

How Austin Water is Preparing for the Compliance Sampling Requirements of the Lead and Copper Rule Revisions

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Texas AWWA Lead and Copper Rule Revisions Webcast Series



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Lead and Copper Rule Revisions (LCRR) Compliance Date:

October 16, 2024

Must complete and submit initial Lead Service Line (LSL) Inventory to TCEQ
New requirements for tap sample compliance & monitoring become effective, which include:

- ❖ New sample site tier classification system (5 tiers)
- ❖ *Potential* changes to tap sample monitoring schedule
- ❖ New sample collection protocol for some PWSs
- ❖ *Potential* increase in communications with customers at sample locations
- Lead and Copper Rule Improvements forthcoming....



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The LCRR is BIG! Get Ready!

- ♦ All applicable PWSs are facing these lengthy and complex regulations....
- ♦ But where we *end up* will be different depending multiple factors:
 - **Presence / abundance of lead in the system**
 - Corrosion control requirements and treatment status
 - Presence / abundance of **galvanized** service lines (this is new!)
 - System size and type
- ♦ Austin Water (AW) is doing the research
 - Conducting in-depth review of requirements to understand our position for compliance
 - Viewing webinars and reading guidance documents & other commentary
 - Today's focus is tap sample monitoring (40 CFR Section 141.86)



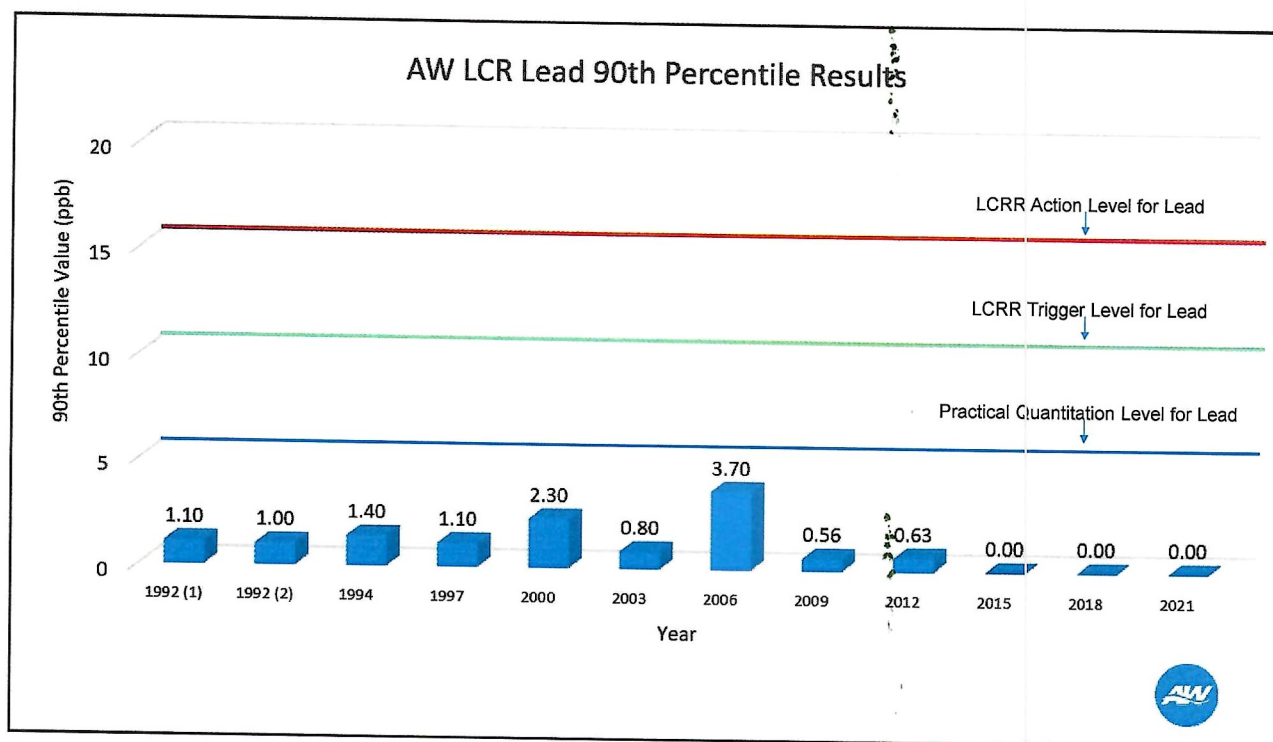
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Understand the Past Under the LCR

