

LEAD
2020



LEAD-SAFE HOMES, HEALTHY FAMILIES.

Four weeks, four webinars, one goal:
eliminate lead hazards from Virginia's homes.

WEBINAR #2 **AUGUST 26TH**

Paint, Pipes, and Poison: Pervasiveness and Proper Process

Scott Slagley
Trisha Henshaw
Dwayne Roadcap
Katie Kennedy
Zack Miller

Richmond City Health District and Virginia Poverty Law
Center invite you to learn about the pervasiveness of lead in
Virginia's housing and the remediation process.

Conducting a Lead Risk Assessment

Scott Slagley
Richmond City Health District



RICHMOND CITY
HEALTH DISTRICT



HENRICO COUNTY
HEALTH DISTRICT

What is a Lead Risk Assessment?



Risk assessment encompasses an on-site investigation to determine and report the existence, nature, severity, and location of lead-based paint (LBP) hazards in a residential dwelling or child-occupied facility.

Lead-Based Paint Hazard



A lead-based paint hazard is any condition that causes exposure to lead from lead-contaminated dust, soil, or paint that is deteriorated or present in accessible surfaces, friction surfaces, or impact surfaces that would result in adverse human health effects.

Lead in Drinking Water



The allowable lead level in drinking water is regulated by the federal Safe Drinking Water Act. The City of Richmond uses corrosion control measures required by the state and EPA to prevent lead from leaching out of lead pipes and plumbing fixtures. Although not required, drinking water samples are collected for lead analysis during a lead risk assessment to determine the potential lead exposure from drinking water.

Richmond City Code Includes Childhood Lead Poisoning Investigation Measures

Encompasses:

- Children age six and under (federal definition is under the age of six).
- Elevated blood lead level of ≥ 10 $\mu\text{g/dL}$ (greater than CDC blood lead reference value of 5 $\mu\text{g/dL}$).
- Pregnant women.

Authorizes the Health Department to:

- Perform a lead risk assessment and issue a Notice of Violation (NoV) to the property owner when lead-based paint hazards are identified.
- Reinspect the dwelling after the lead hazards have been mitigated to release the NoV.

Elements of a Lead Risk Assessment



1. Background information gathering on dwelling and occupant use;
2. Visual inspection to identify location of deteriorated lead-based paint hazards;
3. Testing of deteriorated painted surfaces for the presence of lead;
4. Sampling and analysis of dust and bare soil for lead;
5. Other activity as appropriate to identify potential lead exposure (e.g. sampling of drinking water and personal items); and
6. Report preparation with results of the investigation and recommendations for the control or elimination of all identified lead hazards.

Lead Based Paint Inspection



- Lead inspections are a variation of a lead risk assessment.
- LBP inspections include testing of all accessible painted surfaces to determine the presence of LBP.
- Dust and soil sampling are not typically included in a LBP inspection.
- Most lead-based paint evaluations are a hybrid of lead inspection and risk assessment (LIRA).

Potential Actions to Control Lead Hazards



Temporary Controls

- Control lead dust from entering the home
- Avoid locations with LBP (porches, window sills) until addressed
- Additional housecleaning to remove lead dust
- Follow lead-safe work practices for DIY projects
- Mitigate lead dust transfer from work clothes
- Interim controls - paint stabilization/repainting

LBP Abatement - Permanent Controls

- Paint Removal
- Component replacement
- Enclosure
- Encapsulation

Lifestyle modification

- Discontinue use of lead containing products (cosmetics, spices, ceremonial powders, cookware, etc.)

Factors to Consider



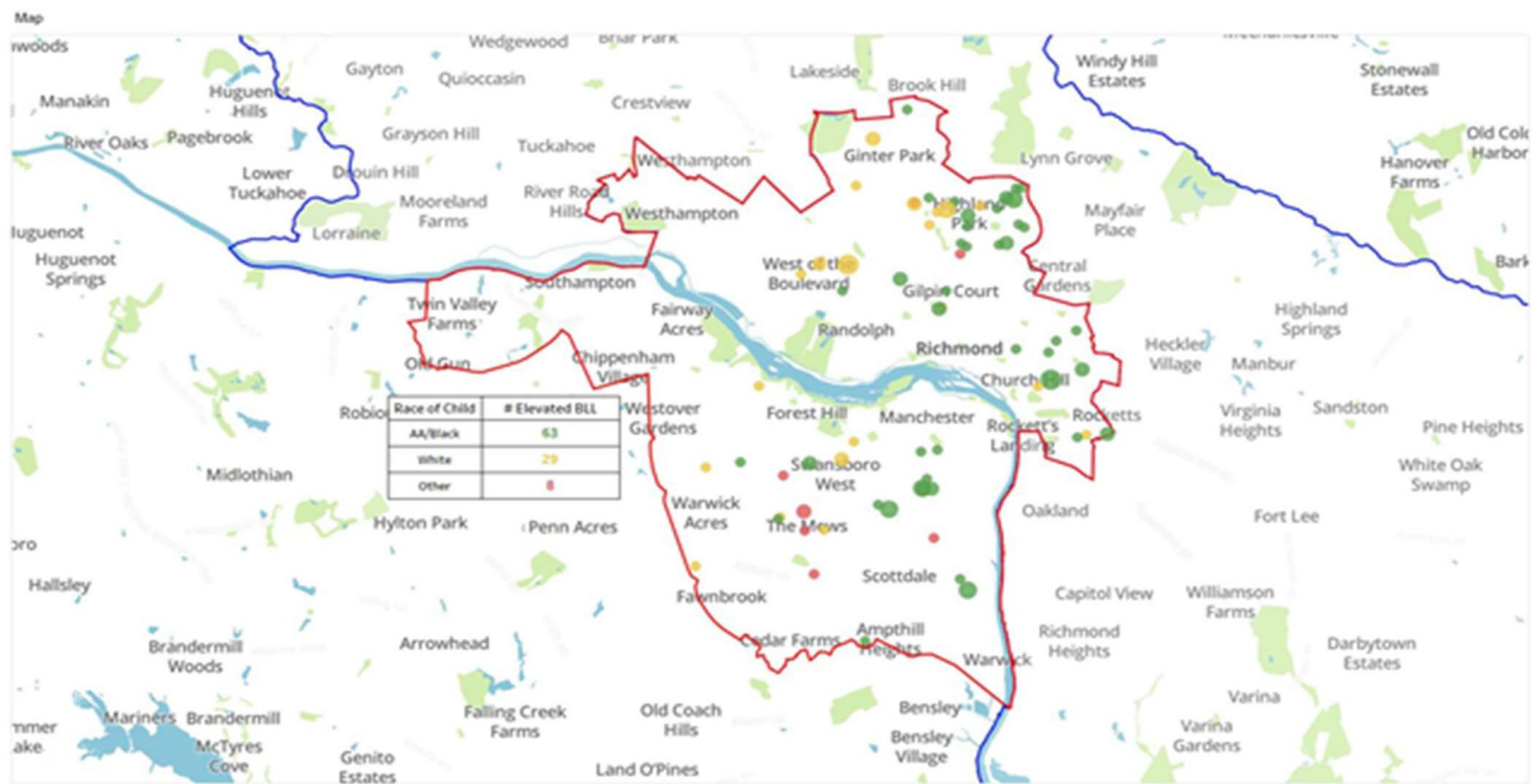
Lead Paint Inspection

- More in-home time to test all painted surfaces (2-3 hours)
- Accessibility can be an issue
- Cost prohibitive without XRF

Lead Risk Assessment

- Less in-home time (1-2 hours)
- Testing of deteriorated paint surfaces
- Other potential lead sources (i.e., dust, soil) are evaluated
- Occupants may not be forthcoming about lifestyle/personal habits

Estimated minimum cost of a comprehensive hybrid lead investigation is \$700 (dependent on house size).



[illegible]



Photo 1: Typical two story home with front porch.



Photo 2: Typical one story home with addition.



Photo 3: Typical front door jamb with deteriorated lead-based paint (LBP).

