



Illinois Environmental Protection Agency

1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276 • (217) 782-3397

Lead Service Line Replacement Plan Checklist

PWS ID No.: IL1190200

Name: Village of East Alton

Lead Service Line Replacement Plan Self-Assessment

This section should be completed after your plan has been developed to ensure it meets all sections required by Section 17.12 of the Environmental Protection Act.

Please certify the inclusion of each lead service line replacement requirement and note the location in the appropriate box. Failure to include any required information in the lead service line replacement plan will result in the plan be rejected.

Initials	Location (e.g. Pg. 3 Para. 6)	Please initial each box to confirm that that required section is included in the plan and include the page number and paragraph number for where that information can be found in the plan.	Citation
DB	cover	The name and identification number of the community water supply.	415 ILCS 5/17.12 (q)(1)
DB	1	The number of service lines connected to the distribution system of the community water supply.	415 ILCS 5/17.12 (q)(2)
DB	1	The total number and location of suspected lead service lines connected to the distribution system of the community water supply.	415 ILCS 5/17.12 (q)(3)
DB	1	The total number and location of known lead service lines connected to the distribution system of the community water supply.	415 ILCS 5/17.12 (q)(4)
DB	1	The total number and locations of lead service lines connected to the distribution system of the community water supply that have been replaced since 2020.	415 ILCS 5/17.12 (q)(5)
DB	5	A proposed lead service line replacement schedule that includes one-year, 5-year, 10-year, 15-year, 20-year, 25-year, 30-year goals.	415 ILCS 5/17.12 (q)(6)
DB	8	An analysis of costs and financing options for replacing the lead service lines connected to the community water supply's distribution system.	415 ILCS 5/17.12 (q)(7)
DB	8	A detailed accounting of costs associated with replacing lead service lines and galvanized lines requiring replacement.	415 ILCS 5/17.12 (q)(7)(A)
DB	8	Measures to address affordability and prevent service shut-offs for customers or ratepayers.	415 ILCS 5/17.12 (q)(7)(B)
DB	8	Consideration of different scenarios for structuring payments between the utility and its customers over time.	415 ILCS 5/17.12 (q)(7)(C)
DB	7	A plan for prioritizing high risk facilities such as preschools, day care centers, group day care homes, parks, playgrounds, hospitals, and clinics, as well as high-risk areas identified by the community water supply.	415 ILCS 5/17.12 (q)(8)
DB	Appendix	A map of the areas where lead service lines are expected to be found and the sequence with which those areas will be inventoried and lead service lines replaced.	415 ILCS 5/17.12 (q)(9)
DB	4	Measures for how the community water supply will inform the public of the plan and provide opportunity for public comment.	415 ILCS 5/17.12 (q)(10)
DB	8	Measures to encourage diversity in hiring in the workforce required to implement the plan as identified under subsection (n).	415 ILCS 5/17.12 (q)(11)
DB	3	Procedure for conducting full lead service line replacement.	40 CFR 141.84 (b)(2)
DB	6	Procedure for informing customers before a lead service line replacement and flushing directions to remove particulate lead form service lines and premise plumbing.	40 CFR 141.84 (b)(3), 40 CFR 141.84 (b)(5)

Please include a copy of this checklist when submitting the Lead Service Line Replacement Plan to the Illinois EPA.

Lead Service Line Replacement Plan

Village of East Alton

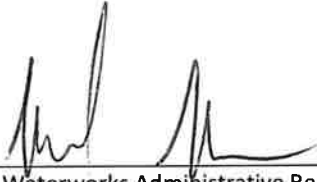
WATER SYSTEM NUMBER IL1190200

April 2024

New Plan Revised Plan Date:

Plan Certification

I have verified and certify the information listed in this Plan is true and accurate to the best of my knowledge and belief:



Waterworks Administrative Representative Signature

4-1-24

Date

Mike Moore, Public Works Director

Waterworks Administrative Representative Name and Title



Licensed Operator Signature

3/27/24

Date

Doug Booten, Operator ID #40589000 Class A

Licensed Operator Name and License Number

This plan will be reviewed and submitted annually:

April 15, 2025

April 15, 2026

April 15, 2027 Final Plan Approved and Posted

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- Map of Water Mains, Potential Lead Service Line Locations, Proposed Improvement Projects
- AWWA Standard C810-7 Replacement and Flushing of Lead Service Lines
- Cost Estimate Water Main and Service Line Replacement Victory-Bond-McCasland
- Cost Estimate Water Main and Service Line Replacement Smith-Herman-Pence-Shamrock
- Lead Informational Notice – Full-Service Line Replacement (Lead or Potential Service Line Containing Lead)

Section 1: Service Line Inventory

Date: March 12, 2024

Total Number of Service Connections: 2,407

Number of Lead Service Lines: unknown

Number of Lead Status Unknown Service Lines: 378

Number of Galvanized Requiring Replacement Service Lines: unknown

Number of Lead Service Lines Replaced Since 2020: 0

Number of Non-Lead Service Lines: 2,029

Map of Lead Status Unknown Services: See Appendix

Section 2: Strategy for determining the composition of lead status unknown service lines in the inventory

The Water System determined the composition of lead status unknown service lines in its inventory by historical records and mechanical excavation.

The remaining services for which the material is unknown will be considered lead and/or lead gooseneck and will be scheduled for replacement.

As the Village completes water main repairs and water main replacements the status of any unknowns in the area will be determined and updated in the LSL Inventory.

Section 3: Procedure for conducting full lead service line replacement

When conducting full lead service line replacement projects, the Water System implements the procedure outlined [ANSI/AWWA C810-17 Replacement and Flushing of Lead Service Lines](#).

A copy of this standard is included in the Appendix.

Section 4: Procedure for informing customers of the plan & provide opportunity for public comment

The Village provides a newsletter to all residents at least 3 times per year. Upon IEPA approval of the final plan, the Village will include information on the plan and notice that the plan can be reviewed through the link on the Village website [Home - Village of East Alton \(eastaltonvillage.org\)](http://eastaltonvillage.org).

The opportunity to provide comments on the plan will be included in the newsletter.

Section 5: Lead service line replacement goal rate & replacement schedule

Since the Water System has 378 service lines of undetermined material (on the Water System side and on the customer side), the System will schedule to fully replace these 378 services lines.

An annual replacement rate of 7% and a completion time of 15 years is expected for 1 – 1,200 service line replacements.

In addition, USEPA is working on legislation under the Proposed Lead and Copper Rule Improvements that would require 100% lead pipe replacement within 10 years. This Rule has not been passed.

Assuming 7% per year, the Water System would be required to replace 26.5 per year. That rate would require 15 years to complete the replacements.

East Alton has identified two (2) areas of proposed water main and service line replacement which they would like to have funding approved and construction starting in August 2025. These areas are shown on the map and contain 114 suspected service lines. Completion of these replacements in 2025 and scheduling for the remaining replacements would be as follows:

<u>Total Unknown Water Service Lines</u>	<u>378</u>
Total to be replaced in 2025	114 (30%)
Total proposed to be replaced in 2026	27
Total proposed to be replaced in 2027	27
Total proposed to be replaced in 2028	27
Total proposed to be replaced in 2029	27
Total proposed to be replaced in 2030	26
Total proposed to be replaced in 2031	26
Total proposed to be replaced in 2032	26
Total proposed to be replaced in 2033	26
Total proposed to be replaced in 2034	26
<u>Total proposed to be replaced in 2035</u>	<u>26</u>
Lead and/or Unknown Lines Remaining	0

The majority of the unknown service lines are in locations where the water main and service meters have reached their useful life and will therefore be replaced as part of the service line replacement.

