



Removing Lead in Drinking Water

10 Points

20 Points

30 Points

40 Points

New Action March 2020

Lead is a common metal that was once widely used across America in paint, gasoline, and plumbing. However, as lead's toxicity and negative health impacts on humans were discovered by scientists, its use was banned in a number of applications. In 1986, the Federal government prohibited the use of lead in pipes and plumbing, as lead was found to leach into the water supply. While the ban prevented new lead pipes and plumbing from being installed, it did nothing to address the millions of lead service lines that were already buried in the ground and carrying water into homes.

The purpose of this action is to encourage municipalities to reduce their residents' exposure to lead through awareness, education and remediation. The tiered point structure reflects the impact a municipality can have on reducing lead in drinking water. This action awards a variable number of points based on the strategies implemented:

Tier 1 (10 points) – Establish a voluntary testing program to assist residents in determining if there is lead in their drinking water. The testing program must have been active in the current or 2 previous years.

Tier 2 (20 points) – Implement an ordinance that requires lead testing of drinking water before a change of ownership or tenancy is granted by the town for a residential unit. The ordinance must be in effect at time a municipality is applying for certification.

Tier 3 (30 points) – Implement an ordinance that requires lead testing of drinking water and remediation before a change of ownership or tenancy is granted by the town for a residential unit. The ordinance must be in effect at time a municipality is applying for certification.

Please Note: Tiers 2 and Tier 3 are mutually exclusive. A municipality can choose to receive points for one or the other, but not both. The maximum number of points that can be awarded for this action is 40. Each tier requires education and outreach efforts are undertaken highlighting the impact of lead in drinking water and reviewing details specific to that option (e.g. for Tier 3 making sure residents, real estate agents, inspectors, etc. are aware of the ordinance requirements).

For certified communities, this action can count toward Gold Stars in both Health and Water. See the Gold Star Standard section of this action for more information.

Why is it important

Lead Impacts

Lead exposure and poisoning can lead to a number of health issues, especially among newborns and children. According to the New Jersey Department of Health, the impacts on children include: behavioral problems, impacts on ability to pay attention; impacts on academic achievement; kidney damage and anemia. Data from the Center for Disease Control (CDC) show that 6% of all children ages 1-2 years and 11% of black (non-Hispanic) children ages 1-5 years have blood lead levels in the toxic range. Lead is a potent poison that can affect individuals at any age.¹ At the same time, lead exposure is preventable.

Background

Lead was once commonly used in water systems. Service lines that carried water from water mains in the street into homes were made of lead; solder used to join pipes in indoor plumbing contained lead, and many fixtures, such as faucets, also contained lead. Lead can be found mostly in housing stock built before 1986,

the year that lead was banned from use in plumbing. Unfortunately, lead is toxic to humans and can leech from pipes and solder into drinking water. Homes with lead services lines, lead solder, or fixtures containing lead present risks of lead exposure and lead poisoning to the people living in them. While government agencies strictly regulate the amount of lead that is permissible in drinking water, the fact remains that there is no safe level of lead exposure. Despite high profile news stories about lead affecting drinking water systems in major cities such as Flint, MI, and Newark, NJ, many people are still unsure if their water contains lead and what to do about it. In most situations, the lead present in drinking water cannot be seen, tasted, or smelled, making testing the only way to determine if lead is in a home's water.

Water utilities that are aware of lead service lines in their service areas take steps to help prevent lead from leaching into drinking water by adding chemicals at the treatment plant that act as corrosion control. This process is not always 100% effective, and when corrosion control fails, it can lead to lead exposure for the utility's customers. It is also important to note that even if an individual home or a utility service area has had their lead services lines removed, lead can still be found in the drinking water from lead used in the plumbing and fixtures. The lack of a lead service line alone is not a guarantee that there is no lead in a home's drinking water.

Since the presence of lead in drinking water is a public health issue, reducing lead exposure through drinking water can help reduce the overall amounts of lead exposure in the population, and can reduce the negative health impacts of lead exposure.

