



Tempe plans line inspections, replacements as part of efforts to protect community from lead exposure in drinking water

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In 2021, the Environmental Protection Agency (EPA) revised the [Lead and Copper Rule](#) (LCRR) to protect public health and reduce exposure to lead and copper in drinking water. The most common source of lead in drinking water is the wearing away of materials containing lead in household plumbing (lead leaching from corrosion), including pipes made of lead, pipes joined with lead-based solder or galvanized iron pipes that have absorbed lead materials. Tempe has been monitoring lead and copper in homes in accordance with the Lead and Copper Rule (LCR) since 1992, has been compliant with the LCR and has not exceeded the regulatory action levels for either lead or copper. The new requirements of the LCRR go into effect Oct. 16, 2024, and necessitates a multitude of actions including:

- Identifying areas most affected through a service line inventory.
- Strengthening treatment requirements.
- Systematically replacing lead service lines, if found, and creating a plan for replacing galvanized service lines.
- Increasing sample reliability.
- Improving risk communication.
- Prioritizing protection of children in schools and childcare facilities.

Tempe's LCRR response

In preparation for the LCRR, Tempe is working with water quality experts and regulatory agencies to develop and implement a compliance strategy to address the new requirements. The LCRR requirements affect all water utilities, and Tempe is working closely with partners in the Arizona Municipal Water Users Association and across the state to standardize implementation, where possible. Tempe and other Arizona water utilities also are working to interpret and clarify regulatory requirements with the Arizona Department of Environmental Quality, which has been delegated by the EPA to implement the LCRR for the state.

The City of Tempe Municipal Utilities Department has contracted with Hazen and Sawyer to develop a service line inventory and replacement plan. Service lines are defined as the pipe that connects from the water main to the inlet of the building or home, including privately and publicly

owned sections. The required service line inventory consists of all service lines within the distribution system, including those serving landscapes and residential, commercial and industrial buildings. Tempe does not have records of any known public lead service lines.

Chapter 33 Code amendments

Amendments to Tempe City Code Chapter 33 (“Code”) are recommended to support compliance with the LCRR. The Code currently enables city staff or its contractors the right of entry for inspection and for maintenance of city meters and connections. A code amendment is needed to allow city staff and its contractors to access privately-owned service lines to verify service line material and, if required by the LCRR, perform replacements of service lines.

The proposed code amendment is anticipated to address two primary concerns with respect to city employee and contractor authorization for LCRR compliance: access and replacement.

- **Access:** Access to privately-owned service lines will be needed for identification purposes to meet LCRR requirements. The Code currently states that the city may maintain the water meter; however, access is not authorized beyond the meter. To meet LCRR compliance requirements, the city requires access beyond the meter to perform additional material identification activities. Code amendments will strengthen the Code, primarily by expanding the access city employees and contractors will have without an easement the city holds. This access will be expanded to provide the right of entry onto private property for inspection and maintenance of service lines by the water system up to the point where the water service enters a building. Inspection of service lines usually will require above-ground tests. In unique circumstances, city employees or contractors may need to excavate around the water meter or service line on private property to identify the material.

Tempe’s LCRR timeline

- **Review service line records (completed):** Tempe completed an extensive records review in first quarter of fiscal year 2022, identifying the service line material for 2,483 pipes. The service line materials identified were copper (88.2%), PVC (2.8%), other non-lead (8%) and galvanized (less than 1%). The inventory identified no lead pipes and 23 galvanized pipes. An additional 32,372 privately owned and 21,716 publicly owned service line materials remain to be inventoried and many will require field verification.
- **Survey, educate customers:** Tempe will launch a customer survey in January for assistance in verifying remaining water service line material. Tempe Water Utilities’ customers can assist in the effort by visiting tempe.gov/ServiceLine and completing the inventory survey. See Fig. 1 on page 4 for outreach postcard.
- **Perform field inspections:** Tempe will initiate field inspections starting in the spring, using data submitted through the surveys to prioritize system-wide material identification efforts. To facilitate field inspections, the Municipal Utilities Department will propose revisions to Tempe City Code Chapter 33 to provide greater access to privately-owned sections of service lines that previously have been necessary but are now required for compliance with the EPA regulations.
- **Share results:** Results of the service line verification will be made available by November 2024. Customers will be notified if their service line material is lead or galvanized.
- **Develop a service line replacement plan:** Tempe is required to establish a service line replacement plan. Completion of the inventory will be a primary component of developing the plan.
- **Replace service lines:** The LCRR may require future replacement of galvanized pipes in addition to lead pipes. Tempe is investigating funding sources, such as federal grants, to assist customers with replacement of customer-owned lead and galvanized service lines. To facilitate the replacement of service lines, Tempe will propose revisions to Tempe City Code Chapter 33.
- **Communicate with customers:** Tempe will regularly communicate with customers who are affected by the revised rule.
- **Develop water quality sampling strategy:** Tempe will develop a school, day care and residential lead and copper sampling strategy for implementation in 2025. Results of this sampling will guide future LCRR action.