In addition, 90% of the service meters are located inside of the service residence. The Water System would like to move these service meters to a meter pit. This requires replacing the service main to within 18 inches inside the residence and providing a spool in place of the inside meter.

A cost estimate for the two (2) areas proposed for water main replacement and service line replacement in 2025 is included in the Appendix.

Section 6: Strategy for informing customers before a service line replacement

Before a service line replacement, the Water System will provide information to customers with lead/galvanized requiring replacement and unknown material service lines. A copy of the Lead Informational Notice is included in the Appendix.

The Water System will notify customers at least 45 days prior to the replacement of the service line.

The Water System will utilize door-to-door conversations and door hangers for informing customers of a service line replacement. Additionally, notification of the any areas of proposed water main replacement and/or service line replacement will be posted on the Village Website [Home - Village of East Alton \(eastaltonvillage.org\)](http://eastaltonvillage.org).

Section 7: Lead service replacement prioritization strategy

The Water System has mapped the areas of unknown service lines.

It was determined that the suspect areas marked for replacement do not contain preschools, day care centers, group day care homes, parks, playgrounds, hospitals, and clinics.

Section 8: Funding strategy for conducting lead service line replacements

The Water System will fund the first year of lead service line replacements by applying for a low interest loan from the IEPA DPWS loan program [Lead Service Line Replacement Loans \(illinois.gov\)](https://www.illinois.gov/IEPA/Programs/Lead-Service-Line-Replacement-Loans). All lead service line replacement loans have an interest rate of 0% and a loan term of 30 years or 40 years. Principal Forgiveness is a possibility for projects which score the highest and are considered located in an area classified as a disadvantaged community.

East Alton's Medium Household Income (MHI) from the US Census Bureau is \$48,313. This is lower than Illinois's MHI \$76,708, thereby qualifying East Alton as "disadvantaged".

It is intended that initial loan application requirements be completed and submitted to the agency this summer of 2024. It is anticipated that the system will have planning approval by March 31, 2025, making it eligible to be included on the Intended Funding List put out by the agency around July 1, 2025. Construction would begin in August 2025.

The Water System plans to incur the cost of replacing full lead service lines and galvanized containing lead solder service lines including the customer side.

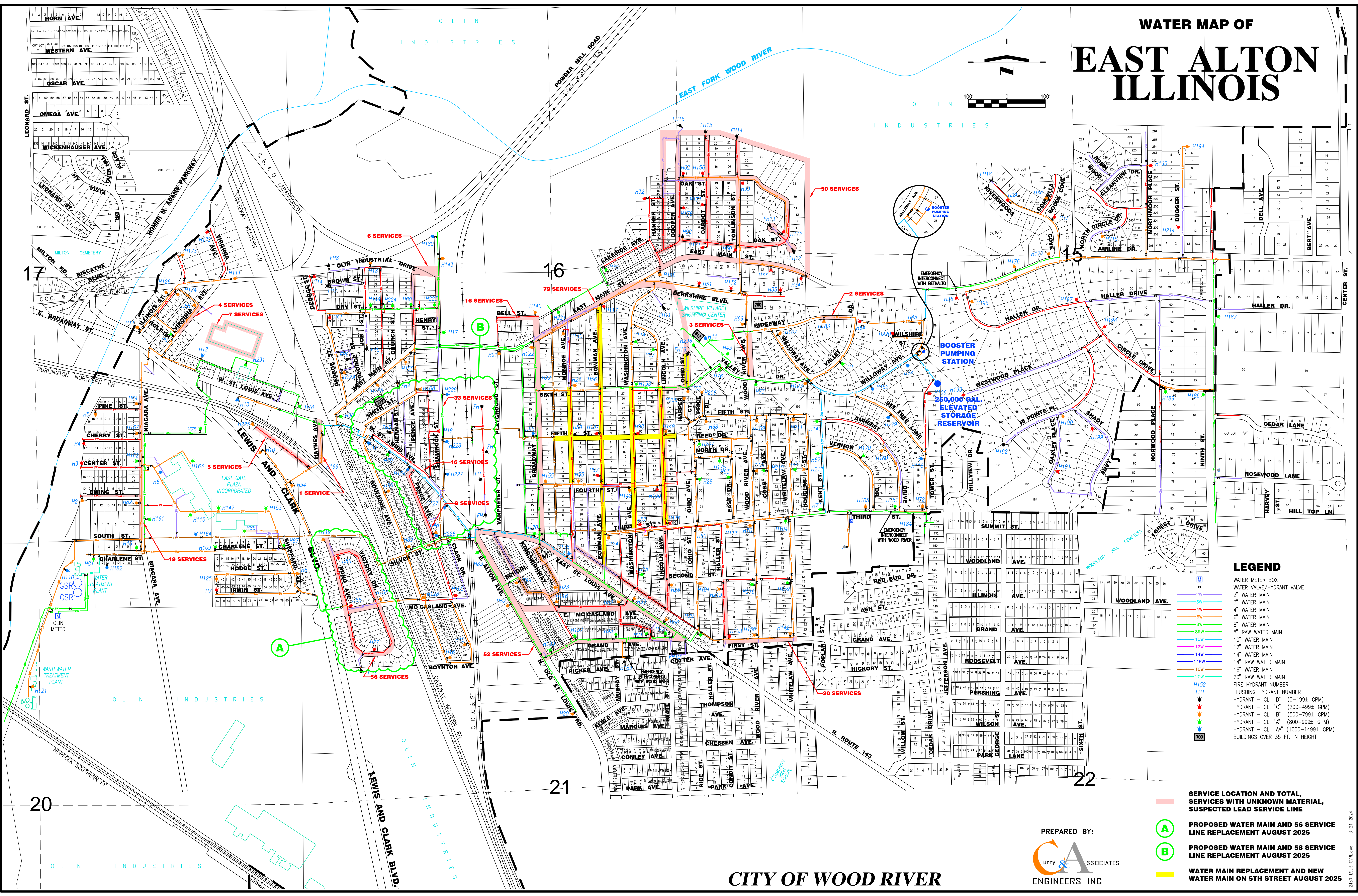
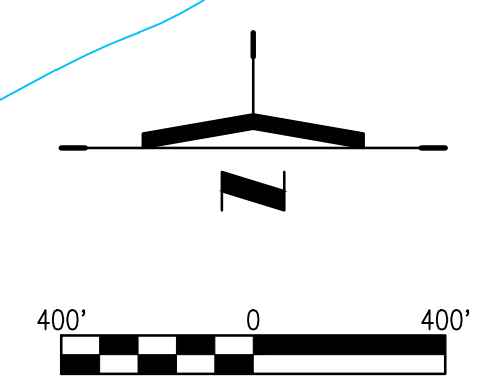
The IEPA DPWS loan program requires that the borrower demonstrate their ability to pay for the loan. This includes the development of a 5-year financial projection and water rate analysis which includes the expected annual loan payment. The Water System will be required to raise their rates accordingly.

This program funding requires construction contract bidders to advertise for disadvantaged businesses during the bidding process.

