



November 14, 2019

Dear Essexville Water Customer,

The City of Essexville has been conducting testing of tap water in homes for lead and copper content.

This October 29th thru the 31st Essexville collected samples from 40 sites out of approximately 1579 customers in the City. All 40 homes had confirmed lead service lines from the curb-stop/water main running into the home. Seven of these homes exceeded the Action Level of 15 parts per billion of lead (ppb). The EGLE (formally DEQ) evaluates compliance with the Action Level based on the 90th percentile of all lead and copper results collected in each round of sampling. The lead 90th percentile for the Essexville water supply is 19 ppb which exceeds the Action Level of 15 ppb.

The "Action Level" is not a health-based standard, but it is a level that triggers additional actions including, but not limited to, increased investigative sampling of water quality and educational outreach to customers. Because 7 homes tested were over the Action Level for lead, Essexville would like to share some ways you can reduce your exposure to lead since lead can cause serious health problems if too much enters your body from drinking water and other sources.

The most important thing you can do is let your water run to flush out lead. Lead can enter drinking water when in contact with pipes, solder, home/building interior plumbing, fittings and fixtures that contain lead. Homes with lead service lines have an increased risk of having high lead levels in drinking water. 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.

- **Run your water to flush out lead-containing water.**
 - 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.



Daniel J. Hansford
City Manager
Director Public Works

Sarah J. Wilcox
City Clerk

Kimberly Van Tiffin
City Treasurer

Anne Norman
Administrative Assistant


Nathaniel House
Public Safety Department

- If you **do** have a lead service line, run the water for at least five minutes to flush water from your homes plumbing and the lead service line.
- Consider using a filter to reduce lead in drinking water. Public health recommends that any household with a child or pregnant woman use cold water and a certified lead filter to remove lead from their drinking water, especially when preparing baby formula.
- Look for filters that are tested and certified to NSF/ANSI Standard 53 for lead reduction.
- Be sure to maintain and replace the filter device in accordance with the manufacturer's instructions to protect water quality.
- If your household has a child or pregnant woman and are not able to afford the cost of a lead filter, please contact your County Health Department.
- **Do not use hot water to boil for drinking, preparing food, cooking, or preparing baby formula. Use water from the cold water tap and then heat the water for these purposes.**
- **Do not boil your water** as boiling will not reduce the amount of lead in water.
- Check whether your home has a lead service line.

Included with this letter is a comprehensive public education document about lead in drinking water titled ***IMPORTANT INFORMATION ABOUT LEAD IN YOUR DRINKING WATER***. Please read this information carefully. We will be collecting 40 water samples every six months and reviewing the results to determine if corrective actions are necessary to reduce corrosion in household plumbing.

If you are an Essexville City water customer and have or think you may have a lead service line to your home and would like your service line inspected or would like to have your drinking water tested for lead, contact the City of Essexville at (989) 893-2441.

Additional information regarding lead can be found on the Bay Area Water Treatment Plant website at: www.baycodws.org or the Essexville web site at www.essexville.org or the EGLE website at: www.michigan.gov/egleleadpublicadvisory or www.michigan.gov/lcr

Sincerely,

Dan Hansford
City Manager
City of Essexville

1107 Woodside Avenue, Essexville, MI 48732
City Hall Phone 1: 989.893.0772 City Hall Phone 2: 989.893.2441
Fax: 989.892.3452 Public Safety: 989.892.2541
www.essexville.org

November 18, 2019

**BAY COUNTY HEALTH DEPARTMENT OFFERS LEAD-REDUCING WATER FILTERS
TO ELIGIBLE LOW-INCOME HOUSEHOLDS**

In response to lead found in drinking water provided by the City of Essexville, the Bay County Health Department is providing lead-reducing water filters to low-income households in Essexville with children or pregnant women. The free filters are part of a larger response that includes distributing educational materials and helping residents identify ways to lower their exposure to lead.

Because children and fetuses are most at risk of harm to their health from lead, the Michigan Department of Health and Human Services (MDHHS) recommends the use of water filters in any residence served by the Essexville Water Supply that is home to a child or a pregnant woman. **If a household has a child or pregnant woman and receives WIC benefits, Medicaid insurance, or cannot afford a water filter, they can receive a free one** (filters cost about \$35, and their replacement cartridges cost about \$15.)

The Bay County Health Department along with Essexville Water Department staff will be distributing filters at Essexville City Hall on November 22nd from 11 am to 7 pm those who are eligible and interested. We will also be answering any questions you may have.

Drinking water provided by the Essexville Water Supply was found to be above the action level of 15 parts per billion in at least 10 percent of the homes tested in Essexville. When lead in drinking water is above the action level, public health officials recommend precautionary actions to protect residents—especially those most at risk of harm to their health: children and fetuses. Swallowing lead can be a serious issue for children because their bodies and nervous systems are still developing. Too much lead can cause problems with learning, behavior, speech, hearing, and growth rates.

