Governor Gavin Newsom
1021 O Street, Suite 9000
Sacramento, CA 95814

cc: Honorable Ann Patterson, Senior Counselor to the Governor
cc: Secretary Yana Garcia, California Environmental Protection Agency
cc: Secretary Tomiquia Moss, Business, California Consumer Services and Housing Agency

May 14, 2025

Urgent Community Concern Over Parcel Soil Testing After Wildfire

Dear Governor Newsom:

We are submitting this brief to support the State of California's previously adopted standardized residential soil testing approach after wildfires that CalRecycle created. We recommend that the State of California provide Los Angeles County technical and financial assistance and adopt the Ventura County debris removal and soil sampling model which was previously adopted after the 2017 Thomas Fire, 2018 Woolsey Fire, and 2024 Mountain View Fire. This model was supported by CalOES and CalRecycle as recently as 2024. This model is enclosed in the attached pages.

Wildfires damage and destroy structures, causing a release of pollutants onto the soil. Since at least 2017, the State of California and counties have adopted and implemented a soil confirmation testing program developed based on field observations and laboratory results. This experience has shown that up to three in ten residential parcels have chemical of concern, such as lead and arsenic, that exceed established health risk goals.

At present, no parcel specific soil testing is required or recommended by the State for residential properties impacted by the Eaton Fire and Palisades Fire. **In our view, this poses a serious risk to public health and the economic recovery of the communities.**

- It has been well-known, based on data from California for previous wildfires, that 16 to 32% of the lots will remain unsafe after debris removal is completed. This means that one or more metal contaminants exceeded an established health and environmental based screening criterion for soil and posed a significant risk to human health and the environment. These were from California OEHHA, DTSC, and the U.S. Environmental Protection Agency.

- On May 3, the *Los Angeles Times* reported 20% of properties scraped by federal cleanup crews still had lead levels exceeding California's state standards for residential properties[1]. The lack of residential soil testing prevents a homeowner, future owner, or rebuild contractor from knowing a lot is safe from chemical soil exposure.

- On May 8, the Los Angeles County Department of Public Health reported that 27% of properties scraped by federal cleanup crews still had lead levels exceeding California's state standards for residential properties (80 milligrams per kilogram)[2].

- Soil confirmation sampling results from previous fires have shown hazardous waste and environmental health risk concentrations of arsenic, antimony, cobalt, copper, lead, mercury, thallium, zinc, and other metal contaminants.

There is an immediate need for residential property soil testing.

[1] L.A. County finds high lead levels in soil on properties already cleaned by Army Corps. *Los Angeles Times*. May 3, 2024.
[2] Post-Fire Air, Soil, Water Assessment Plan Virtual Town Hall. L.A. County. May 8, 2024.

By not conducting parcel specific soil testing, the State and Los Angeles County will not be able to identify and address unsafe properties, which has occurred during past fires. The State and Los Angeles County will also be unable to detect any debris removal fraud, which has occurred during past fires[3,4]. Further, the U.S. Army Corps of Engineers stated during their 2023 Maui wildfire cleanup that they expected a 20% soil confirmation failure rate[5]. During the 2020 wildfire season, CalRecycle reported 40 to 90% soil confirmation failure rates from three contracts due to a bidding modification.

Failure rates can also be used to determine if a contractor is removing too much soil. In two projects, contractors were either required to replace soil or soil was brought in by the State after it was determined that contractors had removed too much soil. When contractors have extremely low overall rescrape rates throughout the project, the project data need to be carefully evaluated to ensure taxpayer money is being appropriately spent.

The ongoing property soil research by Los Angeles County will not take the place of validated previous government-industry practices by parcel. This ongoing soil testing research by private contractors is not answering the same question that property owners and banks/lenders want answered.

The 2024 wildfire residential property debris removal and soil sampling actions of Ventura County should be a model to inform Los Angeles County practice. It is our understanding that soil sampling after wildfires has been part of contracts between CalOES and CalRecycle. The Ventura County program aligned with those tasks and activities that are eligible for reimbursement under the State's *California Disaster Assistance Act*[6]. Each of the properties that participated in the Ventura County-led program received a "final sign-off form". This document allowed the owner to apply for planning, building, and safety permits to rebuild. The actual sample results were provided to the owner in their "property completion report" once the County reconciled property records. This information was obtained directly from Ventura County.

