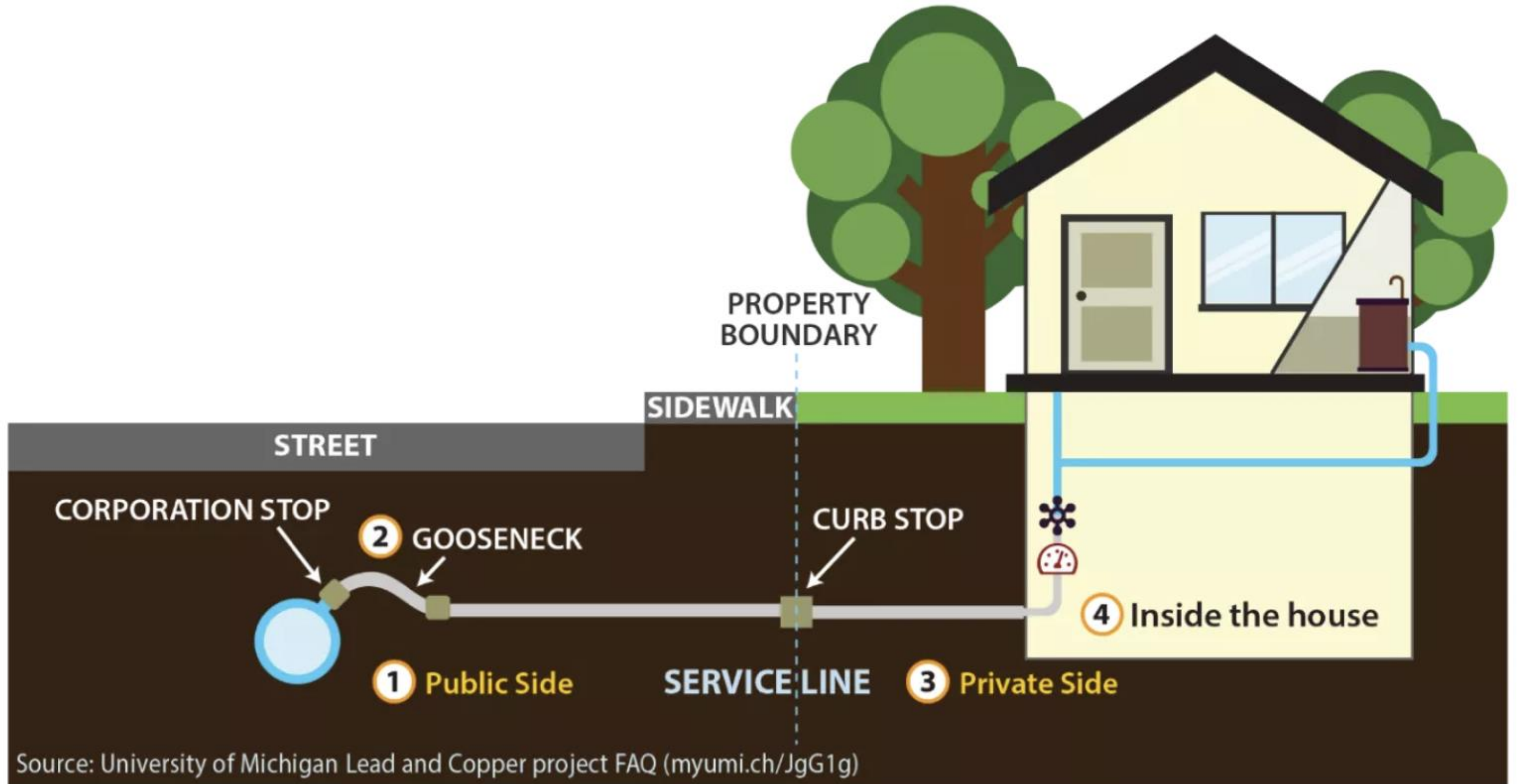


California's lead-contaminated pipes

Susan Little June 15, 2023

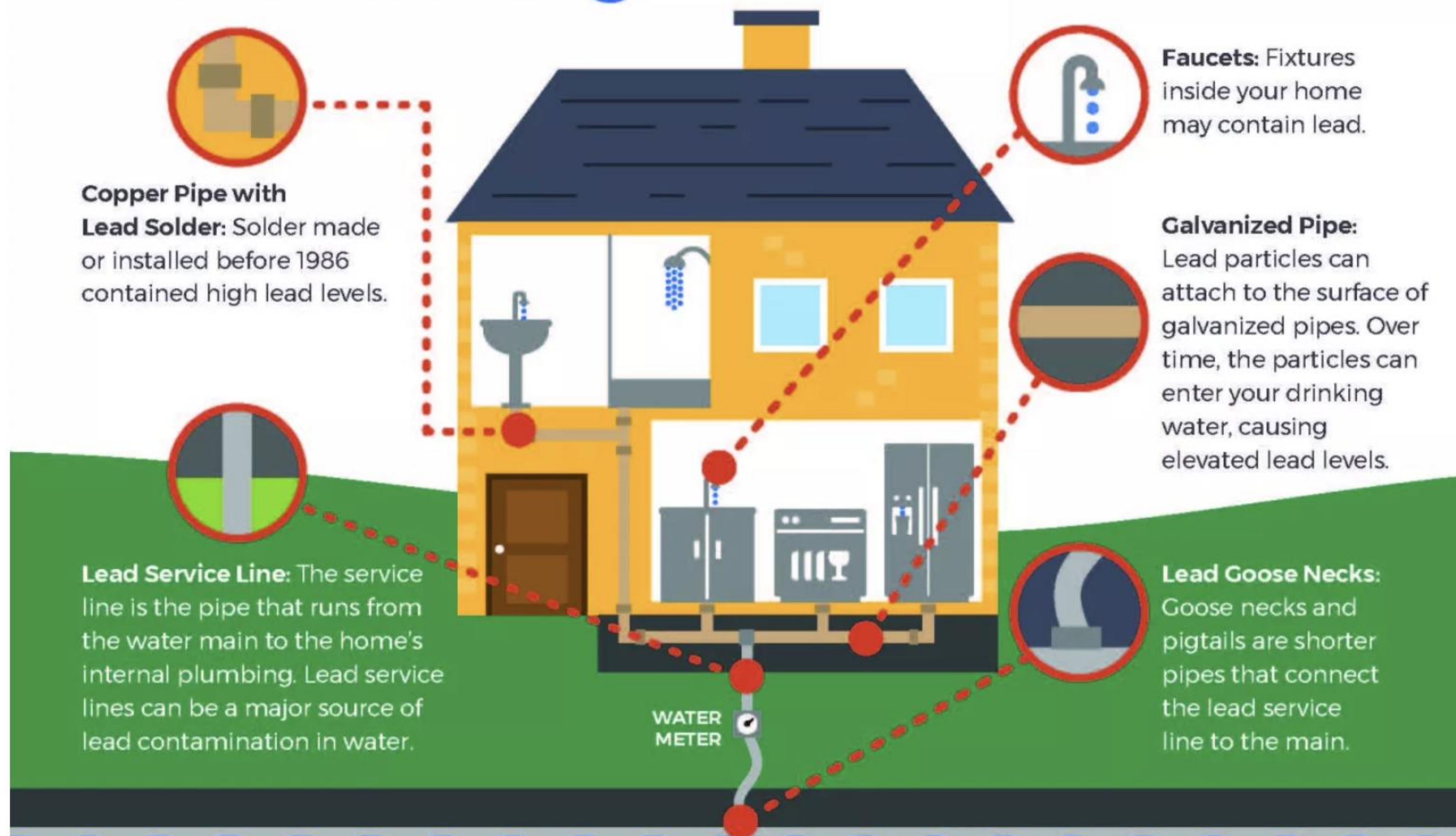


Source: University of Michigan Lead and Copper project FAQ (myumi.ch/JgG1g)



CONCERNED ABOUT LEAD IN YOUR DRINKING WATER?

Sources of LEAD in Drinking Water



Copper Pipe with Lead Solder: Solder made or installed before 1986 contained high lead levels.

