

State of Washington Department of Health

11 Israel Rd. S.E., Tumwater, WA 98501

Urgent: Revisions Needed to Post-Fire Cleanup Guidance

August 4, 2026

Dear WA DOH Secretary Worsham,

We are writing regarding the guidance the state has issued for post-fire cleanup and recovery, currently posted here: <https://doh.wa.gov/community-and-environment/air-quality/smoke-fires/partner-toolkit/post-fire-cleanup-guidance>

We want to raise serious concerns about this guidance and offer specific, evidence-based solutions. It appears the current guidance has not been updated to reflect the most recent health and safety lessons learned from wildland-urban interface (WUI) fire recovery efforts elsewhere. If this information has not yet been shared with your office by the experts currently engaged, we strongly encourage you to revisit and revise the guidance for the safety of Washington's residents and business owners. I (Andrew Whelton) had attempted to reach your office proactively before this guidance was issued, but we were unfortunately unable to connect at that time.

Below are the specific concerns and recommended corrections.

We would welcome the opportunity to discuss these findings with your team directly and to share the supporting data referenced above. Please feel free to contact us at your convenience at 540-230-6069 and awhelton@purdue.edu so we can support your office in strengthening this guidance before more residents and businesses are exposed to unnecessary risk.

Thank you for your attention to this urgent matter.

Sincerely,

Andrew Whelton, PhD, Purdue University

Eric Bollens, Chief Technology Officer, LightBox; Impacted Individual, Palisades Fire

Todd Thalhamer, P.E., Hammer Consulting Service

1. Returning Home After a Fire

- 1a. Unexploded propane tanks and other life-threatening hazards are commonly present on fire-damaged properties, and property owners are not currently being warned of this risk at the top of the page.
- 1b. Residential fire debris and ash is, in our experience, inherently toxic roughly 80% of the time. This assessment is based on unpublished testing results from seven different fires, combined with prior fire debris removal and cleanup experience representing what we believe is the most extensive WUI fire ash dataset in existence. We are in the process of publishing those results. For practical purposes, this ash should be handled and transported as hazardous waste, and it can migrate into standing homes and commercial buildings.
- 1c. The USEPA debris guidance linked on the website isn't directly applicable to wildfires or WUI fires. The USEPA guidance was designed for flooding which has a much lower level of chemical hazards generated that pose a health risk than fires. This may inadvertently lead property owners and consultants to believe the health and safety hazard or debris is not as serious as it is.

2. Safety

- 2a. The level of PPE recommended is insufficient. Based on our experience, if a person walks on, through, or handles the ash, the activity should require Tyvek suits, P100 respirators, and disposable footwear and gloves.
- 2b. FEMA's guidance on indoor chemical hazards which your site provided a weblink to is outdated and does not account for the extreme lead, asbestos, and other hazard levels we have documented in prior fires. We recommend the state explicitly note that FEMA's guidance is outdated and supplement it with the attached materials.
- 2c. We would discourage the state from directing residents to AIHA- industrial hygienists as the primary recovery experts for this purpose. By the discipline's own definition, industrial hygiene focuses on worker safety. Debris and soil restoration is more appropriately the responsibility of licensed PE and PG professionals, who receive training and practice in these areas. Children, infants, and the general public are not workers.
- 2d. The current cleanup guidance recommends N95 respirators, which is insufficient given the complexity of the hazards involved. Notably, the image accompanying that recommendation depicts a Tyvek suit and P100 respirator, which is the appropriate PPE standard for working in destroyed structures and homes near destroyed structures, not an N95 mask for destroyed structures or buildings near destroyed structures.
- 2e. Based on our review of hundreds of home environmental testing reports, including many conducted by AIHA-credentialed professionals, we recommend advising property owners to begin by contacting their insurance company for assistance identifying an appropriate professional, given the range of qualifications currently operating in this space.

3. Schools, Child Care Facilities, Long-Term Care Centers, and Other Facilities

3a. There are a variety of overlooked issues here that need to be addressed. The community should also be warned fully about the health risks inherent inside affected schools and daycares. In recent years, we have been examining school recovery best practice (and identifying those that are not best) after several fires. There is a wide range of competency within the private sector of companies that claim to be able to provide advice and expertise. To help avoid health impacts of children, parents, workers, and visitors a rigorous approach is needed. We can share some insights on that.

Supporting Information

The following resources provide the technical basis for these recommendations, organized by system:

- Returning home to a destroyed structure, debris, and ash safety and hazards: <http://dx.doi.org/10.5703/1288284318646>
- Returning home to contaminated standing buildings: <http://www.doi.org/10.5703/1288284317911>
- Addressing private wells: <http://dx.doi.org/10.5703/1288284318176>
- Inspecting and restoring building plumbing: <http://dx.doi.org/10.5703/1288284318174>
- Addressing agricultural water systems: <http://dx.doi.org/10.5703/1288284318175>
- Recovering public drinking water systems: <https://www.waterrf.org/resource/concept-operations-conops-plan-water-distribution-system-testing-and-recovery>

Background reading on public water system damage from fire:

- <https://engineering.purdue.edu/PlumbingSafety/resources/Water-x-Fire-Clarke-Workshop-Whelton-2026-01-21.pdf>
- <https://www.sciencedirect.com/science/article/pii/S0957178726001049>