



PROJECT RECOVERY

Rebuilding Los Angeles after the January 2025 Wildfires

Los Angeles, California | March 2025

Project Recovery is a living document that will be updated regularly to address new developments and issues and share the most current information about this fast-changing process.

About

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Urban Land Institute is a global, member-driven organization comprising more than 48,000 land use and real estate professionals dedicated to advancing the Institute's mission of shaping the future of the built environment for transformative impact in communities worldwide.

ULI Los Angeles, a district council of the Urban Land Institute, carries forth that mission as the preeminent regional real estate organization providing inclusive and trusted leadership influencing public policy and practice.

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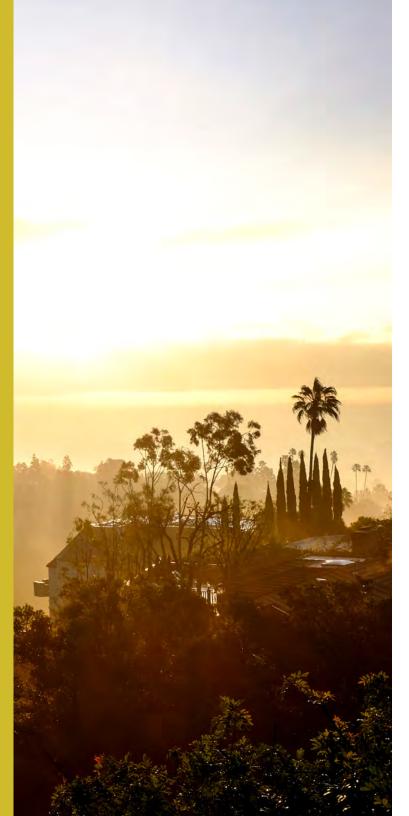
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Introduction

January 7, 2025, is a day Angelenos will not soon forget. Wildfires erupted in the Pacific Palisades and in Eaton Canyon in Los Angeles County. Coupled with ferocious Santa Ana winds and very dry weather conditions, the fires burned out of control, destroying approximately 16,000 structures totaling some 24 million square feet and 40,000 acres of land, resulting in 29 deaths.

In the wake of this horrific event, Angelenos—whether neighbors or strangers—sprang into action.

The business and real estate communities also mobilized quickly. Within a week, the Urban Land Institute Los Angeles District Council members came together to see how they could help. A week later they teamed up with the UCLA Ziman Center for Real Estate and the USC Lusk Center for Real Estate to create a response plan of action. They quickly assembled nine teams of experts to both identify roadblocks to recovery and propose realistic expedited solutions for each roadblock.

These volunteers immediately set to work, drawing in additional experts from all over the region, state, and country. Working with purpose and diligence, each group proposed a series of recommendations and ways in which they could be implemented. This collaboration reflects a shared commitment to restore what was lost and where possible to seize this moment as an opportunity to build back better.

The magnitude of this crisis requires novel solutions and mobilization resources from a

broad range of stakeholders in unprecedented ways. A key pillar of the rebuilding effort is the partnership between various community stakeholders including the private and public sectors, nonprofits, community organizations, and more.

To that end, the teams produced this report covering eight aspects of the rebuilding effort, presenting recommendations that aim to foster local community and government collaboration and support that would result in building back better, faster, and cost effectively. Each report makes a series of actionable recommendations for the City and County of Los Angeles. Below is a summary of some of the most significant recommendations to be considered.

Key Takeaways for Greater Los Angeles from the ULI Advisory Services Program

- 1. Prioritize restoration of critical infrastructure:
 - Assess and restore water delivery systems, power grids, and emergency communications as top priorities.
 - Implement temporary water and power solutions (such as mobile generators and water tanks) for areas awaiting complete restoration.
- 2. Develop and enforce emergency fire-safe rebuilding standards:
 - Implement defensible space regulations requiring fire-resistant landscaping, ember-resistant vents, and noncombustible roofing materials.

- Adopt fire-resilient building codes for rebuilding, including retrofitting undamaged structures to improve fire resistance.
- Explore partnerships with experts in the nonprofit and/or private sector to assist in the development of fire-resilient building codes.

3. Community Engagement and Equity

- Inclusive community engagement: It is crucial to ensure that all residents, including displaced persons, renters, and marginalized groups, have representation in decision-making processes.
- Grassroots and social capital networks:
 To enhance outreach, leverage
 existing community networks and
 digital communication platforms like
 Neighborhood Liaisons and Nextdoor.
- Equity-centered approaches: Recovery efforts should address historic disinvestment and ensure equitable access to recovery resources.

Hazardous Materials and Debris Management, Removal, and Disposal, and Process for Property Owners' Safe Return

1. Confirmation sampling: After debris removal (whether performed by the Army Corps of Engineers or private contractors), soil samples should be collected to confirm that hazardous materials have been fully removed from the affected sites. The samples should be submitted to an independent laboratory for

analysis. If hazardous materials remain in the soil, additional soil should be removed from the site until the soil is established to be free of hazardous materials resulting from the fire.

- 2. Consistency in standards: Consultants and contractors, whether engaged by the Army Corps of Engineers or by private parties, should follow the same protocols for debris removal. For example, it is the team's understanding that waivers of certain requirements of AQMD Rule 1403 relating to asbestos removal have been provided to contractors engaged by the Army Corps of Engineers. These same waivers should be extended to privately engaged contractors as well.
- 3. Certificate of completion: The soil sampling results should be reviewed for each property to ensure they meet accepted standards and a certificate of completion should be issued by a state or local environmental agency to document that the standards have been met. The certificate of completion should connect to the building permit file for each property as a permanent record.

Implementing a Building Permit "Self-Certification" Program

1. Building permit self-certification: Develop a building permit self-certification program for eligible projects, including single-family residences, accessory dwelling units, multifamily, mixed-use, and small commercial projects, whereby licensed architects, engineers, and design professionals can "self-certify" building plans and specifications as compliant with objective building code requirements

- and standards, including zoning, grading, fire, green building, Americans with Disabilities Act, structural, mechanical, electrical and plumbing clearances, and a dedicated inspection unit.
- 2. Facilitate 30-day expedited departmental approvals and clearances: Develop a program to eliminate sequential departmental reviews by multiple departments and replace with a program that will consolidate all departmental reviews under a single project permit coordinator who is responsible for coordinating all departmental permit reviews, clearances, and signoffs, to ensure permit review and permit issuance within 30 days of submittal of a building permit application.
- 3. Implement digital and emerging artificial intelligence technologies: Implement and adopt newly emerging, state-of-the-art digital technologies, digital tools, and artificial intelligence to implement a single, uniform digital application for all project submittals for permit self-certification. The emerging digital technology can be used by project permit coordinators for consolidating all departmental reviews, clearances, and signoffs at on-site permitting centers. This digital technology can also include mobile features and applications to assist the dedicated inspection unit conducting on-site building inspections.

Labor and Supply Chain Challenges

- 1. Create onsite rebuilding logistics centers for each wildfire area capable of:
 - Processing up to 250 to 350 permits per month for each wildfire area within 30 days of applications

- Providing logistics planning and management of peak concurrent construction activity of 1,000 to 2,000 residences per wildfire area and 30,000 to 40,000 workers (addressing worker parking, housing and services, construction deliveries, haul routes, staging of materials, and work hours)
- Providing inspector offices and inspection scheduling services
- Coordinating utility services and infrastructure with residential construction to expedite new home construction
- 2. Use existing infrastructure for construction logistical needs: Secure and manage the use of existing facilities, infrastructure, vacant lots, and parking facilities to provide for temporary worker housing sites, construction parking, and material staging hubs.
- 3. Resolve the infrastructure scope as soon as possible: Coordination of the infrastructure work is critical to the planning of the residential rebuilding logistics. Ideally, new infrastructure work would not delay the expeditious rebuilding of the residential structures.

