



Massachusetts Water Resources Authority

Presentation to

MWRA and MWRA Advisory Board Forum on

Revised Lead and Copper Rule

May 19, 2022



Introductions and Welcome

Fred Laskey
Joseph Favaloro



Agenda and Background

Stephen Estes-Smargiassi
Director of Planning and Sustainability



Two Main Topics Today

- Changes to sampling and notification procedures for sampling in September (and onward)
 - Changes affect all fully supplied communities in metro Boston
 - Some changes may affect every other water supplier
- Service line Inventory development and LSL removal plans – due October 2024



Agenda and Speakers

- **Agenda/Background** – Estes-Smargiassi
- **Sampling Changes** – Beverly Anderson
- **Find and Fix Requirements** – Josh Das
- **Notification Requirements** – Stephen Estes-Smargiassi
- **Service Line Inventory** – Dave Granados, Claudia Baptista
- **MassDEP Inventory Template** – Jessica Sibirski, MassDEP
- **Chelsea LSL Replacement Case Study** – Rebecca Wright, Chelsea
- **Financial Assistance for LSL Replacement** – Jon Szarek
- **EPA is reviewing, but don't wait** – Stephen Estes-Smargiassi
- **Q and A** – How can we help?



Logistics for Training Contact Hours

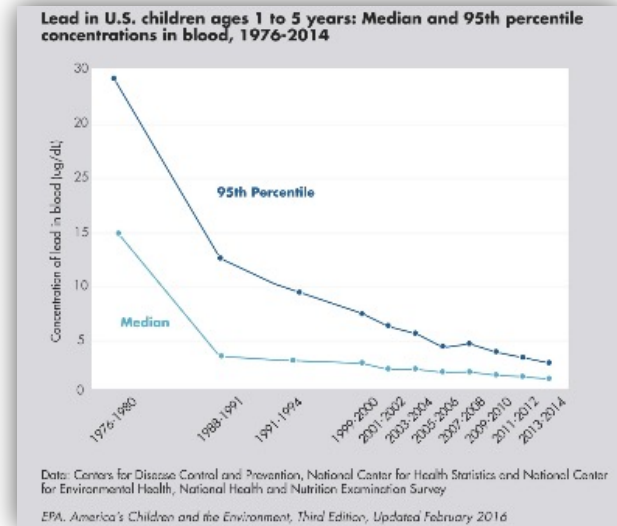
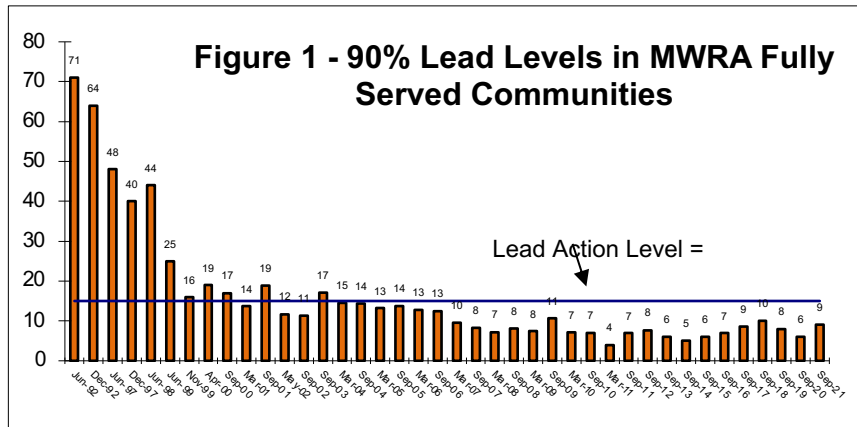
At the end of the presentations, we'll provide this link – you will need to click on or copy, and follow the instructions.

To register for your training credits, please follow the link below to a course evaluation on Survey Monkey. Follow all the directions to ensure proper credit for your TCHs:

<https://www.surveymonkey.com/r/9LQ5TYP>

Public Water Suppliers – Protecting Public Health

- Our goal is public health protection
- Lead levels in children's blood have declined 90 percent
- Lead levels at our customer's taps have declined dramatically
- But still more to be done





Schedule Acceleration of Some of the LCR Revisions by EPA

- In February EPA Imposed Changes on How MWRA is Regulated under the LCR
- Affects All Fully Supplied Communities Served by Carroll WTP
- These Were Almost All Items from the LCR Revisions that Would Otherwise Not be Required Until October 2024
- Could be Considered a “Pilot” and Offer Opportunity to Influence EPA’s Guidance Manuals and any Future Changes



How Is the MWRA System Regulated Under the LCR

- “Consecutive System Monitoring Agreement”
- Hybrid Approach:
 - Partly Treated as Single System;
 - Partly as Individual PWS
- Each system – $\frac{1}{4}$ of regular # of samples – in total 445 vs 1780
- Local Action if PWS is Over the Action Level
 - Public Education, and Lead Service Line Replacement
 - Return to Twice Annual Monitoring
- Treatment Based on Entire Region’s Results



Sampling and Sampler Notification Changes

Beverly Anderson
Project Manager, Public Health



Changes to Sampling Procedures

- Increase in number of samples, 33%
 - 15 becomes 20; 10 becomes 13
- Sampling Only in Homes with Lead Service Lines (if you have any)
- This May Result in Higher 90th Result
- Update Sampling Plans with All LSL, add additional alternates
- Get revised sampling plans with all LSL to DEP region ASAP





Notification Changes

- For Any Home with Lead Result over the Action Level:
- Notify Sampler within 3 days of MWRA Notifying You
- Provide Results, Health Information, Risk Reduction Suggestions
 - MWRA Provides Template
 - Some Communities Calling, Then Following Up with Email and Letter
- Keep good records, Use MassDEP Form
- www.mass.gov/doc/lcr-consumer-notification-certification-form/download



Find and Fix Requirements for Individual Homes Over the Action Level

Josh Das
Program Manager, Water Quality



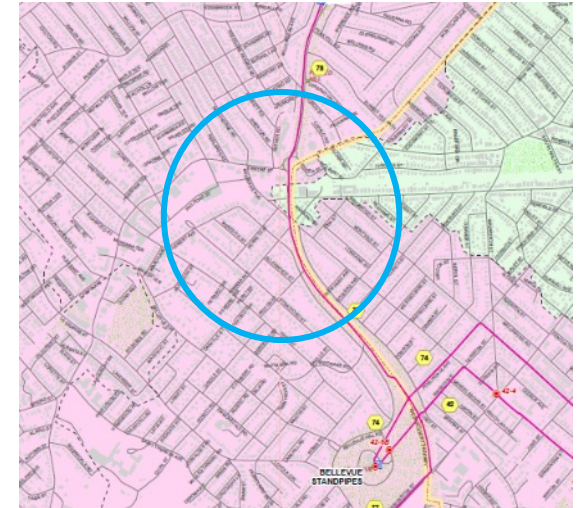
New “Find and Fix” – Community Requirements

- Applies to each individual lead sample $>15\mu\text{g/L}$
- Within 30 days of learning the results:
- Investigate why it has an elevated result so water supplier and homeowner can take action to reduce levels
- Offer Lead Sampling to Resident --
 - Any type and number of samples
- Confirm if Lead Service Line is Present
- Maintain records, record refusal of sampling
- Some communities are immediately scheduling a LSL replacement
 - “get the lead out”



New "Find and Fix" – MWRA Requirements

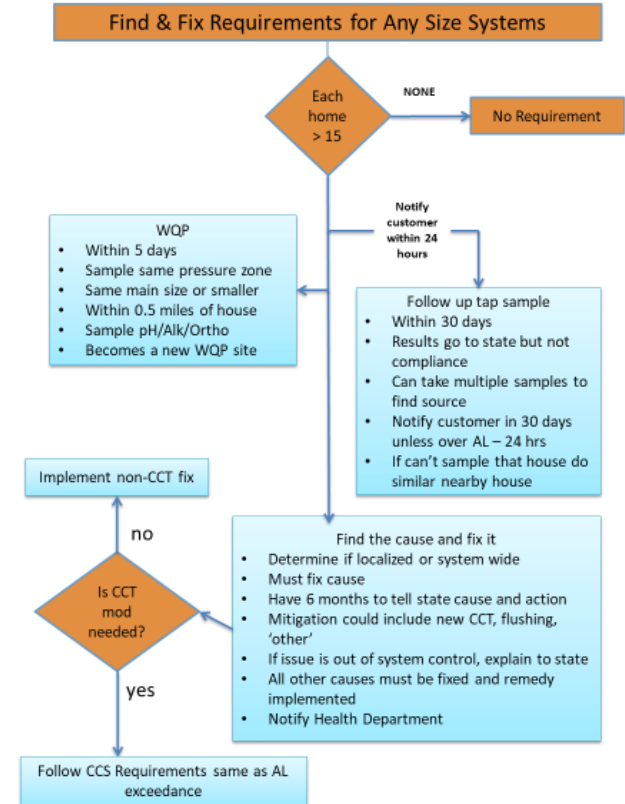
- Applies to each individual lead sample $>15\mu\text{g/L}$
- MWRA Must Collect a Water Quality Parameter (WQP) sample at or near the site where the high lead sample was collected - within 5 days
 - Same pressure zone
 - Within 0.5 miles, same main size or smaller
 - Will Try to Use Existing MWRA or Community Sampling Sites
 - MWRA will Coordinate Sampling with Community





Reporting on Find and Fix Results

- Both Community and MWRA will Need to Report Results to DEP
- If Any Solutions are Identified – Implement
- No Guidance on This Yet
- Should Be Resolved Based on Spring Sampling Results





Significant Change to Notification Requirements

Stephen Estes-Smargiassi
Director of Planning and Sustainability



If a community's 90th percentile is over the Lead Action Level

- 24 hour public notification to entire system
 - Similar to notice for confirmed *E. coli* contamination
 - Radio, TV Press release
- Clock will start when all required samples from LCR sampling plan are analyzed and a 90th percentile can be calculated
- Essentially no time to prepare
- No way to quickly close out the event
- Don't get caught flat footed! Review and coordinate prior to sampling
- New MassDEP template has been prepared



