



# Mandatory Tap Sampling Requirements: Preparing for Service Line Inventory based Compliance Sampling

A Training on Lead and Copper Rule Improvements

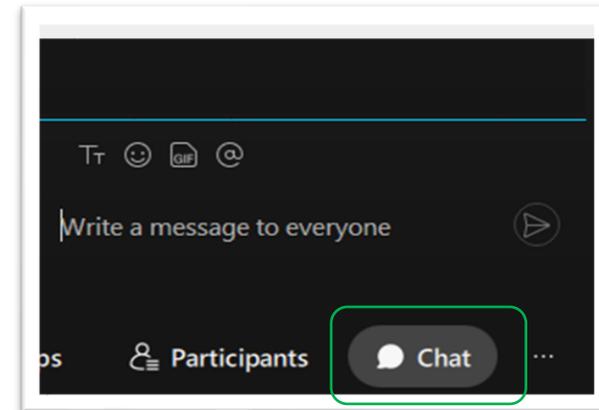
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# WebEx Participation and Questions



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- Use the chat function on the bottom right to submit questions
  - Questions will be answered after the first section of the presentation and at the end
  - Additional question responses, slides, and a recording will be made available within two weeks



# Agenda

- Introduction and Deadlines
- Compliance Tap Monitoring
  - Sampling Tiers
  - Standard Monitoring
  - 1st and 5th Liter Sampling
  - Lead Action Level Exceedance Requirements
- School and Child Care Monitoring
  - Regulatory Requirements
  - VDH WIIN Assistance
- Lead Mitigation Monitoring
- Technical Assistance and Resources



# About TruePani

- Engineering, communications, and data management firm specialized in lead in drinking water
- Headquartered in Knoxville, TN, with staff nationwide
- Lead and copper assistance to over 1,500 waterworks across 18 states including over 800 in Virginia

## Lead and Copper Technical Assistance



- TruePani is providing technical assistance to small community and non-transient waterworks serving 10,000 people or fewer
- Assistance available for all aspects of the LCRI with an emphasis on the baseline inventory and unknown identification strategies

# Lead and Copper Rule Improvement Deadlines

Deadline	Requirements
In 2026	<ul style="list-style-type: none"> <li>▪ 24-hour, Tier 1 notification for lead ALE</li> <li>▪ Continue using updated lead health effect language in CCR</li> <li>▪ 2026 annual consumer notifications of lead or potential lead SLs by end of year</li> <li>▪ Certify the distribution of 2025 customer notifications by July 1</li> </ul>
<b>November 1, 2027</b> (LCRI Takes Effect)	<ul style="list-style-type: none"> <li>▪ Baseline Inventory</li> <li>▪ Service Line Replacement Plan, if required</li> <li>▪ List of all schools and child care facilities</li> <li>▪ Lead action level reduced from 0.015 mg/l to <b>0.010 mg/l</b></li> <li>▪ Standard tap monitoring begins for <b>waterworks with GRR or lead</b></li> </ul>
January 1, 2028	<ul style="list-style-type: none"> <li>▪ Updated compliance sampling plan</li> <li>▪ Tap sampling protocol provided to customers</li> <li>▪ List of water quality parameter sites, if required</li> </ul>
January 30, 2035	<ul style="list-style-type: none"> <li>▪ Validation pool results</li> </ul>
November 1, 2037	<ul style="list-style-type: none"> <li>▪ Fully known inventory</li> <li>▪ Removal of all lead and GRR service lines under waterworks control</li> </ul>

# Compliance Tap Sampling

# Compliance Tap Sampling Overview

- Lead action level reduced from 15 ppb to **10 ppb**
- Submit a site sample plan by January 1, 2028
  - Sites based on inventory; prioritizing locations served by lead service lines or containing interior lead premise plumbing. Prioritize highest tiers until pool sufficiently populated
  - Include sampling protocols provided to customers
  - List of water quality parameter sites, if applicable
- Sampling sites cannot include sites with installed point of entry or point-of-use devices
- 90th percentile (P90) samples
  - Must be collected according to LCRI compliance protocols, during the appropriate sampling period, and from the highest available tiers
  - Invalidation of samples is determined by the State
- Report results back to customers within 3 business days



# New Compliance Tap Sampling Tiers

<b>TIER 1</b>	<b>Single family homes with lead or lead-lined galvanized service lines (not GRR) And/Or Single family homes with lead premise plumbing</b>
<b>TIER 2</b>	<b>Multi-family homes/buildings with lead or lead-lined galvanized service lines And/Or Multi-family homes or buildings with lead premise plumbing</b>
<b>TIER 3</b>	<b>Sites served by a lead connector Or Sites served by a <u>confirmed</u> GRR service line* Or Sites containing galvanized premise plumbing identified as ever having been downstream of a lead service line</b>
<b>TIER 4</b>	<b>Single family homes with interior copper piping with lead solder installed before April 1, 1986 (Virginia ban)</b>
<b>TIER 5</b>	<b>Single family or multi-family homes or buildings with service line and interior piping materials representative of the distribution system</b>

