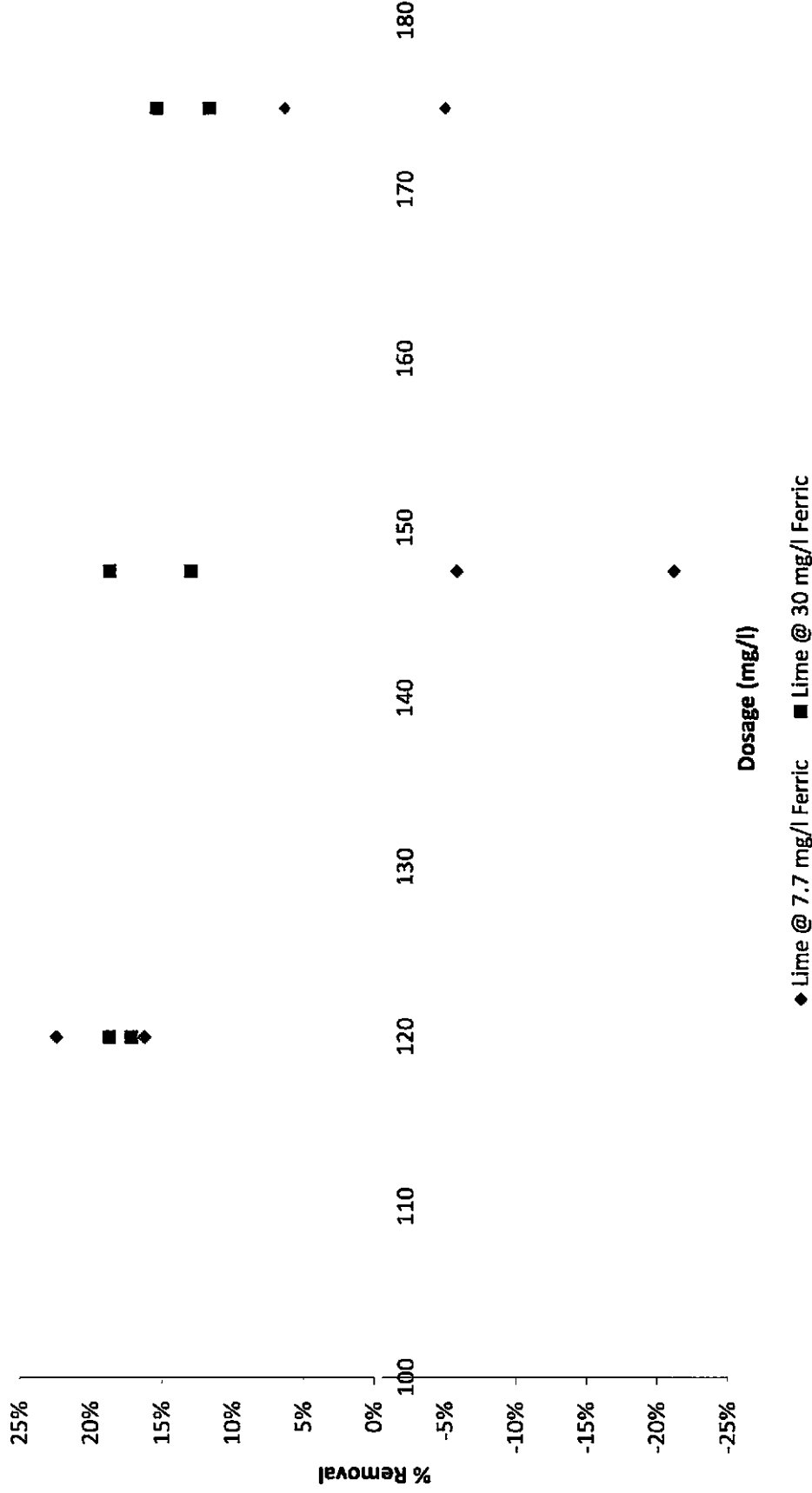


IGN Lockwood, Andrews
& Hornum, Inc.
A LEO A DALY COMPANY



Charles F. Lawrence, P.E.

