

# Service Line Replacement



MICHIGAN DEPARTMENT OF  
ENVIRONMENT, GREAT LAKES, AND ENERGY

# Service Line Replacement Mandate

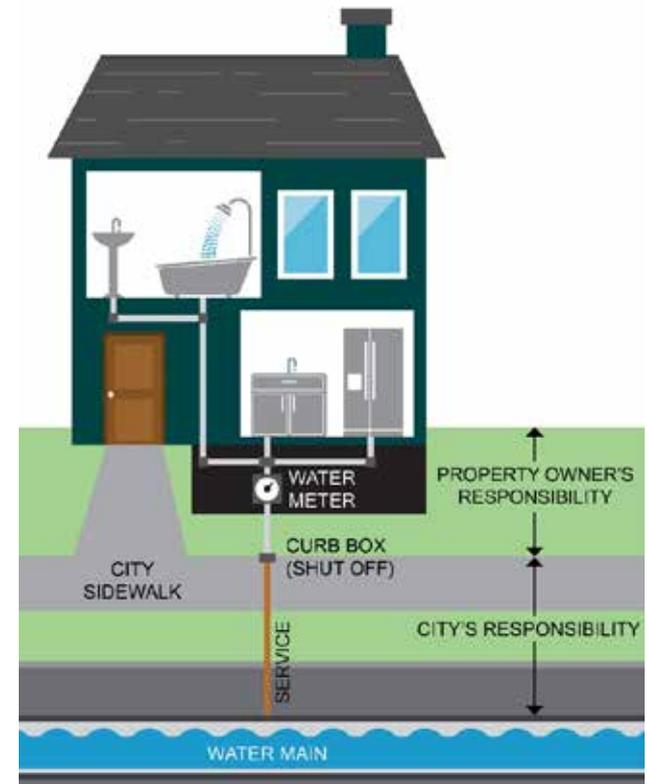
- Beginning 1/1/2021, water supplies with LSLs, or galvanized that is or was connected to a lead service line, must replace them at an average of 5% per year, not to exceed 20 years
  - Or in accordance with alternate schedules incorporated into an asset management plan approved by EGLE
  - Systems with CCT and an ALE, must replace 7% per year
- The full LSL must be replaced at the water supply expense, regardless of ownership (public AND private side)
  - Partial lead service line replacements are banned, except for emergency repairs



