

Consideration for an Enhanced Lead Water Service Replacement Program

Saint Paul Regional Water Services

January 2022

Background

Lead service lines were predominantly installed in our service area up through the mid to late 1920's, although there are instances of installations through the 1940's. The average age of a lead service line in our service area is 100 years.

SPRWS has been replacing lead service lines (LSL's) in the street right-of-way (ROW) for over 25 years. This work has been done in association with street and water main reconstruction projects. In recent years, SPRWS has been replacing approximately 400 LSL's annually in the ROW. Most of these replacements are considered "partial" lead service line replacements (LSLR) as typically only a small percentage (5 - 10%) of property owners elect to replace the private property portion of the LSL in conjunction with the work.

To assist property owners in the City of St Paul with the cost of replacing LSL's in private property, an assessment program was developed which allows customers to have the costs of a private property LSLR paid through taxes over a 20-year period. Many customers have taken advantage of this program throughout the years.

In 2021, the State provided funds to assist and incentivize customers in replacing their LSL's. Grants were provided to customers in the amount of \$1,500 for general applicants and \$2,500 for low income applicants and registered childcare providers. This resulted in an increased proportion of LSL replacements in project areas of 24%. Of these, only a few low income and childcare providers elected to take advantage of this program. Moving forward, in order to reach a higher number of replacements in private property, additional funding and mandatory replacement of LSL's is recommended.

Truth in Sale of Housing & Lead Water Service Disclosure

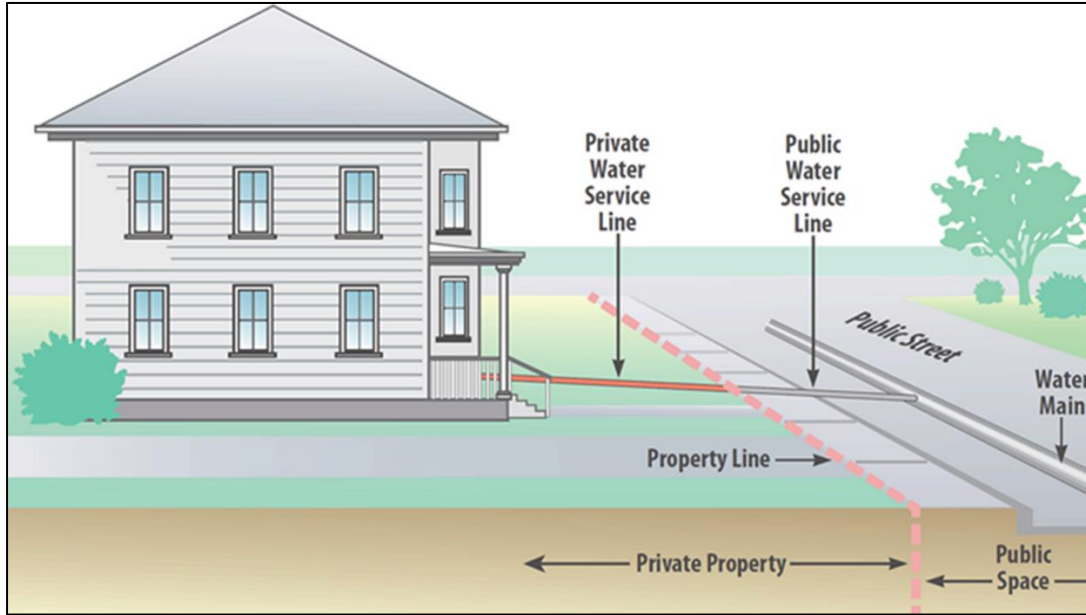
In 2021, SPRWS staff worked with the City of St Paul Department of Safety & Inspections (DSI) requesting that the lead water service line material type be added to the Truth in Sale of Housing (TISH) reports. The thought was that new homebuyers should be made aware if a lead pipe is serving the property where a home is being purchased. This proposal was presented by DSI to the TISH Board and was denied.

Water Service Inventory

SPRWS owns and maintains that portion of the domestic water service in the ROW and has maintained records for this portion of the service. In recent years, much work has been done researching and verifying records information for that portion of the water service material type in private property. Through this research, most of the service information on material type for private property service line connections were determined. Further investigation is needed on approximately 6,500 private property service lines for which no definitive documentation is available. The following is a summary of that information:

Lead Service Location	Number
Full Lead Service (in ROW & private property)	8,900
Partial Lead Service (copper in ROW & Lead in private property)	11,200
Unknown Material in private property	6,500
Total Possible LSL's	26,600

The diagram below is an illustration of a typical water service line and ownership responsibilities.