Who should lead and be involved with this action?

Municipalities that have significant housing stock that was built before 1986 or have known elevated lead levels should consider this action. Once the need for this action has been identified the following could lead or be involved with this action:

- Green team
- Municipal government representative
- Board of Health
- Environmental Department/Environmental Commission
- Municipal Utility/Water Utility representative

Lead is a public health issue, and local health officials should play a critical part in implementing any of the tiers available for this action.

Timeframe

Each action tier has different requirements and will take different lengths of time. It is important to note that multiple tiers can be attempted concurrently.

Education and Outreach on Removing Lead from Drinking Water (required for all Tiers):

The time needed to implement education and outreach on lead in drinking water can vary based on the strategies chosen. Sample activities include:

- A town hall event could take 2 to 3 months to organize;
- Media/outreach campaigns that include direct mailings to residents require 2 to 6 months;
- Website creation requires 3 to 9 months;
- Working with local social/civic groups to present requires 3 to 6 months.

Tier 1: Offer a Testing Program for Lead in Drinking Water

- Program creation: 1-3 months.
- Program implementation: 1-2 months.
- Program is ongoing, but only requires minimal staff time to send information to residents whose test results indicate elevated levels of lead.

Tier 2: Require Lead Testing: Instituting the policy is ongoing, but implementation requires very little time as the testing practice becomes routine.

- Ordinance creation: 2-4 months.
- Passing the ordinance: 2-3 months.
- Initial implementation: 2-3 months.

Tier 3: Require Lead Remediation

- Ordinance creation: 2-4 months.
- Passing the ordinance: 2-3 months.
- Initial implementation: 2-3 months. Instituting the policy is ongoing, but implementation requires very little time as the testing practice becomes routine.
- Remediation could take additional time based on the source of the lead and the steps necessary to remediate it.

Project costs and resource needs

Due to the varied nature of the tiers, this action could require a number of different resources. Education and outreach efforts could range from the creation and distribution of printed materials to the creation and maintenance of a website, with costs going from under \$100 to a few thousand dollars.

A testing program would need to be negotiated with a lab or other organization. Ordinance creation would depend on the cost of legal counsel.

What to do, and how to do it (“How to”)

The goal of this action is to reduce exposure to lead by raising awareness of its presence and requiring abatement. Authority for municipalities to address lead is found under the powers granted through the public health code (N.J.S.A. 26:3A-2 et seq and N.J.A.C. Title 8).

All Tiers: Education and Outreach on Removing Lead in Drinking Water

Municipalities will provide education to residents on lead in drinking water. This information will describe what lead is, why it is harmful, ways that it gets into drinking water (e.g., lead service lines, lead in plumbing, lead in fixtures and appliances), what the water utility is doing to mitigate lead levels, and basic steps that can be taken by residents to mitigate its presence. This education can be accomplished by choosing two of the following options:

- Distribute printed materials addressing lead in drinking water to residents
- Host a town hall meeting on lead in drinking water.
- Develop a webpage on lead in the drinking water hosted by the municipality or a municipal agency such as the health department or water utility. Agencies with responsibility for multiple municipalities (such as regional health commissions or water utilities) may do this, but each municipality must demonstrate its role in developing the page or guiding residents to its information.
- Give at least three presentations to local social/civic groups on lead in the drinking water.
- Table at a town event (Green Fair, street fair, local sporting event, etc.) to distribute information on lead in drinking water.
- Work with local news media (print or digital) to place news articles addressing lead in drinking water.
- Other innovative approach (provide justification and number of residents reached).

Please Note: These actions are to be taken in addition to the required information on lead included in Consumer Confidence Reports.

