

Lead and Copper Rule Revisions (LCRR) Initial Lead Service Line Inventory Overview for Small Systems

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LCRR Unit
September 2024

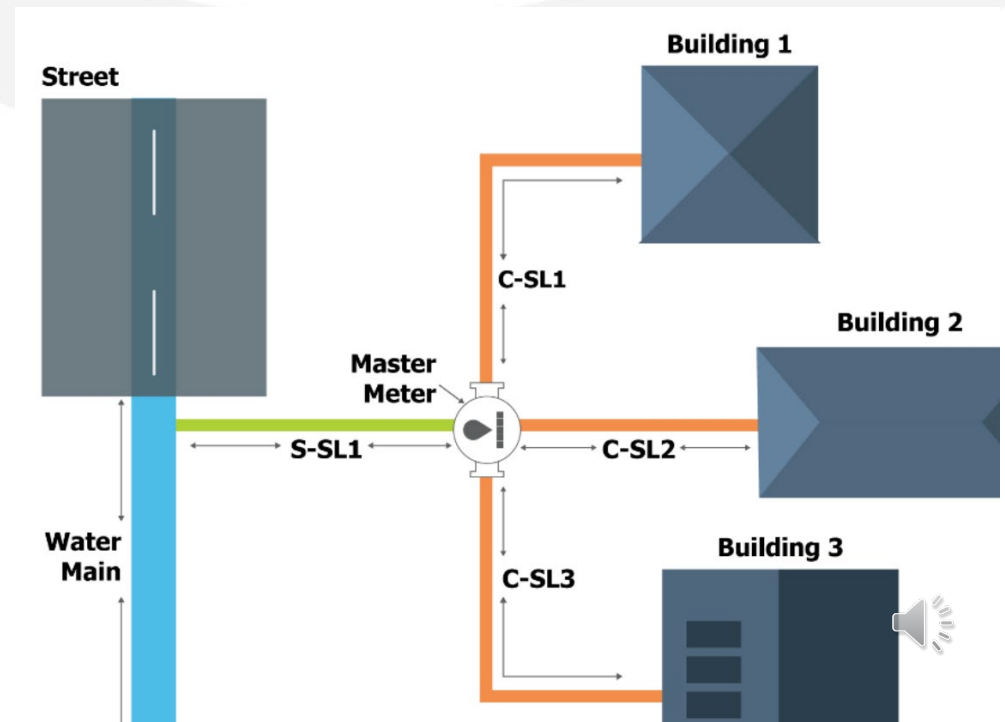
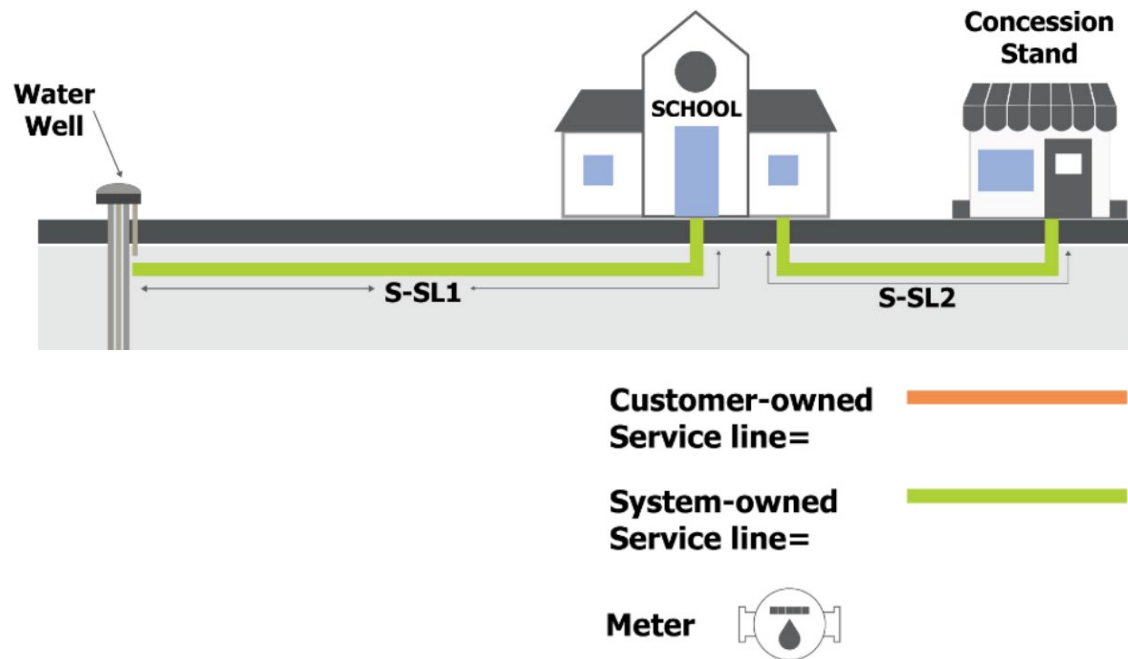


