



A Service of The City of Cincinnati

GREATER CINCINNATI
WATER WORKS

Lead Service Line Replacement Program

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Ohio Conference of Community Development

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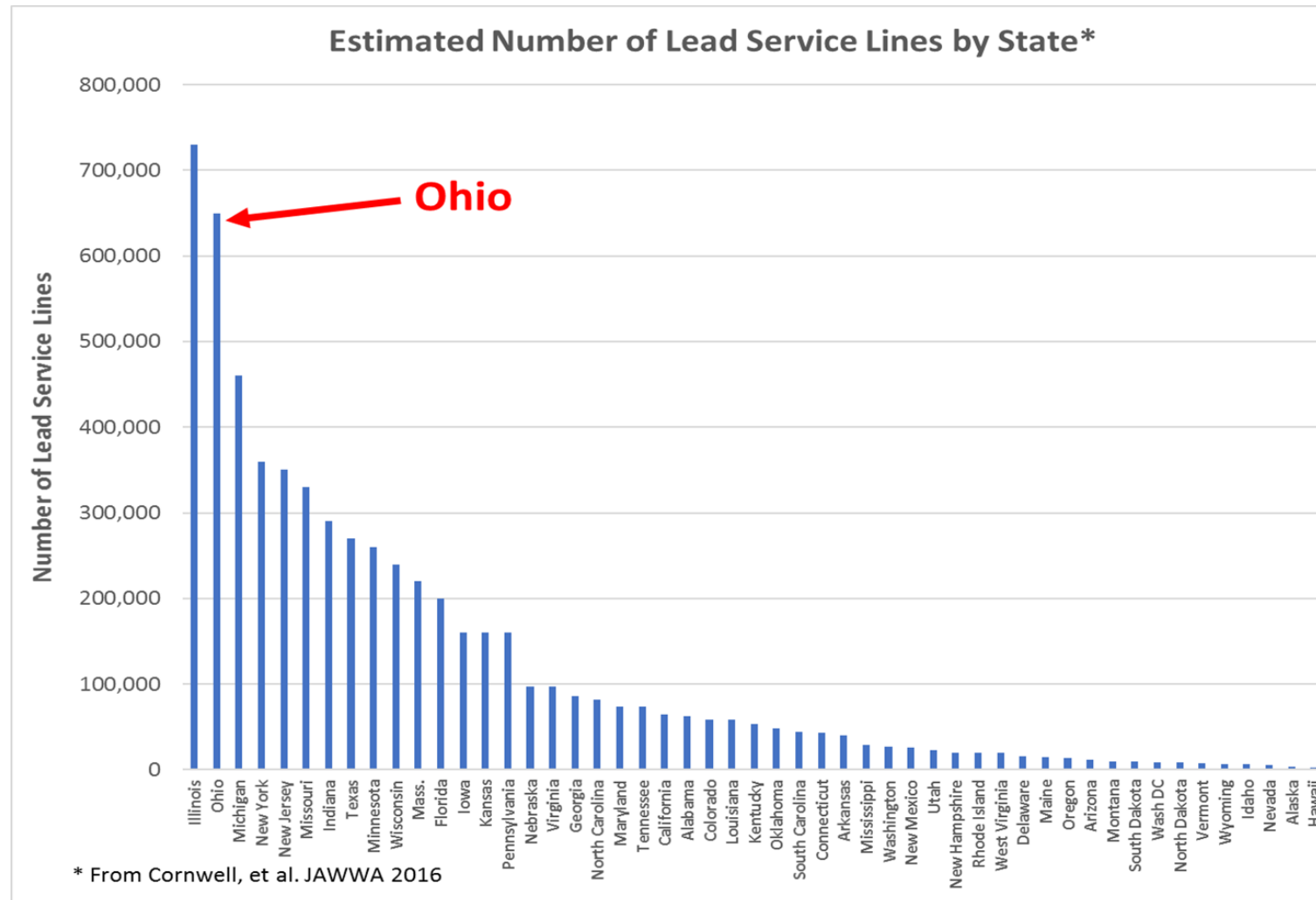
The Lead Problem



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US Lead Service Line (LSL) Estimate: 6.1M*



Effects of Lead Poisoning



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- Prenatal and early childhood exposure to lead can disrupt the natural developmental process, making children under six, including during pregnancy, the most vulnerable to lead poisoning.