Lead Service Line Inventory Overview

Lead Service Line Inventory

David Granados & Claudia Baptista
MWRA Community Support Program



LCR Lead Service Line Inventory Requirement

WHY

- Better Inventory of LSLs – Inform the Public on Risks; Reduce Lead Exposure and Increase Transparency
- Studies Identify 50–75% of Lead in Drinking Water from LSLs
- Remainder: some lead can also come from Leaded Solder, Brass/Bronze Fittings, Goosenecks, Galvanized Piping, Faucets and Water Meters

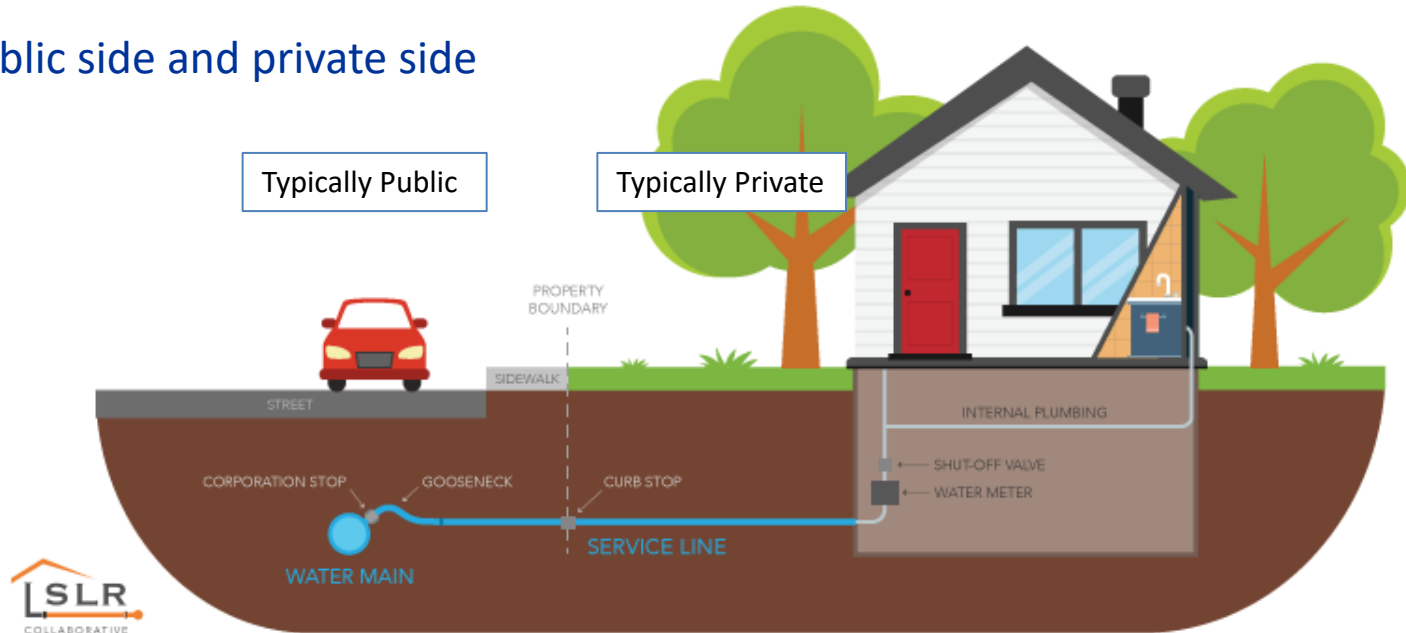


There's more treated as a lead service line now!

Lead or Galvanized downstream of lead/unknown material (now or previous)

"Unknowns" are treated as Lead in rule

Both public side and private side





LCR Lead Service Line Inventory *Requirement*

WHAT

- All Water Systems must prepare an Initial Lead Service Line Inventory that identifies:
 - ✓ Lead Service
 - ✓ **Galvanized Service** (Requiring Replacement) - Currently or Formerly Downstream of a Lead Line
 - ✓ Lead Status Unknown (*assumed lead until determined*)
 - ✓ Non-Lead Service Line
- Service Material of Public-side, Private-side, and Meter Connection
- Full Accounting of Services Using: List, Table, or Map with Location Identifier (Service No., Street Address, community block, etc.)



Recommended - More Detailed Service Line Inventory

- ✓ Lead Service
- ✓ Lead-Lined Service
- ✓ **Galvanized Service** Currently or Formerly Downstream of a lead line
- ✓ Lead Gooseneck on Service
- ✓ Lead Status Unknown (assumed lead until determined)
- ✓ Galvanized Service
- ✓ Iron Service
- ✓ Brass Service
- ✓ Copper Service
- ✓ Plastic Service
- ✓ Other





LCR Lead Service Line Inventory Requirement

WHEN

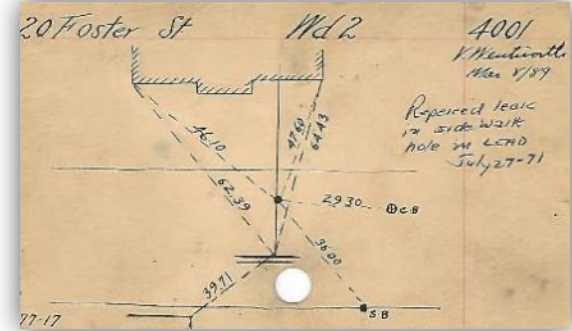
- Initial Lead Service Line Inventory within **3 Years** of Final Rule
» **October 16, 2024**
- Initial Notice to All LSL, **Galvanized** (requiring replacement), and Lead Status Unknown within 30 Days after submission of inventory
- **Annual*** Update of Inventory Including:
 - ✓ Prior Unknown Services that have been Verified
 - ✓ LSL Replacements Completed

* Every three years if on triennial monitoring



How to Develop a LCR Lead Service Line Inventory

- Identify Local Cut-off Date for Lead Service Installation
 - National Lead Service Ban as of June 1986
 - Many Communities Stopped Earlier
- Review Local Plumbing Code
- Review Service Tie Cards and DPW Records
- Review Water Main Project Records
- Water Meter Replacements and Service Leak Repairs
- Review Assessor Records for Building Construction Dates
- Test Pits (not required)
- Customer Self-Identification with Municipal Confirmation
- *Waiting for EPA or MassDEP Guidance Manuals*



RETURN OF SERVICE PIPE				Reg. No. 1077
Date Laid <i>May 24-1897</i>				
Owner of Premises <i>Chas. G. Thayer</i>				
Street <i>2 Harrison Ave</i>				
Main Pipe <i>6</i> Inches Diam.				
Distance Main to Curb Stop Cock <i>7 1/2</i> feet				
Foreman				
COST TO TOWN - Main to Curb Stop Cock Inc.				
<i>7 1/2</i> Feet	<i>1/2</i> Inch	<i>Lead</i> Pipe		
<i>1</i> Inch	<i>6</i> Inch	<i>Corporation</i> Stop		
One Inch Curb Stop				
One Sidewalk Box				
Couplings				
Elbows				
Hours Labor				Man
Hours Labor				Foreman
COST TO OWNER				
<i>35</i> Feet	<i>5/8</i> Inch	<i>Lead</i> Pipe		
<i>1</i> Inch	<i>6</i> Inch	<i>Pipe</i>		
Inch Stop and Waste				
Elbows				
Tees				
Hours Labor				Man
Hours Labor				Foreman
Trucking				
Total				Total



