MICHIGAN LEAD AND COPPER RULE HANDBOOK

EMPOWERING RESIDENT WATCHDOGS TO CONDUCT INVESTIGATIONS OF THEIR WATER SYSTEMS

ACKNOWLEDGMENTS

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TABLE OF CONTENTS

i Introduction: How to Use the Michigan Lead and Copper Rule Handbook
iii Introduction to the Lead and Copper Rule
iii Introduction to the Freedom of Information Act (FOIA)

A-1 Section A: Identifying Lead Service Lines in the Drinking Water System
A-1 Preliminary and Complete Distribution System Materials Inventories
A-2 Methods of Identifying Lead Service Lines
A-3 Requirement for Water Departments to Notify Households Served By a Lead Service Line or a Service Line of Unknown Material

B-1 Section B: Monitoring Lead Levels in Tap Water
B-1 Selecting Households for Tap Sampling
B-2 Frequency of Lead Monitoring and Number of Monitoring Sites
B-4 Tap Sampling Procedures
B-5 Consumer Notice of Lead and Copper Monitoring Results

C-1 Section C: Lead Action Level
C-1 Measuring for the Lead Action Level—the 90th Percentile
C-1 Public Health Advisory and Public Education Requirements After a Water System Exceeds the Lead Action Level
C-4 Water Testing at Households Upon Request
C-5 Lead Service Line Removal and Replacement
C-5 Assess Corrosion Control Treatment

D-1 Section D: Public Education Regarding Lead in Drinking Water
D-1 Consumer Confidence Reports
D-3 Water System Advisory Councils

E-1 Section E: Corrosion Control Treatment
E-1 Water Departments Required to Use Corrosion Control Treatment
E-1 The Different Corrosion Control Treatment Methods and How Water Departments Select a Corrosion Control Treatment Method
E-3 Monitoring the Effectiveness of Corrosion Control with Water Quality Parameters

F-1 Section F: Lead Service Line Removal and Replacement
F-1 Lead Service Line Replacement Requirement
F-2 Partial Lead Service Line Replacement Ban

HOW TO USE THE MICHIGAN LEAD AND COPPER RULE HANDBOOK

The first people to raise the alarm about high levels of lead in Flint's drinking water were not the state, local, or federal government, or the local water department. They were Flint residents. These residents continued to raise the alarm despite being constantly told by their state and local government that their water was safe to drink.

Thanks to the persistence of resident watchdogs, it was discovered that not only did Flint's water have high levels of lead, but that the water department and the Department of Environmental Quality had violated and manipulated the EPA's Lead and Copper Rule, the primary regulation that controls the level of lead in drinking water.

While the Flint Water Crisis was severe, unfortunately Flint is not the only city that has struggled to control the levels of lead in drinking water. With a light shined on the problem, many Michigan communities are now confronting their own problems regarding high levels of lead in drinking water.

Michigan amended its Lead and Copper Rule in 2018 to make it much more strict. However, the Rule is still very complex. Many Michiganders have important questions about lead in their drinking water, and whether their water is safe to drink, cook, or bathe with. Answers to these simple questions can be difficult to come by.

THE MICHIGAN LEAD AND COPPER RULE HANDBOOK CONTAINS:

21 sample Freedom of Information Act Requests

that resident watchdogs can submit to EGLE and/or their water department for public records related to lead in drinking water.

34 watchdog actions

that residents can take to investigate how their water department is implementing the Michigan Lead and Copper Rule.

Resident watchdogs are often the first to learn about drinking water issues, but the last to be listened to. The Michigan Lead and Copper Rule Handbook has been prepared as a free, public resource to empower resident watchdogs to conduct their own investigation of their water system by enabling residents to get the important information and to ask the right questions.

In preparing this Handbook, the Great Lakes Environmental Law Center submitted over 70 Freedom of Information Act requests to the State and to local water departments to see how the key revisions made in 2018 to Michigan's Lead and Copper Rule are being implemented. With this Handbook, resident watchdogs will be prepared to begin their own investigations of their own water department.

The Handbook is made up of six sections that provide information on the main requirements in the Michigan Lead and Copper Rule:

- IDENTIFYING LEAD SERVICE LINES IN THE DRINKING WATER SYSTEM
- MONITORING LEAD LEVELS IN TAP WATER
- LEAD ACTION LEVEL
- PUBLIC EDUCATION REGARDING LEAD IN DRINKING WATER
- CORROSION CONTROL TREATMENT
- LEAD SERVICE LINE REMOVAL AND REPLACEMENT

ADDITIONAL ASSISTANCE

The Lead and Copper Rule is complicated. Even with this Handbook, resident watchdogs will still have questions about their drinking water. Additionally, resident watchdogs will need help to address problems as they come up.

- **Great Lakes Environmental Law Center**
  4444 Second Avenue, Detroit, MI 48201
  www.glelc.org / info@glelc.org / 313-782-3372

  We are lawyers that can help you draft your Freedom of Information Act Request, answer questions you have about the Michigan Lead and Copper Rule, and help you address concerns you may have about the safety of your drinking water.

- **Michigan Department of Environment, Great Lakes, and Energy's Office of the Clean Water Public Advocate**
  Constitution Hall, P.O. Box 30473,
  Lansing, MI 48909-7973
  Clean Water Public Advocate: Ninah Sasy
  SasyN@michigan.gov / 517-284-6843

  The Office of the Clean Water Public Advocate accepts and investigates complaints and concerns related to drinking water in Michigan.

- **Safe Water Engineering, LLC**
  www.safewaterengineering.com

  Specializes in drinking water quality consulting by providing engineering and policy consulting.

- **Freshwater Future**
  www.freshwaterfuture.org

  Freshwater Future works with community-based organizations and residents to develop community participatory action for stewardship and education that promotes the voice, understanding, and action of the community members that have been most impacted by drinking water issues.

- **Natural Resources Defense Counsel**
  www.nrdc.org

  Through its Safe Water Initiative, NRDC works to ensure that everyone has safe, sufficient, and affordable drinking water.

- **We the People of Detroit**
  www.wethepeopleofdetroit.com

  A community-based grassroots organization that aims to inform, educate, and empower Detroit residents on imperative issues surrounding civil rights, land, water, education, and the democratic process. We the People of Detroit also delivers water to households in need of water relief.

- **People's Water Board Coalition**
  www.peopleswaterboard.org

  A coalition of three dozen grassroots groups, non-governmental, faith-based, community-based, and labor organizations who have come together to fight for the human right to water. The People's Water Board Coalition works with partners and allies to ensure that all people have a right to clean, accessible, and affordable water and sanitation.

ADDITIONAL RESOURCES

There are many additional resources that users of the Lead and Copper Rule Handbook may find useful as accompanying materials:

- **University of Michigan Graham Sustainability Institute – What You Need to Know About Michigan's 2018 Lead and Copper Rule**
  http://graham.umich.edu/project/revised-lead-and-copper-rule/faq

- **State of Michigan – MI Lead Safe**
  https://www.michigan.gov/mileadsafe/0,9490,7-392-92796---,00.html

- **State of Michigan – Lead and Copper in Drinking Water**
  https://www.michigan.gov/egle/0,9429,7-135-3313_3675_76638---,00.html

- **U.S. EPA - Optimal Corrosion Control Treatment Evaluation Technical Recommendations for Primacy Agencies and Public Water Systems**
  https://www.epa.gov/sites/production/files/2019-07/documents/occtmarch2016updated.pdf

Introduction to the Lead and Copper Rule

In 1991, the United States Environmental Protection Agency (EPA) finalized the Lead and Copper Rule to control the amount of lead in drinking water that is provided by water utilities. While states are allowed to enact their own more stringent drinking water regulations, most have simply adopted and implemented the EPA Lead and Copper Rule.

The main source of lead in drinking water is lead in water service lines (the water pipes that connect a water main to household plumbing) and household plumbing. Lead was a commonly used material in service lines and household plumbing throughout the 20th century. When water runs through service lines and household plumbing containing lead, the lead may be released into the drinking water.

For years, the EPA's Lead and Copper Rule has been criticized for not protecting consumers from exposure to lead in drinking water. In 2018, the Michigan Department of Environment, Great Lakes, and Energy (EGLE) significantly revised Michigan's Lead and Copper Rule to make it more protective than the EPA's rule. The Michigan Lead and Copper Rule relies on six core requirements, described in Figure 1. In order for the Michigan Lead and Copper Rule to limit lead in drinking water, each of these requirements function together to limit exposure to lead in drinking water.

Introduction to the Freedom of Information Act (FOIA)

The Freedom of Information Act allows any resident to receive any public records from a government body upon request, subject to a number of exceptions. As described in the Handbook, under the Lead and Copper Rule both local water departments and the Michigan Department of Environment, Great Lakes, and Energy (EGLE) are required to keep a number of public records regarding lead in drinking water. Below are common examples of public records related to lead in drinking water that can be requested through a FOIA request:

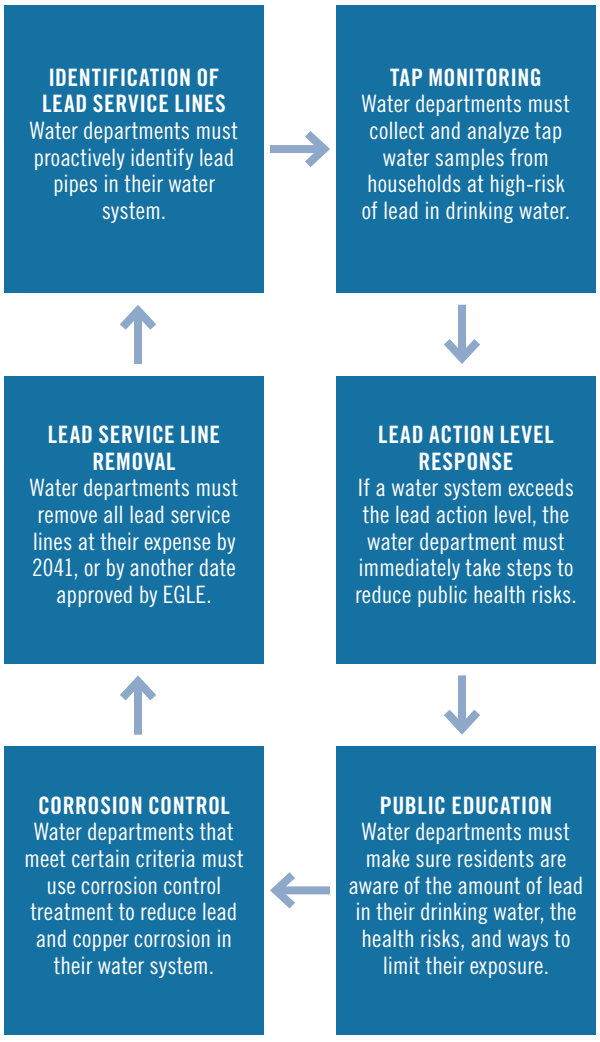
- Results of lead monitoring;
- Preliminary and complete Distribution System Materials Inventories;

WHY IS COPPER ADDRESSED IN THE LEAD AND COPPER RULE?

The Lead and Copper Rule focuses on corrosion control treatment to reduce metal release into drinking water. While lead and copper are very different drinking water contaminants with different health effects, they are both materials present in pipes and plumbing materials and can be released into water through corrosion.

The Lead and Copper Rule was intended to reduce corrosion of both metals to limit their occurrence on drinking water. This Handbook focuses on lead because there is no safe level of lead exposure, while copper is an essential nutrient at low levels.

Figure 1: Six Core Requirements of the Michigan Lead and Copper Rule



- Corrosion control studies used by your water system to select treatment methods to limit the amount of lead in drinking water;
- Reports detailing the number of lead service lines that your water department has replaced, and;
- Emails sent or received by your water department or EGLE regarding lead in drinking water.

HOW TO WRITE A FREEDOM OF INFORMATION ACT REQUEST

FOIA requests must be made in writing, and must identify the records that you are seeking with enough specificity to enable the government body to find them. Here are a couple of tips to help you draft a FOIA request:

- **Make it specific.** The more specific the request, the easier it will be for the government body to identify the records.
- **Describe the timeframe.** In general, your request should specify the timeframe for the records you are requesting. For example, your request can specify that you are seeking the results of lead monitoring for the years 2018 and 2019.

The Handbook contains dozens of samples that you can use to help draft your own FOIA requests.

HOW TO SUBMIT A REQUEST

FOIA requests must be submitted in writing to the government body that has the records. For the purposes of the Lead and Copper Rule, all documents will be kept by EGLE, local water departments, or both. The sample FOIA requests provided in the Handbook specify which government body each request should be sent to:

- **Submitting Requests to EGLE** – Submit requests through EGLE's online FOIA request portal: https://michiganegle.govqa.us/WEBAPP/_rs/(S(mibxtd5ljyvi24k3sf3nfxro))/SupportHome.aspx
- **Submitting Requests to Water Department** – Submit requests to the City's FOIA coordinator, or to the water department's FOIA coordinator.

TIMELINE FOR A RESPONSE

Once received, the government body receiving the request must respond within 5 business days. However, after 5 business days, the government body can also claim an extension of 10 business days for its response to the request.

> *Example of Extension Notice* – In order to determine the extent of the responsive information, inquiry must be made within this office and relevant files must be searched. Therefore, it is necessary to extend the time for response as permitted by MCL 15.235(2)(d).

FEES

A government body that receives a FOIA request may charge you a fee. This fee may include:

- Costs for staff time to search for, locate, examine, and copy the requested records;
- Costs for creating copies of the records, and;
- Costs for mailing the records.

Before you are assessed a fee regarding a FOIA request, the government body that received the request is required to provide you with a detailed, itemized invoice regarding the fee amount.

For requests with a fee over $50, the government body often requests a deposit that is half of the total fee. If a government body requests a deposit, it must provide you with a detailed, itemized invoice.

A good way to limit paying a lot of FOIA fees is to ask to inspect the records on location at the government's office, as opposed to having the records printed and mailed to you.

If you are charged a fee, be sure to get a detailed, itemized invoice.

Some people or organizations that submit a FOIA request may receive a fee discount, or be exempt from paying any fee whatsoever:

- **Indigent Persons Discount** – If a person is unable to pay the costs of a FOIA fee, they can submit an affidavit claiming a fee discount for the first $20 of the FOIA fee.
- **Public Interest Waiver** – If a government body determines that providing the requested documents is in the public interest, it may provide such documents without charge or at a reduced charge. However, a government body is not required to provide a public interest fee waiver.
  - Sample: Pursuant to MCL 15.234(2), a search for public records may be conducted or copies of public records may be furnished without charge or at a

reduced charge if it is determined that such a waiver or reduction of the fee is in the public interest because the searching or furnishing of the copies of the public record can be considered as primarily benefiting the general public. This request can be considered as primarily benefiting the general public because the sole purpose of the request is to promote public education. As such, the records will be freely shared with others. The requester has no commercial interest involved in obtaining the requested records.

RECEIVING YOUR RECORDS

Once the government body has received your request, and you have paid any necessary FOIA fee, the records will be provided to you. In general, records are provided in one of three ways:

- By mail
- By email
- Made available at the government office keeping the records for an in-person inspection.

EXEMPTIONS

In general, any document kept by a government body can be received through a Freedom of Information Act request. However, certain documents are exempt from disclosure. While there are several exemptions, one is particular relevant for the purposes of this Handbook: a government body does not have to provide information of a personal nature if public disclosure would be an unwarranted invasion of an individual's privacy.

This exemption may be used if you request information containing home addresses. Oftentimes the government body will partially redact people's home addresses by removing the last 2 digits of a person's address to protect their privacy.

MORE INFORMATION ON THE FREEDOM OF INFORMATION ACT AND HOW TO SUBMIT A REQUEST

- **Michigan Attorney General – Freedom of Information Act Handbook**
  https://www.michigan.gov/documents/ag/FOIA_Handbook_2019_644053_7.pdf

SECTION A

IDENTIFYING LEAD SERVICE LINES IN THE DRINKING WATER SYSTEM

The largest sources of lead in drinking water are lead service lines (which are pipes that connect water mains to houses and buildings), and lead pipes and lead solder, which may be found in household plumbing. Lead in service lines or household plumbing can dissolve or release into the water over time, and enter a household's drinking water.

A **lead service line** is any service line that is made of lead, or any lead gooseneck, lead pigtail, or lead fitting.

Unfortunately, many water departments do not know where lead service lines are located in their water system. To address this, in 2018 Michigan revised its Lead and Copper Rule to require each water department to identify where lead service lines are located by completing both a "Preliminary Distribution System Materials Inventory" and a "Complete Distribution System Materials Inventory."

This section will discuss:

- **When water departments must complete their Distribution System Materials Inventories;**
- **Methods water departments commonly utilize to identify lead service lines, and;**
- **The requirement for water departments to notify households that are connected to a lead service line.**

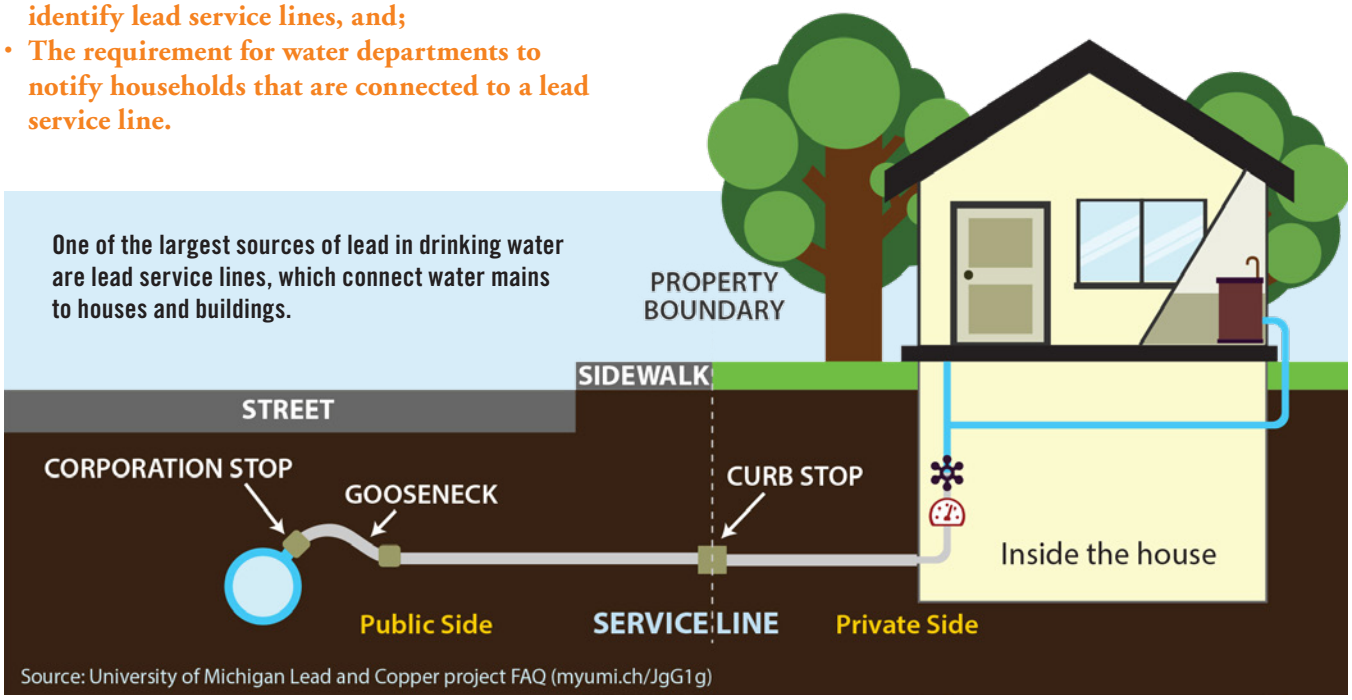
Preliminary and Complete Distribution System Materials Inventories

In order to ensure that water departments are proactively identifying the location of lead service lines in their water systems, Michigan's Lead and Copper Rule requires each water department to submit both a preliminary and complete Distribution System Materials Inventory, as described in Figure A-1.