- ♦ AW reviewed all compliance data from the Lead and Copper Rule (LCR)
- ♦ Historical sample sites were LCR Tier 1
 - Single family structure served by a lead service line or containing lead pipes, or
 - Single family structure containing copper pipes with lead solder installed after 1982, but before 1988 lead ban
 - *Note: No distinction for galvanized service lines*
- ♦ AW has organized & summarized data in one place, validated against TCEQ's Drinking Water Watch
- ♦ AW has researched past lead detections
 - Compliance tap results
 - Customer-requested sample results from AW's free lead testing program
 - Only a few detections, but all were researched/investigated



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Review History and Records

- ◆ Asking important questions of ourselves....deeper dive than just data
- ◆ Did we ever use lead services in the past? If so, did we remove it?
- ◆ Do we still have any lead lines? What is our response if we do?
- ◆ What is the corrosivity of our water?
 - Do we expect to see an increase in lead detections or results if sample sites change?
 - Could changes to treatment be needed?
- ◆ What records exist? Where could others be found?
 - Historical record review is required for the LSL Inventory
 - Also informs how past sample sites were chosen and approach for historical compliance



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Revelations of the LSL Inventory

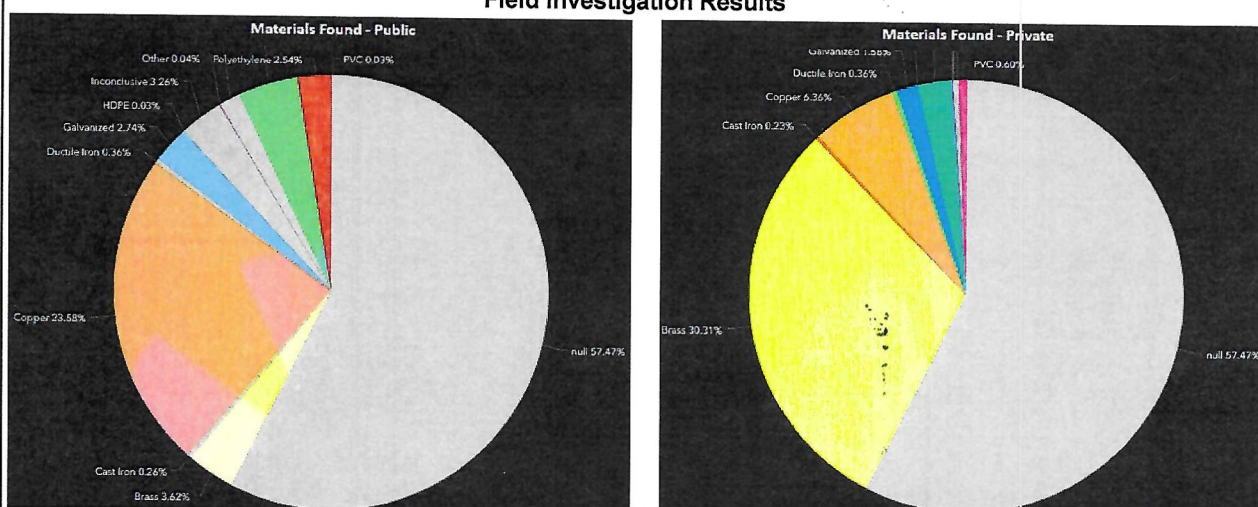
- ◆ AW began the inventory early & is tracking results for over 250,000 connections
- ◆ Austin allowed lead services on public side until 1954 & private side until 1967
- ◆ Tap card & record evidence shows that lead was not frequently used historically or else was removed if found at a location
- ◆ Created an internal Lead Service Material Investigation dashboard
 - Tracking over 53,000 meter box field inspections to *finalize* LSL Inventory
 - No lead service lines found so far, but galvanized lines have been identified
- ◆ AW goal: have zero connections with unknown materials before Oct. 2024