Strategies to Stabilize California's Property Insurance Market and Rebuild Resilient Communities

- 1. Legislation for insurer underwriting models and consistent fire-hardening requirements:
 - a. Mandate risk-based insurer underwriting models: To align insurance pricing

with wildfire mitigation efforts, the state must establish a comprehensive framework that requires insurers to factor in home hardening, defensible space, and community-wide mitigation efforts when setting rates or renewing policies in their underwriting models. Premium discounts should be standardized and consistently applied to property owners who invest in fire hardening and defensible space mitigation measures for existing and new buildings. In addition, the Insurance Commissioner should mandate transparency in underwriting models, compelling insurers to disclose how mitigation efforts influence rates. Furthermore, insurers must reassess premiums based on verified mitigation upgrades during policy renewals to ensure that property owners who actively reduce wildfire risk are rewarded with lower premiums and better coverage options.

b. Bridge the gap in fire-hardening building codes to reduce risk: There is a growing risk gap in the fire-hardening building codes for "new builds versus existing builds," leaving communities more vulnerable to wildfires and contributing to insurance instability. New builds in fire-prone areas must follow Chapter 7A fire-resistant standards, while existing buildings are only encouraged—but not required—to upgrade. The lack of mandated retrofits and delayed enforcement of the Zone 0 (Ember-Resistant Zone) requirement allow wildfire

risks to persist. Fire hardening is also expensive, and there is some financial assistance offered. The FAIR Plan and some private insurers provide incentives or premium discounts for upgrades, but these programs are inconsistent, limited, and often insufficient. FAIR Plan discounts are minimal, coverage is costly and restricted, and eligibility criteria can be difficult to meet, limiting access for many homeowners. To close this gap, the state should enforce fire-hardening for existing buildings, strengthen defensible space regulations, and expand financial assistance to make retrofitting more accessible. Without action, communities will continue to face increased fire hazards, rising insurance costs, and longterm instability.

2. Expand insurance market competition and facilitate support for the uninsured/underinsured:

To enhance competition and ensure fair pricing, insurers should use advanced risk models that account for location, construction, and mitigation measures. A public/private reinsurance program must be established to encourage insurers to re-enter high-risk areas, supported by global reinsurers, tax incentives, and premium subsidies. The Insurance Commissioner must guarantee adequate capitalization, clear policies, and reinsurance to cover major losses. In addition, sliding-scale premiums for lower-income homeowners should be offered by both private insurers and the FAIR Plan, along with mandatory replacement cost disclosures during policy renewals. This

reinsurance program would alleviate the state's financial burden by sharing risk with private insurers, incentivize mitigation through premium discounts, and expand coverage (fire, flood, earthquake). In contrast, the FAIR Plan fails to provide these benefits, offering limited coverage, no mitigation incentives, and it is facing solvency challenges due to the reliance on state funding.

3. Forest management and wildfire mitigation:

To reduce wildfire risk and restore forest health, California must expand forest management programs, secure sustainable funding, and streamline regulations, addressing challenges such as budget cuts, staffing shortages, and complex regulatory barriers. This includes proactive treatments, addressing staffing needs, and removing barriers to expedite mitigation efforts. To change the status quo, the state needs to increase funding, address staffing gaps, and streamline processes, including exemptions for small-scale fuel reduction. The current Forest Resilience Bond (FRB) program also needs to be broadened to address funding limitations and expand implementation statewide. While executive orders have been implemented in recent months, they are temporary measures. Permanent reforms are needed to provide sustained funding, more staffing, regulatory reforms to the California Environmental Quality Act (CEQA), and public/ private partnerships for large-scale fire breaks and landscape projects. These actions are necessary for a proactive and long-term approach to reduce wildfire risk and stabilize the insurance market.

Overall, California must proactively reduce risk, improve public safety, and allow insurers to use a risk-based pricing structure to stay solvent to encourage insurers to remain in the market. This will increase competition, expand coverage offerings, and ultimately improve affordability for homeowners and businesses. The state must maintain consistent wildfire mitigation and forest management efforts to ensure longterm resilience in high-risk areas. These efforts require collaboration with key stakeholders in both the public and private sectors, including fire departments and the State Fire Marshal. The only way to achieve a competitive, stable, and resilient insurance market in California is through a comprehensive, long-term strategy that effectively reduces risk and restores market confidence.

Vertical Rebuilding after the Wildfires

To facilitate the vertical rebuilding of physical commercial, residential, and community facilities, as quickly and as effectively as possible, and to enable the recovery of the communities and the lives so severely disrupted and devastated by the fires, establish community rebuilding authorities (CRAs) for each of the fire areas.

These CRAs will act as the general managers, empowered to plan and implement the rebuilding and recovery efforts, with oversight from independent governance boards but with complete operational autonomy and authority. The authorities should follow the following mandates:

- 1. Resource center: Establish a nonprofit rebuilding resource center where property owners, residents, nonprofit organizations, and businesses in the rebuilding and recovery process can seek reliable information about the rebuilding process, as well as financial and insurance counseling and advocacy support for property owners.
- 2. Financial assistance fund: Establish a financial assistance fund and provide a framework and direct the efforts of existing funds already raised by multiple charitable efforts and for government assistance programs to help property owners cover the gap between the cost to rebuild and the financial resources they have.
- **3. Insurance fund:** Establish an insurance fund to secure insurance coverage for the rebuilt communities, including a one-stop-shop insurance center to assist property owners in securing insurance for their rebuilding effort.
- **4. Capital control:** Establish a financing authority to arrange and implement the investment of the capital required to rebuild and recover, from infrastructure rebuilding to construction funding to mortgage financing.
- **5. Insurance:** Establish an insurance fund to secure insurance coverage for the rebuilt communities.
- **6. Planning center:** Establish a privately operated dedicated planning approval, permitting, inspection, and certification center under one roof and allow self-certification to shorten the approval and inspection cycle time

with appropriate government oversight and supervision.

7. Builders Alliance: Create a Builders Alliance to offer turnkey rebuilding solutions to property owners who prefer not to hire an architect, find a contractor, and undertake the rebuilding on their own.

Given the unique characteristics of the fire areas, each CRA will be separate in order to focus on the regional nuances. However, wherever joint efforts will enhance efficiency (such as financing, insurance, philanthropic funds, etc.), cross-coordination will be implemented.

Financial Strategies for Rebuilding Infrastructure, Homes, and Communities

1. Implement a comprehensive and integrated approach to financial alternatives for rebuilding: Given the magnitude of the losses and the financing required to rebuild, seek alternatives that combine various financial strategies that maximize the available funding sources from public, private, and philanthropic sources. Coordinate stakeholder mortgage providers in establishing programs for mortgage forbearance, develop programs for incremental mortgage structures that allow borrowers to retain existing attractive mortgages, while supplementing with additional funds needed to close the gap required to make decisions related to rebuilding. Multiple state housing laws enacted over the past five years can create value based on density bonuses and accelerated approvals including flexibility on certain development approval conditions, which could

help with the gap between people's resources after insurance and the cost of rebuilding.

2. Develop innovative financial programs:

Leverage new Tax Increment Financing (TIF) tools such as Climate Resilience Districts (CRDs) which are TIF districts that specifically fund climate adaptation and resilience projects in vulnerable communities; and Enhanced Infrastructure Financing Districts (EIFDs), TIF districts that focus on funding critical infrastructure improvements including roads, utilities, and public facilities. Install tax basis at declared disaster emergency adjusted tax value to maximize TIF yield. Further, encourage a joint venture public agency effort wherein the City, County, and possibly the State each commit a share of their future property tax increment to establish an EIFD or CRD, which will accelerate TIF capture and expand funding for rebuilding community infrastructure. Explore potential Federal and State tax-exempt bonds and lobby for preferential grant allocation to finance/fund rebuild impacted areas.

3. Collaborate on long-term solutions:

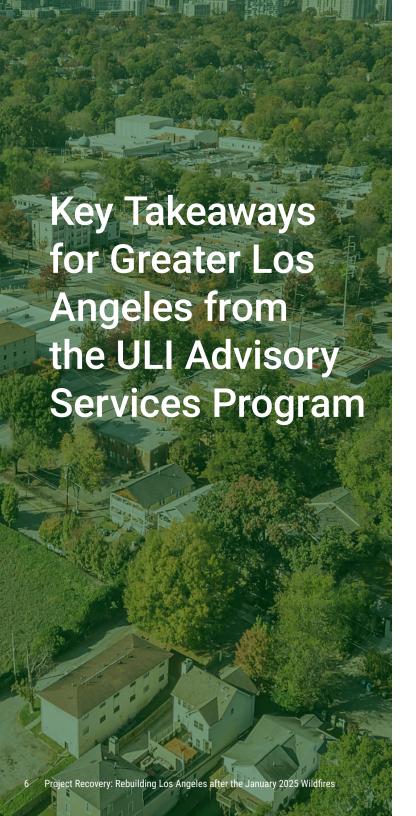
Coordinating efforts between City, County, State, and Federal entities allows for the broadest and most effective financing issuance options. Combining overlapping financing options, with support from all levels of government, allows for most proceeds at the lowest available cost and longest duration of funds. Focus on sustainable rebuilding to mitigate future risks, and property subdivisions to allow for additional development density to replace impacted land

value. CRDs and EIFDs, when established by a joint effort (City, County, Special Districts), can improve eligibility for grant funding sources for infrastructure, resiliency, and housing. Use well-vetted analytical data to effectively determine the scope and extent of infrastructure impacts, assess resilience strategies and consumer impacts in determining the ultimate basket of financing options available to rebuild.