Division of Drinking Water



Background

- Inventory all service line locations, materials, and verification methods on the public (system-owned) and private (customer-owned) side if applicable



Background

- All community (CWS) and non-transient non-community (NTNC) water systems are required to submit an LSLI
- Email any questions to the LCRR Unit at ddw-lsreports@waterboards.ca.gov with your water system number in the subject line
- Response may take a while!
- Check the [LCR Water System Resources](#) webpage for more information





Background

- Inventory is due on October 16, 2024
- No extensions or exemptions
- Submit on the [LSLI Submission Portal](#)
- [DDW Inventory Spreadsheet Template](#)
 - Serve as main file, backup, or multiple versions for your records
 - Easy to send for review
 - Easier to transfer inventory data to the portal
 - Easier to update and resubmit in the future



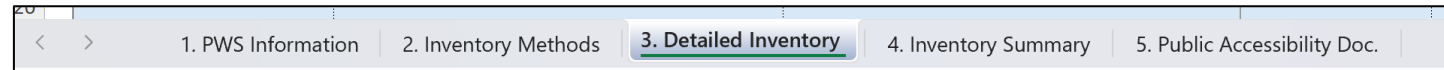
Template and Portal

Same structure, but slightly different

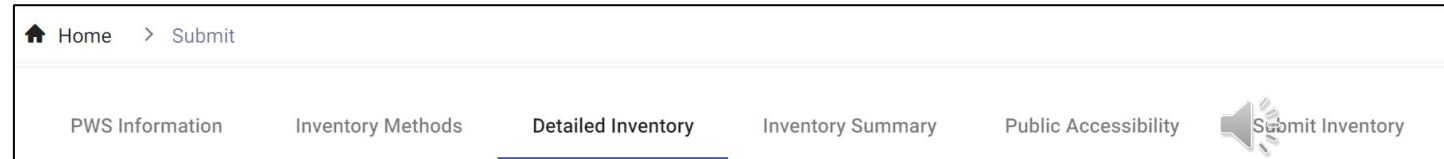
- Template allows more details
- Portal is simpler and has character limits

Sections/Tabs for Reporting:

1. Public Water System (PWS) Information
2. Inventory Methods
3. **Detailed Inventory**
4. Inventory Summary
5. Public Accessibility



DDW Template – Excel worksheets



LSLI Portal – Submission tabs

Detailed Inventory

Location Information			System-Owned Portion										Customer-Owned Portion					Entire Service Line				
Unique Service Line ID	Street Address	Other Location Identifier	System-Owned Portion Service Line Material Classification	Lead Connector Pressure	If Material Anything Other than "Lead" in Column E, Material Ever Previously Lead?	Service Line Installation Date	Service Line Size (inches)	Basis of Material Classification	Was the Service Line Material Field Verified?	Describe the Field Verification Method	Enter the Date of Field Verification	Notes	Customer-Owned Portion Service Line Material Classification	Service Line Installation Date	Service Line Size (inches)	Basis of Material Classification	Was the Service Line Material Field Verified?	Describe the Field Verification Method	Enter the Date of Field Verification	Notes	Material Classification (if error or "Missing Information" appears, ensure all required columns are filled correctly. See instructions)	

