

Rennaker, Joanne (DEQ)

From: Matta, Samir <SFMatta@lan-inc.com>
Sent: Monday, April 06, 2015 11:14 AM
To: Prysby, Mike (DEQ)
Cc: hcroft@cityofflint.com; Busch, Stephen (DEQ)
Subject: City of Flint - WTP Conversion to GAC.

Hi Mike,

As per our phone conversation, LAN has been working with the City to implement the recommendation from Veolia with regard to the conversion of the 12 filters at the plant by replacing the 18" Anthracite with new GAC Media.

Due to the time frame limitation, We have discussed with the City that sole sourcing the GAC purchase and installation may be the only chance for us to accomplish the work on time as the system will need to be in place by early July in order to give the City 5-7 weeks of treatment time with the new media before the August sampling.

The City is looking for us to provide a turn-key delivery method in order to insure that we can acquire a vendor while performing the design and going thru your office for permitting.

Let us know if you agree with the approach or if you recommend a different method.

Your prompt response is greatly appreciated.

Samir F. Matta
 Senior Project Manager



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Rennaker, Joanne (DEQ)

From: Prysby, Mike (DEQ)
Sent: Thursday, September 18, 2014 2:08 PM
To: Wurfel, Brad (DEQ); Feuerstein, Heather (DEQ); Shekter Smith, Liane (DEQ); Willard, Veronica (DEQ); Busch, Stephen (DEQ); Benzie, Richard (DEQ)
Subject: City of Flint BWA follow-up - media inquiry

Mr. Ron Fonger from the Flint Journal called me this morning concerning a follow-up meeting with Flint city council yesterday evening and their summary of the most recent localized BWA (rescinded on 9/9/14). The city agrees that there are underlying problems in the water distribution system; however, the following question was asked.....Why weren't these problems being experienced while we were purchasing water from Detroit? Howard Kroft (City Administrator) responded that the difference in the source water (higher temperature in the Flint River) creates a treated water that is not fully stabilized and reduce chlorine residuals in the distribution system. This problem was exasperated further in the distribution system due to several transmission main valves being closed causing stagnation and ineffective disinfection. Ron asked if I agreed with Mr. Kroft's discussion and if there may be a link between the Flint River source water and the problems recently experienced in the distribution system.

I agreed, in part, that low chlorine residuals (< 0.1 to trace free) and stagnation is ineffective in maintaining adequate disinfection especially in old tuberculated cast-iron piping that is susceptible to bacteriological growth under low chlorine conditions. Stagnation due to closed valves can worsen these conditions; thus, the city needs to optimize system operation to minimize stagnation. Efforts could include; improve turn-over of water within their existing water storage reservoirs on the west side of town, operate their pumping stations in segregated pressure districts instead of re-circulating water. Also, the water storage reservoirs should be inspected and cleaned (removal of any excessive sediment) as needed.

I also agreed with Mr. Kroft's statement that the Flint River is more difficult source to treat than Lake Huron water. Although higher raw water temperature can accelerate the loss of free chlorine in the distribution system, I also added that treated water from the Flint River water likely has an increased chlorine demand due to higher organic content (typically associated with surface water – river sources). Although an adequate free chlorine residual is being distributed from the WTP, the higher chlorine demand will reduce the free residual over time out in the distribution system – which makes it important to optimize distribution system operation.