Rebuilding Infrastructure for Pacific Palisades and Altadena

1. Organization: Create a single agency with comprehensive authority to complete all aspects of the reconstruction of the Pacific Palisades. The single agency will have full legal authority to perform all functions required to rebuild the Pacific Palisades infrastructure and will perform all permitting functions for private property (residential and commercial) and public infrastructure. The agency would also be authorized to handle all discretionary and nondiscretionary procedures and approvals for rebuilding public infrastructure and private property (including zoning and land matters, building permit issuance, etc.).

- 2. Cost shortfalls: To address any potential funding shortfalls, the city should explore a variety of financing vehicles, including citywide bonds, Enhanced Infrastructure Financing Districts, Climate Resilience Districts, and Community Facilities Districts.
- 3. Fire protection infrastructure: The firefighting infrastructure proved inadequate to protect the Pacific Palisades. The rebuilding process presents an opportunity to improve infrastructure in the Pacific Palisades, including opportunities to (1) rebuild to "harden" the structure to improve fire resistance, (2) expand sources of water to fight fires, (3) develop emergency response plans for water and power use, and (4) develop a state-of-the-art wildfire resilience program that can be expanded to protect all of the communities living near brush, such as firefighting infrastructure, fire breaks, prescribed burning, and other brush control methods.



Scope

This team was tasked with reviewing Advisory Services reports from ULI's various responses to disasters, synthesizing best practices from those studies, and preparing recovery options to be further evaluated and considered. The team focused on the initial assessment and education phase; in addition, it researched other natural disaster response studies and data.

Introduction

The Urban Land Institute has a long history of bringing the finest expertise to bear on complex land use planning and development issues through its Advisory Services program. Since 1947, ULI has assembled well over 700 highly qualified multidisciplinary teams to find creative and practical solutions for land use matters.

ULI has been involved multiple times in cities and regions that have experienced fires, floods, and other large-scale disasters. Lessons learned and best practices from that work are presented here. The team drew on seven different Advisory Services panels: Lower Manhattan, 2004; New Orleans, 2005; After Sandy, 2013; Toa Baja, Puerto Rico, 2018;

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Sonoma County, 2021; Marshall Fire Recovery, 2023; and Partnering for More Resilient and Equitable Communities, 2024. Additional resources were consulted.

The information presented here is a series of emergency response actions and recovery phases.

Emergency Response

In the aftermath of the Palisades, Altadena, and surrounding wildfires, the City and County of Los Angeles can take the following immediate actions, based on best practices from the Advisory Services reports:

- 1. Immediate Coordination and Emergency Response
- Establish a unified emergency coordination system: To ensure smooth communication and coordination, set up an emergency operations center with representatives from fire departments, emergency management, public works, utilities, and local nonprofits. [Completed.]
- Use mutual aid agreements: Implement intergovernmental agreements to access external expertise, resources, and personnel for immediate recovery efforts.
- Debrief emergency response efforts:
 Conduct after-action reviews with first responders and emergency managers to identify what went well and what needs improvement for future responses.

- 2. Immediate Support for Displaced Residents
- · Set up immediate housing assistance:
 - Deploy emergency shelters, temporary housing (hotels, trailers), and rental assistance vouchers for displaced families. To fund these measures, the City and County of Los Angeles can use funding recently appropriated by the California State Legislature for shelters, evacuation costs, and other emergency response activities.
 - Engage Federal Emergency Management Agency (FEMA) assistance, Department of Housing and Urban Development (HUD) Community Development Block Grant Disaster Recovery (CDBG-DR) funding, and local emergency grantee funding for rental and mortgage assistance. The California Department of Housing and Community Development can assist the City and County of Los Angeles with obtaining CDBG-DR grant funds.
 - Increase housing supply: Explore whether short-term rentals in the region can be converted to long-term housing.
- Establish resilience hubs: Create community resilience hubs in libraries, schools, and community centers to provide food, medical aid, mental health support, and housing assistance to displaced residents.
 [Completed.]

- Deploy mobile recovery assistance: Use mobile units to reach displaced residents without transportation and to ensure access to essential services, including mental health counseling and legal aid.
- 3. Infrastructure and Utility Restoration
- Prioritize restoration of critical infrastructure:
 - Assess and restore water delivery systems, power grids, and emergency communications as top priorities.
 - Implement temporary water and power solutions (such as mobile generators and water tanks) for areas awaiting complete restoration.
- · Expand redundancy in utility systems:
 - Invest in microgrids and battery storage to prevent extended outages.
 - Strengthen emergency fuel reserves for fire stations, hospitals, and critical shelters.
- 4. Community Communication and Engagement
- Expand neighborhood liaison networks:
 - Deploy local leaders and volunteers as neighborhood liaisons to provide real-time updates, distribute resources, and assist vulnerable populations.
 - Use door-to-door outreach, text alerts, and social media to ensure all residents receive accurate information.

· Develop a disaster response playbook:

- Provide clear guidelines for first responders, community leaders, and volunteers on immediate steps following wildfires.
- Train municipal staff and community volunteers in emergency response and continuity of operations planning.

Short-Term Financial and Economic Recovery

- Leverage federal and state funding for immediate needs:
 - Apply for FEMA Hazard Mitigation
 Assistance, HUD CDBG-DR funding, and Small Business Administration disaster loans.
 - Use recently appropriated funds from the California State Legislature: \$2.5 billion is available for shelters, evacuation costs, and other necessary emergency response activities; and \$4 million is available for additional planning review and building inspection resources to expedite rebuilding.
 - Use local emergency funds to cover immediate recovery costs, including debris removal and business support.
 - Use CalHOME Disaster Assistance grants to establish loan programs to help fill funding gaps for home financing for affected homeowners.

Support local businesses:

- Provide emergency grants and lowinterest loans for local businesses affected by the fires.
- Establish temporary business recovery centers to assist business owners with insurance claims and federal aid applications.

Explore strategies to support uninsured or underinsured property owners:

 Partner with the state to explore the creation of new legal entities to provide insurance and other support to affected communities. The creation of new legal entities could include a joint powers authority or nonprofit organization.

6. Wildfire Risk Reduction for Immediate Rebuilding

- Develop and enforce emergency fire-safe rebuilding standards:
 - Implement defensible space regulations requiring fire-resistant landscaping, ember-resistant vents, and noncombustible roofing materials.
 - Adopt fire-resilient building codes for rebuilding, including retrofitting undamaged structures to improve fire resistance.
 - Explore partnerships with experts in the nonprofit and/or private sector to assist in the development of fire-resilient building codes.

Launch immediate vegetation management efforts:

- Remove hazardous debris and fire-prone vegetation in public areas.
- Provide financial incentives for homeowners to create defensible space around properties.

7. Immediate Mental Health and Trauma Support

· Set up disaster mental health services:

- Establish counseling centers at resilience hubs for residents experiencing trauma.
- Deploy trained mental health professionals to affected neighborhoods and shelters.

Address first responder and community burnout:

- Provide wellness programs for emergency responders, municipal staff, and community volunteers.
- Ensure long-term access to traumainformed mental health resources for survivors.

8. Immediate Policy Actions

Streamline rules and regulations for rebuilding:

 Simplify/streamline permitting for fire-resistant structures by waiving procedural requirements that may contribute to delays.

- Work with the governor's office and the state to temporarily relax regulatory requirements of the California Environmental Quality Act (CEQA) and the Coastal Act to expedite rebuilding. [Completed.]
- Devote additional dedicated personnel to accommodate increased volumes of permit applications.
- Explore the creation of a separate virtual permit center specifically for affected property owners navigating the rebuilding process.
- Implement a coordinated long-term recovery plan:
 - Establish a recovery task force to oversee immediate recovery efforts and to transition into long-term resilience planning.
 - Engage local experts in climate resilience, emergency planning, and urban development to guide policy changes.

Recovery Phase

The City and County of Los Angeles can use the following key lessons to develop plans for recovery and resilience after the fires in Palisades, Altadena, and surrounding communities:

- 1. Community Engagement and Equity
- Inclusive community engagement: It is crucial to ensure that all residents, including displaced persons, renters, and marginalized groups, have representation in decisionmaking processes.