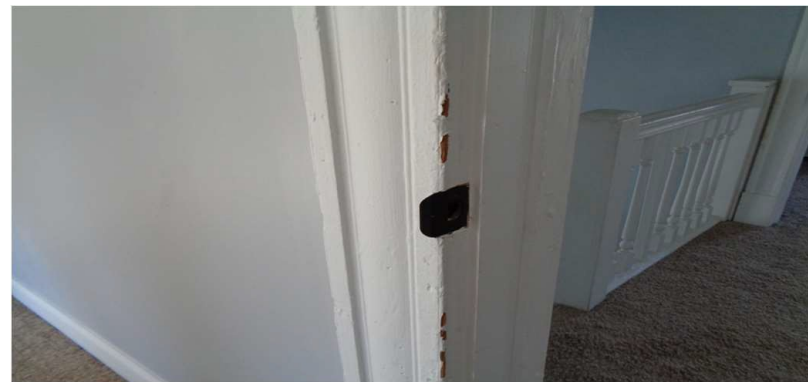


Photo 4: Door trim with deteriorated lead-based paint.



Photo 5: Door with deteriorated LBP.



Photo 6: Deteriorated window and sill with deteriorated LBP.



Photo 7: Baseboard with deteriorated lead-based paint (LBP).



Photo 8: Stairway stringer with deteriorated LBP.



Photo 9: Porch components with deteriorated LBP.



Photo 10: Foundation window with deteriorated LBP.

Pure
White-Lead Paint
for about
\$2⁸⁵*
PER GALLON
and a few minutes of your time!



You mix it yourself in a jiffy



Before you buy paint see this "price card" at your dealer's



6½ gallons in about ten minutes

JUST a minute or two to the gallon. That's all it takes to make the highest grade paint for only about \$2.85* per gallon. So why experiment? Why pay more... when this paint you can mix in a jiffy, yourself, is the selfsame paint that 8 out of 10 painters use? And nobody knows paint like a painter.

The reason painters are so overwhelmingly in favor of Dutch Boy is because it gives paint in its purest, most economical form. It provides an elastic protective coating which does not crack or scale. Thus when you eventually repaint, there will be no time and money spent for burning or

scraping. Just paint right over the old, long-lasting coat.

In the new soft paste form, Dutch Boy White Lead is easily stirred... simple to mix. Just thin with linseed oil... add tur-

REPAINTING OUTSIDE WOOD FOR UNDERCOAT

Mix equal measured parts Soft Paste White Lead and thinner. Half linseed oil and half turpentine. Then add one-quarter pint of drier for each gallon of paint.

FOR FINISHING COAT

Mix equal measured parts Soft Paste White Lead and thinner. Then stir in one-quarter pint each of turpentine and drier for every gallon of paint.

120 Pounds Soft Paste White Lead (1½ Gallons) make about 8½ gallons of pure white-lead paint which will cover about 800 square feet per gallon, one coat. (Of heavy paste white lead, in use, ½ gallon more will be required per 100 sq. ft.)

Send for the little folder offered free in the coupon. It shows you how to get better results so much easier. Send for it now.

NATIONAL LEAD COMPANY
New York, 111 Broadway - Buffalo, 118 Oak Street
- Chicago, 808 West 10th Street - Cincinnati, 409 Freeman Avenue - Cleveland, 842 West Superior Avenue - St. Louis, 718 Chestnut Street - San Francisco, 2240 24th Street - Boston, National-Boston Lead Co., 406 Albany Street - Pittsburgh, National Lead & Oil Co. of Pa., 308 Fourth Avenue - Philadelphia, John T. Lewis & Bros. Co., Widener Bldg.

Send the coupon and a label from a can of Dutch Boy White Lead Paint to:

JUST MAIL THIS COUPON
National Lead Company
Address: (See list of offices above)
Gentlemen:
Please send me the folder that tells me how to do much better painting, easier and for less money.

Name _____
Address _____
City _____ State _____

Page 3

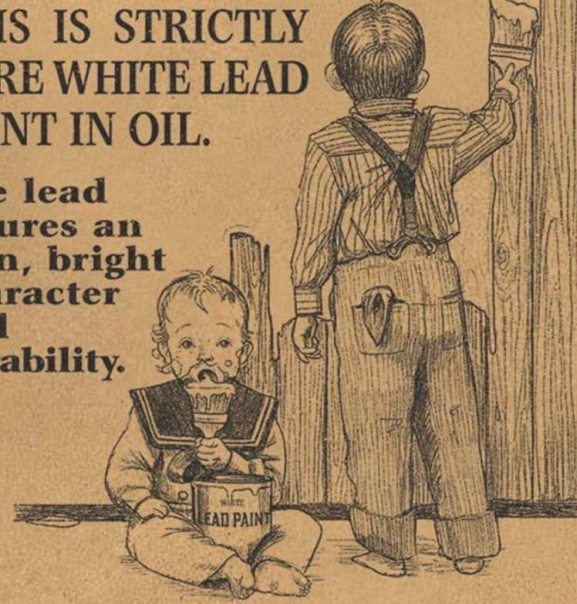
DUTCH BOY Soft Paste WHITE LEAD

July, 1930

BE SURE TO ORDER OUR
WHITE LEAD BARN PAINT

THIS IS STRICTLY
PURE WHITE LEAD
PAINT IN OIL.

The lead
insures an
even, bright
character
and
durability.




RICHMOND CITY
HEALTH DISTRICT

Lead in Drinking Water



Dwayne Roadcap

Director, Office of Drinking Water

Dwayne.Roadcap@vdh.virginia.gov

804-864-7522

Presentation Objectives

- Monitoring Lead in Drinking Water
- Lead Service Line Replacement

Lead and Copper Rule

- Published June 7, 1991
- Establishes Maximum Contaminant Level Goal (MCLG)
- Establishes Action Levels (AL). AL exceedance is not a violation.

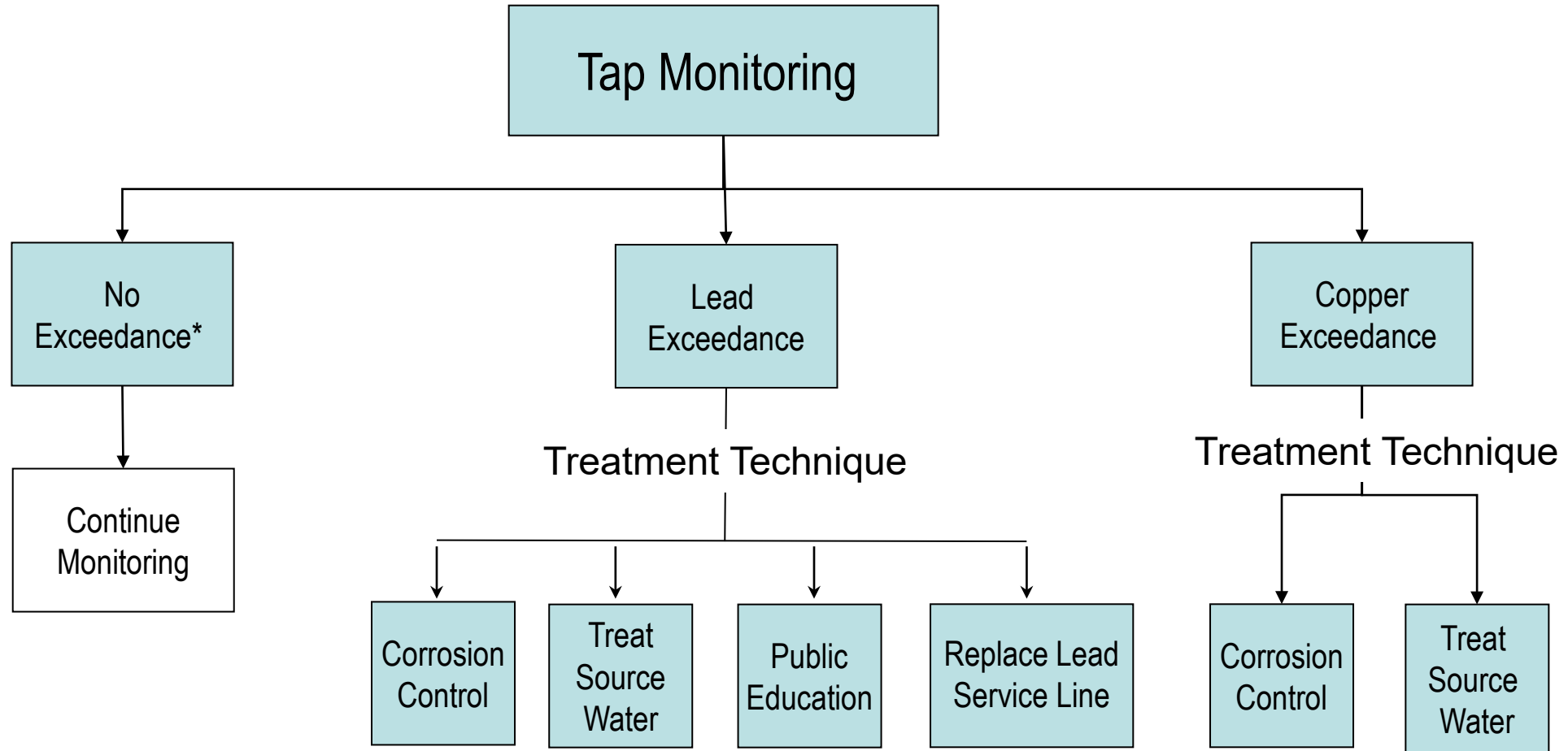
	<u>MCLGs</u>	<u>Action Levels</u>
Lead	0 mg/L	0.015 mg/L
Copper	1.3 mg/L	1.3 mg/L