Figure A-1

Preliminary Distribution System Materials Inventory	Complete Distribution System Materials Inventory
• Must be submitted by water departments to EGLE by 1/1/20 • Describe the number of known lead service lines, and galvanized service lines previously connected to lead based on existing records	• Must be submitted by water departments to EGLE by 1/1/25 • Identify all materials in all service lines, including all lead service lines

One of the largest sources of lead in drinking water are lead service lines, which connect water mains to houses and buildings.



Source: University of Michigan Lead and Copper project FAQ (myumi.ch/JgG1g)

Methods of Identifying Lead Service Lines

In their Distribution System Materials Inventory, each water department must describe what every service line is made out of. Lead was a commonly used material for service lines in the 20th century, as well as copper. More recently, plastic is has become a common material for service lines. Water departments can identify lead service lines in several different ways. Some common methods are described to the right in figure A-2. An example of a preliminary drinking water system inventory submitted by the city of Southfield is provided in Appendix A-1.

Picture of a lead service line

Picture of lead service line entering a household

Figure A-2

Method 1: Inspection of the existing paper records kept by the city/water department

- Pros: Easy and an important starting point for establishing a service line inventory
- Cons: Many city/water department records are incomplete and have not been maintained or updated, particularly in older cities. This method can be very inaccurate.
- Example: When Method 1 was used to verify the accuracy of city records in Flint, it was discovered that city records were very inaccurate.

Method 2: Visually inspect the portion of the service line that enters a household

- Pros: Accurate and inexpensive for verifying whether lead is present in the visible portion of the service line that enters the home.
- Cons: Not accurate for identifying the material in the buried portion of the service line. Water departments may not acknowledge that this is not a conclusive test.
- Example: Many water departments offer to visually inspect the service line that enters the home if they suspect the home is connected to a lead service line.

Method 3: Dig up the soil around the water service box (also known as shutoff valve or curb box) in the front or back yard, and visually inspect the service line

- Pros: Highly accurate method of verifying whether lead is present in any portion of the buried service line.
- Cons: Can be expensive. The bigger and more conclusive the excavation, the more it costs.
- Example: Curb box excavations can be done as part of a dedicated inspection program, ongoing operations and maintenance work, or as a conclusive confirmation of the material of the service line that did not have a lead service line discovered inside the house by Method 2.

KEY ISSUE: WATER DEPARTMENTS FAILING TO IDENTIFY LEAD SERVICE LINES AND TAP MONITORING

Make sure your water department's inventory of its lead service lines is complete and accurate. Similar to Flint, many water departments have inaccurate paper records and underestimate the number of lead service lines present in the water system.

If your water department is failing to identify lead service lines, then it may take tap samples from households that are at low-risk of lead contamination in drinking water. This can result in your water department underestimating the risk of lead contamination in its water system.

Example: In its Preliminary Distribution System Materials Inventory, Southfield claims that it only has 16 lead service lines in its water system. However, over 8,000 homes in Southfield were constructed before 1960 when lead service lines were in common use. It's possible that Southfield is underestimating the number of lead service lines in its water system.

Requirement for Water Departments to Notify Households Served By a Lead Service Line or a Service Line of Unknown Material

If a water department is unable to identify the material in a service line, or identifies a lead service line, then it must issue a notice to the household connected to that service line:

- If it is unable to determine the content of any part of the service line
  - Notice must describe the potential for lead in the service line;
  - Notice must provide information on the hazards of lead and drinking water.
- If it has determined that the service line contains lead or is presumed to contain lead
  - Notice must be sent within 30 days of the determination;
  - Notice must describe the material found in the service line;
  - Notice must encourage residential customers to have a home plumbing materials evaluation completed.

WHAT MUST BE PROVIDED IN EACH SERVICE LINE NOTICE?

EGLE has provided templates for service line notifications on its "Lead and Copper Rule" website under the heading "Service Line Information" at https://www.michigan.gov/egle/0,9429,7-135-3313_3675_3691-9677--,00.html

WATCHDOG ACTIONS

- Review your water department's preliminary Distribution System Materials Inventory and determine how your water department has identified lead service lines. It's important that the methods being used by your water department are accurate. Demand your water department use each of the methods described above to ensure they are accurately identifying lead service lines.
- Although your water department has until January 2025 to finish its complete Distribution System Materials Inventory, urge your water department to finish its complete inventory as soon as possible.
- Lead service lines were most commonly used for homes constructed before the mid-1970's, but some communities did ban the use of lead service lines while they were still in common use. If your community has many older homes built before 1970, ask for a copy of the ordinance or policy that describes when the use of lead service lines was banned in your community.
- Contact your water department to make sure it is notifying residents that live in households connected to a lead service line, or to a service line with unknown materials.

WHERE CAN I FIND OUT HOW MANY LEAD SERVICE LINES ARE IN MICHIGAN COMMUNITIES?

Information from preliminary distribution system material inventories has been compiled and can be found on the EGLE website at https://www.michigan.gov/documents/egle/egle-dwehd-PDSMISummaryData_682673_7.pdf

SAMPLE FOIA REQUESTS

- Each water department was required to submit a preliminary Distribution System Material Inventory by January 1, 2020. You can request this inventory from either EGLE or your local water department:
  - Sample Request to EGLE: The preliminary Distribution System Materials Inventory submitted by or on behalf of the city of Southfield to EGLE pursuant to Mich. Admin. Code, R 325.11604(c)(i).
- Each water department is required to submit a complete Distribution System Materials Inventory by January 1, 2025. Once completed, you can request this inventory from either EGLE or your local water department:
  - Sample Request to EGLE: The complete Distribution System Materials Inventory submitted by or on behalf of the city of Southfield to EGLE pursuant to Mich. Admin. Code, R 325.11604(c)(ii).

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
DRINKING WATER AND ENVIRONMENTAL HEALTH DIVISION

PRELIMINARY DISTRIBUTION SYSTEM MATERIALS INVENTORY

Issued under authority of the Safe Drinking Act, 1976 PA 399, and Administrative Rules, as amended. Administrative Rule R 325.10604(c)(i) requires a water supply to complete and submit a preliminary distribution system materials inventory to the Michigan Department of Environment, Great Lakes, and Energy (EGLE) by January 1, 2020.

City of Southfield		6160
Supply Name		WSSN
73000	20167	Oakland
Population Served	Number of Service Connections	County

The primary focus of the preliminary Distribution System Materials Inventory (DSMI) is to identify lead service lines, galvanized steel previously connected to lead, or service lines of unknown material. This inventory will estimate the number of high-risk service lines and describe the reliability of existing records, thereby providing important information for planning service line verification and replacement efforts. The complete DSMI, which is due in 2025, will require characterization of all service line materials (lead, galvanized, copper, and plastic). Instructions for completing this form are provided at the end of the document.

1. Does this water supply have service lines meeting the following definition?

"Service line" means 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.

Note: For the purposes of this inventory, Manufactured Housing Community (MHC) connections to units (risers) are considered service lines, so MHCs should fill out this entire form.

■ **YES.** If yes, complete this form in its entirety. ☐ **NO.** If no, skip to Questions 7 and 8 and the Certification.

2. Complete the table below.

Estimated Number of Service Connections by Service Line Material

A service line includes any section of pipe from the water main to the building plumbing at the first shut-off valve inside the building, or 18 inches inside the building, whichever is shorter.

Any Portion Contains Lead	Contains Galvanized Previously Connected to Lead*	Unknown			Contains neither Lead nor Galvanized Previously Connected to Lead	Total**
		Likely Contains Lead	Likely Does Not Contain Lead	Material(s) Unknown		
16					20151	20167

*If a galvanized line is still connected to lead, it is a lead service line and must be counted in the first column.
**The total number should equal the total number of potable water service lines in your water supply (residential, commercial, industrial, other).

3. Describe the sources of information used to summarize or estimate the data above (see instructions for a list of potential sources of information).

Sources include, but not limited to:

-Tap records
-Meter installation records
-Water asset databases
-As-built drawings
-Permit files
-Other

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PRELIMINARY DISTRIBUTION SYSTEM MATERIALS INVENTORY
EQP6786

4. **Describe your level of confidence in the sources of information discussed in Question 3.**

☒ Very confident ☐ Somewhat confident ☐ Not very confident ☐ Not confident

Describe:

+/- 3 Percentage points with a 95% level of confidence.

5. **How common is it to find discrepancies in your service line data (for example, services you expected to be lead turned out to be copper)?**

☐ Frequently ☐ Occasionally ☒ Seldom ☐ Never ☐ Not Enough Information

Describe, including any common patterns:

Service line data is consistent with material reported in the field.

6. **In general, describe the composition of lead services lines identified in the column titled "Any Portion Contains Lead." For example, are services primarily full lead lines, partial lead lines (main to curb stop, curb stop to water meter), or lead goosenecks?**

Lead service lines are a mixture of full, partial, and or goosenecks.

7. **What other information can you share about your preliminary DSMI?**

None

8. **Beyond your service lines, do other documents previously submitted to EGLE (including the General Plan, Reliability Study, issued permits, and/or Asset Management Plan) in combination properly characterize the remainder of your current distribution system?**

☒ **YES**, my general plan, reliability study, issued permits, and/or asset management plan characterize the rest of my current distribution system.

☐ **NO.** If no, please contact your district engineer to update your documentation.

Certification of Preliminary Distribution System Materials Inventory

I certify that I have reviewed available documentation related to the materials in this water supply's distribution system, and the information herein is accurate and complete to the best of my knowledge and information.

Terrace Hamilton — Signature

12/27/2019 — Date

Terrace Hamilton — Print Name

Operator in Charge — Title

When complete, submit this signed form to your EGLE district office no later than January 1, 2020.

Page **2** of **4**

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PRELIMINARY DISTRIBUTION SYSTEM MATERIALS INVENTORY
EQP6786

PRELIMINARY DISTRIBUTION SYSTEM MATERIALS INVENTORY (DSMI) REPORTING FORM INSTRUCTIONS

Water supplies should review all records documenting the materials used to construct and repair service lines and use that information to complete this reporting form.

Potential sources of service line information may include, but are not limited to, the following:

- Plumbing codes
- Plumbing permits
- Distribution maps and drawings
- Tap records
- Inspection and maintenance records
- Meter installation records
- Billing records
- Water asset databases
- Geographic Information System
- Standard operating procedures
- Operation and maintenance manuals
- Permit files
- As-built drawings
- Existing water quality data
- Property tax records
- Interviews with senior personnel, building inspectors, and retirees
- Community survey
- Other

Complete the Service Line Materials Table

The service line materials table summarizes potable water service connections by broad material categories, focusing on service lines containing lead, galvanized steel previously connected to lead, or service lines of unknown material. A service line includes any section of pipe from the water main to the first shut-off valve inside the building or up to 18 inches inside the building, whichever is shorter. The number of service lines in each of the following categories need to be reported:

- **Any Portion Contains Lead**: Any portion of a service line that is made of lead or any lead pigtail, lead gooseneck, or other lead fitting that is connected to the service line, or both. In short, any service line that contains any lead.
- **Galvanized Previously Connected to Lead:** A galvanized service line that WAS previously connected to a lead service line, gooseneck, or pigtail. If a galvanized line is still connected to lead, it is considered a lead service line and must be counted in the category above.
- **Unknown**: While a water supply may not be certain of the materials content of some service lines, they may have information that indicates the likelihood of a service line containing lead. For planning purposes, it is helpful to record this information. Therefore, three categories of unknown service lines are provided.
    - **Unknown - Likely Contains Lead**: While not known for certain, service lines the water supply believes are likely to contain lead.
    - **Unknown - Likely Does NOT Contain Lead**: While not known for certain, service lines the water supply believes are NOT likely to contain lead.
    - **Unknown – Material(s) Unknown:** Service line materials are fully unknown. Supply has no information regarding the likelihood of lead being present in the service line.
- **Contains neither Lead nor Galvanized Previously Connected to Lead:** Service lines that are known to contain NO lead in any portion. These typically include copper, plastic, cast iron, ductile iron, or galvanized that was NEVER connected to lead. If a galvanized service line was previously connected to lead, it should not be included in this category, but rather included with the second bullet above.

All physically connected potable water services must be included in this table even if there is no current active account. Complete the table to the best of your ability based on your available records and/or knowledge of the system. If you do not know the answer, use the unknown category. **You will not be penalized for acknowledging you do not know.** The purpose of this preliminary inventory is to understand current service line materials documentation and knowledge. The total number of service lines in the lower right-hand box should equal the total number of service lines in your system.

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PRELIMINARY DISTRIBUTION SYSTEM MATERIALS INVENTORY
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Answer Supporting Questions

Provide answers to the questions asked. Because water supplies differ significantly in terms of service line materials and records, many questions require a narrative response to allow flexibility. Please provide thorough answers that provide meaningful information about the status of your water supply's service line inventory.

Submit Form to the Michigan Department of Environment, Great Lakes, and Energy (EGLE)

Submit the completed and signed reporting form to the appropriate EGLE district office no later than January 1, 2020. See below for district office mailing and email addresses.

EGLE District office locations and email addresses:

CADILLAC DISTRICT OFFICE
120 West Chapin Street
Cadillac, Michigan 49601-2158
Fax: 231-775-4050
EMAIL: EGLE-DWEH-Cadillac@Michigan.gov

GRAND RAPIDS DISTRICT OFFICE
State Office Building
5th Floor 350 Ottawa Avenue NW, Unit 10
Grand Rapids, Michigan 49503-2341
Fax: 616-356-0202
EMAIL: EGLE-DWEH-Grand-Rapids@Michigan.gov

JACKSON DISTRICT OFFICE
301 East Louis Glick Hwy
Jackson, Michigan 49201-1556
Fax: 517-780-7855
EMAIL: EGLE-DWEH-Jackson@Michigan.gov

KALAMAZOO DISTRICT OFFICE
7953 Adobe Road
Kalamazoo, Michigan 49009-5025
Fax: 269-567-3555
EMAIL: EGLE-DWEH-Kalamazoo@Michigan.gov

LANSING DISTRICT OFFICE
525 West Allegan
(Constitution Hall, 1st Floor, South)
P.O. Box 30242
Lansing, Michigan 48909-7742
Fax: 517-241-3571
EMAIL: EGLE-DWEH-Lansing@Michigan.gov

BAY CITY DISTRICT OFFICE
401 Ketchum Street, Suite B
Bay City, Michigan 48708
Fax: 989-891-9237
EMAIL: EGLE-DWEH-Bay-City@Michigan.gov

WARREN DISTRICT OFFICE
27700 Donald Court
Warren, Michigan 48092-2793
Fax: 586-751-4690
EMAIL: EGLE-DWEH-Warren@Michigan.gov

MARQUETTE DISTRICT OFFICE
1504 West Washington Street
Marquette, Michigan 49855
Fax: 906-228-4940
EMAIL: EGLE-DWEH-Marquette@Michigan.gov

SECTION B

MONITORING LEAD LEVELS IN TAP WATER

Monitoring the amount of lead in drinking water is challenging. Many water systems have thousands of lead service lines that release lead into tap water. Each of these lead service lines is a potential source of contamination that uniquely impacts the household it is connected to. Additionally, the level of lead in water can vary based on a number of factors, including the temperature of the water, the rate at which water flows through the system, and several others. Because of the number of lead service lines and the variability of releases of lead into water, it is not feasible for water departments to consistently test all households' water for lead.

Instead, the Michigan Lead and Copper Rule requires each water department to take water samples from a limited number of household taps and test the samples for lead. Since samples are only taken from a limited number of households, water departments must collect samples from households that have the highest risk of lead contamination in drinking water.