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Revelations of the LSL Inventory

Field Investigation Results



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Tap Sample Monitoring in the LCRR

- ◆ 40 CFR Section 141.86 Monitoring requirements for lead and copper in tap water
- ◆ <https://www.ecfr.gov/current/title-40/section-141.86>
- ◆ Samples will be drawn from five “tiers” or categories
 - Higher tiers indicate more potential risk for lead in the water
- ◆ Sample taps cannot have point-of-use devices and sites cannot have point-of-entry treatment designed to remove inorganic contaminants
- ◆ AW has read the Federal rules! You should too and review from your situation.



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LCRR – New Sample Site Tiers

LEAD

| Tier | CFR Section 141.86 (a) Sample site location. (Community PWSs) |
|------|---|
| 1 | Single family structures served by a lead service line (LSL) ; May include multi-family if served by an LSL and comprise more than 20% of the structures in the system |
| 2 | Buildings & multi-family structures served by an LSL |
| 3 | Single-family structures that contain galvanized lines downstream of LSL currently or in the past , or known to be downstream of a lead gooseneck, pigtail or connector. |
| 4 | Single family structures containing copper pipes with lead solder installed before July 1, 1988 (Texas state lead ban) |
| 5 | Other sites, preferably single or multi-family residences, that are representative of the distribution system |

“Galvanized
Requiring
Replacement”
(GRR)

AW's Historical
Sample Sites



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LSL Inventory Dictates Site Tiering

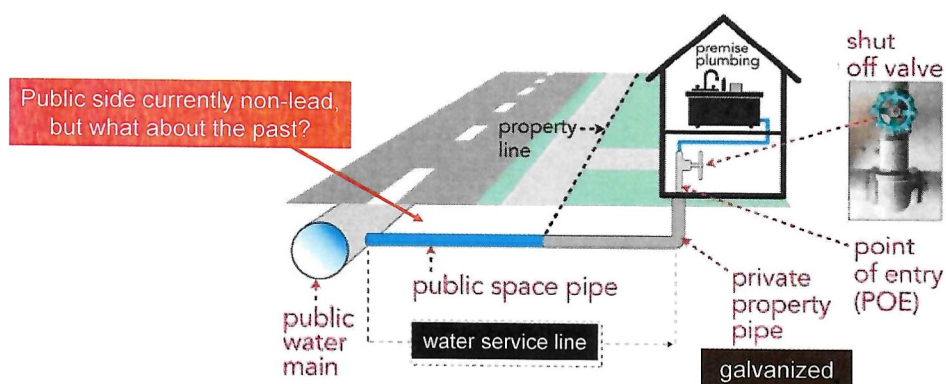
AW Inventory current results: >220,000 connections are "Non-Lead"

- ◆ No in-service LSLs found, so no Tier 1 or Tier 2 sites so far!
 - **Note:** Tier 1 and 2 sites require lead testing for 1st and 5th liter draw samples
 - All other tiers (3-5) will continue to use first draw sample for lead and copper compliance
- ◆ AW has small % of galvanized lines present on both public & private side
 - Not seen any public service line with a lead connector upstream of it
 - More focus on determination for **private galvanized lines**
 - Burden of proof that the public side was never lead at any time in the past
- ◆ **Galvanized Requiring Replacement (GRR) line = Tier 3 tap sample site**
 - Will private galvanized lines ultimately be classified as Tier 3 for AW???
- ◆ If not for private galvanized service lines, all AW LCRR sample sites would be Tier 4 or 5 at this time



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Are Sites GRR???



Source: <https://www.dwater.com/leadmap>



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More on GRR Service Lines

- ◆ AW reviewing comments to EPA on LCRI
 - Include discussion about GRR category
 - (EPA Docket No. EPA-HQ-OW-2022-0813 at [Regulations.gov](https://www.regulations.gov))
- ◆ Commentary on the current rule and proving there was never any lead upstream of a galvanized service line:
 - Lack of clarity on burden of proof = daunting circumstance for water systems
 - Need to clarify if a statistical or other approach could be used to make GRR classification
 - The “ever was” standard is problematic as water systems may not have records to definitively prove/disprove materials upstream of the line throughout its life
 - *Many more comments out there from AWWA, AMWA, etc....*
- ◆ Keep an eye on the LCRI!