Source: Detroit Water and Sewerage Department

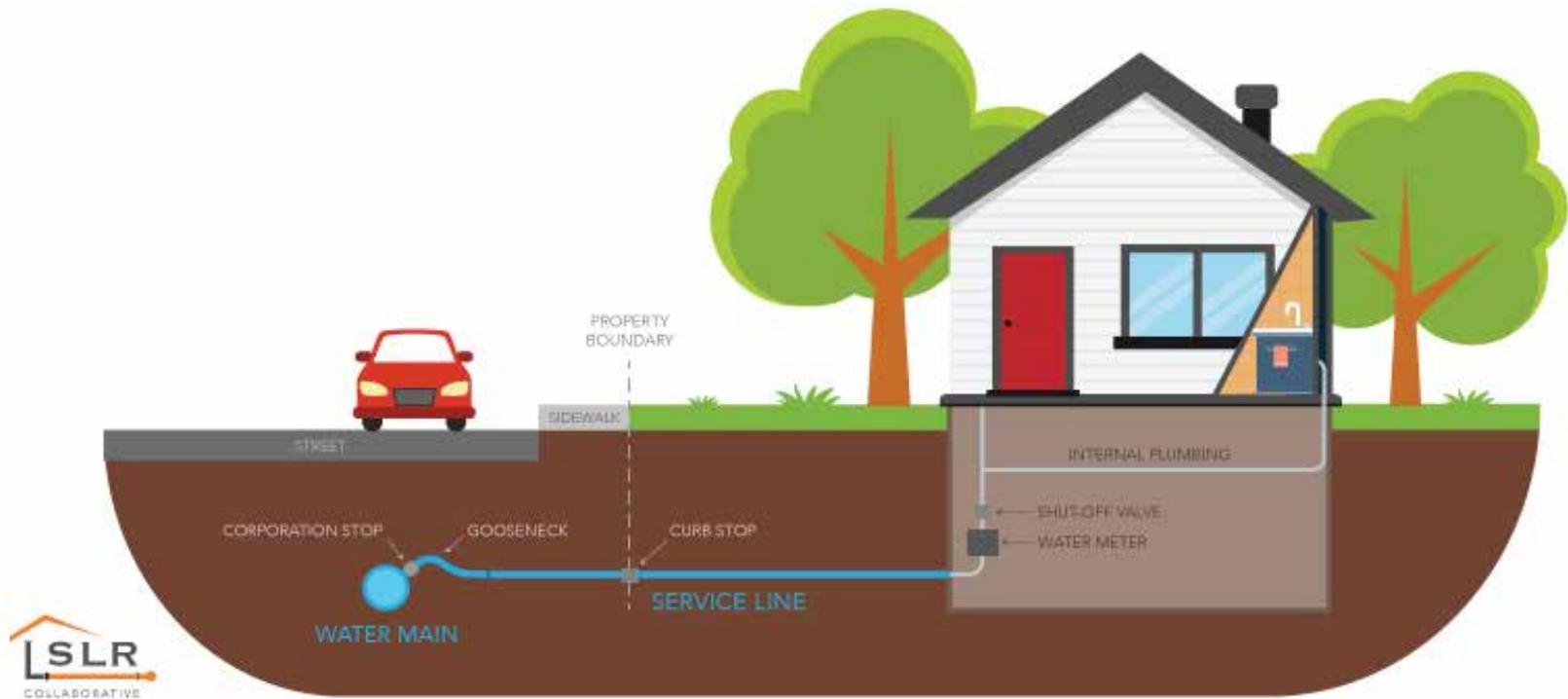
# Why Ban Partial LSLR?

- Partial replacements increase exposure risk:
  - Cutting lead pipes releases lead particles
  - Construction and excavation can loosen corrosion control coating
  - New connection can create galvanic corrosion
  - High risk of acute exposure following partial LSLR
- Large mass of lead still in contact with drinking water
- Costs more to finish replacing at a later date
- AWWA states “every effort shall be made to avoid partial replacements”



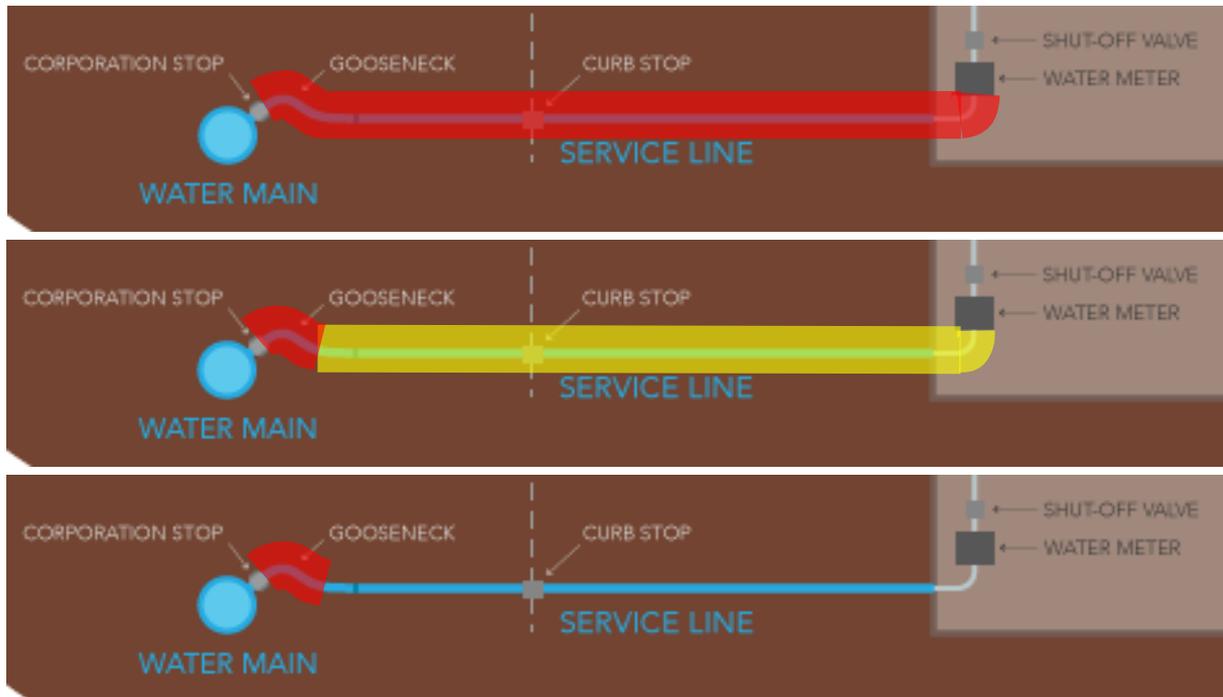
Source: Detroit Water and Sewerage Department