Our understanding is that Ventura County's prior practice — which we strongly suggest Los Angeles County should adopt — operates under Section 101480 of the *California Health and Safety Code*[7], governing local jurisdiction treatment of a remedial investigation consistent with state law.

In summary, it is the recommendation of the multi-organizational group that Los Angeles County should be provided technical assistance by the State and adopt the Ventura County/CalRecycle method for residential soil testing and support its confirmation testing with adequate financial resources as appropriate. Thank you for considering this information. Please do not hesitate to contact me at awhelton@purdue.edu.

Respectfully,

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Sanjay Mohanty, Ph.D., University of California, Los Angeles – UCLA, Associate Professor
Josh West, Ph.D., University of Southern California – USC, Professor
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Jennifer Cotton, Ph.D., California State University, Northridge – CSUN, Associate Professor
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Christine O'Connell, Ph.D., Chapman University, Assistant Professor
Francois Tissot, Ph.D., California Institute of Technology – CalTech, Professor
Jasquelin Peña, Ph.D., University of California, Davis – UC Davis, Associate Professor
Mónica Palomo, Ph.D., P.E., BCEE, ENV SP, California State Polytechnic University, Pomona, Professor
Tracy Quinn, P.E., Affected homeowner, Chief Executive Officer of Health the Bay, Board Member of the Metropolitan Water District of Southern California

[3] In Scathing Letter, State Criticizes Army Corps' Poor Oversight in North Bay Wildfire Cleanup. *KQED*. August 24, 2018.
[4] Cleanup up a mess. *Chico News and Review*. January 10, 2019.
[5] Maui Wildfire Temporary Debris Storage Operations & Residential Debris Removal. U.S. Army Corps of Eng. May 21, 2024.
[6] *California Disaster Assistance Act* | California Governor's Office of Emergency Services.
[7] State of California *Health and Safety Code*, Section 101480.

* All persons are signing on behalf of themselves as individuals, not on behalf of the organization.

Enclosures

Confirmation Soil Parcel Method Recommendations

In the wake of the 2025 Palisades and Eaton Fires in the Los Angeles, California area, **we urge the adoption of residential soil testing approach that follows past fires**. The following information is provided to help policymakers better understand actions necessary after wildfires to restore residential properties to safe use.

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1. Tracking with history and information available, Los Angeles County Department of Public Works (DPW) or Department of Public Health (DPH) should hire a turnkey contractor to oversee and conduct both the residential post-fire soil sampling and rescrape program with CalRecycle technical assistance. The environmental contractor should be required to be operational in five business days after the contract is signed. This program should be available for both private and public removals at no cost to the parcel owners. The program should also be available to public and non-profit facilities such as schools, parks, recreational facilities at no cost. Sampling should be offered to commercial and industrial at cost.

2. Private sector environmental contractor versed in soil sampling and soil analysis should conduct the testing. These companies shall certify results to property owner with government agency oversight. Like prior wildfires and the fire in Ventura County, remediation contractors should be available to scrape any isolated contamination and enable the property to undergo soil retesting.

3. Like past wildfire debris removal efforts, soil sampling shall be conducted for all Title 22 metals.

4. Two background soil sampling studies shall be conducted by environmental contractor within five days working with Los Angeles County and CalRecycle. This effort will benchmark expected background levels of metals so residential soil remediation decisions can be made for both fires.

5. Every residential property who participates shall be offered soil sampling and remediation assistance. Environmental contractor shall create a general soil sampling plan and a field sampling plan indicating where each decision unit (DU) will be collected for each property. The field sampling plan shall be based on the ash footprint from either the site documentation prepared by the US Army Corps of Engineers (USACE), aerial imagery, Lidar, or other satellite before and after imagery. All vehicles and structures and ash footprints greater than 100 sf on the parcel should be identified on the field sampling plan. Before starting confirmation sampling, contracts shall submit 100 (50 from each fire) field soil sampling plans for approval by government agencies. Understanding where destroyed structures and vehicles were important to consider for each property soil sampling plan. Contractors often receive this information from the USACE to help design sampling plans.

6. The DPH shall review and approve the residential soil sampling plans. Note: Guidance and training is available from CalRecycle and Ventura County[8].

7. **"Soil Testing and Screening Criteria for Work Plans and subsequent Report of Findings Initial Screening**. Criteria have been established in consultation with CalRecycle for soil confirmation sampling after completion of visible clean-up of properties. Please note, that these are initial health screening criteria in the absence of background data. As such, screening levels provided here may be raised (more lenient) should ambient concentrations of metals be found to be prevalent in background data sets."