Lead Service Line: The service line is the pipe that runs from the water main to the home's internal plumbing. Lead service lines can be a major source of lead contamination in water.

Faucets: Fixtures inside your home may contain lead.

Galvanized Pipe: Lead particles can attach to the surface of galvanized pipes. Over time, the particles can enter your drinking water, causing elevated lead levels.

Lead Goose Necks: Goose necks and pigtails are shorter pipes that connect the lead service line to the main.

WATER METER



Photo Courtesy Of The EPA /



Entity/law	Definition of a Lead Service Line/Lead User Service Line
<p>Lead and Copper Rule (Now)</p>	<p>Long lead pipes</p>
<p>Lead and Copper Rule Revisions (LCRR) Published 12/2021 Effective Oct/2024</p>	<p>1) Long lead pipes 2) Galvanized steel pipes that are or were downstream of long lead pipe of unknown material (Galvanized requiring replacement).</p>
<p>Bipartisan Infrastructure Law Funding - Full line removal 2022</p>	<p>1) Long lead pipes 2) Galvanized requiring replacement; 3) Also other "lead content" — galvanized pipes that are or were downstream of a lead gooseneck.</p>
<p>Lead and Copper Rule Improvements (LCRI) 2024 or 2025</p>	<p>1) Long lead pipes 2) Galvanized steel pipes that are or were downstream of long lead pipe of unknown material (Galvanized requiring replacement). 3) ?</p>
<p>California Lead Service Lines</p>	<p>Pre 2022: Long lead pipes 2022 to present: Long lead pipes & galvanized requiring replacement.</p>
<p>California Lead User Service Lines (Subject to past SB 1398 inventories)</p>	<p>1) Long lead pipes on the utility side 2) Lead goosenecks on the utility side 3) (Separately) Galvanized lines on the utility side</p>
<p>California Bipartisan Infrastructure law Inventory for funding 2022</p>	<p>1) Long lead pipes on both sides (required) 2) Galvanized lines that were/are downstream of long lead pipes (required) 3) Lead goosenecks (required) 4) Galvanized lines that were/are downstream of lead goosenecks (required)</p>

CA Lead-Content Inventories

Water Board 2020 Data	Utility side only: 1) 10,992 Lead goosenecks 2) 59,179 unknown lead user service lines 3) 1 lead pipe
Water Board 2022 Data	Utility side only: 1) 10,969 lead goosenecks 2) 45,931 unknown lead goosenecks 3) 95,914 unknown lead service lines 4) 9 lead pipes 5) 550,000 galvanized lines (reported separately)
EPA 7th Survey Data 2023 Of 180 large/medium systems	Utility side only reported: 1) 6369 lead goosenecks 2) 107,332 unknown 3) 167,257 galvanized

Exhibit 7: Questions on Service Line Questionnaire

Type of Service Line	Category of Service Line Materials
Row 1. Service lines that contain any lead pipe	Lead Content
Row 2. Service lines that do not contain any lead pipe but have lead connectors (such as goosenecks or pigtails).	
Row 3a. Service lines that contain galvanized pipe and were <u>previously</u> downstream from a lead pipe that was removed from the service line.	
Row 3b. Service lines that contain galvanized pipe and were <u>previously</u> downstream from a lead connector that was removed from the service line.	
Row 3c. Service lines that contain galvanized pipe and were <u>previously</u> downstream from an unknown source of lead that was removed from the service line.	
Row 3d. Service lines that contain galvanized pipe that have <u>never been</u> downstream from any lead pipe or lead connector in the service line.	Standalone Galvanized
Row 4a. Service lines that do not contain any lead pipe or galvanized pipe and that do not have lead connectors.	No Lead
Row 4b. Service lines for which the material makeup of the service line and of the connector are not known. (Unknown SLs)	Undiscovered Material
Inserted Row 5 for Analysis – Service lines that system did not disclose knowledge of material make-up (Not Reported SLs)	

