## MoDNR Lead Service Line Inventory



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### Lead Service Line Inventory Spreadsheet:

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ann.mo.gov/water/business-industry-other-entities/technical-assistance-quidance/lead-service-lines

#### **Lead Service Lines**

#### Coming Soon!

The Missouri Department of Natural Resources is in the process of building dedicated webpages for all things lead service line related. These webpages will include helpful documents for creating a lead service line inventory as well as a lead service line replacement plan. These webpages will also provide links to financial opportunities for financing inventories and replacements with more to come in the future. Documents will be added to these webpages as they become available, so check back occasionally for additional resources.

#### Lead Service Line Inventory

The U.S. Environmental Protection Agency (EPA) released its

By Guidance for Developing and Maintaining a Service Line Inventory on Aug. 4, 2022. This document can also be found on EPA's Revised Lead and



An old lead service line is attached to this water meter.

**Copper Rule** webpage. On that webpage is also a link to a recording of EPA's webinar about the guidance and template, held Aug. 10, 2022.

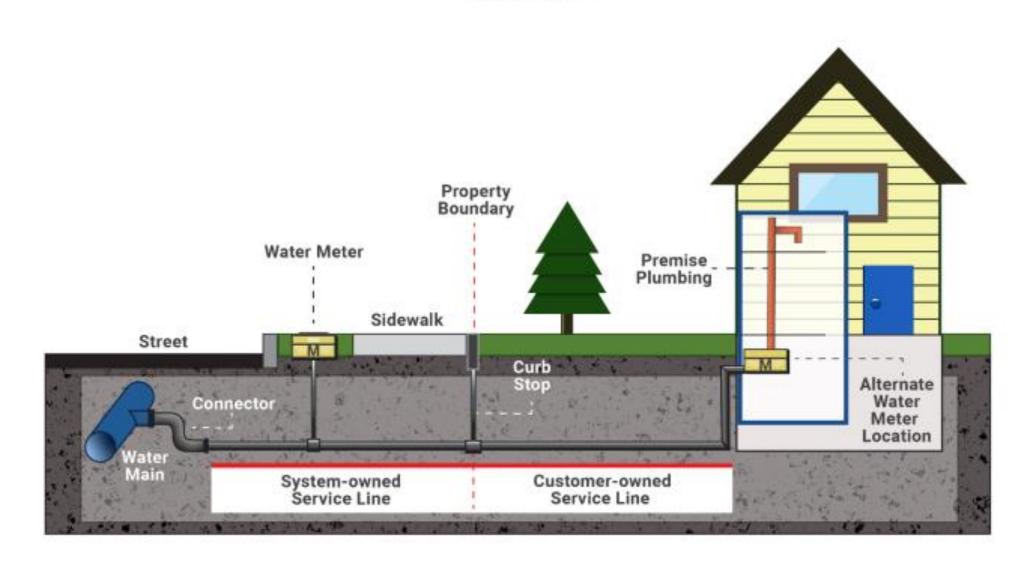
The department developed Lead Service Line Inventory spreadsheets, which are the required reporting form for each public water system. To avoid unneeded or additional inventory efforts, do not use EPA's inventory spreadsheet for reporting to the department. The two spreadsheets provided below are the same, but are different sizes in order for public water systems to use the one best needed for their size. Click on the appropriate link below to download a zipped Microsoft® Excel® file containing the spreadsheet.

- Small/ Medium System Lead Service Line Inventory (LSLI) spreadsheet (2 MB)
- Large System Lead Service Line Inventory (LSLI) spreadsheet (15 MB)

<sup>\*</sup>These are large files, which may result in a long download time for individuals with slow internet connections. If you have any problems accessing these spreadsheets, please contact the department's Water Protection Program, Public Drinking Water Branch.

### EPA Guidance Diagram for Service Lines:

Exhibit 2-2: Example of Service Line Ownership Distinction between the Water System and Customer