[8] Ventura County, Environmental Health Decision. *Private Debris Removal Program Application & Standard Work Plan Template.* 2024. Ventura, California. Accessed May 8, 2025. rmadocs.venturacounty.gov/rebuilding-together/mountain-fire/forms/ventura-county-local-debris-removal-program-application-unincorporated-areas-only.pdf

Table 1. List of Metals Health-Based Screening Levels Used by Ventura County, 2024

Initial Health Screening Criteria for Soil		
Analyte	Health Screening Level mg/Kg	Cleanup Level
Antimony	30	Health Screen
Arsenic	0.07	Background
Barium	5,200	Health Screen
Beryllium	15	Health Screen
Cadmium	1.7	Health Screen
Chromium	36,000	Health Screen
Cobalt	23	Background and Health Screen
Copper	3,000	Health Screen
Lead	80	Background and Health Screen
Mercury	5.1	Health Screen
Molybdenum	380	Health Screen
Nickel	490	Health Screen
Selenium	380	Health Screen
Silver	380	Health Screen
Thallium	5	Health Screen
Vanadium	390	Health Screen
Zinc	23,000	Health Screen

8. Lithium should be added to the screening list. Lithium ion batteries and electric vehicles were present. The residential soil USEPA Regional Screening Level (RSL) for lithium is 16 mg/kg.

9. Testing of metals must be performed using USEPA Method 6020, with the exception of mercury which should be analyzed by USEPA Method 7471A.

10. **"Confirmation Sampling.** Confirmation sampling should be conducted by a licensed professional after fire-related debris has been removed from a property. Representative soil samples must be collected and analyzed to determine compliance with clean-up goals used by the state and federal government which will be available at Environmental Health. The total number of samples to be collected should be based on estimated square footage of ash footprint:"

Table 2. Approach to Soil Sampling on a Residential Property Used by Ventura County, 2024

Estimated Square Footage of Ash Footprint	Number of 5-Point Aliquots (Composite Sampling)
0-100 square feet	1
101-1,000 square feet	2
1,001-1,500 square feet	3
1,501-2,000 square feet	4
2,001-5,000 square feet	5
>5,000 square feet	Must consult with local Environmental Health officials

11. "All confirmation samples should be collected after debris is removed and grading is complete from a depth of 0-3 inches using a dedicated 4-ounce plastic scoop and be placed in 8-ounce jars. Samples should be shipped to an approved laboratory for analysis for Title 22 Metals for antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, molybdenum, nickel, selenium, silver, thallium,

vanadium, and zinc by EPA Method 6020, and mercury by EPA Method 7471A. CalRecycle is currently using EPA Method 6020 in the Consolidated Debris Removal Program. This information is based upon statutes and regulations and is intended to provide a basic overview to help achieve compliance."

12. Testing is recommended for each DECISION UNIT by applying the "DICE" model for smaller or irregular footprints (100 to 1,000 sqft), whereas linear sampling should be conducted for larger areas (1,001 to >5,000 sq ft).

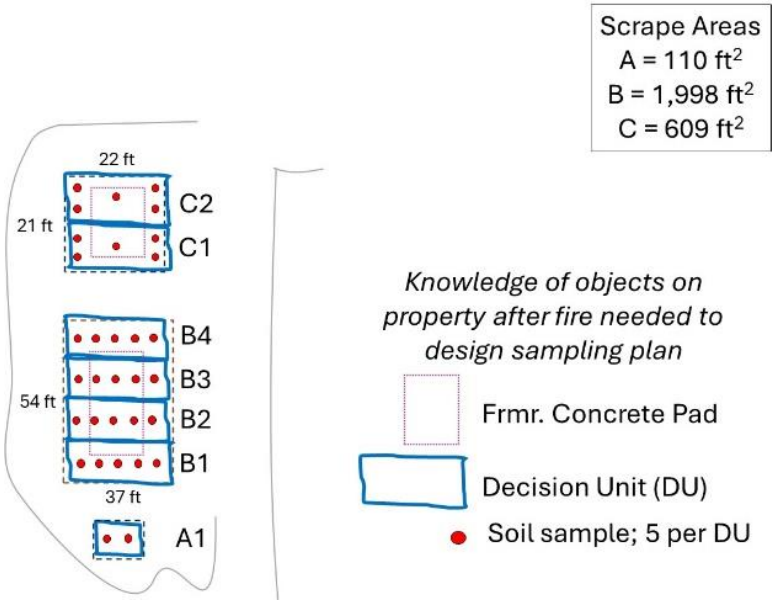

Figure 1. This example diagram shows that soil samples should be collected in each decision unit. For those samples, they should be well mixed in a 5 gallon plastic bucket and one sample should be collected for laboratory analysis.