Symptoms In Newborns



- Born prematurely
- Low birth weight
- Slowed growth

Symptoms In Children



- Development delays
- Irritability
- Loss of appetite
- Weight loss
- Fatigue
- Nausea
- Hearing loss
- Seizures

Symptoms in Adults



- High blood pressure
- Joint and muscle pain
- Headaches
- Abdominal pain
- Mood disorder
- Reduced sperm count
- Miscarriage or premature birth

GCWW Background



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- Early 1900s - Cincinnati's New Works
 - Lead preferred material for water service lines
- 1927 - Lead pipe usage discontinued in public ROW
- 1990's – Lead and Copper Rule
 - GCWW enacted lead program and successful corrosion control treatment
- Today GCWW provides water to:
 - >800 square miles,
 - >20 other municipal jurisdictions and numerous townships
 - >1.1 million people
 - ~240,000 accounts



What does GCWW do to control lead in drinking water?

- Lead & Copper Rule (LCR)
 - Provide optimal corrosion control treatment
 - Test “worst case” homes to ensure it is working
- GCWW has had corrosion control treatment for years
 - Goal to immobilize lead via coating deposition on pipe walls
 - Corrosion control treatment is working
- However, only so much can be controlled by water utility
 - Disturbance of a water service (such as water main replacement project) can cause spikes in lead
 - Stagnant water or low usage can result in elevated lead levels



GCWW Initial Lead Program

- Consistently met Lead and Copper Rule (LCR) requirements
- Replaced public side of lead service lines (LSLs) in watermain projects
- Encouraged customers to replace their side but few did
- Provided info on lead in drinking water and filter pitcher kits
- Free lead sampling



2014-2015 Flint Lead Crisis



- Starting in 2016, GCWW took a close look at the presence of over 44,000 lead service lines in the GCWW Service Area.
 - ~90% in the City of Cincinnati
 - 78% of LSLs in neighborhoods with high poverty rates
 - Nearly 40% of LSLs in predominantly black neighborhoods

GCWW's Enhanced Lead Program Approach



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- After Flint - Internal multi-discipline Lead Team formed
- A few key observations surfaced:
 - Most customers are not aware of the risks of lead
 - Current regulations do not remove the risk of lead
 - Partial LSL replacements do not remove risk
 - **The only way to remove the risk is to remove the lead**
- Two-tiered approach developed
 - Tier 1: Public Outreach and Education strategies
 - Tier 2: Lead Service Line Replacement strategies
- Ultimate Goal: Become a lead-safe water city