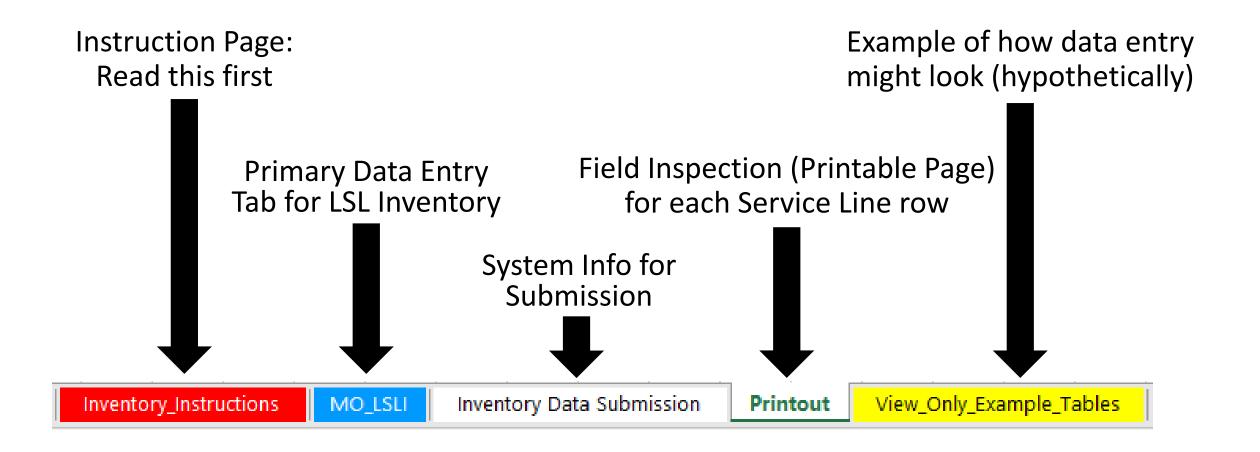


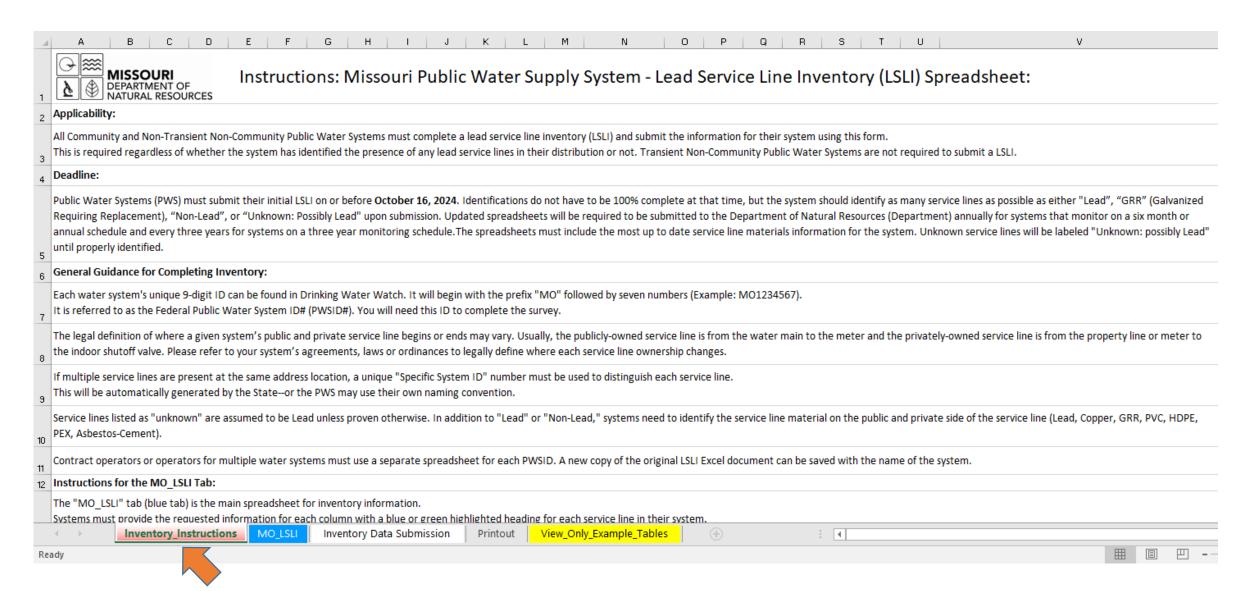
## EPA Guidance: Total Category in Inventory

Exhibit 2-3: Classifying Service Line Materials When Ownership is Split According to the LCRR 40 CFR §141.84(a)(4)

System-Owned Portion	Customer-Owned Portion	Classification for Entire Service Line		
Lead	Lead	Lead		
Lead	Galvanized Requiring Replacement	Lead		
Lead	Non-lead	Lead		
Lead	Lead Status Unknown	Lead		
Non-lead	Lead	Lead		
Non-lead and never previously lead	Non-lead, specifically galvanized pipe material	Non-lead		
Non-lead	Non-lead, material other than galvanized	Non-lead		
Non-lead	Lead Status Unknown	Lead Status Unknown		
Non-lead, but system is unable to demonstrate it was not previously Lead	Galvanized Requiring Replacement	Galvanized Requiring Replacement		
Lead Status Unknown	Lead	Lead		
Lead Status Unknown	Galvanized Requiring Replacement	Galvanized Requiring Replacement		
Lead Status Unknown	Non-lead	Lead Status Unknown		
Lead Status Unknown	Lead Status Unknown	Lead Status Unknown		

#### MoDNR Lead Service Line Inventory Spreadsheet Tabs





- Blue is a "required" field to manually enter data (you can type or copy/paste)

  Enter data you have or put "unknown" until verified? Lead connectors?

  Green is a "required" field with drop down menu option (double left click or copy/paste)

  Excel only displays 8 options at a time here—drag the scroll bar "up/down" to see others
- Pink is "optional" field, but needed for "risk tier" calculation of sample sites used.

  Additional blank columns are "unlocked" on the far right for system's personal use.
- Yellow is "locked" fields that auto-calculate based on embedded formulas.
  - To populate yellow cells, you must enter information in blue, green, and pink columns

Enter one or more identification method used as "1" or "1,3" or "2,7,8" etc.