As part of the IEPA loan process the Water System will include a request for funding for water main replacement on Monroe Ave, Bowman Ave, Washington Ave, Lincoln Ave, Ohio Street, and a new water main on Fifth Street. The existing cast iron water mains in this area have reached their useful life. The existing main on Ohio Street is a 2 inch. The new main on Fifth Street is intended to improve circulation in the area. There are approximately 47 undetermined service mains in this area which would be determined.

It is estimated that a service main replacement can cost \$2,500 to \$4,000 depending on how long the service is and what side of the street the main is on. Assuming the average cost of service line replacement is \$3,200, the Village will need to budget \$86,400 per year for the replacements remaining after 2025. It has been hypothesized that around 30% of the undetermined service mains are not lead or lead solder.

WATER MAP OF EAST ALTON ILLINOIS



- ### LEGEND
- WATER METER BOX
 - WATER VALVE/HYDRANT VALVE
 - 2" WATER MAIN
 - 3" WATER MAIN
 - 4" WATER MAIN
 - 6" WATER MAIN
 - 8" WATER MAIN
 - 10" WATER MAIN
 - 12" WATER MAIN
 - 14" WATER MAIN
 - 16" WATER MAIN
 - 20" RAW WATER MAIN
 - FIRE HYDRANT NUMBER
 - FLUSHING HYDRANT NUMBER
 - HYDRANT - CL "D" (0-199± GPM)
 - HYDRANT - CL "C" (200-499± GPM)
 - HYDRANT - CL "B" (500-799± GPM)
 - HYDRANT - CL "A" (800-999± GPM)
 - HYDRANT - CL "AA" (1000-1499± GPM)
 - BUILDINGS OVER 35 FT. IN HEIGHT

- SERVICE LOCATION AND TOTAL SERVICES WITH UNKNOWN MATERIAL, SUSPECTED LEAD SERVICE LINE
- PROPOSED WATER MAIN AND 56 SERVICE LINE REPLACEMENT AUGUST 2025
- PROPOSED WATER MAIN AND 58 SERVICE LINE REPLACEMENT AUGUST 2025
- WATER MAIN REPLACEMENT AND NEW WATER MAIN ON 5TH STREET AUGUST 2025

PREPARED BY:

 CORRY & ASSOCIATES
 ENGINEERS INC.

CITY OF WOOD RIVER



**American Water Works
Association**

Dedicated to the World's Most Important Resource®

ANSI/AWWA C810-17
(First Edition)

AWWA Standard

Replacement and Flushing of Lead Service Lines

SECTION 1: GENERAL

Sec. 1.1 Scope

This standard describes essential procedures for the replacement of lead water service lines and flushing following replacement. Essential procedures include the following: appropriate tools and techniques; flushing a service line after replacement; factors to consider in optimizing flushing; and instructions to provide customers affected by the replacement, including additional risk reduction measures. This standard also describes procedures for partial replacement and repair situations where complete lead service line replacement is not possible or practical.

Sec. 1.2 Purpose

The purpose of this standard is to define the minimum process requirements for the replacement of lead service lines and for flushing following replacement.

Sec. 1.3 Application

This standard can be referenced in the purchase documents for the replacement of lead service lines and can be used as a guide for the appropriate replacement tools and techniques, flushing practices and procedures, communications with customers, and verification of successful completion. The stipulations of this standard apply when this document has been referenced and only to the extent referenced.

SECTION 2: REFERENCES

This standard references the following documents. In their latest editions, they form a part of this standard to the extent specified within the standard. In any case of conflict, the requirements of this standard shall prevail.

AWWA—*Communicating About Lead Service Lines: A Guide for Water Systems Addressing Service Line Repair and Replacement*.

Safe Drinking Water Act (SDWA), 42 USC* 300.

USEPA†—Lead and Copper Rule (LCR), 40 CFR 141.

SECTION 3: DEFINITIONS

The following definitions shall apply in this standard:

1. *Constructor*: The party who provides the work and materials for placement or installation.
2. *Corporation stop*: A valve attached to the water main to which a service line is connected. It is used to interrupt flow during installation or maintenance of the service line (see Figure 1).
3. *Curb stop*: A valve installed in the service line, generally at the property line, and accessible for operation from the surface of the ground for routinely interrupting flow through the service line (see Figure 1).
4. *Customer*: The person, company, or organization receiving potable water service from the utility to a specific premise.
5. *Gooseneck*: A sweeping bend in a service line where it connects to the water main, resembling the shape of a goose's neck, that will allow soil movement without damaging the service line (see Figure 1).
6. *Manufacturer*: The party that manufactures, fabricates, or produces materials or products.
7. *Potable water*: Water that is safe and satisfactory for drinking and cooking.
8. *Purchaser*: The person, company, or organization that purchases any materials or work to be performed.

* United States Code, 732 North Capitol Street, NW, Washington, DC 20401-0001.

† US Environmental Protection Agency, 1200 Pennsylvania Avenue, NW, Washington, DC 20460.

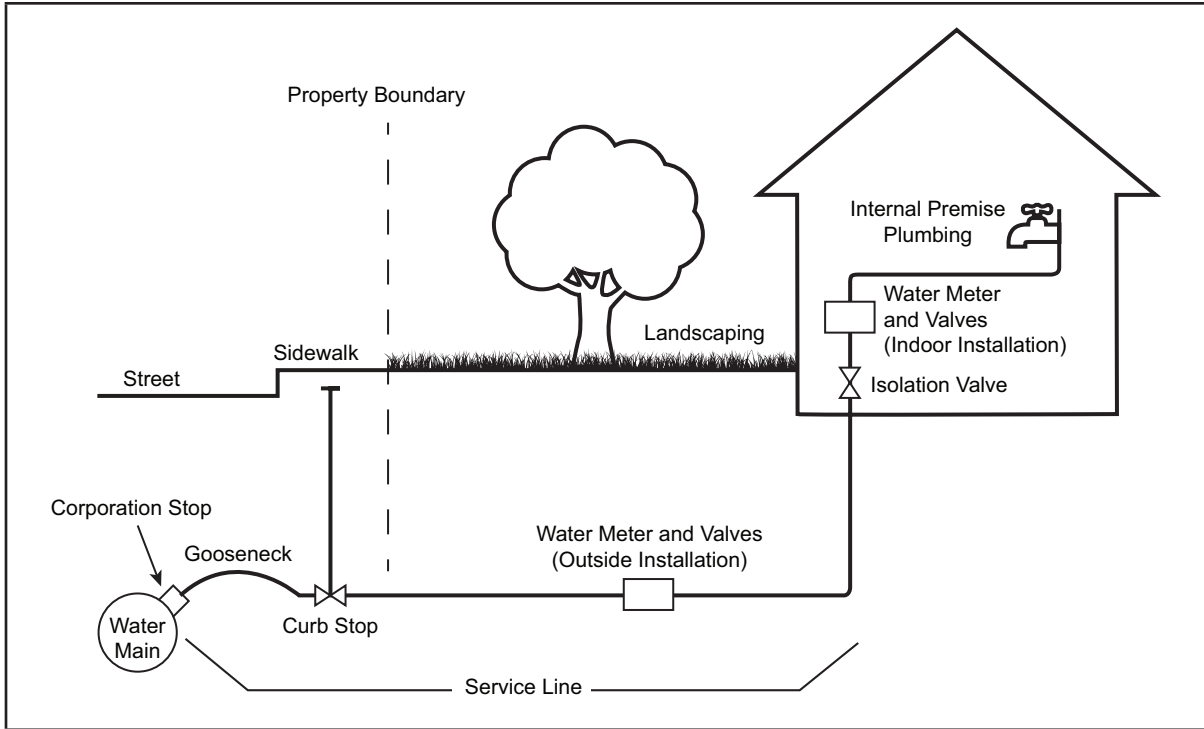


Figure 1 Typical water service line components

9. *Service line:* The pipe that runs between the utility's water main and the specific premises' plumbing, including both the portion owned by the utility, if any, and the private service line owned by the property owner (see Figure 1).

