

Lead and Drinking Water

April 4, 2017

This document was prepared by the City of Dayton, the City of Oakwood and Montgomery County in cooperation with other communities throughout the Miami Valley for the following two purposes:

- 1) To explain a new Ohio EPA (OEPA) requirement that all Public Water Systems prepare mapping information about the water piping infrastructure within their jurisdictions; and**
- 2) To provide information about lead and drinking water, and to address other questions that relate to water quality and safe drinking water.**

OEPA WATER SYSTEM MAPPING

What is the new Ohio EPA water pipe mapping requirement?

In June 2016, the Ohio General Assembly passed House Bill 512, establishing new requirements governing lead and copper testing for Public Water Systems. One part of the law mandated that all Public Water Systems maintain data and develop maps that reflect where potential and actual lead-containing components exist in the water distribution systems. This includes the public (city or county) and private (property owner) portions of the system. All Public Water Systems were required to submit the mapping information to the OEPA by March 9, 2017. This information is available on the OEPA website at <http://www.epa.ohio.gov/ddagw/pws/leadandcopper/map.aspx> and upon request from your public water utility.

What does the mapping information tell me?

The maps are intended to show: 1) areas of the water systems that are known or likely to contain lead service lines; and 2) the homes or other buildings served by the system that may contain lead piping, solder, or fixtures. The maps are based on the best information available for each respective water system. Depending on the age of a community and its water system infrastructure, the detail and accuracy of this information can vary. Regardless of the community, the information should be used to provide a general understanding of the water piping and fixtures. It is practically impossible to determine the actual lead content of an installed fixture, fitting or pipe, so the construction, manufacture and/or installation date is typically used as the primary indicator of possible lead content.

Who is responsible for regulating water quality in Ohio?

The OEPA has the responsibility and authority to regulate water quality and Public Water Systems in Ohio. This responsibility and authority is granted by the Ohio legislature and is included in the Ohio Revised Code. The OEPA regulates drinking water based on requirements and guidelines outlined in the Federal Safe Drinking Water Act. Among other things, this includes: 1) directing the annual testing required for each individual water system; 2) reviewing and analyzing the test results; and 3) directing any potential action that a water provider must take based on the results of the testing. The requirements also include compliance with the Federal Lead and Copper Rule.

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What is the Federal Lead and Copper Rule?

The Federal Lead and Copper Rule specifies how utilities must manage their water systems to ensure that lead and copper in drinking water is kept below thresholds beyond which may cause harm to human health. This includes water testing and, if warranted, corrosion control or other measures.

How long has the Federal Lead and Copper Rule been in place?

The United States EPA published the first Lead and Copper Rule in 1991. In compliance with the Rule, the OEPA established the Ohio Lead and Copper Monitoring Program. This program has been in place since 1992 and all Public Water Systems must comply with it.

What are the requirements of the Ohio Lead and Copper Monitoring Program?

The Ohio Lead and Copper Monitoring Program establishes routine intervals for water testing, specific “Action Levels” for lead and copper, and requirements for how the test results must be reported to the OEPA. The Action Levels are 15 parts per billion (ppb) for lead and 1,300 ppb for copper. If Action Levels exceed the prescribed limits in more than 10% of test samples, then the water system operator, under direction and oversight of the OEPA, must conduct additional water testing, and potentially take actions such as corrosion control measures. In the case of individual lead results above the Action Level, the operator must also: 1) inform the property owner about the steps that can be taken to protect health; and 2) inform the local board of health of the test result.

What are the responsibilities of a Public Water System?

All Public Water Systems in Ohio must comply with the rules and regulations imposed by the OEPA. This includes rules and regulations that govern all aspects of the production, treatment and distribution of public drinking water, including the Lead and Copper Monitoring Program. It also includes employing personnel holding OEPA licenses and certifications to operate Public Water Systems.

LEAD IN DRINKING WATER

What is lead?

Lead is a metal that is found naturally in the environment, but which can cause negative health consequences when ingested in any form. It can be found in old lead-based paint and sometimes in drinking water if it leaches from old pipes, solder, or fixtures.

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Why is it dangerous?

In children, ingesting lead can cause physical and mental impairment. In adults, it can cause increased blood pressure and other health problems. Lead poses a greater risk to children under the age of 6, and to pregnant women or women who may become pregnant.

How does lead get into drinking water?

Historically, lead was used throughout our nation as a component in water pipes and plumbing fixtures, and it was commonly used as solder for copper pipes. If a home was built prior to 1998, some of the plumbing components likely contain lead. Lead in drinking water is usually caused by older plumbing components used on private property, and not the public water system. Due to the strict treatment mandates by the OEPA and internal goals established by many Public Water Systems, lead leaching into the water through the public portion of the system is generally not a concern.

Where else is lead found?

The most common source of lead ingestion is exposure to lead paint, which is common in homes built before 1978. Children may also be exposed to lead if they play with toys manufactured in other countries with different manufacturing and environmental standards than the United States.

How do I know if I have lead containing pipes or fixtures in my home?

If your home was built prior to 1998, it may contain water pipes and plumbing fixtures that contain lead. This could include lead solder connecting copper plumbing lines, water fixtures containing lead, and/or some components of your water service line could be made of lead, or contain lead. *The statements above depend, of course, on the degree to which a plumbing system may have been upgraded since the home was built.* To determine whether your home has lead or lead containing piping, or lead plumbing fixtures, it is recommended that you hire a licensed plumber to conduct an inspection. If you want to examine the piping yourself, please exercise caution and wear protective gloves. Lead piping is generally a dull gray color and is very soft. It can be identified by *carefully* scratching it with a key or coin. If the pipe is made of lead, the area you scratched will turn a bright silver color. Do not use a knife or other sharp instrument to test your service line for lead because you may accidentally puncture the pipe.

How do I know if I have a lead service line?

If your home was built prior to 1960, your service line could be made of lead. The service line from the water main pipe typically consists of two sections – a short section from the water main to the shutoff valve (city or county portion) and a longer section from the shutoff valve to the home or building (private section). In many older homes, the service line is often a combination of lead and galvanized pipe. The water supplier may be able to tell you if your home has a lead or galvanized service line, or you may need to consult with a licensed plumber.

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How can I get my water tested?

There are local laboratories that can test your water. Also, some Public Water Systems have their own labs. Please contact your water provider for more information.

If there is an identified or suspected problem with lead, what can be done about it?

If a homeowner has concerns about lead in the plumbing system, they may want to have their water tested. If there is an identified or suspected problem with lead, a homeowner can consider taking the following steps:

- Install water treatment systems that are specifically designed to remove lead.
- Before using water, allow the cold water to run for at least a minute until the water runs very cold, particularly first thing in the morning or if the water has not been used for a long time. When water sits in pipes without being used for a long time, it becomes more likely that lead may leach into the water.
- Use only cold water for drinking, cooking, and especially for making baby formula. Hot water can dissolve more lead from pipes and/or fixtures than cold water.
- Do not boil water in an attempt to remove lead. Boiling the water will not remove lead, but only concentrate it further if it is present.
- Periodically clean faucet screens by removing them and running the water for a few minutes. Sometimes lead containing particles can build up on the screens.

Property owners can also consider removing old plumbing fixtures and piping and replacing them with fixtures and piping that do not contain lead. This can be a very expensive undertaking, but can be considered.

Where can I get additional information on this topic?

Contact your local water provider or the following:

- Ohio EPA at: <http://www.epa.state.oh.us/>
- USEPA at <http://www.epa.gov/safewater/lead>
- Safe Drinking Water Hotline at 1-800-426-4791