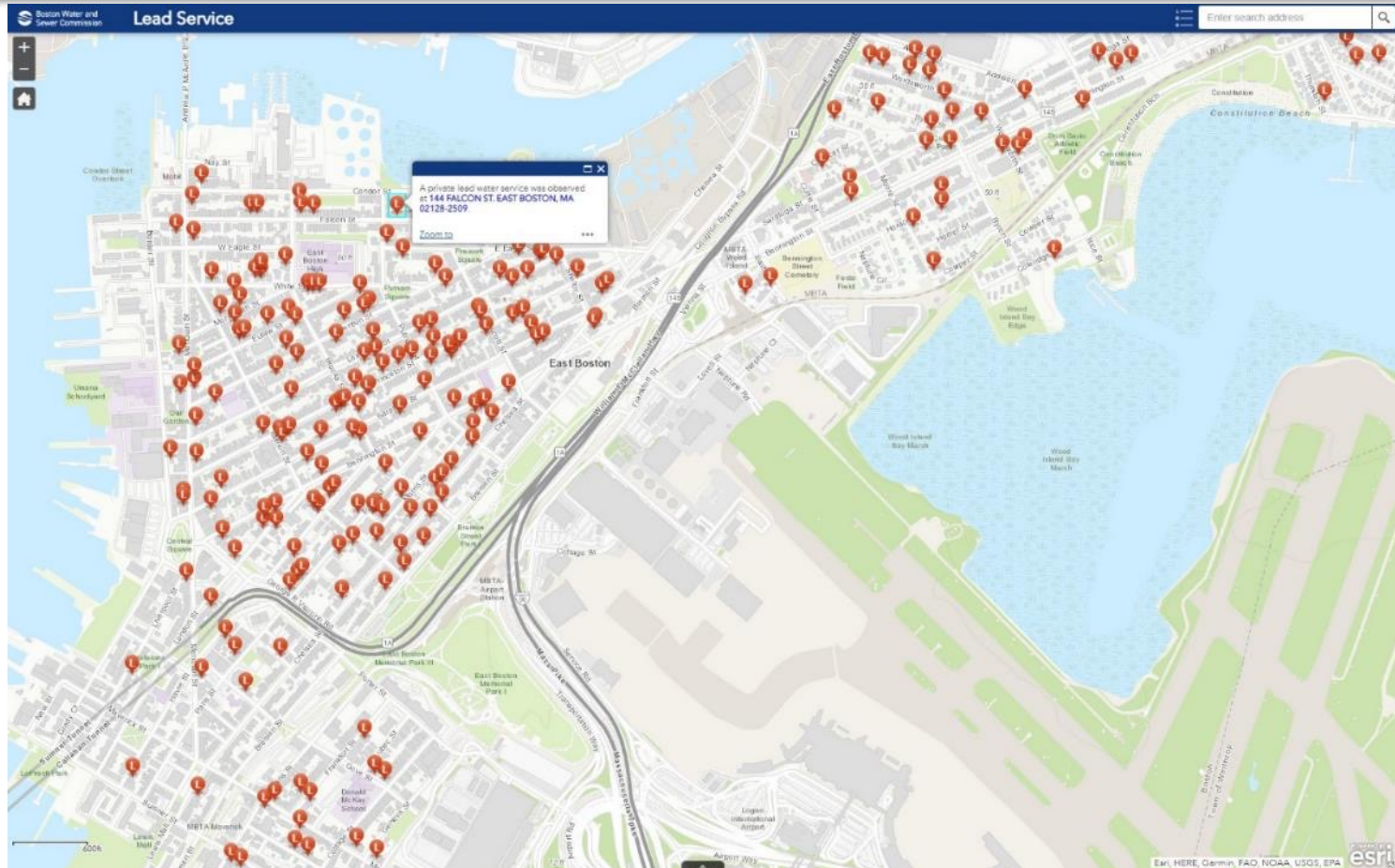
Inventory/Mapping – Public Disclosure

PUBLIC DISCLOSURE

- Systems greater than 50,000 people must post inventory on web
- Smaller systems must make the inventory available to the public
 - available for review at public location
 - recommend on-line, it's what our customers expect
- Letter to every home with LSL, galvanized requiring replacement, or unknown within 30 days
- Annual letter thereafter to all LSL, galvanized requiring replacement, or unknown

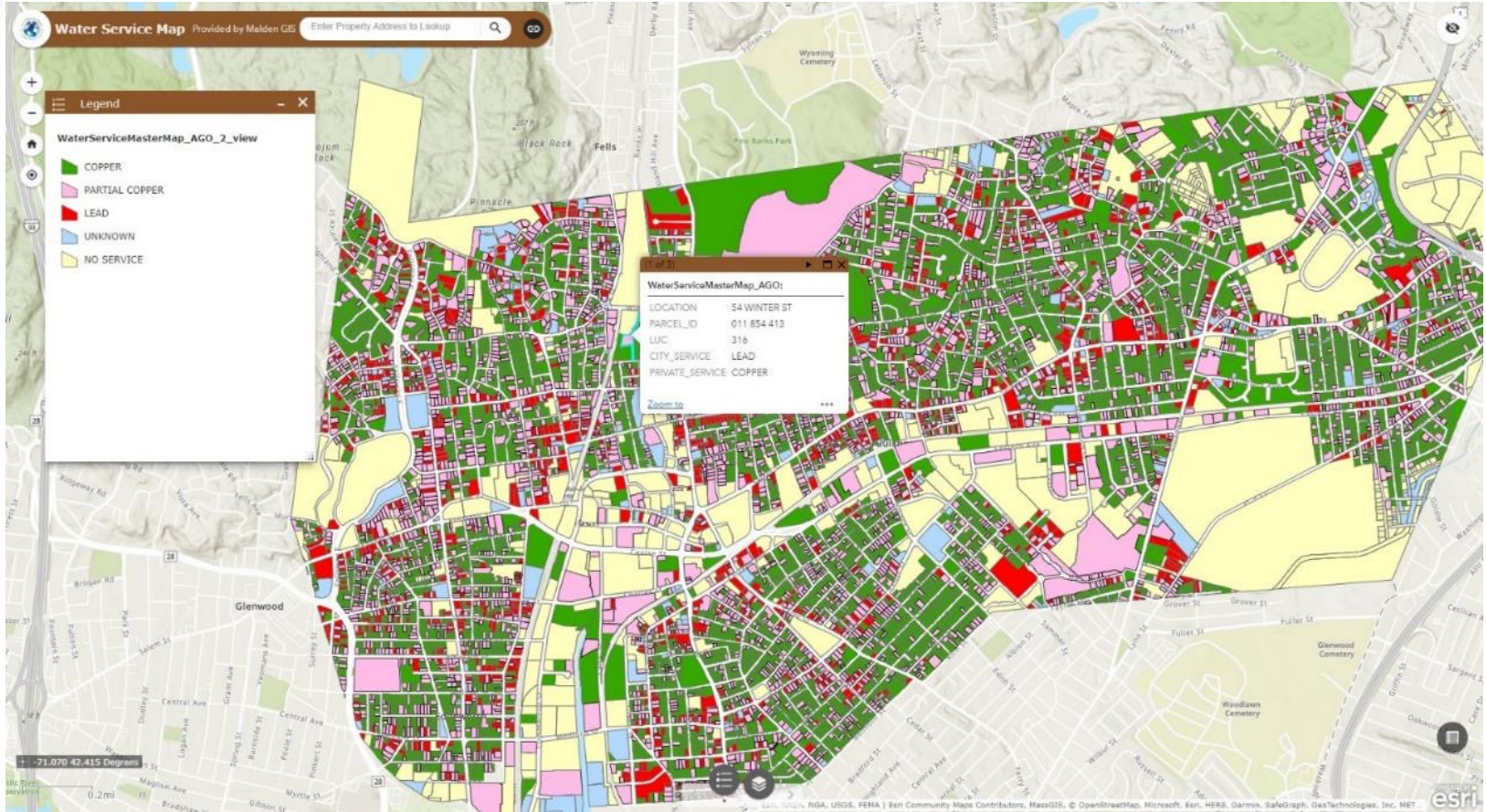


Public Disclosure - Boston Lead Service Line Map





Public Disclosure - Malden Lead Service Line Map





Public Disclosure – Quincy and Marlborough Lead Service Lists

Quincy LSL Inventory

Lead and Lead Lined Water Services

Ward 1	Type	Ward 4	Type
51 Newton Street	Lead	27 Campbell Street	Lead-Lined
40 Northfield Street	Lead	31 Campbell Street	Lead-Lined
74 Babcock Street	Lead-Lined	66 Campbell Street	Lead-Lined
86 Butler Road	Lead-Lined	127 Centre Street	Lead-Lined
66-68 Chickatabot Road	Lead-Lined	14-15 Dunns Court	Lead-Lined
7 Highfield Road	Lead-Lined	160 Intervale Street	Lead-Lined
8 Highfield Road	Lead-Lined	439 Willard Street	Lead-Lined
61 Ratchford Street	Lead-Lined	"493 Willard Street"	Lead-Lined
72 Rock Island Road	Lead-Lined	(22 Larry Street)"	
Saville Ave (Home Making School)			
Ward 2		Ward 5	
5-13 Shaw Street	Lead	74-78 Beach Street	Lead
39-41 South Walnut Street	Lead	207 Thomas Burgin Parkway	Lead-Lined
70-72 Arnold Street	Lead-Lined	38-40 Elm Avenue	Lead-Lined
14-16 Berry Street	Lead-Lined	2 Euclid Avenue	Lead-Lined
48 Dee Road	Lead-Lined	6-8 Franklin Place	Lead-Lined
2 Endicott Street	Lead-Lined	125 Kemper Street (Flagg)	Lead-Lined
134-136 Main & Sumner Street	Lead-Lined	133 Kemper Street	Lead-Lined
159-161 Main Street	Lead-Lined	200 Marlboro Street	Lead-Lined
		27-29 Merrymount Avenue	Lead-Lined
		29 Pearl Street	Lead-Lined
		80 Thornton Street	Lead-Lined
Ward 3		Ward 6	
33-35 North Central Avenue	Lead	26 Bay State Road	Lead
64 North Central Avenue	Lead	38 Aberdeen Road	Lead-Lined
135 Norfolk Street	Lead	22 Albion Road	Lead-Lined
153 Norfolk Street	Lead	282-284 Billings Road	Lead-Lined
42 Marion Street	Lead	103 Colby Road	Lead-Lined
40 Bowdoin Street	Lead-Lined	14-16 Colby Road	Lead-Lined
19 Eddie Street	Lead-Lined	47-49 Flynt Street	Lead-Lined
222 Elmwood Avenue	Lead-Lined	69 Holmes Street	Lead-Lined
57 Harvard Street	Lead-Lined	343-353 Newport Avenue	Lead-Lined
15 Hilda Street	Lead-Lined	58 Royal Street	Lead-Lined
163 Norfolk Street	Lead-Lined	14-16 Windsor Road	Lead-Lined
103 Oakland Avenue	Lead-Lined		
297 Safford Street	Lead-Lined		

Marlborough Lead Service Replacement Program

Section 4 - Documentation of Project Need Suspected Lead Services Marlborough, Massachusetts

SERVICE #	Address	Length of Service (feet)	
		from Water Main to Curb Box	from Curb Box to Building
885	14 ADAMS ST	16	
1241	16 ADAMS ST	21	
891	20 ADAMS ST	9	
1161	26 ADAMS ST	12	
871	32 ADAMS ST	23.6	
719	26 AMES PLACE	0	17.9
473	36 AMES PLACE	0	?
472	40 AMES PLACE	9	
569	43 AMES PLACE	0	29.9
2878	12 ARNOLD ST	0	25.4
1691	27 ARNOLD ST	12	27.11
2109	46 ARNOLD ST	0	13.7
2907	51 ARNOLD ST	13	23.1
1972	55 ARNOLD ST	0	21.4
849	24 AUBURN ST	0	15.6
2509	127 BEACH ST	0	39 GALV, 8 LD
2386	151 BEACH ST	0	14
1005	175 BEACH ST	0	21.4
1014	187 BEACH ST	0	13.3
2495	BEACH ST	0	331 GALV, 2 LD
3195	BEACH ST	34.4	
124	12 BELMONT ST	0	12
1140	16 BELMONT ST	21	18
2053	22 BELMONT ST	0	14.9
128	33 BELMONT ST	0	14
1797	65 BELMONT ST EXT	0	
3118	23 BERLIN ROAD	21.7	19
2609	43 BERLIN ROAD	12.6	74
2270	54 BERLIN ROAD	8.1	
2785	61 BERLIN ROAD	17.6	59.3
2472	66 BERLIN ROAD	14	
2277	84 BERLIN ROAD	5.6	
2583	100 BERLIN ROAD	6.4	
2268	108 BERLIN ROAD	7.5	
1787	36 BICKNELL	0	14
1568	40 BICKNELL	0	15.6
2186	14 Bicknell st	0	11
2586	17 BICKNELL ST	0	29.6
1999	20 BICKNELL ST	0	14
2206	21 BICKNELL ST	0	17.3
1607	23 BICKNELL ST	10.6	15
2467	34 BICKNELL ST	0	14
2889	2 BIGELOW ST	0	15 GALV
2755	24 BOLTON ST	17.8	