10. *Utility:* The organization or entity with the primary purpose of providing a designated area with potable water service.

11. *Water main:* The water pipe from which the domestic water supply is delivered by the utility to the service pipe leading to specific premises (see Figure 1).

12. *Water meter:* An instrument used for recording the quantity of water passing through the service line to specific premises. Water meters are typically installed with valves on inlet and outlet sides of the meter (see Figure 1).

SECTION 4: REQUIREMENTS

Materials shall comply with the requirements of the Safe Drinking Water Act and other federal regulations for potable water systems as applicable.

Water can be naturally corrosive and often dissolves lead as a result of water's contact with the service line as well as other plumbing components. A number of sampling and analytical techniques are available for customers to determine the

level of lead in their drinking water. Some of these tests are collected and/or analyzed by the local water provider. Other tests may be conducted by the customers themselves but should be in compliance with sampling and analytical techniques accepted by the local utility. The data captured from the various tests can be used to assist the utility in adjusting the water chemistry by modifying the application of corrosion control chemicals.

Utility personnel should consider that the level of dissolved and particulate lead within the homes and/or businesses of their customers may be greater than the levels within their system based on the potential leaching from service lines and internal premise plumbing components. Lead service lines potentially represent the largest mass of lead in regular contact with potable water, hence the interest in removing lead service lines in their entirety. Utilities should also consider that lead levels may vary based on chemical and physical conditions, level of disturbance to the piping, sampling technique, and other factors when determining the number of samples to be collected. A single sample may not be adequate in determining how much lead is being released.

For planned lead service line replacements, the utility shall establish replacement agreements to be reviewed with and accepted by the customer before any work being accomplished. These agreements should detail the responsibilities of the customer as well as those of the utility and should be intended to reduce any ambiguity about what is to be accomplished and by whom. Any financial requirements essential to the completion of the project should also be identified.

Sec. 4.1 Location and Replacement of Lead Service Lines

The replacement of lead service lines can be generally accomplished by one of the following ways:

- Open cut full replacement—traditional technology with excavation on the full length of service line to be replaced.
- Trenchless replacement on new routes—methods such as directional drilling or pneumatic or hydraulic ramming tools (boring tools) to pull in the new service line on a new route (cutting and leaving the existing lead service in place and replacing it using a new service line).
- Trenchless replacement on existing routes—methods such as pipe splitting and/or pulling the existing lead service that is being replaced with a new pipe using the existing service line route (pipe splitting leaves the existing lead service in the ground, pulling removes the existing lead service line).

4.1.1 *Locating lead service lines.* In order to replace the existing lead service line, the line must be appropriately identified and located. Some agencies have a database detailing the locations of their lead service lines. Such a record simplifies that portion of the replacement process. Other water providers do not have accurate records reflecting the locations of the lead assets. In this case, other means of identification shall be employed. It is highly recommended that utilities use more than one method of confirming the actual locations of the lead service lines. Utilities should record the service line material when observed during repairs, inspections, or other quality reports. Utilities should be aware that it is at times difficult to verify that a service line contains no portions made of lead, and that some degree of uncertainty may exist in a utility's inventory of lead service lines.

4.1.1.1 Identifying lead service lines at the meter, corporation stop, curb stop, or service box. Lead service lines can sometimes be identified at the main, curb stop, or meter box outside the house or adjacent to the meter inside the house. Typically, lead service lines have a distinctive "bulb-looking" section near the end at a brass, galvanized, compression, or other fitting that connects the service. The absence of the "bulb" section does not confirm the absence of lead. The observation of lead pipe in one location does not confirm the entire service line is lead. It is possible a portion of the lead service was previously replaced during repair or maintenance activity.

4.1.1.2 Using the scrape test to confirm the lead service line. Lead is a gray, nonmagnetic (a magnet will not stick to lead pipe), and relatively soft material compared with other pipe products. A coin scraped along the exterior of a lead pipe will create an indent and reveal a shiny-silver color. Care must be taken not to go too deep to avoid puncturing the pipe. Workers should use appropriate personal protective equipment, such as gloves and eye protection, to prevent exposure to lead. The scrape test identifies solid lead service lines. It will not identify lead-lined iron pipe.

4.1.1.3 Identifying lead service lines by water quality sampling. The concentration of lead found in the water sample can indicate if a lead service line is likely. A sample of the water from the service line should be taken to determine the level of lead. The line should be allowed to sit with no flow for at least 6 hours before sampling. Whether the water meter is inside the building, outside the building, or in an area that is unmetered, it is critical to flush a specific amount of water and then take a sample to be tested. The amount flushed prior to sampling should flush at least the volume of premise plumbing between the service line and the sampling tap. A single test may not be the most effective indicator of the existence of a lead service. The

minimum lead concentration will be system specific, and multiple samples may be required to ensure the lead is not from lead solder or other internal plumbing sources. A low or nondetect lead sample cannot be used to verify the absence of a lead service line. Utilities should use care in interpreting water samples collected at one point in time because of the variability of lead occurrence in samples.

4.1.1.4 Utilizing hydro-excavation to determine the presence of lead. The hydro-excavation process creates a small boring hole to expose the service line at a depth at the water main, the curb box, and/or the meter box, allowing visual observation to identify whether the service line (or a portion) is lead or not. Care should be taken to minimize any physical disturbances to the pipe.

4.1.1.5 Full test-pit excavation. Dig or excavate a large pit down to the service line to expose the pipe. This method could physically disturb the pipe.

4.1.1.6 Other lead service identification techniques. A number of other techniques are used or offered for consideration to locate the presence of lead service lines. When considering other techniques, the utility should make sure such techniques minimize any physical disturbances to the pipe.

4.1.2 *Preparation.* Before the replacement of the lead service line, a number of related preparatory activities shall take place.

4.1.2.1 Customer notification. The impacted customers shall be notified to identify the process established for replacement, whether full or partial. Most agencies have agreements to be signed by both parties reflecting the responsibilities relative to the replacement effort. The type of replacement, the schedule, and other pertinent items shall be covered appropriately with the customer before the replacement activity. The customer notification should include any postreplacement responsibilities, such as flushing or the use of filters, and should include directions to the customer to make the workspace ready and safe prior to the replacement activity. Customers should also be made aware of the risks of a partial replacement, where applicable (see Sec. 4.2).

4.1.2.2 Underground utility locates. The location of other underground utilities shall be done prior to the work to avoid utility strikes and is critical to the success of the lead service line replacement. Locates shall be scheduled in a timely manner without disruption to the established work plan.

4.1.2.3 Lead service replacement plan. A replacement plan shall be established for the work crews to reflect the schedule of the effort, the typical amount of time the customers will be impacted, and so on. This information shall be used to inform the customer of the coming replacement activity and communicated to the customer in a timely manner.