This section will discuss:

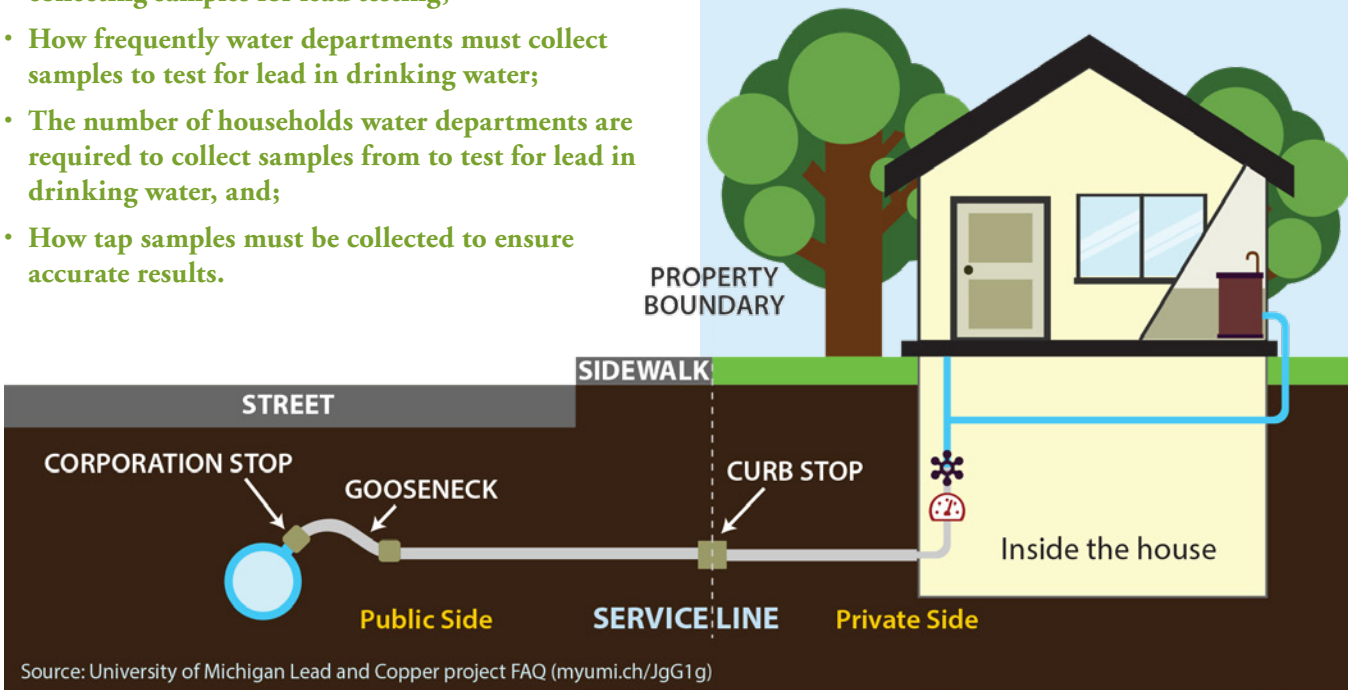
- **How water departments select households for collecting samples for lead testing;**
- **How frequently water departments must collect samples to test for lead in drinking water;**
- **The number of households water departments are required to collect samples from to test for lead in drinking water, and;**
- **How tap samples must be collected to ensure accurate results.**

Selecting Households for Tap Sampling

Since water departments are not required to collect samples from every household's water and test it for lead, the tap samples they do take must be collected from households at highest risk of lead in drinking water.

To ensure water departments are collecting tap samples from the most at-risk households, Michigan's Lead and Copper Rule requires each water department use a "tiering criteria" when determining which households to collect tap samples from (See, Figure B-1 on the following page). These households must be selected from a water department's "sampling pool," which identifies the addresses of sites that may be used for lead monitoring, and describes how each site meets the tiering criteria.

Monitoring the amount of lead in drinking water is challenging. Many water systems have thousands of lead service lines that release lead into tap water. Each of these lead service lines is a potential source of contamination that uniquely impacts the household it is connected to.



Source: University of Michigan Lead and Copper project FAQ (myumi.ch/JgG1g)

Figure B-1: "Tiering Criteria"

Tier 1 Sites	
Single family homes that either contain lead pipes, or are connected to a lead service line	Water departments must conduct tap sampling at Tier 1 households first

↓

Tier 2 Sites	
Multi-family homes that either contain lead pipes, or are connected to a lead service line	Water departments may conduct tap sampling at Tier 2 sites if there aren't enough Tier 1 sites

↓

Tier 3 Sites	
Single family homes that contain copper pipes with lead solder installed before July 1988	Water departments may conduct tap sampling at Tier 3 sites if there aren't enough Tier 2 sites

↓

Tier 4 Sites	
Sites that have plumbing materials that are commonly found throughout the local water system	Water departments may conduct tap sampling at Tier 4 sites if there aren't enough Tier 3 sites

WATCHDOG ACTIONS

- If you think you have a lead service line, you can contact your water department and ask that your home be included in the sampling pool, and that they take tap samples from your home during the next sampling period.

SAMPLE FOIA REQUESTS

- Each water department was required to submit its sampling pool to EGLE by January 1, 2020. You can request your city's sampling pool from either EGLE or your local water department.
  - Sample Request to EGLE: The sampling pool submitted by or on behalf of the city of Detroit to EGLE pursuant to Mich. Admin. Code, R 325.10710a(1)(a).
- Water departments can update their sampling pools at any point. Any updates to a sampling pool must be submitted to EGLE. Such updates must identify the location of any site added to the sampling pool and describe how it meets the selection criteria, and identify the location of any site removed from the sampling pool, and why it was removed.
  - Sample Request to EGLE: Any updates to the sampling pool submitted by or on behalf of the city of Detroit to EGLE pursuant to Mich. Admin. Code, R. 325.10710a(1)(a)(iii).

Frequency of Lead Monitoring and Number of Monitoring Sites

For more information on the lead action level, refer to "Lead Action Level" section of the Handbook

Water departments are required to collect tap samples from a limited number of households to test for lead in drinking water during each specified "sampling periods." The sampling period for each water system varies depending on their size and history of compliance with the lead action level, as described in the Table B-2 on the following page.

As previously noted, during each sampling period water departments are only required to collect samples from a limited number of households. The number of households that a water department must collect samples from depends on the number of people served by the water system, as described in Table B-3 on the following page. Water departments must collect water samples from the required number of household sampling sites during each sampling period, as described in Table B-2.

If a water system has remained below the lead action level for 2 consecutive standard sampling periods, it is eligible to reduce its number of sampling sites. Most water utilities in Michigan qualify for the reduced number of sampling sites unless they have recently exceeded the lead action level. If a system has recently exceeded the lead action level, then it must collect samples from the standard number of sites.

SAMPLE FOIA REQUESTS

- Each water department is required to report the results of every tap sample taken during each sampling period to EGLE. An example report from the city of High-

land Park is attached as Appendix B-1. Review your water department's tap sample results to see the range of lead results from different households for both the first liter and fifth liter sample, as well as the "tier" for each sampling site.

– Sample Request to EGLE: The results of all tap samples for lead and copper submitted by or on behalf of the city of Highland Park during any and all monitoring periods occurring during the previous year submitted pursuant to Mich. Admin. Code R. 325.10710d(a)(i)(A).

Table B-2: Sampling Periods for Lead Monitoring

	Eligibility	Sampling Period	Examples (for 2020)
Standard Sampling Period (Every 6 Months)	• Any water system that has exceeded the lead action level • Any water system that is not eligible for less frequent monitoring	Water system must collect the required number of samples both between January 1st and June 30th and between July 1st and December 31st every year	• Benton Harbor • Highland Park • Flint • Kalamazoo • St. Clair Shores • Royal Oak • Clare
Reduced Sampling Period (Once Per Year) **Most Common Sampling Period**	• Any small/medium water system that is in compliance with lead and copper action levels for 2 consecutive 6-month sampling periods • Large water systems that meet the lead and copper action levels for 2 consecutive 6-month sampling periods and maintain the range of values for their water quality parameters (See, Corrosion Control section for more information regarding water quality parameters)	Water systems must collect the required number of samples between June 1st and September 30th every year	• Berkley • Detroit • Southfield • Beverly Hills • Grand Rapids • Sault Ste. Marie • Escanaba
Reduced Sampling Period (Every 3 Years)	• Small/medium systems without optimal corrosion control treatment that are in compliance with the lead and copper action levels for 3 consecutive years. • Large water systems that are in compliance with the lead and copper action level for 3 consecutive years and have no lead service lines or very low levels of lead and copper.	Water systems must collect the required number of samples between June 1st and September 30th every 3 years	• Lansing • Traverse City

Table B-3: Number of Household Sampling Sites Required During Each Sampling Period

Number of People Served	Standard Number of Sampling Sites Per Sampling Period	Reduced Number of Sampling Sites Per Sampling Period
More than 100,000	100	50
100,000 to 10,001	60	30
10,000 to 3,301	40	20
3,300 to 501	20	10
Less than 501	5	5

LEAD MONITORING EXAMPLE – BENTON HARBOR FOR THE YEAR 2020

Number of Samples: Benton Harbor serves 9,970 people and has recently exceeded the lead action level, so it must collect tap samples from the standard number of sites, which is 40 sampling sites.

Sampling Period: Benton Harbor has recently exceeded the lead action level, so it uses the standard sampling period. It must collect 40 samples between January 1st and June 30th and another 40 samples between July 1st and December 31st.

Tap Sampling Procedures

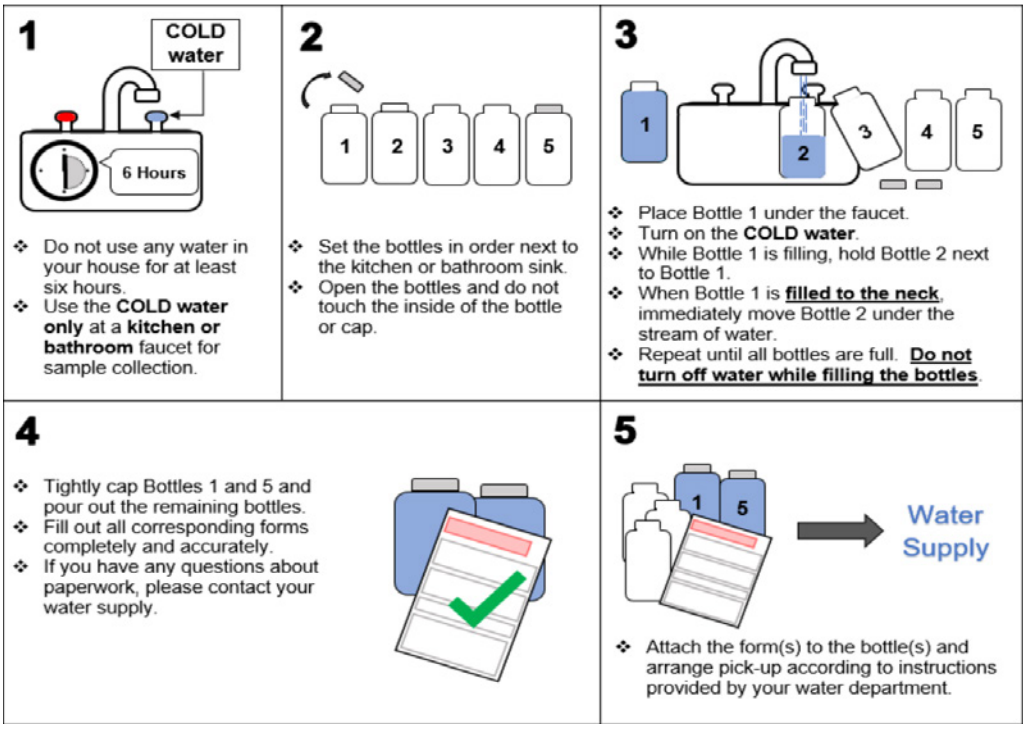
Water departments can either have its staff collect tap samples, or they can have a resident living at a household that is serving as a sampling site collect the tap samples. If a water department has residents collect tap samples, they will provide instructions to the resident who collects the sample from the tap. Water departments will then pick up the sample and send it to a laboratory to analyze it for lead and copper. If a resident collects the samples according to the instructions, the water supply cannot challenge the tap sampling results.

Regardless of whether the water department or a resident collects the tap sample, whoever collects the sample must follow the specific procedures outlined in Table B-4. EGLE's instructions regarding the collection of tap samples is also provided in Figures B-5 and B-6.

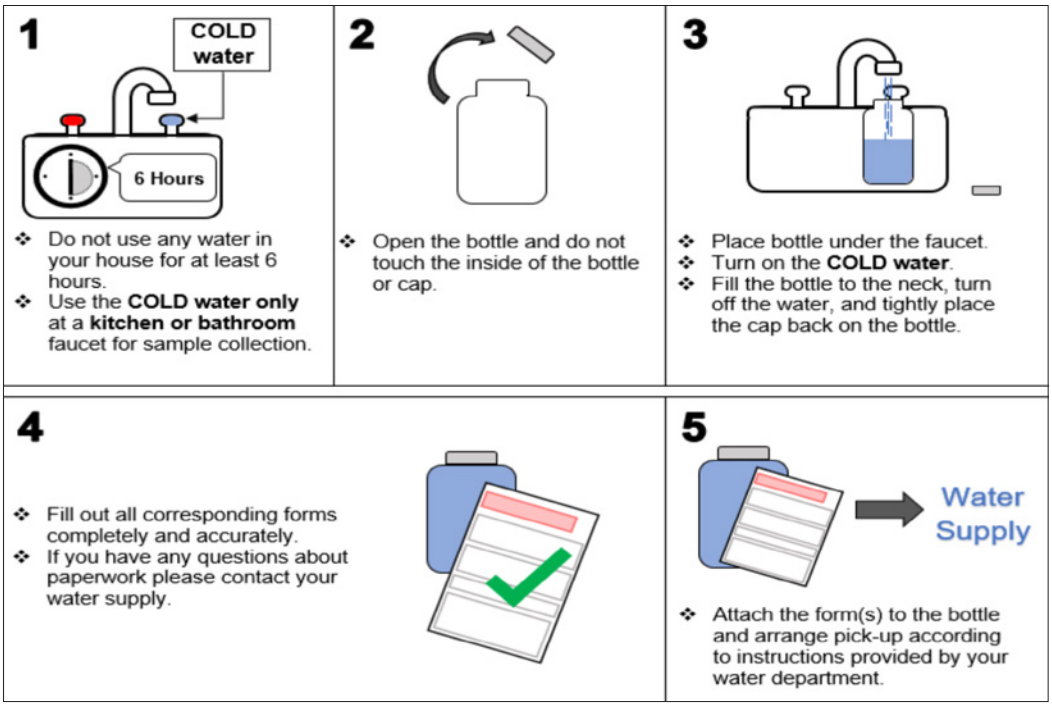
Table B-4: Tap Sampling Procedures

	Procedure	Reason for Procedure
Number of Samples	Homes With Lead Service Line: Must take 2 samples – the first liter out of the tap, and the fifth liter out of the tap. Homes Without Lead Service Line: Must take 1 sample – the first liter out of the tap.	The first liter sample represents the risk of lead release from household plumbing. The fifth liter sample better represents the risk of lead release from the lead service lines.
When to Take Samples	Before collecting the sample(s), there must have been no water use in the entire house for at least 6 hours.	The risk of lead release increases in stagnant water. Typical households have frequent periods of 6 hours or longer with no water use (e.g., over night), so this represents the high risk water a resident might drink.
Where to Take Samples	All samples must be collected from a kitchen or bathroom tap that is typically used for drinking water.	Represents water that people are consuming on a regular basis. Taps with irregular water use will not represent the effectiveness of corrosion control treatment.
How to Take Samples	All samples must be cold water from fully open taps, and must be collected in a wide-mouth, 1-liter bottle.	This will provide you with the most accurate results regarding the amount of lead in your drinking water.

Figure B-5: Sampling Procedures for Households Connected to a Lead Service Line



B-6: Sampling Procedures for Households Not Connected to a Lead Service Line



SAMPLE FOIA REQUESTS

- Your water system should provide each resident with instructions regarding the sampling procedures described above. EGLE has provided instructions for collecting samples from homes connected to a lead service line, and homes that are not connected to a lead service line, which as attached as Appendix B-2. You can receive a copy of these instructions by requesting them from your local water department.
  - Sample Request to a Water Department: Any written instructions provided to residents for the purposes of collecting a water sample for the purposes of monitoring lead in drinking water pursuant to Michigan's Lead and Copper Rule.

Consumer Notice of Lead and Copper Monitoring Results

For each household that is tested, the water system is required to deliver a "Consumer Notice of Lead and Copper Monitoring Results" to the resident at the tested site. The notice must include the following information:

- The amount of lead and copper found in each tap sample
  - If household has a lead service line: Amount of lead and copper found in 1st liter and 5th liter sample.
  - If household does not have a lead service line: Amount of lead and copper in 1st liter sample.
- The action level for lead and copper
  - The level of lead that, if exceeded in 10% of samples, triggers response actions by your water system.
- The Maximum Contaminant Level Goal for lead and copper
  - The Maximum Contaminant Level Goal is the level of lead and copper in drinking water where there is no known or expected risk to health.
- An explanation of the health effects of lead and copper
- Steps residents can take to reduce exposure to lead and copper
- Contact information of the water supplier

Most water systems utilize the Consumer Notice form provided by EGLE. These forms are attached as Appendix B-3.

READING THE RESULTS OF THE CONSUMER NOTICE

Each Consumer Notice must contain the test results describing the amount of lead and copper that was found in the samples taken from the household's tap. For households connected to a lead service line, the Consumer Notice must describe the results for both the first and fifth liter sample. For households that are not connected to a lead service line, the Consumer Notice will provide the result for the first liter sample. Figure B-7

is a sample of lead and copper test results provided in a consumer notice for a household connected to a lead service line. Figure B-8 provides guidance regarding how to interpret the results described in a Consumer Notice.

Levels of lead in drinking water can vary over time based on a number of factors. Even if your Consumer Notice states your drinking water has low levels of lead or even zero lead, that may not always be the case. The amount of lead in drinking water can vary frequently. As a result, it is possible for tap samples to miss even high levels of lead in drinking water.