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LCRR – Number of Samples

| System size (number of people served) | | Number of sites (standard monitoring) | Number of sites (reduced monitoring) |
|---------------------------------------|---------------------------------|---------------------------------------|--------------------------------------|
| >100,000 | AW's Historical Number of Sites | 100 | 50 |
| 10,001 to 100,000 | | 60 | 30 |
| 3,301 to 10,000 | | 40 | 20 |
| 501 to 3,300 | | 20 | 10 |
| 101 to 500 | | 10 | 5 |
| ≤100 | | 5 | 5 |

- ◆ AW will plan to have extra sites in our sample pool to meet minimum number
- ◆ **Must keep in mind the amount needed for standard 6-month monitoring!**



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LCRR Timing of Sampling

- ◆ More guidance needed from EPA
 - Read the rules to gain perspective: 40 CFR 141.86(d)
 - Tap sample schedule and frequency part of the rules seems circular & not clear
 - *CRF LCRR General requirements refers to compliance as codified on July 1, 2020 for date range of 12/16/2021 – 10/16/2024*
 - *Can utilize CFR website to view older version of regulations*
- ◆ AW will sample again at 50 sites in summer of 2024 per historical LCR reduced schedule & sample site locations (LCR Tier 1)
- ◆ AW researching more closely and waiting for what LCRI will bring
 - LCRI will hopefully clarify and allow TCEQ to make decisions and provide guidance
- ◆ Earliest any system would have to sample per LCRR is January 2025
 - ***Note: If LSLs are present in LSL Inventory, rules indicate that a return to standard 6-month monitoring at higher number of Tier 1 or 2 sites will be required beginning in Jan. 2025.***



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Potential Compliance Impacts

- ◆ Track LSL Inventory closely to plan and manage expectations for sample tiers
- ◆ Galvanized requiring replacement (GRR) is a previously unrecognized type of service line that has potential for significant impacts to LCRR requirements for AW
- ◆ If there are changes in the AW tap sample pool to include Tier 3 (or higher) sites:
 - Notify impacted customers by November 15, 2024 at the latest
 - Revise tap sample monitoring plan and submit updates for TCEQ approval
 - If AW samples from Tier 3 (or higher) sites, these will be ***new locations generating new data to calculate the 90th percentile for compliance***
 - Will the 90th percentile value increase? It is possible, but not expected because of AW's non-corrosive & scale-forming water.
- ◆ Maintain historical 100+ sites for standard monitoring and 50+ sites for reduced monitoring
- ◆ Remain on the look out for any clarifications about LCRR tap sample schedules



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Lab Considerations

◆ Communicate and coordinate with lab

- All the unknowns mean asking for and planning for a lot of flexibility.
- Ensure your lab is accredited.
- AW Environmental Laboratory Services accreditation for EPA 200.8 expected in 2024
- AW Water Quality Lab will conduct outreach, courier the samples, review and report data to TCEQ

◆ Expectations for sampling method and sampling load details?

- Will the 5th liter sampling requirement be needed?
- Large shift in sampling pool possibly – will these customers be *more* or *less* interested in participating?
- Will historical LCR and/or more regular customers request testing?
- Reduced sampling could be impacted per 40 CFR 141.86(d) or TCEQ primacy.
- Sample load could compound as LCRR find-and-fix ensues within 30 days of any >15ppb detection.

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Lab Considerations

◆ Plan for known changes

- Capacity increase as AW lab will be running school and daycare samples
- Currently reviewing & updating existing LCR materials for LCRR alignment
 - SOPs, including for sample collection
 - informational fliers
 - sampling instructions
 - chains of custody updates
- Prepared for the tighter 3-day reporting requirement - AW currently has internal system for rapid notification if results are above trigger or action levels; ensure you are
- If needed, collect contact info for new sampling pool and begin outreach earlier.