Inventories – Winthrop and Watertown Lead Service Lists

Winthrop LSL Inventory

Class 1 - Lead from main to property line
Class 2 - Lead from main to curbstop
Class 3 - Lead from curb stop to property line

REGISTER NO.	STREET #	STREET	Size of pipe	kind of pipe	Main to curb stop	curb stop to lot line	DPW Class	REPLACED W/Copper after list was generated in 2006
3	23	THORNTON ST	5/8"	LEAD	10FT LEAD MAIN TO CURB	5/8 LEAD	1	
4	10	W. SHORE DR	5/8"	LEAD	12FT LEAD MAIN TO CURB	5/8 LEAD	1	X-DCR Project
9	262	WINTHROP ST	5/8"	LEAD	28 FT LEAD MAIN TO CURB & CLEARED 26'33" 71'	5/8 LEAD	1	
29	64	LINCOLN	5/8"	LEAD	12 FT LEAD SERVICE	5/8 LEAD	1	
30	59	FREEMONT ST	5/8"	LEAD	14FT LEAD RELAYED 15FT LEAD SERVICE 36"	5/8 LEAD	1	X - Contract 2
38	220	WOODSIDE AVE	5/8"	LEAD	33FT LEAD SERVICE	5/8 LEAD	1	X-Contract 4
39	480	PLEASANT ST	5/8"	LEAD	28FT LEAD SERVICE & CLEARED FOR PRESSURE 68"	5/8 LEAD	1	
45	144	HERMON ST	3/4"	LEAD	ALL LEAD SERVICE	3/4 LEAD	1	
55	176-178	HERMON ST	5/8"	LEAD	47FT LEAD, CLEARED 34" & FOR PRESSURE 69"	5/8 LEAD	1	
61	19	OCEAN VIEW ST	5/8"	LEAD	12FT LEAD SERVICE	5/8 LEAD	1	
66	24	BEACON ST	5/8"	LEAD	12FT LEAD SERVICE	LEAD	1	X - Contract 4
67	18	BEACON ST	3/4"	LEAD	11FT LEAD SERVICE	LEAD	1	X - Contract 4
69	23	TEWKSBURY ST	5/8"	LEAD	ALL LEAD SERVICE	5/8 LEAD	1	
71	57	MOORE ST	5/8"	LEAD	ALL LEAD SERVICE	5/8 LEAD	1	
84	160	WINTHROP SHORE DR	5/8"	LEAD	ALL LEAD SERVICE & CLEARED 41"	5/8 LEAD	1	X - DCR Project
93	203	SHIRLEY ST	5/8"	LEAD	ALL LEAD SERVICE	5/8 LEAD	1	
100	162	WINTHROP SHORE DR	5/8"	LEAD	ALL LEAD SERVICE	5/8 LEAD	1	X - DCR Project
103	42	WAVE WAY AVE	5/8"	LEAD	ALL LEAD SERVICE	5/8 LEAD	1	
105	40	TEWKSBURY ST	5/8"	LEAD	ALL LEAD SERVICE	5/8 LEAD	1	
106	78	CENTER ST	5/8"	LEAD	ALL LEAD SERVICE	5/8 LEAD	1	

C - Copper main to lot line
CM - Copper main to meter

Watertown Lead Gooseneck Water Services

Town of Watertown, Massachusetts Watertown Lead Gooseneck Water Service Inventory										Weston (S) Sampson				
Total	Watertown Service Number	Address No.	Street Name	Town	State	Service Size at Street (Inches)	Material Type at Street	Service Size at Property (Inches)	Material Type at Property	Lead gooseneck at Street	Lead gooseneck at Private	Lead gooseneck Replaced		
1	2703	77-79	Dexter ave.	Watertown	MA	1	FE	1	FE	Y	N			
2	4303	159	gallifrey st.	Watertown	MA	1.25	FE	1.25	FE	Y	N			
3	4579	201	Acton st.	Watertown	MA	1	FE	1	FE	Y	N			
4	1950	59	Adams ave.	Watertown	MA	1	FE	1	FE	Y	N			
5	3680	18	Adams ave.	Watertown	MA	1	FE	1	FE	Y	N			
6	1734	1-8	Adams st.	Watertown	MA	1	FE	1	FE	Y	N			
7	5157	31-33	Adams st.	Watertown	MA	1	FE	1	FE	Y	N			
8	5286	33-35	Adams st.	Watertown	MA	1	FE	1-3/4	FE-CU	Y	N			
9	4367	10-12	Amherst rd.	Watertown	MA	1	FE	1	FE	Y	N			
10	4775	28-30	Amherst rd.	Watertown	MA	1	FE	1	FE	Y	N			
11	4841	14	Amherst rd.	Watertown	MA	1	FE	1	FE	Y	N			
12	6121	4	Andrews st.	Watertown	MA	1	FE	1	FE	Y	N			
13	1745	2	Appleton st.	Watertown	MA	1	FE	1	CU	Y	N			
14	1767	1	Appleton st.	Watertown	MA	1	FE	3/4-1	CU-FE	Y	N			
15	2481	35-17	Appleton st.	Watertown	MA	1	FE	1	FE	Y	N			
16	2642	23	Appleton st.	Watertown	MA	1	FE	1	FE	Y	N			
17	2049	97	Arlington st.	Watertown	MA	1	FE	1	FE	Y	N			
18	5934	210-212	Arlington st.	Watertown	MA	1	FE	1	FE	Y	N			
19	6257	<Null>	Arlington st.	Watertown	MA	2	FE	2	FE	Y	N			
20	6493	174	Arlington st.	Watertown	MA	1.5	FE	1.5	FE	Y	N			
21	7021	130	Arlington st.	Watertown	MA	1	FE	3/4-1	CU-FE	Y	N			
22	2802	197	arsenal st.	Watertown	MA	1	FE	1	FE	Y	N			
23	6492	660	arsenal st.	Watertown	MA	1	FE	1	FE	Y	N			
24	6508	450	arsenal st.	Watertown	MA	1	FE	1	FE	Y	N			
25	1468	10	Arundel terr.	Watertown	MA	1	FE	1	CU	Y	N			
26	1605	16	Arundel terr.	Watertown	MA	1	FE	1	FE	Y	N			
27	1305	32	Bacon st.	Watertown	MA	1	FE	1	CU	Y	N			
28	1677	65	Bacon st.	Watertown	MA	1	FE	1	FE	Y	N			
29	5149	27-29	Bancroft St	Watertown	MA	1	FE	1	FE	Y	N			
30	2322	109	barnard ave.	Watertown	MA	1	FE	1	FE	Y	N			
31	2717	80	barnard ave.	Watertown	MA	1	FE	1	FE	Y	N			
32	2761	136	barnard ave.	Watertown	MA	1	FE	1	FE	Y	N			
33	2718	54	Beechwood ave.	Watertown	MA	1	FE	1	FE	Y	N			
34	4680	90-92	Beechwood ave.	Watertown	MA	1	FE	1	FE	Y	N			
35	5450	16	Belknap terr.	Watertown	MA	1	FE	1	FE	Y	N			
36	1851	132	Bellevue Rd.	Watertown	MA	1	FE	1	FE	Y	N			
37	2915	184	Bellevue Rd.	Watertown	MA	1	FE	1	FE	Y	N			
38	3040	178	Bellevue Rd.	Watertown	MA	1	FE	1	CU	Y	N			
39	3002	116	Bellevue Rd.	Watertown	MA	1	FE	1	CU	Y	N			
40	4211	116	Bellevue Rd.	Watertown	MA	1	FE	1	FE	Y	N			
41	4767	185	Bellevue Rd.	Watertown	MA	1	FE	1	FE	Y	N			
42	4865	152	Bellevue Rd.	Watertown	MA	1.5	FE	1.5	FE	Y	N			
43	4974	212	Bellevue Rd.	Watertown	MA	1	FE	1	CU	Y	N			
44	5093	240	Bellevue Rd.	Watertown	MA	1	FE	1	FE	Y	N			
45	7200	170	Bellevue Rd.	Watertown	MA	1	FE	UNK	CU	Y	N			
46	5272	5	Bellevue terr.	Watertown	MA	2	FE	1	FE	Y	N			
47	5615	121	Bellevue terr.	Watertown	MA	1	FE	1	FE	Y	N			
48	5670	120	Bellevue terr.	Watertown	MA	1	FE	1	FE	Y	N			
49	81	812-814	Belmont st.	Watertown	MA	1	FE	1	FE	Y	N			
50	110	840-842	Belmont st.	Watertown	MA	1	FE	3/4	FE	Y	N			
51	1679	984	Belmont st.	Watertown	MA	1	FE	3/4	CU	Y	N			
52	1842	1084	Belmont st.	Watertown	MA	1	FE	1	FE	Y	N			
53	1988	282	Belmont st.	Watertown	MA	1	FE	1	FE	Y	N			
54	2107	<Null>	Belmont st.	Watertown	MA	1	FE	1	FE	Y	N			
55	2423	774-776	Belmont st.	Watertown	MA	1	FE	1	CU	Y	N			
56	2509	126	Belmont st.	Watertown	MA	1	FE	1	FE	Y	N			
57	2738	498-500	Belmont st.	Watertown	MA	1	FE	1	CU	Y	N			
58	3084	748	Belmont st.	Watertown	MA	1	FE	1	CU	Y	N			
59	3667	144	Belmont st.	Watertown	MA	1	FE	1	FE	Y	N			
60	4709	112-114	Belmont st.	Watertown	MA	1	FE	1	FE	Y	N			
61	5143	602	Belmont st.	Watertown	MA	1	FE	1	FE	Y	N			
62	5515	612	Belmont st.	Watertown	MA	1	FE	1	FE	Y	N			
63	5523	626	Belmont st.	Watertown	MA	1	FE	1	FE	Y	N			
64	6645	596	Belmont st.	Watertown	MA	1	FE	3/4	CU	Y	N			
65	6883	1030	Belmont st.	Watertown	MA	1	FE	1-3/4	FE-CU	Y	N			
66	7184	1047-1049	Belmont st.	Watertown	MA	1	FE	3/4	CU	Y	N			
67	7745	1026-1028	Belmont st.	Watertown	MA	1	FE	1-3/4	FE-CU	Y	N			
68	1175	16	Bigelow terr.	Watertown	MA	1	FE	3/4	CU	Y	N			
69	7600	<Null>	Bigelow + elton	Watertown	MA	2	FE	2-1 1/2	FE-CU	Y	N			
70	5506	2-11	birch rd.	Watertown	MA	1	FE	1	FE	Y	N			
71	5552	14-16	birch rd.	Watertown	MA	1	FE	1	FE	Y	N			
72	3000	247-249	Boylston st.	Watertown	MA	1	FE	1	FE	Y	N			
73	3003	250-252	Boylston st.	Watertown	MA	1	FE	1	FE	Y	N			
74	3092	60-62	Boylston st.	Watertown	MA	1	FE	1	FE	Y	N			
75	3181	187-189	Boylston st.	Watertown	MA	1	FE	3/4	CU	Y	N			
76	3236	92-94	Boylston st.	Watertown	MA	1	FE	1	FE	Y	N			
77	3243	53-55	Boylston st.	Watertown	MA	1	FE	1	FE	Y	N			



