

Busch, Stephen (DEQ)

From: Busch, Stephen (DEQ)
Sent: Wednesday, March 27, 2013 1:39 PM
To: Thelen, Mary Beth (DEQ); Wyant, Dan (DEQ); Sygo, Jim (DEQ); Shekter Smith, Liane (DEQ)
Cc: Willard, Veronica (DEQ); 'Richard Benzie P.E. (BENZIER@michigan.gov)'; prysbym@michigan.gov; 'Jon Bloemker P.E. (BLOEMKERJ@michigan.gov)'; Donaldson, Kristina (DEQ); Creal, William (DEQ)
Subject: ODWMA Response - Flint KWA-DWSD Report
Attachments: deq-wb-dwehs-wwciu-gcdclqwwpermitresponsepubliccomment_290345_7.pdf; Rowe Review of Tucker Young Report.pdf

Importance: High

Director Wyant, and Deputy Director Sygo,

Addendums to ODWMA comments provided yesterday regarding the City of Flint water system and comments on the reports from Tucker, Young, Jackson, Tull, Inc. (TYJT) can be found below in red. Additional comments are as follows:

With regards to regulatory authority for DEQ to allow or prevent the breakup of water utilities, and State vs. local decisions about cost effectiveness, it is important to note that when the DEQ permitted the water withdrawal for KWA (permit 2009-001) part of the decision making process (copy attached) included reasonable use and the balance of Economic Development, Social Development, and Environmental Protection. As part of the public participation process general comments were received (pages 6 & 7) regarding impacts on DWSD and rates to remaining customers. The Department's response to those comments stated:

"The DEQ is specifically precluded from using part 327 to "...diminish or create any existing authority of municipalities to require persons to connect to municipal water supply systems as authorized by law" (MCL 324.32726)."

And

"It is appropriately an issue for water service contract negotiations between the regional water system and its customers. To do otherwise invites unwanted intervention of the state into local decision making."

ODWMA cannot on its own assess an actual dollar value to any regional benefit for the City of Flint to remain a full customer of DWSD, but the following should be included in any additional analysis:

- The cost estimates provided in the TYJT report show a cost difference between full KWA and full DWSD participation of \$172 million over 30 years.
- The formation of KWA would itself be considered one of the largest regional drinking water authorities in the State in terms of capacity, and as such any regional benefits provided by DWSD may only be marginal in comparison.

Finally, we have additional questions for TYJT regarding the various DWSD supply options and the considerations they made in the operations of the Flint WTP. These considerations will have an impact on the cost estimates for DWSD options.

We look forward to further discussion of these comments during our meetings tomorrow, and please let us know if you have any additional questions for us between now and then.

Stephen Busch, P.E.
 Lansing and Jackson District Supervisor
 Office of Drinking Water and Municipal Assistance
 MDEQ

517-643-2314

From: Busch, Stephen (DEQ)
Sent: Tuesday, March 26, 2013 3:58 PM
To: Wyant, Dan (DEQ); Thelen, Mary Beth (DEQ); Sygo, Jim (DEQ)
Cc: Willard, Veronica (DEQ); Shekter Smith, Liane (DEQ)
Subject: RE: Flint Draft Response

I will provide additional follow up by tomorrow (Wed.) afternoon to my previous email below based on our discussion and the conference call with Andy Dillon earlier today.

Stephen Busch, P.E.
 Lansing and Jackson District Supervisor
 Office of Drinking Water and Municipal Assistance
 MDEQ
 517-643-2314

From: Busch, Stephen (DEQ)
Sent: Tuesday, March 26, 2013 12:37 PM
To: Wyant, Dan (DEQ); Thelen, Mary Beth (DEQ); Sygo, Jim (DEQ)
Cc: Willard, Veronica (DEQ); Shekter Smith, Liane (DEQ)
Subject: Flint Draft Response

Director Wyant,

In preparation for our call today with Treasurer Dillon's office, ODWMA has developed the following for consideration. We can provide any additional info you require during the meeting.