Exhibit 6: Total Projected Lead Services Lines by State

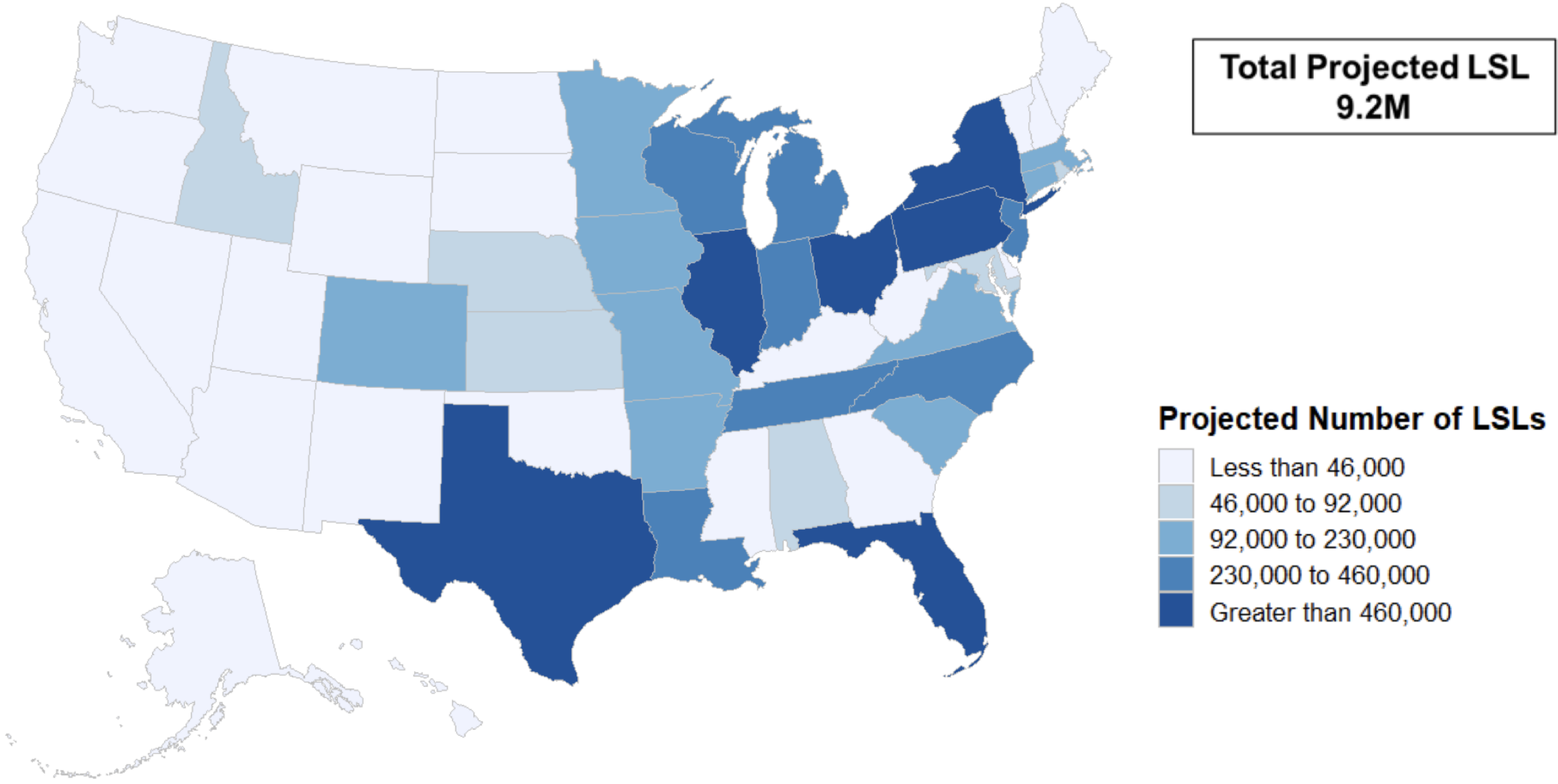
State	Projected LSL	
	Number	% of Total
Alabama	91,544	1.00%
Alaska	1,454	0.02%
Arizona	11,429	0.12%
Arkansas	171,771	1.87%
California	13,476	0.15%
Colorado	111,907	1.22%
Connecticut	146,574	1.60%
Delaware	42,479	0.46%
Florida	1,159,300	12.62%
Georgia	45,985	0.50%
Hawaii	9,589	0.10%
Idaho	49,434	0.54%
Illinois	1,043,294	11.35%
Indiana	265,400	2.89%
Iowa	96,436	1.05%
Kansas	54,107	0.59%
Kentucky	40,207	0.44%
Louisiana	266,984	2.91%
Maine	18,057	0.20%
Maryland	71,166	0.77%
Massachusetts	117,090	1.27%
Michigan	301,790	3.28%
Minnesota	136,873	1.49%
Mississippi	11,098	0.12%
Missouri	202,112	2.20%
Montana	14,125	0.15%
Nebraska	53,230	0.58%

