STATE OF MICHIGAN
DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
LANSING

GRETCHEN WHITMER
GOVERNOR

LIESL EICHLER CLARK
DIRECTOR

August 3, 2021

VIA EMAIL AND U.S. MAIL

Mr. Ellis Mitchell
Benton Harbor
200 Wall Street
Benton Harbor, Michigan 49022

WSSN: 00600
County: Berrien
System: Benton Harbor

Dear Mr. Mitchell:

SUBJECT: Lead and Copper Monitoring - Action Level (AL) Exceedance

The Benton Harbor community water supply's 90th percentile value exceeded the AL for lead during the most recent round of lead and copper monitoring of drinking water taps from January 1 to June 30, 2021, as summarized below.

Contaminant	AL	MCLG*	90th Percentile Value	Number of Sites Above AL	Range of Sample Results	Typical Source of Contaminant
Lead	15 parts per billion (ppb)	0	24 ppb	11	0 - 889 ppb	Corrosion of household plumbing systems; Service lines that may contain lead; Erosion of natural deposits
Copper	1.3 parts per million (ppm)	1.3	0.1	2	0 – 7.6 ppm	Corrosion of household plumbing systems; Erosion of natural deposits

*MCLG: Maximum contaminant level goal means the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

An AL exceedance is not a violation, but it triggers other requirements under the administrative rules promulgated under the Michigan Safe Drinking Water Act, 1976 PA 399, as amended (Act 399). Requirements include water quality parameter (WQP) monitoring, source water monitoring, corrosion control treatment, and public education (PE). Please refer to the "Timetable of Upcoming Requirements" for your specific deadlines for each of the following requirements.

Issue a Public Advisory (PA)
An amendment to Act 399 on March 29, 2017, requires a public water supply to issue a PA within three business days from the date of this letter to inform all persons served by the water system about the lead AL exceedance. A template has already been provided to you. Please contact the Michigan Department of Environment, Great Lakes, and Energy (EGLE) if you plan to use broadcast media as your delivery method.

Deliver Consumer Notice of Lead and Copper Results
Thank you for completing this requirement timely.

Distribute PE
Sixty days after the end of the monitoring period that exceeded the AL, deliver PE materials to all consumers.

This material is intended to educate consumers about lead health effects, sources of lead, and steps to minimize exposure. Note that the PE material must include information about the following: The exceedance in your water supply, what you are doing to reduce lead levels, lead service lines in your distribution system, and the history of lead levels in your water supply. A template has already been provided to you.

A sample copy of the final PE material along with a PE distribution certification form must be submitted to EGLE no later than ten days after the PE is due.

Conduct WQP Monitoring
Continue collecting one set of WQP samples every two weeks from each entry point to the distribution system, TP001 (Treatment Plant Tap), and quarterly from ten locations in the distribution system.

The WQP samples shall be analyzed for pH, alkalinity, calcium, conductivity, orthophosphate, chloride, sulfate, and temperature. Temperature and pH are field tests and should be completed at the time of sample collection.

If you use EGLE's laboratory, order bottles by calling 517-335-8184 or by downloading the form EQP 2301 *Bottle Order Form* from Michigan.gov/EGLELab. Click on Drinking Water. The tests are analyzed from one sample bottle per location. Request the analyses using the following test codes:

Test Code	Cost	Bottle Number	Test Description
CORR	$51.00	33	Conductivity, Alkalinity, Phosphate, and Calcium
R	$18.00	32,33	Chloride, Sulfate

Conduct Source Water Monitoring
Thank you for completing this requirement on March 16, 2019. Repeat every third year until both lead and copper ALs are met during the entire three-year period.

Minimize Corrosion
Minimize lead and copper in drinking water by reducing corrosion of water pipes and household plumbing that contain lead and copper. This is Benton Harbor's sixth AL exceedance. This is the second round of sampling that Benton Harbor has performed since the corrosion control treatment was adjusted in the spring of 2020. After two rounds of follow-up sampling, the department is required to designate optimal water quality

parameter (OWQP) ranges within six months. This designation will be provided under separate cover (Administrative Rule 325.10604f(2)(e)(v)).