DDW Template – Detailed Inventory

Three parts

- Location Information
- System-Owned Portion (main/source to meter/valve)
- Customer-Owned Portion (meter/valve to house/building)





Detailed Inventory

Location Information			System-Owned Portion							Customer-Owned Portion					Entire Service Line							
Unique Service Line ID	Street Address	Other Locational Identifier	System-Owned Portion Service Line Material Classification	Lead Connector Present?	If Material Anything Other than "Lead" in Column E, Was Material Ever Previously Lead?	Service Line Installation Date	Service Line Size (inches)	Basis of Material Classification	Was the Service Line Material Field Verified?	Describe the Field Verification Method	Enter the Date of Field Verification	Notes	Customer-Owned Portion Service Line Material Classification	Service Line Installation Date	Service Line Size (inches)	Basis of Material Classification	Was the Service Line Material Field Verified?	Describe the Field Verification Method	Enter the Date of Field Verification	Notes	Entire Service Line Material Classification [if error or "Missing Information" appears, ensure all required columns are filled correctly. See instructions]	

DDW Template – Detailed Inventory

Only one owner for entire service lines (no system portion or no customer portion)

- Enter same information on system and customer side
- Or enter material on either side of a meter/shut-off as if it were split-ownership



Detailed Inventory

Location Information			System-Owned Portion								Customer-Owned Portion						Entire Service Line					
Unique Service Line ID	Street Address	Other Locational Identifier	System-Owned Portion Service Line Material Classification	Lead Connector Present?	If Material Anything Other than "Lead" in Column E, Was Material Ever Previously Lead?	Service Line Installation Date	Service Line Size (inches)	Basis of Material Classification	Was the Service Line Material Field Verified?	Describe the Field Verification Method	Enter the Date of Field Verification	Notes	Customer-Owned Portion Service Line Material Classification	Service Line Installation Date	Service Line Size (inches)	Basis of Material Classification	Was the Service Line Material Field Verified?	Describe the Field Verification Method	Enter the Date of Field Verification	Notes	Entire Service Line Material Classification [If error or "Missing Information" appears, ensure all required columns are filled correctly. See instructions]	

DDW Template – Detailed Inventory



Entire service line classification based on

- System-Owned Portion (Material, Previously Lead?, Basis)
- Customer-Owned Portion (Material, Basis)
- Last column auto-populates based on system and customer side



Detailed Inventory

Location Information			System-Owned Portion					Customer-Owned Portion								
Unique Service Line ID	Street Address	Other Locational Identifier	System-Owned Portion Service Line Material Classification	Lead Connector Present?	Material Anything Other than "Lead" in Column E, Material Ever Previously Lead?	Service Line Installation Date	Service Line Size (inches)	Basis of Material Classification	Was the Service Line Material Field Verified?	Describe the Field Verification Method	Enter the Date of Verification	Service Line Material Field Verified?	Describe the Field Verification Method	Enter the Date of Field Verification	Notes	Entire Service Line Material Classification (If error or "Missing Information" appears, ensure all required columns are filled correctly. See instructions)

DDW Template – Detailed Inventory



Include Location



Include Lead Connector Present

- Required by the State

Lead Connector Present?