- Grassroots and social capital networks: To enhance outreach, leverage existing community networks and digital communication platforms like Neighborhood Liaisons and Nextdoor.
- Equity-centered approaches: Recovery efforts should address historic disinvestment and ensure equitable access to recovery resources.
- 2. Recovery and Resilience Planning
- Comprehensive recovery framework: The National Disaster Recovery Framework provides a structured approach to long-term recovery, guiding jurisdictions through different phases of disaster recovery.
- Psychological phases of recovery:
 Understanding the emotional trajectory of disaster recovery (heroism, honeymoon, disillusionment, and reconstruction) can help design support systems for affected communities.
- Retaining recovery managers: Maintaining dedicated disaster recovery personnel for two to five years postdisaster can ensure continuity and expertise in rebuilding efforts.
- 3. Wildfire Resilience and Adaptation
- Fire-adapted communities framework:
 Adopting a systematic approach to mitigating wildfire risk through landscape management, building design, and emergency planning can enhance fire resilience.

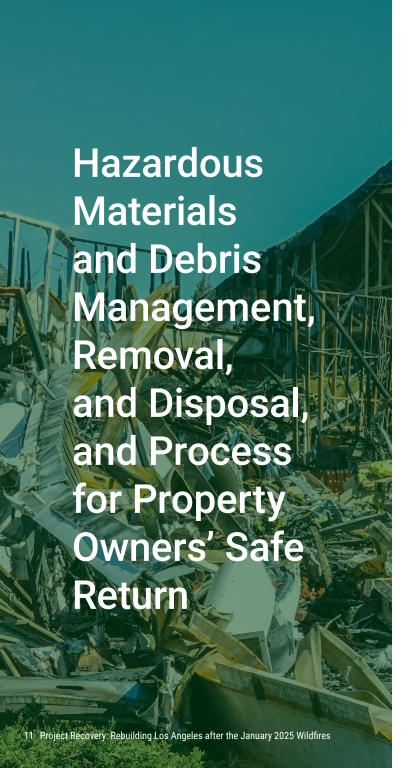
- Vegetation and land use management:
 Adopting ordinances for vegetation management and wildfire-adaptive landscaping can reduce fire risk.
- Wildland-urban interface (WUI) best practices: Enforcing WUI building codes and defensible space regulations can enhance fire resilience.
- 4. Economic Resilience and Housing
- Affordable and diverse housing: Recovery plans should integrate mixed-use developments, infill housing, and accessory dwelling units (ADUs) to ensure a resilient housing supply.
- Disaster-related rental vouchers:
 Collaborating with county agencies to implement rental voucher programs for displaced residents can prevent displacement. FEMA also can provide temporary housing and rental subsidies for displaced residents.
- Investment in resilience hubs: Establishing community resilience hubs as gathering places for training, emergency response, and support services can improve long-term resilience. [Completed.]
- 5. Infrastructure and Emergency Preparedness
- Critical infrastructure resilience: It is essential to invest in redundant power systems, improved water delivery networks, and emergency communication protocols.

- Mutual aid agreements: Establishing intergovernmental agreements with nearby jurisdictions for emergency resource sharing can strengthen response capacity.
- Disaster playbooks and training: Developing and institutionalizing emergency response playbooks and training programs can enhance preparedness for future disasters.
- 6. Funding and Financial Strategies
- Diversified funding sources: Using federal grants (e.g., FEMA's Hazard Mitigation Assistance, HUD's CDBG-DR), state programs, and local funding mechanisms (temporary rate increases, impact fees, and tax credits) can sustain long-term recovery efforts.
- Resilience bond programs: Exploring financial tools such as resilience bonds or public/private partnerships can provide sustained investment in fire mitigation and infrastructure improvements.

7. Long-Term Planning and Climate Adaptation

- Integrating hazard mitigation with urban planning: Updating comprehensive plans to include wildfire risk assessments, resilience strategies, and sustainable land use practices ensures long-term safety.
- Future-ready workforce and economy:
 Strengthening workforce development and economic resilience through climate-adapted industries and skills training can support long-term community stability.
- Nature-based solutions: Incorporating green infrastructure, fire-resistant landscapes, and ecological restoration in planning can reduce wildfire risk and enhance resilience.

By integrating these lessons into its recovery strategy, Los Angeles can build a more resilient and sustainable framework for responding to future wildfires and other climate-related disasters.



Scope

A team of environmental consulting and legal experts and local government staff experienced in wildfire recovery assembled and summarized available information about the hazardous materials and debris removal. processes. In addition, they developed recommendations for the path forward to address hazardous materials in the fire zones and for the process to allow for residents to return safely to their homes to rebuild. These recommendations were developed on the basis of previous experience in other jurisdictions and on information provided on publicly available websites. The information relied on by this team is evolving at a rapid pace, and several key determinations relevant to hazardous materials considerations were still in flux as of this writing. Therefore, the information and recommendations contained in this report should be evaluated and updated as new information becomes available. In addition, this report includes references to interconnected issues related to other teams' scopes, making future collaborations essential to ensure best outcomes.

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Introduction

The first section of this report, Overview of the Process, provides a graphic overviewbased on publicly available information—of Phases 1 and 2 of the State Consolidated Debris Removal Program, Phase 1 consists of the removal of household hazardous waste, and is being conducted by the U.S. Environmental Protection Agency (EPA), with support from the California Department of Toxic Substances Control. Phase 2 consists of the removal of other fire-related debris, and is being conducted by the U.S. Army Corps of Engineers, with support from the California Department of Resources Recycling and Recovery (CalRecycle).

The second section, Considerations for the Hazardous Materials Scope of Work, Procedures, and Communications, offers suggestions for the City and County of Los Angeles. As noted in the report's scope, information on the Debris Removal Program is evolving rapidly and determinations are being made about the extent and scope of the program daily.

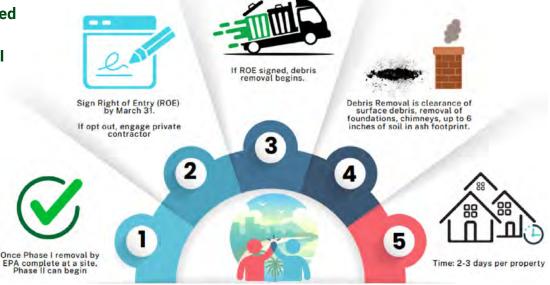
The final section provides Additional Resources-links to useful source materials, additional details on the Debris Removal Program, communication tools used by other jurisdictions affected by wildfires, and other resources.

Overview of the Process



State Consolidated **Debris Removal Program Phase II**

For All Residential **Properties** Destroyed by Fires



Information per Governor's Office of Emergency Services, Revised 2/13/25

Considerations for the Hazardous Materials Scope of Work, Procedures, and Communications

Communications

Public information and communication strategies should include complete descriptions of the debris removal process in a transparent manner to achieve positive outcomes. It is the team's recommendation that all communication efforts be clear, timely, and transparent. A public-facing dashboard that is updated on a regular basis is an effective tool. While some degree of uncertainty is expected during the early stages, providing candid details for what is already known and what is still being developed will assist with building trust with the community over the long term.

To that end, the team has reviewed the FAQs provided by various federal, state, and local governmental resources, including the county's LA Recovers website, and it offers the following suggestions for additional information that could be communicated to the public.

Key Recommendations

- Provide additional clarity about whether the program includes removal of burned items that are beyond the ash footprint, such as sheds, fences, and wood retaining walls.
- Clarify whether the program could leave nonhazardous burned trees on some properties.

- Provide additional information on the process to ensure properties are safe to rebuild and live on. Will the lots be cleaned to the degree it is safe for children and pets to play in yards, for property owners to grow fruits and vegetables, etc.? Will soil sampling occur at the individual property level? If so, will the results of those tests be shared with property owners?
- Provide additional clarity on how drilled piers or caissons under foundations will be handled, where applicable.
- Provide additional information on the removal of damaged dry utilities. Will pedestals, underground equipment, etc., be removed as part of the program?
- Explain eligibility if a property sells.
- Explain how air quality will be protected during active debris removal operations.
- Provide additional clarity on how any valuables that are discovered during debris removal will be handled. Will those valuables be returned to the owner? Will there be an opportunity for property owners to indicate items to look for on their right-of-entry (ROE) forms?
- Explain which environmental justice and environmental protection principles will be considered when planning the order of debris removal priorities.
- Provide additional information on the significant health risk and danger caused by sorting through ash and debris, particularly without wearing appropriate personal protective equipment.