# LSL – Examples



# LSL – Example LSLs

**Lead**      **Galvanized**  
**Copper or Plastic**



To achieve LSLR requirements, you must replace both public and private portions.

To achieve LSLR requirements, you must replace the lead gooseneck and all galvanized downstream.

To achieve LSLR requirements, you must replace the lead gooseneck.

# LSL – Example LSLs

## Galvanized service lines

Lead	Galvanized
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Lead gooseneck connected to a galvanized service line.



To achieve LSLR requirements, you must replace the lead gooseneck and all galvanized downstream.

Lead gooseneck has been removed. Galvanized service line remains.



To achieve LSLR requirements, you must replace all galvanized service lines that **is or was** downstream of lead piping.

Galvanized portion must still remain on DSMI and removed as part of 5% LSLR activities.

# LSL Scenarios

Many other service line replacement scenarios exist.

We are currently developing a Frequently Asked Questions document regarding LSLR.

# Emergency Partial LSLR

- Notification requirements
  - Timeline: As soon as practicable
  - Content: Explain that they may experience a temporary increase in lead levels; provide guidance on minimizing lead exposure
- Sampling requirements
  - Timeline: Within **72 hours** after LSLR is completed
  - Method: 1st and 5th sampling methodology
  - Results: Delivered or mailed to owner/resident within **3 business days**

*Supplies **MUST** keep partial LSLs on their DSMI!*

# SLR Methods

- Open trench
- Directional drilling
  - [www.YouTube.com/watch?v=sMTQJjqF3lg](http://www.YouTube.com/watch?v=sMTQJjqF3lg)
- Pneumatic missile
  - [www.YouTube.com/watch?v=sctNCphZbF0](http://www.YouTube.com/watch?v=sctNCphZbF0)
  - [youtu.be/Jp2bKaDfZQQ](http://youtu.be/Jp2bKaDfZQQ)
- Line splitting
  - [youtu.be/2ZBe6XhpH6s](http://youtu.be/2ZBe6XhpH6s)
  - [www.YouTube.com/watch?v=FJZicUzqJD4](http://www.YouTube.com/watch?v=FJZicUzqJD4)
- Service line pull and replace
  - [www.YouTube.com/watch?v=CtqghioDmt54](http://www.YouTube.com/watch?v=CtqghioDmt54)

# SLR Musts

- You must:
  - Communicate to the home or business owners and any occupants of your intent to disturb their service line 45 days in advance.
  - Complete a **FULL** replacement before restoring service to the home.
    - Meaning all lead and any galvanized downstream of lead must be replaced.
  - 30 days after becoming aware of any LSL, or when there is a new account opened up at with a LSL, you must inform the owner and all occupants that the building has a lead service line.

# Partial LSLR Ban Challenges

- Construction work already contracted
- Supply must now coordinate with homeowners during construction activities
- Supplies with union contracts or ordinances that state they cannot work on private side
- Service cannot be restored until all service line work is complete
- Finding lead when you didn't expect it

# SLR Funding - DWRF

- Drinking Water Revolving Fund
  - Can pay for SLR on public and private property
  - Asset Management efforts
  - Low interest loans with disadvantaged community subsidies
  - Project Plans are due by May 1<sup>st</sup>
  - Extensive application process
- For more information
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