13. Rescraping a residential property should be done selectively with contractors collaborating on the data, with the advisement of Los Angeles County, and support of CalRecycle.

June 4, 2025

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Re: Response to May 14, 2025, Letter Titled, "Urgent Community Concern Over Parcel Soil Testing After Wildfire"

Dear Dr. Whelton and colleagues,

Thank you for your recent correspondence and thoughtful recommendations regarding the critical Los Angeles fire recovery efforts. Your knowledge and collaborative spirit are welcome as we navigate this unprecedented environmental and public health challenge. I want to personally update you on the comprehensive measures being implemented to protect public health and the environment, as well as the encouraging progress we have achieved so far.

Coordinated Response and Leadership

Since the devastating fires erupted in January, California has established robust partnerships with federal agencies, local governments, and academic institutions to ensure the safe and expeditious recovery of the Palisades and Altadena communities. This coordinated effort has resulted in the biggest, fastest post-fire cleanup operation in California history. Contributions of scientific expertise and evidence-based recommendations like yours are instrumental for informing the response strategy. For example, California's ongoing collaboration with NASA's Jet Propulsion Laboratory (JPL) to monitor air and water using cutting-edge technologies is providing the state with additional data to safeguard local communities. The state remains steadfast in our commitment to protecting public health and environmental integrity throughout every phase of the recovery process.

Removing Fire Debris Safely

Under the U.S. Federal Emergency Management Agency's (FEMA) debris removal program, CalEPA staff is contributing its expertise in both wildfire recovery and evaluating risks to protect public health and safety. Working in close coordination with the United States Environmental Protection Agency, California's specialized response teams helped execute an unprecedented Phase 1 cleanup operation focused on the immediate removal of hazardous materials from burned structures. This emergency response was completed in record time while maintaining the highest safety standards, successfully eliminating primary contamination sources and significantly reducing community exposure risks.

California is now supporting the U.S. Army Corps of Engineers' (USACE) Phase 2 debris removal process, including the safe collection, transportation, and disposal of remaining fire debris. This will create conditions that will enable Altadena and Palisades residents to begin the rebuilding process with confidence in their environmental safety.

CalEPA's Experience with Lead Exposure

Under my direction, California Environmental Protection Agency teams are leveraging decades of specialized experience in environmental remediation and public health protection to help ensure evidence-based policies are deployed. Our agencies bring expertise in lead exposure analysis, having successfully assisted communities across California in addressing contamination from legacy sources. The historical burden of now-prohibited leaded gasoline and lead-based paint, as well as industrial operations such as lead smelting, continues to present challenges for communities statewide, making our current response both timely and essential.

The evaluation of the impacts of the Eaton and Palisades fires is grounded in the basis of California's lead screening level and our knowledge of pre-existing environmental conditions in Los Angeles. California's residential screening level for lead is 80 mg/kg—a health protective level significantly lower than the federal 200 mg/kg threshold used by EPA and most other states. California's residential screening level is set based on the concentration at or below which health effects are not expected to occur in the most sensitive populations like children and infants. It was established because it represents the concentration in soil that, if ingested by a child at a rate of 0.1 grams every day, could raise their blood lead level by 1 µg/dL, resulting in a loss of up to one

IQ point. The 80 mg/kg screening level would typically cause no more than a 2.5% chance a child or fetus would experience a one-point drop in IQ, if ingested over time. Prior to the January fires, extensive sampling throughout the region documented the persistent legacy of widespread historical lead usage in Los Angeles. In communities such as Vernon and Boyle Heights, lead concentrations exceeding California's protective screening levels by factors of five to ten have been found too often. A previous study of 600 soil samples from urban areas across Los Angeles County found an average of 180 mg/kg of lead in soils. Existing "background" lead levels in Los Angeles demonstrate significant geographic variation—ranging from 20 mg/kg to as high as 200 mg/kg—reflecting differences in historical land use patterns, building ages, and proximity to major roadways. It is in this environment, not a clean slate, that the Palisades and Eaton Fires occurred.