Table 1: PWS-Owned Service Line ID Method or Information	Table 1: Customer-Owned Service Line ID Method or Information
Column V on MO_LSLI (blue tab)	Column W on MO_LSLI (blue tab)
1 = Visual Inspection at Meter Pit	1 = Visual Inspection at Meter Pit
2 = Customer Self-Identification	2 = Customer Self-Identification
3 = CCTV Inspection at Curb Box - External	3 = CCTV Inspection at Curb Box - External
4 = CCTV Inspection at Curb Box - Internal	4 = CCTV Inspection at Curb Box - Internal
5 = Mechanical Excavation	5 = Mechanical Excavation
6 = Vacuum Excavation	6 = Vacuum Excavation
7 = Paper Records (>10% Validated Accuracy)	7 = Paper Records (>10% Validated Accuracy)
8 = Digital/Database Records (>10% Validated Accuracy)	8 = Digital/Database Records (>10% Validated Accuracy)
9 = Water Quality Sampling - Targeted	9 = Water Quality Sampling - Targeted
10 = Water Quality Sampling - Flushed	10 = Water Quality Sampling - Flushed
11 = Water Quality Sampling - Sequential	11 = Water Quality Sampling - Sequential
12 = Water Quality Sampling - Other	12 = Water Quality Sampling - Other
13 = Predictive Modeling (Not ID Method)	13 = Predictive Modeling (Not ID Method)
<b>14</b> = Other	<b>14</b> = Other

	Table 2: Water System Acronym Definitions
PWS = Public Water System	

**CWS** = Community Water System

**NTNCWS** = Non-Transient Non-Community Water System

**TNCWS** = Transient Non-Community Water System

**LSL** = Lead Service Line

**LSLI**=Lead Service Line Inventory

**LSLR** = Lead Service Line Replacement

LCR = "Old" Lead & Copper Rule (Rule set that is currently active regarding compliance as of 2022)

**LCRR** = Lead & Copper Rule Revisions (Rule set that is effective but not compliant as of 2022)

**LCRI** = Lead & Copper Rule Improvements (If proposed, new rule might replace LCRR before Oct 16, 2024)

SA = Sample Administrator (The person in charge of sampling for the Public Water System)

**DO** = Designated Operator (The certified operator in charge of the Public Water System)

**DNR** = MO Department of Natural Resources (The State regulatory agency)

EPA = US Environmental Protection Agency (The Federal regulatory agency)

4	Α	В	С		D	Е	F	G
1	MISSC MISSC DEPARTION NATURA	OURI MENT OF L RESOURCES						
2	WATER SYSTEM ID NUMBER	SYSTEM SPECIFIC ID	WATER SYSTEM COMMON NAME	SERVICE	ADDRESS	ZIPCODE	WATER MAIN MATERIAL	CONNECTOR OR GOOSENECK MATERIAL
3	MO1234567		CACTUS PWS 3		Service Address			
4	MO1234567		CACTUS PWS 3		Actual street location			
5	MO1234567		CACTUS PWS 3		address of service line. Not			
6	MO1234567		CACTUS PWS 3		the billing address that ma	у		
7	MO1234567		CACTUS PWS 3		be a location other than service location. Example:			
8	MO1234567		CACTUS PWS 3		315 Walnut Street, Apt D			