Lime Feed THM Removal



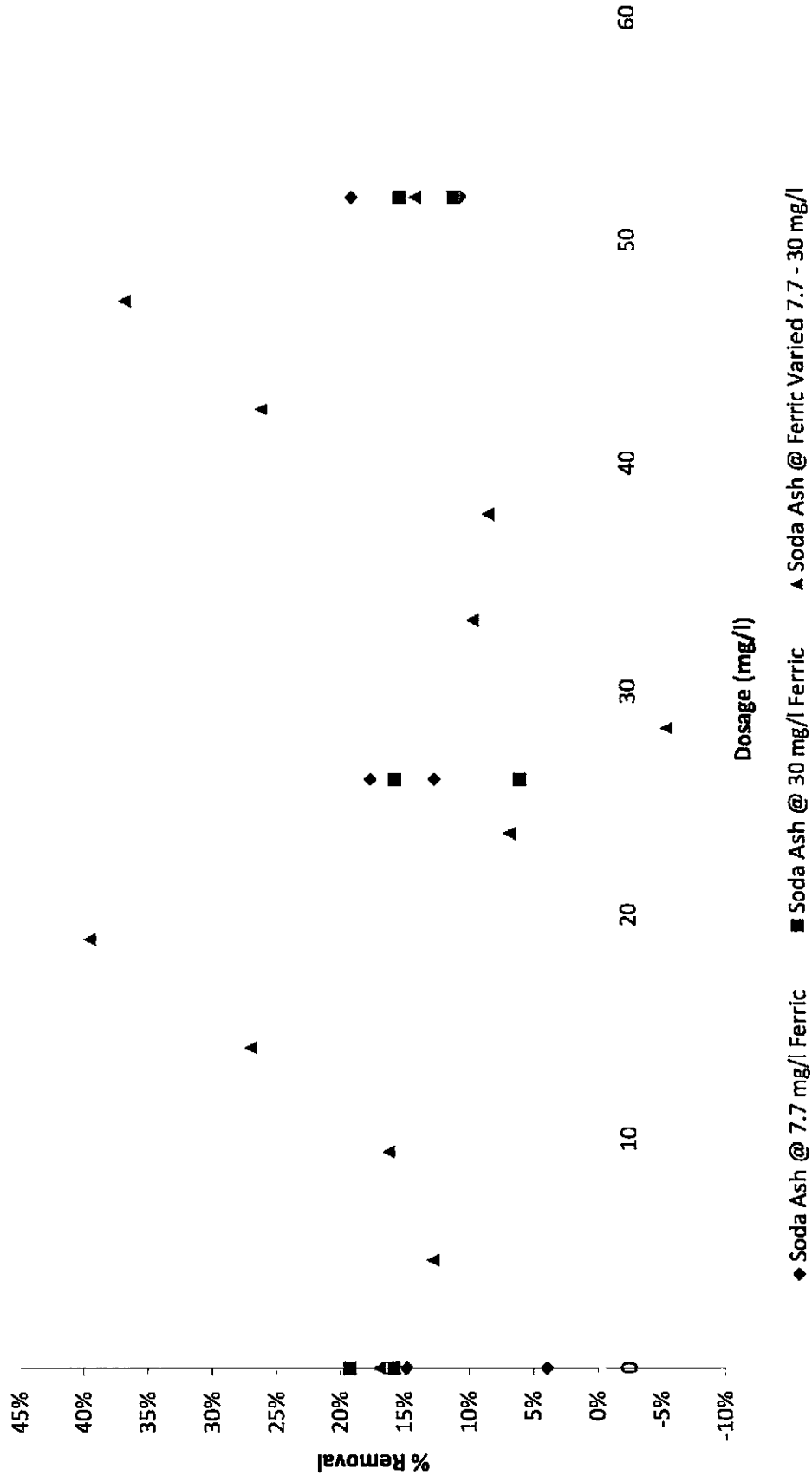


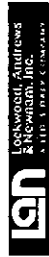
LEGISLATIVE SERVICES
ENGINEERING, INC.
A HKS COMPANY



Charles F. Lawrence, P.E.