- Clarify the necessary precautions to take when returning to properties that were not destroyed.
- Remove the deadline to submit ROE agreements and allow flexibility to opt in as debris removal phasing is being developed. Contractor availability for private debris removal may change throughout the timeline of operations, and property owners may experience shifting availability of resources.
- Contact each property owner that has not opted in as operations approach their property to ensure they have the option to enter the program.
- Clarify the definitions for degrees of damage and related terms. For example, the standard four terms used by the Federal Emergency Management Agency (FEMA) are affected, minor, major, and destroyed. Relate these terms to common language to ensure transparency in setting expectations.
- Provide additional information on the ability to reuse a foundation. In addition to consulting local building officials, confirm with the planned builder the foundation's condition to clarify impacts to warranties, compliance with building codes, etc.
- Clarify this question: "What happens to soil contaminated by ash?" This clarification is primarily about the definition of the term "ash footprint." Consider stating: "With smaller yards, there is likely to be ash throughout the site, so everything will need to be cleared. On larger properties, there may be locations

- where ash is not present. Land will not be disturbed if ash is not found."
- Clarify this question: "Can I use my debris removal insurance policy to remove items that are ineligible for removal under the government-sponsored program?" Specify that documentation is required for this process, such as photos from before and after removal and paid invoices.

Protection of Public and Private Infrastructure

The team recommends additional clarification on the measures that will be taken to protect public and private infrastructure during debris removal operations.

Key Recommendations

- Establish a clear and consistent procedure for the treatment of water and sanitary service lines that connect to the main lines. This procedure should include a requirement to identify, cut and cap, and inspect these service lines a minimum distance away from foundations. It is critical that this occurs before Phase 2 debris removal commences so that damage does not occur to the valves, service lines, meters, and main line connections that are often beneath streets. It is also helpful to develop a system to permanently mark the location of these cut and capped lines for ease of identification during the rebuilding process.
- Scope all sanitary service lines before connecting these lines to the mains to ensure that any remaining contamination is cleared.

- Develop best management practices (BMPs) for the protection of storm systems. This development should occur both at the property level and the neighborhood level. The best practices could include applying hydromulch on lots following Phases 1 and 2, rocksocks at storm drains, and straw wattles or silt fences in certain locations, and could include routine inspections to ensure these features remain in place.
- Evaluate damaged slope stabilizing walls or other systems whose removal could damage adjacent streets and structures.
- Document existing conditions of streets and sidewalks before debris removal. This will allow for reimbursement of damages caused by debris removal operations, including both the areas where debris removal will occur and the haul routes to the landfills. Photo and video documentation should be included. with GPS locations.

Soil Sampling and Testing

The Faton and Palisades wildfires burned various commercial, residential, and educational structures, vehicles, and vegetation. As a result, it is likely that toxic substances, including heavy metals, polycyclic aromatic hydrocarbons (PAHs), asbestos, dioxins, furans, and volatile organic compounds (VOCs) were released into the environment. The team recommends establishing health screening levels and cleanup goals using soil sampling and analytical testing to (a) understand the impact of the release of these hazardous materials, (b) ensure the

protection of human health, (c) guide cleanup and remediation efforts, and (d) ensure compliance with regulatory and insurance requirements.

Key Recommendations

- · Develop a system to understand the degree of baseline contamination and a system to monitor change over time in the ash/debris zones:
 - Sample properties representative of the various types of prefire development (e.g., residential, commercial, fueling centers, dry cleaners, mobile home parks) and of the various soil types (to the extent they vary significantly throughout the affected areas) to establish background concentrations of metal and toxins. The samples should be evaluated for both the level of depth currently and to monitor any leaching that occurs following significant precipitation events.
 - The baseline testing should screen for heavy metals (including antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium, and zinc). The sampling regimen may also include testing for PAHs, VOCs and SVOCs (semi-volatile organic compounds), dioxins, and furans.
- Refer to CalRecycle's website for useful information and general guidelines for soil testing and contaminated soil removal.

- Conduct confirmation sampling to ensure that lots are safe and adequately remediated for redevelopment following Phase 2 debris removal. This should include a confirmation. sampling protocol that will be used consistently across all lots. Where confirmation sample results exceed sitespecific background levels/cleanup goals, additional excavation/cleanup should occur, followed by additional testing.
- · A photoionization detector could be used as a screening tool for potential VOCs. Tapelifted or micro-vacuumed samples should be collected as necessary and as determined by the on-site industrial hygienist to assist the visual and olfactory assessment.
- An independent laboratory should analyze collected samples for soot, char, and ash by visual estimation. Sample analyses will include soot, char, and ash as indicators for other potential contaminants (e.g., metals, PAHs, dioxins, furans, etc.)
- The American Industrial Hygiene Association's wildfire technical guide and the American Council for Accredited Certification's certified fire and smoke consultant training provide additional guidance on sampling protocols.
- · CalRecycle recommends establishing a grid for sampling locations based on Independent environmental scientists' recommendations. Samples would then be taken at each section and sent to independent labs for analysis. If sample results in one section of the grid are

- elevated, an additional three to six inches of soil should be removed. The property should be leveled once all sections of the grid pass the established cleanup goal.
- · A typical soil sampling protocol may include guidance such as shown below:

Estimated Square Footage of Ash Footprint	Number of Samples
0-1,000 sq ft	2
1,001-1,500 sq ft	3
1,501-2,000 sq ft	4
2,001-5,000 sq ft	5
>5,000 sq ft	To be determined based on consultation with environmental consultant

- Soil test results should be reviewed for each property to ensure they meet accepted standards. A clearance (i.e., a "no further action" determination) should be issued by a state environmental agency, such as the Department of Toxic Substances Control.
- The clearance determination record should connect to the building permit file for each property as a permanent record.

Debris Removal Haul Operations

The removal and hauling of debris requires numerous processes to be considered to ensure that it is safe and effective.

Key Recommendations

- Develop estimates for the magnitude and type of debris that will be handled during the program. Different property types could yield different types of waste. One point of reference could be the Marshall Fire Debris Removal Dashboard, which quantifies different categories of waste removed from destroyed properties.
- Develop a process to sort debris (metal, biochar, ash, etc.). Determine if the sorting will occur on each property or at a sorting site.
- Create a system that protects air quality during haul operations. This process should include lining the truck bed with 6mil plastic before loading and wrapping and sealing the debris before hauling. Creating a staging area to prep the truck beds can be helpful.
- Evaluate both current and projected landfill capacity. These capacity estimates should relate to the anticipated timeline for debris removal operations to ensure capacity through completion.
 - The latest Los Angeles County Department of Public Works Countywide Siting Element—part of its Countywide Integrated Solid Waste Management Plan-addresses both in-county and out-of-county disposal locations, including available capacity.
 - In addition, other adjacent counties and the private sector are involved in developing capacity and assessing remaining capacity. Operators in the region can provide insights on available capacity.

- Recommend discussions with the state regarding which permits may be waived, including those for temporary holding sites, materials recovery, adding vertical space to previously permitted landfills, operating hours, etc.
- Considerations for new holding sites must include evaluation of transportation corridors and impacts, maintenance of traffic plans, numbers of trucks and equipment in use, operations and maintenance requirements (such as hours, debris heights, lighting, perimeter fencing, ingress/egress, erosion and sediment control, etc.), and site restoration requirements for when the site is returned to its prior use and condition.

Documentation

A procedure for documentation must be clearly delineated and followed to ensure maximum reimbursement. Ensure there is clear understanding of the type of documentation that will be accepted, the format in which it will be provided, and the timeliness of this material.

