LA COUNTY DEPARTMENT OF PUBLIC HEALTH

GUIDANCE FOR EVALUATIING SOIL SCREENING RESULTS

The Los Angeles County Board of Supervisors has approved funding for laboratory testing for lead in composite soil samples submitted by residents from their individual properties that were potentially impacted by the 2025 fires.

Lead levels in soil can vary a lot, even within a single yard or property. The soil samples to be tested will be a composite, meaning the resident will combine soil taken from different areas of the yard into one sample. This kind of sample helps give a general idea of lead levels in the soil, but it doesn't reflect the exact amount of lead in every part of the yard.

When soil test results are received, community members often have questions about how to use the results to make decisions about their property. This document offers general guidance to help community members understand their composite soil screening results, the potential health impacts, and whether they should consult with an environmental professional for a more detailed evaluation of and more specific guidance for their property.

Lead in soil may come from numerous sources, such as the current or historical presence of lead-based paints in the home, the 2025 wildfires, and vehicle or industrial emissions. People can be exposed to lead in soil by accidentally swallowing it (especially young children who play outside), eating food grown in it, or bringing contaminated soil into their homes. Over time, these exposures can be harmful, especially for children and pregnant women.

Lead exposure can affect health in different ways depending on how much you're exposed to. Health risks are often measured by the amount of lead in a person's blood, reported in micrograms per deciliter (µg/dL) – any amount can pose a health risk. California's Office of Health Hazard Assessment (OEHHA) uses a benchmark change of lead levels less than 1 µg/dL in blood to manage risk.¹ Low levels of lead in the blood can affect the nervous system, especially for children and the fetus of a pregnant woman. These groups are the most at risk from exposure to lead in soil, above the residential soil lead levels.

Residential soil screening levels² are established by modeling blood lead levels based on exposure to the amount of lead in soil. Levels below residential screening thresholds are considered protective over a lifetime of exposure, even for the most at-risk people. If soil levels are above the screening thresholds, it does not automatically mean cleanup is required, but it suggests the need to take additional steps to reduce contact with the contaminated soil and/or to have an environmental professional take a closer look and provide more specific guidance.

The Los Angeles County Department of Public Health is providing the following general guidelines for what composite soil lead testing results may mean for different households.

² State of California (California Office of Environmental Health Hazard Assessment, OEHHA and the Department of Toxic Substances Control, DTSC) and the United States Environmental Protection Agency (USEPA)



¹ OEHHA, 2007. Development of Health Criteria for School Site Risk Assessment Pursuant to Health an Safety Code Section 901(g): Child-Specific Benchmark Change in Blood Lead Concentration for School site Risk Assessment. Accessed at: https://oehha.ca.gov/media/downloads/crnr/pbhgv041307.pdf



HOME WITH INTACT STRUCTURES:

Composite soil samples with lead concentrations less than 80 mg/kg

These results are below residential soil screening levels, which are considered protective over a lifetime of exposure, even for the most at-risk people. Based on these soil results, no additional steps are recommended.

Composite soil samples with lead concentrations at 80 mg/kg or greater

Additional steps, aligned with LA County's <u>Reducing the Risk from Lead Contaminated</u>
<u>Soil After Wildfires Fact Sheet</u>³, should be taken to reduce the risk for exposure to lead contaminated soil.

These steps include:



i. Clean Habits

- 1. Wash hands, pet paws, and toys thoroughly after any contact with soil.
- 2. Take your shoes off before coming into your home. Use doormats and wash them regularly.
- 3. Vacuum, gently sweep, or mop entryways to help keep dirt particles out.
- 4. Keep your home clean and dust free to reduce lead and dirt particles.

ii. Prevent direct contact



- 1. Cover bare soil to prevent direct contact and stirring dirt into the air use grass, mulch, wood chips, gravel, decking, hardscaping or ground cover plants.
 - a. Prioritize play areas, gardens, walking paths, and spots near doors or patios.
- 2. Keep children and pets from digging or playing in bare dirt.

iii. Gardening



- 1. Use raised beds or containers with clean soil for gardening to create a barrier between potentially contaminated soil and the clean soil and plant roots.
- 2. Remove the outer leaves of lettuce or leafy greens. Rinse and rub fruits and vegetables well under cool running water, and peel root vegetables before eating or cooking.



³ <u>Reducing the Risk from Soil Contaminated After Wildfires.pdf</u> Found at: <u>http://publichealth.lacounty.gov/media/wildfire/docs/Reducing the Risk from Soil Contaminated After Wildfires.pdf</u>



HOME WITH INTACT STRUCTURES:



If you have children or pregnant persons living at your property and your composite soil sample has a lead concentration at 80 mg/kg or greater⁴

You should consider getting a professional assessment in order to ensure you are taking the appropriate steps to reduce their risk of exposure at your property and protect their health.



>200 mg/kg

If you do not have children or pregnant persons living at your property, and the composite soil sample has a lead concentration at 200 mg/kg or greater⁵

You may also want to consider getting a professional assessment in order to ensure you are taking the appropriate steps reduce the risk of exposure at your property and protect the health of people at your property.



⁴ 80 mg/kg is California DTSC's residential soil screening level for lead. Soil concentrations greater than 80 mg/kg may increase exposure to above target blood lead level of 1 μg/dL for full time residential child based on DTSC: LeadSpread 90th percentile of increase in blood lead of 1 μg/dL (equal to decrease of 1 IQ point). DTSC, 2022. LeadSpread 9. Accessed at: LeadSpread-9 | Department of Toxic Substances Control

⁵ 200 mg/kg is USEPA's residential soil screening level for lead. Soil concentrations greater than 200 mg/kg may increase exposure to above target blood lead level of 1 μg/dL for occasional child visits (up to 3 times per week) based on DTSC: LeadSpread 90th percentile of increase in blood lead of 1 μg/dL (equal to decrease of 1 IQ point). DTSC, 2022. LeadSpread 9. Accessed at: <u>LeadSpread-9 | Department of Toxic Substances Control</u>





HOME WITH DESTROYED STRUCTURES:

Assessing and managing current soil conditions should be part of any rebuilding plan.

- a. You may also want to consider getting a professional assessment in order to ensure you are taking the most appropriate steps to reduce the risk of exposure at your property and protect the health of people at your property.
- b. Soil management may include adding materials like compost or clean soil, covering bare soil with materials like compost, wood chips or grass clippings, or removing the soil if needed.

If you plan to test your soil, it is recommended to focus on testing soil in areas where people are most likely to have contact with it.

These include areas such as play areas, gardens, outdoor eating spaces, and walkways in the final rebuilding plan configuration.

Soil that will be covered after construction is not expected to pose a risk, as it won't be exposed to residents and typically doesn't need to be tested or managed.

If you are concerned about lead exposure from the wildfires, free blood lead testing is available. You can visit your medical provider, call 1-800-LA-4-LEAD to schedule an appointment with Quest Labs, or attend a community event where Public Health is offering blood lead testing. For more information visit:

 $\underline{http://publichealth.lacounty.gov/media/wildfire/}$

Stay informed: Follow public health advisories on air, soil, and water safety.

Learn more at the Department of Public Health website.

http://publichealth.lacounty.gov/media/wildfire/faq.htm#protectin