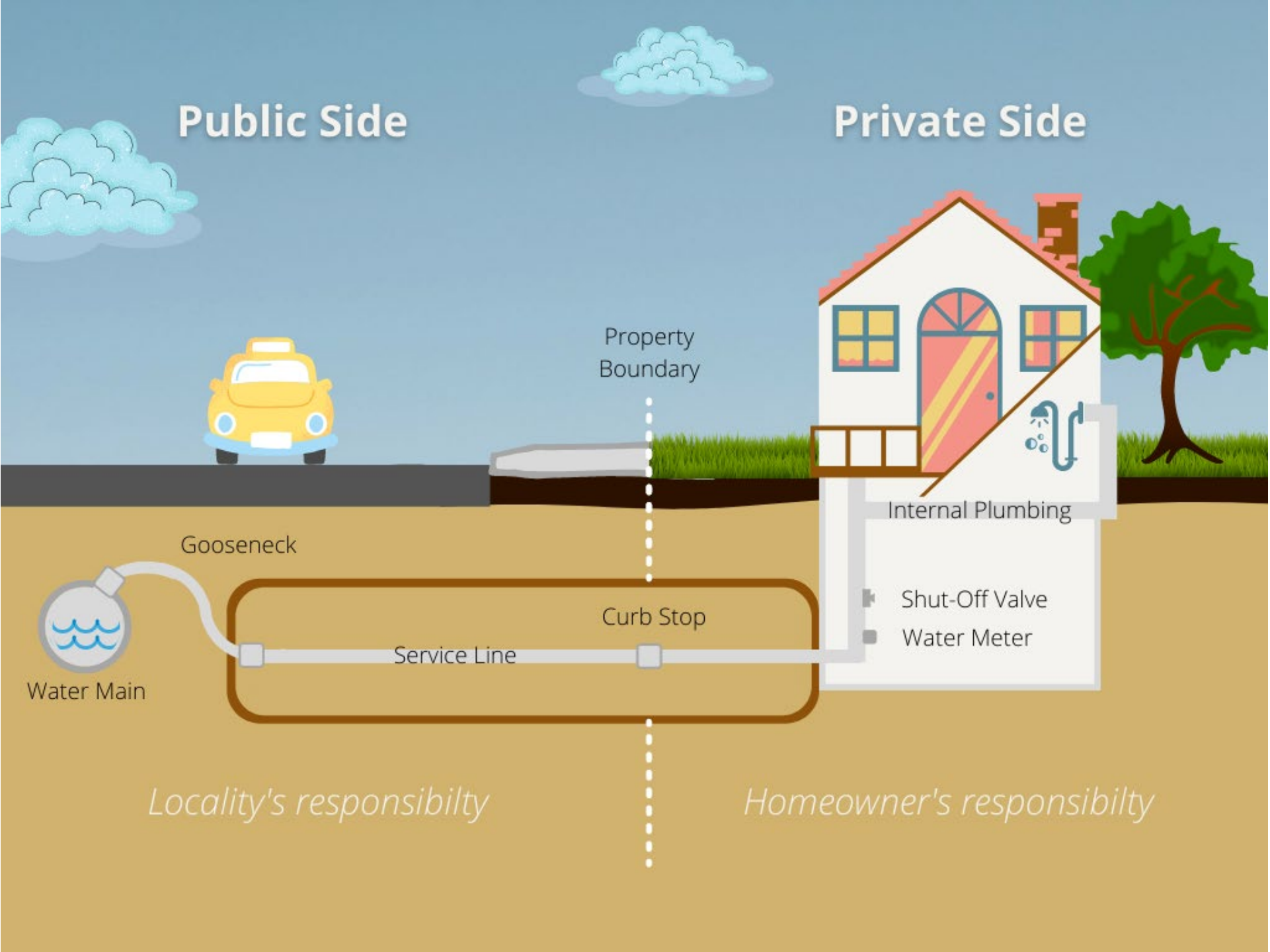
Lead and Copper Tap Monitoring

- Sample from Highest Risk Homes with:
 - Copper pipes with lead solder installed after 1982
 - Lead pipes
 - Lead service lines (LSL)
 - Multiple-Family Residences