Key Recommendations

- · Clearly mark parcel home address numbers in a consistent way to ensure accurate documentation and identification.
- · Take time-stamped and geotagged photos before, during, and after debris and ash removal occurs on individual parcels.
- Haulers should complete daily load tickets that detail the type, quantity, weight, and

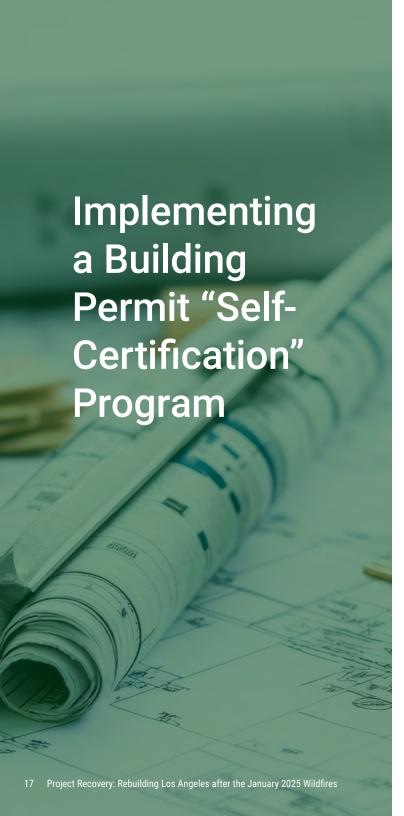
- destination of debris, and these completed tickets should be signed by an authorized official. Carbon copy materials used by many in this field are not recommended for FFMA documentation.
- Maintain contractor and equipment logs of all equipment used, personnel involved, and hours worked to support reimbursement.
- Use GPS tracking for debris removal trucks to confirm routes taken and to verify disposal locations.
- Municipal employees working on debris removal should document their time and activities separate from regular mission essential function duties.
- Assign third-party monitors to verify and document that debris removal is conducted per state and federal guidelines.
- Maintain records that demonstrate compliance with environmental regulations, including hazardous waste disposal procedures.
- Retain copies of public communications, including public notices, outreach efforts, and any community complaints or concerns related to debris removal.
- Implement segregation, categorization, and documentation of debris to meet FEMA requirements.

Additional Resources

It is recommended that the following additional resources be evaluated for inclusion in the program:

- Boulder County, Colorado, Marshall Fire Debris Removal Program FAQs
- Butte County, California, Fire Recovery **Program**
- CalRecycle and Cal OES (Office of Emergency Services) FAQs for the state-managed Debris Removal Program
- U.S. EPA 2025 Southern California Wildfire Response

Note: The recommendations in this document highlight the best practices developed by experts based on the experiences of other cities, towns, and municipalities. The circumstances that the City and County of Los Angeles, the State of California, and other affected government entities are facing in this emergency may include different facts and circumstances that may justify modifying these recommendations to fit the facts and circumstances of this disaster. In addition, the policies, laws, and regulations that apply in this case may be different from those relevant to the disasters on which these recommendations are based. The recommendations in this document are made in an advisory capacity only and should be adapted or adjusted by responsible decision-makers only after considering the full range of facts, circumstances, laws, regulations, and policies for this disaster.



Scope

This team, made up of land use permitting and entitlement experts, focused on making recommendations to the City and County of Los Angeles for the self-certification of building permits for the reconstruction and rebuilding of homes and other structures damaged or destroyed by the wildfires. The team developed standards and qualifications for a self-certification program with the goal of working with the City and County on draft ordinances to be approved by the City and County.

Introduction

In response to the unprecedented state of emergency caused by the January 2025 firestorms in the Pacific Palisades, Malibu, and Altadena communities, the governor of California, the Los Angeles County Board of Supervisors, Los Angeles Mayor Karen Bass, and the Los Angeles City Council have prioritized streamlining and expediting the building permit process so homeowners and small businesses can rapidly rebuild and replace structures on their existing properties. The stated goal of the executive orders from

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the governor, the County, and the City is to complete initial permit review within 30 days from submittal of a permit application. Even before the state of emergency, the State, the County, and the City had initiated an evaluation of how the building permit process can be improved to create substantially more housing production throughout the state and the City and County of Los Angeles.

Thus, local educational institutions, including the UCLA Ziman Center for Real Estate and the USC Lusk Center for Real Estate, have partnered with the Urban Land Institute Los Angeles district council (ULI LA) to evaluate and recommend a streamlined, integrated, and "self-certified" building permit program that, if adopted and implemented by the City and County of Los Angeles and the City of Malibu, can meet the stated 30-day goal for permit review for new homes and businesses. The program can serve as the critical catalyst for the Palisades, Altadena, and Malibu communities to recover rapidly and effectively. In addition, the program can serve the pressing needs of the city and county to considerably increase housing production, thereby addressing housing scarcity and affordability and the region's chronic homelessness crisis.

The integrated and self-certified permit program is a bold initiative for the City and County. It requires skilled leadership at all levels—both public and private—to be successful. A fully integrated permit self-certification program that includes a parallel coordinated plan check with all departments can achieve both initial permit review and permit issuance within the stated goal

of 30 days. It will require a high degree of collaboration, trust, and support to achieve a shared goal of achieving permit approvals to meet that timeline. A successful self-certification program will reallocate increasing scarce resources and expertise, thereby increasing the permitting capacity of the City and County while maintaining rigorous professional accountability and regulatory integrity. It will allow public agencies to focus resources where they are needed most: enabling safe, efficient building that supports wildfire recovery efforts, housing production, and economic development, especially among grocery stores, restaurants, and other small businesses.

Executive Orders

The governor's Executive Order N-4-25 (January 7, 2025) suspends the California Environmental Quality Act (CEQA) "with respect to projects to repair, restore, demolish, or replace property or facilities substantially damaged or destroyed" by the fires, and that are "in substantially the same location as, and do not exceed 110 percent of the footprint and height of, properties and facilities that were legally established and existed immediately before" the fires. The order also suspends permitting under the California Coastal Act.

On February 13, 2025, the governor issued <u>Executive Order N-20-25</u>, which reaffirms CEQA exemptions, further limits discretionary reviews for rebuilding within the coastal zone, and strengthens the permitting expediting programs for rebuilding homes and businesses. Emergency Executive Order No. 1, issued January 13, 2025, by the mayor of Los Angeles, established a Disaster Recovery Permitting Center—a "one-stop shop"—to expedite permitting, waive all discretionary reviews, and confirm CEQA exemption. The mayor's order calls for City departments to complete initial reviews of building plans within 30 days of submission of a completed application. The order also calls for inspections to occur within two business days of a request for an inspection. Finally, the mayor's order calls for the City's Department of Building and Safety to recommend self-certification procedures for building permits.

On January 14, 2025, Councilmember Nithya Raman (4th District) presented a motion to the full Los Angeles City Council to instruct the Los Angeles Department of Building and Safety (LADBS), the Los Angeles City Planning Department, and other relevant City departments to report back in 30 days with options for a "Citywide self-certification program" to expedite permits for residential, commercial and mixed use development. The motion was adopted by the full City Council on February 5, 2025.

In January 2025, the Los Angeles County <u>Board</u> of <u>Supervisors</u>, with motions by supervisors
Barger and Horvath, directed the departments of
Regional Planning, Public Health, Fire, and
Public Works to adopt a program for
streamlined coordination, plan review, and
permit issuance and to establish a "Rebuild
Coordination Team" to "develop staffing models
to address existing constrained staff resources

and to separate rebuild activities from 'business as usual' entitlement and permit activities, with staffing models required to balance permit experience, timeliness of permit approvals, and fiscal resilience."

In response to these executive orders, resolutions, and directives, this report is intended to identify key findings and recommendations regarding a proposed streamlined and integrated building permit self-certification program to aid in the recovery and rebuilding within the city and county of Los Angeles and the city of Malibu for homes and retail businesses damaged or destroyed by the January 2025 wildfires. It is anticipated that this program could, over time, be expanded throughout the city and county of Los Angeles and become a model for streamlined and expedited permitting for homes and businesses.

Background: City of Los Angeles

During the past two decades, various efforts have been made to streamline the land use entitlement and building permit processes in the city of Los Angeles. These efforts have ranged from the "12 to 2" program announced in 2008 by former Mayor Antonio Villaraigosa (and abandoned in 2010) to the Processes and Procedures Ordinance, which was initiated in 2018 and approved by the Los Angeles City Council and the mayor (Ordinance No. 187,712, effective January 22, 2024). The Processes and Procedures Ordinance is the initial phase of a larger effort to rewrite the city's Zoning Code,

which is being implemented as part of the Community Plan updates (starting with DTLA 2040, an update to the Downtown Community Plan, which was recently approved).

Although the permit process of the LADBS has changed incrementally over the years, such as allowing for the online submittal of certain types of plans, the basic process remains the same. An applicant submits plans to Plan Check at LADBS; the plans are reviewed by a Plan Check engineer; the applicant submits revised plans; and the applicant is responsible for obtaining sign-offs and clearances from other departments, such as Planning, Bureau of Engineering, Water and Power, Bureau of Sanitation, and Fire. Once all the sign-offs and clearances are obtained and fees are paid, LADBS will issue a building permit and an inspection card to the applicant or builder.