9	MO1234567		CACTUS PWS 3		313 Wallacotices, Apr B			
10	MO1234567		CACTUS PWS 3					
11	MO1234567		CACTUS PWS 3					
12	MO1234567		CACTUS PWS 3					
13	MO1234567		CACTUS PWS 3					
14	MO1234567		CACTUS PWS 3					
	MO1234567		CACTUS PWS 3					
	MO1234567		CACTUS PWS 3					
17	MO1234567		CACTUS PWS 3					
	MO1234567		CACTUS PWS 3					
19	MO1234567		CACTUS PWS 3					
20	MO1234567		CACTUS PWS 3					
	MO1234567		CACTUS PWS 3					
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	MO1234567		CACTUS PWS 3					
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	MO1234567		CACTUS PWS 3					
28	MO1234567		CACTUS PWS 3					
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1		941	7	20	T.	w g			<i>-</i>
2	WAS LEAD EVER UPSTREAM OF THIS SERVICE?	PWS-OWNED SERVICE LINE MATERIAL	WAS PWS-OWNED SERVICE LINE EVER LEAD?	PWS- OWNED SERVICE LINE SIZE	YEAR PWS- OWNED SERVICE LINE INSTALLED	CUSTOMER-OWNED SERVICE LINE MATERIAL	CUSTOMER- OWNED SERVICE LINE SIZE	YEAR CUSTOMER- OWNED SERVICE LINE INSTALLED	BUILDING TYPE
3	Yes	Galvanized	Unknown	2"	1970	Copper	1-1/2"	1970	Single Family
4	No	PVC	No	3"	1990	PVC	3"	1991	Multi Family
5	Yes	Lead	Yes	2"	1980	Galvanized	2"	1980	Single Family
6	Unknown	HDPE	Yes	2"	2010		<b>v</b>		
7	Yes	PEX	Yes	2"	2008 Lead		^		
8	Yes	Other-Non-Lead	No	2"	2022 Copper Galvan	ized			
9	Yes	Asbestos-Cement	Yes	2"	1956 PVC HDPE				
0					PEX				
11						os-Cement Non-Lead	<b>,</b>		0
2					Other	VOII ECUU			
3									5
14									
15									5
16									
4	Inventory_Instr	uctions MO_LSLI In	ventory Data Submission	Printout Vie	w_Only_Example_Table	es (+) :	1		
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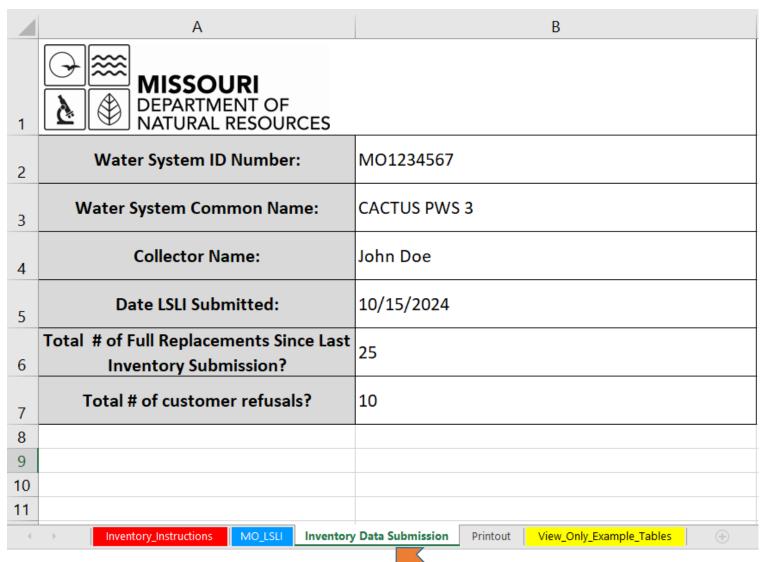
STRUCTURE - PRIMARY PLUMBING MATERIAL 1	YEAR STRUCTURE PLUMBING INSTALLED	YEAR (RANGE) STRUCTURE PLUMBING MATERIAL INSTALLED	THIS LOCATION WILL BE USED FOR LEAD AND COPPER SAMPLE SITE PLAN?	SOURCE 1: PWS-OWNED SERVICE LINE ID METHOD OR INFO USED (ENTER ONE OR MORE)	SOURCE 2: CUSTOMER- OWNED SERVICE LINE ID METHOD OR INFO USED (ENTER ONE OR MORE)	REPLACE GOOSENECK/PIGTAIL CONNECTOR
Lead	1980	Before 1989	Yes	1,2	7	Yes
Copper Pipe with Lead Solder	1999	Between 1989 and 1-4-2014	No	1,2,4	8,2	Yes
PEX	2002	After 1-4-2014	Unknown	1,8,13	14	Yes
Other Non-Lead	2019	After 1-4-2014	Unknown	1,5,4	1	Yes
Copper Pipe with Lead Solder	1958	Before 1989	Unknown	6,10,11	5	Yes
Galvanized Steel	1997	Between 1989 and 1-4-2014	Unknown	12,1,7	1	Yes
PVC	2015	After 1-4-2014	Unknown			Yes
		Unknown	Yes			Yes
PEX	1987	Before 1989	No			Yes
PVC	2015	After 1-4-2014	No			Yes
Copper	1975	Before 1989	Unknown			Yes
Unknown		Unknown	Yes			Yes
	-					Yes
Lead	^					Yes
Copper Copper Pipe with Lead Solder						Yes
Galvanized Steel						Yes
PVC HDPE						Yes
PEX	u l					Yes
Other Non-Lead		25				Yes
						Yes

