

Preliminary Soil Testing Results from Eaton & Palisades Fires

April 16, 2025

ENVIRONMENTAL HEALTH



WHAT WE STUDIED

The County's soil sampling and analysis, conducted by Roux Inc., measured levels of harmful substances that may be present after a wildfire—such as heavy metals, polyaromatic hydrocarbons (PAHs), and dioxins—on representative soil samples from various parcels in different areas and with different property conditions in and around the Eaton and Palisades fire areas. Over four weeks from mid-February to mid-March, soil samples were collected from destroyed, damaged, and intact properties within the burn areas, as well as from properties just outside, and compared to current residential soil screening level thresholds. A final report and analysis will be available in May.

Representative soil sampling involves collecting soil samples from different areas affected by the fire to assess contamination levels, such as ash or chemicals, and understand the overall impact on the environment. The preliminary findings and accompanying analysis can be found on the Public Health [Post-Fire Assessment page](#) under sections titled Outdoor Soil – Yards and Outdoor Soil – Ash/Soot.

Levels below the screening thresholds are considered protective over a lifetime of exposure, even for the most vulnerable people. If levels exceed the screening thresholds, it does not automatically mean cleanup is required, but it suggests the need to consider additional evaluation.

FINDINGS

Eaton

Findings from representative soil sample testing in and around the Eaton fire areas, revealing a higher percentage of soil samples with lead levels above health-based screening thresholds from parcels with intact homes downwind of the Eaton Fire.

The identification of high frequent lead exceedances in soil samples from downwind of the Eaton fire are consistent with reports of elevated lead in air samples collected in the days immediately following the fire. The source of lead in the fire is reasonably expected to be from the burning of homes with lead-based paint, which was common prior to 1979. CalTech reported that more than 90 percent of the houses in Altadena were built before 1975.

It is important to note that there are many potential sources of lead in soil in the Los Angeles area, and it is unclear how much of the lead found in the samples came from the 2025 wildfires versus other sources. At least half of the samples from parcels in the fire areas had no soil lead exceedances, which may be related to the materials that burned on particular parcels. Additional assessments would be needed to better understand the reasons why lead was identified in samples from some parcels and not others.

Palisades

The preliminary findings also indicate localized chemical impacts to soil above health-based screening thresholds are present in the Palisades fire area, but there is no evidence of widespread contamination from fire-related chemicals.

Testing identified isolated areas of heavy metal and PAH soil sample exceedances above screening thresholds within the Palisades fire area. The source is unknown at this time, but these are not consistent with communitywide impacts from fire-related smoke plumes.

NEXT STEPS

This assessment provides a representative analysis of the soil in areas and under different conditions impacted by the fires. Individual parcels may have unique factors that result in differences compared to these representative samples. The reported results are not intended to imply cleanup or specific remediation is necessary; rather, the results to identify areas potentially requiring additional evaluation.

Those with concerns about their specific property may want to consult an environmental professional about evaluating their property. In all areas with on-going fire debris, residents are reminded to take precautions to not inhale, ingest or come into contact with ash, soot, and/or fire debris by using appropriate personal protective equipment. Additionally, community members are encouraged to [review the soil sampling results](#) and consider taking appropriate precautions if your home is in one of the areas where soil sample screening thresholds have been exceeded. Refer to the [Los Angeles County Department of Public Health's FAQs](#) for best practices to minimize exposure to these potential hazards.

You can find a list of **soil testing resources** on Public Health's website:
http://publichealth.lacounty.gov/media/wildfire/faq.htm#soil_resources.

For those concerned about exposure to lead, the county offers free blood level lead screening for those impacted by the wildfires. Contact **1-800-LA-4-LEAD** for more information.