Actions triggered by monitoring

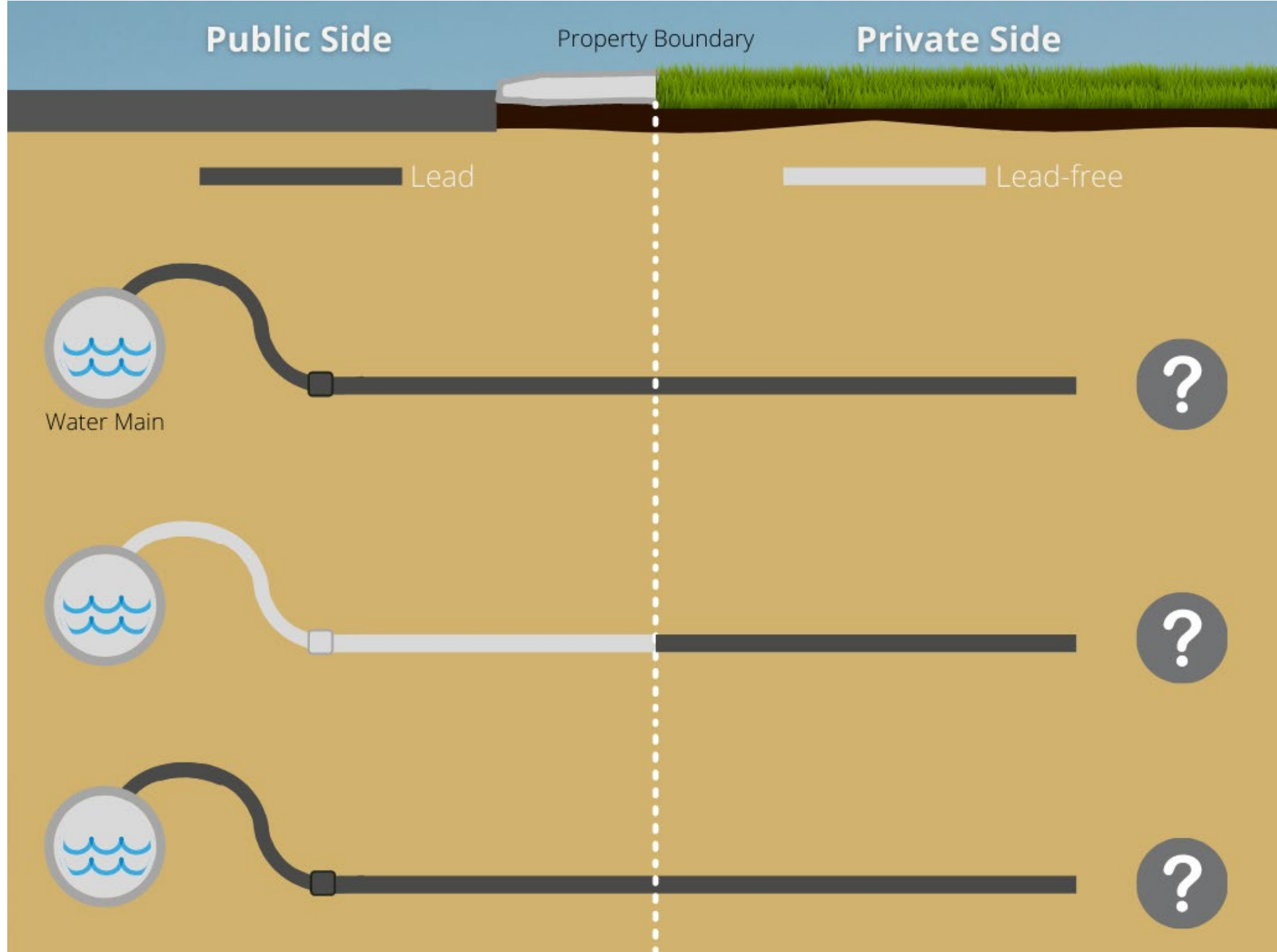




Public Side

Property Boundary

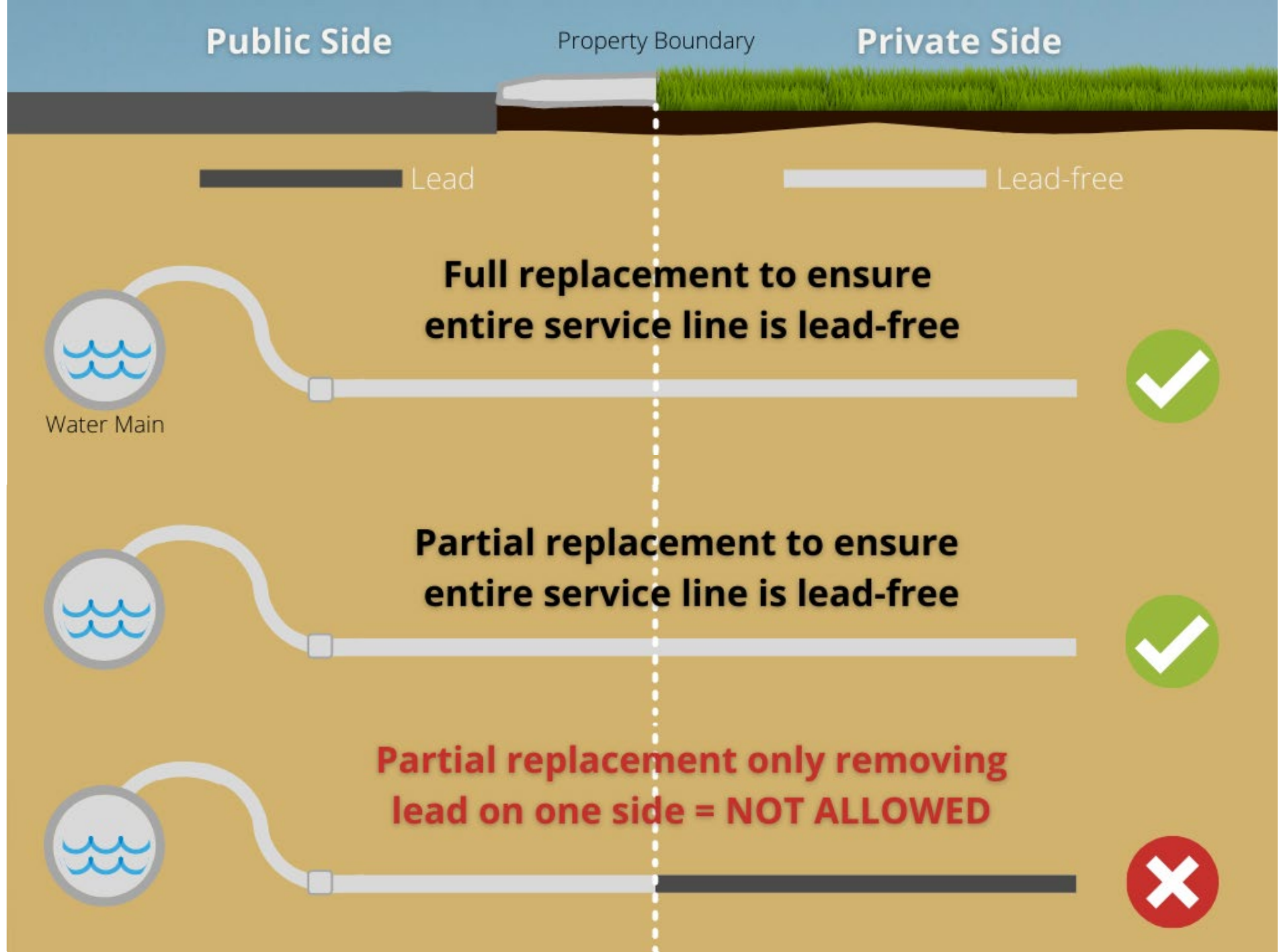
Private Side



Public Side

Property Boundary

Private Side



Lead

Lead-free

**Full replacement to ensure
entire service line is lead-free**

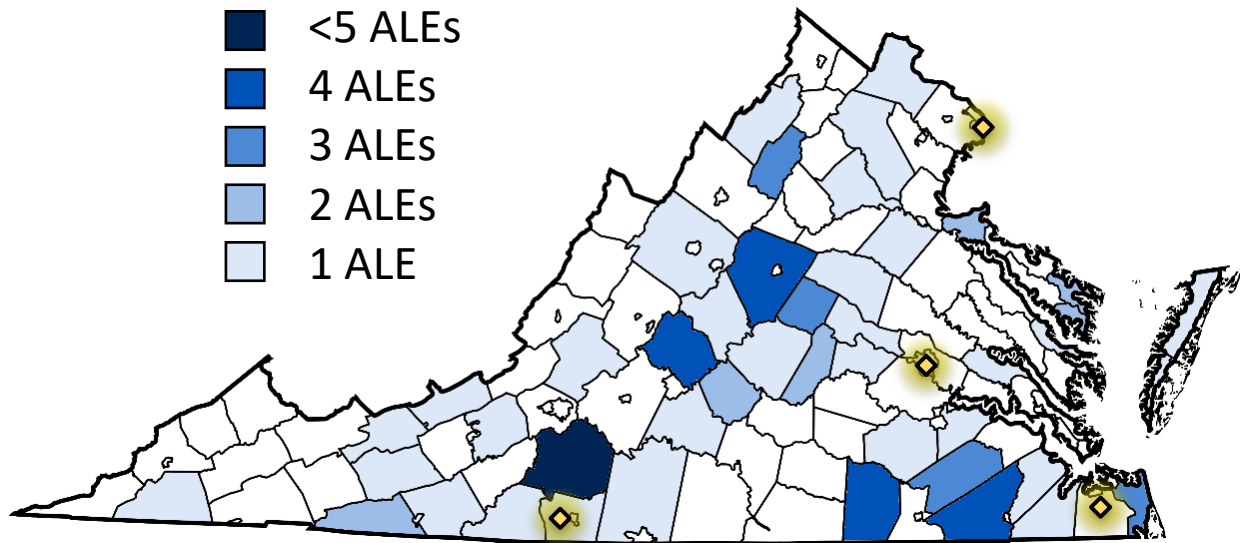
Water Main

**Partial replacement to ensure
entire service line is lead-free**

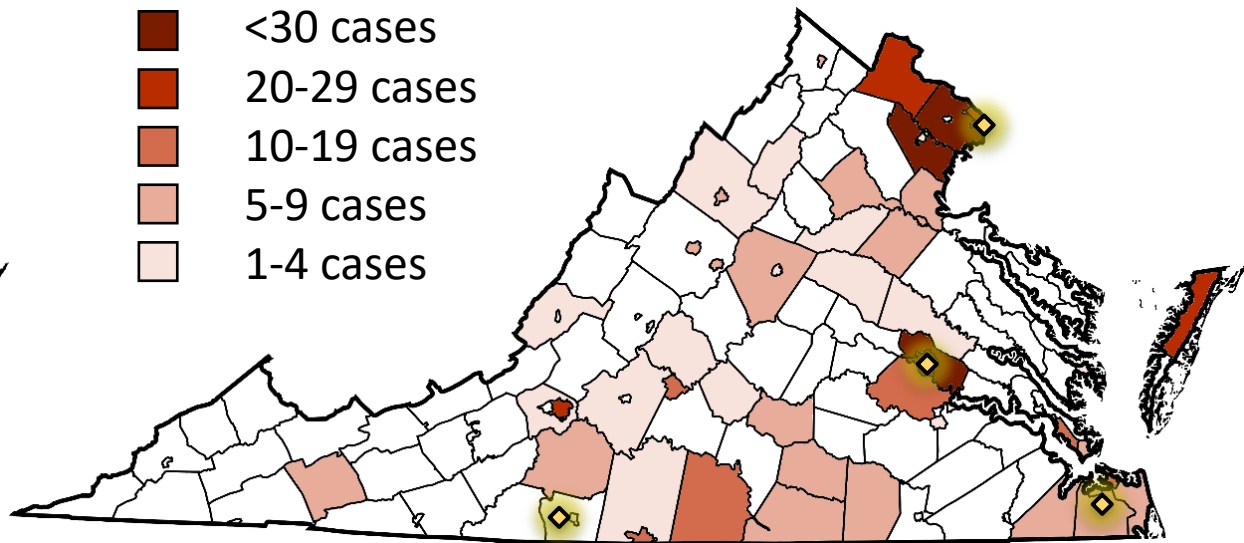
**Partial replacement only removing
lead on one side = NOT ALLOWED**

ODW targeting high priority areas.

**Action Level Exceedances (ALEs)
Within the Last 5 years**



**Top 50 Localities with Greatest Number of
BLL Cases in Children <6yo in 2018**



◆ Localities where VDH has funded LSLR projects

Marketing and Outreach



- **Big opportunity for LSL replacements**
 - Virginia is an old state = many homes with LSLs.
- **Lead Elimination Assistance Program "LEAP" campaign**
 - Educational flyers and infographics
- **"LEAP-ing" forward**
 - Make lead testing of drinking water commonplace

Lead Licensing Overview

Trisha L. Henshaw | Executive Director

Virginia Board for Asbestos, Lead, And Home Inspectors



Department of Professional & Occupational Regulation | What we do

- ▶ Oversees 18 regulatory boards and programs
- ▶ Boards comprised of practitioners and citizens appointed by the Governor
- ▶ Regulates certain non-medical professions and occupations as determined by the General Assembly
- ▶ 300,000 individuals and businesses regulated
- ▶ 100s of license types – architects, contractors, cosmetologists, professional wrestlers, real estate professionals, tradesmen, etc.

Board for Asbestos, Lead, and Home Inspector

- ▶ Licenses individuals and businesses performing activities related to asbestos and lead abatement, and home inspectors
- ▶ All applicants for licensure are required to take initial Board-approved training and then refresher training every four years; some licenses also require higher education and experience
- ▶ *Lead Based Paint Activities Regulations* include the following license types for those involved in lead abatement:

Worker (297)*	Supervisor (135)*
Inspector (73)*	Risk Assessor (176)*
Project Designer (24)*	Contractor* (90)*

- ▶ The Board also accredits training providers who are approved to provide education to the Board's licensees