SOURCE 2: CUSTOMER- OWNED SERVICE LINE ID METHOD OR INFO USED (ENTER ONE OR MORE)	REPLACE GOOSENECK/PIG CONNECTOR	TAIL LSL CATEGORY IN INVENTORY	GRR PRESENT?	RISK TIER: LCR SAMPLE SITE SELECTION	Calc T1 or T2	Calc Type	Calc Range PWS	Calc Range Premise	RESIDENT NOTIFICATION IF LSL	MITIGATION (POU OR PITCHER	Service Line Ref Year
7	Yes	GRR	GRR	Tier 3		Single Family	Before 1983	Before 1983	Yes	Yes	1980
8,2	Yes	Non-Lead	No GRR Tier 2		Yes 2	Multi Family	After 1982	After 1982	Yes	Yes	1999
14	Yes	Lead	GRR	Tier 3		Single Family	Before 1983	After 1982	Yes	Yes	1980
1	Yes	Unknown: Possibly Lead No GRR Info Needed Column I, M, L, P, & Q After 1982		After 1982	After 1982	Yes	Yes	2010			
5	Yes	Unknown: Possibly Lead	No GRR	Info Needed Column I, M, L, P, & Q			Before 1983	Before 1983	Yes	Yes	1958
1	Yes	Unknown: Possibly Lead	No GRR	Info Needed Column I, M, L, P, & Q			After 1982	Before 1983	Yes	Yes	2022
	Yes	Unknown: Possibly Lead	No GRR	Info Needed Column I, M, L, P, & Q			Before 1983	After 1982	Yes	Yes	1956
	Yes	Unknown: Possibly Lead	Possibly GRR	Info Needed Column I, M, L, P, & Q			Info Needed Column L & O	Before 1983	Yes	Yes	I,L,M,O,R,S
	Yes	Unknown: Possibly Lead	Possibly GRR	Info Needed Column I, M, L, P, & Q			Info Needed Column L & O	After 1982	Yes	Yes	I,L,M,O,R,S
	Yes	Halmania Bassibly Land	Docsibly CDD	Info Nooded Column L M L D P O			Info Nooded Column I & O	After 1982	Yes	Yes	I,L,M,O,R,S
	Yes	Aicrosoft Excel	crosoft Excel							Yes	I,L,M,O,R,S
	Yes							After 1982	Yes	Yes	I,L,M,O,R,S
	Yes	The cell or chart you're trying	n to change is on a n	protected sheet. To make a change junproted	t the sheet Vo	u might he regu	jested to enter a password	Info Needed Column S	Yes	Yes	I,L,M,O,R,S
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	Yes			- CK				Info Needed Column S	Yes	Yes	I,L,M,O,R,S
	Yes	Unknown: Possibly Lead	Possibly GRR	Info Needed Column I, M, L, P, & Q			Info Needed Column L & O	Info Needed Column S	Yes	Yes	I,L,M,O,R,S
	Yes	Unknown: Possibly Lead	Possibly GRR	Info Needed Column I, M, L, P, & Q			Info Needed Column L & O	Info Needed Column S	Yes	Yes	I,L,M,O,R,S
	Yes	Unknown: Possibly Lead	Possibly GRR	Info Needed Column I, M, L, P, & Q			Info Needed Column L & O	Info Needed Column S	Yes	Yes	I,L,M,O,R,S
	Yes	Unknown: Possibly Lead	Possibly GRR	Info Needed Column I, M, L, P, & Q			Info Needed Column L & O	Info Needed Column S	Yes	Yes	I,L,M,O,R,S
	Yes	Unknown: Possibly Lead	Possibly GRR	Info Needed Column I, M, L, P, & Q			Info Needed Column L & O	Info Needed Column S	Yes	Yes	I,L,M,O,R,S
	Yes	Unknown: Possibly Lead	Possibly GRR	Info Needed Column I, M, L, P, & Q			Info Needed Column L & O	Info Needed Column S	Yes	Yes	I,L,M,O,R,S
	Yes	Unknown: Possibly Lead	Possibly GRR	Info Needed Column I, M, L, P, & Q			Info Needed Column L & O	Info Needed Column S	Yes	Yes	I,L,M,O,R,S
	Yes	Unknown: Possibly Lead	Possibly GRR	Info Needed Column I, M, L, P, & Q			Info Needed Column L & O	Info Needed Column S	Yes	Yes	I,L,M,O,R,S