4.1.2.4 Water shutoff and service line isolation. Prior to beginning the replacement work, the water supply to the service line and the customer shall be shut off to avoid release of particulate lead into the customer's premises caused by vibration of the service during any excavation. The service line to be removed shall be isolated by shutting off appropriate valves at each end of the area to be removed.

4.1.3 *Open-cut full replacement of lead service lines.* The open-cut full replacement approach to lead service line removal involves the extraction of all the surface treatment and earth material above the level of the pipe. Care must be taken because other underground utilities, including the water main, may have not been properly located.

4.1.3.1 Proper equipment and material usage for open-cut full replacement. The excavation equipment used for the open-cut full replacement approach shall be sized to accommodate the full depth of the hole. Safety precautions shall be taken in consideration of the customer's property as well as any local pedestrian and/or vehicular traffic.

4.1.3.2 Use of adequate trench safety. Based on the depth of the excavation, an adequate level of trench safety shall be used to guarantee compliance with applicable requirements.

4.1.3.3 Lead service line removal. Once properly exposed and identified, the existing lead service line shall be disconnected from the main as well as the customer's side of the connection. When a utility elects to remove the lead pipe from the ground, the discarded lead line shall be carefully cut or bent into manageable sections and taken for processing for ultimate disposal. The amount of lead removed and the location of the removal along with any other pertinent information shall be documented. If the existing lead pipe is left in the ground, the impacted customer(s) should be made aware of the abandoned pipe.

4.1.3.4 Connecting the new service line. The new pipe shall be measured and placed with enough material to properly connect to the main as well as to the customer's side. The new pipe material shall comply with the requirements of the Safe Drinking Water Act and other federal regulations for potable water systems as applicable. When dissimilar metals are to be connected, a dielectric fitting shall be used to prevent galvanic corrosion (see Sec. II.E regarding grounding of electrical circuits on piping).

4.1.3.5 Backfill and surface restoration. Select bedding and/or a specified fill material, in conjunction with the identified surface treatment, shall be placed in a manner consistent with all applicable requirements to reduce or eliminate the possibility of settling beyond the allowable amount along the course of the excavation.

4.1.4 *Trenchless replacement on new routes.* The directional drilling or pneumatic/hydraulic installation methods of replacing lead service lines make use of a pilot hole that is created by drilling or pneumatically or hydraulically pushing a rod into the soil from an open access pit at the main to an access pit at the meter box or at an area adjacent to the wall where the new service will be connected on the customer's side. In a number of these installation scenarios, the existing lead pipe is disconnected on either end and left in place. When the existing lead pipe is left in the ground, the impacted customer(s) should be made aware of the abandoned pipe.

4.1.4.1 *Required access pits.* Based on the length of the service to be replaced, access pits shall be excavated down to the depth of the main on one side and to the depth of the service connection on the customer's side. As with any excavation, utility locates shall be requested and received prior to the work being performed, and all applicable trench safety devices shall be used. If the distance between the access pits is great or other underground utilities that are a cause for concern exist, an intermediate access pit may be required.

4.1.4.2 *Proper use of boring tools.* The boring tool shall be placed in the launching access pit level and pointed in the direction of the receiving pit. The horizontal and vertical directions of the tool shall be monitored until it reaches the receiving pit. Proper service line installation depth is critical and must be maintained in accordance with local requirements.

4.1.4.3 *Connecting the new service line.* Once the boring tool reaches the receiving pit, the new service line shall be connected to the boring tool and pulled through the bore hole with enough length of the new service pipe material to add fittings to connect to the main as well as on the customer's side. When dissimilar metals are to be connected, a dielectric fitting shall be used to prevent galvanic corrosion (see Sec. II.E regarding grounding of electrical circuits on piping).

4.1.4.4 *Backfill and surface restoration.* Select bedding and/or a specified fill material, in conjunction with the identified surface treatment, shall be placed in the access pits in a manner consistent with all applicable requirements to reduce or eliminate the possibility of settling beyond the allowable amount along the extent of the excavation.

4.1.5 *Trenchless replacement on existing routes.* The pipe-splitting method employs the use of a tool pulled through the existing lead service line that splits the pipe. The existing lead service line remains in the ground and a new service line is pulled into place. Another related method is to disconnect the lead service on each end and to connect a fitting to one side with an extraction device and to connect

the new pipe material on the other end in order to pull the new service into place, while removing the existing lead service line.

4.1.5.1 Required pipe- splitting and -pulling access pits. As in the directional drilling and pneumatic/hydraulic installation approaches, access pits shall be excavated to the depth of the main on one side and to the depth of the service connection on the customer's side. Other underground utility locates shall be obtained prior to the work, and all applicable trench safety devices shall be used.

4.1.5.2 Use of the splitting tool. Care must be taken to disconnect the existing lead service line and to cut it in a manner that facilitates pushing a cable through it with the splitting tool attached. The splitting tool is then used to displace the existing lead pipe and draws the new pipe material through it to the other end of the project. When the existing lead pipe is left in the ground, the impacted customer(s) should be made aware of the abandoned pipe.

4.1.5.3 Connecting the new service line. Once the splitting tool reaches the receiving access pit, the new service line shall be pulled through to allow enough material to adequately connect to both sides. When dissimilar metals are to be connected, a dielectric fitting shall be used to prevent galvanic corrosion (see Sec. II.E regarding grounding of electrical circuits on piping).

4.1.5.4 Backfill and surface restoration. Select bedding and/or a specified fill material, in conjunction with the identified surface treatment, shall be placed in the access pits in a manner consistent with all applicable requirements to reduce or eliminate the possibility of settling beyond the allowable amount along the extent of the excavation.

Sec. 4.2 Partial Replacements

4.2.1 *General.* It may not always be practical or possible to replace all of a lead service line at the same time. Coordination among the utility, the property owner, and constructor could result in situations in which partial replacement may be unavoidable. Although every effort shall be made to avoid partial replacements, it may be necessary to accommodate partial replacement situations as an interim measure. Partial replacement is not desirable because of the potential for increased release of lead into the water. This section describes additional requirements and recommendations for partial lead service line replacements.

4.2.2 *Existing conditions.* For services where partial replacements have previously occurred and a portion of the service still contains lead pipe, it is recommended that these locations be identified and re-evaluated for removal of the remaining material. For example, some utilities, property owners, or constructors,

through the course of routine maintenance and repairs, may have replaced portions of lead services with alternative materials without having replaced the remainder of the service either to the main or into the property.

4.2.3 Delayed replacement. Situations will occur in which a lead service line might not be fully replaced and a portion is left for later replacement. Coordination among all stakeholders during a lead service line replacement is critical. When it is necessary to complete a total lead service line replacement where both the utility and the property owner are responsible for portions of the work (i.e., up to the property line and beyond the property line), all parties should perform the work in close succession to minimize the potential for utilization of the service before completion of the total replacement. However, there may be instances in which one party completes its portion of the work in advance of the other party being available or willing. The scope of replacement may be large for some communities, and thus the time required to complete all the work may be long. In either of the delay cases presented below, the utility shall record that all portions of the service have successfully been replaced after notification of successful completion of full replacement. Communications regarding the effect of partial service line replacement should occur as covered in Sec. 4.3.