MassDEP Service Line Inventory Tools

Jessica Sibirski, MassDEP



MassDEP Inventory Fields (1 of 5)

COLUMN LETTER	COLUMN NAME	OPTIONAL/REQUIRED	COLUMN DESCRIPTION	VALID VALUES	VALID VALUES DESCRIPTION
A	SITE ID	OPTIONAL	PWSs that do not wish to report site addresses to the department in column B may want to use this column to "link" their materials inventory table to a separate service address table for their own use.	Any value	
B	LOCATIONAL IDENTIFIER	REQUIRED	<p>Sub-subparagraph §141.84 (a)(8)(i) of the LCRR requires a location identifier associated with each service line. The locational identifier can be the site address, or it can be a block, intersection, or landmark.</p> <p>The location identifier can be the site address. If the PWS does not wish to report addresses to the Department it can be a block, intersection, or landmark as long as the site is not part of the sample plan.</p>	Any value	
C	LCR SAMPLING LOCATION?	REQUIRED	Is this location a Lead and Copper Rule (LCR) sample site?	YES NO	
D	CONNECTOR (GOOSENECK/PIGTAIL) CURRENTLY PRESENT?	REQUIRED	Is there a gooseneck, lead connector or pigtail present?	YES NO UNK	YES = Yes, Known with Certainty NO = No, Known with Certainty UNK = Unknown, Not Known with Certainty
E	CONNECTOR (GOOSENECK/PIGTAIL) MATERIAL	CONDITIONALLY REQUIRED	Identify the connector material if known. If column E is "YES" then this column is required.	L C B S P O UNK-NOLG	L = Confirmed Lead C = Confirmed Copper B = Brass S = Steel P = Plastic O = Other, does not contain lead or lead solder UNK-NOLG = Unknown, definitely does not contain lead or galvanized
F	CURRENT PUBLIC SERVICE LINE MATERIAL	REQUIRED	The current utility-side service line pipe material, from the water main to curb stop.	L C G P DI CI-L CI-U UNK-LG UNK-NOLG	L = Confirmed Lead C = Confirmed Copper G = Confirmed Galvanized P = Plastic DI = Ductile Iron CI-L = Lined Cast Iron CI-U = Unlined Cast Iron UNK-LG = Unknown, may contain lead and/or galvanized UNK-NOLG = Unknown, definitely does not contain lead or galvanized
G	WAS PUBLIC SERVICE LINE MATERIAL EVER PREVIOUSLY LEAD?	REQUIRED	Was the service line ever previously lead?	YES NO UNK	YES = Yes, Known with Certainty NO = No, Known with Certainty UNK = Unknown, Not Known with Certainty



MassDEP Inventory Fields (2 of 5)

COLUMN LETTER	COLUMN NAME	OPTIONAL/REQUIRED	COLUMN DESCRIPTION	VALID VALUES	VALID VALUES DESCRIPTION
H	PUBLIC SERVICE LINE SIZE	OPTIONAL	Service line pipe diameter in inches (e.g. 3/4", 0.75), from the water main to curb stop. This column may be used by PWSs that wish to track information required in a single document.	3/8" 1/2" 5/8" 3/4" 1" 1 1/4" 1 1/2" 1 3/4" 2" 3" 4" 6" 8" 10" 12" 14" 16" OTH	
I	PUBLIC SERVICE LINE INSTALL DATE	REQUIRED	The four-digit year that the utility-side service was installed (e.g. 1974). If the exact year is not known, enter the decade (e.g. 1970s, 2000s). If unknown, was the service line installed Pre-Lead-Ban (PLB) or After-Lead-Ban (ALB).	PLB ALB Valid Regular Expression Patterns: ^((1{1}{?}[89])[0-9]{1}) (2{1}{?}[0])[0-2]{1})[0]{1}?s{1}\$ ^[1-2]{1}[0-9]{3}\$	PLB = Pre lead ban ALB = After lead ban E.g., 1910's, 1910s, 1920's, 1920s E.g., 1974, 1993, 2003, 2020
J	CURRENT PRIVATE SERVICE LINE MATERIAL	REQUIRED	Service line pipe material, from the curb-stop to water meter.	L C G P DI CI-L CI-U UNK-LG UNK-NOLG	L = Confirmed Lead C = Confirmed Copper G = Confirmed Galvanized P = Plastic DI = Ductile Iron CI-L = Lined Cast Iron CI-U = Unlined Cast Iron UNK-LG = Unknown, may contain lead and/or galvanized UNK-NOLG = Unknown, definitely does not contain lead or galvanized



MassDEP Inventory Fields (3 of 5)

COLUMN LETTER	COLUMN NAME	OPTIONAL/REQUIRED	COLUMN DESCRIPTION	VALID VALUES	VALID VALUES DESCRIPTION
K	PRIVATE SERVICE LINE SIZE	OPTIONAL	Service line pipe diameter, in inches (e.g. 3/4", 0.75), from the curb-stop to water meter. This column may be used by PWSs that wish to track information required in a single document.	3/8" 1/2" 5/8" 3/4" 1" 1 1/4" 1 1/2" 1 3/4" 2" 3" 4" 6" 8" 10" 12" 14" 16" OTH	
L	PRIVATE SERVICE LINE INSTALL DATE	REQUIRED	The four-digit year that the customer side service line was installed (e.g. 1974). If the exact year is not known, enter the decade (e.g. 1970s, 2000s). If unknown, was the service line installed Pre-Lead-Ban (PLB) or After-Lead-Ban (ALB).	PLB ALB Valid Regular Expression Patterns: ^((1{1}{?-[89]}[0-9]{1}) (2{1}{?-[0]}[0-2]))[0]{1}'?s{1}\$ ^[1-2]{1}[0-9]{3}\$	PLB = Pre lead ban ALB = After lead ban E.g., 1910's, 1910s, 1920's, 1920s E.g., 1974, 1993, 2003, 2020
M	ENTIRE SERVICE LINE CLASSIFICATION	REQUIRED	This is a calculated value. It will be automatically calculated based on changes made to the following columns: - CURRENT PUBLIC SERVICE LINE MATERIAL (COLUMN G) - WAS PUBLIC SERVICE LINE MATERIAL EVER PREVIOUSLY LEAD? (COLUMN H) - CURRENT PRIVATE SERVICE LINE MATERIAL (COLUMN K) To manually calculate the value select one or more of the cells in the column for ENTIRE SERVICE LINE CLASSIFICATION and then right-click. From the context menu select MassDEP - Inventory Column Options > Column N > Calculate Entire Service Line.	LEAD NON-LEAD GALVANIZED REQUIRING REPLACEMENT LEAD STATUS UNKNOWN	
N	VERIFICATION METHOD	REQUIRED	Methodology used for verification of service line material.	R F V I A S	R = Records Only F = Field Inspection Only V = Records Validation I = Records Invalidation A = Statistical Analysis S = Sequential Monitoring



MassDEP Inventory Fields (4 of 5)

COLUMN LETTER	COLUMN NAME	OPTIONAL/REQUIRED	COLUMN DESCRIPTION	VALID VALUES	VALID VALUES DESCRIPTION
O	BUILDING TYPE	REQUIRED	The type of structure that is served water by the service connection. At a minimum, the PWS must identify the connection either SF, MF or NONRES.	SF MF SCH/CC RES/CC NONRES MIX O	SF = Single-Family MF = Multi-Family SCH/CC = School/Childcare RES/CC = Residential & In-Home Child Care NONRES = Nonresidential, Non-School, Non-Childcare MIX = Mixed Residential & Nonresidential O = Other
P	POE/POU TREATMENT PRESENT?	CONDITIONALLY REQUIRED	Is the cold-water kitchen tap treated by point-of-entry or point-of-use softening, filter or other treatment? Required if column D is "YES".	YES NO UNK	YES = Yes, Known with Certainty NO = No, Known with Certainty UNK = Unknown, Not Known with Certainty
Q	BUILDING PLUMBING MATERIAL 1	CONDITIONALLY REQUIRED	The type of plumbing material(s) inside the structure for serving water. Required if column D is "YES".	L C CLS O UNK	L = Lead C = Copper CLS = Copper w/ Lead Solder O = Other, does not contain Lead or Lead Solder UNK = Unknown
R	BUILDING PLUMBING MATERIAL 2	OPTIONAL	If there is more than one known plumbing material type.	L C CLS O UNK	L = Lead C = Copper CLS = Copper w/ Lead Solder O = Other, does not contain Lead or Lead Solder UNK = Unknown
S	PLUMBING MATERIAL INSTALL DATE	CONDITIONALLY REQUIRED	The four-digit year, or decade (e.g., 1960's), that the interior premise plumbing was installed. If the decade is in 1980's, enter one of: 1983-1984, <1983, or >1984. Required if column D is "YES".	< 1983 1983-1984 > 1984 Valid Regular Expression Patterns: ^([1]{1}(?:[89])[0-9]{1}) (2{1}(?:[0-9])[0-2]{1})[0]{1}'s{1}\$ ^([1-2]{1}[0-9]{3})\$	E.g., 1910's, 1910s, 1920's, 1920s E.g., 1974, 1993, 2003, 2020
T	SAMPLING PLAN LOCATION	CONDITIONALLY REQUIRED	If the location is part of the sampling plan choose between Routine or Alternative site. Required if column D is "YES".	R A	R = Routine Site A = Alternative Site