Some cells, columns, and tabs are "locked" (password protected) to preserve formulas as well as preserve the format of the Excel spreadsheet overall

When you double click on these locked cells, a warning message will appear. You should have access to all the cells you need to enter information in.

## Inventory Data Submission: Tab 3



Enter this information and save before final submission of LSLI to DNR

## Printout: Tab 4

+	DEPARTMENT OF NATURAL RESOUR	CES					3201 N										-
D	ata collected by:			7			Date:				Title:						
1	WATER SYSTEM ID NUMBER	SYSTEM	M SPECI	FIC ID	WATER SYS	TEM (	OMMON NAM	IE .	SERVICE ADDRESS ZIPCODE					ZIPCODE			
L				_								1		-		-	
	WATER MAIN MATERIAL	GO	OSENEO ATERIA	K U	WAS LEAD EVER PSTREAM OF THIS SERVICE?	SI	WS-OWNED ERVICE LINE MATERIAL	WAS PWS SERVICE LI LEA	NE EVER		NED SERVICE E SIZE	YEAR PWS- OWNED SERVICE LINE INSTALLED	Cor	mments			
F	vc	Lead		Ye	es	Lead		Yes		3/8"	3"						
E	OIP	Сорре	r	No		Сорр	er	No		1/2"	4°						
C	IP 91	Polyeti		Ur	CT TOTAL CONTRACT CON	_	anized	Unknown		5/8"	6"						
L	eaded Joint CIP	Other-	Non-Le	ad	110000000	PVC			- 9	3/4"	8"						
H	IDPE	Unkno	wn.			HDPE	E			1"	10"						
P	EX		1270-2	- 1		PEX				1-1/4"	12"						
Ä	sbestos-Cement					Asbe	stos-Cement		- 9	1-1/2"	14"						-
¢	Other					Othe	r-Non-Lead			1-3/4"	16"					-	-
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H	opper		1/2"	4"		<del></del>	fulti Family		No		Copper						
۳	ialvanized	-	5/8"	6"	1		chool/Childcare	6	Unkno	wn		with Lead Solder					
×	vc	-	3/4"	8"		_	usiness				Galvanized S						
ŀ	IDPE		1"	10"		н	ospital/Medical	Care Facility			PVC						
p	EX		1-1/4*	12"		N	ursing Home				HDPE						
Δ	sbestos-Cement		1-1/2"	14*			2.01222100222				PEX						
c	ther-Non-Lead		1-3/4"	16"		_					Other Non-L	ead					
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1	YEAR (RANGE) STRE PLUMBING MATE		0.000	BE USED EAD AND	0.0000000000000000000000000000000000000		WS SERVICE LIP INFORMATION		DD	Si		STOMER SERVICE L R INFORMATION U		IETHOD			-
	INSTALLED	ENIME	COPPE	R SAMPLE PLAN?					ns below)	(If mu		ds used-mark mul		ions below)			
В	efore 1989		Yes		1 = Visual Inspectio	n	9 = Water Qual	lity Sampling -	Targeted	1 = Visual	Inspection	9 = Water Qualit	y Samplin	g - Targeted			
H	etween 1989 and 1-4	-2014	No		2 = Customer Inspe	ction	10 = Water Qu	ality Sampling	- Flushed	2 = Custon	mer Inspection	10 = Water Qual	ity Sampli	ing - Flushed			
۰	fter 1-4-2014	-200-1950	Unknov	vn	3 = Curb Box - Exte		11 = Water Qu			-	lox - External	11 = Water Qual	-				
L	Inknown		-		4 = Curb Box - Inter	_	12 = Water Qu			4 = Curb Box - Internal 12 = Water Qualit							
1					5 = Mechanical Exc	_	THE RESERVE OF THE PARTY OF THE	Modeling (No	t iD metho	od) 5 = Mechanical Excavation 13 = Predictive M 6 = Vacuum Excavation 14 = Other		Modeling (	Not ID method)				
1					6 = Vacuum Excava 7 = Paper Records	tion	14 × Other			7 = Paper		14 = Other					
1					8 = Digital/Databasi	-	-			-	/Database	-					
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Data collected by:				N 10 1000 10		Date:			200		Title:		-	
WATER SYSTEM ID NUMBER	SYSTEM	M SPECIF	IC ID	WATER SYS	тем со	MMON NAM	IE Se			SE	RVICE ADDRE	SS		ZIPCODE
WATER MAIN MATERIAL	GC	NECTOR DOSENEC	K U	WAS LEAD EVER PSTREAM OF THIS SERVICE?	SER	S-OWNED VICE LINE ATERIAL	WAS PWS-OWN SERVICE LINE EV LEAD?		PWS-OWNED SERVICE		11	YEAR PWS- OWNED SERVICE LINE INSTALLED		Comments
PVC Lead		Υe	!S	Lead		Yes	·s 3		/8"	3"				
DIP	TOTAL		N	0	Coppe	r.	No		1/	/2"	4"			
CIP	Polyet	thylene	Ur	nknown	Galvan	ized	Unknown		5/	/8"	6"			
Leaded Joint CIP	Other	-Non-Le	ead	in second	PVC	300431205	1		3/	/4"	8"	v.		
HDPE	Unkno	own			HDPE				1'	II.	10"			
PEX					PEX		2		1-	-1/4"	12"			
Asbestos-Cement	i e				Asbest	os-Cement			1-	-1/2"	14"			
Other					Other-	Non-Lead			1-	-3/4"	16"			
7	2				Unkno	wn	j		2'					
CUSTOMER-OWN SERVICE LINE MAT	5550	ERIAL OWNED SERVI		YEAR CUSTOME OWNED SERVIC LINE INSTALLE	Œ			OR POINT-OF-EN TREATEMENT PRESENT		EMENT	USE STRUCTURE - PRIMA		100	EAR STRUCTURE MBING INSTALLED
Lead		3/8"	3"		Sing	gle Family		Yes			Lead			
Copper		1/2"	4"	n				No			Copper			
Galvanized			6"		Sch	chool/Childcare Unkr		Unkn	own			with Lead Solder		
PVC		3/4"	8"	39	Bus	usiness			Galvanized Steel					
HDPE		1"	10"		Hos	pital/Medica	l Care Facili	ty			PVC			
PEX			12"	100 200 200	Nur	sing Home					HDPE			
Asbestos-Cement		,-	14"	ii .				-			PEX	3.22	6	
Other-Non-Lead			16"	21	_						Other Non-Le	ad		
Unknown		2"						1			Unknown			
YEAR (RANGE) STRUCTURE PLUMBING MATERIAL		FOR LE	DCATION BE USED EAD AND R SAMPLE PLAN?		OR IN	S SERVICE LIN FORMATION sed-mark m	USED	OI		OR	TOMER SERVICE INFORMATION U Is used—mark mu	ISED		
Before 1989		Yes		1 = VisualInspection	on	9 = Water Qua	ality Sampling	- Targeted	i	1 = Visua	IInspection	9 = Water Qual	ity San	npling - Targeted
Between 1989 and 1-4	-2014	No		2 = Customer Insp	ection	10 = Water Qu	ality Samplin	g – Flushe	d	2 = Custo	mer Inspection			mpling - Flushed
After 1-4-2014		Unknov	wn	3 = Curb Box – Exte	rnal	11 = Water Qu	ality Sample	– Sequent	ial	3 = Curb B	ox - External	11 = Water Qua	lity Sa	mple - Sequential
Unknown				4 = Curb Box - Inte	rnal	12 = Water Qu	ality Sample	-Other	(0)	4 = Curb B	ox - Internal	12 = Water Qua	lity Sa	mple-Other
44				5 = Mechanical Exc	avation	13 = Predictive	eModeling(N	lot ID met	hod)	5 = Mecha	anical Excavatio	on 13 = Predictive	Mode	ling (Not ID method
ė.		10		6 = Vacuum Excava	ation	14 = Other				6 = Vacuu	m Excavation	14 = Other		
				7 = Paper Records					- 1	7 = Paper	Records			
				8 = Digital/Databa	se					8 = Digita	/Database			

