
Subject: Flint Technical Advisory Committee

Start: Wed 11/18/2015 2:00 PM

End: Wed 11/18/2015 5:00 PM

Recurrence: (none)

Organizer: Sygo, Jim (DEQ)



FW: TAC Team
Update 10_28_15

From: Krisztian, George (DEQ)
Sent: Wednesday, October 28, 2015 3:33 PM
To: Sygo, Jim (DEQ); Shekter Smith, Liane (DEQ)
Subject: FW: TAC Team Update 10_28_15
Attachments: TAC Weekly Update 10_28_15.pdf

FYI

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From: Howard Croft [<mailto:hcroft@cityofflint.com>]
Sent: Wednesday, October 28, 2015 3:28 PM
To: Amy Hovey; Andy Leavitt; Anthony Chubb; Brent Wright; Darren Lytle; Dayne Walling; donna. cole; Dykema, Linda D. (DHHS); Wells, Eden (DHHS); edwardsm; Krisztian, George (DEQ); Gerald (Jed) Natzke; Howard Croft; James Henry; Jamie Gaskin; Jason Lorenz; jmikewright; JoAnne Herman; John O'Brien; Kevin J. Keane; Kirk Smith; larry.koehler@mcc.edu; Laura Sullivan; Lawrence Reynolds; Lawrence Reynolds; Michael Glasgow; Schock, Michael; Michael Wright; Mike Lane; Prysby, Mike (DEQ); MVALACAK@gchd.us; Natasha Henderson; Norb Birchmeier; Pete Levine; Robert Bincsik; rosejo@msu.edu; Russell Hudson; Samir Matta; Sean Kammer; Busch, Stephen (DEQ); Thompson, Sheryl D. (DHHS); Warren Green; Shawn McElmurry
Subject: TAC Team Update 10_28_15

Team,

The next Technical Advisory Meeting is set for **Wednesday November 18th 2:00 pm** at Flint City Hall. The previous date being considered was Veterans Day and we encountered several conflicts. There will be a call in number available and I will send an agenda prior to the meeting.

There is a significant amount of new information included in this weekly report and I expect that trend to continue as we move forward. Several of the items mentioned such as the specific dosing level of phosphate will become targets of discussion at this next meeting in order to thoroughly evaluate the pros and cons and to help with public information.

The testing map continues to have information added as it becomes available and on the weekly report we have inserted a data table that will be updated regularly as well. Please let me know if anyone is interested in additional data being reported.

Please be prepared to give input on the potential of a December meeting which would have to be December 9th or December 16th.

Thank you,

—
Howard Croft

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City of Flint Technical Advisory Committee - Weekly Report

October 28th, 2015

Last meeting: 10-7-2015

Next meeting: 11-18-2015, 2:00 pm

I. Overview –

Please note that we have set the date for the next meeting at **Wednesday November 18th** 2:00 pm at Flint City Hall (there will be a call in number). The previous date proposed is Veterans Day and there were several conflicts.

II. New Items this week

Technical Advisory Committee Addition

I have added Professor Shawn McElmurry, An Associate Professor at Wayne State University in the Dept. of Civil and Environmental Engineering to the TAC team. Professor McElmurry contacted me a few weeks ago and visited the Water Plant and took several samples from the Flint River and the distribution system.

Professor McElmurry's team has submitted a proposal to the National Institute of Environmental Health Sciences (NIEHS) for funding to evaluate how changes in the drinking water system are impacting water quality. Their project has the following goals:

- Define exposure within Flint's drinking water system using a combined sampling and modeling approach.
- Quantify how the concentrations of DBPs and Pb change over time within the water distribution system.
- Apply a high-throughput bioassay to evaluate toxicity of complex chemical mixtures (focused on DBPs).
- Communicate results to water utility operators, government officials (city, state, and federal), public health agencies and residents using principles of risk communication through a variety of channels including social media.

Given their goals and their proximity to Flint, I believe that adding Professor McElmurry to the Technical Advisory Team will bring added evaluation and data to our cause.

III. Ongoing Items of concern or in process

A. Detroit Water

Water from Detroit is now flowing through all of the transition mains and should be present at most taps throughout the City. We are flushing hydrants in a manner to help circulate water within the system, individual usage patterns will dictate water being at every household and business. We will be testing hardness and phosphate levels over the next several days across the city to verify the presence of Detroit water.

B. Service Lines

I want to clarify where we are regarding the service line data. The 45,000+ cards are only one aspect of the information and represent the original data. As work has occurred over the last several decades, the Service Center has built a second, partial set of cards with updated information. Both sets of cards are kept as permanent records with accurate data. We also have maps which were last updated in 1984 with additional information. Finishing what the City started has involved stitching together three sets of data and then putting that into a database.

U of M Flint has taken ownership of the project and they have measured how much labor it will take to complete the task. Professor Kaufman is working pro bono but has just submitted a proposal to the City for the labor required in order to complete the task. The proposal will be turned around ASAP for them to complete the work.

C. Corrosion Control

On October 19th 2015 our engineering consultant submitted a design package to the DEQ with recommended phosphate dosing. After EPA review, the comments were just returned and today LAN is discussing with DEQ when to expect final approval and permitting. There are questions regarding the elevated dose of phosphate that we will bring to the next Technical Advisory meeting for discussion. The questions will be largely around the pros and cons of the specified dose level and the public communication and expectations that should accompany the implementation.

Issue	Description	Action Item	Owner
Corrosion Control	To help recoat the piping	The final design has been sent to MDEQ for permitting.	LAN
Surge Protection	Main breaks are down.	Leak detection will continue for the next few months.	City Staff
KWA - Prep	Design and installation of final improvements needed	Internal November 5 th meeting scheduled to discuss specifics. See item IV.	LAN/City
KWA - Transfer Station	Buffer for water supply from KWA	Internal November 5 th meeting scheduled to discuss specifics. See item IV.	LAN
Hydraulic Model	Filling with data	Need to verify broken valve locations for model to be accurate.	LAN/City
SCADA Upgrades	Used to develop automation within the system.	First phase went in in FY15 second and final phase due to be installed prior to KWA's arrival.	City Staff

IV. **Needs for treating and using water from KWA**

The City is meeting with the engineering consultants on Thursday November 5th in order to build a project timeline of all items needed to be prepared for water delivery from KWA. The following items will be discussed:

- A. Design and construction of transfer station to Dort Reservoir (while in use).
 - Needed to buffer the volume of water that KWA is capable of delivering prior to their reservoir tank being activated.
- B. KWA access to the plant.
 - The current design calls for use of the pipe that was empty and is now in use. An alternate plan needs to be discussed and vetted.
- C. Alum feed system
 - Needed for coagulant change to raw water and to reduce chloride.

V. **Testing Data**

We will continue to update this data table weekly, if there is something that is missing or additional data that is requested please let me know and we will attempt to add it to the table.

Date	Flow (MGD)	pH (S.U.)	Total Hardness (mg/L)	Total Alkalinity (mg/L)	Non-carbonate Hardness (mg/L)	Chloride (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Total Phosphate (mg/L)
Range GLWA	12 - 19	7.3 - 7.6	98 - 102	70 - 76	26 - 32	11 - 13	26 - 32	3.9 - 6.3	1.0 - 1.2
10/26/2015	12	7.36	102	74	28	11	30.5	6.3	1.14