



GRETCHEN WHITMER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
BAY CITY DISTRICT OFFICE



LIESL EICHLER CLARK
DIRECTOR

September 21, 2021

Mr. Mike Brown, Director
City of Flint Department of Public Works
1101 South Saginaw Street
Flint, Michigan 48502

WSSN: 2310
County: Genesee

Dear Mr. Brown:

SUBJECT: Piping Modifications, City of Flint Secondary Supply Vault

This communication is written regarding the misalignment of piping in the new vault at the Flint water treatment plant. The two pipe segments connected in the vault by a dresser-type coupling are now out of alignment. It appears one or both pipes and the coupling have shifted, and it is not known whether the shifting was limited to the pipe within the vault, or whether exterior settling/movement occurred also. The contractor and project engineer recommended replacing the existing dresser-type coupling with a restrained-flange adaptor to create a more rigid connection and to prevent further deflection of the pipe(s). The Department of Environment, Great Lakes, and Energy (EGLE) agrees this type of coupling should adequately restrain the connection if no further pipe settling occurs; however, the condition of the pipe and bedding outside the vault has not been investigated, so we are not certain whether additional pipe settling/movement is likely. Due to this uncertainty, EGLE requested a statement from the design engineer stating that there is no concern for future pipe movement and no significant risk of increased stress due to the misalignment. We originally requested that this statement be provided before changing the flow ratio between your two water suppliers – the Genesee County Drain Commissioner (GCDC) and the Great Lakes Water Authority (GLWA). Upon considering this further, we believe the following sequence of events is acceptable:

- Replace the dresser-type coupling with a restrained-flange adaptor
- Begin changing GCDC flow rates as needed to maintain a constant 5% GCDC/95% GLWA flow ratio
- Change to (and maintain) a 25% GCDC/75% GLWA flow ratio (and make subsequent changes to the ratio per the agreed-upon schedule)
- Investigate pipe and bedding conditions outside the vault for potential future settling/movement (as soon as practical, but prior to project closeout)
- Submit an engineering statement to EGLE and the city identifying any necessary modifications to ensure long-term structural stability of the pipe, vault, and internal piping (as soon as practical, but prior to project closeout)
- Make any repairs/improvements deemed appropriate during the evaluation (as soon as practical, but prior to project closeout)

If you have any questions, please contact me by telephone at 989-450-7834, or by email at LondonR@Michigan.gov.

Sincerely,

Robert London
Surface Water Specialist
Engineering Unit
Drinking Water and Environmental Health
Division

cc: Mr. Scott Dungee, City of Flint
Mr. John Young, City of Flint
Mr. Eric Pohan, EGLE