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2	Th	nis Page is V	Sheet	This Page is Viev				
	WATER						CONNECTOR OR	WAS LEAD EVER
	SYSTEM ID	SYSTEM SPECIFIC ID	WATER SYSTEM COMMON NAME	SERVICE ADDRESS	ZIPCODE	WATER MAIN MATERIAL	GOOSENECK	UPSTREAM OF THIS
3	NUMBER					WATENIAL	MATERIAL	SYSTEM?
4	MO1234567	#987654321?	Jefferson City PWS	315 Walnut Street, Apt D	65101	PVC	Lead	Yes
5	MO1234567	#987654321?	Jefferson City PWS	123 Chestnut Avenue	65109	DIP	Copper	No
6	MO1234567	#987654321?	Jefferson City PWS	944 Backerstreet	65101	CIP	Polyethylene	Unknown
7	MO1234567	#987654321?	Jefferson City PWS	111 South Country Road	65109	Leaded Joint CIP	Other-Non-Lead	
8	MO1234567	#987654321?	Jefferson City PWS	212 County Road 567	65109	HDPE	Unknown	
9	MO1234567	#987654321?	Jefferson City PWS	1441 Elm Street	65101	PEX		
10	MO1234567	#987654321?	Jefferson City PWS	1890 Main Street	65109	Asbestos-Cement		
11	MO1234567	#987654321?	Jefferson City PWS	4567 East Avenue	65101	Other		
12	MO1234567	#987654321?	Jefferson City PWS	987 Mockingbird Lane	65109			
13	MO1234567	#987654321?	Jefferson City PWS	7584 Johnson Court Road	65109			
14	MO1234567	#987654321?	Jefferson City PWS	3432 Blackberry Drive	65109			
15	MO1234567	#987654321?	Jefferson City PWS	6755 Turtle Dove Park	65101			
16	MO1234567	#987654321?	Jefferson City PWS	9877 Washington Avenue	65101			
17	MO1234567	#987654321?	Jefferson City PWS	932 Morrison Road	65109			
18	"	II .	n	"				
19	"	п	п	"				
20	II .	"	"	"				
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3	PWS-OWNED SERVICE LINE MATERIAL	WAS PWS-OWNED SERVICE LINE EVER LEAD?	PWS- OWNED SERVICE LINE SIZE	YEAR PWS- OWNED SERVICE LINE INSTALLED	PRIVATE SIDE SERVICE LINE MATERIAL	PRIVATE SIDE SERVICE LINE SIZE	YEAR PRIVATE SIDE SERVICE LINE INSTALLED	•	POINT-OF-ENTRY OR POINT-OF-USE TREATEMENT PRESENT?		YEAR STRUCTURE PLUMBING INSTALLED
		Yes		1967	Lead		1984	Single Family	Yes	Lead	
		No	-	Unknown	Copper		Unknown	Multi Family	No	Copper	
6	Galvanized	Unknown	5/8"		Galvanized	5/8"		School/Childcare	Unknown	Copper Pipe with Lead Solder	
7	PVC		3/4"		PVC	3/4"		Business		Galvanized Steel	
8	HDPE		1"		HDPE	1"		Hospital/Medical Care Facility		PVC	
9	PEX		1-1/4"		PEX	1-1/4"		Nursing Home		HDPE	
10	Asbestos-Cement		1-1/2"		Asbestos-Cement	1-1/2"				PEX	
11	Other-Non-Lead		1-3/4"		Other-Non-Lead	1-3/4"				Other Non-Lead	
12	Unknown		2"		Unknown	2"				Unknown	
13			3"			3"					
14			4"			4"					
15			6"			6"					
16			8"			8"					
17			10"			10"					
18			12"			12"					
19			14"			14"					
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3	STRUCTURE - PRIMARY PLUMBING MATERIAL 1	YEAR STRUCTURE PLUMBING INSTALLED	YEAR (RANGE) STRUCTURE PLUMBING MATERIAL INSTALLED	THIS LOCATION WILL BE USED FOR LEAD AND COPPER SAMPLE SITE PLAN?	SOURCE 1: PWS SERVICE LINE ID METHOD OR INFORMATION USED	SOURCE 2: PRIVATE SERVICE LINE ID METHOD OR INFORMATION USED
4	Lead		Before 1989	Yes	1,3,8,14	1,5
5	Copper		Between 1989 and 1-4-2014	No		
6	Copper Pipe with Lead Solder		After 1-4-2014	Unknown	Table 1: PWS-Owned Service Line ID Method or Information	Table 1: Customer-Owned Service Line ID Method or Information
7	Galvanized Steel		Unknown		1 = Visual Inspection at Meter Pit	1 = Visual Inspection at Meter Pit
8	PVC				2 = Customer Self-Identification	2 = Customer Self-Identification
9	HDPE				3 = CCTV Inspection at Curb Box - External	3 = CCTV Inspection at Curb Box - External
10	PEX				4 = CCTV Inspection at Curb Box - Internal	4 = CCTV Inspection at Curb Box - Internal
11	Other Non-Lead				5 = Mechanical Excavation	5 = Mechanical Excavation
	Unknown				6 = Vacuum Excavation	6 = Vacuum Excavation
13					7 = Paper Records (>10% Validated Accuracy)	7 = Paper Records (>10% Validated Accuracy)
14					8 = Digital/Database Records (>10% Validated)	8 = Digital/Database Records (>10% Validated)
15					9 = Water Quality Sampling - Targeted	9 = Water Quality Sampling - Targeted
16					10 = Water Quality Sampling - Flushed	10 = Water Quality Sampling - Flushed
17					11 = Water Quality Sampling - Sequential	11 = Water Quality Sampling - Sequential
18					12 = Water Quality Sampling - Other	12 = Water Quality Sampling - Other
13 14 15 16 17 18 19					13 = Predictive Modeling (Not ID Method)	13 = Predictive Modeling (Not ID Method)
20					<b>14</b> = Other	14 = Other
21						
22						
23						
21 22 23						

