

MI 0600 Benton Harbor Lead Public Education

Flyer Distribution to ~~3,115~~ homes

2/26/20

3,500 copies

pg 1-6

Benton Harbor Water Plant
200 E. Wall Street
Benton Harbor, MI. 49022

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Important Information from the Benton Harbor Water Department
Please open and read, consider sharing it with your Neighbors & Friends

**Local
Postal Customer
Benton Harbor, MI. 49022**

IMPORTANT INFORMATION ABOUT LEAD IN YOUR DRINKING WATER

THE BENTON HARBOR WATER DEPARTMENT HAS EXCEEDED THE ACTION LEVEL FOR LEAD. Lead can cause serious health and development problems, especially for pregnant women and young children. Please read this information closely to see what you can do to reduce lead in your drinking water.

This notice is brought to you by the Benton Harbor Water Department.
Water Supply Serial Number: 00600 Distribution Date: [February 26, 2020]

Health Effects of Lead

Lead can cause serious health and development problems. 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. Although other sources of lead exposure exist, such as lead paint, and lead contaminated dust, the Benton Harbor Water Department 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 the Berrien County Health Department at 800-815-5485.

The Water System in Benton Harbor has many water service lines that contain some portion of Lead piping. The City just completed a Preliminary Distribution System Materials Inventory that contain up to 750 homes that may have lead. When we complete the final Distribution Systems Materials Inventory, we believe that number will rise to about 2,000.

Sources of Lead

Lead is a common metal found in the environment. Drinking water is one possible source of lead exposure due to the widespread use of lead in plumbing materials. 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.

The action level is 15 parts per billion (ppb) for lead and 1.3 parts per million (ppm) for copper. The action level is a measure of corrosion control effectiveness. It is not a health-based standard. To meet the requirements of the Lead and Copper Rule, 90 percent of the samples collected must be below the action level. The following table summarizes the lead and copper data collected during the most recent monitoring period:

Most Recent Sampling Information. We only managed 39 locations of the 60 mandated by the State. If your house was sampled in the October to December sampling and want to continue participation that is Great! Let us know. If you have not been involved in our Lead & Copper Sampling program and you want to participate, that would be good, and we are asking you to contact us.

Most Recent Sampling Information: October to December 2019:

Action Levels	90 th Percentile Value	Range of results (minimum- maximum)	# of samples used for 90 th Percentile The 1 st and 5 th each house.
Lead 15 parts per billion (ppb)	32 ppb	0 ppb – 72 ppb	78
Copper 1.3 parts per million (ppm)	0 ppm	0 ppm – 0.1 ppm	78

Lead can enter drinking water when pipes, solder, home/building interior plumbing, fittings and fixtures that contain lead corrode. Corrosion is the dissolving, or wearing away, of metal caused by a chemical reaction between water and your plumbing. Several factors affect the amount of lead that enters the water, including the water quality characteristics (acidity and alkalinity), the amount of lead in the pipes, plumbing and/or fixtures, and the frequency of water use in the home.

Some plumbing products such as service lines, pipes and fixtures may contain lead. The infographic below demonstrates where sources of lead in drinking water could be in your home. Older homes may have more lead unless the service line and/or plumbing has been replaced. Homes built...

- **Before the 1960s** are more likely to have lead service lines, lead pipes, fixtures, and/or solder that contain lead.
- **Before 1988** are likely to have fixtures and/or solder that contains lead.
- **Between 1996 and 2014** are likely to have fixtures that contain up to eight percent lead but were labelled "lead-free."
- **In 2014 or later** still have potential lead exposure. "Lead free" was redefined to reduce lead content to a maximum of 0.25 percent lead in fixtures and fittings. Fixtures that are certified to meet NSF Standard 61 meet this more restrictive definition of "lead free."

Leaded solder and leaded fittings and fixtures are still available in stores to use for non-drinking water applications. Be careful to select the appropriate products for repairing or replacing drinking water plumbing in your home.