**Regulant population as of 8/1/2020*

Licensing for Abatement Firms

- ▶ Firms performing lead abatement work must have:

Contractors License with the LAC Specialty

- Issued by Board for Contractors

Lead Contractors License

- Issued by the ALHI Board

Lead Supervisor Overseeing Work

- Issued by ALHI Board

Lead Workers Performing Work

- Issued by ALHI Board

Other Lead License Types

▶ **Lead Inspector**

- ▶ Collects and tests paint to determine the presence of lead
- ▶ Prepares written inspection report
- ▶ Performs post-abatement clearance procedures

▶ **Lead Project Designer**

- ▶ Develops occupant protection plan prior to abatement (can be done by supervisor)
- ▶ Prepares final abatement report

▶ **Lead Risk Assessor**

- ▶ Conducts lead hazard screen, including background information of dwelling or facility to determine lead-based paint exposure to children six and under; visual inspection to include paint deterioration and dust sampling locations; and testing of paint and/or dust
- ▶ Prepare written hazard screen report, to include recommendations for further actions
- ▶ Conducts risk assessment of dwelling/facility
- ▶ Prepares written assessment report to include interim controls or abatement options
- ▶ Performs post-abatement clearance procedures

Penalties for Unlicensed Practice

- ▶ If **contractor** and **supervisor** are licensed, could face Board disciplinary action:
 - ▶ \$2500 monetary penalty per count
 - ▶ Suspension
 - ▶ Revocation
 - ▶ Remedial education
- ▶ **Unlicensed activity?**
 - ▶ Subject to criminal prosecution
 - ▶ Class 1 misdemeanor for 1st and 2nd offenses
 - ▶ Class 6 felony if 3 or more offenses in 36 months
 - ▶ Can be ordered by court to pay restitution
- ▶ Exemption for lead based paint activities performed by owner on owner-occupied residence

How to File a Complaint against a License

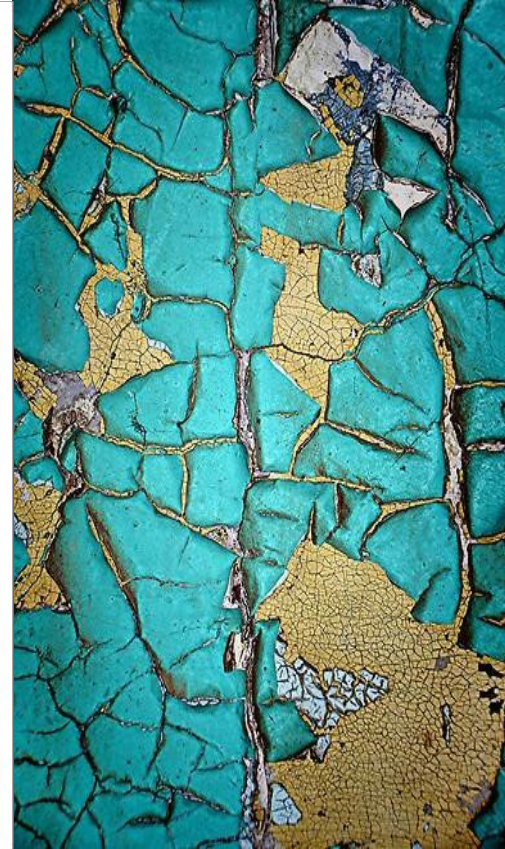
- ▶ Filed with DPOR on a Complaint Form
(<http://www.dpor.virginia.gov/File-Complaint/>)
- ▶ Include any documentation to support the complaint
- ▶ Must be in writing and cannot be anonymous
- ▶ Reviewed by staff to determine if there is probable cause of a regulatory violation
- ▶ If yes, could result in disciplinary action by the Board
- ▶ The Board cannot require restitution/repair for the complainant – must go through the courts through a civil action