Yes

No

No, Was Present in the Past

Don't Know





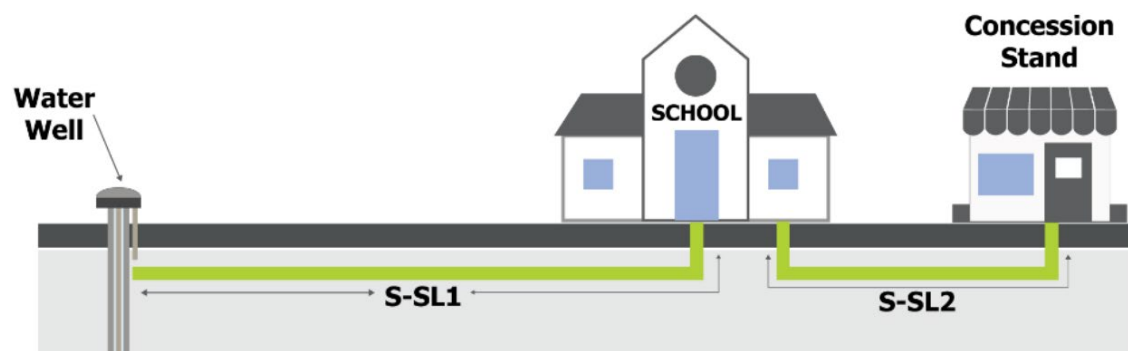
General Inventory Process

- List all service lines and locations
- Records review
- Field verify/inspect unknowns
(Submit a work plan if needed)
- LSLI Submission Portal
- Revision/Approval



List All Service Lines and Locations

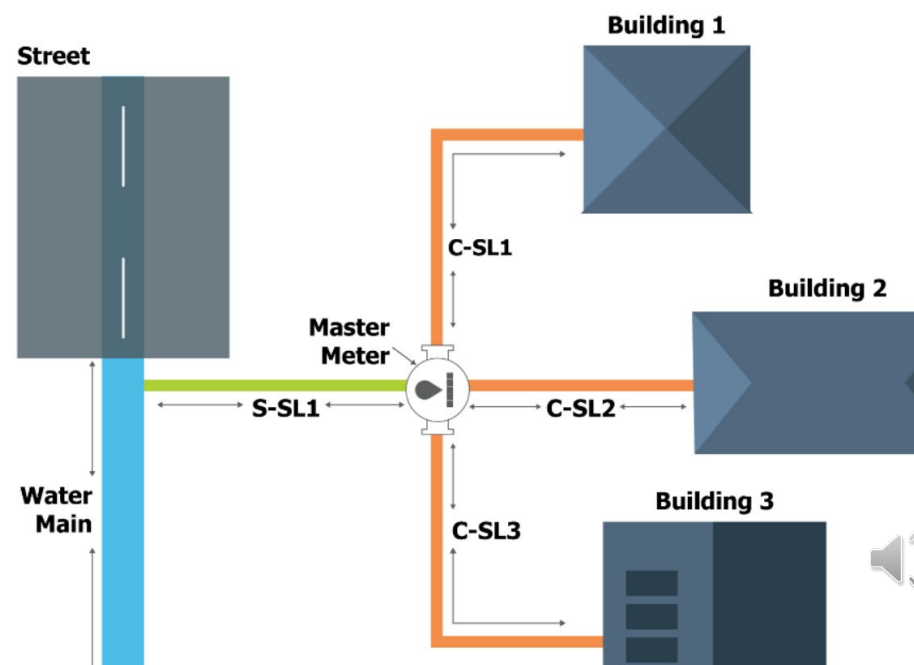
- Include all lines connecting the source or distribution main to the interior plumbing of a building (or multiple buildings) regardless of ownership, material, or intended use



Customer-owned Service line= 

System-owned Service line= 

Meter 



List All Service Lines and Locations

- Use unique locations (e.g., street address + descriptive identifier if needed) for each service line

Location Information		
Unique Service Line ID	Street Address	Other Locational Identifier
52632001	123 Main St	Unit A
52632004	123 Main St	Unit B
60015899	124 Main St	
	500 School Rd	Office
	500 School Rd	Rooms 1-5
	500 School Rd	Rooms 6-10
	500 School Rd	Cafeteria/Multi-purpose room

DDW Template – Detailed Inventory

Location Information			
Row No	Line ID	Street Address	Other Identifier
1	52632001	123 Main St	Unit A
2	52632004	123 Main St	Unit B
3	60015899	124 Main St	
4		500 School Rd	Office
5		500 School Rd	Rooms 1-5
6		500 School Rd	Rooms 6-10
7		500 School Rd	Cafeteria/Multi-purpose room

LSLI Portal – Detailed Inventory

List All Service Lines and Locations

- Number of service lines in inventory \approx service connections in Electronic Annual Report (EAR)

Inventory Methods Detailed Inventory Inven

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n the row to edit its Click 'Paste' only once w

Displaying rows 1 to 100 of 7 Total Service Lines

LSLI Portal – Detailed Inventory

3. Provide any additional information about the inventory, including any discrepancies between the number of service lines submitted in the EAR and the LSL Inventory.