Lead and Copper Monitoring
To show the ALs can be met, collect a lead and copper sample from 60 sites between July 1 and December 31, 2021, and again between January 1 and June 30, 2022.

During the most recent round of monitoring, Benton Harbor collected samples from 17 sites that were not the same sites as previously sampled, not on their Lead and Copper Sampling Plan, and had unknown service line and building plumbing materials. Therefore, these sites cannot be appropriately tiered and remain an unknown risk of lead exposure. To take the most conservative approach to protect public health, EGLE included these sites in the calculation of the 90th percentile for this round of sampling since it resulted in a higher 90th percentile.

However, EGLE will no longer accept such sites for compliance monitoring. All samples must be collected from targeted locations that represent the highest Tier available. Once these sites are identified, verified, and memorialized on an approved Lead and Copper Sampling Plan, the same sites shall be used in each monitoring period unless you can no longer gain entry to the site(s) or the site(s) no longer meets the tiering criteria (Administrative Rule 325.10710a(1)). Since Benton Harbor has lead service lines that serve water to single family homes, all sites sampled must be Tier 1 sites. These sites must have verified service line materials and must be reflected on your Lead and Copper Sampling Plan. Additionally, as discussed in recent meetings, Benton Harbor will be standardizing their sampling processes through training, increased oversight, and QA/QC processes to address these issues. EGLE supports this effort and has provided recommended training materials. Please contact EGLE if you need technical assistance or additional materials.

Within 30 days of learning of results, provide individual lead and copper tap results to people who receive water from sites that were sampled. Even if lead or copper was not detected, all monitoring, reporting, consumer notification, and EGLE certification requirements remain in effect.

Consumer Confidence Report (CCR)
Include this AL exceedance in your CCR, which is due to our office, your customers, and the local health department by July 1, 2022. You may use the table format from the first page of this letter.

Also, because the lead AL was exceeded, include the following health effects language:

> *Infants and children who drink water containing lead could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.*

Lead Service Line Replacement
Water supplies that exceed the lead AL in a compliance monitoring period and have corrosion control treatment installed must begin to replace lead and galvanized previously connected to lead (GPCL) service lines (Administrative Rule 325.604f(5)).

Benton Harbor's preliminary distribution materials inventory indicates that Benton Harbor has 824 services lines known to contain lead, 571 service lines known to contain GPCL, and 1,616 service lines that are unknown but likely contain lead. This means the city has an initial number of lines that meet the replacement requirement of 824 + 571 + 1,616 = 3,011. Seven percent of this initial number of service lines is 211 service lines. Between July 1, 2021, and June 30, 2022, Benton Harbor must perform 211 lead, or GPCL, service line replacements.

Benton Harbor, and Abonmarche as their consultant, are inventorying the water system and replacing lead service lines. If these efforts increase the number of known or likely lead or GPCL service lines in your water system, the required service line replace numbers must be adjusted as necessary. Benton Harbor should continue replacing lead or GPCL service lines until they have all been removed. If future sampling is below the AL, Benton Harbor's required replacement rate will transition from seven percent annual replacement to five percent on average annual replacement (Administrative Rule 325.10604f(5-6)).

As of June 14, 2018, Act 399 requires that all public water supplies conducting service line replacements shall replace the lead and galvanized iron pipe previously or currently connected to lead portions of the service line at the water supply's expense. Additionally, partial replacements of service lines that contain lead, or galvanized iron pipe previously connected to lead, are banned unless in conjunction with an emergency repair. Service lines are defined as the pipe from the discharge of the corporation fitting to customer site piping or to the building plumbing at the first shut-off valve inside the building, or 18 inches inside the building, whichever is shorter.

What Happens Next?
If you can show that both lead and copper ALs are met in two consecutive six-month periods, then some of the requirements outlined in this letter will no longer apply.