MassDEP Inventory Fields (5 of 5)

COLUMN LETTER	COLUMN NAME	OPTIONAL/REQUIRED	COLUMN DESCRIPTION	VALID VALUES	VALID VALUES DESCRIPTION
U	SAMPLING SITE TIER	CONDITIONALLY REQUIRED	<p>The Tier classification for the LCR Sampling Location.</p> <p>This is a calculated value based on the following columns:</p> <ul style="list-style-type: none">- ENTIRE SERVICE LINE CLASSIFICATION (COLUMN N)- BUILDING TYPE (COLUMN P)- CONNECTOR (GOOSENECK/PIGTAIL) CURRENTLY PRESENT? (COLUMN E)- CONNECTOR (GOOSENECK/PIGTAIL) MATERIAL (COLUMN F)- WAS PUBLIC SERVICE LINE MATERIAL EVER PREVIOUSLY LEAD? (COLUMN H)- BUILDING PLUMBING MATERIAL INSTALL DATE (COLUMN T) <p>To manually calculate the value select one or more of the cells in the column for SAMPLING SITE TIER and then right-click. From the context menu select MassDEP - Inventory Column Options > Column V > Calculate Sampling Site Tier.</p>	TIER 1 TIER 2 TIER 3 TIER 4 TIER 5 NA	
V	REPLACED LSL PUBLIC OR PRIVATE SIDE?	OPTIONAL	Status of lead service line replacement performed during or after 2024.	PUBLIC PRIVATE BOTH	PUBLIC = Yes, public side of LSL PRIVATE = Yes, private side of LSL BOTH = Yes, both public and private side of LSL
W	NEW REPLACED MATERIAL	OPTIONAL	The material of the new service line.	C P OTH	C = Copper P = Plastic OTH = Not Applicable
X	LSL REPLACEMENT DATE	OPTIONAL	Date when lead service line was replaced.		
Y	COMMENTS	OPTIONAL	Additional information about this service location.	Any value	



MassDEP LSL Crowdsourcing Tool

Follow the EPA guide to identify your service line material

Before filling out this form you should review and follow the instructions in the EPA guide "[Protect Your Tap: A Quick Check for Lead](#)" for identifying your service line material. It's okay if you are not 100% certain of the material. Your water utility will follow-up with you if necessary.

Homeowner's Full Name *

Enter the homeowner's full name. Example: Jonathan Smith

Homeowner's Email Address *

Homeowner's Phone Number

Street Address *

Enter the address of the building/house where the service line is located. **DO NOT** enter city, state, or zip code in this field. Example: 123 Elm Street

City/Town *

Select the official town for the street address above.

For example, for an address in Dorchester, the official city/town is Boston; Dorchester is a neighborhood, not an official city or town.

Public Water System

If known, select the public water system that serves the street address. You may type into the field to filter the drop-down list options.

Construction Year

If known, enter the year the building/house was constructed. Example: 1953

Service Line Material *

Following the EPA Guide "[Protect Your Tap: A Quick Check for Lead](#)" select the material of your service line. If you are unsure it's okay to select the material you believe it to be. If necessary your water utility will follow-up with you.

Upload a photo of your service line. *

Drag and drop files here or [browse files](#)

☐ Send me a copy of my responses

Submit

	primary 🏠 🔧	row_id 🏠	pws_id 🏠 🔧	customer_id	homeowner_name 🏠	homeowner_email_... 🏠	street_address 🏠	city_town 🏠
1								
2	🏠	4	4	3178000	Tsuyoshi Yano	tio.yano@mass.gov	123 Main Street	MELROSE
3	🏠 🏠 🏠 🏠							



Lead Line Service Inventory: City of Chelsea Case Study

Rebecca Wright
City of Chelsea



Chelsea, Massachusetts

Demographics

Population: 40,787

68% Latino

19.1% Below Poverty

1.81 Square Miles

Second Most Densely Populated City in Massachusetts

Lead Service Replacement Project

• Project Details:

➤ Contract 2019-230 (Rebid)

- 140 Service Replaced during the first 2.5 year contract

➤ Contract 2022-34

- 43 Services Replaced Year 1 (\$250k year 1)
- \$400k for year 2 and year 3

➤ About \$5,800 per replacement

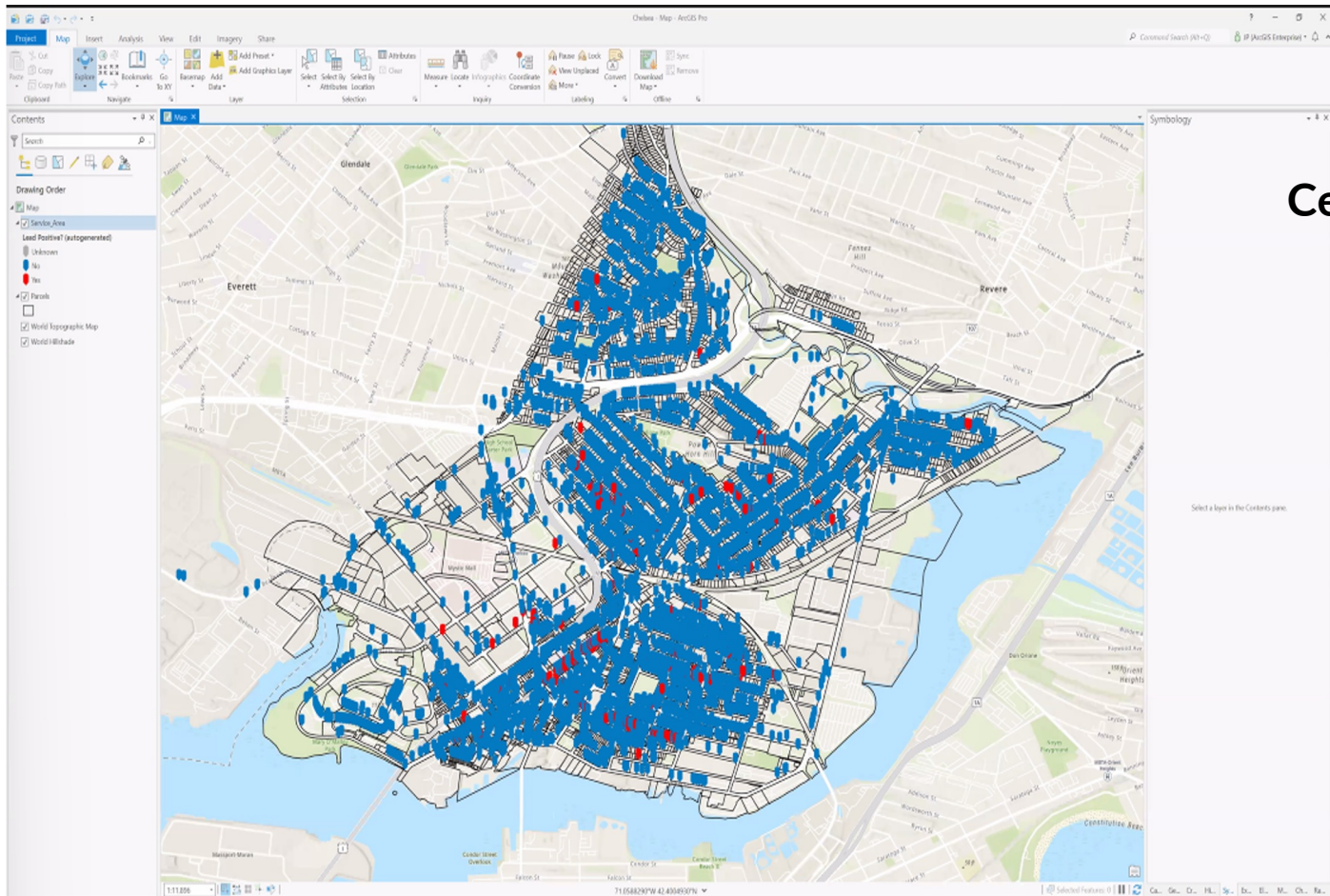
- ❖ Includes: Replacement, Plumbing, Resident Outreach, Restoration