State	Projected LSL	
	Number	% of Total
Nevada	9,048	0.10%
New Hampshire	14,819	0.16%
New Jersey	349,357	3.80%
New Mexico	15,453	0.17%
New York	494,007	5.38%
North Carolina	369,715	4.02%
North Dakota	26,443	0.29%
Ohio	745,061	8.11%
Oklahoma	28,679	0.31%
Oregon	3,530	0.04%
Pennsylvania	688,697	7.50%
Puerto Rico	51,490	0.56%
Rhode Island	75,749	0.82%
South Carolina	108,177	1.18%
South Dakota	4,141	0.05%
Tennessee	381,342	4.15%
Texas	647,640	7.05%
Utah	14,293	0.16%
Vermont	5,263	0.06%
Virginia	187,883	2.04%
Washington	22,030	0.24%
West Virginia	20,259	0.22%
Wisconsin	341,023	3.71%
Wyoming	10,477	0.11%
District of Columbia	27,058	0.29%
Total	9,188,545	

Exhibit 4: National Projected Service Lines by Material

Service Line Material	Projected Count
Lead Content	9,223,745
Stand-Alone Galvanized	2,800,839
No-Lead Content	87,929,975
National Total Service Lines	99,949,560

Exhibit 5: Projected Number of Lead Services Lines by State



Total BIL \$\$ for LSLR	\$15 billion
CA 2022 Allocation (Based on formula)	\$250 million
CA 2023 Allocation (Based on survey results)	\$28 million (After 7th Survey Calculation) A loss of \$222 million
CA 2024 Allocation (Water Board may give new #s to EPA)	????

Partial Replacements Are Still Allowed in CA

- No prohibition in state on partial replacements
- Utilities don't have to pay for customer-side replacements — causes inequitable health protection
- Lack of full inventories (utility and customer side)
 - SB 1398 inventories were only of utility side
 - Only looked at lead pipes/goosenecks
 - Most lines listed as “unknown”
 - LCRR/LCRI will require full inventories of “lead service lines” by Oct, 2024
 - Both utility and customer sides
 - Unknown how lead goosenecks/galvanized will be addressed in the LCRI – Draft LCRI will be released this year
- BIL \$\$ cannot pay for partial replacements - only full
 - Only 3 water systems have requested BIL \$\$

Needed Health Protections

- Whenever “lead content” line is cut, removed, replaced or disturbed, should provide:
 - Notice
 - Filters
 - Offer Water Testing
- Only 13 water systems are required to provide these health protections
- All other 3,000+ water systems do not have to provide health protections
- All water systems must remove lead goosenecks when found, but only the 13 must provide health protections
- LCRR/LCRI does require health protections in many circumstances, but not all
- Advocates asking for mandatory health protections

Takeaways

- California/Utility management of lead contaminated lines has:
 - Jeopardized CA residents' health
 - Poor inventories
 - Partial replacements
 - Few health protections
 - Caused CA to lose over \$220 million this year
 - Disproportionately exposed low-income Californians to lead





Photo Courtesy Of The EPA /

What you can do

- Urge local water districts to:
 - Inventory ALL lead-content pipes - both utility and customer owned pipes
 - Provide health protections
 - Request federal BIL \$\$
 - Will fund removal of lead content on both sides of lines
- Remove ALL of the lead content pipes
 - Both utility and customer owned
 - Just get it out!