

## **FAQs about Newark Water Department and Lead**

### **Is there lead in my water? How can I find out?**

*Approximately half of Newark residents have lead service lines and the potential for lead to leach into their water. Onsite plumbing can also contribute to lead in your tap water.*

Lead service lines are the pipes that carry water from the water main to a home or building.

Newark residents should contact Newark Water Department at (973)733-6370 and can visit their website at <https://waterandsewer.newarknj.gov/> for additional information. Water utilities are required to provide consumers with information on how to get their water tested.

### **What should I do if there is lead in my water?**

*Use bottled or filtered water for drinking and cooking.* Newark will provide filters to residences with a high potential of lead in their water in their homes (homes known or suspected of having lead service lines and/or lead plumbing elements in the Pequannock system). Prior to the filters being installed, for those with a lead service line and/or lead plumbing elements, the New Jersey Department of Health recommends that bottled water be used for infants who are being fed with formula and for all children under the age of six.

*For those with lead service lines, flushing tap water (running it for a few minutes before using the water) is not recommended as an effective way to reduce lead. Flushing is an effective means of reducing exposure for those without a lead service line.*

Boiling water does not reduce the levels of lead in the drinking water.

### **Who does this affect?**

*The greatest risk of lead exposure is to infants (especially formula-fed infants) and young children.*

### **What are the health effects of lead in my water? How can I find out if my family has been affected?**

*Lead can cause serious health problems if too much enters your body from drinking water or other sources.* 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.

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 the body.

The local health department will be offering blood level testing for children less than 6 years of age. For additional information, contact Newark's Department of Health at (973)877-6111.

### **How did this happen? When did it happen? What happens next?**

In early October, the DEP learned that the chemical used to deter corrosion in the Pequannock service area (information about the service areas is explained below) is no longer effective and that the protective lining of the service lines is sloughing off, carrying lead particles in the process. Newark has informed the DEP that it is switching corrosion control inhibitors to address this issue over the longer term. As indicated above, they are providing filters as an interim measure.

### **How does lead enter the drinking water system?**

Lead is not normally found in drinking water at the source. Typically, lead gets into your drinking water when it leaches from the lead service lines, plumbing and household fixtures that contain lead or lead solder in your home. Many factors affect the amount of lead that leaches into the water, including lead content of pipes, fixtures and solder, along with water temperature, pH and hardness. Leaching is caused by corrosive properties of the water. Water systems treat the water to prevent lead from leaching into the water (corrosion control).

### **Is there lead in Newark's water source?**

NO. The recent testing of all Source Water Monitoring locations (including both Pequannock and Wanaque service areas) tested in September 2018 did not have detectable levels of lead.

### **Is there lead in service lines, plumbing and household fixtures in Newark?**

YES. Approximately 50% of the service lines in Newark are lead (service lines are those lines carrying water from the water main to a particular building or property) and because of the age of the homes in Newark, there is likely lead in the plumbing and fixtures (premise plumbing). Many homes built before 1986 may have lead-containing materials. The nation's lead ban became effective in 1986 but additional reductions in the percentage of lead contained in solder continued through 2014.

### **How has Newark been treating the water at the water treatment plant to prevent lead from leaching into the water? What corrosion control is being used?**

Some drinking water utilities add anti-corrosive materials (inhibitors) and/or adjust the pH of the water to reduce the likelihood of lead leaching into the water before it comes out of the customers' taps. Newark has two distinct service areas with different treatment:

- Pequannock Service Area (supplied from a series of reservoirs owned by Newark)
  - Treated with a corrosion control inhibitor known as sodium silicate
  - Treated with a chemical for pH adjustment
  - Serves the western section of the City of Newark
  - Supplies bulk water to: The Townships of Bloomfield, Pequannock, and Belleville
  - Can supply emergency water supply to the City of East Orange
- Wanaque Service Area (supplied from the North Jersey District Water Supply Commission).
  - Treated with a different corrosion control inhibitor known as orthophosphate
  - Serves the eastern section of the City of Newark
  - Supplies bulk water to the City of Elizabeth

### **What laws and regulations are in place to protect the public against lead in its drinking water?**

The United States Environmental Protection Agency issued regulations in 1991 (known as the Lead and Copper Rule), which were revised in 2000 and again in 2007, to minimize lead and copper levels in drinking water. The State of New Jersey adopted these regulations by reference, which means New Jersey implements the federal regulations.

The regulations focus on areas such as:

- Periodic testing/sampling for lead;
- Establishing optimal corrosion control treatment, including water quality parameter testing; and
- Outlines the requirements a water system must take for exceeding the Lead Action Level.