Soda Ash Feed THM Removal



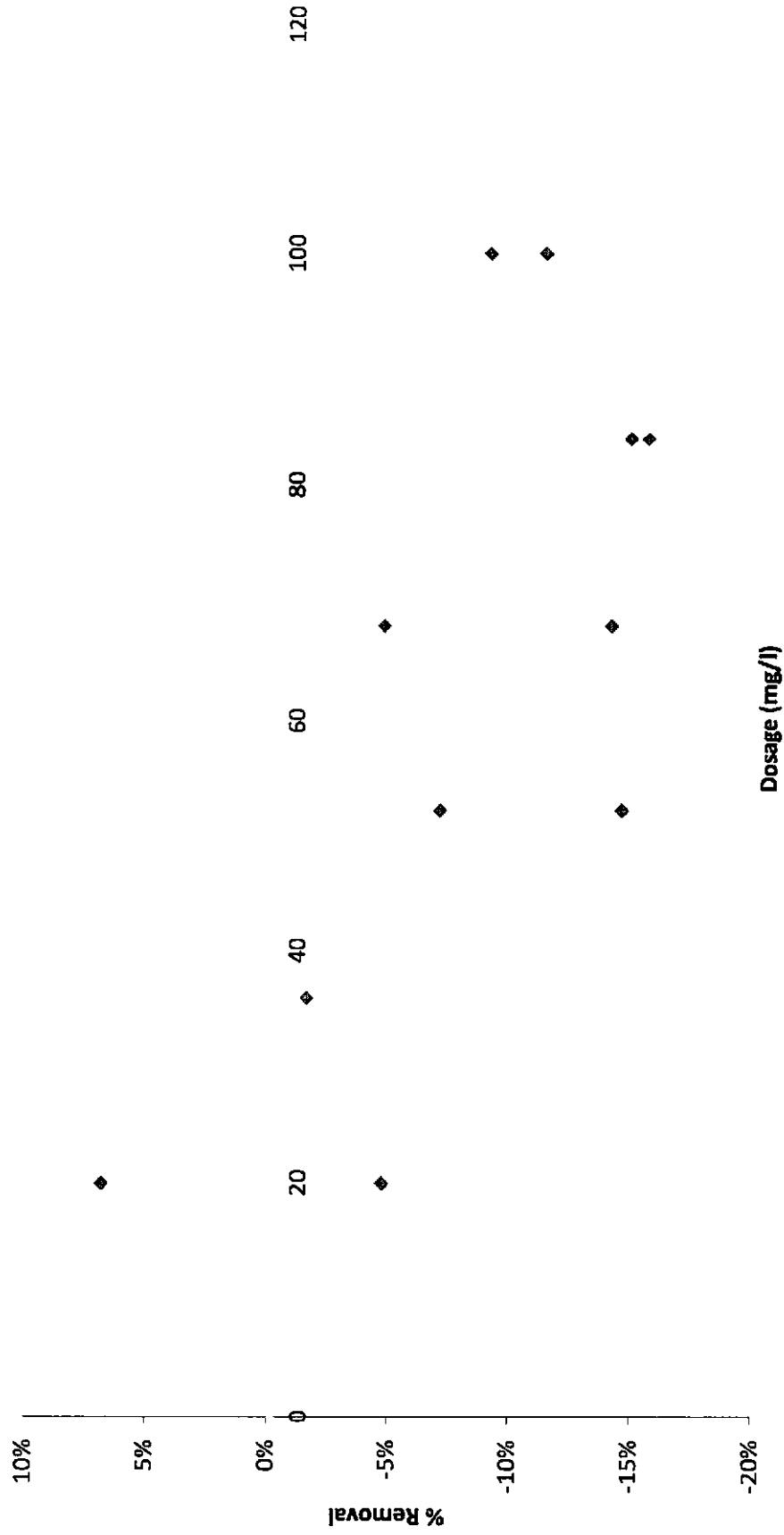


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PAC Feed THM Removal

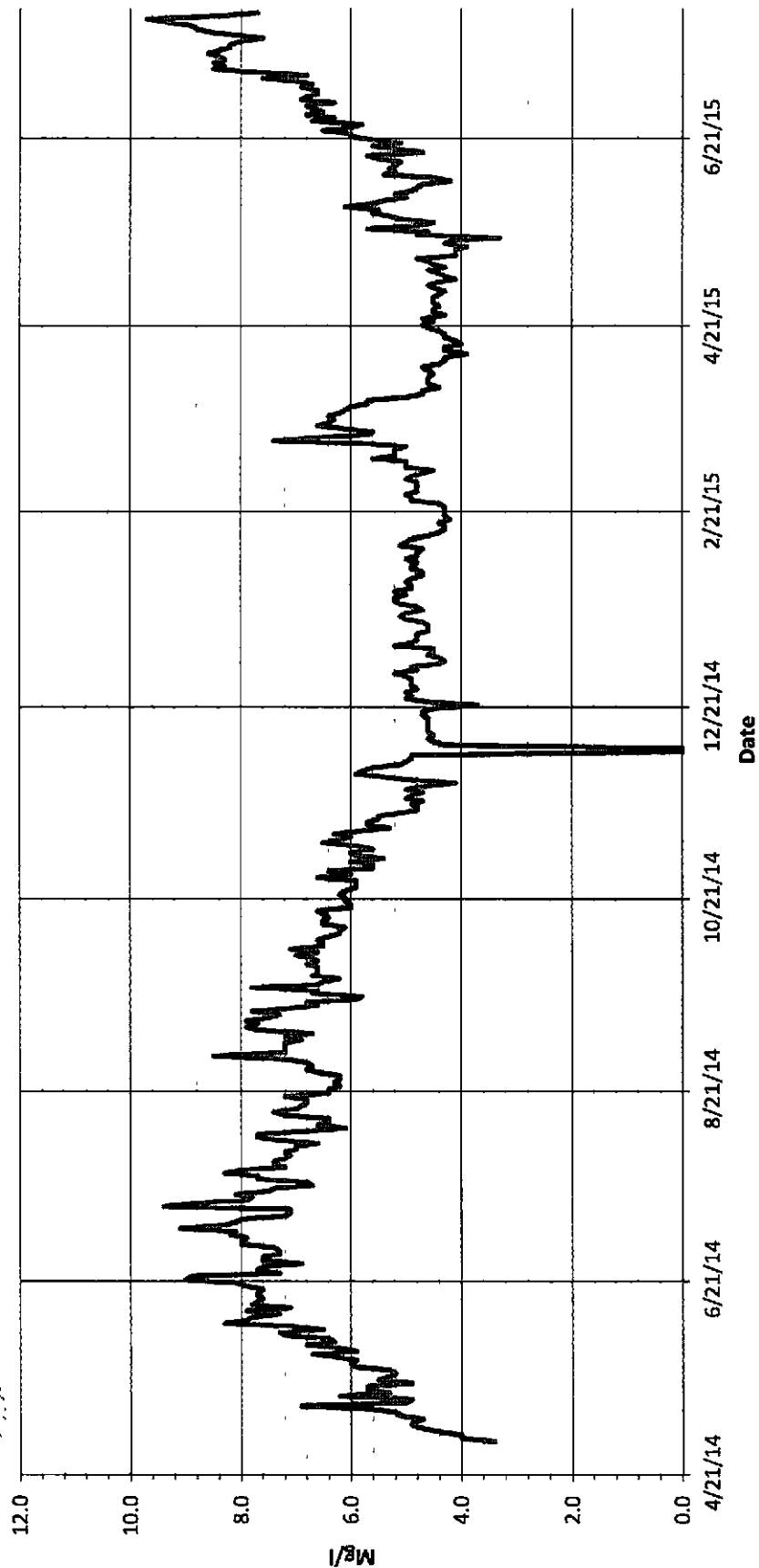




APPENDIX B WTP DATA

