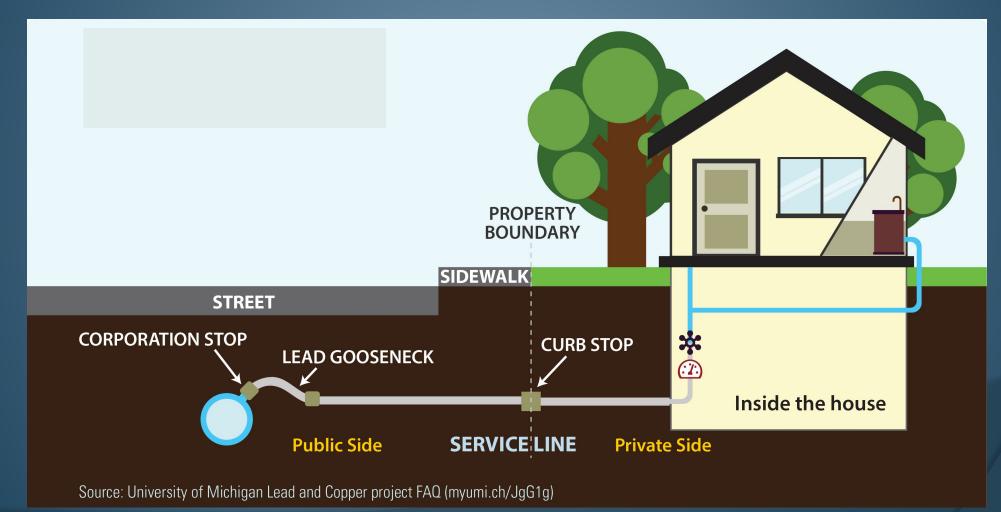
Lead Service Line Replacement in Benton Harbor Elin Betanzo Safe Water Engineering, LLC June 4, 2022

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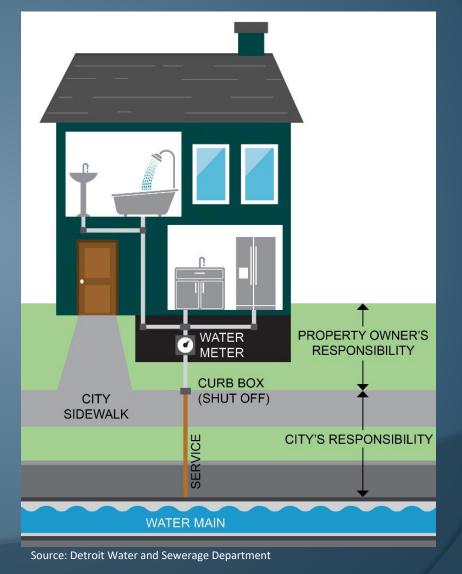
Service Line Definition: From corporation stop to the shutoff valve or 18" inside the house



2

The Michigan Lead and Copper Rule Bans Partial Lead Service Line Replacements

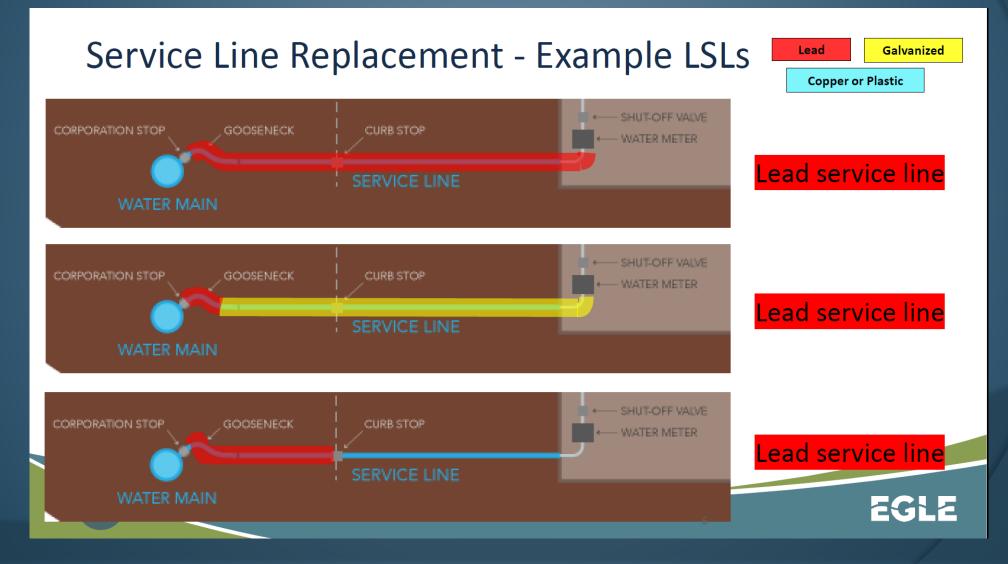
- Partial Replacements Increase Exposure Risk:
 - Cutting lead pipes releases lead particles
 - Construction and excavation can loosen corrosion control coating
 - New connection can create galvanic corrosion





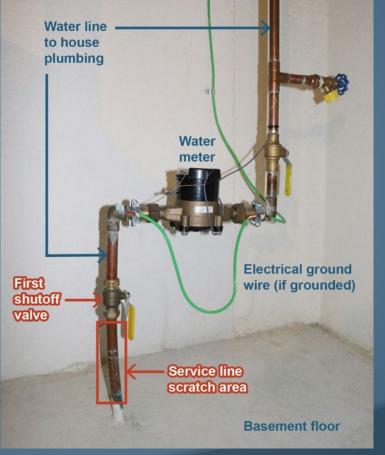
Partial Lead Service Line Replacement

All homes in Benton Harbor with lead or galvanized services get **a new copper line**



Do I have a Lead Service Line?