Additional Resources

- ▶ Department of Professional and Occupational Regulation (DPOR)
 - ▶ www.DPOR.Virginia.gov
- ▶ Virginia Department of Health (VDH)
 - ▶ www.VDH.Virginia.gov/leadsafe/
- ▶ Environmental Protection Agency (EPA)
 - ▶ www.EPA.gov/lead
- ▶ Department of Housing and Community Development (DHCD)
 - ▶ www.DHCD.Virginia.gov/lhr
- ▶ Department of Labor and Industry (DOLI)
 - ▶ www.DOLI.Virginia.gov/vosh-programs/asbestos-lead/
- ▶ Localities

Board Contacts

- ▶ **Trisha L. Henshaw | Executive Director**
 - ▶ Trisha.Henshaw@DPOR.Virginia.gov |
(804) 367-0362
- ▶ **ALHI Board | Licensing Staff**
 - ▶ ALHI@DPOR.Virginia.gov |
(804) 367-8595
- ▶ **Board for Contractors | Licensing Staff**
 - ▶ Contractors@DPOR.Virginia.gov |
(804) 367-8511



Lead Safe Roanoke

Katie Kennedy

Program Manager



Lead Safe Roanoke

Education

Outreach

Skills Training

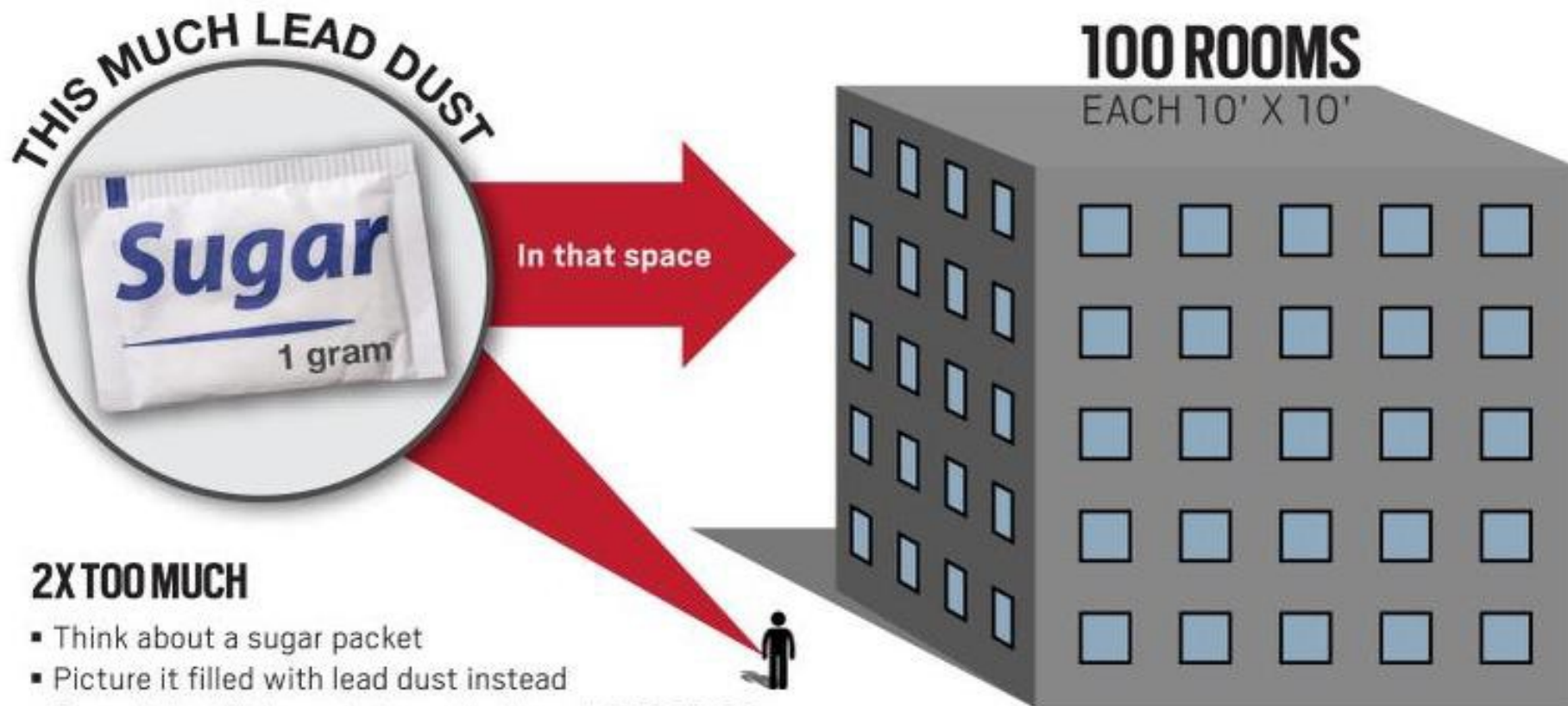
Lead Inspection/Risk Assessment

Lead Hazard Reduction

Healthy Homes

HOW MUCH LEAD IS DANGEROUS?

Even low levels of lead exposure can damage the nervous system, and high levels of exposure can lead to coma or death. The Centers for Disease Control and Prevention say there is no safe blood lead level in children. Paint containing lead can deteriorate or chip, leaving traces of lead dust at dangerous levels.



2X TOO MUCH

- Think about a sugar packet
- Picture it filled with lead dust instead
- Spread that little packet equally through 100 10x10 rooms
- That amount of lead dust in each room would still be two times higher than the federal hazard level.

**DOES YOUR
PAINT LOOK
LIKE AN
ALLIGATOR?**



YOU MIGHT HAVE LEAD PAINT!



Find Out More: RoanokeVA.gov/Leadsafe

What Can You Do To Help Prevent Lead Poisoning ?