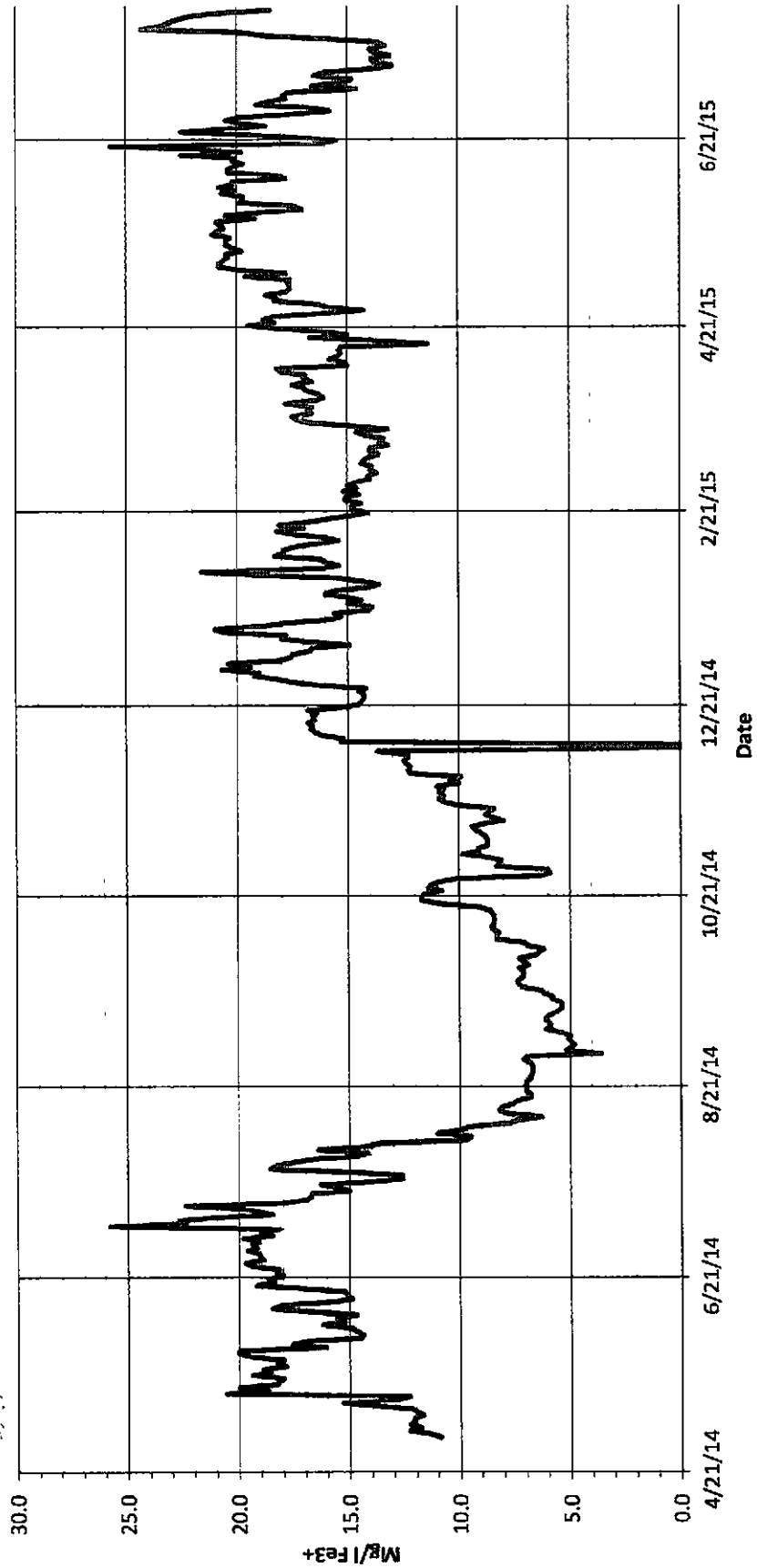


Chlorine Feed





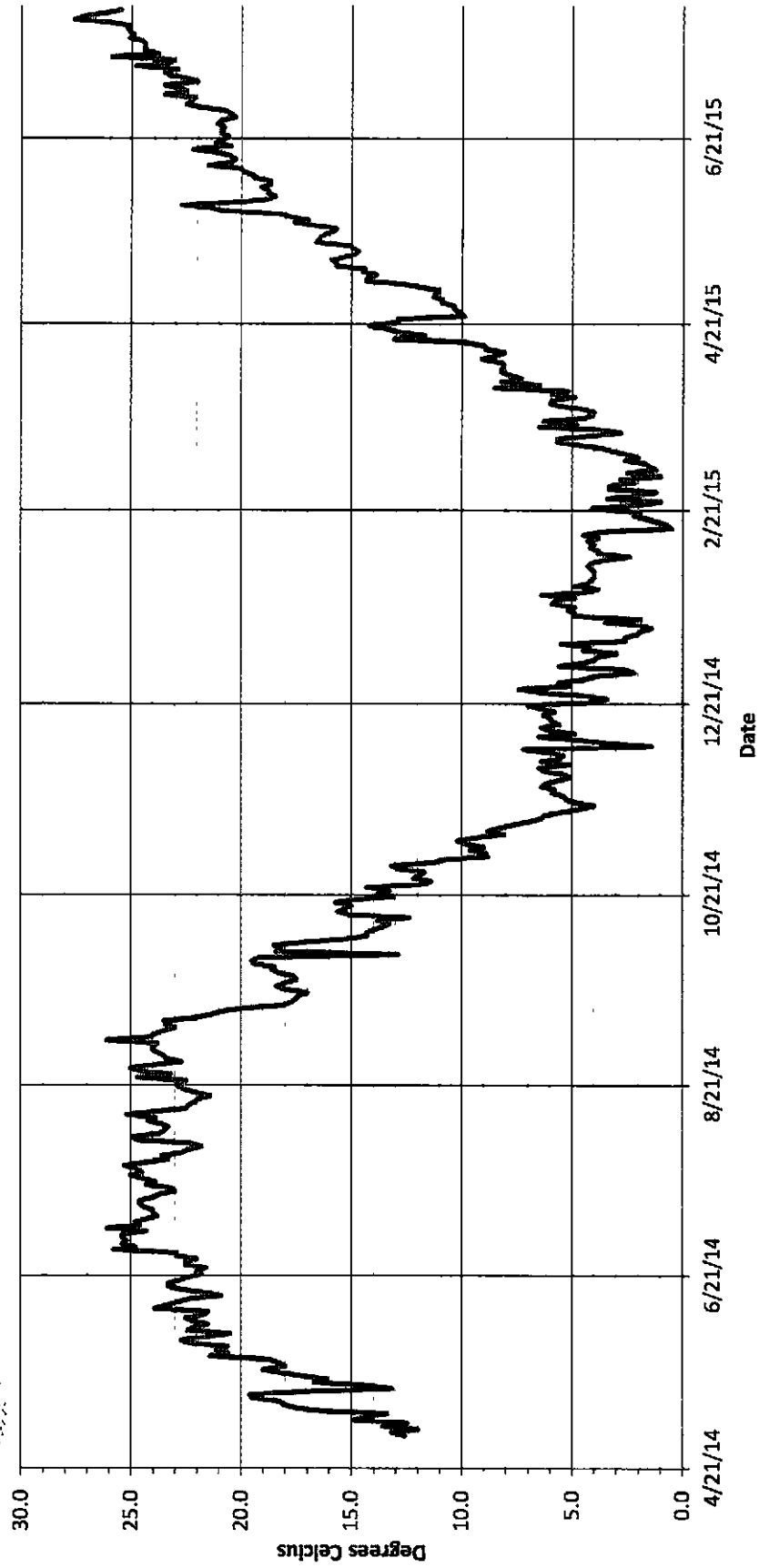
Ferric Chloride Dosage





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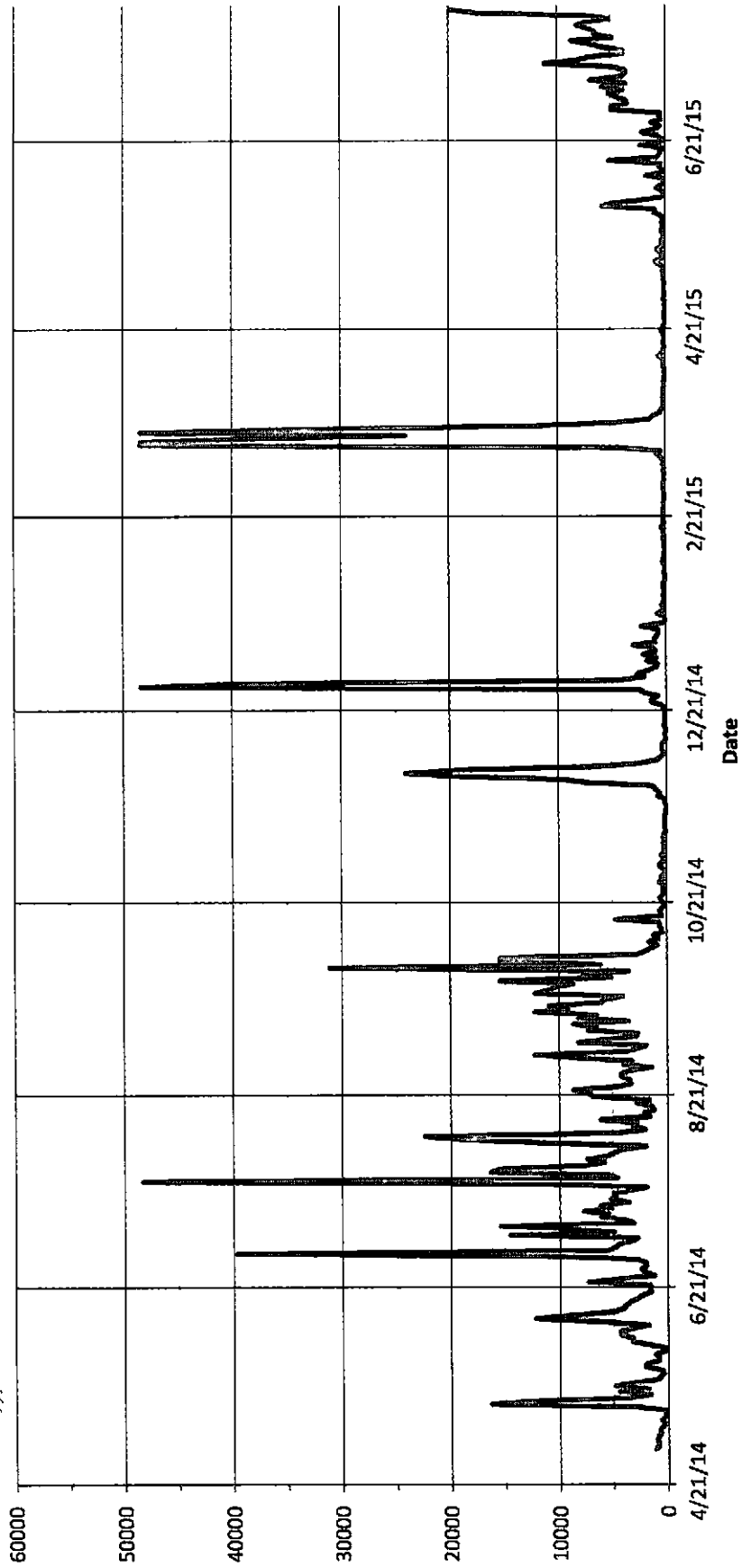
Raw Water Temperature