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Engage & Prepare to Communicate

- ◆ AW set up our “How Austin Water is Keeping Lead Out of Our Customer’s Water” webpage several years ago
 - <https://www.austintexas.gov/page/lead>
 - Make updates as needed
- ◆ Planning for notifications and further education to customers & the public
 - *May be engaging more customers at higher risk if have GRR/Tier 3 (or higher) sites*
 - *If so, must complete by November 15, 2024 at the latest*
- ◆ Communicate with your peers and network. We are in this together!
- ◆ AW is on the look out for EPA and TCEQ notifications and updates
 - AW regularly attends the TCEQ Drinking Water Advisory Work Group (DWAAG)
 - Communicate with TCEQ: ask them questions & get their help



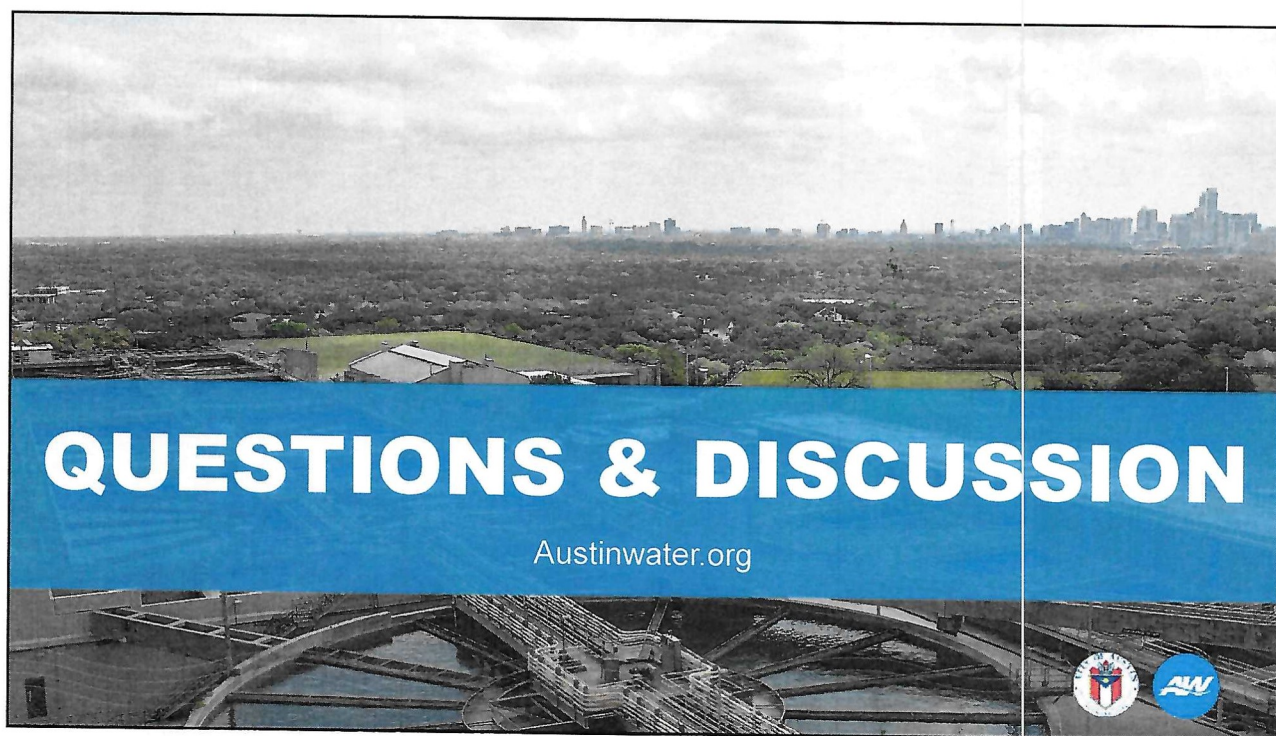
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Internal Communication & Resources

- ◆ Brief and discuss the LCRR with management and colleagues!
 - Raise overall awareness of the sheer amount of regulatory changes
- ◆ Evaluate your staffing and resources!
 - AW added a staff member to support meeting objectives for LCRR compliance
 - AW using contractor help finish meter box field investigations
- ◆ Advocate for more help as needed! This is heavy stuff.



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