Tier 1 Lead Program

Communication and Education

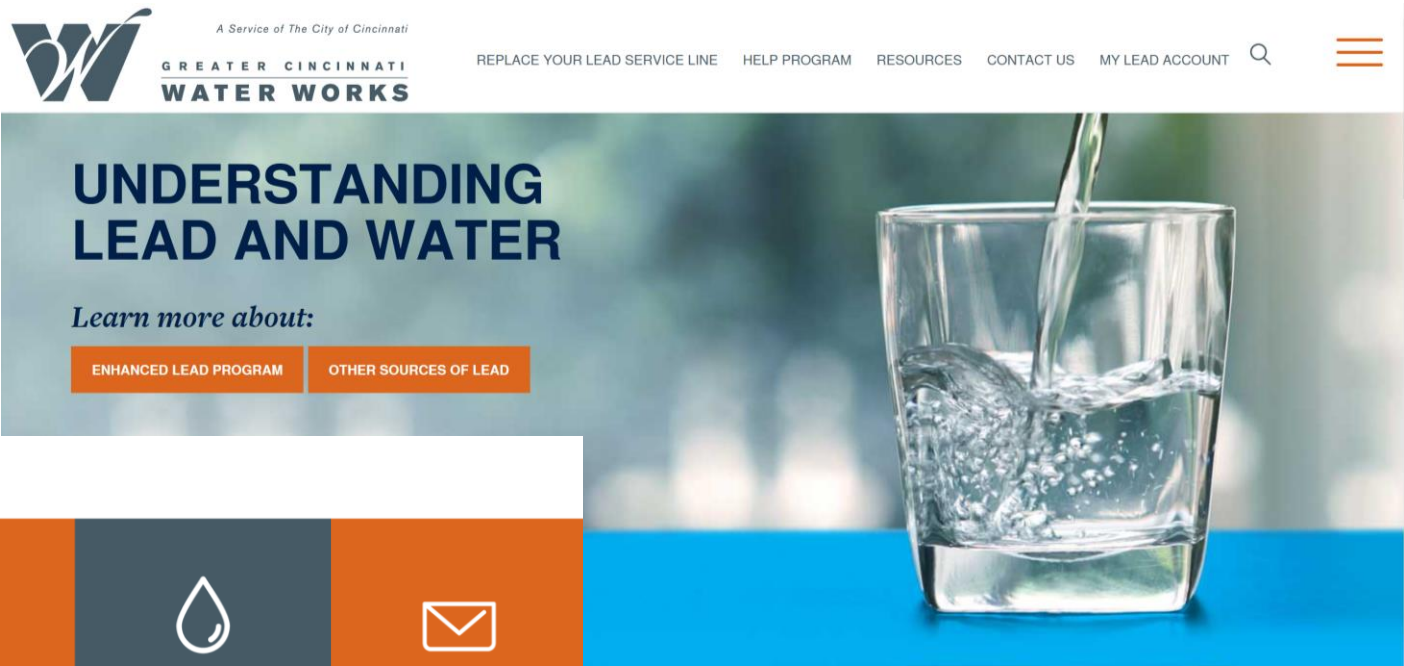


- Speakers Bureau
- lead.mygcww.org
- LSL Lookup Map
- 513-651-LEAD Hotline
- Social Media
- Letters sent to customers who had LSLs
- Free Customer Lead Testing
- Free School Lead Testing Program
- Water Filter Pitchers



Tier 1 Lead Program

Lead.myGCWW.org



IMPORTANT INFORMATION

 HELP PROGRAM	 DO I HAVE A LEAD SERVICE LINE?	 REQUEST A FREE TEST KIT	 WATER QUALITY & TREATMENT	 CONTACT US
 YOUR NEIGHBORHOOD	 OTHER SOURCES OF LEAD	 HEALTH EFFECTS OF LEAD	 WATER UTILITY COLLABORATIVE	 NEWSLETTER SIGNUP & LEAD NEWS

