LIGHTBOX

THE ENVIRONMENTAL CRISIS AFTER WILDFIRES: UNSEEN THREATS IN RECOVERY

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THE DISASTER BEYOND THE FLAMES

As the final embers of the Palisades and Eaton Fires fade, a hidden crisis is emerging—one buried beneath the ashes. Toxic waste, hazardous materials, and environmental contaminants now pose an escalating threat to residents, first responders, and rebuilding efforts.

While the immediate efforts will rightly focus on the restoration of damaged homes and infrastructure, environmental data reveals another urgent challenge—one that could impact community health and long-term recovery in wildfire-affected areas across Southern California.

This report covers:

- Environmental risks and immediate concerns
- The role of data in identifying unseen risks
- LightBox findings
- Rebuilding smarter, not just faster
- Future wildfire resilience and real-time data
- The bottom line

Environmental Risks and Immediate Concerns

Wildfires expose communities to hazardous materials, including petroleum, solvents, hazardous waste, asbestos, and lead—all of which pose significant risks to human health and the environment.

In early response efforts, the EPA has started removing immediate hazards such as paint cans, pesticides, and lithium-ion batteries. However, long-term rebuilding demands a data-driven approach to minimize the potential adverse impacts of any hidden environmental threats that may be present in affected areas.

One critical concern is the presence of underground storage tanks (USTs) on affected properties. In early 2024, the EPA released a series of white papers highlighting the risk of wildfires burning over USTs, emphasizing the potential for soil and groundwater contamination.

"This isn't just about cleaning up debris—it's about making sure we're not putting people back in harm's way," said Alan Agadoni, LightBox Environmental Risk Specialist. ***"Many of these properties contain hazardous materials that aren't immediately obvious. Without accurate data, entire neighborhoods could be rebuilt on contaminated land."***

The Role of Data in Identifying Unseen Risks

Traditional risk models, which rely on historical land use and property records, often fail to capture emerging environmental hazards after wildfires.

A recent discovery highlights this gap: CA HAZNET, a database that tracks hazardous waste shipments, recorded over 40 asbestos-related waste entries (waste code 151) in a single wildfire-affected neighborhood.

This is significant because original building records showed no asbestos risk. The greatest exposure risk occurs during cleanup, when asbestos fragments mix with fire debris, increasing the likelihood of airborne contamination.

LIGHTBOX FINDINGS:

Environmental Risks in the Wake of Wildfires

Using fire perimeter data from CAL FIRE, LightBox conducted an extensive analysis across more than 2,000 federal, state, tribal, and local environmental databases. The LightBox findings underscore the immediate need for data-driven disaster response.

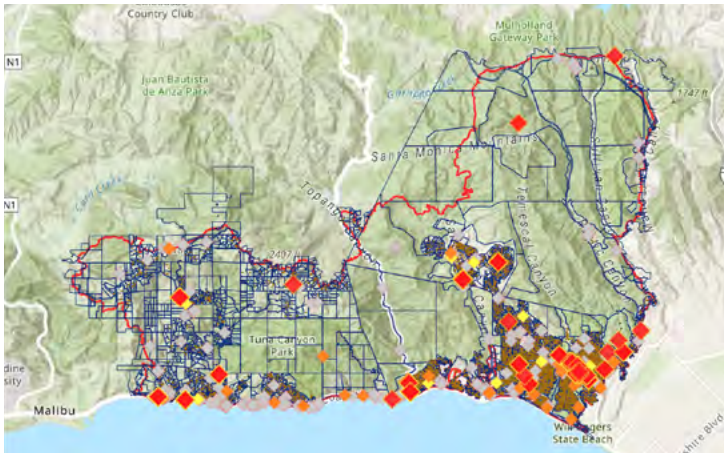

Image of the Pacific Palisades from the LightBox ArcGIS Online map

PALISADES FIRE: KEY FINDINGS

Environmental Risks:

700+ properties were flagged for likely contamination from hazardous materials including 150 underground storage tanks (USTs).

950+ properties with CA HAZNET records and an indication of the potential presence of asbestos in building materials.

Structural & Property Impact:

10K+ structures were affected, including buildings housing more than 200 businesses.

EATON FIRE: KEY FINDINGS

Environmental Risks:

600 properties were flagged for likely contamination from hazardous materials, including 75 USTs.

650 properties with CA HAZNET records and an indication of the potential presence of asbestos in building materials.

Structural & Property Impact:

9,000+ structures were affected, including buildings housing 175 businesses.

"This data changes everything," said Caroline Stoll, General Manager Data & Analytics, LightBox. ***"If property records indicate no asbestos risk but hazardous waste tracking tells a different story, it can completely alter the cleanup and rebuilding plans and dramatically minimize human health exposure."***

Gaps in traditional risk models can lead to delayed recovery, increased health risks, and higher remediation costs.

To close these gaps, geospatial intelligence platforms—such as LightBox or State and Federal Government Portals are being used to map post-fire environmental hazards in real time. These insights help planners, insurers, and policymakers make informed rebuilding decisions.

Rebuilding Smarter, Not Just Faster

The EPA and local environmental agencies are leading the first phase of the recovery which is focused on removing hazardous materials from the affected areas. However, the true challenge begins after this initial cleanup, when communities must make informed decisions about where and how to rebuild safely.

"The longer the delay addressing these risks, the more reconstruction stalls," said Zach Wade, Head of Data Science, LightBox. ***"But rushing the process without the right data is even riskier—it could create long-term public health issues."***

Historically, wildfire recovery efforts have prioritized speed over long-term safety. But as climate-driven disasters grow in frequency and severity, communities can no longer afford a reactive approach.

Future wildfire resilience depends on real-time data to:

- Incorporate climate risk projections into long-term urban planning.
- Ensure new development is built with consideration given to any contamination that may be present on or adjacent to a property.
- Identify contamination risks that could delay rebuilding and impair safe redevelopment efforts.

Zoomed in image of the Pacific Palisades from the LightBox ArcGIS Online map

To support this effort, LightBox is providing access to the LightBox Wildfire Response Map—a tool designed to equip environmental engineers, public agencies, and communities with critical data.

"With the goal to rebuild safer, not just faster, communities need to stop relying on incomplete data," said Wade. ***"Real-time environmental risk mapping helps prevent costly rebuilding mistakes that could endanger lives and result in billions of dollars in future damages."***

The Bottom Line: The Need for a New Approach

The Palisades and Eaton Wildfires—and the growing number of climate-driven disasters—underscore the urgent need for a new approach to natural disaster recovery.

Recovery isn't just about clearing debris and rebuilding homes—it's about ensuring communities emerge stronger, safer, and guided by real-time environmental intelligence.

See real-time wildfire impact data:

LIGHTBOX PALISADES MAP

LIGHTBOX EATON MAP

ABOUT LIGHTBOX

At LightBox, we are at the forefront of delivering geospatial intelligence and property data solutions. Our dedication to innovation propels our customers forward by providing them with the essential tools required to navigate complex decisions, minimize risk, and boost productivity across the spectrum of real estate operations. LightBox is renowned for its commitment to promoting excellence and fostering connections in the industry, serving an extensive clientele of over 30,000 customers. Our diverse client base spans commercial and government sectors, including but not limited to brokers, developers, investors, lenders, insurers, technologists, environmental advisors, appraisers, and businesses that depend on geospatial information. To discover more about how LightBox can illuminate the path to informed real estate and geospatial solutions, visit us at: **www.LightBoxRE.com**