Galvanized plumbing can be a potential source of lead. Galvanized plumbing can absorb lead from upstream sources like a lead service line. Even after the lead service line has been removed, galvanized plumbing can continue to release lead into drinking water over time. Homes that are served by a lead service line should consider replacing galvanized plumbing inside the home.

Drinking water is only one source of lead exposure. Other common sources of lead exposure are lead-based paint, and lead-contaminated dust or soil. Because lead can be carried on hands, clothing, and/or shoes, sources of exposure to lead can include the workplace and certain hobbies. Wash your children's hands and toys often as they can come in contact with dirt and dust containing lead. In addition, lead can be found in certain types of pottery, pewter, food, and cosmetics. If you have questions about other sources of lead exposure, please contact the Berrien County Health Department at 800-815-5485.

Particulate Lead

Lead results can vary between tests. A single test result is not a reliable indicator of drinking water safety. Two different types of lead can be present in drinking water, soluble lead and particulate lead. Soluble lead is lead that dissolves because of a chemical reaction between water and plumbing that contains lead. Particulate lead is dislodged scale and sediment released into the water from the sides of the plumbing and can vary greatly between samples. Disturbances, such as replacing a water meter, construction and excavation activities, or home plumbing repairs can cause particulates to shake free from inside pipes and plumbing. Particulate lead is a concern because the lead content can be very high. Lead particulate could be present in a single glass of water, but not present in water sampled just before or after. During construction, monthly aerator cleaning and using a filter certified to reduce lead are recommended to reduce particulate lead exposure.

Check whether your home has a lead service line.

Homes with lead service lines have an increased risk of having high lead levels in drinking water. Please contact the Benton Harbor Water Department for more information about your home's service line.

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

1. **Run your 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.
 - 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.

Additional flushing may be required for homes that have been vacant or have a longer service line. Your water utility can help you determine if longer flushing times are needed.

2. **Use cold water for drinking and cooking.** Do not cook with or drink water from the hot water tap; lead dissolves more easily into hot water.

3. **Use cold water for preparing baby formula.** Do not use water from the hot water tap to make baby formula. If you have a lead service line, consider using bottled water or a filter certified to reduce lead to prepare baby formula.

4. **Do not boil water to remove lead.** Boiling water will not reduce lead levels.

5. **Consider using a filter to reduce lead in drinking water.** Public health recommends that any household with a child or pregnant woman use a certified lead filter to remove lead from their drinking water. Look for filters that are tested and certified to NSF/ANSI Standard 53 for lead reduction.



System Tested and Certified by
NSF International against NSF/
ANSI Standard 53 for the
reduction of Lead.

Some filter options include a pour-through pitcher or faucet-mount systems. If the label does not specifically mention lead reduction, check the Performance Data Sheet included with the device.

Be sure to maintain and replace the filter device in accordance with the manufacturer's instructions to protect water quality.

If you are not able to afford the cost of a lead filter, please contact the Berrien County Health Department at 800-815-5485.

6. **Consider purchasing bottled water.** The Food and Drug Administration (FDA) regulates bottled water. The bottled water standard for lead is 5 ppb.

7. **Get your child tested.** Contact your local health department, the Berrien County Health Department at 800-815-5485, or healthcare provider to find out how you can get your child tested for lead if you are concerned about exposure.

8. **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. When purchasing new plumbing materials, it is important to look for materials that are certified to meet NSF standard 61. The EPA prepared a brochure that explains the various markings that can indicate that materials meet the new "lead free" definition: <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockkey=P100LVYK.txt>.

9. **Clean your aerator.** The aerator on the end of your faucet is a screen that will catch debris. This debris could include particulate lead. The aerator should be removed at least every six months to rinse out any debris.

10. **Test your water for lead.**

Since we have not been successful collecting the State Mandated required number, we encourage you to join in our Lead and Copper testing program that is required between the months of January to July and again during the months of July to December 2020.

11. What Happened? What is Being Done? The Benton Harbor Water Department had elevated lead levels in their 2018 and 2019 lead and copper sampling. We have sent educational materials to residents and offered free testing in 2018,

The Berrien County Health Department has provided free filters and replacement filters to anyone who wanted to participate.