3 connections are for landscape irrigation and do not connect to any buildings in the system

LSLI Portal – Inventory Summary





Records Review

Determine materials and other information from records

- As-builts, replacement/repair, distribution maintenance, etc.
- 2018 CA service line inventory for community water systems (utility/system side only)

Part 1: Historical Records Review	
Type of Record	Describe the Records Reviewed for Your Inventory. (An entry is required for each field. If non-applicable, enter 'NA')
1. Construction Records and Plumbing Codes * <i>Examples: Permits for replacing lead service lines, local ordinance adopting a plumbing code.</i>	Construction & Plumbing Codes * //
2. Water System Records * <i>Examples: Standard operating procedures, engineering standards.</i>	Water System Records * //
3. Distribution System Inspections and Records * <i>Examples: Tap cards, service line repair/replacement records.</i>	Distribution System Inspections * //
4. Other Records *	Other Records * //

LSLI Portal – Inventory Methods





Records Review

Describe the records reviewed in the Inventory Methods section

- Specific is better

You are not required to submit record files with the inventory

- Keep records and documentation in your system records for potential inventory audits

Part 1: Historical Records Review	
Type of Record	Describe the Records Reviewed for Your Inventory. (An entry is required for each field. If non-applicable, enter 'NA')
1. Construction Records and Plumbing Codes * <i>Examples: Permits for replacing lead service lines, local ordinance adopting a plumbing code.</i>	Construction & Plumbing Codes * <input type="text"/>
2. Water System Records * <i>Examples: Standard operating procedures, engineering standards.</i>	Water System Records * <input type="text"/>
3. Distribution System Inspections and Records * <i>Examples: Tap cards, service line repair/replacement records.</i>	Distribution System Inspections * <input type="text"/>
4. Other Records *	Other Records * <input type="text"/>

LSLI Portal – Inventory Methods



Records Review

- **Enter actual material if known**
- **Historical records**
→ Description in Notes recommended
- **Service line repair or replacement record**
→ Description in Notes recommended

System-Owned Portion Service Line Material Classification	Lead Connector Present?	If Material Anything Other than "Lead" in Column E, Was Material Ever Previously Lead?	Service Line Installation Date	Service Line Size (inches)	Basis of Material Classification
Non-Lead - Plastic	No	No			Historical records
Non-Lead - Copper	No	No			Service line repair or replacement record
Non-Lead - Other	No	No		8.00	Service line diameter 4 inches or greater
Non-Lead - Other	No	No	2005		Installation date is after state or local lead ban

DDW Template – Detailed Inventory



Records Review

- **Service line diameter 4 inches or greater**

- “Non-Lead - Other”
- *Line Size* required
- Enter as decimal inches
- Do not enter fractions or text

System-Owned Portion Service Line Material Classification	Lead Connector Present?	If Material Anything Other than "Lead" in Column E, Was Material Ever Previously Lead?	Service Line Installation Date	Service Line Size (inches)	Basis of Material Classification
Non-Lead - Plastic	No	No			Historical records
Non-Lead - Copper	No	No			Service line repair or replacement record
Non-Lead - Other	No	No		8.00	Service line diameter 4 inches or greater
Non-Lead - Other	No	No	2005		Installation date is after state or local lead ban

DDW Template – Detailed Inventory

- **Service line installed after 1/1/1986 CA Lead Ban**

- “Non-Lead - Other”
- *Year Installed* required



Records Review

On the customer-owned side

- Property build dates from the county assessor's records can be used as an install date
- Properties built in 1986 or later
→ "Non-Lead - Other"

Customer-Owned Portion Service Line Material Classification	Service Line Installation Date	Service Line Size (inches)	Basis of Material Classification
Non-Lead - Other	1992		Installation date is after state or local lead ban

DDW Template – Detailed Inventory



Field Verifications/Inspections

Verify ALL unknowns (does not require a work plan)

Common methods

- Visual inspection at the meter box
 - Upstream pipe: System side
 - Downstream pipe: Customer side
- Scratch/magnet tests

Lead



A dull, silver-gray color that is easily scratched with a coin. Use a magnet - strong magnets will *not* cling to lead pipes.