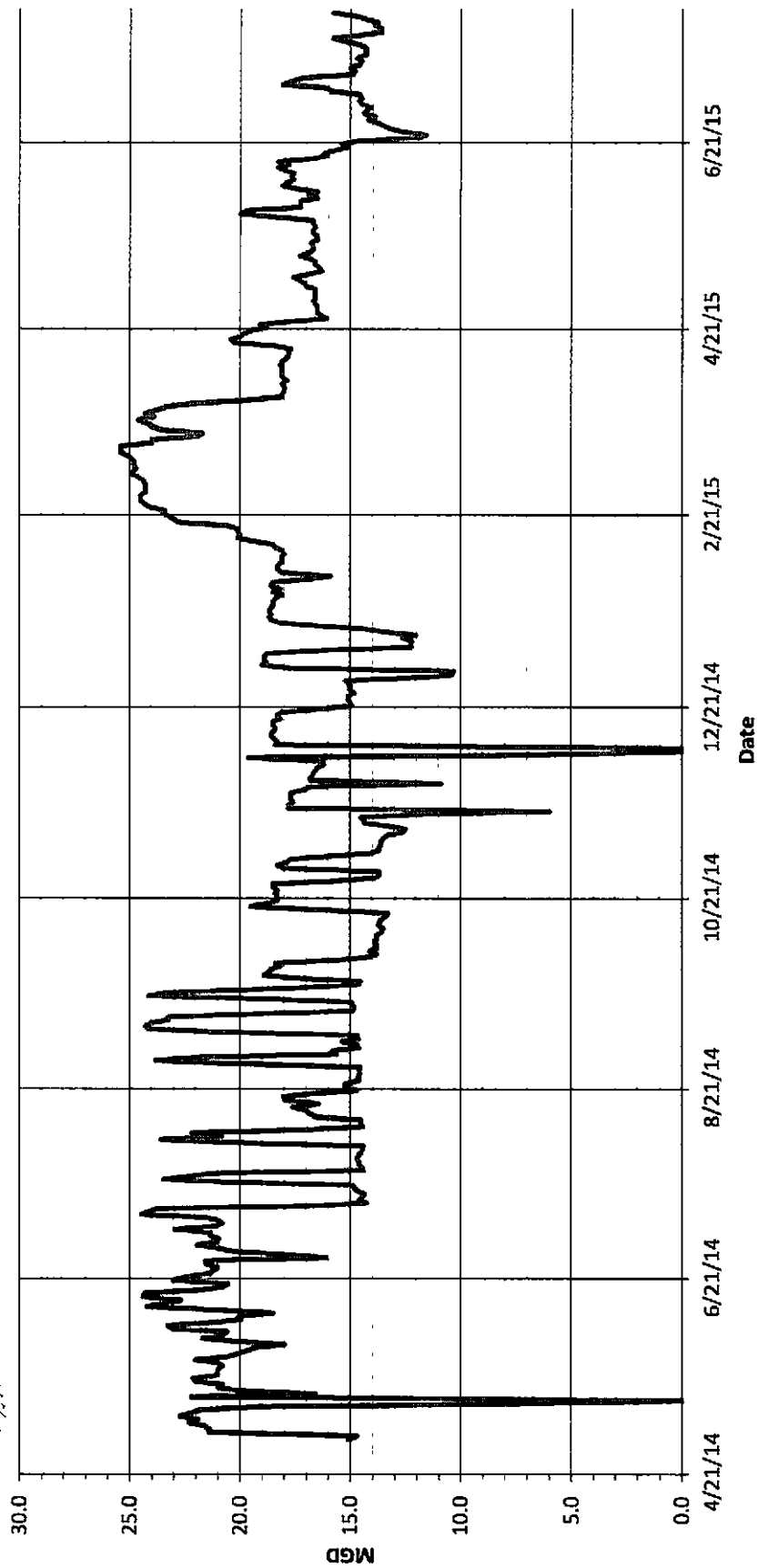
LGN Lookwood, Andrews
& Hargrave, Inc.
WATER & WASTE CONSULTANTS

Raw Water Coliform Count





Daily Water Treated



Operational Evaluation Report Trihalomethane Formation Concern

Headquarters

2925 Briarpark Drive
Suite 400
Houston, TX 77042
713.266.6900

info@lan-inc.com

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**Lockwood, Andrews
& Newnam, Inc.**

A LEO A DALY COMPANY

Schafer, Suzanne K. (Treasury)

From: Byrne, Randall (Treasury)
Sent: Monday, August 31, 2015 7:52 AM
To: Schafer, Suzanne K. (Treasury)
Subject: weekly meeting
Attachments: Meeting with Suzanne August 31.docx

Suzanne:

This is a list of critical issues for our weekly meeting.

