

Koryzno, Edward (Treasury)

From: Byrne, Randall (Treasury)
Sent: Thursday, January 22, 2015 10:36 AM
To: Cline, Richard (Treasury)
Cc: Koryzno, Edward (Treasury)
Subject: FW: Flint Water Issue Report for Governor
Attachments: Flint Water Issue Report for Governor.01-21-15.doc

Importance: High

Eric:

Thanks for the good work on this report. I don't have any further suggestions at this time.

Randy,

From: Cline, Richard (Treasury)
Sent: Thursday, January 22, 2015 9:26 AM
To: Koryzno, Edward (Treasury); Byrne, Randall (Treasury); Dempkowski, Angela (Treasury)
Subject: Flint Water Issue Report for Governor
Importance: High

Ed/Randy:

Attached is the Flint Water Report.

Given the volume of information, I have kept the report focused upon the issues germane to the DEQ violation notice and the offer from DWSD.

I have tried to keep technical jargon to a minimum, but some inclusion was necessary in order for some items to be clear.

I also went back into our records to see what rate projections were assumed to be in order to cross-compare the City's analysis of the DWSD proposal. However, I kept references to all of this at a minimum.

If there are any questions, let me know.

Eric Cline | Department Manager

State of Michigan | Michigan Department of Treasury | Office of Fiscal Responsibility

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RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF TREASURY
LANSING

R KEVIN CLINTON
STATE TREASURER

SUMMARY REPORT

TO: Wayne Workman, Deputy State Treasurer
FROM: Eric Cline, Department Manager; Office of Fiscal Responsibility
SUBJECT: Summary of Flint Water System Issues
DATE: January 22, 2015

Summary

On December 16, 2014, the City of Flint received a violation notice from the Michigan Department of Environmental Quality (DEQ). This notice stated that the City water samples were in violation of Maximum Contaminant Levels (MCL), a violation of the Safe Drinking Water Act (PA 399 of 1976).

The DEQ considers the violation period to have begun December 1, 2014. The violation was triggered when water sample reports showed that the City's water quality, on average, exceed the total allowable level of *Disinfection Byproducts* during the first three quarters of 2014. Further, four of the City's eight water sample site locations individually exceeded allowable MCL levels during the same period of 2014.

These conditions are considered a Tier 2 violation and, as a result, the City was required to notify the public of these contamination levels by January 10, 2015 (which was done) and continue to notify them every three months until the violation is resolved.

The City must also update its Operational Evaluation Report, which is on-file with the DEQ, as to how it will correct this issue by March 1, 2015.

Causes & Possible Solutions

According to information provided by the City, the high levels of *Disinfection Byproducts*, which resulted in the DEQ violation notice, can be caused by high levels of chlorine. The City is required to perform testing every three months and the yearly average exceeded allowable MCL levels.

Some of the potential causes for this high level of chlorine include:

- Inefficient ozone system operation.
- A sewer leak discovered upstream of the intake, resulting in the need to increase the chlorine feed.
- An improper softening process.
- Unlined cast iron pipes in the distribution system.
- Recirculating water in the distribution system due to poor configuration of two pump stations.
- Broken valves resulting in stagnant water.
- High chlorine demand in filters.