4.2.3.1 Property owner delay. On completion of the utility-owned portion of a lead service line replacement, the property owner should complete replacement of their portion as well. However, given the logistics of this work and the likely need for the property owner to hire an independent contractor, there may be a period during which the old and new portions of the service will be connected to allow for the continued supply of water but the lead replacement is only partially complete. During the interim period, the property owner shall be provided clear guidance regarding the increased risk of lead entering the water associated with the partial-replacement condition. Refer to Sec. 4.3 with respect to communication during this period.

4.2.3.2 Utility delay. If a property owner replaces a portion or all of the service line from the home to the property line, the utility should make every effort to obtain documentation of the replacement for its inventory. In most cases the utility will learn of the work after it is completed. If the property owner notifies the utility in advance, the utility should try to schedule a mutually convenient time to perform its portion. When this is not achievable, the property owner shall be provided with clear guidance regarding the increased risk of lead entering the water associated with the partial-replacement condition. Refer to Sec. 4.3 with respect to communication during this period.

4.2.4 *Partial replacement.* It is possible that a portion of the service may contain lead, be out of the utility's responsibility, and subsequently not be replaced. This circumstance may exist for a variety of reasons including cost, miscommunication, misunderstanding of the issues, ambivalence, or social defiance.

4.2.4.1 *Property owner refusal.* Given the potentially high cost associated with service line replacement and the challenges that may arise with performing the work, it is conceivable to anticipate that some property owners may elect to do nothing. When this condition occurs, the utility shall follow the recommendations presented herein for dielectric connection of dissimilar metals, flushing, and testing. Documentation of the refusal, or at a minimum documentation that a portion of lead material remains (including its location and quantity), will be important for the utility to maintain complete records of the lead service line replacement progress/program. The customer should receive all necessary information regarding future risk.

4.2.4.2 *Incentive program verification.* If financing or incentive programs are available to property owners, utilities will need to be cautious about validating that property owner portions of lead services have been replaced, in their entirety or at all. A method for verifying work performed and recording completed work will be necessary.

4.2.4.3 *Cutting of lead service lines.* After customer notifications and utility locates have been accomplished, the specific location of the lead pipe to be cut shall be identified. The proper cutting tools shall be identified to reduce the amount of lead displaced from the cut. A cutting tool such as a pipe cutter or pipe shearing device that reduces lead particles and disturbance is preferred to other tools that use a sawing or other abrasive action. The necessary safety equipment shall be used, including safety glasses and/or goggles and safety gloves. Care shall be taken while cutting the lead pipe to reduce the amount of lead shards from traveling and/or accumulating in the remaining service line sections. The lead service line sections remaining shall be connected and secured to reduce or eliminate the possibility of water leakage. When dissimilar metals are to be connected, a dielectric fitting shall be used to prevent galvanic corrosion. The discarded lead service line shall be carefully cut or bent into manageable sections for processing for ultimate disposal. The replacement section should be a pipe material in compliance with all federal, state, and local requirements. The amount removed as well as specific locations of the remaining sections should be documented. The replaced service line shall be turned on and checked for leaks

in a manner that does not expose the customer's side to potential lead fragments. Flushing shall be accomplished in a manner consistent with Sec. 4.4.

Sec. 4.3 Communications and Instructions to Customers

4.3.1 *General.* It is important to inform all customers that may be affected by lead service line activities. The utility shall provide communication to customers regarding the following items:

1. Advanced notice of planned lead service line replacement projects (45 days prior is recommended).
2. Informational point-of-contact for the project.
3. Additional notice prior to actual planned work affecting service line (day prior).
4. On-site utility point-of-contact during construction.
5. Postconstruction instructions regarding customer flushing, use of a point-of-use (POU) filter or bottled water, water sampling, and testing to be completed.
6. Clear guidance regarding the increased risk of lead entering the water associated with a partial lead service line replacement condition (if a full-service line replacement was not completed). Customers with partial replacements should avoid consuming their water unless they are using a filter certified for lead removal or they should consume bottled water until sample results show that their lead levels are less than the regulatory guideline.

In addition to water shutoff and service-line-isolation actions (Sec. 4.1.2.4), customers should be advised not to use water during excavation and construction activities.

Additional guidance to utilities for completing these customer communications is available in the foreword of this standard and in the AWWA document *Communicating About Lead Service Lines: A Guide for Water Systems Addressing Service Line Repair and Replacement*.

Sec. 4.4 Flushing Service Lines After Full or Partial Replacement

4.4.1 *Flushing by the utility immediately after lead service replacement.* After all connections have been completed, flush the water from an outside connection (such as hose-bib or hose leading from the house side of the meter installation) to remove any particles in the service line and near point-of-entry. The flushing is best done, if possible and practical, before the meter is connected in the service using a "jumper" or straight pipe in place of the meter. The straight pipe will allow for a higher velocity flush and protects the meter from potential damage from lead pipe and other construction-related fragments. Flush at full velocity for at least

10 minutes. If the meter was replaced with a “jumper,” it may be reconnected in the service after utility flushing. Following completion of flushing by the utility, the customer shall flush the interior premise plumbing as described in Sec. 4.4.2.

In situations where flushing by the utility is not performed, the customer should be notified with instructions to flush before using any water.

4.4.2 Flushing by the customer after lead service replacement. The customer should flush all interior premise plumbing the same day or before next water use following the replacement. Subsequent flushing by the customer should be done once every two weeks for three months or at other intervals based on monitoring results if available. Utilities may want to encourage best times to flush based on water demand and operations (for example, when neighbors’ water usage is low, e.g., midmorning to dinner time or late at night). Customers shall be advised to not use hot water in the premise plumbing until initial flushing is completed to prevent sedimentation of lead particles in premise hot water tanks.

4.4.2.1 Suggested instructions for customers.

1. Find all the faucets that will drain, including the basement and all floors in your house.
2. Remove aerators and screens whenever possible, including the shower heads, from all faucets you plan to flush.
3. Include the laundry tubs, hose-bibs, bathtubs, and showers as flushing points.
4. After all the aerators are off, open the faucets in the basement or lowest floor in the house. Leave all faucets running at highest rate possible, using cold water.
5. After the faucets are all open in lowest floor, open the faucets on next highest floor of the house. Continue until faucets are open on all floors.
6. After all faucets are opened, leave the water running for at least 30 minutes.
7. After 30 minutes, turn off the first faucet you opened and continue to turn off other faucets in the same order you turned them on.
8. Clean aerators/screens at each faucet. You may need to replace screens/aerators if too old or worn.

Utilities and customers may consider an optional approach by coordinating a targeted flush of a few faucets at a time before opening all the faucets for the whole house flush. The targeted flush would start with a pattern of opening all faucets in a single area or single floor and then moving to the next to increase the flow velocities, followed by the whole house flush described above, with all faucets open.

4.4.2.2 Additional daily miniflush. As a precaution, the customer should do a miniflush of premise plumbing by running tap water each morning or when the water sits in the pipe for at least 6 hours. Flush for 5 minutes to displace water that has been sitting in the pipes inside the house and in the service line. This could include taking a shower, running the dishwasher, flushing a toilet, collecting water for plants/garden, or running the faucet. The customer should do this before using any water for drinking, cooking, infant formula, and so on. Daily miniflushes should continue for six months or until lead sample results show the lead level is below the regulatory guideline. The customer should clean debris from aerators and screens once a month for six months. After six months, clean debris twice a year.