Timetable of Upcoming Requirements

Complete By	Requirement	Comments
Within three business days	Distribute a PA.	Distribute a PA to inform all persons served by the water supply of the lead AL exceedance. Distribution of the notice must be in a form and manner designed to fit the specific situation and must be reasonably calculated to reach all persons served by the public water supply.
Continue	Collect WQP samples (Entry point to the distribution system)	Collect one set of WQP samples every two weeks from your entry point to the distribution system, TP001 (Treatment Plant Tap).

Complete By	Requirement	Comments
August 29, 2021	Perform PE activities including delivering PE materials to all consumers.	PE required activities are listed in enclosed template and checklist. Repeat every year until the lead AL is met in the most recent round of sampling.
September 8, 2021	Send EGLE certification of PE compliance along with a sample copy of the materials delivered.	Sample certification enclosed. Required whenever PE required.
Between July 1 and December 31, 2021	Collect samples from 60 sites from the distribution system and have them analyzed for lead and copper.	Report the results to EGLE and deliver the consumer notice of individual lead and copper results using the downloadable *Lead and Copper Report and Consumer Notice of Lead and Copper Results Certificate*. **Report due January 10, 2022.**
Between July 1 and December 31, 2021	Collect WQP samples (Distribution system)	Collect one set of WQP samples from ten locations in the distribution system quarterly. Analyze the samples for pH, alkalinity, calcium, conductivity, orthophosphate, chloride, sulfate, and temperature.
Between January 1 and June 30, 2022	Collect samples from 60 sites from the distribution system and have them analyzed for lead and copper.	Report the results to EGLE and deliver the consumer notice of individual lead and copper results using the downloadable *Lead and Copper Report and Consumer Notice of Lead and Copper Results Certificate*. **Report due July 10, 2022.**
Between January 1 and June 30, 2022	Collect WQP samples (Distribution system)	Collect one set of WQP samples from ten locations in the distribution system quarterly. Analyze the samples for pH, alkalinity, calcium, conductivity, orthophosphate, chloride, sulfate, and temperature.
March 31, 2022	Collect one lead and copper sample from your entry point to the distribution system, TP001 (Treatment Plant).	Repeat every third year until both ALs are met for the whole three-year period.
March 31, 2022	For the July through Dec 2021 monitoring, send EGLE certification of Consumer Notice of Lead and Copper results compliance along with a sample copy of the notice delivered.	Download *Lead and Copper Report and Consumer Notice of Lead and Copper Results Certificate* in Word or PDF format from Michigan.gov/LCR.
June 30, 2022	Deadline for seven percent replacement of lead or GPCL service lines.	Deadline to have replaced a minimum of seven percent of lead or GPCL service lines.
July 1, 2022	Report the 2021 AL exceedance in the CCR.	Specific lead health effects language must be included.
September 28, 2022	For the January through June 2022 monitoring, send EGLE certification of Consumer Notice of Lead and Copper results compliance along with a sample copy of the notice delivered.	Download *Lead and Copper Report and Consumer Notice of Lead and Copper Results Certificate* in Word or PDF format from Michigan.gov/LCR.
March 31, 2025	Collect one lead and copper sample from each entry point to the distribution system.	Repeat every third year until both ALs are met for the whole three-year period.

We recognize that the Lead and Copper Rule is complex and may be confusing. We will continue to offer assistance in implementing these regulations. If you have any questions, please contact us at BoltJ@Michigan.gov; OnanB@Michigan.gov; or at the phone numbers provided below.

Sincerely,

Jeni Bolt, Environmental Quality Specialist
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Drinking Water and Environmental
Health Division
517-331-5161

Brandon Onan, Supervisor
Lead and Copper Unit
Drinking Water and Environmental
Health Division
616-307-6736

Enclosures (PA Checklist, PE Distribution Check, WQP report form, Tier Criteria)
cc/enc: Mr. Abul Ahmed, F&V Operations
Mr. Robert Jones, F&V Operations
Ms. Nicki Britten, Berrien County Health Department
Mr. Nick Margaritis, Berrien County Health Department
Mr. Anthony Pavone, Michigan Department of Health and Human Services
Mr. Mike Bolf, EGLE
Mr. Ernie Sarkipato, EGLE
Mr. Matt Sylvester, EGLE
Mr. Ryan VanDerWoude, EGLE