



GRETCHEN WHITMER  
GOVERNOR

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

**EGLE**

LIESL EICHLER CLARK  
DIRECTOR

June 6, 2019

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

Dear Mr. Bincsik:

SUBJECT: Final Water Quality Parameters, WSSN: 02310

This letter provides revised information regarding the collection and reporting of water quality parameter (WQP) samples on a permanent basis from the city of Flint's supplemental water treatment facility and distribution system. Interim WQPs were established in our December 13, 2017 letter, based on the corrosion control study conducted by Cornwell Engineering Group. Since that time, the city has collected an extensive amount of distribution WQP data. The data has allowed the Department of Environment, Great Lakes, and Energy (EGLE) to observe variations in measured WQP values throughout the city's distribution system under the controlled supplemental treatment conditions at the city's water treatment plant point of entry (POE).

The city voluntarily collected and analyzed WQPs from thirty locations in its distribution system to observe how the distribution system responds to supplemental treatment and how service line and maintenance work can impact WQP levels throughout the distribution system. The data has allowed EGLE to gain knowledge and set appropriate final WQPs for the city's distribution system. The updated distribution WQP limits listed in the table below are retroactive to January 1, 2018. EGLE thanks the city for its continued effort to provide its customers and guests with the highest possible water quality.

WQP samples are required under the Lead and Copper Rule (LCR); therefore, these samples will be used to determine compliance. The required monitoring may be periodically modified based on our review of your sampling results. Also, the WQP sampling program may be modified after the final corrosion control study report is released in 2020; however, you must continue to monitor according to the schedule already in effect until you are otherwise notified by EGLE.

The revised WQP sampling program leaves the current weekly Enhanced Water Quality Monitoring (EWDM) program in place. The location, parameters and frequency for the monitoring will remain the same. The final required distribution system orthophosphate and pH ranges are shown below:

Parameter-EWDM Sampling Stations	Target*	100 percent range**
pH (standard units)	7.5	7.2 – 7.9
Orthophosphate residual (mg/l)	3.3	minimum 3.1

\* The target value is an operational goal only for your water system. Failure to meet the target value will not result in violations. \*\* The 100 percent range is a required operating range for your water system. One hundred percent of your sample results must fall within the 100 percent range for each parameter, except that nine (9) excursion days are allowed during each six (6) month WQP monitoring period. An excursion day is a day during which one or more daily value is outside the allowable range. "Daily value" means the average of all samples collected during a day at a single location.

The WQP ranges established for the water treatment facility POE are based on the pH, orthophosphate, and chlorine residual values needed over the past 3 years to meet distribution system water quality goals. The intent is to set well-defined treatment facility goals or targets for the city's operational staff to consistently meet the distribution system WQP values. The following WQP targets and ranges are established for the point of entry to the distribution system (water plant tap):

Parameter-Water Treatment Facility	Target*	100 percent range**
pH (standard units)	7.5	7.2 – 7.9
Orthophosphate residual (mg/l)	3.6	3.2 – 4.5
Free chlorine residual	1.6 – 1.8	1.3 – 2.1

\* The target values are operational goals only for your treatment system. Failure to meet the target levels will not result in violations. \*\* The 100 percent range is a required operating range for your treatment system. One hundred percent of your daily values must fall within the 100 percent range for each parameter, except that nine (9) excursion days are allowed during each six (6) month WQP monitoring period. An excursion day is a day during which one or more daily value is outside the allowable range. "Daily value" means the average of all samples collected during a day at a single location.

The WQP results must be electronically submitted to EGLE. Essentially, the city will continue to submit the weekly and monthly reports for the treatment facility and a weekly EWDM summary for the distribution system.

If there are any comments or questions, please contact me at 989-450-7834 or by email at LondonR@michigan.gov.

Sincerely,

A handwritten signature in cursive script that reads "Bob London".

Robert London, P.E.  
Surface Water Treatment Specialist  
Engineering Unit  
Drinking Water and Environmental Health  
Division  
989-450-7834

cc: Genesee County Health Department  
Mr. Robert Jones, F and V Operations  
Mr. Thomas Speth, USEPA ORD  
USEPA Region 5  
Mr. Eric Oswald, EGLE  
Mr. George Krisztian, EGLE  
Mr. Mike Bolf, EGLE  
Mr. Brian Thurston, EGLE