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

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Weekly Critical Issues —August 31, 2015

- **Allen Park**— Discussions with leading candidate are not working out due to cost which means Mr. Kibby will be likely choice. City Council wants to appoint a CA in August or early September. We have several names for serving on the RTAB. The revised draft EM Order on the sale of City Hall property has been prepared by Eric, it includes an appraisal and a survey. Gatos vs Allen Park \$600K City and \$150 K from the MML Insurance Pool. City intends to pay lawsuit cost out of their fund balance.
- **Benton Harbor**-The lawsuit with the former Public Safety Director and two former employees is a major issue for the City. Darwin has indicated that it will cost the City \$1.7M to settle these three cases. They are only partially insured. Filling of key positions is proving to be a real issue in the City. Darwin has scheduled a meeting to discuss the interim Finance Director's position with Al Mooney. I have offered financial assistance for a search for a Finance Director. The Assistant City Manager position will be reduced to part-time due to her commuting distance. A job posting for this position will be completed soon.
- **Ecorse** – They received and filed the Memo from Treasury. The City wants to hire the Penttiuk Law Firm. We have several names for filling the RTAB position. Are we ready to approve their five year financial plan?
- **Flint** – Lawsuit on water rates may cause the City to rebate \$51M and repay \$15.7M, a decision will be made on Monday whether this becomes a class action lawsuit along with additional financial repercussions. I have offered financial assistance to the City to assist in determining the financial impact of this court decision but Natasha has not made a decision. A water main break under the Flint River may cost up to \$500K to repair.
- **Hamtramck**-We have several names for the RTAB position to replace Cathy. The pension study payment is in your in box. I am requesting permission to move from Phase 1 into Phase 3. The City has prepared an RFP for audit services. Katrina wants to reorganize staff. Overtime last month was \$60K, we are asking her to get quotes for a police study.
- **Highland Park**-The City has had difficulty finding a collection firm to collect the past due water and sewer bills, Cathy has one firm that is interested. Finding a collection firm is a requirement of the loan agreement. Cathy has indicated that the OPEB savings of approximately \$750K will not be implemented until October 1. The E-loan closing is one month away. Drew and Valerie are working with the AG's office to draft the agreement. We have a number of loan requirements that will be in the draft document. The City has purchased \$300,000 of new water meters as part to the FDCVT grant award. They are set to be installed beginning in early September. DWSD and GLWA have approved a draft agreement regarding the City's debt to DWSD. The City Council on Monday night conditionally approved the agreement. They are asking to extend the number of years required for payback. Brian Lefler has prepared a financial analysis of the agreement for the City. Is the city over its debt limit?
- **Lincoln Park**-Brad is placing a PA 345 request on the November Bailot seeking approval of 6 mills to fund the City's pension system. Brad has prepared a four month plan which is being reviewed. We have met with Brad to discuss the final order. Possible lawsuit against Gabriel Roeder.

- **Inkster**—The new police chief, William Riley is on the job. Mark Stuhldreher was appointed as interim City Manager. Former CM Richard Marsh accepted a buyout and is now Special Advisor to the City. He will be working with Treasury, MEDC, and MSHDA on several development projects. Patrick has been assigned to assist on these projects as well. The City won its appeal on the water billing lawsuit. Mark said the city will be discussing its options. The City is negotiating with Wayne County on its \$4.9M sewer debt. A judgement levy for several years will be likely be placed on the July 2016 tax roll.
- **Pontiac**—The Mayor has two Deputy Mayor Candidates, I will be there for the City Council interviews on September 3rd. We are discussing the exit plan. Jerry Ambrose will be hired as a transition advisor to the Mayor. I sent you a copy of the draft contract. Meeting on September 2nd regarding the City and School District property on Woodward Avenue. Pontiac RTAB exit meeting on Tuesday.
- **River Rouge**—the five year financial plan will have to be balanced in order to discuss an exit from the Consent Agreement, the City's plan for taking over fire service for the City of Ecorse is on hold for now. The Mayor has drafted a revised plan that is even more favorable to Ecorse.
- **Royal Oak Township**— police service proposal from another community has been a problem, additional discussions with Ferndale, Oak Park, and Hazel Park are planned. The FDCVT grant for police will expire at the end of the month (September). We have received Robert's six month plan and are reviewing it. He has sent a letter to the accounting firm advising them that their work has been terminated. Robert has requested an Order be drafted. The MERS issue has resurfaced, Robert wants to have a discussion with MERS to determine if they will take the \$600K and invest it. We need to discuss this with Wayne. Robert's contract expires at the end of September.
- **Miscellaneous Items**—the draft of the September Governor's Memo has been sent to Angela. We need to discuss the way forward on the Analyst positions. Potential RTAB members discussion and staffing.

Weekly Conference Call Notes – August 31, 2015

Allen Park – August 28 – Mayor Matakas, B. Cady, M. Kibby, R. Byrne, E. Cline, P. Dostine

- **Priorities**
 - Construction on Park Street is moving along.
 - The City's new app, Click It & Fix, is popular with the residents.
 - City to recommend vendor who will update Master Plan to Council.
 - City to recommend vendor who will produce overview/audit of City to council.
 - The MML is progressing on its review of AP's personnel, job reclassifications, and salary survey.
- **Order 54**
 - Brownfield issue. Treasury's Brownfield expert reviewing paperwork. When completed, a conference call will be scheduled with AP to discuss.
- **Order 55**
 - Searching for vendor to do appraisal and survey of the property.
- **Fire Contract**
 - No change. Still two outstanding issues: duty-disability; voting member on pension from fire. Talks to resume Sept. 14.
- **SAFER Grant**
 - Update. This grant is retaining 6 firefighters, not hiring new.
- **Bond Tender**
 - \$195K issued as insured. BOA is assuming this piece of the tender.
 - The tender is out until Sept. 16.
- **Prescription Drug Coverage/Healthcare for Under 65, Actives & Over 65**
 - Over 65 switched to Humana, savings of \$176K
 - The change to Catamaran drug coverage saved \$143K.
 - Under 65 & actives are staying with BCBS. Cady said the overall net increase for the healthcare and prescription drug for the under 65 and actives is \$211K.
 - AP must now pay the arrearage fee (\$505K, was reduced from \$850K) to BCBS over 4 years.
 - Treasury has requested a comprehensive breakdown of this healthcare and drug coverage provider change for the over 65, under 65 and actives.
- **CM Search**
 - All candidates have been interviewed.
 - Treasury asked to be included if candidates appear before council for interviews.
- **F.O. Directive: Quarterly Litigation Report**
 - AP checking on status of reports. Should have been part of the packets. Treasury has not received.
 - A litigation report was emailed after the telephone call today.
- **Elevator**
 - Should be completed today.

