

Commissioner Michael Conway
Colorado Division of Insurance
Department of Regulatory Agencies
Denver, Colorado

Via Electronic Mail: DORA_Ins_rulesandrecords@state.co.us

*Re: Public Comment on Draft HB 24-1315 Study on Remediation of Property Damaged
by Fire Draft Report*

September 11, 2026

Dear Commissioner Conway:

I submit these comments on *House Bill 24-1315, Study on Remediation of Property Damaged by Fire*, having reviewed the Report. As an environmental engineer and professor at Purdue University with over two decades of disaster response experience, including major wildfires in California, Colorado, Hawaii, New Mexico, and Oregon, and the East Palestine, Ohio chemical disaster. My work has encompassed reviewing hundreds of post-fire testing reports, engaging directly with affected households and businesses, and evaluating post-fire assessment and remediation practices. Five days after the 2021 Marshall Fire, I was called in to help the City of Louisville, the Town of Superior, East Boulder, the Boulder County Health Department, and property owners navigate their path back from that disaster.

Based on evidence from actual fires in and outside Colorado, I urge you to consider the following:

1. Lead is not a surrogate indicator of indoor or outdoor environmental safety following a fire. Wildland-urban interface fires produce complex contaminant mixtures, and no government, academic, or industry evidence supports the assumption that the presence or absence of one contaminant indicates another's. Following the 2025 Los Angeles-area fires, a property owner was reportedly diagnosed with arsenic poisoning after handling contaminated materials in a standing home, an exposure a lead-only approach would have missed. Mercury can similarly change worker-protection and remediation requirements: after the 2014 Valley Fire, mercury in some fire-affected soils reached hazardous-waste levels (3,900 mg/kg against California's 20 mg/kg hazmat limit). Fire incidents can also transport soil and dust inside fire-damaged homes, and we have seen asbestos levels as high as 765,000 structures/cm² reported in fire-impacted standing homes. Because fire impacts vary by burned materials, local conditions, and contaminant transport, testing for the full range of fire-related metals is essential to determine whether a property poses a health risk.

2. Legally enforceable state oversight is needed to establish consistent standards of practice. Reviews of hundreds of testing reports prepared by more than 50 companies and consultants involved in the Palisades and Eaton Fire recoveries revealed systemic problems: substantial differences in sampling methods, contaminants tested, exposure benchmarks, data interpretation, and remediation recommendations, likely explained by the wide range of professional credentials and certifications in use. Companies seemingly prefer to test for materials with no health-based standards (soot, ash, char) rather than lead and asbestos, which are known to be present in homes after wildland-urban interface and urban fires. Additional supporting evidence is provided at the end of this document.

This variability has, without question, contributed to wasted money and time for insurance companies and policyholders alike, and demonstrates a need for stronger professional accountability when test results are used to guide public health, insurance, and property restoration decisions. Certifications can provide valuable training, but they differ fundamentally from professions regulated through state licensure and disciplinary authority. As the Legislature considers refinement of this bill, adding certifications will not improve consistency, it will only contribute to the variability already observed in practice. California already has established oversight mechanisms through agencies such as the Department of Consumer Affairs and its licensing boards; Colorado likely has a similar mechanism under the Department of Regulatory Agencies. Professional state licensure is recommended, not certification.

3. Odor is not an appropriate indicator of indoor environmental safety. Odor perception varies significantly among individuals and is influenced by age, illness, anosmia, chemical sensitivity, sensory adaptation, and fatigue. The National Academies recently highlighted problems with using odor as an environmental health indicator, and post-fire observations reinforce these concerns. During post-fire work, one California consultant told me that contamination odors could no longer be detected at a Palisades property because the day had been spent inspecting homes with much stronger odors, a textbook example of olfactory fatigue. Additional inspections nevertheless continued. Metals and asbestos cannot be smelled at concentrations that pose a health concern; lead and asbestos have no odor and no vapor pressure at environmental temperatures. Contaminants can pose risks even when no odor is detected, and odors can dissipate while contamination remains. Odor should never substitute for proper environmental assessment and testing.

4. Distance from a fire is only one factor influencing indoor contamination. Indoor contamination is shaped by many factors, including building design, HVAC operation, air-leakage pathways, wind direction, weather conditions, ember intrusion, structural damage, and proximity to damaged structures and their contents. Homes located similar distances from a fire can experience substantially different contamination conditions. Distance should be considered one factor among many, not a deterministic measure of risk.