Environmental Monitoring Results

Sampling results so far are demonstrating the effectiveness of the existing clean-up approach. Los Angeles County sampled the cleared debris footprints of 30 parcels following completion of USACE's Phase 2 debris removal operations. Using established sampling protocols and statistical methods consistent with other post-fire recovery operations, the majority of parcels sampled by the County fall within acceptable screening levels. Limited exceedances are addressable through implementation of appropriate construction practices, like the pouring of concrete for a foundation or backfilling with clean topsoil, to further minimize potential exposure pathways. Recent soil sampling results from Altadena provide particularly strong evidence of effective recovery efforts, enabling the safe reopening of critical community infrastructure including parks and school facilities. The Pasadena Public Health Department's extensive sampling program of public parks potentially affected by the Eaton Fire, like Alice's Dog Park and Robinson Park, documented minimal residual fire impacts. Samples taken from schools in *closest* proximity to the fire zones—including Pasadena High School and Don Benito Elementary School—showed minimal exceedances of established screening levels. Unrelated to the January fires, higher levels of contaminants were discovered at schools farther from the burn area due to preexisting sources and are being addressed as needed. More information about this soil sampling can be found here.

The best method to determine whether exposure to lead poses adverse health risks is through blood testing, and a no-cost sampling program is available to all Los Angeles area residents including children. The program, coordinated by Los Angeles County

Department of Public Health (LADPH), features both scheduled clinic appointments and mobile testing units deployed at community events to maximize accessibility and participation.

The results so far from the LADPH blood lead testing program provide encouraging signs that the environmental protection measures in place are successfully safeguarding community health. Since implementing post-fire blood lead testing program, over 1,000 individuals have participated in blood lead screening, including more than 100 children—our most vulnerable population. Reassuringly, over 99.5% of all Los Angeles area residents tested by this program have demonstrated blood lead levels that are not considered elevated. The small number of individuals with elevated readings (above 3.5 mcg/dL) were among elderly adults who, upon investigation had lifetime cumulative exposure sources unrelated to the fires, like occupational settings. Based on the best available data, Los Angeles residents being tested are not showing elevated lead levels due to the fires.

More information about scheduling blood testing can be found here.

Additional Community Resources and Support Available

While these results are encouraging, additional resources are being made available to address community concerns. In addition to the free blood testing program, Los Angeles County has launched a program providing free lead soil sampling services to all Altadena residents. This initiative empowers property owners to collect samples from residential yards and affected areas, with laboratory analysis and results interpretation provided at no cost. This program will help provide residents with important information to make knowledgeable decisions throughout their rebuilding process. More information about the County's soil sampling program can be found here.

The Department of Toxic Substances Control (DTSC) also has information available for residents to protect themselves and safely rebuild. Information for homeowners conducting property assessments and mitigation strategies can be found in DTSC's Preliminary Endangerment Assessment Guidance Manual, available here.

To mitigate lead exposure related to the multiple sources in urban settings, it is important to continue to practice healthy behavior, including washing hands before eating and removing shoes before entering a home. Additional information about

ways to reduce lead exposure can be found in the California Department of Public Health's (CDPH) Lead Poisoning Prevention FAQs and Lead Education Materials.

Commitment to Ongoing Partnership and Recovery

CalEPA remains fully committed to supporting Los Angeles County's recovery from these historic wildfires. Our recovery efforts represent not just an environmental challenge, but an opportunity to rebuild these communities with enhanced resilience and safety measures.

Your academic consortium's continued collaboration is welcomed as we work to ensure that the Altadena and Pacific Palisades communities emerge from this tragedy stronger, safer, and better prepared for the future. We invite your ongoing partnership in this critical endeavor and look forward to incorporating your knowledge as we navigate the remaining phases of this recovery process.

Should you have additional recommendations or wish to discuss California's response in greater detail, please do not hesitate to contact Deputy Secretary for Environmental Policy Scott Lichtig directly at (916) 502-4273 or Scott.Lichtig@calepa.ca.gov.

Sincerely,

Yana Garcia
Secretary for Environmental Protection
California Environmental Protection Agency

CC: Honorable Ann Patterson, Senior Counselor to the Governor
Secretary Tomiquia Moss, Business, California Consumer Services and Housing Agency
Secretary Kim Johnson, California Health & Human Services Agency
Director Nancy Ward, California Governor's Office of Emergency Services