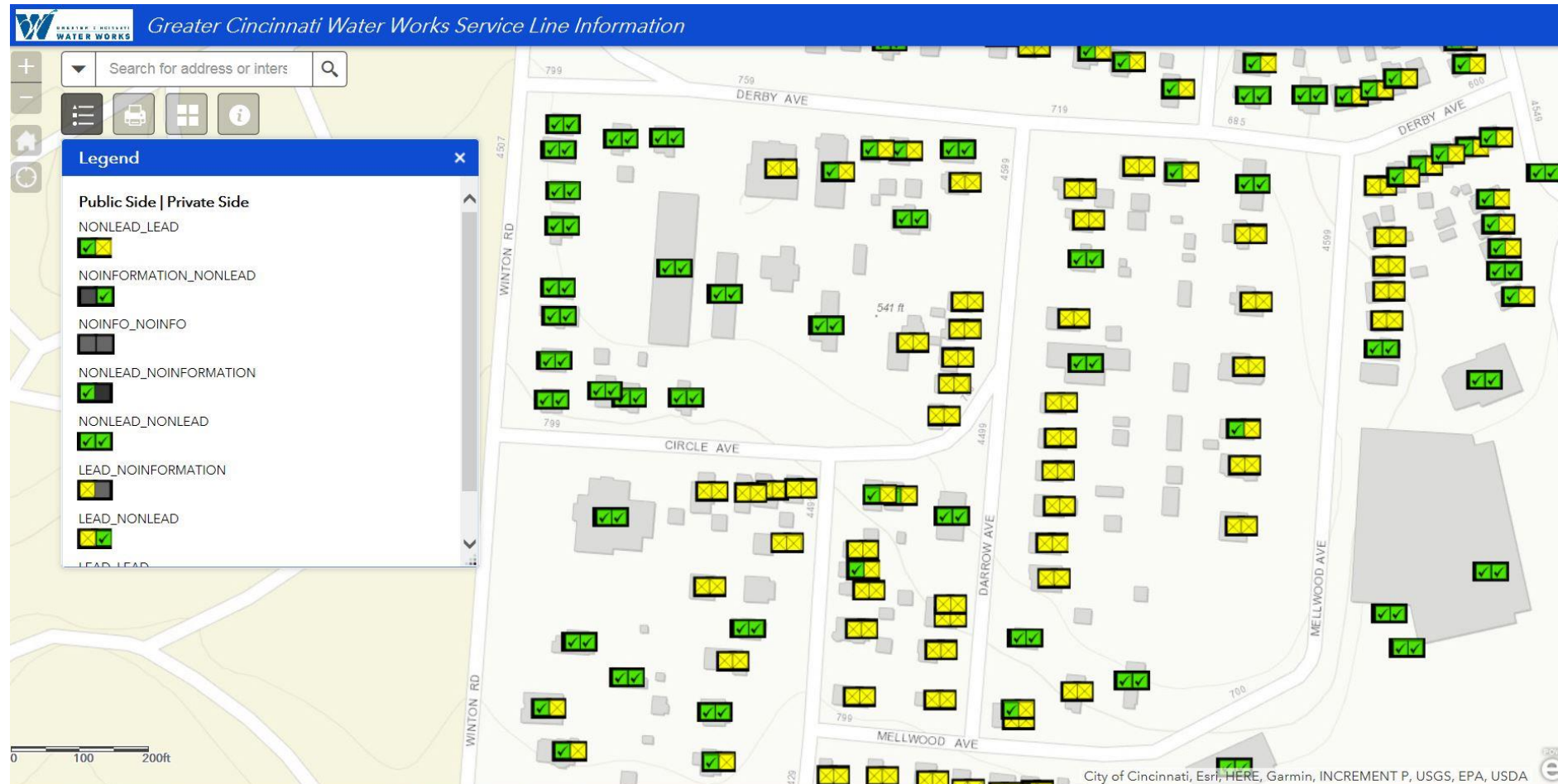
Tier 1 Lead Program

LSL Lookup Map