➤ Funding: MWRA Lead Loan Replacement

Data management and inventories

Water Services												Water Main to Curb Stop				Curb Stop to Premise (Cellar)																							
Address	House Num	Street Name	Lead Positive? (autogenerated)	Lead Identified thru Meter Replacement Program	Lead Positive remaining from 2019 Replace. Prog.	Source	Last Recorded Inspection	Current Material	Current Size (in)	Length (ft)	Age	Current Material	Current Size (in)	Length (ft)	Age	Total Length	Original Material	Original Install Date	Water Main ID	Water Main																			
45 ADDISON ST	45	ADDISON ST	NO	NO	No		2/20/2020	Copper	0.75	14	1973	Copper	0.75	12	1973	26	Lead	7/23/1973	1517.00	6.0																			
46 ADDISON ST	46	ADDISON ST	NO		No		1/27/2020	Copper	0.75	9	1968	Copper	0.75	15	1968	24	Lead	4/2/1968	1517.00	6.0																			
48 ADDISON ST	48	ADDISON ST	NO	NO	No		1/27/2020	Copper	0.75	8	1990	Copper	0.75	6	1947	14	Lead	8/21/1947	1517.00	6.0																			
50 ADDISON ST	50	ADDISON ST	NO		No		1/28/2020	Copper				Copper					Lead	5/7/1971	#N/A	#N/A																			
51 ADDISON ST	51	ADDISON ST	NO	NO	No		1/24/2020	Copper				Copper							1517.00	6.0																			
52 ADDISON ST	52	ADDISON ST	NO	NO	No		1/29/2020	Copper	0.75	15	1975	Copper	0.75	7.5	1975	22.5	Lead	2/4/1927	1517.00	6.0																			
53 ADDISON ST	53	ADDISON ST	YES		Yes	Email	7/26/2019	Copper				Copper							1517.00	6.0																			
54 ADDISON ST	54	ADDISON ST	NO	NO	No		6/2/2020	Copper	0.75	10	1965	Copper	0.75	17	1965	27	Copper	8/11/1965	1517.00	6.0																			
55 ADDISON ST	55	ADDISON ST	NO		No		10/24/2019	Copper	0.75	16	1973	Copper	0.75	14	1973	30	Lead	3/29/1962	1517.00	6.0																			
56 ADDISON ST	56	ADDISON ST	NO	NO	No		10/28/2019	Copper				Copper							1517.00	6.0																			
57 ADDISON ST	57	ADDISON ST	NO	NO			1/23/2020	Copper	0.75	25	1976	Copper	0.75	7	1976	32	Lead	1968	1517.00	6.0																			
59 ADDISON ST	59	ADDISON ST	NO	NO	No		1/23/2020	Copper	0.75	26	1951	Copper	0.75	7	1951	33	Lead		1517.00	6.0																			
60 ADDISON ST	60	ADDISON ST	NO		No		10/1/2019	Copper				Copper						2/6/1959	1756.00	10.1																			
61 ADDISON ST	61	ADDISON ST	NO		No		5/29/2020	Copper				Copper						#N/A	#N/A	#N/A																			
64 ADDISON ST	64	ADDISON ST	NO		Replaced in Program		1/9/2020	Copper	0.75	9	1957	Copper	0.75	9	1957	18	Copper	10/28/1957	1756.00	10.1																			
66 ADDISON ST	66	ADDISON ST	NO	NO	Replaced in Program		2/21/2020	Copper				Copper					Lead	2/7/1963	1756.00	10.1																			
69 ADDISON ST	69	ADDISON ST	NO	NO	No		2/19/2020	Copper	0.75	20	1960	Copper	0.75	10	7/6/1960	30			1188.00	6.0																			
70 ADDISON ST	70	ADDISON ST	NO	NO	No		10/3/2019	Copper	0.75		1947	Copper	0.75		1947		Lead	11/13/1947	1188.00	6.0																			
71 ADDISON ST	71	ADDISON ST	NO			Email on File	12/29/2021	Copper	1.00			Copper	1.00				Lead	7/13/1905	1188.00	6.0																			
72 ADDISON ST	72	ADDISON ST	NO	NO	No		1/9/2020	Copper	0.75		1941	Copper	0.75	15	1941	15	Lead	10/30/1940	1188.00	6.0																			
73 ADDISON ST	73	ADDISON ST	NO		No		10/14/2019	Copper	0.75	15	6/14/1979	Copper	0.75	10	#####	25	Lead	5/15/1970	1188.00	6.0																			
74 ADDISON ST	74	ADDISON ST	NO	NO	No		1/9/2020	Copper	0.75	11	1970	Copper	0.75	8	1970	19	Copper	5/5/1970	1188.00	6.0																			
75 ADDISON ST	75	ADDISON ST	NO		No		1/22/2020	Copper	0.75	20	#####	Copper	0.75	5	#####	25			1188.00	6.0																			
76 ADDISON ST	76	ADDISON ST	NO	NO	No		1/13/2020	Copper	0.75	12	1960	Copper	0.75	10	1960	22	Lead	4/21/1960	1188.00	6.0																			
76 ADDISON ST	76	ADDISON ST	NO		No		1/22/2020	Copper				Copper						#N/A	#N/A	#N/A																			
77 ADDISON ST	77	ADDISON ST	NO	NO	No		1/22/2020	Copper				Copper							1188.00	6.0																			
78 ADDISON ST	78	ADDISON ST	YES	YES	No		See WS Card	Copper				Copper							1188.00	6.0																			
80 ADDISON ST	80	ADDISON ST	NO		No	Jose	12/29/2021	Copper	1		2021	Copper	1		2021		Lead		1188.00	6.0																			
81 ADDISON ST	81	ADDISON ST	NO	NO	No		2/21/2020	Copper	0.75	20	8/1/1956	Copper	0.75	6	8/1/1956	26	Lead		1188.00	6.0																			
83 ADDISON ST	83	ADDISON ST	NO	NO	No		2/19/2020	Copper	0.75	20	11/8/1983	Copper	0.75	10	#####	30	Lead		1188.00	6.0																			
84 ADDISON ST	84	ADDISON ST	NO		No		2/17/2020	Copper	0.75	7	1971	Copper	0.75	4	1971	11	Lead	8/19/1971	1188.00	6.0																			
87 ADDISON ST	87	ADDISON ST	YES		No		1/21/2020	Lead				Copper	0.75	2	1967	2			1188.00	6.0																			
88 ADDISON ST	88	ADDISON ST	NO		No	Jose	12/30/2021	Copper	1		2021	Copper	1		2021		Lead	8/13/1904	1188.00	6.0																			
91 ADDISON ST	91	ADDISON ST	NO		No		1/20/2020	Copper				Copper							1188.00	6.0																			
92 ADDISON ST	92	ADDISON ST	NO		No		10/8/2019	Copper	0.75	15	1987	Copper	0.75	13.58	1987	28.58	Lead	6/24/1914	1188.00	6.0																			
96 ADDISON ST	96	ADDISON ST	NO																1188.00	6.0																			
96 ADDISON ST #1	96	ADDISON ST	NO		No		1/8/2020	Copper	0.75	12	1958	Copper	0.75	15	1958	27	Lead	1/28/1958	#N/A	#N/A																			
Water Services - Data Entry																					Meters	Water Main_ID	Water Mains_13	Future Capital Improv.Project															

2022 Chelsea Water Service Inventory Master Spreadsheet



GIS Output from Center for Geospatial Solutions

Communications

City of Chelsea Outreach

Facebook interface showing a video player. The video features a woman in a blue jacket speaking. The video title is "If the pipe is lead, email the street address at rwright@chelseama.gov."

WaterPIO March Water Billing Letter

WaterPIO March Water Billing Letter

March 1, 2022

Dear Customer,

The City of Chelsea is writing to you today to provide you with an update on our continuing efforts to replace all of the lead service lines found within the city at no cost to building owners. As part of our update, we also need to make an important ask your assistance so we can be successful.

To begin, we would like to remind you that Chelsea's water is lead-free in our water main, however, lead can get into the water from old lead service lines and solder that connect the main in the street to the plumbing of homes and businesses. (See the diagram below.)



To reduce your potential exposure to lead in drinking water, years ago, Chelsea began replacing the city-owned portion of lead service lines. Over the past few years, Chelsea has also been replacing the non-city portion of lead service lines. In 2010, we embarked on a multi-year program to replace all remaining lead service lines within Chelsea for free. This is where we need your help.

We are asking all Chelsea residents and business owners to check their water service lines and inform us if you have a lead service. On the other side of this page, you will find directions on how to tell if you have a lead service line connected to your home or business.

If you find you have a lead service line, this does not mean you have been exposed to lead because of our use of corrosion control. However, we want to remove the line and any possible risk of lead exposure. Please email leadservice@chelseama.gov with your address or call Chelsea Water & Sewer at (617) 466-4310 to report the address so we can replace the lead service line.

Page 2

How To Tell if You Have a Lead Service Line

- 1) Locate the water line coming into the building. It is typically found in the basement near your water meter.
- 2) Pick a test area on the pipe after it comes into the building but before the meter itself. If the pipe is covered or wrapped, expose a small area of the pipe.
- 3) Use a metal tool to scratch through any corrosion on the outside of the pipe.
- 4) Use the graphic below to determine what kind of pipe you have.
- 5) If the pipe is lead, email leadservice@chelseama.gov or call (617) 466-4310.

LEAD



A lead service line is dull, silver gray in color and is EASILY scratched by a coin or piece of metal. Use a magnet as well; a strong magnet does NOT cling to a lead pipe.

GALVANIZED



A galvanized pipe is also a dull, silver gray color. However, when you use a magnet, it will typically cling to a galvanized pipe.

COPPER



A copper pipe is relatively easy to spot. You can just compare the pipe's color to a copper penny.

You may find white, plastic pipes for your water service. They do not have any lead risk.

We thank you for your help with this important effort. If we work together, we can eliminate all of Chelsea's lead service lines, no matter where they may be.