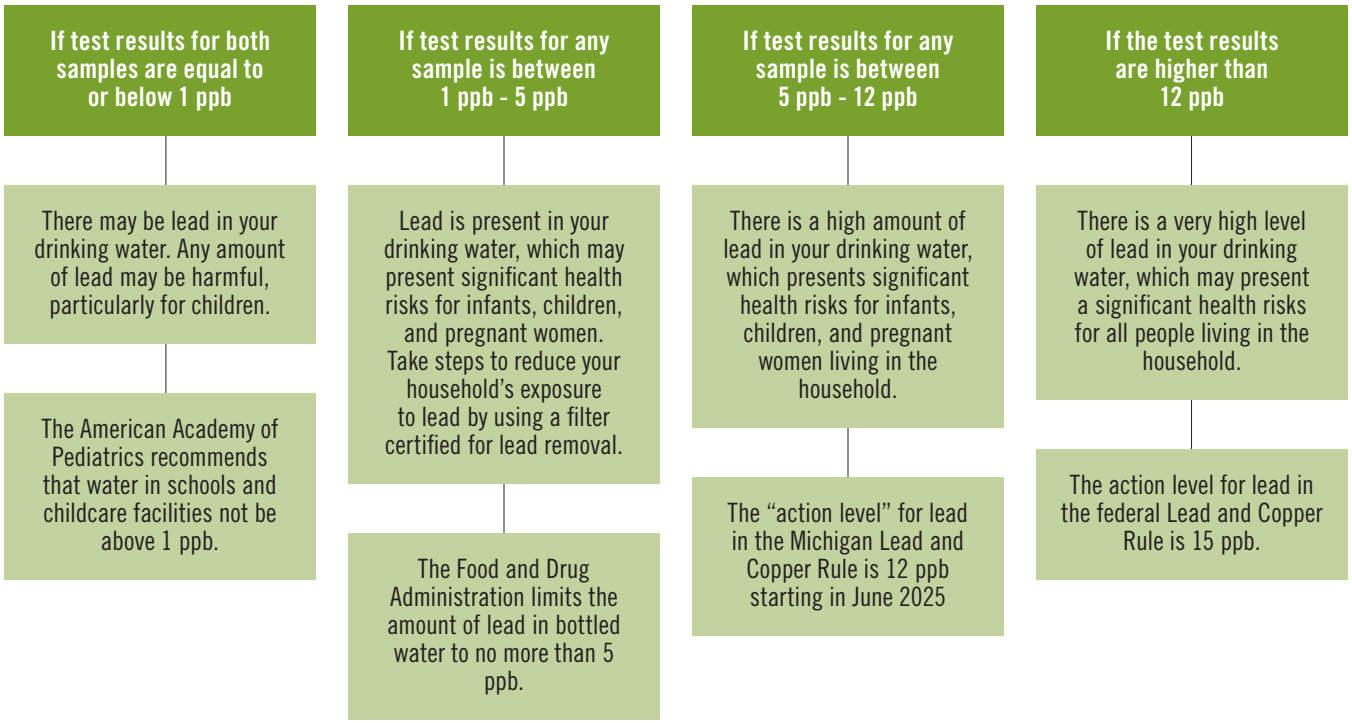
There is no safe level of lead. Therefore, if any amount of lead is detected in your drinking water, you should consider purchasing a water filter certified to remove lead. For more information about the health risks of lead in drinking water and the steps you can take to protect yourself and your family from lead-contaminated water and how to interpret the information in a Consumer Notice, please refer to the "What You Need to Know About Michigan's 2018 Lead and Copper Rule" prepared by the University of Michigan Graham Sustainability Institute. (http://graham.umich.edu/project/revised-lead-and-copper-rule)

Figure B-7: Example of Lead and Copper Contaminant Table in Consumer Notice

Contaminant	Action Level	Maximum Contaminant Level Goal	1st Liter Result	5th Liter Result
Lead (ppb)	15	0	2 ppb	11 ppb

- Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- Maximum Contaminant Level Goal (MCLG): 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.
- ppb: Parts per billion or micrograms per liter.
- ND: Not detected.

Figure B-8: How to Interpret Your Results and Actions to Take to Reduce Exposure to Lead



DELIVERY METHOD

If your home was a test site for lead and copper monitoring, your water system must provide you with the results by mail within 30 days of your water system receiving the results from the lab.

WATCHDOG ACTIONS

- If you have not received your Consumer Notice within 1 month of the date when the sample was collected, contact your water department. Your water department is required to send you a Consumer Notice described above within 30 days of the water department receiving the results.
- If you receive a notice showing you have any level of lead in any sample, follow up with your water system to determine what steps they are taking on their end to reduce lead in your water and for recommendations about what steps you should be taking to reduce your risk of exposure. Also, if there are infants, children, or pregnant women in your household, contact your health department to determine what steps you should take to make sure they are being protected from lead contaminated drinking water.

SAMPLE FOIA REQUESTS

- Any person can submit a Freedom of Information Act request to any water system and receive any and all of the Consumer Notice's provided by that water system.
  - Sample Request to EGLE: The certification and notification provided by or on behalf of the city of Southfield regarding the delivery of consumer notifications of lead sampling results as required in Mich. Admin. Code R. 325.10410(5), as well as a single copy of the consumer notification provided by the city of Southfield.

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
DRINKING WATER AND ENVIRONMENTAL HEALTH DIVISION

LEAD AND COPPER REPORT AND CONSUMER NOTICE FOR COMMUNITY WATER SUPPLY FORM A – SUPPLIES WITH LEAD SERVICE LINES

Issued under authority of the Michigan Safe Drinking Water Act, 1976 PA 399, as amended (Act 399), MCL 325.1001 et seq., and the Administrative Rules.
Failure to submit this information is a violation of Act 399 and may subject the water supply to enforcement penalties.

Administrative Rule R 325.10710d requires water supplies to report lead and copper monitoring information within ten days after the end of the monitoring period. This form may be used to meet this requirement. Form instructions are available on pages 8 - 10. Submit the information to the appropriate Michigan Department of Environment, Great Lakes, and Energy (EGLE) district office.

1. Supply Name: City of Highland Park
2. County: Wayne 3. WSSN: **3140**
4. Population: 11,776 5. Monitoring Period: From: 6/1/19 To: 9/30/19
6. Minimum # of Samples Required: 30 7. # of Samples Taken: 36
8. Name of Certified Laboratory: Brighton Analytical

9. SAMPLE CRITERIA:

This form is for water supplies collecting *some* or *all* lead and copper samples from sites WITH LEAD SERVICE LINES. All other supplies should use Form B.			
Yes	No		
☒		Are some or all samples from sites WITH lead service lines? If no sites served by a lead service line, STOP and use Form B.	For more information see *Instructions* item 11 "Tier and Sample Category" at the end of the document.
☒	☐	Did you prioritize sample collection according to the following: • Tier 1 sites must be used unless insufficient Tier 1 sites available. • If insufficient Tier 1 sites available, then Tier 2 sites must be used. • If insufficient Tier 2 sites, then Tier 3 sites must be used. • If no Tier 1, 2, or 3 sites are available, sites must be representative of plumbing materials typically found throughout the water system.	
☐	☒	Were the same sampling sites used as in the previous monitoring period? **If no, explain** (attach additional pages if needed): We geographically located these addresses throughout the city, but some of these might have been used in the previous test in 2016.	
Comments:			

10. SIGNATURE:

Name: Ken Witkowski Signature: Kenneth J. Witkowski

Title: Project Manager Phone: 313-288-8507 Date: 7/9/2019

EGLE Environmental Assistance Center
Telephone:1-800-662-9278
Michigan.gov/EGLE
Page **1** of **7**
EQP5942a
Rev. 5/2019

EGLE

LEAD AND COPPER REPORT AND CONSUMER NOTICE – FORM A
EQP5942a

11. TAP SAMPLING DATA

Use additional sheets as needed. Sheet __1___ of __3___.

Water Supply Name: Highland Park WSSN: 3140

Sample Location	Sample Date	Tier (1,2,3,OT)[1]	Category (see below)[2]	Building Plumbing (L,C,G,P)[3]	Service Line (L*,C,G,P)[3]	Tap Type (K,B)[4]	1st Liter Sample			5th Liter Sample		
							Lead ☐ mg/L ☒ ug/L	Copper ☐ mg/L ☒ ug/L	Lab Sample Number	Lead ☐ mg/L ☒ ug/L	Copper ☐ mg/L ☒ ug/L	Lab Sample Number
252 Eason	6/3/19	1	A	C	L	B	100	220	CK03068	2	0	CK03070
51 W. Buena Vista	6/3/19	1	A	G	L	K	9	0	CK03069	2	0	CK03071
28 Florence	6/4/19	1	A	G	L	K	4	50	CK03072	3	30	CK03073
142 Florence	6/4/19	1	A	C	L	K	1	0	CK03074	7	0	Ck03075
160 W. Buena Vista	6/4/19	1	A	C	L	K	2	50	CK03272	2	0	CK03273
92 Florence	6/4/19	1	A	C/G	L	K	9	80	CK03270	20	0	CK03271
234 Waverly	6/5/19	1	A	G	L	K	1	60	CK03278	3	0	CK03279
269 Grove	6/5/19	1	A	C	L	K	5	0	CK03274	0	0	CK03275
110 Avalon	6/5/19	1	A	C/P	L	K	200	400	CK03276	6	0	CK03277
108 Pilgrim	6/6/19	1	A	G	L	K	11	0	CK03488	5	0	CK03490
307 Grove	6/6/19	1	A	G	L	K	0	30	CK03489	1	0	CK03491
142 Waverly	6/6/19	1	A	C/G	L	B	0	0	CK03492	0	0	CK03493
364 Geneva	6/5/19	1	A	G	L	K	25	0	CK03494	28	20	CK03495
40 Pilgrim	6/7/19	1	A	C/G/P	L	K	2	0	CK03486	1	0	CK03487
25 Moss	6/7/19	1	A	G	L	K	7	0	CK03484	4	0	CK03485

[1] Tier	[2] Category	Description	[1] Tier	[2] Category	Description	[3] Material	[4] Tap Type
Tier 1	A*	Single Family w/ lead service line	Tier 2	D*	Multi Family or building w/ lead service line	L* = Lead C = Copper G = Galvanized P = Plastic * Use Form A if any samples collected from sites with lead service lines to report 1st and 5th liter results.	K = Kitchen Sink B = Bathroom Sink O = Other (not an option for residential sites)
	B	Single Family w/ interior lead plumbing		E	Multi Family or building w/ interior lead plumbing		
	C	Multi Family Residence (MFR) w/ a LSL*, or lead interior plumbing, if MFRs comprise at least 20% of total service connections.	Tier 3	F	Single Family w/ copper plumbing with lead solder installed before 1988		
	* Use Form A if any samples collected from sites with LSLs to allow reporting of 1st and 5th liter results.		Other	OT	If no Tier 1, 2, 3 sites, use sites representative of plumbing commonly found throughout the supply.		

Page **2** of **7**

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
DRINKING WATER AND ENVIRONMENTAL HEALTH DIVISION

LEAD AND COPPER REPORT AND CONSUMER NOTICE FOR COMMUNITY WATER SUPPLY FORM A – SUPPLIES WITH LEAD SERVICE LINES

Issued under authority of the Michigan Safe Drinking Water Act, 1976 PA 399, as amended (Act 399), MCL 325.1001 et seq., and the Administrative Rules.
Failure to submit this information is a violation of Act 399 and may subject the water supply to enforcement penalties.

11. TAP SAMPLING DATA

Use additional sheets as needed. Sheet __2___ of _2____.

Water Supply Name: Highland Park WSSN: 3140

Sample Location	Sample Date	Tier (1,2,3,OT)[1]	Category (see below)[2]	Building Plumbing (L,C,G,P)[3]	Service Line (L*,C,G,P)[3]	Tap Type (K,B)[4]	1st Liter Sample			5th Liter Sample		
							Lead ☐ mg/L ☒ ug/L	Copper ☐ mg/L ☒ ug/L	Lab Sample Number	Lead ☐ mg/L ☒ ug/L	Copper ☐ mg/L ☒ ug/L	Lab Sample Number
50 Moss	6/10/19	1	A	C	L	K	3	30	CK03960	4	0	CK03961
375 Florence	6/10/19	1	A	C	L	K	0	80	CK03962	0	30	CK03963
123 Kendall	6/10/19	1	A	C/G	L	K	0	30	CK03964	2	0	CK03965
40 California	6/11/19	1	A	C	L	K	1	0	CK03974	2	0	CK03975
61 Eason	6/11/19	1	A	G	L	K	120	40	CK03972	65	20	CK03973
322 Cortland	6/11/19	1	A	G	L	B	29	40	CK03970	7	0	CK03971
27 Florence	6/13/19	1	A	C/G	L	K	3	0	CK03976	21	120	CK03977
245 Connecticut	6/13/19	1	A	C	L	K	4	0	CK03978	5	30	CK03979
160 Farrand Park	6/14/19	1	A	C/G	L	K	5	100	CK03966	11	30	CK03967
218 Rhode Island	6/14/19	1	A	G	L	K	5	0	CK03968	5	0	CK03969
161 Farrand Park	6/17/19	1	A	C	L	K	4	20	CK04155	4	0	CK04156
70 Florence	6/18/19	1	A	G	L	K	2	0	CK04157	2	0	CK04158
137 Connecticut	6/18/19	1	A	C/G	L	B	4	80	CK04159	2	0	CK04160
62 Moss	6/20/19	1	A	C	L	K	0	90	CK04582	0	0	CK04583

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
DRINKING WATER AND ENVIRONMENTAL HEALTH DIVISION

LEAD AND COPPER REPORT AND CONSUMER NOTICE FOR COMMUNITY WATER SUPPLY FORM A – SUPPLIES WITH LEAD SERVICE LINES

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Failure to submit this information is a violation of Act 399 and may subject the water supply to enforcement penalties.

11. TAP SAMPLING DATA

Use additional sheets as needed. Sheet 3 of 3.

Water Supply Name: Highland Park WSSN: 3140

Sample Location	Sample Date	Tier (1,2,3,OT)[1]	Category (see below)[2]	Building Plumbing (L,C,G,P)[3]	Service Line (L*,C,G,P)[3]	Tap Type (K,B)[4]	1st Liter Sample			5th Liter Sample		
							Lead ☐ mg/L ☒ ug/L	Copper ☐ mg/L ☒ ug/L	Lab Sample Number	Lead ☐ mg/L ☒ ug/L	Copper ☐ mg/L ☒ ug/L	Lab Sample Number
237 Colorado	6/21/19	1	A	C/G	L	K	2	0	CK04584	4	0	CK04585
187 Pasadena	6/21/19	1	A	G	L	B	8	0	CK04586	6	0	CK04587
69 Winona	6/24/19	1	A	G	L	K	3	0	CK05075	3	0	CK05076
15 Tennyson	6/24/19	1	A	G	L	K	0	0	CK05077	0	0	CK05078
348 Moss	6/26/19	1	A	G	L	K	6	30	CK05083	16	0	CK05084
344 Moss	6/26/19	1	A	G	L	K	620	150	CK05081	56	30	CK05082
94 Moss	6/26/19	1	A	G	L	K	5	0	CK05079	6	0	CK05080

EGLE Environmental Assistance Center
Telephone:1-800-662-9278

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Rev. 5/2019

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LEAD AND COPPER REPORT AND CONSUMER NOTICE – FORM A
EQP5942a

CONSUMER NOTICE OF LEAD AND COPPER RESULTS REQUIREMENTS AND CERTIFICATION

Each community water supply must deliver a Consumer Notice of Lead and Copper Results (Consumer Notice) to the occupants at each location sampled within 30 days of learning the sample results as required under R 325.10410(5) of the administrative rules promulgated under the Michigan Safe Drinking Water Act, 1976 PA 399, as amended. Failure to deliver the Consumer Notice to each location on time will result in a reporting violation.

Instructions:

A. Use the Consumer Notice Form A template for sites with lead service lines or Consumer Notice Form B template for sites without lead service lines. See the examples on Page 10 to document results from both sites with a lead service line and without a lead service line.

B. Complete one Consumer Notice for each home or building that was sampled. MAKE SURE UNITS ARE CORRECT BEFORE DISTRIBUTING TO CONSUMERS.

   Note: 1 mg/L = 1 ppm = 1,000 ppb Example: 0.002 mg/L = 0.002 ppm = 2 ppb

C. Mail or hand deliver each Consumer Notice to the corresponding home or building sampled.

D. Water supplies have 90 days after the end of the monitoring period to submit a sample copy of the Consumer Notice along with a signed certification that notices have been distributed as required under R 325.10710d(f)(3) to the appropriate EGLE district office. When possible, EGLE encourages water supplies to send the sample Consumer Notice and certification (page 4 of this document) along with the Lead and Copper Report (pages 1 and 2 of this document), which is due within ten days after the end of the monitoring period. Please COMPLETE all forms accurately to avoid resubmittal.

Certification:

I hereby certify that the Consumer Notice of Lead and Copper Results (Consumer Notice) has been provided to persons served at each of the taps that were tested, including all the following information:

- Delivery was by mail, hand delivery, or another method approved by EGLE.
- Delivery was within 30 days of knowing the result.
- Consumer Notice includes required content:
  - The results of lead and copper tap monitoring for the site that was sampled.
  - An explanation of the health effects of lead and copper.
  - Steps consumers can take to reduce exposure to lead in drinking water.
  - Contact information for the public water supply.
  - The maximum contaminant level goal and the action level for lead and copper with the definitions explaining each.

*Please **initial** each line verifying that each requirement was completed:*

KW A Consumer Notice was sent to persons served at each of the taps that were tested.

KW Delivery was by mail, hand delivery, or another method approved by EGLE.

KW Each Consumer Notice was delivered to the resident within 30 days of knowing the results.

KW Each Consumer Notice included the required content as stated above.

KW A sample copy of a Consumer Notice sent to a resident is attached.

Signature	Title	Date
Kenneth J. Kuhn	Project Manager	7/9/2019

Page **5** of **7**

1ST AND 5TH LITER LEAD/COPPER SAMPLING INSTRUCTIONS

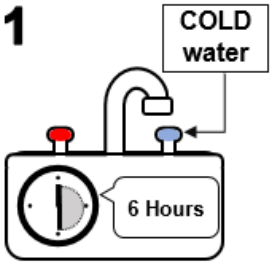
For Compliance Sampling at Sites with Lead Service Lines

READ ALL INSTRUCTIONS BEFORE OPENING YOUR SAMPLE BOTTLES.

Please note: These sampling instructions are generic; the procedure and included materials may vary depending on which certified laboratory your water supply is using.

- The sample kit that you will receive from your water supply may include various materials. Do not throw anything away unless otherwise instructed.
- Do not use any water in your house for at least six hours before you collect samples. The best time to sample may be first thing in the morning or after you return home from work.
- Only use a cold-water faucet in the kitchen or bathroom that is routinely used for drinking.
- If the faucet has a faucet mounted filter, the device must be bypassed or removed before sampling.
- If your home has a water softener, iron removal filter, reverse osmosis system or other treatment device, contact your water supplier before sampling.

1

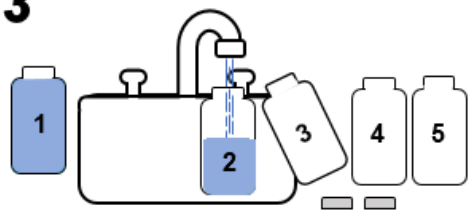


- Do not use any water in your house for at least six hours.
- Use the **COLD water only** at a **kitchen or bathroom** faucet for sample collection.

2

- Set the bottles in order next to the kitchen or bathroom sink.
- Open the bottles and do not touch the inside of the bottle or cap.

3

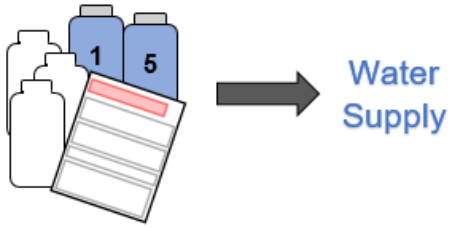


- Place Bottle 1 under the faucet.
- Turn on the **COLD water**.
- While Bottle 1 is filling, hold Bottle 2 next to Bottle 1.
- When Bottle 1 is **filled to the neck**, immediately move Bottle 2 under the stream of water.
- Repeat until all bottles are full. **Do not turn off water while filling the bottles**.