- 1. Locate the service line, near the water meter.
- 2. Does a magnet stick? If yes, it is galvanized steel.
- 3. Gently scratch the pipe with a coin. If soft and easily scraped, silver colored, and magnet doesn't stick, it is lead. It may have a bulb in the pipe near the shutoff valve.
- If copper or bluish and magnet doesn't stick, it is copper.
- 5. If pipe is white or grey and the piping is joined with a clamp, screw or glue, it is **plastic**.
- 6. Buried service line may be different material from what is visible inside the house



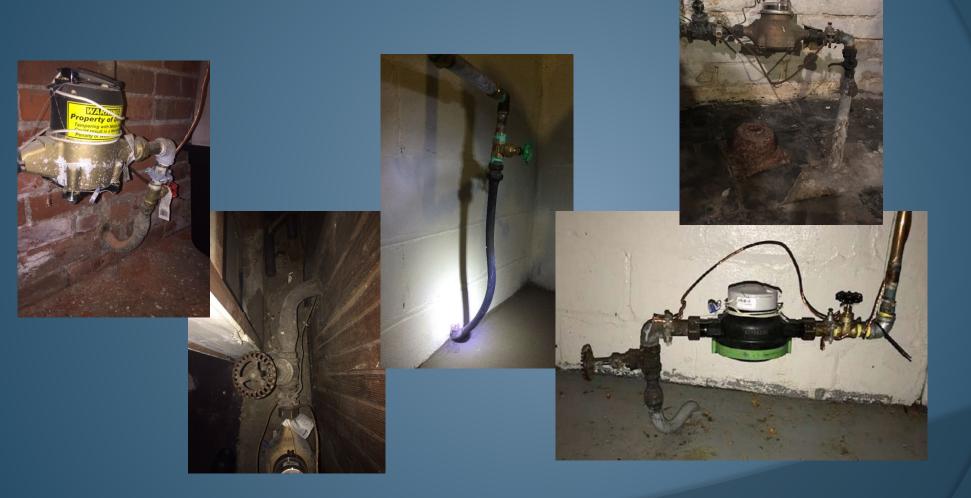
Source: Great Lakes Water Authority

Service Lines

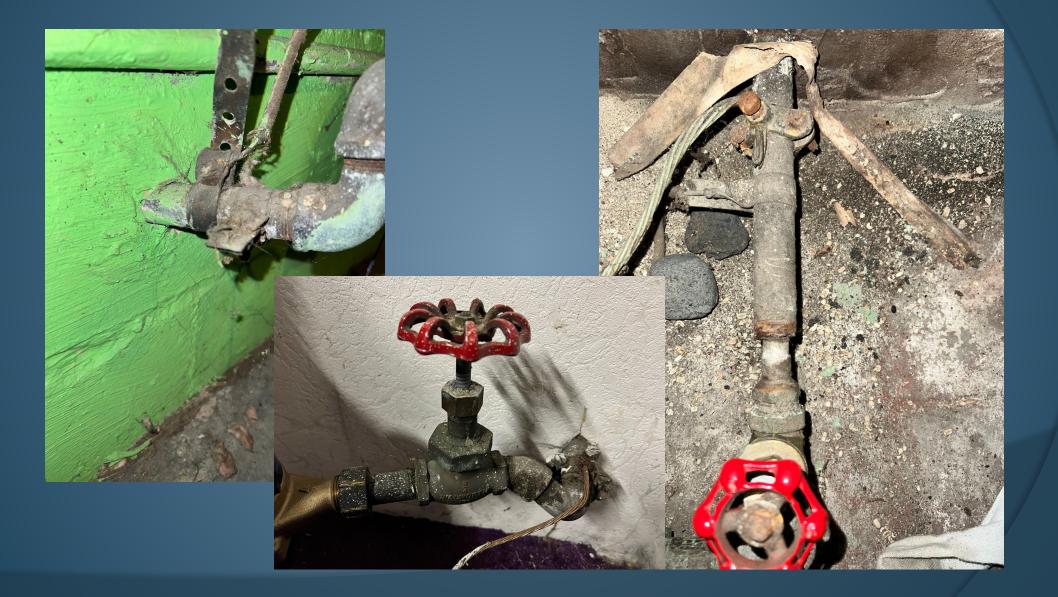


Source: Great Lakes Water Authority

Lead Service Lines



Service Lines in Benton Harbor



What should happen during a lead service line replacement?

Site Preparation:

- Contractor contacts resident to sign the <u>Right of Entry</u> Form
- Contractor will schedule appointment

 The water should be turned off outside before any work begins at the property

- Work shall be completed in a single day.
- Contractor will take photos of site before construction
- Contractor pulls all permits and schedules inspections.

Curb Box and Curb Box Excavation





What should happen during a lead service line replacement?



Construction:

- Turn off water before any work
- Excavate 3 feet on each side of the curb box
- Check service line material inside the house
- New curb stop and corporation stop. New meter if needed.
- Full replacement no lead or galvanized steel remaining after work

What should happen during a lead service line replacement?

Project Completion:

- Contractor flushes household plumbing
 - Start in the basement and run all taps in the house for min 30 minutes.
- Contractor provides a water sampling kit
- Contractor provides a written letter stating that the lead service line has been replaced and it has a one year warranty.
- Contractor will restore landscaping and apply grass seed.
- Pavement will be restored within 2 weeks or as approved per weather and other limitations.

What do Lead Service Line Replacements Look Like?



Benton Harbor, 2021



Cable pulling

Open Trench



Directional Drilling



Things to Look for During and Post Construction



Helpful Hints

- Use the Lead Service Line Replacement Checklist
- Take pictures
- Tell your neighbors