4.4.2.3 Sampling. Water sampling and testing, following replacement and flushing, shall be conducted per Sec. 5.2.

SECTION 5: VERIFICATION

Sec. 5.1 Documentation of Construction Activities

Documentation of construction activities for each service line work activity may support verification that the lead service line has been fully or partially replaced. The following information shall be documented and recorded:

- Picture of home with house number
- Picture of test pits and meter pit showing new pipe or pipe ends and old lead pipe if in same location
- Length and material type of new pipe installed
- Type of pipe material the new pipe is connected to inside home
- Method of installation (trenchless, hand-excavation, etc.)
- Length and location of any abandoned lead service line pipe left in the ground

Flushing time and location(s) (for example, an outside hose-bib) shall be recorded. Some homes may not have an outside hose-bib turned on or other situations may arise that do not allow for postflushing by the utility. These situations shall be documented in field reports along with any communication attempted with the customer.

Sec. 5.2 Water Testing Following Replacement

Testing the water following the replacement shall be done to determine if appreciable lead is still present in the drinking water. Lead may still exist inside

home plumbing (lead solder, redeposited lead in scale of plumbing, and brass components) and could be disturbed during service line work. Therefore, lead present in the water following a full replacement does not mean the lead service has not been replaced. This condition should be explained to the customer. Flushing recommendations described in Sec. 4.4 can help remove released particles.

5.2.1 *Testing initiation.* Testing the water shall commence at least one month after the replacement to allow for sufficient in-house flushing and a period of normal use of water to occur. Utilities may consider initiating testing within the one-month period if supported by performance data. When only a partial replacement is completed and the lead service line replacement was mandatory as part of compliance with the Lead and Copper Rule (LCR), testing shall be conducted within 72 hours after the completion of the partial replacement of the service line per the requirements of the LCR.

5.2.2 *Test samples.* Testing shall include first-draw and second-draw samples. First-draw sample shall be the initial draw from the tap when it is turned on. Second-draw sample shall be collected with the objective of collecting water that stagnated in the service line, generally the fourth to seventh liter depending on site-specific conditions. Utilities may be able to omit the second draw sample if supported by documentation that the construction activities completely removed the lead service line and by acceptable first-draw lead data. Samples shall be collected from a frequently used tap inside the home, preferably the kitchen tap as the residents' consumption would likely be from the kitchen tap. Samples shall also be collected with the aerator on. Samples should be collected at the maximum flow rate of the tap and should be collected in wide-mouth bottles.

5.2.3 *Profile sampling.* Lead levels higher than expected from full lead replacements may occur and the utility or homeowner could investigate further with profile sampling. A profile is a series of bottles filled continuously following the stagnation period. The trend of lead concentrations coupled with measurements of the inside plumbing and service line will show which portion of plumbing or service contributes the highest lead by the liter number.



American Water Works Association

6666 West Quincy Avenue
Denver, CO 80235-3098
T 800.926.7337
www.awwa.org

Dedicated to the world's most important resource, AWWA sets the standard for water knowledge, management, and informed public policy. AWWA members provide solutions to improve public health, protect the environment, strengthen the economy, and enhance our quality of life.



1P-2M 43810-2017 (11/17) IW

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Project Location: East Alton
Project Description: LSLR & WMR
 Victory Drive Subdivision (Section A)

BUDGET COST ESTIMATE

March 2024



C&A Job No. 2024.30

CONSTRUCTION COSTS	QUANTITY	UNIT	UNIT PRICE	TOTAL
6" PVC Water Main with Tracer Wire	3,175	LF	\$42	\$133,350
6" Valved Interconnect	1	EA	\$6,000	\$6,000
6" Gate Valve with CI Valve Box	5	EA	\$1,900	\$9,500
8" Valved Interconnect	1	EA	\$6,500	\$6,500
6" Three-Way Fire Hydrant with 6" Aux Gate Valve and CI Valve Box	4	EA	\$6,500	\$26,000
1" Water Service Piping - Open Cut (Assume 28 by 10' per service)	280	LF	\$20	\$5,600
1" Water Service Piping - Dir. Bore (Assume 28 by 30' per service)	840	LF	\$30	\$25,200
Meter Pit with 1" Touch Read Meter and Setter, Complete	56	EA	\$500	\$28,000
Replace Service Piping from 10' Outside to 18" Inside Residence (90%)	50	EA	\$2,000	\$100,000
Remove Existing In-Home Meter and Replace with Spool (90%)	50	EA	\$250	\$12,500
Remove Existing Valve Box on Valves to be Abandoned	5	EA	\$250	\$1,250
Remove Existing Fire Hydrant and Deliver to Village	4	EA	\$700	\$2,800
Asphalt Pavement Removal and Replacement	95	SY	\$70	\$6,650
Sidewalk Removal and Replacement	20	SY	\$140	\$2,800
Curb & Gutter Removal and Replacement	45	LF	\$92	\$4,140
Select Granular Backfill & Cradle	160	Tons	\$35	\$5,600
Final Grading, Fertilize, Seed and Mulch	1	LS	\$5,000	\$5,000
Mobilization	1	LS	\$5,000	\$5,000
12" DR25 PVC Protective Casing Pipe at sewer crossings if needed	100	LF	\$100	\$10,000
Traffic Control	1	LS	\$5,000	\$5,000
Total Estimated Construction Cost				\$400,890
NON-CONSTRUCTION COSTS				
Construction Contingency (+/-10%)				\$40,089
IEPA Project Plan and Environmental Clearance				\$15,000
Basic Engineering Services				\$42,000
Resident Project Representative (RPR) Services				\$16,500
Legal Fees - Owner's Attorney				\$15,000
Interim Financing Interest - Estimated at Project Cost 3%+/- for 1 year				\$16,521
Total Non-Construction Costs				\$145,110
TOTAL PROJECT COST				\$546,000

Project Location: East Alton
Project Description: LSLR & WMR
 Smith-Herman-Pence-Shamrock (Section B)

March 2024



C&A Job No. 2024.10

BUDGET COST ESTIMATE

CONSTRUCTION COSTS	QUANTITY	UNIT	UNIT PRICE	TOTAL
6" PVC Water Main with Tracer Wire	4,500	LF	\$42	\$189,000
6" PVC Restrained Joint Directional Bore	100	LF	\$65	\$6,500
6" Valved Interconnect	1	EA	\$6,000	\$6,000
6" Gate Valve with CI Valve Box	8	EA	\$1,900	\$15,200
10" PVC Water Main with Tracer Wire	730	LF	\$85	\$62,050
10" Valved Interconnect	2	EA	\$7,000	\$14,000
16" x 6" Valved Interconnect	1	EA	\$12,000	\$12,000
6" Three-Way Fire Hydrant with 6" Aux Gate Valve and CI Valve Box	6	EA	\$6,500	\$39,000
1" Water Service Piping - Open Cut (Assume 29 by 10' per service)	290	LF	\$20	\$5,800
1" Water Service Piping - Dir. Bore (Assume 29 by 30' per service)	870	LF	\$30	\$26,100
Meter Pit with 1" Touch Read Meter and Setter, Complete	58	EA	\$500	\$29,000
Replace Service Piping from 10' Outside to 18" Inside Residence (90%)	50	EA	\$2,000	\$100,000
Remove Existing In-Home Meter and Replace with Spool (90%)	50	EA	\$250	\$12,500
Remove Existing Valve Box on Valves to be Abandoned	11	EA	\$250	\$2,750
Remove Existing Fire Hydrant and Deliver to Village	4	EA	\$700	\$2,800
Sidewalk Removal and Replacement	1,100	SY	\$140	\$154,000
Asphalt Pavement Removal and Replacement	1,700	SY	\$70	\$119,000
Select Granular Backfill & Cradle	5,600	Tons	\$35	\$196,000
Final Grading, Fertilize, Seed and Mulch	1	LS	\$5,000	\$5,000
Mobilization	1	LS	\$7,500	\$7,500
12" DR25 PVC Protective Casing Pipe at sewer crossings if needed	100	LF	\$100	\$10,000
Traffic Control	1	LS	\$10,000	\$10,000
Total Estimated Construction Cost				\$1,024,200
NON-CONSTRUCTION COSTS				
Construction Contingency (+/-10%)				\$102,420
IEPA Project Plan and Environmental Clearance				\$15,000
Basic Engineering Services				\$101,000
Resident Project Representative (RPR) Services				\$44,000
Legal Fees - Owner's Attorney				\$15,000
Interim Financing Interest - Estimated at Project Cost 3%+/- for 1 year				\$35,380
Total Non-Construction Costs				\$312,800
TOTAL PROJECT COST				\$1,337,000

