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To: [Daugherty Johnson](#)
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Subject: KWA Raw Water Capacity - City of Flint
Date: Wednesday, March 20, 2013 12:09:52 PM

Daugherty,

This email confirms our discussion this morning concerning the possibility of modifying a resolution to purchase 18.0 million gallons per day (MGD) of raw water from the KWA to 15.0 MGD. The MDEQ does not concur with the potential reduction to 15.0 MGD of raw water based on the capacity requirements under the Michigan Safe Drinking Water Act. This volume of raw water will not be sufficient in meeting Flint's maximum day demands (MDD) and the MDEQ will not support a contract between Flint and the KWA that provides only 15.0 MGD of raw water. The MDEQ is also concerned that an 18.0 MGD contract will only be marginal in meeting Flint's MDD. Our concerns are based on the following demand data on record as provided by the city.

- Flint's 5-year average day demand: 13.9 MGD
- Flint's 5-year max day demand: 21.6 MGD

Next, R 325.11204 (1) of the Michigan Safe Drinking Water Act, 1976 PA 399, as Amended and the Administrative Rules require a public water supply to provide sufficient capacity in the waterworks system to meet the finished water supply requirements and, in Flint's case, needs to consist of rated capacity from an approved surface water supply. Flint's capacity needs are also based on treated water; thus the capacity of available raw water will need to be slightly higher (2 to 3 percent) to account for the water needed for production at the treatment plant.

While we understand that Flint's population and water use has declined over the past 10 years, there are other important considerations for providing sufficient source capacity and these include:

- Flint has the potential to fill many existing industrial vacancies over the

next 20 years. Additional capacity will be needed to meet this need.

- Potential permit bans and/or connection bans if MDD cannot be met under contracted capacity
- Water use restrictions measures if MDD cannot be met
- Flint needs to plan for future capacity requirements. Most future capacity plans allow for some increase in capacity to allow for expansion of residential, commercial, or industrial customer base
- Flint's 2011 Water Reliability Study's 2030 projected MDD is 24.0 MGD. This MDD is consistent with Flint's most recent water system Sanitary Survey prepared by the MDEQ.

If you have any questions concerning this matter, please call me at your earliest convenience.

Michael Prysby, P.E.

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