Tier 1: Offer a Testing Program for Lead in Drinking Water

Municipalities can establish a free or reduced-cost voluntary testing program to allow residents to determine if their drinking water contains lead and at what concentrations. This program can be run directly through a municipal department, a utility that services the community, or through a partnership with a non-governmental agency. The program will provide free or reduced-cost test kits to residents. If lead is present, the municipality should provide further guidance to the resident on ways to mitigate its presence, resources for seeking additional help, and assistance tied to the lead concentrations found so that higher levels receive prompt and effective assistance, especially in households with young children. Key steps in completing this Tier include;

- Working with a local laboratory, utility or nonprofit to offer free or reduced cost test kits to residents.
- Establishing a location for collected water samples to be dropped off at a local site to be picked up by the lab for testing.

- Distributing test results from the lab to residents.
- If lead is present in water, include information on how to mitigate lead in drinking water with the results, as well as a list of local resources for further information, including the local board of health.

The testing program must have been active in the current or 2 previous years.

Tier 2: Require Lead Testing

The municipality will enact an ordinance that requires testing for the presence of lead in drinking water as a requirement for approving the transfer of real property (ownership), change in the use, or change in tenancy of a property for residential use. If lead is detected in the water, then the current owner would have to provide that information to the new tenants or owners, along with educational materials on lead and how to mitigate it. The new tenants or owners would then have to sign a form acknowledging receipt of the information and return it to the town in order for the transfer or change in tenancy to be approved.

Tier 3: Require Lead Remediation

The municipality will enact an ordinance that requires testing for the presence of lead in drinking water as a requirement for approving transfer of real property (ownership), change in the use or change in tenancy of a property for residential use. If lead is detected in the water, then the current owner would have to remediate the situation and have tests showing levels of lead that meet current New Jersey Department of Environmental Protection standards in order for the transfer or change in tenancy to be approved. There are a number of different solutions for lead remediation, ranging from the installation of filters at the tap to removal of lead service lines. Since lead could be present in the service lines, plumbing, or in a fixture, there is no "one size fits all" solution for remediation.

What to submit to earn points for this action

In order to earn points for this action, the following documentation must be submitted as part of the online certification application in order to verify that the action requirements have been met. All tiers require education and outreach aimed at increasing awareness of the health hazards associated with lead in drinking water and the municipal requirements regarding lead testing and remediation.

- **Description of Implementation:** Provide a short summary of the lead education and outreach efforts completed including the activities completed and audiences reached. In addition, include the following information for the specific Tiers for which points are being requested:
 - **Tier 1:** How the lead testing program was implement including the start date (and end date, if applicable); retail cost of the test kits and what residents had to pay; the number of kits distributed; and information available to the public regarding test results (i.e. significant trends in the number of test kits that show elevated levels of lead). The testing program must have been active in the current or two previous years.
 - **Tier 2 or 3:** When the ordinance was adopted, how information regarding the ordinance requirements is shared with the public, and how the ordinance is enforced. The ordinance must be in effect at the time a municipality is applying for certification.
- **Upload:** In order to substantiate the outreach effort, please upload flyers, calendar notices, or other advertisements of events; and copies of any printed materials created and distributed and/or links to any web pages or other online media that was created depending on the tier(s) for which credit is sought.
 - **Tier 1:** Upload a flyer, newsletter clipping, or any other marketing materials used to advertise the testing program.
 - **Tier 2 or 3:** Upload a certified copy of the adopted ordinance or provide the ordinance name, citation and link to the ordinance in an online municipal code book.

Resubmission Requirements

To resubmit for points under this action update the submission to include the information requested in the What to submit to earn points for this action section of this action related to education and outreach efforts and lead testing programs (Tier 1) in the current or previous two years.

Approved Action Expiration Date

Approved actions in all three Tiers will be set to expire after 2 full calendar years. For example, an action approved in the 2020 certification cycle will be set to expire on December 31, 2022.

IMPORTANT NOTES:

There is a limit of six uploaded documents per action and individual files must not exceed 50 MB. Excerpts of relevant information from large documents are recommended.

All action documentation is available for public viewing after an action is approved. Action submissions should not include any information or documents that are not intended to be viewed by the public.