Lead Informational Notice

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Dear Water Customer:

Today's Date: _____

This notice contains important information about your water service and may affect your rights. We encourage you to have this notice translated in full into a language you understand and before you make any decisions that may be required under this notice.

Diese Mitteilung beinhaltet wichtige Informationen über Ihre Wasserversorgung und könnte Ihre Rechte beeinflussen. Wir bitten Sie, dass Sie diese Mitteilung vollständig in eine Sprache übersetzen lassen, die Sie verstehen, bevor Sie eventuelle Entscheidungen treffen, welche im Zusammenhang mit dieser Benachrichtigung erforderlich sind.

Ang abisong ito ay naglalaman ng mahalagang impormasyon tungkol sa iyong serbisyo sa tubig at maaaring makaapekto sa iyong mga karapatan. Hinihikayat namin kayo na isalin nang buo ang abisong ito sa wikang naiintindihan ninyo at bago kayo gumawa ng anumang mga desisyon na maaaring kailanganin sa abisong ito.

આ સૂચનામાં તમારી પાણીની સેવા વિશે મહત્વપૂર્ણ માહિતી શામેલ છે અને તમારા અધિકારોને અસર કરી શકે છે. અમે તમને પ્રોત્સાહિત કરીએ છીએ કે તમે આ સૂચના હેઠળ જરૂરી હોય તેવા કોઈપણ નિર્ણયો લો તે પહેલાં તમે આ સૂચનાને તમે સમજો છો તે ભાષામાં સંપૂર્ણ ભાષાંતર કરો.

Niniejsze zawiadomienie zawiera ważne informacje na temat Państwa przyłącza wodociągowego i może mieć wpływ na Państwa prawa. Przed podjęciem jakichkolwiek decyzji, które mogą być wymagane na mocy niniejszego zawiadomienia, zachęcamy Państwa do przetłumaczenia całości niniejszego zawiadomienia na język, który będzie dla Państwa zrozumiały.

يحتوي هذا الإشعار على معلومات مهمة حول خدمة المياه لديك، وقد يؤثر على حقوقك. قبل اتخاذ أي قرارات قد تكون مطلوبة بموجب هذا الإشعار فإننا نشجعك على ترجمته بالكامل إلى لغة تفهمها.

اس نوٹس میں آپ کی پانی کی سروسز سے متعلق اہم ترین معلومات موجود ہیں اور یہ آپ کے حقوق کو متاثر کر سکتا ہے۔ ہم آپ کو ترغیب دیں گے کہ آپ اس نوٹس کا مکمل طور پر اس زبان میں ترجمہ کروائیں جو آپ سمجھتے ہوں اور ممکن ہے کہ آپ کے کوئی فیصلہ لینے سے قبل اس نوٹس کے تحت یہ درکار بھی ہو۔

Este aviso contiene información importante sobre su servicio de agua y puede afectar sus derechos. Lo animamos a que traduzca este aviso a un idioma que comprenda antes de tomar cualquier decisión que pueda ser necesaria en virtud del mismo.

이 통지서에는 귀하의 권리에 영향을 미칠 수 있는 수도 서비스에 관한 중요한 정보가 제시되어 있습니다. 이 통지서에서 요구하는 결정을 내리기 전에 이 통지서를 귀하가 이해할 수 있는 언어로 번역하시기 바랍니다.

本通知包含有关您的供水服务的重要信息，可能会影响到您的权利。在您做出本通知所要求的任何决定之前，我们鼓励您将本通知完整地翻译成您可理解的语言。

Lead Informational Notice

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Our water system will soon begin a water line maintenance and/or construction project that may affect the lead concentrations in your drinking water. Lead, a metal found in natural deposits, is harmful to human health, especially young children, and pregnant women. It can cause damage to the brain and kidneys and can interfere with the production of red blood cells that can carry oxygen to all parts of your body. The most common exposure to lead is swallowing or breathing in lead paint chips and dust. However, lead in drinking water can also be a source of lead exposure. In the past, lead was used in some water service lines and household plumbing materials. Lead in water usually occurs through corrosion of plumbing products containing lead; however, disruption (construction or maintenance) of lead service lines may also temporarily increase lead levels in the water supply. This disruption may be sometimes caused by water main maintenance/replacement.

The purpose of this notice is for informational purposes only. While it's not known for certain whether this construction project will adversely affect the lead (if present) plumbing in and outside your home, below describes some information about the project and some preventative measures you can take to help reduce the amount of lead in drinking water.

Project Start Date: _____ Project expected to be completed by: _____

Project location and description: _____

What you can do to reduce lead exposure in drinking water during this construction project:

- *Run your water to flush out lead.* If the plumbing in your home is accessible; you may be able to inspect your own plumbing to determine whether you have a lead service line or lead solder. Otherwise, you will most likely have to hire a plumber.
 - If you do not have a lead service line, running the water for 1 – 2 minutes at the kitchen tap should clear the lead from your household plumbing to the kitchen tap. Once you have done this, fill a container with water and store it in the refrigerator for drinking, cooking, and preparing baby formula throughout the day.
 - If you do have a lead service line, flushing times can vary based on the length of your lead service line and the plumbing configuration in your home. The length of lead service lines varies considerably. Flushing for at least 3 – 5 minutes is recommended.
- *Use cold water for drinking, cooking, and preparing baby formula.* Do not cook with or drink water from the hot water tap; lead dissolves more easily into hot water. Do not use water from the hot water tap to make baby formula.
- *Look for alternative sources or treatment of water.* You may want to consider purchasing bottled water or a water filter that is certified to remove "total lead".
- *Clean and remove any debris from faucet aerators on a regular basis.*
- *Do not boil water to remove lead. Boiling water will not reduce lead.*
- *Purchase lead-free faucets and plumbing components.*
- *Remove the entire lead service line.*
- *Test your water for lead.* Call us at: _____ to find out how to get your water tested for lead. While we do not do the testing, we can provide a list of laboratories certified to do the testing. Laboratories will send you the bottles for sample collection. Please note that we are not affiliated with any laboratory, and they will charge you a fee.
 - If test results indicate a lead level above 15 ug/L, bottled water should be used by pregnant women, breast-feeding women, young children, and formula-fed infants.