I respectfully urge the Colorado Division of Insurance and the Department of Regulatory Agencies to consider these issues as the *HB 24-1315* Draft Report is further refined and finalized for legislators' future use. Colorado has an opportunity to develop science-based standards for post-wildfire assessment, testing, and restoration. Below I have provided evidence-based post-fire recovery data and decision resources, all developed following the 2021 Marshall Fire.

Finally, I have no conflicts of interest: I am not a Colorado resident, do not own a testing or remediation company, and am not involved in wildfire litigation. These comments reflect an independent perspective grounded in field experience, research, and direct community engagement.

Sincerely,



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Signing in a personal capacity; affiliation listed for identification purposes only

Evidence-Based Resources

Due to the potential that this email address may bounce back or strip attachments, I have provided publicly available links below to the resources

Whelton, A.J., Bollens, E. *Opinion: Evidence-Based Recommendations*. Submitted to: Smoke Claims and Fire Damage Task Group, California Department of Insurance. Sacramento, California. October 16, 2025. <https://engineering.purdue.edu/PlumbingSafety/resources/CA-Dept-Ins-Oct13-2025.pdf>

Zukowsky, S., Ferrarezzi, C.G., Michaels, A., Pahorskey, J. Bollens, E., Whelton, A.J. Health and Safety Hazards for Fires: Considerations for Returning Water Utility Buildings to Safe Use. September 1, 2026. *Proceedings of the AWWA Water Infrastructure Conference*. Indianapolis, Indiana USA. <https://engineering.purdue.edu/PlumbingSafety/resources/AWWA-Conf-Buildings-2026.pdf>

Whelton, A.J., Thalhamer, T., Bollens, E. *After a Wildfire: Considerations of Personal Safety When Visiting Fire-Damaged Property*. August 2026. West Lafayette, Indiana USA. <https://www.doi.org/10.5703/1288284318662>

Whelton, A.J., Thalhamer, T., Liu, Y., Miller, S. Cai, H. *After a Fire: Considerations for Residential Property Soil Testing and Restoration*. July 2026. West Lafayette, Indiana USA. <http://dx.doi.org/10.5703/1288284318646>

Whelton, A.J., Bollens, E., Ferrarezzi, C. *After a Wildfire: Considerations for Building Environmental Testing*. September 2025. West Lafayette, Indiana USA. <https://www.doi.org/10.5703/1288284317911>

Whelton, A.J., Bollens, E. Recommendations for Post-Fire Building Sampling, Testing, and Remediation. *Prepared for: Smoke Claims and Remediation Task Force, California Department of Insurance*. October 13, 2025. <https://engineering.purdue.edu/PlumbingSafety/resources/CA-Dept-Ins-Oct13-2025.pdf>

AFTER THE FIRES: RECOVERY

HIDDEN HAZARDS
IN DEBRIS, SOIL,
STRUCTURES &
WATER



When buildings, vehicles, and other materials burn, the chemicals they leave behind can be harmful. These chemicals can spread into the air, soil, water, and nearby buildings, sometimes reaching properties that the fire never actually touched. The resources below can be used to help make decisions about how to check for these hazards and safely restore communities after a fire.

Guidance resources can be found at Purdue University here: <https://docs.lib.purdue.edu/red/>



Visiting Destroyed Structures Safely

Burned properties hide structural, chemical, and utility hazards. Assess the risks before entry.



Debris Removal & Soil Restoration

Clearing ash and debris the right way protects health and prepares the soil underneath for safe rebuilding.



Indoor Environment Testing & Restoration

Chemicals can linger long after a fire passes.



Public Drinking Water Systems

Fire can damage community water lines, tanks, hydrants, and more making them unsafe to use.



Private Wells

Fires can compromise wellheads, springs, and groundwater.



Building Plumbing Systems

Fire can damage plumbing, contaminate water, and make plumbing unsafe.



Agricultural Water Systems

Irrigation and livestock water need inspection and testing to keep crops, animals, and soil safe.

Questions? Contact Andrew Whelton, PhD: awhelton@purdue.edu | Date issued: 9/1/2026

Source:

<https://engineering.purdue.edu/PlumbingSafety/resources/Recovery-Resources-for-Fires-Sep-2026.pdf>