4

- Tightly cap Bottles 1 and 5 and pour out the remaining bottles.
- Fill out all corresponding forms completely and accurately.
- If you have any questions about paperwork, please contact your water supply.

5



- Attach the form(s) to the bottle(s) and arrange pick-up according to instructions provided by your water department.

NOTE: Under the Michigan Safe Drinking Water Act, 1st and 5th liter samples are required for water supply compliance sampling at sites served by a lead service line.

DRINKING WATER LEAD AND COPPER SAMPLING INSTRUCTIONS
for Sites **WITH** Lead Service Lines

Dear Resident:

Thank you for helping to monitor for lead and copper in your drinking water. This sampling is required by the federal and state Safe Drinking Water Acts, and is being accomplished with the cooperation of homeowners, residents, and water system customers.

IT IS IMPORTANT THAT YOU READ THESE INSTRUCTIONS COMPLETELY BEFORE SAMPLING. THIS WILL ALLOW US TO OBTAIN AN ACCURATE MEASUREMENT OF THE LEAD AND COPPER IN YOUR DRINKING WATER. THIS SAMPLE SHOULD REPRESENT THE WATER AND THE FAUCET WHERE YOU TYPICALLY DRINK WATER.

1. Water must remain motionless in the pipes before sampling. Therefore, **DO NOT USE ANY WATER** in the house for at least six hours before sampling. The most convenient times to sample may be early morning, after school, or after returning from work.
2. Select an unfiltered/untreated faucet in the **KITCHEN** or **BATHROOM** that has been commonly used for drinking in the past few weeks.
   - **DO NOT** sample from a laundry sink, bathtub, or hose spigot as these samples do not represent water typically consumed.
   - **DO NOT** use a faucet that has a filter attached to it unless you bypass or remove the filter.
   - **DO NOT** use a faucet that is connected to a home water treatment device like a water softener, iron filter, or reverse osmosis.
   - **DO NOT** remove or clean the aerator immediately before sampling.
3. Place all bottles in order next to the kitchen or bathroom sink. Open all bottles, place the caps on the counter and be careful not to touch the inside of the bottles or caps.
4. Place the **FIRST LITER** sample bottle below the faucet and then turn on the **COLD-WATER** tap. If you have a single handle faucet, turn it fully to the **COLD** side. Fill the first sample bottle to the neck and be prepared to immediately start filling the next bottle once the first bottle has been filled. Repeat this process until all bottles are full.

   DO NOT turn off the faucet in between filling sample bottles.
5. Tightly cap the **FIRST** and **FIFTH** bottles. Pour the other bottles out in the sink. Review the sample kit label to ensure all information contained on the label is complete and correct.
6. Answer the questions on the back of this form and sign the form.
7. Attach this form to the sample kit and arrange pick-up according to the instructions provided by your water department.

Thank you again for your help. We will send you your individual results within 30 days of receiving them from the laboratory. A summary of your water supply's lead and copper results will be provided in the annual water quality report that will be available by July 1 of next year. Contact your water supplier if you have questions.

If you have questions, call:

Water Supplier: _____

Manager or Water Operator:

_____

Phone:_____

Or Contact:

Michigan Department of Environmental Quality

DEQ Contact:

_____

Phone:_____

TO BE COMPLETED BY RESIDENT/CUSTOMER

Which faucet did you use to fill the bottles?

☐ Kitchen ☐ Main bathroom ☐ Other (not an option for residential sites)

If you selected Other, please describe: _____

_____

When was water in the house last used before sampling?

Date _____ Time _____ AM/PM

When did you fill the bottles?

Date _____ Time _____ AM/PM

Is there a faucet mounted filter?

☐ **YES** ☐ **NO**

If you selected Yes, was it bypassed?

☐ **YES** ☐ **NO**

Is this faucet connected to a home treatment device such as a water softener, filter, reverse osmosis unit, iron removal device **OR** any other kind of treatment?

☐ **YES** ☐ **NO**

If you selected Yes, please describe: _____

_____

Have any plumbing repairs or replacements been done since the previous sampling event?

☐ **YES** ☐ **NO**

If you selected Yes, please describe: _____

_____

I have read the Drinking Water Lead and Copper Sampling Instructions and have taken the tap samples in accordance with these directions.

_____

Signature Date

_____

Sample Collection Address

1ST DRAW LEAD/COPPER SAMPLING INSTRUCTIONS

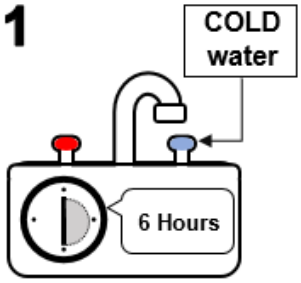
For Compliance Sampling at Sites Without Lead Service Lines

READ ALL INSTRUCTIONS BEFORE OPENING YOUR SAMPLE BOTTLE.

Please note: These sampling instructions are generic; the procedure and included materials may vary depending on which certified laboratory your water supply is using.

- The sample kit you will receive from your water supply may include various materials. Do not throw anything away unless otherwise instructed.
- Do not use any water in your house for at least six hours before you collect samples. The best time to sample may be first thing in the morning or after you return home from work.
- Only use a **cold-water** faucet in the **kitchen** or **bathroom** that is routinely used for drinking.
- If the faucet has a faucet-mounted filter, the device **must** be bypassed or removed before sampling.
- If your home has a water softener, iron removal filter, reverse osmosis system or other treatment device, contact your water supplier before sampling.

1

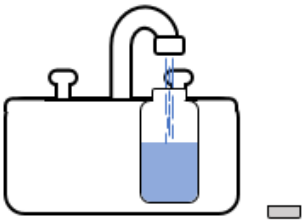


- Do not use any water in your house for at least 6 hours.
- Use the **COLD water only** at a **kitchen or bathroom** faucet for sample collection.

2

- Open the bottle and do not touch the inside of the bottle or cap.

3



- Place bottle under the faucet.
- Turn on the **COLD water**.
- Fill the bottle to the neck, turn off the water, and tightly place the cap back on the bottle.

4

- Fill out all corresponding forms completely and accurately.
- If you have any questions about paperwork please contact your water supply.

5

- Attach the form(s) to the bottle and arrange pick-up according to instructions provided by your water department.

DRINKING WATER LEAD AND COPPER SAMPLING INSTRUCTIONS
for Sites **WITHOUT** Lead Service Lines

Dear Resident:

Thank you for helping to monitor for lead and copper in your drinking water. This sampling is required by the federal and state Safe Drinking Water Acts and is being accomplished with the cooperation of homeowners, residents, and water system customers.

IT IS IMPORTANT THAT YOU READ THESE INSTRUCTIONS COMPLETELY BEFORE SAMPLING. THIS WILL ALLOW US TO OBTAIN AN ACCURATE MEASUREMENT OF THE LEAD AND COPPER IN YOUR DRINKING WATER. THIS SAMPLE SHOULD REPRESENT THE WATER AND THE FAUCET WHERE YOU TYPICALLY DRINK WATER.

1. Water must remain motionless in the pipes before sampling. Therefore, **DO NOT USE ANY WATER** in the house for at least six hours before sampling. The most convenient times to sample may be early morning, after school, or after returning from work.
2. Select an unfiltered/untreated faucet in the **KITCHEN** or **BATHROOM** that has been commonly used for drinking in the past few weeks.
   - **DO NOT** sample from a laundry sink, bathtub, or hose spigot as these samples do not represent water typically consumed.
   - **DO NOT** use a faucet that has a filter attached to it unless you bypass or remove the filter.
   - **DO NOT** use a faucet that is connected to a home water treatment device, like a water softener, iron filter, or reverse osmosis.
   - **DO NOT** remove or clean the aerator immediately before sampling.
3. Open the sample bottle and be careful not to touch the inside of the bottle or the cap. Place the open sample bottle below the faucet and then turn on the **COLD-WATER** tap. If you have a single handle faucet, turn it fully to the **COLD** side. Fill the sample bottle to the neck with the "first draw" of **COLD** water.
4. Tightly cap the sample bottle and place it in the sample kit provided. Review the sample kit label to ensure all information contained on the label is complete and correct.
5. Answer the questions on the back of this form and then sign the form.
6. Attach this form to the bottle inside the sample kit and arrange for pick-up according to the instructions provided by your water department.
7. Thank you again for your help. Your results will be sent to you within 30 days of receiving them from the laboratory. A summary of your water supply's lead and copper results will be provided in the annual water quality report that will be available by July 1 of next year. Contact your water supplier if you have questions.

If you have questions, call:

Water Supplier:

_____

Manager or Water Operator:

_____

Phone:_____

Or Contact:

Michigan Department of Environmental Quality

DEQ Contact:

_____

Phone:_____

TO BE COMPLETED BY RESIDENT/CUSTOMER

Which faucet did you use to fill the bottle?

☐ Kitchen ☐ Main bathroom ☐ Other (not an option for residential sites)

If you selected Other, please describe: _____

_____

When was water in the house last used before sampling?

Date _____ Time _____ AM/PM

When did you fill the bottle?

Date _____ Time _____ AM/PM

Is there a faucet mounted filter?

☐ **YES** ☐ **NO**

If you selected Yes, was it bypassed?

☐ **YES** ☐ **NO**

Is this faucet connected to a home treatment device such as a water softener, filter, reverse osmosis unit, iron removal device **OR** any other kind of treatment?

☐ **YES** ☐ **NO**

If you selected Yes, please describe: _____

_____

Have any plumbing repairs or replacements been done since the previous sampling event?

☐ **YES** ☐ **NO**

If you selected Yes, please describe: _____

_____

I have read the Drinking Water Lead and Copper Sampling Instructions and have taken a tap sample in accordance with these directions.

_____

Signature Date

_____

Sample Collection Address

EGLE

LEAD AND COPPER REPORT AND CONSUMER NOTICE – FORM A
EQP5942a

CONSUMER NOTICE OF LEAD AND COPPER RESULTS IN DRINKING WATER SITE WITH A LEAD SERVICE LINE

Water Supply Name: _____

County: _____ WSSN: _____

Sample Location: _____ Date Sampled: _____

Thank you for participating in the lead and copper monitoring of drinking water. The levels of lead and copper found at your location are in the table below. Your home is served by a lead service line. This means that the pipe that brings water to your home contains lead. The first liter sample represents the water you are likely to drink when turning on the tap, and the fifth liter sample likely represents the water in the service line.

Contaminant	Action Level	Maximum Contaminant Level Goal	1st Liter Result	5th Liter Result
Lead (ppb)	15	0		
Copper (ppb)	1300	1300		

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
Maximum Contaminant Level Goal (MCLG): 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.
ppb: Parts per billion or micrograms per liter.
ND: Not detected.

To reduce exposure to lead and copper in drinking water:

- **Run your water before drinking**. The more time water has been sitting in your home's pipes, the more lead it may contain. Therefore, if your water has not been used for several hours, run the water before using it for drinking or cooking. This flushes lead-containing water from the pipes. Additional flushing may be required for homes that have been vacant or have a longer service line.
    - If you **do not** have a lead service line, run the water for 30 seconds to two minutes, or until it becomes cold or reaches a steady temperature.
    - If you **do** have a lead service line, run the water for at least five minutes to flush water from both the interior building plumbing and the lead service line.
- **Use cold water for drinking, cooking, and preparing baby formula**. Do not cook with or drink water from the hot water tap. Lead and copper dissolves more easily in hot water.
- **Do not boil water to remove lead and copper**. Boiling water will not reduce lead and copper levels.
- **Consider using a filter to reduce lead in drinking water**. Read the package to be sure the filter is NSF 53 certified to reduce lead or contact NSF International at 800-NSF-8010, or www.nsf.org for more information.
- **Consider purchasing bottled water**. The bottled water standard for lead is 5 ppb.
- **Identify older plumbing fixtures that likely contain lead**. Older faucets, fittings, and valves sold before 2014 may contain higher levels of lead, even if marked "lead-free." Faucets, fittings, and valves sold after January 2014 are required to meet a more restrictive "lead-free" definition but may still contain up to 0.25 percent lead.
- **Clean your aerator**. As part of routine maintenance, the aerator should be removed at least every six months to rinse out any debris that may include particulate lead.
- **Get your child tested**. Contact your local health department or healthcare provider to find out how you can get your child tested for lead if you are concerned about exposure.

EGLE

LEAD AND COPPER REPORT AND CONSUMER NOTICE – FORM A
EQP5942a

Lead *can cause serious health and developmental problems. It can cause damage to the brain and kidneys, and it can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones, and it can be released later in life. During pregnancy, the child receives lead from the mother's bones, which may affect brain development. Although other sources of lead exposure exist, such as lead paint, and lead contaminated dust, your water supply is contacting you to reduce your risk of exposure to lead in drinking water. If you have questions about other sources of lead exposure, please contact your local health department.*

Copper *is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.*

The United States Environmental Protection Agency (U.S. EPA) estimates that 20 percent or more of human exposure to lead may come from drinking water. Infants who consume mostly mixed formula can receive 40 percent to 60 percent of their exposure to lead from drinking water.

For more information on reducing lead exposure around your home and the health effects of lead, visit the U.S. EPA's website at www.epa.gov/lead, call the National Lead Information Center at 800-424-LEAD, or contact your health care provider.

For more information on copper, visit the United States Center for Disease Control website at www.atsdr.cdc.gov/index.html, or contact your health provider.

For more information regarding your water supply, contact us at: _____.

Page **5** of **10**

EGLE

LEAD AND COPPER REPORT AND CONSUMER NOTICE – FORM A
EQP5942a

CONSUMER NOTICE OF LEAD AND COPPER RESULTS IN DRINKING WATER SITE WITHOUT A LEAD SERVICE LINE

Water Supply Name: _____

County: _____ WSSN: _____

Sample Location: _____ Date Sampled: _____

Thank you for participating in the lead and copper monitoring of drinking water. The sample represents the water you are likely to drink when turning on the tap. The levels of lead and copper found at your location are in the table below.

Contaminant	Action Level	Maximum Contaminant Level Goal	Your Result
Lead (ppb)	15	0	
Copper (ppb)	1300	1300	

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
Maximum Contaminant Level Goal (MCLG): 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.
ppb: Parts per billion or micrograms per liter.
ND: Not detected.

To reduce exposure to lead and copper in drinking water:

- **Run the water to flush out lead**. The more time water has been sitting in your home's pipes, the more lead it may contain. Therefore, if your water has not been used for several hours, run the water before using it for drinking or cooking. This flushes lead-containing water from the pipes. Additional flushing may be required for homes that have been vacant or have a longer service line.
    - If you **do not** have a lead service line, run the water for 30 seconds to two minutes, or until it becomes cold or reaches a steady temperature.
    - If you **do** have a lead service line, run the water for three to five minutes to flush water from both the interior building plumbing and the lead service line.
- **Use cold water for cooking and preparing baby formula**. Do not cook with or drink water from the hot water tap. Lead and copper dissolves more easily in hot water.
- **Do not boil water to remove lead and copper**. Boiling water will not reduce lead and copper levels.
- **Consider using a filter to reduce lead in drinking water**. Read the package to be sure the filter is NSF 53 certified to reduce lead or contact NSF International at 800-NSF-8010, or www.nsf.org for more information.
- **Consider purchasing bottled water**. The bottled water standard for lead is 5 ppb.
- **Identify older plumbing fixtures that likely contain lead**. Older faucets, fittings, and valves sold before 2014 may contain higher levels of lead, even if marked "lead-free." Faucets, fittings, and valves sold after January 2014 are required to meet a more restrictive "lead-free" definition but may still contain up to 0.25 percent lead.
- **Clean your aerator**. The aerator should be removed at least monthly to rinse out any debris; this debris could include particulate lead.
- **Get your child tested**. Contact your local health department or healthcare provider to find out how you can get your child tested for lead if you are concerned about exposure.

EGLE

LEAD AND COPPER REPORT AND CONSUMER NOTICE – FORM A
EQP5942a

Lead *can cause serious health and developmental problems. It can cause damage to the brain and kidneys, and it can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones, and it can be released later in life. During pregnancy, the child receives lead from the mother's bones, which may affect brain development. Although other sources of lead exposure exist, such as lead paint, and lead contaminated dust, your water supply is contacting you to reduce your risk of exposure to lead in drinking water. If you have questions about other sources of lead exposure, please contact your local health department.*

Copper *is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.*

Although the primary sources of lead exposure for most children are from deteriorating lead-based paint, lead-contaminated dust, and lead-contaminated soil, the United States Environmental Protection Agency (U.S. EPA) estimates that 20 percent or more of human exposure to lead may come from drinking water. Infants who consume mostly mixed formula can receive 40 percent to 60 percent of their exposure to lead from drinking water.

For more information on reducing lead exposure around your home and the health effects of lead, visit the U.S. EPA's website at www.epa.gov/lead, call the National Lead Information Center at 800-424-LEAD, or contact your health care provider.

For more information on copper, visit the United States Center for Disease Control's website at www.atsdr.cdc.gov/index.html, or contact your health provider.

For more information regarding your water supply, contact us at: _____.

Page **7** of **10**

EGLE

LEAD AND COPPER REPORT AND CONSUMER NOTICE – FORM A
EQP5942a

INSTRUCTIONS FOR COMPLETING THE LEAD AND COPPER REPORT FORMS

- **If you are unsure if you should be using Form A or Form B, please refer to Step 13.**

1. SUPPLY NAME: Enter the name of the public water supply where sampling is being conducted.
2. COUNTY: Enter the name of the county in which the public water supply is located.
3. WSSN: Enter the 5-digit public water supply serial number (e.g., 01234 or 40999).
4. POPULATION: Enter the number of people served by the public water supply.
5. MONITORING PERIOD: Enter the beginning and end dates of the monitoring period during which the sampling took place (e.g., from 06/01/2018 to 09/30/2018).
6. MINIMUM # OF SAMPLES REQUIRED: This number is according to the rules based on population or set by the Michigan Department of Environment, Great Lakes, and Energy for lead/copper tap sampling for this public water supply.
7. # OF SAMPLES TAKEN: Indicate the number of tap samples taken for lead and copper analysis during this monitoring period.
8. NAME OF CERTIFIED LABORATORY: Enter the name of the certified laboratory that performed the lead and copper analyses on samples taken during the monitoring period.
9. SAMPLE CRITERIA: Answer the questions accordingly and explain when necessary.
10. SIGNATURE: The authorized utility official enters their name, title, phone number, and then signs and dates.
11. LEAD SERVICE LINE TAP SAMPLING DATA: Enter the name of the public water supply and the WSSN.