- **Replacement:** In response to the LCRR, the city may need to replace privately-owned service lines in certain circumstances to prevent harm to levels of service, public health or water quality. The city does not anticipate the presence of lead service lines; however, the presence of galvanized pipes has been confirmed. Based on the LCRR, the city may be required to replace the private-side portion of galvanized service lines. The proposed code amendment will address replacement and repair activities that may be required or necessary to protect public health.

The city currently maintains the public-side portion of approximately 44,000 service lines and has an estimated 32,000 privately owned service lines inventoried as lead status unknown. The city aims to have all service line materials identified (as non-lead, lead, or galvanized) by Oct. 16, 2024. Currently, less than 50 service lines have been identified to fall within a required replacement category of the LCRR. The city may be required to replace these lines to stay compliant with the LCRR. The Code states that the water utility is responsible for the water meter and public portion of the service line. Therefore, customers will continue to maintain ownership of their service lines following any replacements the city may conduct in the future.



Photo by Arianna Graine

Tempe conducts thousands of tests each year to ensure that water meets Safe Drinking Water Act standards when it leaves the water treatment plant or groundwater well.

The proposed Code amendments will assist the city in complying with the LCRR and assure drinking water quality delivered to the community. The city would retain access to exterior service lines in the future to confirm the absence of lead, compel the replacement of galvanized pipes or identify defects on private service lines that negatively affect public health or water quality.

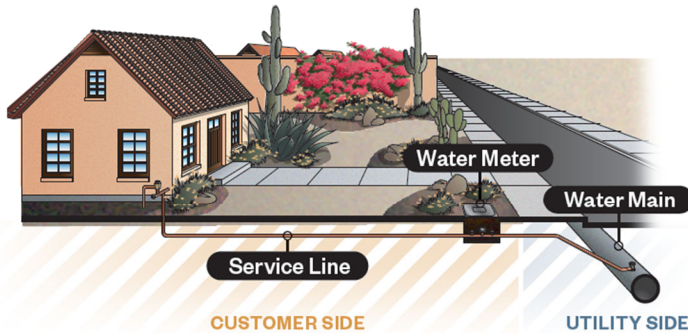
Staff is working through the City Attorney's Office to draft the applicable ordinance.

Figure 1



ACTION REQUIRED: Tempe Water Utilities Division does not have a record of the service line material for this address.

Tempe needs your assistance in verifying water service line materials. The material identification will take approximately **five minutes**. Surveys received by **April 30, 2023**, will be entered into a drawing to win a gift card to a local Tempe business.



tempe.gov/ServiceLine

◀ **Why does my water service line material matter?**

How can I help?

1. Scan the QR code or follow the URL to access the survey.



tempe.gov/ServiceLine

2. Call or email with questions or for help.

Phone: 480-350-2982

email: ServiceLineInventory@tempe.gov

Survey responses will help the city prioritize next steps, which include field verification of exterior water service line materials. Learn more at tempe.gov/ServiceLine.

ACCIÓN REQUERIDA: La División de Servicios Públicos de Agua de Tempe no tiene un registro del material de la línea de servicio para esta dirección.

La Ciudad de Tempe necesita su ayuda para verificar los materiales de las líneas de servicio. La identificación del material tomará aproximadamente **cinco minutos**. Las encuestas recibidas antes del **30 de abril de 2023** entrarán en un sorteo para ganar una tarjeta de regalo para un negocio local de Tempe.



Llamar:

480-350-2982

Correo electrónico:

ServiceLineInventory@tempe.gov

¿Cómo puedo ayudar?

1. Escanee el código QR o siga la URL para acceder a la encuesta.
2. Llame o envíe un correo electrónico si tiene preguntas o para obtener ayuda.

Las respuestas de la encuesta ayudarán a la ciudad a priorizar los próximos pasos, que incluyen la verificación en persona del material de la línea de servicio externa. Obtenga más información en tempe.gov/ServiceLine.



City of Tempe
Municipal Utilities Department
P.O. Box 5002
Tempe, AZ 85280

Postcards in English and Spanish are among the outreach efforts that will target residents and help the city verify remaining water service line material and prioritize its response.