### **What is the Lead Action Level?**

The Lead and Copper Rule establishes a Lead Action Level is 0.015 milligrams of lead per liter of water (0.015mg/L). This level can also be written as 15 micrograms per liter (ug/L) or 15 parts per billion (ppb). For more information on the testing requirements for lead, visit <https://www.state.nj.us/dep/watersupply/pdf/lead-water-faq.pdf>.

The Lead Action Level is intended to trigger regulatory action; it is not a measure of safety. No amount of lead is safe in water.

### **What is the testing looking for?**

The testing is intended to determine whether drinking water contains lead at levels that require action to reduce the corrosivity of the water. The level at which action is required is known as the Action Level. The Action Level is 0.015 milligrams of lead per liter of water (0.015mg/L) or 15 parts per billion (ppb). Under a formula developed by EPA, when a certain number of results exceed the Action Level, the water utility must take steps to reduce the corrosivity of the water to minimize the leaching of lead.

### **Where is testing performed?**

Water utilities are required to test the water at locations that are most susceptible to high lead concentrations. Because most lead enters the water supply through the delivery system (the pipes and fixtures) and not at the source, samples are taken at the tap in areas that have older homes (constructed before 1986). These buildings are more likely to have either lead service lines, copper pipes with lead solder or fixtures that contain lead.

### **How is the testing conducted?**

Because lead tends to enter water in the delivery system, water is drawn from the tap at the ultimate destination (usually a customer's home). The water utility sends instructions and collection bottles to a statistically significant number of customers in their service areas.

The customers who receive the testing collection kits are selected by the water utility based on the age of the infrastructure, since older homes are more likely to be serviced by lead service lines or to contain copper pipes with lead solder or plumbing fixtures containing lead. Customers are instructed how to collect the water sample (first thing in the morning from a water faucet in the kitchen or bathroom that has not been used for at least six hours). The sample is then returned to the water utility for testing.

## **What is a water utility required to do under the regulations if testing finds the water exceeds the Action Level for lead?**

The utility is required to take the following steps:

- Inform and educate the public about the results and provide guidance on how to reduce the level of lead in their drinking water;
- Continue standard tap monitoring for lead in the distribution system;
- Perform Water Quality Parameter monitoring to determine the extent of the corrosive nature of the water;
- Monitor the source water and, if necessary, make recommended changes to source water treatment for lead;
- Determine if a Corrosion Control Treatment Study is necessary and recommend Corrosion Control Treatment to the Department for review and approval;
- If lead service lines exist and the utility has existing corrosion control treatment, institute a lead service line replacement program;
- Initiate, adjust and/or optimize and then maintain corrosion control treatment, to reduce the likelihood of lead leaching into water; and
- Establish optimal water quality parameter minimums based on approved treatment to make sure that the water stays non-corrosive.

## **Is Newark in compliance with the actions triggered by the Action Level Exceedance?**

YES. An Action Level exceedance triggers additional requirements including increased monitoring, instituting a lead service line replacement program, conducting public education, installing or modifying corrosion control treatment, source water monitoring and setting optimal water quality parameters. Since exceeding the Lead Action level, Newark is in compliance with these additional requirements. For information on their lead service line replacement program, visit

<https://www.newarklead serviceline.com/>

The City of Newark Water Department had Lead Action Level Exceedances in 2017 and 2018 and is currently conducting a mandatory Corrosion Control Treatment Study for its whole system (both the Pequannock Service Area and the Wanaque Service Area) as required by the federal Lead and Copper rule to determine actions needed to address their water quality. Newark is taking all the steps required under the Lead and Copper rule once there is an action level exceedance.

In addition, on July 25, 2018, Newark entered into a Compliance Agreement and Order with DEP. It required Newark to comply with more stringent deadlines compared to the regulatory deadlines under the lead and Copper Rule.

**What does Newark’s corrosion control treatment study show and how is this different from other systems?**

The preliminary information from the Newark Corrosion Control Treatment study showed that the existing corrosion control method for the Pequannock section of Newark’s water system is not working. It appears that the corrosion control inhibitor is no longer providing a protective barrier on the interior of the lead service line pipes, and the coating of the pipes’ interior are being sloughed off into the water supply, possibly contributing to higher levels of lead. Also, extended water sampling that determines the concentration of lead within the pipes as the water travels to the customers’ taps showed elevated concentrations of lead.

**What was Newark’s response to the preliminary information from the Pequannock source corrosion control study?**

The City of Newark took immediate action to replace the lead service lines and provide filters for the two homes that had sequential water testing and the three homes that had their lead service line pipes tested as part of the study.

Newark is also taking additional actions to prevent lead exposure throughout Newark, with the support of New Jersey state government. Newark submitted an initial draft corrosion control optimization report dated October 10, 2018, to the DEP. The report included draft recommendations for modifications to their existing treatment for the Pequannock service area. Newark is working on preparing a corrosion control optimization study for the Wanaque service area.