Between July and December 2019, we made every effort to collect samples from 60 homes. We are still looking for more homes with lead service lines to volunteer to have their water tested. During this round of sampling, there were 10 homes out of 39 that had lead results higher than the 15ppb Action Level (AL). When the sample results were reported to the MDEQ, the action level was exceeded for Lead at 32 ppb.

The Benton Harbor Water Department does not have lead in its water mains. However, lead can enter drinking water when it is in contact with service lines, pipes, solder, home/building interior plumbing, fittings and fixtures that contain lead. Based on recent excavation and verification of service line materials, approximately 30% of the lines in the City are made of lead.

The graphics on the last page are a good way to understand where the Lead comes from:

In March 2018, the Benton Harbor Water Department has installed corrosion control treatment to reduce lead leaching. However, it can take up to 12 to 18 months to develop the protective coating on the pipes to reduce the amount of lead leaching into the drinking water.

If you are a Benton Harbor Water Department customer and would like your service line inspected or would like to have your drinking water tested for lead, contact the Benton Harbor Water Department phone number, 269 927-8471, press 2, or contact Mr. Mike O'Malley, momalley@cityofbentonharbor.gov. City resources are limited to complete these tasks, but efforts are still in place, please understand and be patient. See Item 10 above.

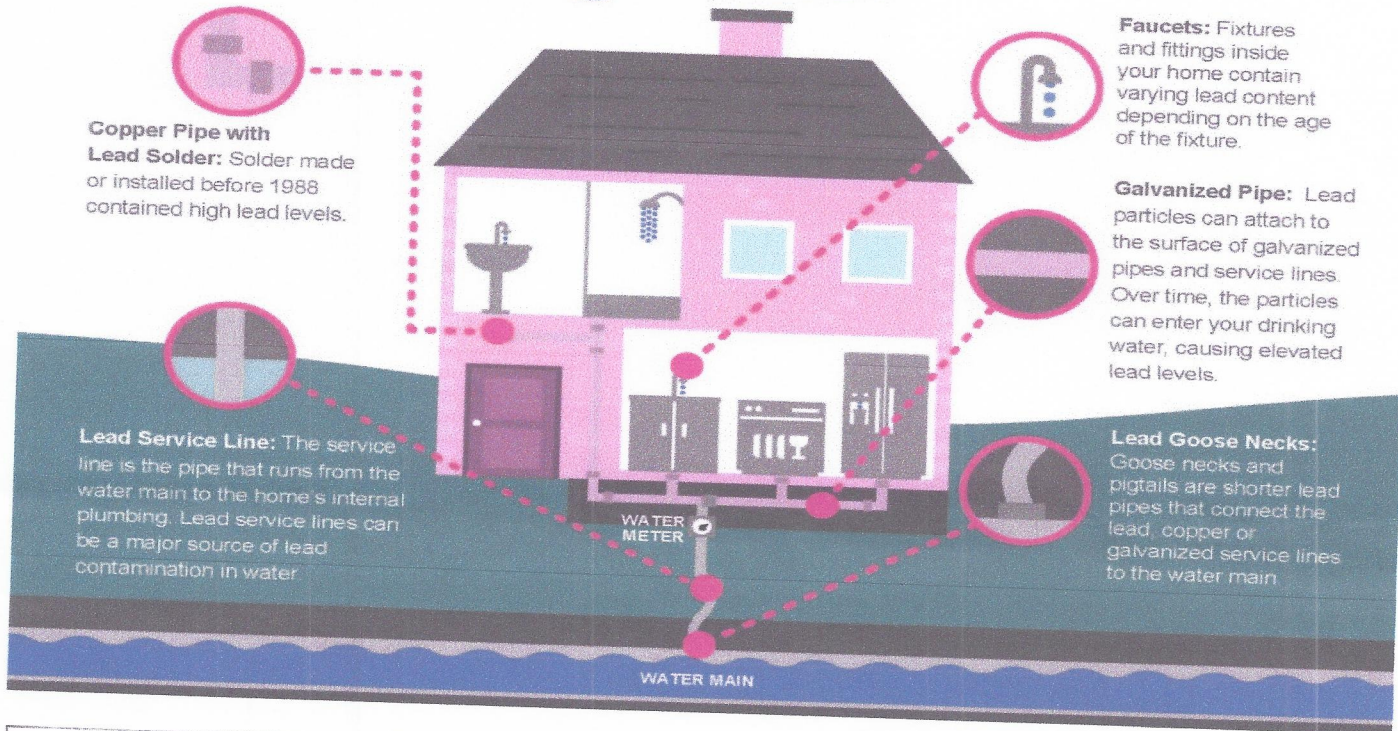
For More Information

Contact the Berrien County Health Department at 800-815-5485, the Benton Harbor Water Department at, 269-927-8471, press 2, or visit our website at www.bhcity.us or www.michigan.gov/deqleadpublicadvisory. For more information on reducing lead exposure around your home/building and the health effects of lead, visit EPA's Web site at www.epa.gov/lead, call the National Lead Information Center at 800-424-LEAD, or contact your healthcare provider.

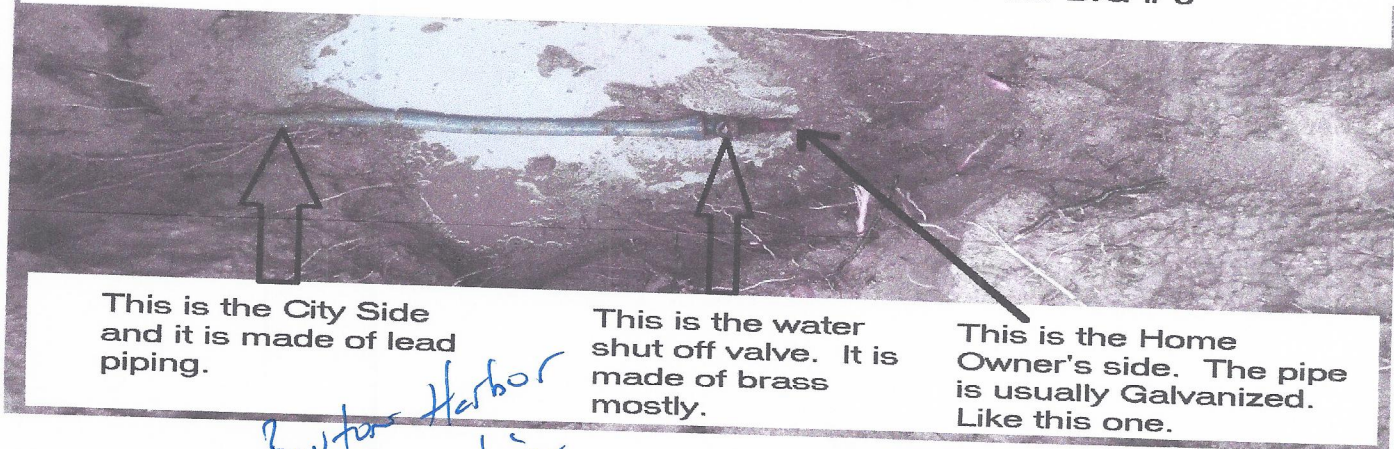
CONCERNED ABOUT LEAD IN YOUR DRINKING WATER?

Sources of **LEAD** in Drinking Water

EGLE Graphic



This is what we have all over the City. This is a dig up of a Water Service Line going into a Residential Home. These are all over in Benton Harbor. Most of All of our records (like this one) tell us where the tap and service is located. Some times it will say something about the materials; but usually not. That is why we do not know until we dig a hole about 4-feet deep. This line was installed to this home in September 1948. This kind of water service is the major reason for lead in you tap water, there could be other sources of Lead, but this leads to the BIG #'s



Benton Harbor Graphic