Galvanized



A dull, silver-gray color. Use a magnet - strong magnets will typically cling to galvanized pipes.

Copper



The color of a copper penny.

Plastic



White, rigid pipe that is joined to water supply piping with a clamp.



Field Verifications/Inspections

Service lines identified based on field inspection

- Field Verified? required
- Verification Method required
- Verification Date required

Verification Methods

- *Customer self-identification* refers to homeowners identifying service lines
- *Water quality sampling* is rarely used and NOT the same as tap sampling results

Basis of Material Classification	Was the Service Line Material Field Verified?	Describe the Field Verification Method	Enter the Date of Field Verification	Notes
Field inspection	Yes	Visual inspection at the meter pit	11/1/2023	
Field inspection	Yes	Other	11/1/2023	visual inspection at shut-off valve
Field inspection	Yes	Other	11/1/2023	visual inspection at building inlet
Historical records	No			2018 CA Inventory
Installation date is after state or local lead ban	No			

DDW Template – Detailed Inventory



Field Verifications/Inspections

Entering “Other” as Basis of Material Classification or Verification Method

- Use “Other” if none of the drop-down option apply
- Explain basis or verification method in Notes column

Basis of Material Classification	Was the Service Line Material Field Verified?	Describe the Field Verification Method	Enter the Date of Field Verification	Notes
Field inspection	Yes	Visual inspection at the meter pit	11/1/2023	
Field inspection	Yes	Other	11/1/2023	visual inspection at shut-off valve
Field inspection	Yes	Other	11/1/2023	visual inspection at building inlet
Historical records	No			2018 CA Inventory
Installation date is after state or local lead ban	No			

DDW Template – Detailed Inventory





Field Verifications/Inspections

Verify a **SUBSET** of unknowns (requires a work plan)

Interpolation – systems with < 1500 unknowns

- Verify 20% of unknowns
- If all non-lead, remaining unknowns → “Non-Lead - Other” based on interpolation

Stratified Random Sampling – systems with 1500+ unknowns

- See [DDW LSLI Methods](#) to calculate minimum verifications
- If all non-lead, remaining unknowns → “Non-Lead - Other” based on statistical analysis or predictive models





Field Verifications/Inspections

If you cannot complete the required verifications

- Submitting the inventory with unknowns is OKAY
- However, you must send a public notification of a potential service line containing lead
- Submit completed inventory with all lines accounted for → In compliance



Public Notification for Lead, GRR, and Unknown Service Lines

If your inventory contains any lead, galvanized requiring replacement (GRR), or unknown service lines