\* GRR due to lack of evidence is NOT included in Tier 3

# Standard and Reduced Monitoring



- Standard monitoring for waterworks with GRR or lead service lines
  - Every 6 months beginning January 1 and July 1 for a minimum of two consecutive monitoring periods
  - Other conditions such as a lead/copper ALE, new source water treatment, new OWQP, etc. will return waterworks to standard monitoring
- Waterworks with unknowns but no lead or GRR lines will begin standard monitoring if an unknown is determined to be GRR or lead
- Reduced monitoring eligibility determined after two consecutive monitoring periods
  - Annual monitoring if no ALE occurs
  - Triennial monitoring if lead P90  $\leq 0.005$  mg/L and copper P90  $\leq 0.65$  mg/L
  - Approval for reduced monitoring is granted by VDH

# Total Number of Compliance Samples

<b>System size</b> (Number of People Served)	<b>Number of sites</b> (Standard Monitoring)	<b>Number of sites</b> (Reduced Monitoring)
<b>&gt;100,000</b>	100	50
<b>10,001 to 100,000</b>	60	30
<b>3,301 to 10,000</b>	40	20
<b>501 to 3,300</b>	20	10
<b>101 to 500</b>	10	5
<b>≤100</b>	5	5

# Updates to Compliance Sampling

- 1st and 5th liter sequential sampling for sites **served by a lead service line**
  - Locations with lead service lines are Tier 1 or Tier 2
  - Analyze both samples for lead, use the highest value
  - Copper only analyzed in 1st Liter sampling
- Tier 1 or Tier 2 sites that **only** have lead interior plumbing only require 1<sup>st</sup> liter sampling
- Tier 3,4,5 sites only require 1st Liter analysis
- Stagnation time of at least 6 hours
  - No pre-stagnation flush or cleaning of aerators
  - Cold water collected from kitchen or bathroom

## TESTING WHERE THE LEAD IS

For homes with lead service lines, the 1st and 5th liter of water must be tested for lead.



# 90<sup>th</sup> Percentile (P90) Calculation Update

- Include results from the highest tier needed to meet the **minimum number of required samples to limit P90 dilution\***
  - Only after all Tier 1 and 2 results are exhausted, can a system include the highest results from Tier 3, 4, or 5 sites. Including extra results from Tier 3, 4 or 5 sites in this scenario would be P90 dilution
  - Including additional sample results is **not considered P90 dilution** when all samples are only collected from Tier 1 or 2 OR all samples are only collected from Tiers 3, 4 or 5
- Use only the highest lead value from 1st and 5th liter sampling collected at Tier 1 and Tier 2
- Sampling not required after a customer refusal or two outreach attempts with no customer response

Questions?

# What happens after a lead ALE?

- Tier 1 (24hr) notification must occur once the waterworks learns of an ALE and must include updated health mandatory health effects language
- Offer all customers lead sampling
  - Offered regardless of service line material
  - Report results back within 3 days
- Conduct additional public education activities within 60 days
  - Activities must be written and delivered by mail or electronically
  - Include lead exposure reduction strategies

[VDH templates for the Tier 1 PN include all updated requirements](#)



# Multiple ALEs and Water Filter Requirements

- **Effective starting 2028 and onward**
- For **two** ALEs in a rolling five-year period
  - Develop a filter plan describing how POE and POU filters with ANSI certified filters will be made available to customers on request.  
**Filters do not have to be distributed**
  - Conduct one additional outreach activity every six months
- For **three** ALEs in a rolling five-year period
  - Filters, six-months of replacement cartridges, and instructions for use made available to all customers within 60 days
  - Conduct one additional outreach activity every six months
- Replacement cartridges must be made available until system no longer has **three** ALEs in a rolling five-year period



# Compliance Sampling Planning

- Coordinate with a certified laboratory about sample submission
- Develop 1<sup>st</sup> and 5<sup>th</sup> liter sampling protocols and updated sampling plan, if required
  - Evaluate clarity with non-technical staff
  - Perform investigative sampling to evaluate ALE potential
- Create a sampling pool sufficient in size
- Sample early in your cycle
  - January 1 and July 1 for standard monitoring
  - June 1 for reduced monitoring



Questions?