Complete the remainder of the sheet as follows:

Sample Location: Enter the street address of the location where each lead and copper tap sample is taken.

Date: Enter the date the tap sample was collected.

Tier and Sample Category: Use the following numbers (Tiers) and letters (Categories) to designate the location criteria of the sample site:

Site	Sample Category	
Tier 1	A	Single family residence with a lead service line*.
	B	Single family residence with lead interior plumbing.
	C	Multiple family residence (MFR) with either a lead service line*, or lead plumbing. Note: Only serve as Tier 1 sites when MFR comprise at least 20 percent of the total service connections of the system.
Tier 2	D	Multi-family residences or other buildings with a lead service line*.
	E	Multi-family residences or other buildings with lead interior plumbing.
Tier 3	F	Single family residence with copper plumbing with lead solder installed before July 1988.
Other		If no Tier 1, 2, or 3 sites available, sample sites that use plumbing materials commonly found at other locations in the water supply.

*If lead service lines are present, report both the 1st and 5th liter sample results. See #13 (page 10) for examples of how to report sample results from a combination of sites with lead service lines and without lead service lines.

Service Line and Building Plumbing Materials: Designate the type of service line and building plumbing piping materials used at the location where the lead and copper tap sample was taken.

Material		
L	=	Lead
CLS	=	Copper with lead solder installed before July 1988
C	=	Copper installed after July 1988
G	=	Galvanized
P	=	Plastic

*If lead service lines are present, report both 1st and 5th liter sample results.

EGLE

LEAD AND COPPER REPORT AND CONSUMER NOTICE – FORM A
EQP5942a

Tap Type: Designate whether the sample was collected from a kitchen tap (K) or bathroom tap (B). "Other" can only be used at non-residential sites (i.e. commercial or industrial buildings), and if used, provide additional information explaining why the sample should be used for compliance.

First Liter Sample: First draw, 1L volume, collected in a wide-mouth 1L bottle after a minimum six-hour stagnation period from a cold-water kitchen or bathroom tap that has been used within the last few weeks.
Do not sample through a point-of-use or point-of-entry treatment device designed to remove inorganics.
Do not flush the water prior to stagnation.
Do not clean or remove the aerator prior to stagnation or during sampling.

Fifth Liter Sample: An additional three liters of water should be collected after the first liter samples has been collected. The fifth liter sample should also be 1L in volume, collected in a wide-mouth bottle from a cold-water kitchen or bathroom tap that has been used within the last few weeks.
Do not sample through a point-of-use or point-of-entry treatment device designed to remove inorganics.
Do not turn off the tap in between the first and fifth liter.
Do not allow any water to run down the drain during sampling.

Lead: Enter the concentration of lead in mg/L (milligrams per liter) or μg/L (micrograms per liter) as reported by the certified lab. Check the box at the top of column that indicates the units reported.

Copper: Enter the concentration of copper in mg/L or μg/L as reported by the certified lab. Check the box at the top of column that indicates the units reported.

Lab Sample #: Enter the sample number or specific identification given by the certified lab.

12. SEND ALL COMPLETED PAPERWORK TO THE CORRECT DISTRICT OFFICE:

District office locations and email addresses:

Cadillac District Office 120 West Chapin Street Cadillac, Michigan 49601-2158 Fax: 231-775-4050 **Email:** EGLE-DWEH-Cadillac@Michigan.gov	**Lansing District Office** Constitution Hall, 1st Floor, South 525 West Allegan, P.O. Box 30242 Lansing, Michigan 48909-7742 Fax: 517-241-3571 **Email:** EGLE-DWEH-Lansing@Michigan.gov
Grand Rapids District Office State Office Building, 5th Floor 350 Ottawa Avenue NW, Unit 10 Grand Rapids, Michigan 49503-2341 Fax: 616-356-0202 **Email:** EGLE-DWEH-Grand-Rapids@Michigan.gov	**Bay City District Office** 401 Ketchum Street, Suite B Bay City, Michigan 48708 Fax: 989-891-9237 **Email:** EGLE-DWEH-Bay-City@Michigan.gov
Jackson District Office 301 East Louis Glick Highway Jackson, Michigan 49201-1556 Fax: 517-780-7855 **Email:** EGLE-DWEH-Jackson@Michigan.gov	**Warren District Office** 27700 Donald Court Warren, Michigan 48092-2793 Fax: 586-751-4690 **Email:** EGLE-DWEH-Warren@Michigan.gov
Kalamazoo District Office 7953 Adobe Road Kalamazoo, Michigan 49009-5025 Fax: 269-567-3555 **Email:** EGLE-DWEH-Kalamazoo@Michigan.gov	**Marquette District Office** 1504 West Washington Street Marquette, Michigan 49855 Fax: 906-228-4940 **Email:** EGLE-DWEH-Marquette@Michigan.gov

LEAD ACTION LEVEL

At the end of each sampling period, EGLE must consider all of its monitoring results together and it will determine if a water system has exceeded the "lead action level."

This section will discuss the following requirements your water department must comply with if it exceeds the lead action level:

- **Issue a public advisory within 3 business days of receiving notice that the action level has been exceeded;**
- **Deliver public education materials to all customers within 60 days of receiving notice that the lead action level has been exceeded;**
- **Engage in lead service line replacement at a more rapid pace;**
- **Offer to arrange for sampling of tap water for all customers who request it, and;**
- **Assess corrosion control treatment (See, "Corrosion Control" Section for more information).**

THERE IS NO SAFE LEVEL OF LEAD.

Any amount of lead can be harmful to human health, particularly for vulnerable individuals such as pregnant women and children. Even if the amount of lead in your drinking water is below the action level, that does not mean it is safe. Refer to the Monitoring section for a detailed discussion about how to read your lead test results. The Maximum Contaminant Level Goal (MCLG, also known as the safe level in water) for lead is 0 ppb.

Measuring for the Lead Action Level– the 90th Percentile

As discussed in the Monitoring section, each water department is only required to collect and test tap samples from a limited number of select households that are at high-risk of lead contamination. Once it has the lead test results for each sample, EGLE calculates the 90th percentile of the results. If the 90th percentile exceeds the lead action level, then the water department must take several actions to warn residents about lead in drinking water, and to lower the amount of lead in drinking water.

MICHIGAN LEAD ACTION LEVEL

- Until 1/1/25 – 15 parts per billion
- Beginning 1/1/25 – 12 parts per billion

WATCHDOG ACTION

- Each water department is required to report the 90th percentile level of lead results in its consumer confidence report. Check your water department's latest consumer confidence report, also commonly referred to as a "water quality report" to see what the 90th percentile was during your water department's last sampling period. For more information on consumer confidence reports, refer to the Public Education section.
- Check MI Lead Safe website for 90th percentiles for all water systems in Michigan https://www.michigan.gov/mileadsafe/0,9490,7-392-92796-500553--,00.html

HOW IS THE 90TH PERCENTILE CALCULATED?

For more information about how the 90th percentile is calculated, refer to the University of Michigan Graham Sustainability Institute's "What You Need to Know About Michigan's 2018 Lead and Copper Rule" found at http://graham.umich.edu/project/revised-lead-and-copper-rule/faq?faq=56

Public Health Advisory and Public Education Requirements After a Water System Exceeds the Lead Action Level

PUBLIC HEALTH ADVISORY

If a water system exceeds the lead action level, then the water department must issue a public health advisory. In general, this advisory must alert all people served by the water system that it has exceeded the lead action level and meet all of the requirements described in Figure C-1.

Figure C-1: Public Health Advisory Requirements

When will I receive a public health advisory?
If your water system has exceeded the lead action level, the water department must send the public health advisory to all customers within 3 business days.
How will the public health advisory be issued?
A water department may issue the health advisory by radio/TV, posting a physical copy of the public health advisory in public places, by hand delivery, or by some other method approved by EGLE.
What information must be included in the public health advisory?
By law, there is no specific information that your water department must include in the health advisory. However, EGLE has provided a public health advisory template for water departments at https://www.michigan.gov/egle/0,9429,7-135-3313_3675_76638-413200--,00.html

Despite EGLE issuing recommendations regarding information water departments should include in their public health advisories, very few water systems adopt these recommendations. In Table C-2 are examples of common issues identified in public health advisories recently issued by water departments in Michigan.

WATCHDOG ACTION

- If you believe or know that your water supply has exceeded the lead action level and are unsure about how and whether they have notified the public, ask your water department what methods have been used to distribute the public health advisory.
- Notify your water department if your water system has exceeded the lead action level but you never received any public health advisory.
- Urge your water system to follow the recommendations issued by EGLE regarding the information to include in the public advisory. Ask why they haven't followed the EGLE recommendation.
  - EGLE Recommendations: https://www.michigan.gov/egle/0,9429,7-135-3313_3675_76638-413200--,00.html

Table C-2: Common Issues Regarding Public Health Advisories

EGLE Recommendation	Common Issue
Clearly describes the health risks of lead in drinking water.	Health advisories commonly downplayed the health risks that may be associated with their action level exceedance and asserted residents' water was still safe to drink.
	Example: Birmingham's public health advisory emphasized that a lead action level exceedance "is NOT a violation of the Safe Drinking Water Act." While technically true, this information is misleading.
Clearly communicate that the water system has exceeded the action level for lead in drinking water	Health advisories either mention that the water system has exceeded the lead action level in the middle of a block of text or do not mention it at all.
	Example: Birmingham's public advisory mentions the water system has exceeded in the middle of a long paragraph.
	Health advisories describe high lead levels in drinking water as isolated incidents limited to a few homes.
	Example: Beverly Hills public advisory stated that it was confident that the high levels of lead found in one test was only related to lead issues at that one location.

SAMPLE FOIA REQUESTS

- Most water departments make their public health advisories available online. However, if necessary, you can submit a request for a copy of the advisory issued by any water department.
  - Sample Request to a Water Department: A single copy of any and all public advisories issued by or on behalf of the city of Birmingham due to an exceedance of the lead action level as required by Mich. Admin. Code, R 325.10410(1) and MCL 325.1019(2), including any recordings of broadcast media disseminated through radio or television, a copy of any document posted in a public location, a copy of any document distributed to persons served by the water supply, or any other copy of a document or recording of any pubic advisory issued by the water supply through any other manner of distribution.
- When a water department issues a public health advisory, it must submit a certificate of distribution to EGLE. This certification describes how a water department distributed the public health advisory.
  - Sample Request to EGLE: The certificate of distribution submitted by or on behalf of the city of Highland Park regarding the distribution of its public advisory due to an exceedance of the lead action level as required by Mich. Admin. Code, R 325.10410(1) and MCL 325.1019(2).

PUBLIC EDUCATION MATERIALS

If a water system exceeds the lead action level, then it must issue public education materials. These materials come after the public health advisory, and contain more information about the risks of lead in drinking water, as described in Figure C-3.

Since public education materials must contain specific information in a specific order and be approved by EGLE prior to distribution, they are more consistent than public health advisories. However, water departments may fail to deliver public education materials within the 60 days required by law.

Figure C-3: Public Education Material Requirements

When will I receive the public education materials?
• If your water department has exceeded the lead action level, it must send public education materials within 60 days of being notified that it has exceeded the lead action level.
How will the public education materials be issued?
• A printed copy of the public education materials must be sent by mail to each resident. • Water department must also distribute copies to public health agencies, school boards, hospitals/medical clinics, pediatricians, family planning clinics, local welfare agencies, and community centers, with instructions to distribute the public education materials. • Water departments must make a good faith effort to identify and distribute public education materials to childcare centers, preschools, obstetricians, gynecologists, and midwives, with instructions to distribute the public education materials.
What information must be included in the public health advisory?
• It must contain specific information and must be approved by EGLE prior to being distributed.

WATCHDOG ACTION

- If your water system has exceeded the lead action level, make sure your water department issues public education materials to all residents within 60 days of when it received notice that it had exceeded the lead action level. The public education may appear in another community publication but the first page of that publication must include, in highly visible print

KEY ISSUE – PUBLIC EDUCATION MATERIALS AND NON-ENGLISH SPEAKERS

Michigan's Lead and Copper Rule requires cities with a large number of non-English speakers to include a translated notice in their public education materials describing the importance of the public education materials, and how to receive a translated copy of the public education materials, or other language services.

In its 2018 public education materials, Hamtramck failed to include such a notice. A copy of Hamtramck's public education materials is provided in Appendix C-1.

"[water supply] has exceeded the action level for lead in drinking water. See page [insert page number] for important information about your drinking water"

- If your city has a large numbers of non-English speakers, advocate for your water department to at least make a translated version of its public education materials available online.
- Ask how your water department plans to distribute the public education materials. Start asking about this as soon as you've received the public advisory.

SAMPLE FOIA REQUESTS

- Each water department that is required to provide public education materials to its residents must also provide a copy to EGLE. Additionally, water departments must submit a written verification to EGLE demonstrating that it has satisfied the public education requirements, and list all media outlets and organizations that were used to distribute the public education materials.
  - Sample Request to EGLE: Any and all documents submitted on behalf of the city of Flint to EGLE pursuant to Mich. Admin. Code, R 325.10710d(f)(i), including: written documentation demonstrating that the supply has delivered public education materials meeting the content requirements in Mich. Admin. Code, R 325.10410(2) and the delivery requirements in Mich. Admin. Code, R 325.10410(3), and; a list of all newspapers, radio stations, television stations, and facilities and organizations to which the supply delivered public education materials.

Water Testing at Households Upon Request

If your water supply exceeds the lead action level, the Michigan Lead and Copper Rule requires your water department to "arrange for sampling the tap water of a customer who makes a request." However, your water department is not required to pay for collecting or analyzing the sample and may instead require residents to pay.

WATCHDOG ACTION

- Ask your water department to collect, analyze, and pay for each water sample requested by residents.
  - Even though the Michigan Lead and Copper Rule does not require water departments to pay for collecting and analyzing water samples requested by residents, many water departments will cover these costs for residents.
- Ask that your water department use the sampling protocols required by the Michigan Lead and Copper Rule for any requested tap samples.
  - In general, the Michigan Lead and Copper Rule requires your water department to collect a full 1-liter sample to test the amount of lead that may exist in your household plumbing. However, this requirement does not apply to samples requested by households after the lead action level has been exceeded, and some water systems will collect smaller samples, such as a 250 milliliter sample. Samples smaller than 1 liter are not representative of the lead concentrations in the household's plumbing and may provide you with inconsistent and confusing information. Ask that your water system take 1st and 5th liter samples, especially if your home is connected to a lead service line, or a service line with unknown materials.
- Demand that your water department provide additional support for households concerned about the level of lead in their drinking water.
  - While the Michigan Lead and Copper Rule only requires water departments to arrange for household water testing, many water departments will provide additional support for residents, such as providing residents with water filters certified to reduce lead in water. For more information about which water fills are certified to reduce lead in drinking water, refer to the University of Michigan Graham Sustainability Institute's "What You Need to Know About Michigan's 2018 Lead and Copper Rule" found at http://graham.umich.edu/project/revised-lead-and-copper-rule/faq?faq=56

SAMPLE FOIA REQUESTS

- If your water department does assist residents in arranging for testing tap water samples for lead, you may be able to obtain these results from your local water department.
  - Sample Request to a Water Department: The results of any analysis of lead concentration in tap water samples in the possession of or arranged for by the city of Highland Park.

IF MY WATER SYSTEM IS NOT ABOVE THE LEAD ACTION LEVEL, CAN I STILL REQUEST MY WATER DEPARTMENT TO TEST MY WATER FOR LEAD?

You can always request that your water department test your water for lead. Water departments are only required to arrange for testing household water for lead upon request if its water system recently exceeded the lead action level. However, many water departments will test water for lead if the resident has cause for concern.

Lead Service Line Removal and Replacement

If a water system exceeds the lead action level, then the water department must replace lead service lines at a rate of 7% per year until the water system is below the action level.

For more information on lead service line replacements, look to the Lead Service Line Replacement section.

Assess Corrosion Control Treatment

If a water supply has exceeded the lead action level, it may mean that the corrosion control treatment used by your water department to control the corrosion of lead into your drinking water is not working properly.

See the section on Corrosion Control for more information.

To: City Of Hamtramck Water Customers
From: The City Of Hamtramck

The City of Hamtramck found elevated levels of lead in drinking water in two homes. Lead can cause serious health problems, especially for pregnant women and young children. Please read this notice to see what you can do to reduce lead in your drinking water.

Health Effects of Lead

Lead can cause serious health problems if too much enters your body from drinking water or other sources. It can cause damage to the brain and kidneys, and can interfere with the production of red blood cells that carry oxygen to all parts of your body.

The greatest risk of lead exposure is to infants, young children, and pregnant women. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones and it can be released later in life. During pregnancy, the child receives lead from the mother's bones, which may affect brain development.

Sources of Lead

Lead is a common metal found in the environment. Drinking water is one possible source of lead exposure.

Action Levels	90th Percentile Value	Range of results (minimum-maximum)	# of samples used for 90th Percentile
Lead 15 parts per billion (ppb)	**28 ppb**	0 ppb – 33 ppb	5
Copper 1.3 parts per million (ppm)	**0.2 ppm**	0 ppm – 0.3 ppm	5

PRSRT STD
U.S. POSTAGE
PAID
PERMIT NO. 800
GOLDSTREET
97301
ECRWSS

POSTAL CUSTOMER

City of Hamtramck
3401 Evaline
Hamtramck, MI 48212
(313) 800-5233

November 2, 2018

Important information about lead in drinking water

Karen Majewski
Mayor

Kathy Angerer
City Manager

Anam Miah
Mayor Pro-Tem

Andrea Karpinski
City Council Member

Abu Musa
City Council Member

Saad Almasmari
City Council Member

Ian Perrotta
City Council Member

Fadel Al-Marsoumi
City Council Member

Other sources of lead exposure for most individuals are lead-based paint, lead-contaminated dust or soil, and some plumbing materials. In addition, lead can be found in certain types of pottery, pewter, fixtures, food, and cosmetics. Other sources include exposure in the work place and exposure from certain hobbies (lead can be carried on clothing or shoes).

Plumbing products such as pipes and fixtures, may contain lead. Homes built before 1988 are more likely to have plumbing containing lead, but newer homes may also contain lead. Beginning in 2014, the law reduced the allowable level of lead in these products to a maximum of 0.25 percent to be labeled as "lead free." Older fixtures may contain higher levels of lead.