The process from application submittal to permit issuance can take many months. While LADBS plays a coordinating role, it is typical for the applicant to be "handed off" to other city departments for sign-offs and clearances. Delays can occur when new issues are raised late in the process, known as "late hits," which were not disclosed or discussed when the initial meetings with the case manager took place. For example, the applicant may be told to get a clearance from the Planning Department. This clearance could entail anything from an over-the-counter signature to a lengthy land use entitlement process that can take years to complete.

In addition, the implementation of new environmental regulations, such as the stormwater mitigation program known as the Low Impact Development (LID) Ordinance, has added complexity to the process, which has resulted in additional review time by the Bureau of Sanitation and other city departments.

Delays can also occur during the construction process, such as when issues arise relating to obtaining inspections from LADBS and other city departments. According to various sources, not enough building inspectors are available, many inspectors have retired in recent years, and the pipeline for recruiting and hiring additional inspectors is limited because of a statewide shortage of trained building inspectors. Given the enormity of the permit challenges associated with the rebuild and recovery efforts, the status quo will prove to be unworkable.

The Los Angeles RSBEP Case Manager Model

Although not a permit self-certification program per se, one of the most successful permit streamlining efforts in Los Angeles in recent years has been the LADBS Restaurant and Small Business Express Program (RSBEP), which was set up to assist restaurants, bars, and other businesses with processing permits for certain projects. According to the LADBS website, RSBEP applies to the following types of projects:

- Small businesses, such as nail salons, barbershops, breweries, and retail stores, that are undertaking a construction project with a permit valuation of less than \$1 million
- Restaurants, bars, and outdoor dining projects, as well as studio and soundstage projects, regardless of permit valuation

The RSBEP includes early consultation with an LADBS case manager who provides information, answers questions, and coordinates meetings with representatives of various city agencies that will be required to provide sign-offs or clearances during the building permit process. The intent is to identify issues as early as possible so that the project architect and/or builder can resolve those issues right away. Once the building permit is issued, the LADBS case manager works with the applicant to continue moving the project forward by resolving issues that come up, scheduling inspections, and obtaining the Certificate of Occupancy. The RSBEP program has received favorable reviews from small business owners. and in the September 2023 progress report "Identifying Barriers to Small Business Creation, Development, and Growth" issued by the mayor's Office of Business and Economic Development, it was recommended that the RSBEP be expanded by "assigning additional case managers to help small businesses."

The RSBEP case manager program can serve as a model for an expedited, coordinated, and integrated program to be implemented for homeowners who want to rebuild their homes and for small businesses that want to rebuild in retail districts. When combined with selfcertification and an on-site permit program coordinator who is assigned to each project and is responsible for ensuring coordinated review and approval by all departments, a selfcertification permit program coordinator has the similar successful attributes to the case manager RSBEP model.

Summary Recommendations for **Self-Certification Program**

Incorporating best practices from the RSBEP program and from several jurisdictions that have successfully implemented building permit self-certification programs, including San Diego, Phoenix, Chicago, and New York (see Appendix A for details of each jurisdiction's program), the team recommends the following integrated self-certification permit program and framework for the city and county of Los Angeles and for the city of Malibu.

1. Project Eligibility

The self-certification program should apply to all new construction and rebuild projects, regardless of permit type, with no cap on permit valuation. Because many, if not most, property owners will elect to rebuild in excess of 110 percent of the footprint and height of the structures destroyed by the fires, the selfcertification program should allow for such exceedance if the projects are cleared for compliance with current zoning standards.

Recommended eligible projects should include the following:

- Single-family residences (SFRs) and accessory dwelling units (ADUs)-new construction and major remodels
- Small/medium multifamily and mixed-usenew construction and remodels (less than or equal to three stories)

- Commercial interior improvements, including adaptive use projects
- Resubmittals during clearance; plan modifications made during the final approval process

In addition to the foregoing eligibility standards, the following programmatic recommendations should be implemented as part of the selfcertification program:

- The mayor should consider a revised executive order to allow ADUs (including manufactured housing units) to be built or installed on residential properties without losing the ability to use an expedited review process. This recommendation is consistent with the governor's February 13, 2025, executive order that removes regulatory barrier to constructing ADUs on property where the primary residence was damaged or destroyed by the fires.
- The 110 percent building footprint limitation should be waived if rebuilt structures comply with current zoning codes.
- Rebuilding and permitting should be allowed for all legal nonconforming uses that existed before the state of emergency.
- For rebuilding retail and commercial properties located in the Palisades Village Specific Plan Area, the mayor should consider a revised executive order relating to "eligible projects," which would allow all retail and commercial rebuild projects to be exempt from the Palisades Village Specific Plan Ordinance if those projects do not

increase the height or floor/area ratio (FAR) of the building by more than 20 percent (as opposed to limiting the exemption to increases of not more than 10 percent).

- The adoption of a self-certification program for project applications and inspections during construction can be expanded to allow all applicants to use this process and not just those that are identified as eligible projects at the outset of the application process.
- Waivers of clearances relating to requirements that did not apply to previously built structures should be allowed.

2. Exclusions

The program should include the following exclusions:

- Certain zoning reviews requiring discretionary approvals
- · Projects with complex structural systems
- · Significant hillside grading/foundations

3. Permits and Plan Check

Permit approvals involve multiple technical reviews, including zoning; grading; fire; green building; Americans with Disabilities Act (ADA); structural; and mechanical, electrical, and plumbing (MEP) plan checks. Self-certification should apply as an elective option to all reviews that

· Follow clear, objective code requirements; and

 Do not involve complex structural or fire/life safety systems.

Initial self-certified permit applications should be allowed to be submitted online, using the best available digital technology, similar to the online application process that already exists at LADBS for certain types of applications.

4. Flexible Application

A single project may use self-certification for some technical reviews while also using traditional review for other aspects of the project. For example, a small multifamily project could have its structural, green building, and ADA compliance self-certified while undergoing regular plan checks for zoning and fire.

5. Design Professional Qualifications

To ensure accountability, self-certification should be limited to highly qualified professionals:

- Licensure and insurance: State-licensed architects and engineers with mandatory errors and omissions (E&O) insurance
- Experience requirement: Minimum five years of professional practice with a clean compliance record
- Training and accreditation: Required completion of a City-administered training program (based on similar programs in other cities) on Los Angeles (City and County as necessary) building and zoning codes

6. Project Permit Coordinators

- LADBS project permit coordinators with experience in reviewing plans for singlefamily homes and small retail buildings should be assigned to the self-certification program. Staff members from other key departments should be assigned to work under the project permit coordinator at permit processing centers in Palisades, Altadena, and Malibu, and these staff members should coordinate and expedite all departmental sign-offs and clearances that are outside of LADBS jurisdiction.
- LADBS should ensure that assigned project permit coordinators are available to applicants at the onset of the project at the designated permitting center to proactively review potential clearances, identify corrections, and anticipate long lead time items or issues that may arise during plan check. This early engagement with staff would streamline the process and minimize unnecessary back and forth with engineers and staff, which would reduce delays and expedite approvals.
- Issues and questions that are discussed and resolved early in the review process (in writing) under the direction and supervision of the project permit coordinators should not be changed later in the process, which would eliminate the "late hits" that cause significant delays.

7. Audit and Enforcement Protocols

To prevent abuse and ensure compliance, the city and county should implement robust audit mechanisms:

- Randomized inspections: 10–20 percent of self-certified projects should be audited annually, in line with San Diego and Phoenix.
- · Progressive penalties:
 - First violation: Mandatory correction at the professional's expense
 - Second violation: Probation and additional training
 - Third violation: Disqualification from self-certification
- Public transparency: An annual report should track self-certified permits, audit outcomes, and enforcement actions.

8. Departmental Clearance Process

Implement a current review system:

 Eliminate and replace the current sequential clearance process with a coordinated and fully integrated concurrent review system in which all relevant departments meet to resolve conflicting requirements in real time at a single location. A permit program coordinator assigned to each project is responsible for ensuring coordinated review and approval.

9. Dedicated Inspection Unit

For self-certified projects, establish a specialized inspection team that is staffed by the city's most experienced inspectors. Evaluation should be based on the following:

- · Timely issue resolution
- · Minimal postconstruction corrections
- · Project safety and compliance

LADBS should establish an in-house training and apprentice program for inspectors to ensure more inspectors are available when the new homes are under construction.

10: Use of Digital and Emerging Artificial Intelligence Technology and Program Software

Use state-of-the-art singular and uniform digital technology for submission and review of all self-certified plans and specifications to aid in coordinated and integrated review and approval of all self-certified plans. The permit program coordinators will use this technology to assist in the coordinated and integrated review and approval by all departments at the on-site permitting centers.