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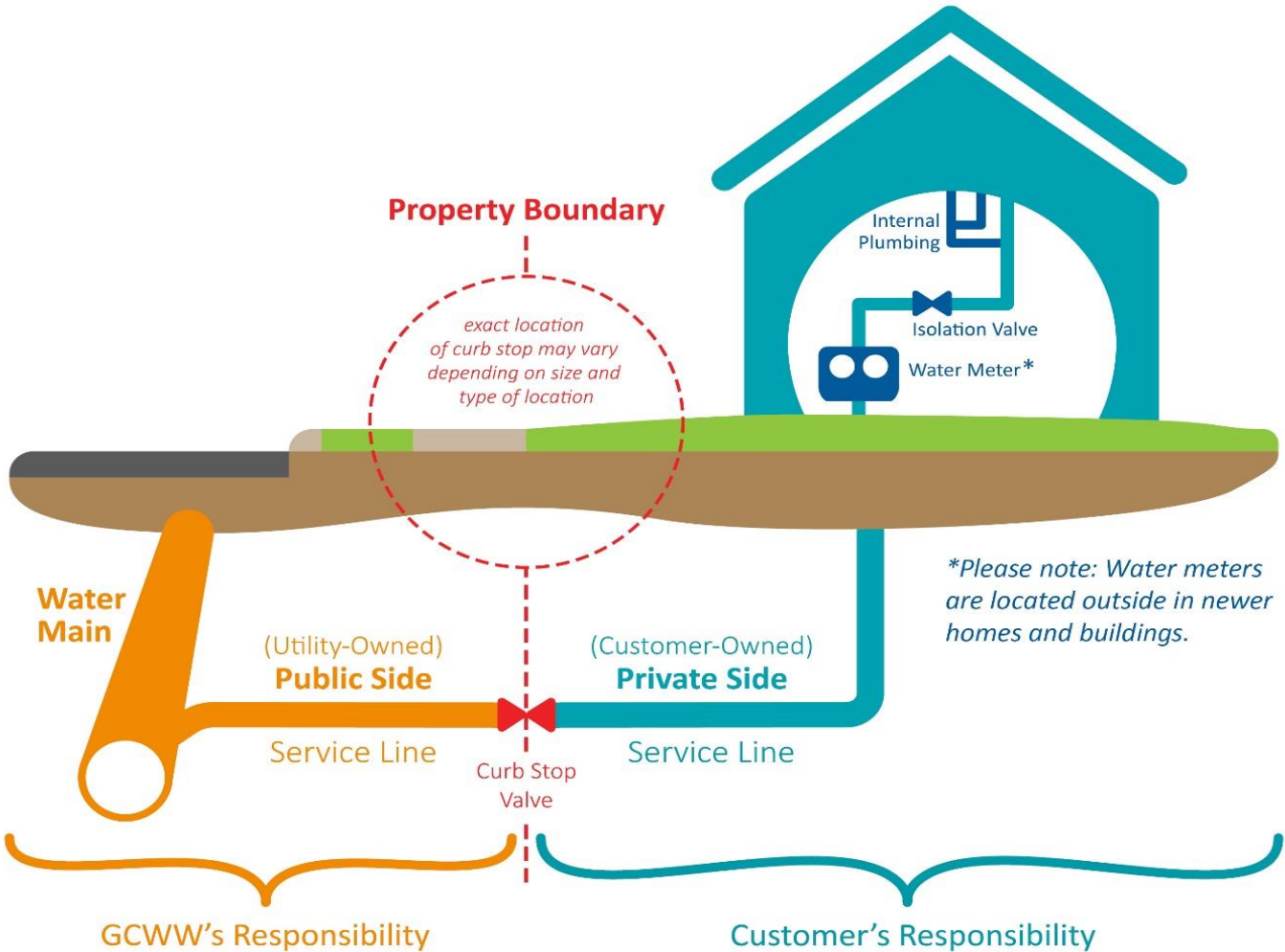