Benton Harbor –August 27 – D. Watson, R. Byrne, P. Dostine, R. Widigan

- **Weekly Priorities:**
 - **FLSA Claim:** Checks have been cut for the settlement.
 - There is a new FLSA claim for \$25K against the City and Darwin. The individual does not have a solid case at the moment.
 - Audit prep is going well, looking at \$140K surplus.
- **Lange, O'Brien/Unruh Lawsuit:** No new information regarding O'Brien/Unruh. Offer to settle all three is \$1.8M.
 - Bob Callahan said that Lange wants \$595K to settle.
 - Darwin will have a conference call with the attorneys to develop a response to that settlement request.
 - The insurance company has not stated how much they would contribute to just the Lange case.
- **Update on Vacant Positions:**
 - MML proposal is complete and will be sent to Treasury for review (for the head hunting firm).
 - Marja Winters will be working with the City three days a week and will help the City find a new community and economic director/assistant city manager.
 - Posting/job description will be sent out Monday or Tuesday next week.
 - **Assessor position:** Individual is interested, however, they would like to have an assessing assistant.
 - The contract gives 6 months of severance pay when the contract is terminated. The City attorney is reviewing the contract to see if the City still needs to pay it if the assessor is the one leaving.
 - Darwin has a phone call with Al Mooney tomorrow – Al is looking to do more part time.
 - **DPW:** City is filling one position, gearing up for the winter.
- **Status of FDCVT Grant Applications:**
 - Darwin is resubmitting some of the projects from LY as well as additional projects that they are getting cost estimates to submit in new projects.
 - Should be submitted mid-September.

Ecorse – August 25 – W. O'Neal, T. Sadowski, J. Pepperman, R. Byrne, P. Dostine, C. Porubsky

Priorities:

Waiting to hear from Treasury on five-year budget, would like feedback. Randy: does the budget reflect the consolidation with River Rouge? Current fiscal year doesn't show anything, didn't budget for savings. Transferred salaries to professional services. Has some time to show savings. Has leeway in PA 33.

Spoke with RR yesterday, have to put contract on hold. Things are heating up. If the deal does not go thru, all Ecorse FF will be reduced to part-time. Would help with savings needed to balance five-year. Current salaries are around \$850-900K, thinks this would cut roughly in half. Would pay RR around \$400K. Would like to have shared command with the agency to cut down on overtime costs. Their Public Safety gets a bonus, Ecorse has not had a raise in twelve years.

Tim's first day was yesterday. John and Tim will work together this week. John has volunteered to be on call.

DPW Superintendent resigned last week. Will be brought to the RTAB next month. **This position was being paid salary plus overtime.** Has been here around two years, Wayne thinks he is overwhelmed administratively. Wayne is thinking of moving current employee into vacant treasury position and give an applicant that has water/sewer billing experience the position of DPW Administration Assistant. Wayne stated the bills are going out on time; has some problems to address regarding fraud, etc.

OPEB Benefit Audit is also on the radar, Wayne is going to look at. Has to look at what a couple people are paying for healthcare and ensure it is the correct amount. Pre-65 do not have healthcare anymore, only ones grandfathered in (approximately ½ dozen or more). Wayne has met with MERS multiple occasion. 7.75 rate of return, Wayne was using 8. Need to recalculate.

Prax Air: Got a call from Livese at Prax Air and stated there are things that need to be changed in the resolutions to comply with law. Getting prep work ready, conducting pre-construction meetings, etc.

Council voted to receive and file letter from Wayne Workman.

Flint – August 26 – N. Henderson, F. Headen, R. Byrne, P. Dostine, E. Cline

- **Priorities**
 - Focused on the Court Order regarding water/sewer, is hoping for an appellate stay.
 - The City has already prepared bills that reflect the Order: 35% decrease in rate will go out on next billing.
 - All CIPs have been suspended, saving approximately \$7M.
 - 14 water/sewer positions have been frozen, savings of \$1M.
 - It is estimated that approximately 70 different customers per day stop paying their bills. Which amounts to \$70K loss per day.
 - By the end of this week, Henderson said the City will have a better handle on the cost to the water/sewer fund from customers not paying their current bills.
 - The City's plan, if the stay is granted, is to reinstate the 35% rate increase immediately. The increase would not be escrowed because the revenue is needed to operate the department, resume the CIP plan, hire personnel, etc.
- **Unpaid Water/Sewer Bills, Implications for Cash Flow, Fund Solvency**
 - If customers continue their refusal to pay and the new billing goes out with the 35% reduction, the water/sewer fund may possibly stay solvent and operate through the fiscal year.
 - If the City loses their appeal, the estimated cost is \$85M. This figure does not include the \$15.7M in the Order owed to the water/sewer fund.
- **KWA Bond Payment**
 - In FY 16, Flint must make \$6M bond payment to KWA.
- **Finance Assistant, Help with Water/Sewer Court Order**

- Natasha will call Randy to discuss further.
- **Police Issue**
 - A police officer has been fired by the City after making derogatory comments on social media during working hours. Henderson said the issue has been picked up by media.
- **PR and Water/Sewer**
 - There has not been much if any support for the City in the media regarding the potentially devastating impact an unsuccessful stay or an appeal would have on the City's financial future.
- **Additional Police Officers**
 - Five new police officers have been hired, another five are being sent to the academy and will be offered positions upon completion.
- **Water Main Break (8/25)**
 - According to Natasha: "We are doing what we have to do with the staff we have."
- **Dupont Street Project**
 - The project is still a go, however the City is requesting an extension. There are no plans to suspend the project.

Hamtramck – August 27 – K. Powell, R. Byrne, P. Dostine, D. Van de Grift

- **Priorities**
 - Processing paperwork for the bond sale (closing in Sept.), and infrastructure project. Anticipated cost is \$6.5M.
 - Put out to bid for vendor to perform City audit.
 - Hired an auditor for the housing discrimination fund.
 - Taking the snow removal responsibilities in-house this season, expected to save the City money. DPW began prepping for the winter season.
 - Bidding out the landscaping contract, Katrina said the current cost is too high.
 - Also bidding out contract to do sewer work and repair.
 - Meeting scheduled with Wayne County Executive and Sheriff regarding jail services.
- **Police Overtime**
 - Last month's bill was \$60K. Katrina noted that revenues of \$96K were generated as a result. Fireworks and a movie night at the school contributed to the \$60K overtime figure.
 - Overtime language is in police contract in eight hour shifts. This will need to change in the next contract.
 - Katrina will ask court to break out traffic revenues from forfeiture revenues.
 - The Police Chief is in the process of hiring part-time officers and a dispatcher so higher paid staff will not have to dispatch.
 - Police Study: No progress. Treasury recommends looking at ICMA .
- **Library**
 - A library study is needed. Last fiscal year, the library finished with an \$80K deficit. The City bailed them out. According to Katrina, the library has important role in the community and acts as community center in many ways.