# School and Child Care Sampling

# School and Child Care Sampling Requirements

- Mandatory list of **all** schools and child care facilities (CCFs) served; submitted to the State by November 1, 2027
- Requires sampling at all **elementary schools** and **licensed** child care facilities in a Community Water System's (CWS) service area
  - Sampling at secondary schools upon request
  - Does not apply to facilities that are regulated as public water systems
  - **Does not apply to NTNCs**
- Facilities are excluded and **do not need** to be in the list if both:
  - Served by a non-lead service line
  - Constructed or had full plumbing replacements on or after January 1st, 2014
- Waivers for sampling if testing occurred between January 1, 2021 and compliance date. Facilities **must be included** in the list of school and child care facilities

# School and Child Care Facility Outlets

## ○ School Sampling: 5 Samples

- Classified as elementary by State and local practice and composed of any span of grades (including pre-school) not above grade 8.
- 5 total samples: 2 drinking fountains, 1 kitchen faucet used for drinking or cooking, 1 classroom faucet or other outlet used to provide water for human consumption, and 1 nurse's office faucet

## ○ Licensed Child Care Sampling: 2 Samples

- 1 drinking water fountain, and 1 of either a kitchen faucet used for drinking or cooking, or one classroom faucet or other outlet used to provide water for human consumption
- Sample all outlets if they have less than the required number
- 250 ml sample after an 8 to 18 hour stagnation



# School and Child Care Annual Outreach

- Annual outreach to **all schools** and licensed child care facilities
  - Public education about lead health risks, sources of lead, and steps to reduce exposure
  - Copy of EPA 3Ts for Reducing Lead in Drinking Water Inform secondary schools that they can request sampling
- Sample 20% of elementary schools and CCFs annually for the first five years
  - Annually means between **November 1 and October 31**, not calendar year
  - Notify schools and CCFs scheduled for sampling of eligibility and proposed schedule
  - Provide facilities instructions on identifying outlets at least 30 days prior to sampling
  - Secondary school sampling is by request only
- Facilities that are non-responsive after two attempts or decline to participate **DO** count towards annual 20% rate

# Voluntary School and Child Care Sampling

- Participating schools are eligible for an LCRI waiver
  - Waiver reduces total number of facilities required for sampling
  - Waiver does not count towards annual 20%
- Identify and update list of schools and licensed child care facilities, including updating points of contact
- Encourage schools and licensed child care facilities to participate in voluntary [WIIN sampling](#)
  - Reduces sampling and communications burden on waterworks
  - Free sampling for all eligible facilities
- WIIN enrollment is now open for Q2 2026 training
- Compliance is the waterworks responsibility after November 2027

**SCHOOL AND CHILD CARE – LEAD SAMPLING PROJECTS**



**NOTE: THE VDH GRANT PROGRAM IS CLOSED TO NEW ENROLLMENTS AT THIS TIME**

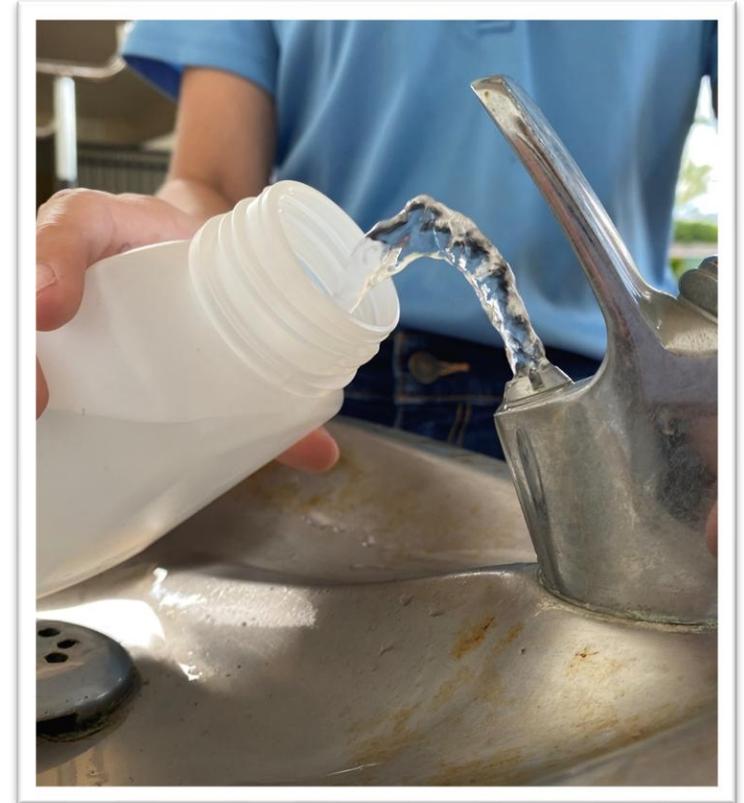
The School and Child Care Lead Testing and Reduction Grant Program adheres to the Environmental Protection Agency's (EPA) [3T's guidance](#) for lead testing in school and child care facilities. Upon enrolling, our partners at 120Water will provide everything needed for facilities to create their own lead sampling and remediation plan. Our program, made possible by the [Water Infrastructure Improvements for the Nation Act \(WIIN\)](#), provides free sampling kits and technical assistance for facilities to sample facility faucets and fountains for lead presence. Once samples are collected, facility managers can use pre-labeled return boxes to send samples to our state contracted labs for testing. The [120Water](#) portal will help facilities compile the data and record work completed. We will all work together to educate stakeholders on the risks of lead in drinking water and determine the most appropriate solution for our most vulnerable population. For samples that indicate a lead exceedance, the Office of Drinking Water (ODW) can provide technical assistance and guidance for remediation options. ODW can provide funding in the form of reimbursement for remediation projects through the grant program, see more [information here](#).