**How do I know if my water comes from the Pequannock service area or the Wanaque service area?**

Generally, the western half of Newark receives Pequannock source water and the eastern half receives Wanaque source water. Contact Newark at (973)733-6370, or visit their website at <https://www.newarkleadserviceline.com/>, for clarification on where your water comes from.

**How long has the corrosion control in the Pequannock service area not been working?**

It is not clear when the corrosion control became ineffective; however, based on available semiannual sampling results that began in 2017, Newark first exceeded the Lead Action Level during the first half of 2017. They also exceeded in second half 2017 and first half of 2018; the second half of 2018 monitoring is ongoing. Prior to that, Newark was on triennial monitoring, and there was no Lead Action Level Exceedance from 1993-2015.

**Why is the corrosion control in the Pequannock service area not working?**

We do not know yet. Recent failure of the Pequannock service area Corrosion Control Treatment is being studied by Newark’s consultants with the assistance of the U.S. EPA and the DEP. Though the cause is unclear, our analysis is first focusing on whether there are interactions of corrosion control with other essential treatment processes, such as disinfection to identify the most effective Corrosion Control Treatment for Newark’s water sources.

### **What steps can Newark residents take to minimize the presence of lead in their drinking water?**

Since the corrosion control in Newark's Pequannock service area has been found to be ineffective, if you are served by the City of Newark (Pequannock service area) and have a lead service line you must install a filter for your drinking water or use bottled water. Flushing is not recommended as an effective way to reduce lead in this circumstance.

Newark will provide filters to all residences in the Pequannock service area known or suspected of having lead service lines and/or lead plumbing elements. Prior to the filters being installed, the Newark is reiterating the Department of Health's recommendation that bottled water be used for infants who are being fed with formula and children under the age of six, until water filters are made available to impacted families.

Boiling will not reduce the levels of lead in the drinking water.

### **Who should Newark water system users contact if they are concerned about possible lead levels in their water?**

Consumers should contact Newark Water Department at (973)733-6303 and can visit their website at <https://waterandsewer.newarknj.gov/>. Water utilities are required to provide consumers with information on how to get their water tested.

### **Where can I get information about the 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 (especially formula-fed infants) and young children under the age of 6. 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. For more information, check out the Department of Health's Lead in Drinking Water Factsheet ([https://www.nj.gov/health/ceohs/documents/dw\\_lead\\_factsheet.pdf](https://www.nj.gov/health/ceohs/documents/dw_lead_factsheet.pdf)). Information is also available at New Jersey Department of Health at the link: <https://www.nj.gov/health/ceohs/sanitation-safety/drinking-water-public-health/index.shtml>. However, remember that customers with a lead service line, in the Pequannock system, should not flush their lines in an attempt to reduce their exposure to lead.

### **Who should I contact if I want to get blood lead levels tested?**

The local health department will be offering blood level testing for children under 6 years of age. For additional information, contact Newark's Department of Health at (973) 733-5310.

**What is the DEP doing?**

The DEP implements and enforces the Federal Lead and Copper Rule (LCR). The DEP is working to assist Newark in developing its corrosion control plan to address the requirements under the Lead and Copper Rule and the DEP is also working with Newark with financing its lead service line replacement program.

**Is Newark's situation like Flint?**

No. Newark's situation is different than Flint because Newark does have existing corrosion control treatment, Flint did not. Further, Newark did not change its source of water as Flint did. Based on a study Newark conducted to determine the extent of their lead issue and identify the appropriate treatment, they realized that their current treatment corrosion control was not optimal.

**Why is Newark not required to implement a Tier 1, Do Not Drink advisory?**

This is not a systemwide problem because the amount of lead in the water depends on the type of materials in the home/building. Levels of lead above the action level do not pose an acute health problem, long-term exposure to lead can cause health problems. A Do Not Drink Advisory is only issued for exposure to acute contaminants, such as bacteria and nitrates.

**What is the difference between an Action Level and Maximum Contaminant Level (MCL)?**

An Action Level is the concentration of a contaminant which, if exceeded, triggers treatment (such as corrosion control) or other requirements which a water system must follow. It is not based on health effects. If water from the tap exceeds this limit, then the utility must take certain steps to correct the problem. A maximum contaminant level, on the other hand, is the highest level of a contaminant that is allowed in drinking water. MCLs are based on health effects whenever possible, however, if a contaminant cannot be removed to the health-based level, known as the maximum contaminant level goal (MCLG), the MCL is set at the level to which it can feasibly be removed. The MCLG is the level of a contaminant in drinking water below which there is no known or expected risk to health. Because lead may pose serious health risks, the EPA set a MCLG of zero for lead.

**Will my child's school/daycare be receiving a filter?**

Contact Newark at (973)733-6370.

## Newark Water Department Service Areas