The City of Hamtramck purchases its water from the Great Lakes Water Authority (GLWA). Our source water comes from the Detroit River, near Lake St. Clair. When water is in contact with pipes, service lines or plumbing that contains lead for several hours, the lead may enter drinking water. Homes built before 1988 are more likely to have plumbing containing lead. New homes may also have lead; even "lead-free" plumbing may contain some lead.

The EPA estimates that drinking water can make up 20 percent or more of a person's potential exposure to lead. Infants who consume mostly mixed formula can receive 40 percent to 60 percent of their exposure to lead from drinking water.

Don't forget about other sources of lead, such as lead paint, lead dust, and lead in soil. Wash your children's hands and toys often as they can come into contact with dirt and dust containing lead.

Steps You Can Take to Reduce Your Exposure to Lead in Water

1. **Run water to flush out lead.** The more time water has been sitting in your home's pipes, the more lead it may contain. Therefore, if water has not been used for several hours, run the water before using it for drinking or cooking. This flushes lead-containing water from the pipes.
   - If you do not have a lead service line, run the water for 30 seconds to two minutes, or until it becomes cold or reaches a steady temperature.
   - If you do have a lead service line, run the water for three to five minutes to flush water from both the interior building plumbing and the lead service line.
   - Additional flushing may be required for homes that have been vacant or have a longer service line.
2. **Use cold water for cooking and preparing baby formula.** Do not cook with or drink water from the hot water tap; lead dissolves more easily into hot water. Do not use water from the hot water tap to make baby formula.
3. **Do not boil water to remove lead.** Boiling water will not reduce lead levels.
4. **Look for alternative sources or treatment of water.** You may want to consider purchasing bottled water or a water filter. Read the package to be sure the filter is approved to reduce lead or contact NSF International at 800-NSF-8010 or www.nsf.org for information on performance standards for water filters. Be sure to maintain and replace a filter device in accordance with the manufacturer's instructions to protect water quality.
5. **Get your child tested.** Contact your local health department or healthcare provider to find out how you can get your child tested for lead if you are concerned about exposure.
6. **Test your water for lead.** If you are interested in testing your water for lead, you may contact us at the number below or you may test water yourself using a lab certified for lead analysis.
7. **Identify if your plumbing fixtures contain lead.** Faucets, fittings, and valves may contribute lead to drinking water unless they have been replaced since 2013. Any new connecting plumbing and fittings should meet the 2014 lead-free definition. If you replace your faucet, buy a new one that meets the 2014 lead-free definition. Visit the National Sanitation Foundation web site at www.nsf.org to learn more about lead-containing plumbing fixtures.

What Happened? What is Being Done?

Every three years, the City of Hamtramck conducts testing of the tap water in the homes for lead and copper. Per the Michigan Department of Environmental Quality (MDEQ), samples are collected from homes that are likely to have lead service lines or copper plumbing with lead solder. Test results showed samples over the Action Level for lead in two homes.

The City of Hamtramck will conduct additional monitoring of the water system. In 2019, we will be collecting and testing sixty (60) samples every six months. The City will work with MDEQ to determine any corrective actions that are necessary to reduce corrosion in household plumbing.

Lead can enter drinking water when in contact with pipes, solder, home/building interior plumbing, fittings and fixtures that contain lead. The City of Hamtramck purchases its water from GLWA; GLWA employs corrosion control to reduce lead leaching into drinking water.

Homes with lead service lines have an increased risk of having high lead levels in drinking water. The City of Hamtramck has lead service lines and will be removing lead lines from its distribution system over a period of time.

For More Information

Call us at (313) 800-5201, or via e-mail at rjohnson@hamtramckcity.com, or visit our website at www.hamtramck.us. For more information on reducing lead exposure around your home/building and the health effects of lead, visit EPA's website at www.epa.gov/lead or contact your health care provider.

SECTION D

PUBLIC EDUCATION REGARDING LEAD IN DRINKING WATER

All water departments are required by law to provide their residents with specific information so that residents can know the risks of lead in drinking water and take the appropriate steps to protect themselves and their family.

This section will discuss the following public education requirements that water departments must comply with to promote public awareness of lead in drinking water even when there is no lead action level exceedance:

- **Provide the annual consumer confidence report to all households**
- **If the water system serves 50,000 or more people, form a water system advisory council to advise the public water system about effective ways to engage the public regarding issues related to lead in drinking water.**

Consumer Confidence Reports

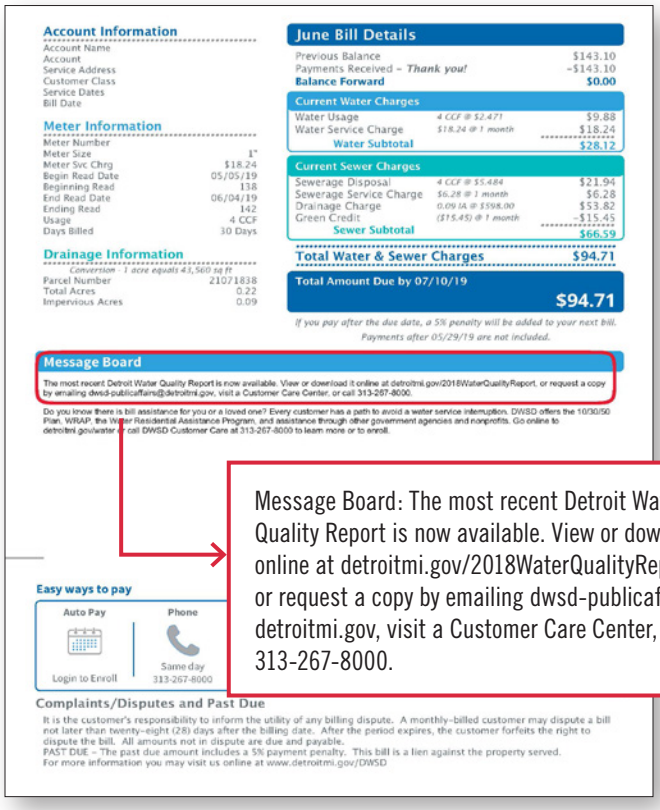
Every water department is required to provide a Consumer Confidence Report to every resident it serves once per year. A Consumer Confidence Report is intended to provide residents with information about their local drinking water quality in a way that is understandable for all people.

Many water departments utilize a variety of alternative names for Consumer Confidence Reports, such as "Water Quality Report."

DELIVERY DATE AND DELIVERY METHOD

Every water department is required to "directly deliver" the Consumer Confidence Report for to all customers by July 1st every year. For example, each water department must provide its 2019 Consumer Confidence Report to all residents by July 1, 2020.

The EPA has interpreted the requirement to "directly deliver" Consumer Confidence Reports to allow water departments to provide a URL with an internet link to the Consumer Confidence Report in a customer's bill. Above is an example of such a notice, which was provided in a Detroit water bill in 2019.



Message Board: The most recent Detroit Water Quality Report is now available. View or download it online at detroitmi.gov/2018WaterQualityReport, or request a copy by emailing dwsd-publicaffairs@detroitmi.gov, visit a Customer Care Center, or call 313-267-8000.

CONTENT REQUIREMENTS

Michigan's drinking water regulations require each Consumer Confidence Report to contain specific information. However, many water departments fail to provide all of the required information. Table D-1 on the following page provides a list of "best practices" and "worst practices" found in Consumer Confidence Reports.

WATCHDOG ACTION

- Urge your water department to deliver its Consumer Confidence Report by mail, rather than only providing it online
  - Many water departments do not mail their Consumer Confidence Reports to their residents. Instead, they simply post a notice that the Consumer Confidence Report is available in a water bill. However, these notices are often small and over-

looked by residents. Additionally, in many communities, a sizable number of people do not have access to internet. For example, in Detroit 34% of residents lack internet access; in Hamtramck, 31% of residents lack internet access. The best way for water departments to ensure everyone receives the Consumer Confidence Report is to mail it to all residents.

- Make sure your water department's Consumer Confidence Report follows the best practices and provides all of the information it is required to provide
  - As described above, many Consumer Confidence Reports do not provide all of the information they are required to provide. If you identify information that is missing from your water system's Consumer Confidence Report, contact your water department.
- Urge your water department to provide translated versions of your Consumer Confidence Report online.
  - While water departments are required to include information in appropriate languages about how non-English speakers can get a translated copy of the report or some other form of assistance, none proactively provide translated versions of their Reports online. In communities with large numbers of people limited in their English proficiency, water departments should be automatically providing translated versions of their Consumer Confidence Reports online.

SAMPLE FOIA REQUESTS

- Most water systems make their current and previous Consumer Confidence Reports available for free online. Additionally, any resident can request their water system to make a physical copy of the Consumer Confidence Report available.

Table D-1: "Best Practices" and "Worst Practices" found in Consumer Confidence Reports found in 2018/2019 Consumer Confidence Reports

Content Requirement	Best Practice	Worst Practices
Must provide the number of lead service lines, the number of service lines of unknown material, and the total number of service lines in the water system.	Kalamazoo: Provides all of the required information in 2018 Consumer Confidence Report.	Grosse Pointe Woods/Sterling Heights/Oak Park: Provides none of the required information.
Must provide the 90th percentile value for lead, the number of sites that exceeded the lead action level, and the range of individual lead sample results.	Grand Rapids: Provides all required information plus the total number of homes sampled	Kalamazoo/Southfield/ Romulus/Berkley/ Beverly Hills: Does not provide the range of individual lead sample results.
Must provide information about opportunities for public participation in decisions made by the water system that may affect water quality.	Kalamazoo: Has a distinct page of its Report dedicated to public participation, which includes the date, time, and location of Water Board meetings, and provides a specific phone number of residents to call and arrange free water testing for lead.	Grand Rapids/Romulus/Southfield/Beverly Hills: Instructs residents to call water department if they have additional questions.
Must include a statement about lead in drinking water and its effects on children.	Kalamazoo/Detroit: Dedicates multiple pages to lead-specific information, including health effects and a phone number residents can contact to have their water tested for lead.	Grand Rapids/Berkley/Southfield/Romulus: Provides only the information required by Michigan's Lead and Copper Rule.
Communities in which 10% or more of non-English speaking residents must contain information in the appropriate language regarding the importance of the report, or a telephone number/address where residents can contact the water system to receive a translated copy of the report.	Detroit: Provides translated notice at the beginning of the Consumer Confidence Report	Dearborn: Provides translated notice at the end of the Consumer Confidence Report Hamtramck: Provides no translated notice in its Consumer Confidence Report.

Water System Advisory Councils

Michigan's Lead and Copper Rule requires EGLE to create a statewide drinking water advisory council and local water departments serving more than 50,000 people to create water system advisory councils. Both the statewide and water system advisory councils purpose is to help promote public awareness about lead in drinking water and to advise EGLE and local water systems on their efforts to educate the public about lead in drinking water.

STATEWIDE DRINKING WATER ADVISORY COUNCIL

The statewide drinking water advisory council consists of 9 members appointed by EGLE. They must meet at least quarterly, and each meeting is open to the public. A schedule of their meetings can be found at https://www.michigan.gov/egle/0,9429,7-135-3313_3675_76638-490466--,00.html

STATEWIDE DRINKING WATER ADVISORY COUNCIL MEMBERS

- Community water supply professional
- Noncommunity water supply professional
- Local government official
- Medical professional
- Public health professor
- Environmental/public health advocate
- Public health educator
- Community member
- Community member

WATER SYSTEM ADVISORY COUNCIL

Each water system that serves 50,000 or more residents was required to appoint its advisory council by December 11, 2018. Table D-2 is a list of all water systems that are required to have a water system advisory council.

Each water system advisory council must meet specific legal requirements described in Michigan's Lead and Copper Rule. Additionally, EGLE has provided a list of recommended best practices that water systems should utilize to make sure the councils are being effective. (See Table D-3 on the following page.) This complete list of recommendations is available at https://www.michigan.gov/documents/egle/egle-dwehd-cws-tsu-EGLE_Community_Water_Advisory_Council_Guidance_655253_7.pdf.

Since there are few legal requirements regarding their operation, local water departments have taken a wide variety of approaches. Table D-4 on the following page describes a list of additional best and worst practices regarding how water system advisory councils operate.

Table D-2: Local Water Systems Required to Establish Advisory Councils

Community Name	Population Served
Ann Arbor	127,885
Battle Creek	51,284
Bay Area Water System	93,915
Canton Township	90,173
Detroit	713,777
Farmington Hills	72,460
Flint	98,310
Midland	63,108
Royal Oak	57,236
Saginaw	172,369
St. Clair Shores	59,715
Sterling Heights	127,000
Warren	134,056
Clinton Township	97,513
Dearborn	98,153
Dearborn Heights	57,774
East Lansing Meridian Water Authority	64,332
Genesee County Water System	143,177
Grand Rapids	329,500
Great Lakes Water Authority	3,689,400
Kalamazoo	196,292
Lansing Board of Water and Light	193,500
Livonia	96,942
Macomb Township	87,433
Muskegon	87,880
Pontiac	59,515
Port Huron	61,470
Rochester Hills	71,788
Shelby Township	72,00
Southfield	71,739
Taylor	63,131
Troy	80,980
Waterford Township	73,441
Westland	84,094
Wyoming	230,113
Ypsilanti Community Authority	92,400

Table D-3: EGLE's Best Practices for Water System Advisory Councils

	Legal Requirement	EGLE's Recommended Best Practice	Water System Example
Appointment of Council Members	At least 5 members appointed by the local water department that have a demonstrated interest or knowledge about lead in drinking water.	Ensure that there is representation from different cultural, economic, and geographic perspectives on the council. If necessary, appoint more than 5 members.	Kalamazoo: 5 members (1 local nonprofit; 2 government officials; 1 engineer; 1 resident) Ann Arbor: 7 members (1 local nonprofit; 4 government officials; 1 academic; 1 resident)
Meeting Schedule	Must meet at least once per year	For at least 2 to 3 years, meet as frequently as once every other month to allow the council to build cohesion, learn about the utility and community, and perform its tasks.	Ann Arbor: Met 3 times in 2019. Dearborn: Did not meet in 2019. Met for first time in 2020 and planned to meet 4 times in 2020.

Table D-4: Additional Best and Worst Practices for Water System Advisory Councils

	Best Practice	Worst Practice
Has the water system created a stand-alone advisory council?	Kalamazoo: Established a stand-alone advisory council. Southfield: Established a stand-alone advisory council – the Southfield Water Advisory Committee (SWAC).	Detroit: Appointed the preexisting Board of Water Commissioner's to serve as the advisory council.
Is information about the water system advisory council available online?	Kalamazoo, Ann Arbor: Has a webpage dedicated to its water system advisory council	Detroit, Southfield: Do not have any information regarding their respective advisory councils online.
Are the agenda and minutes of the water system advisory council available online?	Ann Arbor: Makes all agendas and minutes available on a2.gov.legistar.com Dearborn: Makes minutes from meeting available online at http://cityofdearborn.org/documents/commissions-and-boards/dearborn-water-system-advisory-council	Detroit, Southfield: Do not have any information regarding agendas or minutes online.

WATCHDOG ACTIONS

- Attend meetings of the Statewide Drinking Water Advisory Council or your local advisory council. All of these meetings are subject to the Open Meetings Act and are open to the public.
  - Statewide Drinking Water Advisory Council: Meeting schedule at https://www.michigan.gov/egle/0,9429,7-135-3313_3675_76638-490466--,00.html
  - Local Drinking Water Advisory Council: Contact the local water department.
- Seek an appointment to your local water system advisory council. At least one person on the council must be a local resident that does not represent any government, academic institution, or nonprofit.
- Urge your local water system advisory council to follow EGLE's guidance regarding best practices.

SAMPLE FOIA REQUESTS

- Meeting minutes and documents in the possession of the council are public records. This includes communications, such as emails and even text messages, between the council and any other person related to the activities of the council.
  - Sample Request to a Water Department: Any and all documents describing the agenda and meeting minutes for any and all Royal Oak water system advisory council meetings held pursuant to Mich. Admin. Code, R 325.10410(7).
  - Sample Request to EGLE: Any document provided by the city of Royal Oak that certifies that is has created a water system advisory council in compliance with Mich. Admin. Code, R 325.10410(7).

SECTION E

CORROSION CONTROL TREATMENT

One of the largest sources of lead in drinking water is lead service lines. While lead service lines have been banned in the United States since 1986, they were commonly used in many communities throughout the 20th century, particularly in the early 20th century. Any time lead is in contact with drinking water, there is a risk of lead dissolving in drinking water.

To control the corrosion of lead service lines, some water departments are required to introduce a corrosion control treatment to their water supply. Corrosion control treatment commonly involves adding a chemical to the water supply at the water treatment plant to limit the corrosion of lead into the drinking water system from lead service lines. However, even the most effective corrosion control treatment does not eliminate lead contamination in drinking water.

This section will discuss the following:

- **Which water departments are required to use corrosion control treatment;**
- **The different methods of corrosion control treatment;**
- **How water departments select a corrosion control treatment, and;**
- **How water departments make sure its corrosion control treatment is working.**

Water Departments Required to Use Corrosion Control Treatment

Not all water departments are required to use a corrosion control treatment to limit the presence of lead in water. Whether your water system is required to use corrosion control treatment depends on the size of your water system and whether it has exceeded the lead or copper action level.

WHERE CAN I LEARN THE NUMBER OF PEOPLE MY WATER DEPARTMENT SERVES?

The EPA maintains an online database of all drinking water systems, which is available at https://ofmpub.epa.gov/apex/sfdw/f?p=108:103:::NO:RP::

WATER DEPARTMENTS REQUIRED TO USE CORROSION CONTROL TREATMENT

- All water departments that serve more than 50,000 people
- Water departments that serve 50,000 or fewer people and that have exceeded the lead or copper action level

CORROSION CONTROL IN SOUTHEAST MICHIGAN

The Great Lakes Water Authority (GLWA) operates the water treatment plants owned by the city of Detroit, which provides water to 112 communities in Southeast Michigan. GLWA implements the corrosion control treatment for each of the communities it serves. GLWA's full service territory map is available at https://www.glwater.org/our-system/water-system/

The Different Corrosion Control Treatment Methods and How Water Departments Select a Corrosion Control Treatment Method

There are a variety of different corrosion control treatment methods that a water department may use to limit the corrosion of lead service lines. Water departments that are required to use corrosion control treatment are generally required to perform a corrosion control study to determine which method is the best for its water system. Many water departments performed corrosion control studies and began implementing corrosion control in the mid-1990's soon after the first Lead and Copper Rule was enacted.