[Get Started - Enroll Now](#)

[Facility Login - 120Water Portal](#)

# School and Child Care Resources

- [WIIN Sampling](#)
- [3Ts for Reducing Lead in Drinking Water \(EPA\)](#)
- [Licensed Child Care Facilities \(VDSS\)](#)
- [Virginia Public Schools \(VDE\)](#)
- [Virginia Private Schools \(VCPE\)](#)



Questions?

# Lead Mitigation Monitoring

# Mitigating Lead Exposure

- Following a Lead Action Level Exceedance (ALE)
  - Lead ALE reduced to 10ppb
  - Offer sampling to all customers with 1<sup>st</sup>/5<sup>th</sup> liter sampling at customers served by lead, GRR or unknown service lines.
- Following a lead or GRR service line replacement, offer lead sampling
- Annual customer notifications to lead or GRR service lines must include offer lead sampling starting in November 2027
- Results will count towards compliance if both timing of sampling and method comply with compliance requirements



Customer Initiated Replacement, DC Water,

# Preparing for Mitigation Sampling

- Sampling must be **offered** but waterworks does not have to pay for analysis
  - Compliance with LCRI falls on waterworks
  - Administrative burden falls on waterworks
- Develop business practices to ensure compliance and reporting
  - Communication materials
  - Reporting requirements to customers and primacy agencies, if needed
- If needed, identify a [Virginia Accredited and Certified Lab](#) to analyze samples required for mitigating lead exposure



# Customer Request Preparations



- Identify a certified lab that will accept one off customer requests
  - State labs and some large waterworks labs have declined analyzing these samples
  - Determine logistics like cost, who will provide sampling material, how to return samples to the lab
- Develop business practices to process customer requests
  - Initiating requests and processing payment
  - Determining sampling type (1<sup>st</sup> or 1<sup>st</sup>/5<sup>th</sup>) and whether sample counts towards compliance
  - Results reporting to customer, State, and potentially local health department

# Final Thoughts

# Sampling Requirements



- Compliance Monitoring – starts November 2027
  - New sample tiering requiring a new sampling plan
  - Waterworks with lead or GRR return to standard monitoring
  - 1<sup>st</sup> and 5<sup>th</sup> liter sampling for locations served by lead service lines
  - Additional monitoring and filter requirements following an ALE
- Mandatory School and Child Care Sampling – starts November 2027
  - Sample all elementary schools and licensed child care facilities within the first 5 years
  - 5 samples from schools and 2 samples from child care facilities
  - Annual period begins November 1 and ends October 31
- Voluntary School and Child Care Sampling – ongoing
  - Sign up through Virginia WIIN program
  - All samples collected will count towards mandatory school and child care sampling

# Recommendations Before November 2027



- Develop a fully known inventory
  - Determine sampling tier and new sampling plan
  - Determine standard or reduced monitoring
  - Proactive replacement of lead and GRR service lines, if possible
- Create new business practices for
  - Handling customer request and reporting requirements
  - Coordinating with certified laboratories for sample submission and reporting requirements
  - Distribution of Tier 1 notification after an ALE
- Outreach to schools and licensed child care facilities for WIIN sampling
  - Develop list of facilities and points of contact
  - Prepare annual outreach materials
  - Determine sampling schedule
- Voluntary sampling at locations served by lead service lines to
  - Refine 1<sup>st</sup> and 5<sup>th</sup> liter samples
  - Evaluate potential lead ALE when new ALE of 10 ppb begins

# Resources

- [VDH Lead and Copper Rule Guidance](#)
  - [Preparing for the Lead and Copper Rule Improvements Guidance Document \(PDF\)](#)
  - [VDH ODW GEC SWIFT Portal Instructions \(PDF\)](#)
- [Virginia Accredited and Certified Lab](#)
- [VDH School and Child Care Sampling Projects](#)
  - [Licensed Child Care Facilities \(VDSS\)](#)
  - [Virginia Public Schools \(VDE\)](#)
  - [Virginia Private Schools \(VCPE\)](#)
- [GEC SWIFT Portal](#)

# Thank you. Questions?

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**Meeting Scheduler:** [bit.ly/VALCRI](https://bit.ly/VALCRI)