EPA's Proposed Lead & Copper Rule

The EPA has a new regulation to better protect the public from exposure to lead and copper. The compliance date for the revised Lead & Copper Rule is October 2024. This will significantly impact how water sampling and testing of LSL's is performed and will move towards more complete LSL replacements. The new lead rule specifies that LSL replacement programs be based on sampling and testing results. If future testing results remain unchanged, SPRWS would be required to implement a LSL replacement program in consultation with the Minnesota Department of Health. We could anticipate a mandated 3% replacement rate for utilities above the 10ppb lead "trigger level" standard.

Cost to Replace all LSL's

The current total estimate to replace all LSL's is \$223M in today's dollars. This includes 15% additional costs for administration, engineering, and contingency. This cost includes both the cost to replace all lead services in the public ROW, which is estimated at \$82M and the cost to replace the private property side of LSL's which is estimated at \$141M. (It does not include potential costs for street rehabilitation.)

In addition to the cost of pipe replacement, it would be expected that some streets will need to be rehabilitated via mill and overlay due to the disruption of LSL construction. **The cost to make street improvements is estimated to be an additional \$15M in present dollars.**

Future inflation of construction costs will influence the final total cost of LSL replacements. At a rate of 2% inflation per year and depending on how long it takes to carry out the program, **the final cost of the program, including street rehabilitation, is estimated to be between \$250M and \$275M.**

Lead Service Line Replacement (LSLR) Program Timeline & Funding

Paying for a LSLR program is by far the biggest hurdle in program development. The current SPRWS capital budget for LSLR is \$2.3M annually, which allows for approximately 400 replacements in the right-of-way. At this level of funding it would take 30 years to replace the right-of-way portion of LSL's.

The cost (in today's dollars) for an accelerated program, which include both public side replacement and private property replacement would be as follows:

10 Year LSLR program \$22M annually

15 Year LSLR program \$16M annually

20 Year LSLR program \$11M annually

The new infrastructure bill recently enacted by the federal government will provide a significant amount of funding to the State of Minnesota for LSLR. The State is expected to receive \$45M/year from this program over the next five years for LSLR. It is not precisely known what amount of funding will be provided to SPRWS, but we could potentially expect to see 25% of this amount. It should be mentioned that 49% of these funds will be in the form of grants and the other 51% are through State Revolving Fund loans.

Policy Issues to Resolve:

In order to move forward with an expanded LSLR program, the following policy related issues will need consideration:

1. Determination of a reasonable **timeline** to replace all lead service lines in the system.
2. Currently, under State law, the Board does not have the authority to use utility funds to pay for improvements in private property. A change to State law is necessary if utility funds are used to pay for any private property LSLR.
3. In order to eliminate all LSL's, a **mandate for replacement** is necessary.
4. **Funding amounts:**

- a. What amount of grants or cost should be provided to the property owner for a LSLR? Should this be a fixed cost or percentage based? Should there be a maximum amount of funding provided per property?
 - b. If we follow planned programmed locations, what funding would be provided to those customers who desire to have LSLR completed outside of those planned programmed locations?
 - c. If funding is provided to private property owners, should equal amounts be provided to owner occupied properties vs. rental?
5. Should longstanding inactive service lines be replaced under the same thresholds as active services?

Other issues to Consider:

1. In some cases, sewer service lines from residences are replaced at the same time as LSL's. Many times, the cost of LSL replacement will be made intentionally "high" with the cost of the sewer lines being made intentionally "low" pushing more costs onto the utility under the assessment program. A new program must work to avoid paying for the replacement of private sewer lines.
2. What level of additional staff would be needed to facilitate a significant increase to our LSLR program? (Inspections, project management, finance, marketing, communications, etc.)
3. **Contracting issues:**
 - a. Can we procure contracts that include replacement of the private side? How would this be structured?
 - b. What risks and liability are involved in performing work in private property? Can SPRWS crews do work on private property?
 - c. How do we engage with the contractor community in how best to keep this work local? How do we encourage additional contractors to do work in St Paul? A Master Plumbing license is currently required to do work in private property.
4. Does the EPA require that inactive lead services be cutoff? How would this effect our totals and cost?
5. An expanded LSLR program will entail much disruption in streets. What level of restoration will be needed under the program?
6. Assessment programs may need to be offered to customers outside of the City of St. Paul including the Cities of West St. Paul, Maplewood, Falcon Heights and Lauderdale.