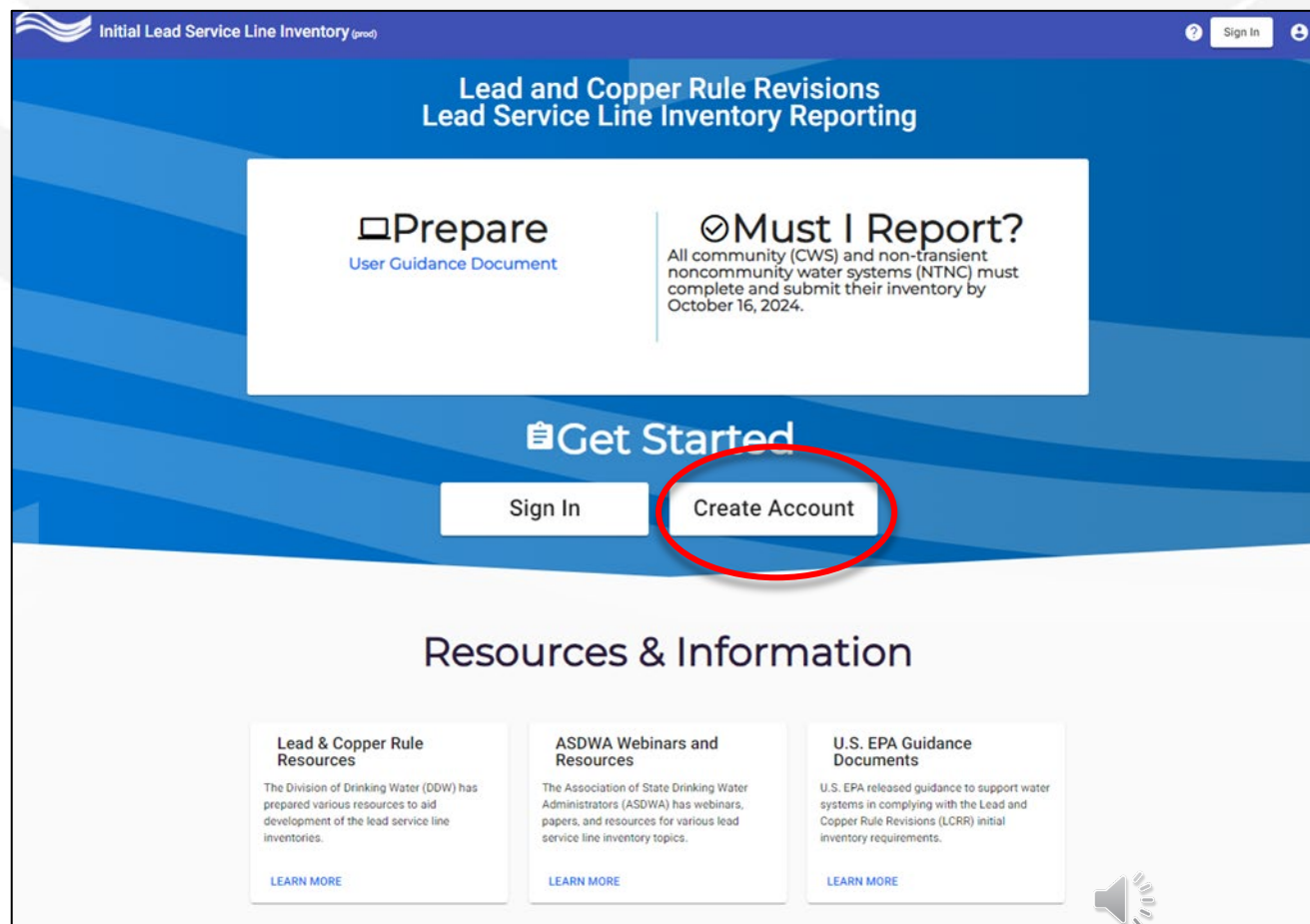
- You must send a public notification of known or potential service line containing lead to customers served by lead, GRR, and unknown lines
- Initial notification must be sent within 30 days of inventory completion
- Notification must be certified to DDW within 10 days of posting
- Notification must be sent annually until the line is designated non-lead