In homes with children or pregnant women, MDHHS recommends using only **cold filtered water** for drinking, rinsing food, cooking, mixing powdered infant formula, and brushing teeth. Bottled water could also be used for these activities. When buying a water filter, make sure it is certified to NSF/ANSI Standard 53 for lead reduction and NSF/ANSI Standard 42 for particulate reduction. It is important to follow the manufacturer's instructions for installing and maintaining the filter.

Other ways to reduce the amount of lead in your drinking water include:

- Regularly flushing your home's pipes for 30 seconds to 2 minutes as recommended by the Essexville Water Supply. If your home has a lead service line you may wish to flush the home's pipes for up to 5 minutes.
- Cleaning your faucet aerators, which can trap small pieces of lead.
- Using only **cold water** for drinking or cooking; lead dissolves more easily in hot water.

Don't try to remove lead by boiling the water. Water evaporates during boiling, so the amount of lead in the water may end up higher after boiling.

For more information, call the Bay County Health Department at 989-895-4107 or visit our website at <https://www.baycounty-mi.gov/Health/Default.aspx> For information about lead and your health, visit [Michigan.gov/MiLeadSafe](https://www.michigan.gov/MiLeadSafe).

IMPORTANT INFORMATION ABOUT LEAD IN YOUR DRINKING WATER

THE CITY OF ESSEXVILLE 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 City of Essexville Water Supply
Serial Number: 2180
Distribution Date: November, 2019

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 City of Essexville 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 Bay County Health Department at 989-895-4006.

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

Action Levels	90 th Percentile Value	Range of Results (minimum-maximum)	Number of Samples used for 90 th Percentile
Lead 15 parts per billion (ppb)	19 ppb	<1.0-100 ppb	40
Copper 1300 parts per million (ppm)	.310	.028-0.044 ppm	40

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 that 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 Bay County Health Department at 989-895-4006.

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 City of Essexville at 989-893-2441 for more information about your home's service line.

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

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.

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.

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.

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

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 reduce lead from their drinking water. Look for filters that are tested and certified to NSF/ANSI Standard 53 for lead reduction. Some filter options include a pour-through pitcher or faucet-mount system. 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 your household has a child or pregnant woman and are not able to afford the cost of a lead filter, please contact your County Health Department.



NSF International

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

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

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. The phone number for the Bay County Health Department is 989-895-4006.

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?Dockey=P100LVYK.txt>.

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.

Test your water for lead. Call us at 989-893-7541 to find out how to get your water tested for lead. The first step would be to schedule a visit to your home with an Essexville employee who will evaluate your risk for lead based on your service line material and home plumbing. If your home is found to have a higher risk for lead, you will have the opportunity to join our lead and copper sampling program. If you would prefer to skip the site visit and sample yourself, we can give you information on how to do this.

What Happened? What is Being Done?

All water in the Essexville distribution system comes from the Bay Area Water Treatment Plant. We tested the water from the Bay Area Water Treatment Plant on June 10, 2019, and it does not contain lead. Lead can enter drinking water when in contact with pipes, solder, home/building interior plumbing, fittings and fixtures that contain lead. However, to help limit lead leaching into the water once it leaves the plant, a corrosion control inhibitor in the form of orthophosphate is added to the water for corrosion control. Orthophosphate reacts with lead to form compounds that have a strong tendency to stay in solid form and not dissolve into water. This is used by water systems throughout the country and has proven to be successful in controlling corrosion.

Research, corrosion studies, and testing by plant staff have all suggested that feeding orthophosphate has helped

control lead levels in our own system. Unfortunately, as long as there's lead services in the distribution system, the risk of lead dissolving into the water exists.

The goal of lead sampling is to find the sites with the highest risk for elevated lead levels. Essexville has approximately 1579 water customers in our system. The Department of Public Works (DPW) have been actively searching for homes that have lead service lines from the main/curb-stop into the residence. The DPW has entered 86 homes and checked to see if there was lead present. Currently 383 residences have been identified to have lead service lines. Of those 383 residences, 40 of those customers have agreed to participate in the testing of the tap water for lead and copper. Seven (7) of those exceeded the Action Level of lead in the drinking water. The City has approximately 1,196 customers that don't have lead service lines. Results were received from the lab on Tuesday, November 12, 2019, and notification of a lead action level exceedance by the Department of Environment, Great Lakes, and Energy (EGLE) was received on Tuesday, November 12, 2019.

The most important thing you can do is let the water run to flush out lead.

Essexville is currently working on a plan to identify and replace every lead service line in the distribution system. If you are an Essexville water customer and would like your service line inspected, contact the City of Essexville at 989-893-2441.

For More Information

Contact us at 989-893-2441 or visit the City of Essexville Web site at www.essexville.org, the Bay County Department of Water and Sewer's Web site at www.baycodws.org or EGLE's Web site at: https://www.michigan.gov/egle/0,9429,7-135-3313_3675_3691-413200--,00.html or www.michigan.gov/lcr.

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 or the National Lead Information Center at 800-424-LEAD or contact your healthcare provider.