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3	REPLACE GOOSENECK/PIGTAIL CONNECTOR	LSL CATEGORY IN INVENTORY	GRR Present?	RISK TIER SAMPLE SITE SELECTION CRITERIA	Calc T1 or T2	Calc Type	Calc Range PWS	Calc Range Premise	REQUIRES RESIDENT NOTIFICATION IF LSL DISTURBED	REQUIRES RISK MITIGATION (POU OR PITCHER FILTER)	Ref 1	Ref 2	Ref 3	Service Line Ref Year
		Unknown: Possibly Lead	Possibly GRR?			Single Family	After 1982	After 1982		Yes	1982	1983	1	1960
5 1	No	Lead	GRR			Multi Family	Before 1983	Before 1983	No	No				
6		GRR	No GRR	Tier 3		NTNCWS								
7		Non-Lead		Tier F-1										
5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23				Tier F-2										
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F	Ref 2	Ref 3	Service Line Ref Year	PWSID	Name		AD	DITIONAL COMMENTS		
_	1983	1	1960	MO5031436	10 4 WATER SYSTEM		Family has water soft	ener		
5				MO5231809	3V CORP					
5				MO3190771	5 81 MOTEL & CAMPGROUND					
,				MO6048200	A&H COUNTRY ESTATES					
				MO5252577	ABC WATER ASSN					
0				MO5048082	ACRES OF SHADE MHP					
				MO2024000	ADAIR COUNTY PWSD 1					
1				MO1010001	ADRIAN PWS					
2				MO4010002	ADVANCE PWS					
3				MO5172802	AGAPE LAND MANAGEMENT LLC					
4				MO5031435	AIRPORT HOMEOWNERS ASSN INC					
5					AIRPORT VILLAGE MHP					
4 5 6 7					AJINOMOTO WINDSOR					
7				MO5010004						
8					ALBANY PWS					
8 9 0					ALLEN ACRES					
0				MO1010009						
1					ALTA VISTA MOBILE VILLA					
1 2 3					ALTAMONT PWS					
3				MO4010011	ALTENBURG PWS					
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#### History of Lead Reduction Acts in the State of Missouri:

- June 19, 1986: Safe Drinking Water Act (SDWA) Lead Ban
- 1988 Lead Contamination Control Act (LCCA) enacted by Congress to protect schools/childcare
- January 1, 1989: Missouri Lead Ban effective date.
  - 100% Lead water pipes reduced to 8% & 50% Lead solder reduced to 0.2% for plumbing.
  - "Lead free" pipes & fixtures containing up to 8% Lead were still classified as "non-Lead"
- 1991 original Lead & Copper Rule (LCR) becomes effective as a "Primary Drinking Water Regulation."
- August 6, 1998 plumbing fixtures that are not "Lead free" were banned from sale in USA
- 2011 Reduction of Lead in Drinking Water Act (RLDWA) effective January 4, 2014
  - O Amends 1986 SDWA to define "Lead free" water pipes and fittings ≤ 0.25% Lead (instead of 8% Lead)

#### Other Lead Bans:

1978-Federal regulation banning Lead paint.

1991-Lead & Copper Rule made effective for public drinking water systems.

1995 ban on Lead solder in food cans.

1996-Leaded gasoline is banned for ground-based vehicles

### History of LCRR:

January 15, 2021 – "Lead & Copper Rule Revisions" (LCRR) published in Federal Registrar "86 FR 4198" as a "New Primary Drinking Water Regulation"

January 20, 2021 – Executive Order 13990 delays "effective date" (Presidential directive)

March 12, 2021 – EPA ruled to delay effective date until June 17, 2021 for public comment

**April-August 2021** – EPA engagement for public input and received >80,0000 comments

On June 16, 2021 – EPA decided new "effective date" of LCRR is December 16, 2021 and new "compliance date" would be October 16, 2024

**December 16, 2021** – LCRR did become "effective" on this date

**December 17, 2021** – EPA announced intention to propose "Lead & Copper Rule Improvements" (LCRI) to replace LCRR before October 16, 2024 compliance date?

August 4, 2022 – EPA Federal Guidance for LSL Inventory published (>160 pages)

September 12, 2022 – LSL Inventory Excel Spreadsheet published on MO DNR webpage

#### History of LSLI Guidance & Submission Deadline:

August 4, 2022 – EPA Federal Guidance for LSL Inventory published (>160 pages)

**September 12, 2022** – LSL Inventory Excel Spreadsheet published on MO DNR webpage (other state guidance documents have been added as well)

October 16, 2024 – Deadline to submit "Initial" LSLI. Does not have to be 100% complete. Systems should identify what they can—and label remaining as "Unknown: Possibly Lead." Need to know total number of service lines in the system, #replacements, & #refusals? Regardless of any rule changes—the initial LSLI will be due by October 16, 2024.

Systems will submit updated LSLI spreadsheet on a 1 or 3 year bases to MoDNR.

Only one rule can be "active" for compliance at any given time, we will continue sampling under the old LCR until a new rule set "compliance date" is reached.

#### Questions?

Systems will have years of time to complete their inventory

They should conduct LSLR at the same time as on-sight inspections

Long term goal is to "get the Lead out"

Education and communication with customers is key

Do not leave LSL in the ground once they are disconnected—remove from ground

Use paper and digital records as a starting point—then, validate in the field

Predictive Modeling and age of building may be indicators of possible LSL?

Using a variety of ID methods is best—some methods have limitations.