Gold Star Standard

Health: Successful completion of Tier 2 (15 points) of this action will meet the requirement of a High Impact action for earning a Gold Star in Health.

Water: Successful completion of this action at the 15-point level will meet the requirement of a High Impact action for earning a Gold Star in Water. Successful completion of this action at any point level will meet the requirement of an Additional action for earning a Gold Star in Water.

For more information on earning Gold Stars in Health and Water, see the [Gold Star Standards](#) section of the website.

Spotlight: What NJ municipalities are doing

Hopewell Township (Mercer County)

No municipality has implemented a specific lead testing or remediation requirement. We provide this example of Hopewell Township as a municipality using their public health authority to enact and implement an ordinance to protect their citizens from the harmful effects of well water that does not meet state standards. Hopewell Township (Mercer) has adopted a well testing ordinance that goes above and beyond state requirements for wells and that states:

There shall be no transfer of real property, change in the use or change in tenancy of a property which utilizes an on-site public or private well water system for its potable water supply until the administrative authority or its authorized representative shall have issued a Letter of Review stating that the water system complies or does not comply with water quality standards specified by the NJ Safe Drinking Water Act N.J.S.A. 58:12A-1 et seq. and implementing rules N.J.A.C. 7:10 and the Private Well Testing Act Regulations N.J.A.C. 7:9E and any other parameters as specified by the health officer based on known contamination in this area.

Resources

The following resources may be helpful in completing this action.

Non-profit tap water testing programs: Currently, a number of nonprofits have established water testing programs to help residents learn about the presences of lead in their drinking water. Municipalities can use the links below to learn how these lead testing programs work.

[Raritan Headwaters](#) has partnered directly with many municipalities in their area to offer three types of tap water testing. One is for residents who use a community well; a second is for residents to test their private well and a third provides for residents to test the public water supply.

[Isles, Inc.](#) works with homeowners to test for lead in paint as well as in tap water.

[Watershed Institute](#) has a tapwatch program for residential testing of private wells and public water supply for lead and other known contaminants.

American Academy of Pediatrics, "Prevention of Childhood Lead Toxicity," July 2016.

<http://pediatrics.aappublications.org/content/138/1/e20161493#ref-15>

American Water Works Association, "How Have We Done in Reducing Lead in Water Since the LCR?" October 2018. <https://awwa.onlinelibrary.wiley.com/doi/pdf/10.1002/awwa.1167>

American Water Works Association, "National Survey of Lead Service Line Occurrence," April 2016.

http://media.mlive.com/news_impact/other/jaw201604cornwell_pr.pdf

American Water Works Association, "**Long-Term Lead and Copper Rule Federalism Consultation:**

American Water Works Association Comments,” March 13, 2018
<https://www.idsupra.com/legalnews/long-term-lead-and-copper-rule-58843/>

City of Evanston, “Drinking Water Lead Reduction Initiative,” September 5, 2018.
<https://www.cityofevanston.org/Home/ShowDocument?id=40861>

New Jersey Department of Environmental Protection, “Guidance for Developing a Lead and Copper Sampling Plan,” October 2017.
<https://www.nj.gov/dep/watersupply/pdf/lead-copper-spg.pdf>

New Jersey Department of Health, “No Safe Level of Lead,” April 28, 2017.
https://www.nj.gov/health/populationhealth/documents/PHAT_NoSafeLevelLead.pdf

United States Environmental Protection Agency, “Lead and Copper Rule Revisions White Paper,” October 2016.
https://www.epa.gov/sites/production/files/2016-10/documents/508_lcr_revisions_white_paper_final_10.26.16.pdf

United States Environmental Protection Agency, “Sources of Lead in Drinking Water,” August 21, 2017.
https://www.epa.gov/sites/production/files/2017-08/documents/epa_lead_in_drinking_water_final_8.21.17.pdf

Endnotes

¹ American Academy of Child & Adolescent Psychiatry, Lead Exposure in Children Affects Brain and Behavior, No. 45; Updated October 2017