The best corrosion control treatment method depends on a number of factors. To make sure water departments pick the best treatment method for its water system, it must evaluate the effectiveness of the following three methods:

Water departments are required to implement the "optimal corrosion control treatment" that minimizes lead contamination in household's taps. As such, a corrosion control study should test a variety of treatment methods, including chemical treatments and a variety of doses.

- Alkalinity/pH/Dissolved Organic Carbon Adjustment
- Calcium Hardness Adjustment (Note: New research shows that this treatment technique is not an effective form of corrosion control)
- Phosphate or silicate based corrosion inhibitor

To test the corrosion control treatment methods, the Lead and Copper Rule allows water departments to utilize a variety of test methods. However, some test methods tend to more reliable than others. Figure E-1 shows testing methods allowed by the Lead and Copper Rule, listed from the most reliable to the least reliable.

To determine which corrosion control treatment method is the most effective, a water department must measure the level of several water quality parameters in the water system before and after introducing the corrosion control treatment method. These water quality parameters should indicate which corrosion control treatment method is most effective for that specific water system. The water quality parameters that must be tested are:

- Lead
- Copper
- pH
- Alkalinity
- Calcium
- Conductivity
- Orthophosphate (Only when a corrosion control treatment containing a phosphate compound is used)
- Silicate (Only when a corrosion control treatment containing a silicate compound is used)
- Water temperature
- Sulfate
- Chloride

In addition to water departments being required to test for the water quality parameters described above, the EPA also provides a number of additional water quality parameters that may be used to test the effectiveness of a corrosion control treatment:

- Dissolved Inorganic Carbon (DIC)
- Buffer Intensity
- Dissolved Oxygen
- Oxidation Reduction Potential
- Natural Organic Matter
- Iron, Aluminum, and Manganese

Figure E-1: Corrosion Control Study Methods

Pilot Study (most reliable)

- Demonstration study in which corrosion control treatment is tested full-scale by applying the treatment to an isolated portion of the drinking water distribution system.
- Pros: Since the test is performed in the existing water system, it generally provides the most direct and reliable results
- Cons: Since testing is done in the actual water system, pilot studies may result in residents being exposed to drinking water contaminants while the treatment is being studied.

Pipe Rig Study

- Study in which water is pumped through simulated water system consisting of a loop of pipes that is constructed with a variety of different pipe materials, including lead pipes, copper pipes, and other materials, to test the effectiveness of corrosion control treatment. The pipes used in a pipe rig study should be extracted from the existing water system to simulate real world conditions.
- Pros: Less expensive than pilot studies, and can be reliable if given enough time.
- Cons: Pipe loops may need to be operated for several months and sometimes a year or more to accurately simulate the condition of pipes in the distribution system and in household plumbing.

Coupon Study

- Study that uses metal pieces of lead, copper, iron, or steel to help determine how specific water treatments may prevent the release of metals from pipes in actual field conditions.
- Pros: Inexpensive
- Cons: Not reliable for predicting the concentrations of lead in water. The EPA has stated that while coupon studies can be useful in determining the corrosion rate, it has limited use in predicting the concentrations of lead in water.

Desktop Study (least reliable)

- A study to determine appropriate corrosion control treatment for reducing lead levels based on evaluations of scientific literature, historical data, and an analysis of similar water systems.
- Pros: Least expensive
- Cons: Does not involve any actual testing to represent systems unique characteristics, but instead only involves the analysis of existing data and information.

Once a water department completes its corrosion control study, it must recommend the use of one or more of the corrosion control treatment methods that it believes is the best for its water system. However, EGLE is ultimately responsible for designating the corrosion control treatment method for each water system. It can either:

- Approve the corrosion control treatment method recommended by a water department, or;
- Designate an alternative corrosion control treatment method that EGLE believes will be more effective than the method recommended by the water department.

Once EGLE designates the corrosion control treatment method for a water system, the water department is required to install and operate the required corrosion control treatment.

KEY ISSUE – DETERMINING IF YOUR WATER SYSTEM'S CORROSION CONTROL IS "OPTIMAL"

If your water department is required to use corrosion control, it must use the corrosion control method that is "optimal" or "best" for its water system. With changes to the Lead and Copper Rule, many water departments will begin reassessing their corrosion control. Below are some warning signs to watch out for in a corrosion control study that may indicate the study might not lead to the "optimal" corrosion control:

- The corrosion control study consists of only a desktop analysis or a coupon study;
- Only one corrosion control method was studied;
- Only polyphosphate blends that are less than 50% orthophosphate were evaluated;
- No rationale was provided for the corrosion control treatments that were studied;
- The consultant performing the corrosion control study works for a chemical supplier that sells the corrosion inhibitor that was evaluated;
- One of the justifications for selecting the corrosion control treatment was that many other water systems use it;
- The study ended when lead levels were reduced to just below 15 parts per billion.

WATCHDOG ACTIONS

- Ask your water department what your water system's designated optimal corrosion control treatment method is.
- Ask your water department when it last completed a corrosion control treatment study.
  - Who performed the study? Was it a water department staff or a consultant?
  - Was the study designed to reduce lead in drinking water as much as possible or to simply comply with the lead action level?
  - What treatments were studied? Were multiple treatment options studied, or was only one treatment option studied?
  - What doses were studied? Were multiple doses studied, or was only one dose studied?
- Ask your water department if they are re-evaluating the effectiveness of the water system's corrosion control now that it is required to take two household tap samples (1st liter and 5th liter) to test for lead (See, Monitoring Section).

SAMPLE FOIA REQUESTS

- Corrosion control studies and designations made by EGLE are public records.
  - Sample Request to EGLE: Any and all notifications sent by EGLE to the city of Benton harbor regarding the designation of optimal corrosion control treatment pursuant to Mich. Admin. Code, R 325.10604f(3)(d)(ii).
  - Sample Request to EGLE: Any corrosion control study submitted by or on behalf of Benton Harbor to EGLE pursuant to Mich. Admin. Code, R 325.10604f(3)(c).

Monitoring the Effectiveness of Corrosion Control with Water Quality Parameters

Based on the results of the corrosion control study, EGLE designates a minimum value or range of values for a variety of water quality parameters. The minimum value or range of values for each water quality parameter is meant to assess whether the corrosion control treatment is continuously working effectively to limit the corrosion of lead into drinking water. EGLE must set the following water quality parameters for each individual water system:

- pH (At the water treatment plant) – Either a

minimum value, or range of values measured at each entry point to the distribution system.

- pH (At the tap) – A minimum value equal to or greater than 7.0.
- Inhibitor (if used, at the water treatment plant and tap) – Either a minimum concentration or a range of concentrations for the inhibitor being used.
- Alkalinity (if adjusted, at the water treatment plant and tap) – Either a minimum concentration or range of concentrations for alkalinity.
- Calcium carbonate (if adjusted, at the water treatment plant and tap) – Either a minimum concentration or range of concentrations for calcium.

Once the water quality parameters for a specific water system are set, then the water department must continually monitor its water at the entry point and in the distribution system for the water quality parameters to ensure its corrosion control treatment is working to prevent lead from corroding into the water supply. These requirements are described in Table E-2. However, even when a water system is complying with the water quality parameters set by EGLE, it still may exceed the lead action level.

Some water departments may be eligible to take a reduced number of water quality parameters samples or to take samples less frequently.

- **Reduced Number of Tap Samples:** If the water system maintains the range of values for water quality parameters during two consecutive six month monitoring periods. May reduce the number tap samples to two samples from one to ten household taps, depending on the number of people served by the water system.
- **Reduced Frequency of Tap Samples:** If the water system maintains the designated water quality parameter values for 6 consecutive 6 month monitoring periods. May reduce the frequency of tap samples to once every year.

WATCHDOG ACTIONS

- Water quality parameters are meant to test whether a water system's corrosion control treatment is working effectively to limit the corrosion of lead pipes. If a water system is failing to comply with its water quality parameters, it is a warning sign.
  - Ask your water department to explain how it is using water quality parameter monitoring data to inform its decision making regarding the implementation of its corrosion control treatment.

SAMPLE FOIA REQUESTS

- EGLE must designate water quality parameters for each water system, which must then be monitored for by your water department.
  - Sample Request to EGLE: Notification by EGLE to the city of Benton Harbor regarding its designated water quality parameters pursuant to Mich. Admin. Code, R 325.10604f(2)(e)(v).
  - Sample Request to EGLE: Any and all documents describing the results of water quality parameter monitoring submitted by or on behalf of the city of Benton Harbor.

Table E-2: Standard Monitoring – Water Quality Parameters

	Tap Samples	Water Treatment Plant Samples
Number of Samples	Must collect 2 samples from 1 to 25 taps, depending on the number of people served by the water system. Tap samples may be collected from any tap in the water system, not just households. Oftentimes, water departments collect samples from restaurants and stores.	Must collect 1 sample for each water quality parameter at each point where water leaves the treatment plant and enters the distribution system.
Frequency of Sampling	Must be collected every 6 months.	Must be collected every 2 weeks.

SECTION F

LEAD SERVICE LINE REMOVAL AND REPLACEMENT

One of the main sources of lead in drinking water are lead service lines that connect the water main to a household's plumbing system. Water service lines are small pipes that connect the water main, which typically run under the street, to a house.

In the early to mid-20th century, service lines were often partially or entirely made of lead. The use of lead-based water pipes was not banned until 1986. If your home was constructed before lead-based water pipes were banned, then your home may be connected to a lead service line.

The most effective way to limit lead in drinking water is to remove all lead service lines. However, it is important that lead service lines be removed in the proper way otherwise it can actually increase the level of lead contamination in the home.

This section will discuss the following requirements of Michigan's Lead and Copper Rule:

- **Requirement to replace all lead service lines at the average rate of 5% per year at the water department's expense by 2041;**
- **Requirement to replace lead service lines at a rate of 7% per year if its water system has exceeded the lead action level until the water system is below the lead action level, and;**
- **Prohibition from replacing only a part of a lead service line, except in emergency situations.**

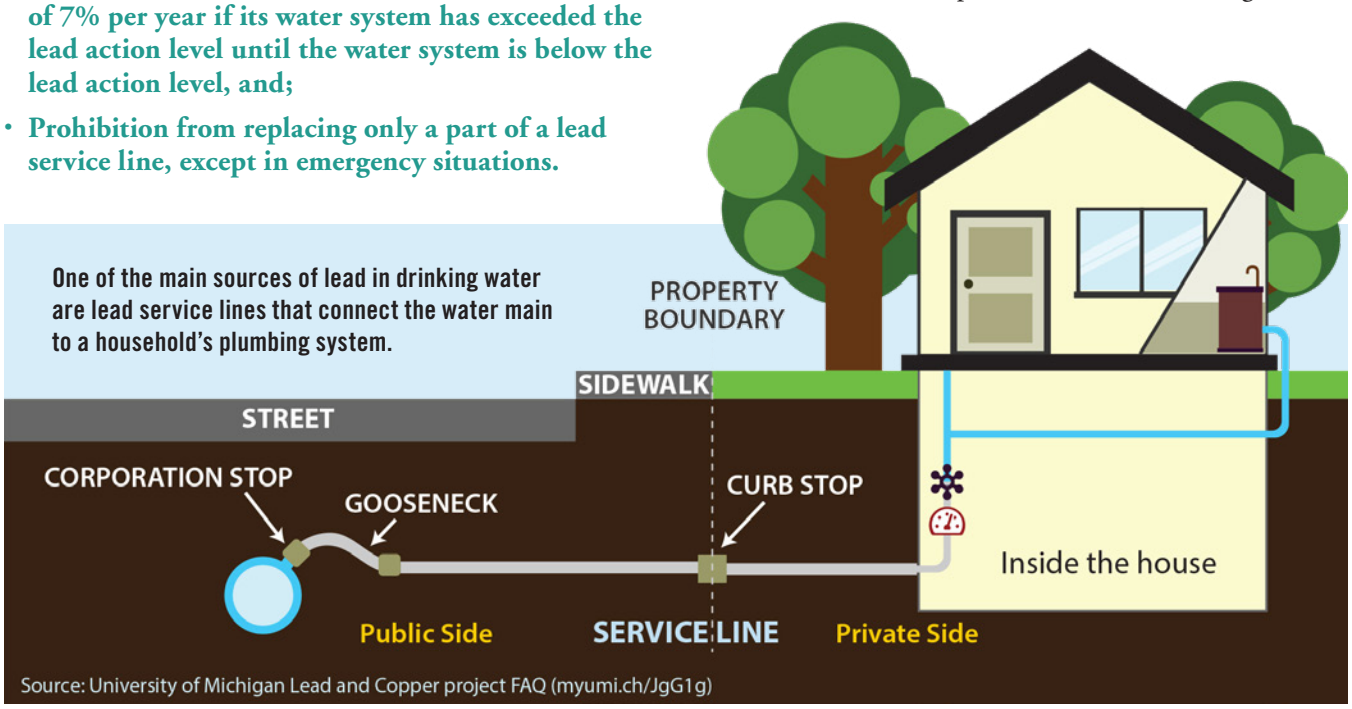
Lead Service Line Replacement Requirement

In general, all water systems are required to replace all lead service lines. Removing only part of the lead service line is prohibited unless emergency repairs are necessary. Service lines may be replaced with any non-lead material, such as a plastic or copper pipe. Information about lead service line replacement requirements are shown in Figure F-1 on the following page.

NOTICE REQUIREMENTS PRIOR TO A LEAD SERVICE LINE REPLACEMENT

Except in emergency situations, before replacing a lead service line your water department must provide the household connected to the service line with at least 45 days-notice before it begins the replacement. This notice must:

- Explain that the household may experience a temporary increase in lead levels in drinking water;
- Provide guidance on measures the household can take to minimize their exposure to lead in drinking water.



Source: University of Michigan Lead and Copper project FAQ (myumi.ch/JgG1g)

Figure F-1: Lead Service Line Replacement Requirements

What service lines must my water department remove and replace?

- Must replace any service line that is entirely or partially made of a lead, including any lead pigtail, lead gooseneck, or other lead fitting.
- Must replace any service line made of galvanized steel that was or is connected to any lead piping.

Who is required to pay for the removal and replacement of the service line?

- Your water department is required to pay the full cost for the removal and replacement of your entire service line. This includes any fitting or piping starting at the connection to the water main (often referred to as the "corporation stop") up to the first shutoff valve in the home or 18 inches inside the home, whichever is shorter.

When will my service line be replaced?

- Each water department must replace all of its lead service lines by 2041 at a rate of 5% per year.
- On an alternative schedule in an asset management plant approved by EGLE.

LEAD SERVICE LINE REPLACEMENT AFTER A LEAD ACTION LEVEL EXCEEDANCE

If your water system has exceeded the lead action level, then your water department must replace lead service lines at a more rapid pace. Specifically, your water department must replace at least 7% of its lead service lines each year it exceeds the lead action level.

This requirement is only temporary; once your water system is below the lead action level, it must continue to replace all of its lead service lines at a rate of 5% per year and finish by 2041, or the schedule approved by EGLE.

WATCHDOG ACTIONS

- Ask your water department if your home has a service line that must be replaced. Tell them if you see a lead service line inside your home.
  - Many water departments are unsure of whether your service line is made of lead or some other type of material. Refer to the Identifying Lead Service Lines in the Drinking Water System section for a discussion regarding Distribution System Material Inventories and questions to ask your water department regarding your service line.
- If your service line is required to be replaced, ask your water department when they plan to replace it.
  - As mentioned above, water departments are generally required to replace the necessary service lines by 2041. Contact your water department and ask them when they plan to remove and replace your lead service line.
- Determine if your water department has had an alternative replacement schedule approved by EGLE in an asset management plan.
  - EGLE may approve an alternative schedule for the replacement of service lines. Contact your water department and ask them what their schedule is for replacing all lead service lines.
- Review the annual Consumer Confidence Report provided by your water department to see how many lead service lines have been replaced in the past year.
  - See the section on Public Education for more information about Consumer Confidence Reports.

SAMPLE FOIA REQUESTS

- Each water department is required to submit an annual report to EGLE providing a summary of all service line repairs and replacements conducted by the water department.
  - Sample Request to EGLE: Any and all documents submitted by or on behalf of the city of Kalamazoo pursuant to Mich. Admin. Code, R 325.11604(c)(vii) describing an annual summary of service line repairs and replacements.
- Water departments may have an alternate schedule for the removal of its lead service lines as part of an asset management plan approved by EGLE.
  - Sample Request to EGLE: The asset management plan approved by EGLE pursuant to Mich. Admin. Code, R 325.10604f(6)(b) describing an alternative schedule for lead service line replacement for the city of Kalamazoo.

Partial Lead Service Line Replacement Ban

Just as important as the service line replacement requirement described above is the Michigan Lead and Copper Rule's ban on partial lead service line replacements. Prior to the recent amendments to the Rule, it was common for water departments to replace only the portion of the service line that ran from the water main up to the property line of the connected household. This practice is commonly referred to as a "partial service line replacement," and it is still common in most states.

For lead service lines, numerous studies have found that doing partial lead service line replacements can actually increase lead levels in the home connected to the service line. As a result, Michigan banned all partial replacements of lead service lines in 2018 unless it is necessary to replace only part of the lead service line because of an emergency.

WATCHDOG ACTIONS

- It is not clear what counts as an "emergency" that will allow a water department to partially replace a lead service line. If your water department claims that it must conduct a "partial" service line replacement because of an emergency, ask what the emergency is. If it sounds suspicious, contact EGLE's Drinking Water Public Advocate at 517-241-7401.
- If your water department has conducted a partial lead service line replacement, demand that it provide a water filter to all households served by that service line until the rest of the service line is replaced.

SAMPLE FOIA REQUESTS

- If a water department does conduct a partial lead service line replacement, then it must test the water of the household's connected to the service line following the partial replacement, and provide the test results to the resident:
  - Sample Request to a Water Department: Any and all notices sent by or on behalf of the city of Kalamazoo informing any resident that the city of Kalamazoo will, at its expense, collect a sample from the partially replaced service line for analysis of lead content within 72 hours after the completion of a partial lead service line replacement pursuant to Mich. Admin. Code, R 325.10604f(6)(e)(iv).
  - Sample Request to a Water Department: Any and all notices sent by or on behalf of the city of Kalamazoo to any resident and/or owner of real property reporting the results of the analysis of lead content regarding the sample collected within 72 hours after the completion of the partial replacement of the service line pursuant to Mich. Admin. Code, R 325.10604f(6)(e)(iv).

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