Wet Clean



Eat foods rich in Iron, Calcium and Vitamin C



Take off your shoes

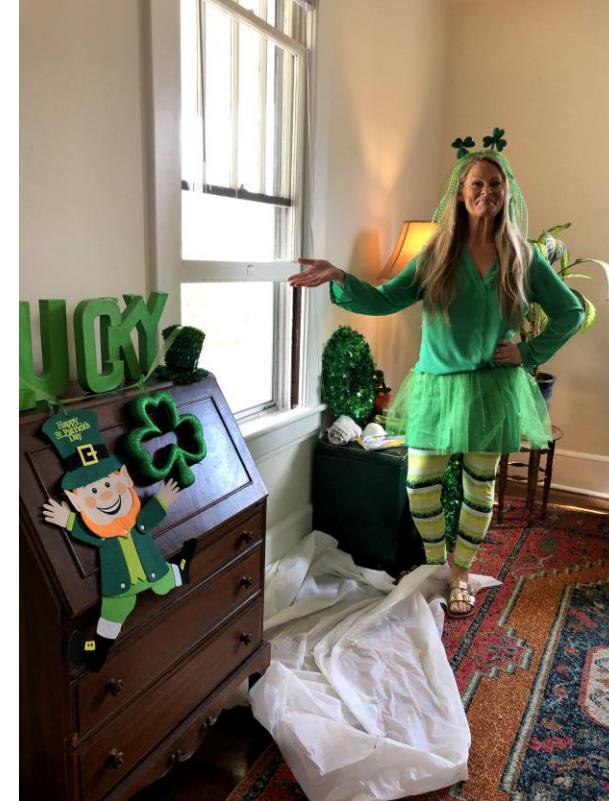


Wash you hands

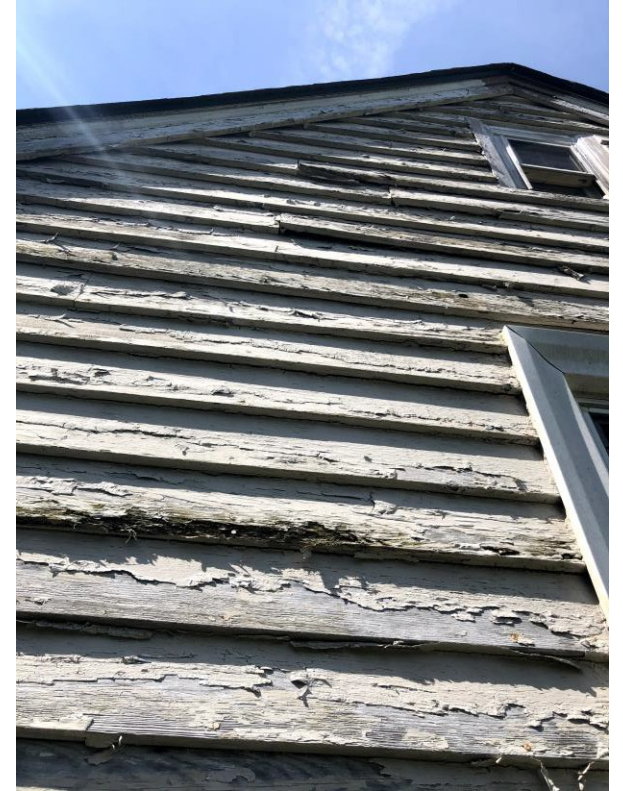
Education and Outreach



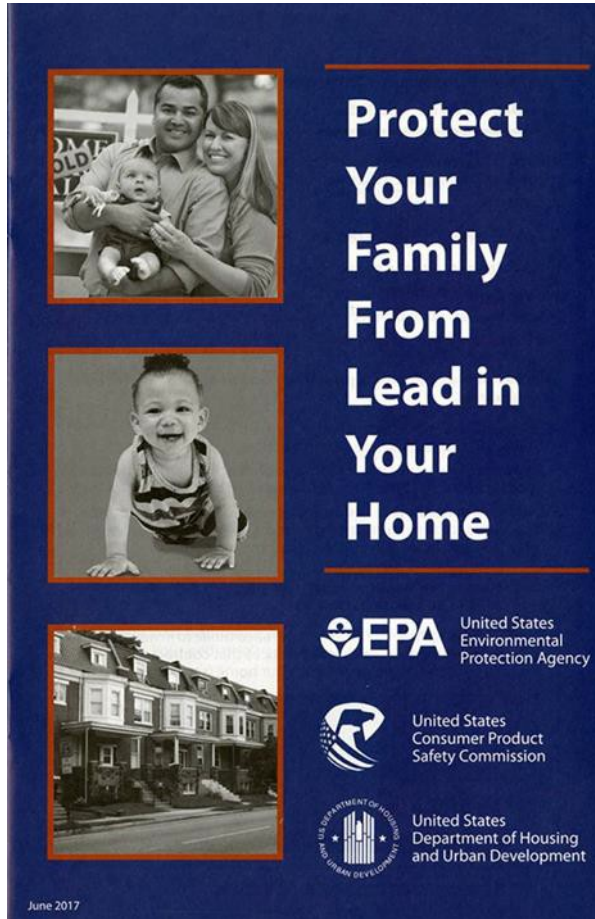
Education and Outreach



Partnership with Code Enforcement



Landlords/Rental Units



The pamphlet cover has a dark blue background. On the left, there are three black and white photographs: a family of four (father, mother, and two children), a crawling baby, and a row of townhouses. To the right of these photos, the title "Protect Your Family From Lead in Your Home" is written in large, white, sans-serif font. Below the title, there are three logos: the EPA logo, the United States Consumer Product Safety Commission logo, and the United States Department of Housing and Urban Development logo. At the bottom left, the date "June 2017" is printed.

Protect Your Family From Lead in Your Home

EPA United States Environmental Protection Agency

United States Consumer Product Safety Commission

United States Department of Housing and Urban Development

June 2017

Disclosure of Information on Lead-Based Paint and/or Lead-Based Paint Hazards			
Lead Warning Statement <i>Housing built before 1978 may contain lead-based paint. Lead from paint, paint chips, and dust can pose health hazards if not managed properly. Lead exposure is especially harmful to young children and pregnant women. Before renting pre-1978 housing, lessors must disclose the presence of known lead-based paint and/or lead-based paint hazards in the dwelling. Lessees must also receive a federally approved pamphlet on lead poisoning prevention.</i>			
Lessor's Disclosure			
(a) Presence of lead-based paint and/or lead-based paint hazards (check (i) or (ii) below):			
(i) <input type="checkbox"/> Known lead-based paint and/or lead-based paint hazards are present in the housing (explain).			
<hr/>			
(ii) <input type="checkbox"/> Lessor has no knowledge of lead-based paint and/or lead-based paint hazards in the housing.			
(b) Records and reports available to the lessor (check (i) or (ii) below):			
(i) <input type="checkbox"/> Lessor has provided the lessee with all available records and reports pertaining to lead-based paint and/or lead-based paint hazards in the housing (list documents below).			
<hr/>			
(ii) <input type="checkbox"/> Lessor has no reports or records pertaining to lead-based paint and/or lead-based paint hazards in the housing.			
Lessee's Acknowledgment (initial)			
(c) <input type="checkbox"/> Lessee has received copies of all information listed above.			
(d) <input type="checkbox"/> Lessee has received the pamphlet <i>Protect Your Family from Lead in Your Home</i> .			
Agent's Acknowledgment (initial)			
(e) <input type="checkbox"/> Agent has informed the lessor of the lessor's obligations under 42 U.S.C. 4852d and is aware of his/her responsibility to ensure compliance.			
Certification of Accuracy The following parties have reviewed the information above and certify, to the best of their knowledge, that the information they have provided is true and accurate.			
Lessor	Date	Lessor	Date
Lessee	Date	Lessee	Date
Agent	Date	Agent	Date

Resources

EPA — <https://www.epa.gov/lead>

HUD -
https://www.hud.gov/program_offices/healthy_homes

Green & Health Homes -
<https://www.greenandhealthyhomes.org/ending-lead-poisoning/>

Lead Safe Roanoke Facebook -
www.facebook.com/leadsaferoanoke





www.roanokeva.gov/leadsafe

Katie.kennedy@roanokeva.gov

#LEAD2020: LEAD-SAFE HOMES, HEALTHY FAMILIES (WEBINAR #2)