City of Chelsea Water & Sewer Department
Chelsea City Hall, Room 310
Chelsea, Massachusetts, 02150
Phone: (617) 466-4310
Website: www.chelseama.gov/public-works

OVER



Financial Assistance for LSL Replacement

Financial Assistance for LSL Replacement

Jon Szarek

MWRA Community Support Program



MWRA Lead Loan Program

- \$100 Million for community projects
- 10 year interest-free loans
- Projects must replace **ALL** lead pipe within a service line - **BOTH** public and private portions
- If any portion of service is lead or brass, entire service is eligible for replacement
- Funding for Inventory is an eligible cost





MWRA Lead Loan Program

47 MWRA Communities with Potential to Utilize Lead Loan Program

- 3 Communities with Greater than 1,000 Lead Services
- 7 Communities with 100 - 800 Lead Services
- 11 Communities with less than 80 Lead Services and some Lead Goosenecks
- 10 Communities with No Known Lead Services and some Lead Goosenecks
- 16 Communities with high confidence of No Lead Services and No Lead Goosenecks

Based on current data from communities



MWRA Lead Loan Program – First 6 Years

- Distributed \$32 Million to 13 Communities (32 Distributions):
 - Everett \$5.5 M
 - Marlborough \$5.0 M
 - Newton \$4.0 M
 - BWSC \$3.5 M
 - Winthrop \$3.0 M
 - Somerville \$2.5M
 - Winchester \$2.2 M
 - Revere \$1.5M
 - Quincy \$1.5 M
 - Needham \$1.0 M
 - Chelsea \$1.0 M
 - Watertown \$600,000
 - Weston \$160,000





What Should Be Replaced – Eligible Items

- Lead Service Pipe
- Lead-Lined Service Pipe
- Lead Goosenecks and Galvanized Pipe or any other Pipe Connected with Lead
- Brass Pipe and Fittings





Lead Service Line Project Planning

- Establish community goal to fully remove all lead pipe from both publicly-owned and privately-owned water services
- Project Planning – Community Staff and Consultant Engineer
- Inventory of Lead Services, Mapping, and Public Disclosure
- Community Planning for Private-Side Incentive
 - Fully Fund Private Side
 - Partially Fund Private Side
 - Multi-Year Payment Plan for Private Side
- Targeted Outreach to Homeowners (Entry/Waiver Form)





Private-Side Incentive Options

Community Planning for Private-Side Incentive

- Fully Fund Private Side: Eleven (11) Communities with MWRA Loans
- Partially Fund Private Side: Two (2) Communities with MWRA Loans
- Multi-Year Payment Plan for Private Side: One (1) Community with MWRA Loan
- Rebate to Homeowner after Private-Side Lead Service is Replaced by Contractor: One (1) MWRA Community



MWRA Lead Loan Program Components

- Application to MWRA for Lead Loan
- Community Authorization for Loan Repayment (via Town Meeting or City Council Vote)
- Community Executes Financial Assistance and Loan Agreements
- Bond Counsel Issues Bond
- Distribution of Funds to Community MMDT Account
- Community Utilizes Funds for Project





Other Funding Sources MA - SRF

Massachusetts expects to receive approximately \$189 million in supplemental Bipartisan Infrastructure Law funding:

- CWSRF All Projects \$61M
- **DWSRF LSL Replacements \$65.6M**
- CWSRF Emerging Contaminants \$3.2M
- DWSRF All Projects \$41.7M
- DWSRF Emerging Contaminants \$17.5M

Maria Pinaud - MassDEP: maria.pinaud@mass.gov

Nate Keenan - MCWT: nkeenan@tre.state.ma.us

Massachusetts Department of Environmental Protection – <https://www.mass.gov/state-revolving-fund-srf-loan-program>
Clean Water Trust - <https://www.mass.gov/orgs/the-massachusetts-clean-water-trust>



LSL Replacement










Community Support Program Website

Community Support Programs
Massachusetts Water Resources Authority

WATER SYSTEM TOPICS

- **Local Water System Assistance Program (LWSAP)**
Loan program to fund local water system improvement projects for member water communities from FY11 through FY20.
- **Lead Service Line Replacement Program/ Lead Loan Program (LLP), an Enhancement to the Local Water System Assistance Program**
Loan program to fund local projects for member water communities that will fully remove lead service lines from the community water main all the way to the home or business.
- **Water Conservation and Efficiency**
Information for member communities, local businesses and residents; free educational brochures and low-flow fixtures; case studies.
- **Leak Detection Task Order Contract**
This contract provides member communities access to high quality leak detection service at a reasonable cost. Services performed under the task order contract are paid by MWRA; communities are billed the following year.
- **The MWRA Water System**
Information about our water system, including drinking water quality and recent improvement projects.

MWRA Lead Loan Contacts

Jon Szarek

jon.szarek@mwra.com

David Granados

david.granados@mwra.com

Claudia Baptista

claudia.baptista@mwra.com

<http://www.mwra.com/comsupport/communitysupportmain.html>



Don't Wait! Get Started Now!

Stephen Estes-Smargiassi



Lead Service Line Replacement Plan Required Elements

- *More Training After EPA Issues Guidance*
- Strategy for resolving “unknowns”
- Procedures for full LSL replacement
- Strategy for informing customers prior to full or partial replacement
- Goal rate for replacement if over Trigger Level of 10 ppb (PWS GT 10,000)
- Procedure for customer flushing of service lines and premise plumbing and providing filters
- LSL Replacement prioritization strategy
- Funding strategy to accommodate those who cannot afford private side replacement



Don't wait – use this time productively

- Update sampling plan with more sites and LSL
- Coordinate with local officials on possible 24-hour notice
- Begin to develop improved inventory and outreach
- Initiate discussions on replacement program and funding options for private side costs
- If reasonably small number, get the LSLs out now!
- The goal is zero and no lead in contact with water – move in that direction



Corrosion Control Treatment is Key Element of Revised Rule

- MWRA has started planning now, to be ready if changes are needed
- Lead pipe rig set up and being acclimated at Carroll WTP





MassDEP Emergency Response Plan Reminder!

- PWSs serving over 3,300 population must complete MassDEP's newly updated ERP Compliance Checklist by **May 31, 2022**.
- The original request was sent to all public water suppliers on April 28, 2022.
- <https://www.mass.gov/doc/notice-to-pws-emergency-response-plan-erp-checklist-required-to-document-erp-compliance/download>



Questions + How Can MWRA Help?

Dave Coppes
Chief Operating Officer

- Use raise hand function
- Unmute
- Add Question in Chat
- Send an email later



Training Contact Hours are available for today's presentation of

MWRA and Advisory Board Forum on the Revised Lead and Copper Rule

To register for your training credits, please follow the link below to a course evaluation on Survey Monkey. Follow all the directions to ensure proper credit for your TCHs:

<https://www.surveymonkey.com/r/9LQ5TYP>

Any questions, contact Jack Porcello at **Jack.Porcello@mwra.com**



Resources Slides



Resources and Contacts

- Stephen Estes-Smargiassi -- smargias@mwra.com
- Beverly Anderson – Beverly.Anderson@mwra.com
- Jon Szarek – Jon.Szarek@mwra.com
- Josh Das – Josua.Das@mwra.com



Community Support Program Website

mwra online

Community Support Programs
Massachusetts Water Resources Authority

WATER SYSTEM TOPICS

- Local Water System Assistance Program (LWSAP)**
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Lead Resources

EPA

- **Lead and Copper Rule** – <https://www.epa.gov/dwreginfo/lead-and-copper-rule>
- **Reference Guide to Revised LCR** - www.epa.gov/sites/production/files/2020-12/documents/reference_guide_for_pwss_12.21.20.pdf
- **Basic Information** - <https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water>

MassDEP

- **Drinking Water Regulations** - <https://www.mass.gov/regulations/310-CMR-22-the-massachusetts-drinking-water-regulations>
- **Lead Service Line Replacements** - <https://www.mass.gov/service-details/lead-service-line-replacement-requirements>
- **Incentive Loan Program** - <https://www.mass.gov/service-details/incentivized-lead-service-line-replacement-program>
- **SRF Loans** - <https://www.mass.gov/how-to/getting-an-srf-loan>



Lead Resources

MWRA

- **Lead Loan Program** - <https://www.mwra.com/comsupport/llp/llpprogram.html>
- **Water Testing** - <https://www.mwra.com/04water/html/testinglabs.html>
- **Know About Lead In Tap Water** - <https://www.mwra.com/04water/html/qual6leadinfo.htm>

AWWA

- **Replacement & Flushing Standard** - <https://www.awwa.org/Store/Product-Details/productId/65634922>
- **Pulling Lead Services** - <https://www.mwra.com/comsupport/llp/documents/2016-07-awwa-opflow-trenchless-lsl/2016-07-awwa-opflow-trenchless-lsl.pdf>

Lead Service Line Replacement Collaborative

- **Collaborative Home Page** - <https://www.lslr-collaborative.org/>



ASDWA LCRR Inventory Template

ASDWA Resources for Community Water Systems

CWS - This template is intended for CWS with traditional distribution systems.

CWS Name and PWSID: _____

Ownership of Service Lines: public (PWS), private (customer), or combination
If combination, where does the ownership split: meter or valve pit/curb stop _____

Date of Current Inventory: _____

CWS Contact Person and Contact Information: _____

SITE ID	LOCATIONAL IDENTIFIER	LEAD CONNECTOR CURRENTLY PRESENT? (E.G., GOOSENECK, PIGTAIL, OTHER)	CURRENT PUBLIC SERVICE LINE MATERIAL	WAS PUBLIC SERVICE LINE MATERIAL EVER PREVIOUSLY LEAD?	IS SERVICE LINE GALVANIZED?	CWS SERVICE LINE INSTALL DATE	CURRENT CUSTOMER SERVICE LINE MATERIAL	CUSTOMER SERVICE LINE INSTALL DATE	VERIFICATION SOURCE	COMMENTS	CWS SERVICE LINE SIZE	CUSTOMER SERVICE LINE SIZE	IS THERE A COMMUNITY OUTREACH PROGRAM?	IS INFORMATION MAINTAINED IN SYSTEM'S ASSET MANAGEMENT PROGRAM?
Address or other unique identifier	Geo locational information	Y = Yes N = No U = Unknown	L = Lead G = Galvanized Iron/Steel C = Copper P = Plastic O = Other UL = Unknown but could contain lead UN = Unknown but installed after state lead ban date (1986-88) UX = Unknown	Y = Yes N = No	Y = Yes N = No		L = Lead G = Galvanized Iron/Steel C = Copper P = Plastic O = Other UL = Unknown but could contain lead UN = Unknown but installed after state lead ban date (1986-88) UX = Unknown		R = Records Only F = Field Inspection Only V = Records Validation I = Records Invalidation A = Statistical Analysis S = Sequential Monitoring					Y = Yes N = No
This is an example of what the state can provide as a template to the system to complete														
The codes to be put in dropdown are listed beneath the header. Option needed to type code in directly and skip dropdown.														
Inventory Requirements: black font (columns A-J)														
Good to know: green font (columns K-O)														

ASDWA: Association of State Drinking Water Administrators -> Lead in Drinking Water -> Resources
<https://www.asdwa.org/lead-and-copper-rule-lcr/>