LSLI Submission Portal

Create a WBKey account to access the portal

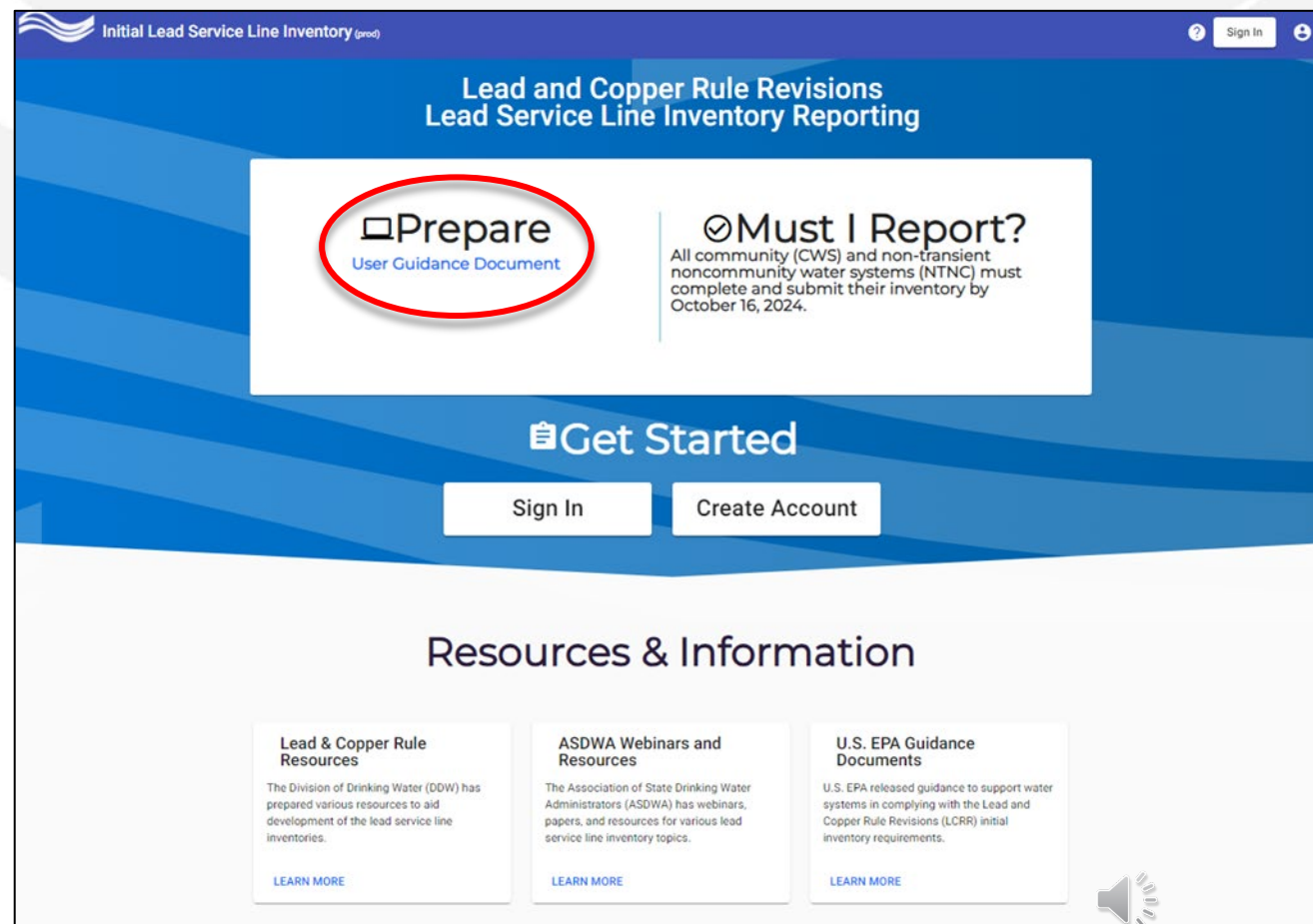
- Requires multi-factor authentication (MFA)
- Sign in requires a verification code from a mobile MFA app
- Any MFA app can be used, but we use “Microsoft Authenticator” as an example in our user guidance instructions



LSLI Submission Portal

See [LSLI Portal User Guidance](#) for step-by-step instructions

- Creating an account and setting up MFA
- Using the portal
- Transferring data from the template or other spreadsheet
- Links to video tutorials





Public Accessibility

Required

- The inventory must be accessible in some way
- Most small systems choose to have a hard copy available in the water system office

If all lines are non-lead

- System can post a non-lead statement instead of the inventory
- Templates available on website
- Please send to LCRR Unit for review





Revision/Approval

After submission

- The LCRR Unit will contact the submitter with revision notes or inventory approval via email
- Remember to post your inventory or non-lead statement
- Remember to send public notifications if needed
- Please continue to update the inventory and field verify service lines during normal operations



LSLI Resources

- **Email** – ddw-lsreports@waterboards.ca.gov
- **Website** – [LCR Resources for Water Systems](#)
 - Inventory templates, instructions, and other information
 - Public notification templates
 - Non-lead statement templates
- **Submission** – [LSLI Submission Portal](#)
 - [LSLI Portal User Guidance Document](#)
- **Weekly Virtual Office Hours** – [Jotform Sign-up Link](#)
 - Wednesdays 9am-10am and Thursdays 2pm-3pm
 - Staff can answer questions live