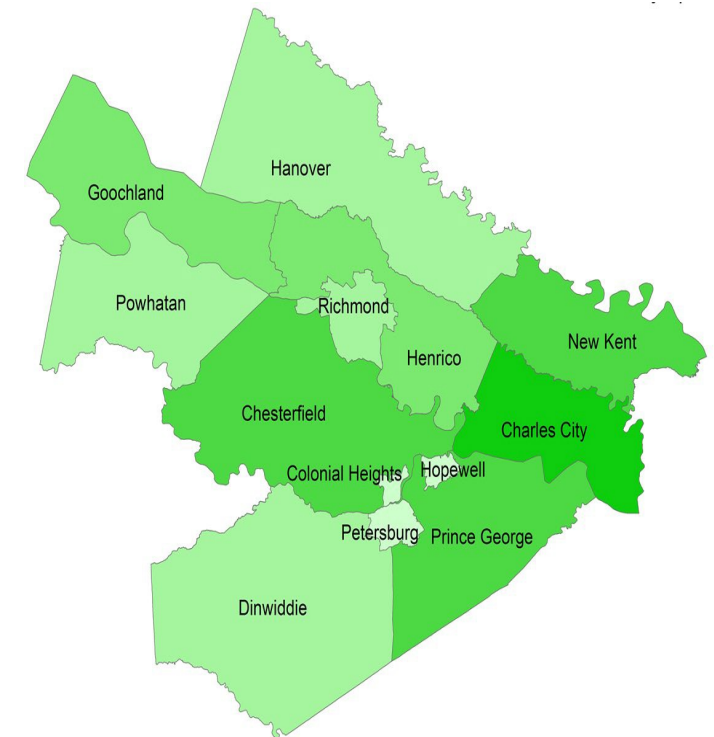
Zack Miller

project:  **HOMES**

WHAT WE DO

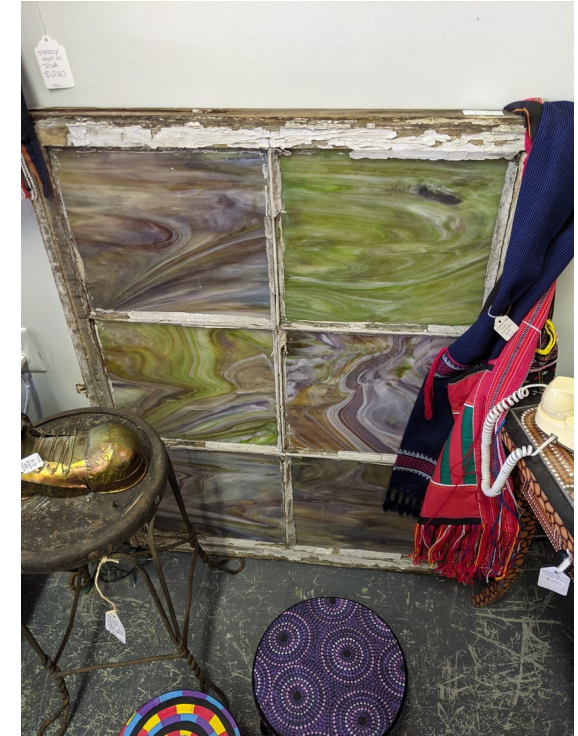
- Central Virginia Based Non-profit
- Core services include:
 - Critical Home Repairs
 - Building and Rehabilitating Affordable Single Family Homes
 - Weatherization & Utility Efficiency Programs
 - Volunteer and Ramp Program
- Lead Based Paint Hazard Control Program
 - Richmond Program, started in 2018
 - Chesterfield Program, started in 2020

project:HOMES



LEAD, IT'S STILL EVERYWHERE!

project: **HOMES**



WHERE YOU FIND LEAD IN A HOME - EXTERIOR

project: **HOMES**



Porches



Soffits/Eaves



Siding

WHERE YOU FIND LEAD IN A HOME - INTERIOR

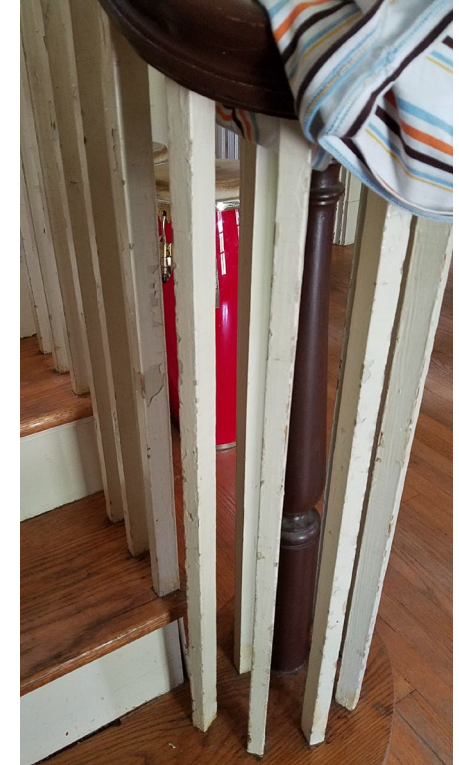
project: **HOMES**



Baseboards



Door Casings



Staircases

AND LET'S NOT FORGET
WINDOWS!

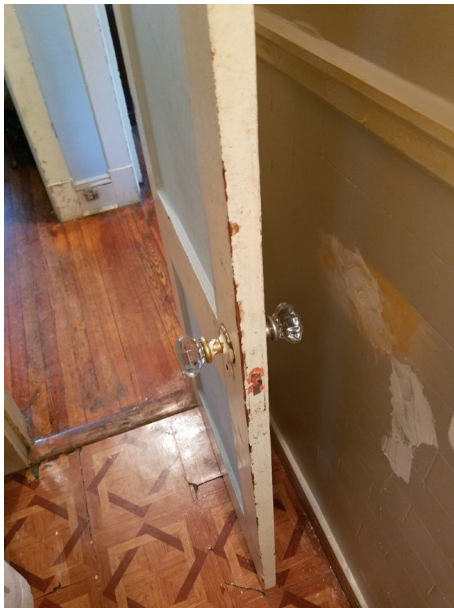
project: **HOMES**



IT'S ALL ABOUT THE FRICTION SURFACES



Friction Surface - An interior or exterior surface that is subject to abrasion or friction, including certain window, floor, and stair surfaces. - *Residential Lead-Based Paint Hazard Reduction Act of 1992*



INTERIM CONTROL VS. ABATEMENT



- **Interim Control – Paint stabilization**

- WET Scrape, prime/caulk, and repaint
- Must be monitored, not permanent



- **Abatement –**

- **Removal/replacement**
- **Enclosure** – Enclose behind another Substrate
- **Encapsulation** – Cover with Sealant/Encapsulant
- Must be designed to last at least 20 years



THE INSPECTION



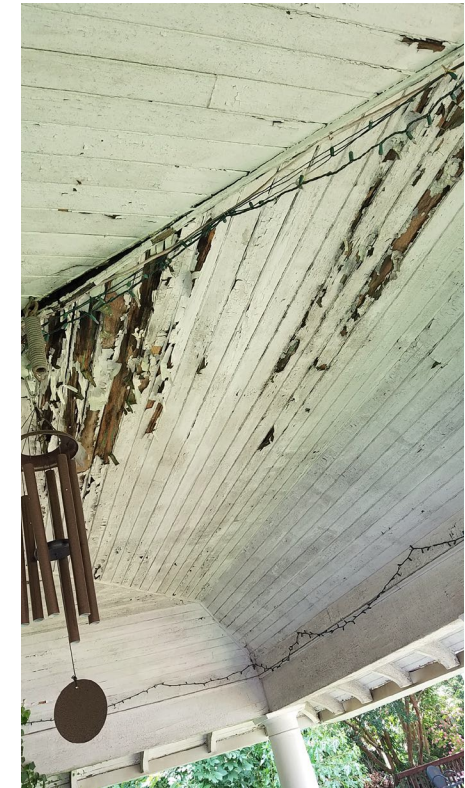
Determine Which Treatment Hazardous Components Receive



Stabilize?



Enclose?



Replace?

CONTAINMENT

Plastic, Plastic and More Plastic!



project: **HOMES**

CLEARANCE

- House is thoroughly cleaned
 - Horizontal Surfaces
 - HEPA Vacuum
 - Specialized Detergents
- Sometimes repainting or resealing necessary
- Dust wipe samples **must be under HUD acceptable levels for clients to return home**



project: **HOMES**

New Lead Clearance Action Levels:

Interior Floors: $< 10 \mu\text{g}/\text{ft}^2$

Porch Floors: $< 40 \mu\text{g}/\text{ft}^2$

Window Sills: $< 100 \mu\text{g}/\text{ft}^2$

Window Troughs: $< 100 \mu\text{g}/\text{ft}^2$

- Soil samples must be $< 1200\text{ppm}$ or $< 400\text{ppm}$ if taken from a child's play area

(ppm = parts per million = $\mu\text{g}/\text{g}$)



CHALLENGES

- Stringent Program Eligibility
- Historic Approval
- Client Relocation and Preparation
- Tight Construction Timeline
- Achieving Clearance

project: **HOMES**



HEALTHY HOMES

project: **HOMES**



Electrical Hazards



Fall Hazards



Indoor Air Quality

COSTS



Approximately \$20K*

- 2250 SF
- Built 1900
- Extensive Interior and Exterior Work
 - Front porch
 - Window trim
 - Door casings
 - Baseboards
 - Some walls & ceilings

project: **HOMES**



Approximately \$5K*

- 1150 SF
- Built 1948
- Limited Exterior Work
 - Primarily outdoor work on front porch
 - A couple interior door casings

*** Cost for Lead Hazard Control work only, does not include Healthy Homes**

Thank you!

Zack Miller

Manager of Housing Innovation

zack.miller@projecthomes.org

804-612-3352



Q&A

Please use the Q&A box to type your questions,
and a panelist will answer them.