- **HR Update**
 - Recently, the City Treasurer's actions resulted in an overdrawn account. The Finance Director sent a memo documenting the error.

Inkster – August 13 – M. Stuhldreher, R. Byrne, P. Dostine, C. Porubsky

- **Priorities/Misc.:**
 - DOJ employee came in to facilitate community group (resulted from Dent situation).
 - Richard Marsh is transitioning; Mark is getting used to new position/role.
 - Meeting with MSHDA on Monday; Mark will be in attendance.
 - Discussion will take place Monday at the Council meeting regarding Mark's role as Interim City Manager.
 - Final billing for search has been processed.
 - Police training is needed, but it is hard to send as they are short-staffed. Randy suggested contacting Capt. Yes.
 - TIFA is declining; Mark will have to get money from GF. Debt was issued in 2010 and has about 20 years left. This was in the long-term forecast and is not a surprise. Initial projections were at 4-5%, actual rate of decline was 8-9%.
- **Police Chief:**
 - Started Monday. Interim Chief Thomas is completely separated from the agency now, but the two were able to spend some time together.
 - To Mark's knowledge, the Chief has not met Captain Yesh yet, but has met some MSP members, include Lt. Shaw.
 - Mark stated that the new Chief is straightforward, about business, articulate, and has good people skills. Expects that the community will embrace him.
 - Randy would like to meet the new Chief and see the building.
- **Chargebacks:**
 - Came back lower than budgeted.
 - \$300K positive variance on GF, \$100K negative on Sewer; everything together is \$213K positive variance.

Lincoln Park – July 29 – B. Coulter, P. Dostine, D. Van de Grift

- **FAC & Wayne County Future Road Projects:**
 - Brad and the DPW Director will begin attending these meetings.
- **New City Manager:**
 - Mr. Coppler will start October 1. Brad has started forwarding informational emails to begin the acclimation process.
- **Five-Year Plan/90-Day Plan:**
 - Both will be submitted soon; the five-year is nearly complete.
 - Projected fund balance this year is \$100K, \$500K-\$700K for next year, and \$400K-\$500K the year after.
 - If the projected fund balances don't materialize, there are areas that can be modified to reduce expenses. The fire contract allows for modification, first responders could be eliminated, FTEs

could be reduced from 18, police shifts could be shortened, and could begin charging for HazMat cleanups.

- Healthcare costs were decreased by \$600K this year.
- If pension payments cannot be made, a judgement levy should be considered.
- **Order Concerning the New City Manager:**
 - Brad will add language to the Final Order detailing the City Manager's authority.
- **Rental & Vacant Property Ordinances:**
 - Two ordinances, will help to control/monitor the number of rental/vacant properties in the City; this will hopefully help stabilize and perhaps increase property values.
 - It is estimated that between 6-15% of properties in the City are currently vacant.
- **TJ Adams Final Invoice:**
 - The final invoice for the City Manager search will be forwarded to Treasury.
- **Gabriel, Roeder, Smith & Co:**
 - The City is considering filing for the full amount of pension underfunding, \$90M.
 - Legal fees would range from \$75K-\$100K.
 - May or may not be a good risk to take.

Pontiac – August 28 – Mayor Waterman, J. Sobota, , N. Nazarko, R. Byrne, P. Dostine, R. Widigan

Weekly Priorities:

- GERS Board passed a policy addressing future overpayments of COLA.
- J. Sobota is working on his report to the RTAB.

Deputy Mayor Position: TJ Adams firm sent out letters to council-members to attend a forum to meet the two Dept. Mayor finalist.

- The names will be kept confidential.
- Informal meeting with council on Thursday at 10AM, there will be no vote or evaluation to fill out. Council meeting to follow at 12.
- Randy will attend the sessions on Thursday.

Community Development Positions: Salary approved, positions were posted on August 20. 30 days ends on September 25.

- Met with Oakland Co. to discuss working together on community development once the positions are filled.

Phoenix Center: The City's attorneys have talked with one of the other condemnation attorney's. They are working on setting up a meeting between the owner of the Ottawa Towers owners and the City.

- The Mayor/City is working on a strategic plan for the property/area.

Two-year Rolling Budget: Budget amendment for the 15/16 budget is pending before the finance committee. Once that is complete then the City will prepare and finalize the two-year.

Retiree Lawsuit: The City had a pre-meeting with opposing council. A new list of possible eligible individuals. Once all the information is gathered it will be finalized and sent to the mediator. Next pre-meeting is set for September 21.

- A letter of understanding is being developed and shared with the mediator.

FDCVT Grant Applications: Randy reminded the City.

Royal Oak Township – July 27 – R. Burgess, D. Squalls, R. Byrne, P. Dostine, C. Porubsky

- **Priorities for the Week/Miscellaneous Items:**
 - Set up meetings for this week or next with potential developers.
 - Code enforcement officers currently have dealership in court over taxes – Donna thinks the best scenario would be for someone to buy both the dealership and motel next to it and demolish the motel.
 - Donna: Finish F&O Plan.
 - Robert: Spoke with Finance on Thursday, need a cash flow analysis for the remainder of the year and to create an amended budget.
 - Current on all bills with the exception of one.
 - Revenue sharing is anticipated to be the only income, but Robert thinks there is enough money to make it thru the year.
 - Randy reminded the Twp. that a monthly financial report is required.
 - General fund renewal is on the ballot August 4; Donna and Robert would like to send a flyer out. Randy cautioned them on the wording
- **Audit:**
 - Completed; Donna said that it was better than last years' and didn't highlight many problems.
 - Robert stated that one of the things the audit noted was that an inventory needed to be completed.
 - Donna wanted to know if the Board had to approve the audit – Randy said to ask Mr. Wilkerson.
- **Police Update**
 - Donna will know soon after August 4 (election) more regarding Hazel Park.
 - Oak Park is not interested; very short meeting where annexation was suggested.
 - Ferndale: Over \$1M, have not talked to.
 - Deadline is August 31; if not completed money will need to be returned.
- **Street Lighting:**
 - Completed last Friday, grant should close this week.
 - A rebate of \$9700 is anticipated.
 - Bills should start being lower in September; the entire \$10K budgeted for these may not be needed.