Dual Ownership Service Line



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Tier 2 Lead Program

Lead Service Line Replacement

Cincinnati Ordinances

- Declared lead lines as public health/safety risk
- Declared private LSL replacement costs as a public purpose
- Prohibits LSLs (enforcement grace period)
- Requires replacement on repair and disturbance
- Allows 40% cost share (up to \$1,500) for replacement
- Authorizes assessment procedures
- Enables donation program to assist low-income owners
- 15-year program to remove public and private side LSLs

Tier 2 Lead Program

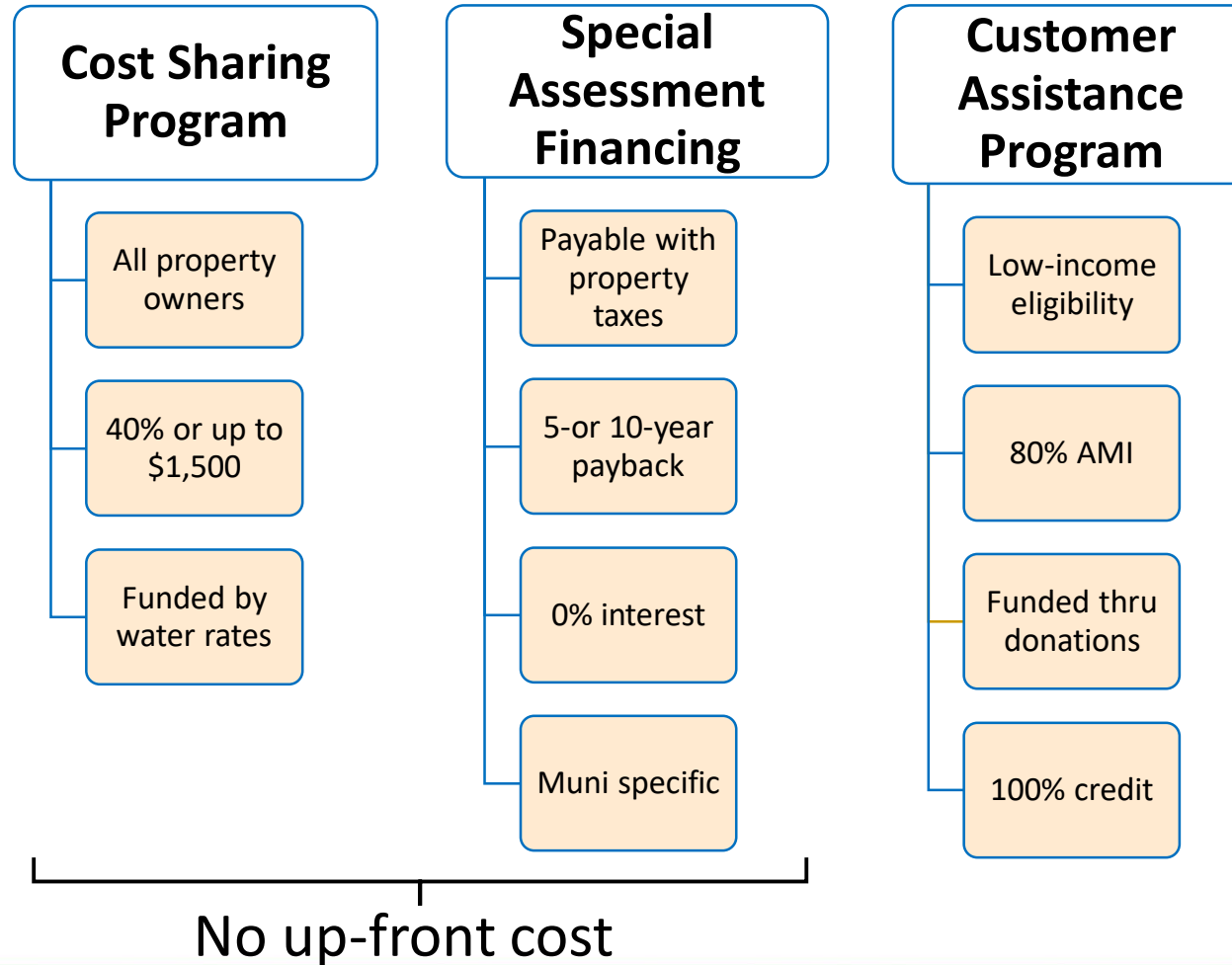
Customer Assistance Program

HELP (Help Eliminate Lead Pipes)

- Any property owner may apply
- Eligibility based on income (80% AMI)
- Funding sources:
 - Employee payroll deduction
 - \$1/\$3/\$5 on-bill donation
 - Website donation interface
 - Cell Tower license revenue on water tanks
- **Approval = 100% credit applied to final bill**

Tier 2 Lead Program

Efforts towards affordability



GCWW Enhanced Lead Program Changes

- **Even with the Cost Sharing Program and HELP, cost was still a barrier**
- Cincinnati City Council approved water rate increase in June 2021
 - Assume 3% replacement rate (limited to ~1,200/year)
 - Provide 100% funding for everyone
 - Funding provided by water rates and continue to search for grants
- Cincinnati City Council approved 100% GCWW funded LSLR on December 15, 2021



Tier 2 Enhanced Lead Program

Replacement Process

- Water Main Replacement Process
 - General Contractor who is replacing the water main will replace the private-side LSLS
 - Awarded to lowest and best bid
- One-off Process
 - Customer contacts GCWW Lead Team directly if LSL has:
 - Leak/disturbance, high lead water sample, stagnant water
 - Lead Team requests quotes and contracts directly from Certified Plumber's List
- Property owner only needs to sign the contract and allow contractor to do the work

The Lead Problem

It's Expensive

- GCWW stopped using LSLs in 1927
 - GCWW records indicate ~39,500 lead branches
 - ~35,200 lead branches within Cincinnati limits
 - ~4,300 lead branches within remaining service area
- Replacement costs:
 - Private side cost averaging \$3,500 per branch
 - That's at least a \$138,000,000 bill
- Ownership issues
- Health impacts



Additional investment now will:

- Removes affordability barrier
- Advances health and financial equity among all customers
- Increases customer participation in program
- Increases replacement rate to meet new compliance levels
- Helps address system-wide regulatory compliance



Questions?

[Lead.mycww.org](https://lead.mycww.org)

Comments or questions, please contact:

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