ODWMA has reviewed the materials developed by the consultant Tucker, Young, Jackson, Tull, Inc. (TYJT) for Treasury regarding the City of Flint and potential alternatives for public water supply. Based on our reviews, we have developed the following comments to this point in our analysis:

1. The TYJT report does not contain the full scope of the Karegnondi Water Authority (KWA) raw water supply system. TYJT concerns over raw water supply redundancy and reliability are addressed to the satisfaction of ODWMA under the full KWA proposal. Please note some portions of the overall project are being financed independently by the Genesee County Drain Commission.
2. There are significant differences in contract language between KWA and Detroit Water and Sewerage Department (DWSD) with respect to the contracted maximum day demand capacity.
 - a. Under a KWA contract, a "maximum day" capacity of 18 million gallons per day (MGD) would fully satisfy current demands of the City of Flint, without the need to supplement raw water capacity using the Flint River. (18 MGD, average over a 30 day period).
 - b. Under a DWSD model contract, a "maximum day" capacity, even at 18 MGD, would not satisfy the current demands for the City of Flint. (18 MGD, over any 24 hour period).
3. Restrictions in contracted capacity that would prevent the City of Flint from meeting peak demand requirements present potential limits to economic development within the City of Flint, including possible connection bans and water system extension bans. This information was previously conveyed to the City of Flint by ODWMA staff.
4. All contract options with DWSD that are considered semi-competitive with the KWA contract do not fully supply the City of Flint, and would require the City of Flint to meet a significant, if not majority, of its water demands by treating water from the Flint River. Continuous use of the Flint River at such demand rates would:
 - a. Pose an increased microbial risk to public health (Flint River vs. Lake Huron source water)

- b. Pose an increased risk of disinfection by-product (carcinogen) exposure to public health (Flint River vs. Lake Huron source water)
 - c. Trigger additional regulatory requirements under the Michigan Safe Drinking Water Act (LT2ESWTR)
 - d. Require significant enhancements to treatment at the Flint WTP, beyond those identified in the TYJT report (see item 5 below).
 - e. Water Resource Division is evaluating potential impacts to NPDES wastewater discharge permits in downstream segments of the Flint River, as a result of decreased river baseflow caused by Flint WTP use.
- 5. The TYJT report does not adequately address increased requirements and costs associated with using the Flint River as a significant source for the Flint WTP, which are not necessary under a Lake Huron source water scenario. This includes:
 - a. The need to provide softening treatment
 - b. Limitations on disposal options for lime softening sludge
 - c. Increased ozone capacity, UV disinfection
 - d. Additional backup power, more power required for Flint River operation
- 6. The Flint WTP must operate at some minimum level and within a range of flow rates to maintain treatment effectiveness. Currently that minimum level is 9 MGD. This level may be reduced with additional capital costs to modify the WTP, not addressed in the TYJT report.
- 7. Allowing Flint WTP to blend water with DWSD sets a new precedent that could pose future consequences with other DWSD customers.
- 8. Costs impacts to remaining DWSD customers would be similar under the proposed scenarios, only retaining 8 MGD of 30+ MGD total Flint/Genesee Co. demands, based on the following:
 - a. Genesee County distribution system demands are pulling out of DWSD regardless of the decisions by Flint WTP
 - b. Flint's need to utilize the Flint River as a source
- 9. ODWMA anticipates cost savings under the KWA proposal will be leveraged to provide additional improvements to the City of Flint water distribution system, improving efficiency and providing additional cost benefits. The KWA water withdrawal permit (2009-001) includes the required implementation of conservation measures that would also drive these distribution system improvements.
- 10. Major cost discrepancies in TYJT analysis
 - a. Engineering, Legal, Administration, Contingency – TYJT appears to have effectively double charged for these costs in their KWA estimates without adequate justification
 - b. Pumping facilities – TYJT cost estimate methodology does not appear to address localized market costs and does not distinguish fixed and variable costs in its comparison analysis.
- 11. Remaining DWSD customers in Lapeer County could potentially see water quality impacts as a result of Flint joining KWA, if they remain with DWSD. However, indications to ODWMA are that these communities are currently in final negotiations with KWA for service, which would make this a non-issue.
 - a. City Lapeer
 - b. City of Imlay City

Additional response to the TYJT report has also been provided by Rowe Engineering to Flint EFM, Mr. Ed Kurtz. (Copy Attached)

ODWMA has continued to meet on a regular basis with KWA, Genesee County, and the City of Flint regarding these water supply proposals.

ODWMA will continue to provide any additional detailed analysis requested by Treasury or the DEQ Executive Office.

Stephen Busch, P.E.
Lansing and Jackson District Supervisor
Office of Drinking Water and Municipal Assistance
MDEQ
517-643-2314