In addition, LADBS should establish a virtual inspection process in which an inspector can view work in progress via mobile phone or computer, which would reduce travel time to project sites.

11. Establish Permitting Centers in Palisades, Altadena, and Malibu

Establish permitting triage centers in the Palisades, Altadena, and Malibu communities. Each center will be staffed and supported by the City and County's most experienced professionals from all relevant departments who have been trained in the self-certification program and in the digital technology to be used for the program. The centers also will be staffed with project permit program coordinators who will serve as the primary expeditor for each project.

12. Obtain Budget Authorization for Hiring Inspectors

In anticipation of what may be thousands of building plans being submitted to the City and County of Los Angeles, the City and County departments involved in implementing the foregoing recommendations should immediately request budget authorization to recruit and hire additional staff members to carry out these duties. Given the lead time involved in hiring and training staff members, the effort to recruit new staff members should start immediately.



Scope

This team of design, construction and economics experts focused on developing an assessment of the availability of labor and the supply chain for building materials needed to support the rebuilding efforts, including homes, commercial buildings, public facilities, and infrastructure. The goal was to assess where labor and supply chain challenges are likely to occur and where there may be bottlenecks during recovery when demand is high for building materials. Consideration was given to other demand drivers in the local and regional economy that pose challenges to the availability of labor and materials.

Introduction

This team was tasked with evaluating the potential demand on regional construction industry resources and the supply chain for the rebuilding of structures and infrastructure within the Palisades and Eaton Canyon Wildfires.

This study required the development of extensive economic data analysis along with the adoption of significant assumptions to

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model the rebuilding of these communities as quickly as possible, restore their valued cultural atmosphere, and make them better than before.

The modeling and recommendations within this study are intended to provide the framework for developing priorities and strategies for expediting the processes preceding construction as well as the construction effort itself.

While the data and assumptions may have some degree of uncertainty, the team was able to characterize the challenges with sufficient accuracy to allow us to understand the magnitude of the labor and supply demands likely to be experienced over a 4.5-year time frame.

Scope of Study

To create a model of the demand, the team decided to establish a 4.5-year time frame (four years for construction) for rebuilding all of the structures, knowing that it would push all aspects of the rebuilding process to their limits, so that the team could determine what is necessary to achieve what might be considered impossible.

- Time Span: The study scope is for 4.5 years from the first day of the fire. The target completion date is July 2029. This report includes alternative rates of construction rebuilding in the Beacon Economics study (see Appendix B and Appendix C).
- · Areas of Study:
 - Palisades Fire area: City of Los Angeles, Malibu, and Santa Monica

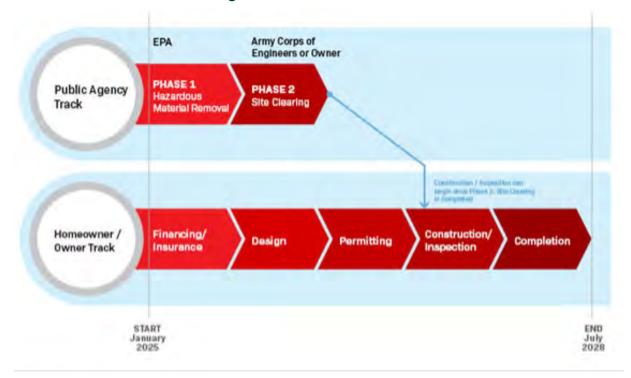
- Eaton Fire area: Los Angeles County; spans multiple incorporated and unincorporated areas
- Categories of Reconstruction: The study assesses the following structures:
 - Single-family homes
 - Multifamily homes
 - Commercial properties
 - Public facilities
 - Infrastructure

General Process of Rebuilding

Objectives Necessary to Achieve a July 2029 Completion of Residential Properties

There are several criteria outside of the construction supply chain that are necessary to achieve a July 2029 completion date:

- Secure insurance and financing to achieve the rate of construction starts needed.
- Ramp up permitting capacity in approximately 10 months to a peak rate of 250-350 residences per month for each of the two wildfire areas (approximately 11,711 residential buildings).



- Complete permit issuance for new construction by Q1 2027.
- Coordinate infrastructure installation to support the rebuilding rate of residences.
- 5. Start new home construction July 2025 and complete July 2029 (48 months).

The Rebuilding Process for Commercial and Public Spaces

The reconstruction of commercial properties will proceed on the basis of perceived demand for their services by the building owners and tenants. It may require incentives and other measures to cover owners' and tenants' operating costs to encourage their rebuilding early in the residential reconstruction process.

The reconstruction of public spaces appears to be moving ahead at a rapid pace on a time schedule independent of residential or commercial rebuilding.

Labor and Supply Chain Challenges

Defining the Demand for Labor and Supply Chain

Residential structures constitute 95 percent of the building area to be rebuilt. This will be by far the main driver of the impacts on the labor and supply chain. The rebuilding of commercial space will be distributed over a significant period of time and will not weigh heavily on the labor and supply chain.

The infrastructure work is perceived as being limited to undergrounding of distribution systems within the residential area. This work is expected to be performed in a way that would permit the residential construction to be

completed in a four-year period. It would be desirable to have the electrical underground infrastructure proceed as soon as possible. Its design and construction must be coordinated carefully with the residential rebuilding effort.

As seen below, together the Palisades and Eaton Fires destroyed 23.2 million square feet of residential buildings and damaged another 2.8 million square feet.

Residential - Damage by Square Footage in Eaton and Palisades Fires

Combined Impact of the Palisades and Eaton Fires: Together, the Palisades and Eaton fires
caused extensive damage to residential properties, resulting in a total destruction of 23,161,219
square feet and damage to 2,840,705 square feet.

This accumulates to an affected area of 26,001,924 square feet (approximately 597 acres) across both regions.

- Eaton Fire Square Footage Impact: The Eaton fire alone was responsible for destroying 9,451,091 square feet (217 acres) and damaging 979,025 square feet of residential property.
 Notably, single-family accounted for 95% of the residential destroyed square footage in Eaton.
- Palisades Fire Square Footage Impact: In Palisades, the fire destroyed 13,710,124 square feet (315 acres) and damaged 1,861,680 square feet of residential space.
 Single-family homes were similarly the most affected, comprising 96% of the total destroyed residential square footage.

Residential – Damage by Square Footage in Eaton and Palisades Fires

Fire	Structure Type	Destroyed (>50%)	Major (26-50%)	Minor (1-25%)	Total
Eaton	Apartment	147,617	1,316	77,262	226,195
	Duplex	325,175		7,573	332,748
	Single-Family Residence	8,978,303	42,611	850,263	9,871,177
	Total	9,451,095	43,927	935,098	10,430,120
Palisades	Apartment	338,010	17,678	35,342	391,030
	Condominium	23,453		8,225	31,678
	Duplex	163,344		24,894	188,238
	Single-Family Residence	13,185,317	112,266	1,663,275	14,960,858
	Total	13,710,124	129,944	1,731,736	15,571,804
Total		23 161 210	173 971	2 666,834	26,001,924

Source: UrbanFootprint and California Department of Forestry and Fire Protection (CAL FIRE)

The total nonresidential fire damage in both fires combined was 1,046,080 square feet destroyed and 327,064 square feet damaged.

Nonresidential - Damage by Square Footage in Eaton and Palisades Fires

. Combined Impact of the Palisades and Eaton Fires: Together, the Palisades and Eaton fires resulted in the destruction of 1,046,090 square feet (approximately 24 acres) and damage to 327,604 square feet of nonresidential property.

The total accumulated effect across both regions spans 1,373,694 square feet, equivalent to about 31.5 acres, where office buildings, hospitals, and retail spaces were the most affected.

 Eaton Fire Detailed Impact: The Eaton fire alone was responsible for destroying 474,170 square feet (10.9 acres) and damaging 102,235 square feet.

Retail and hospital structures were the most affected, together accounting for 49% of the total nonresidential damaged area.

 Palisades Fire Detailed Impact: In Palisades, the fire destroyed 571,920 square feet (13.1 acres) and damaged 225,369 square feet.

Office buildings and retail structures sustained the most damage, comprising 57% of the nonresidential square footage affected in Palisades.

Nonresidential - Damage Summary by Square Footage in **Eaton and Palisades Fires**

Fire	Category	Destroyed (>50%)	Major (26-50%)	Minor (1-25%)	Grand Total
Eaton	Commercial	65,463		6,439	71,902
	Other Nonresidential	333,544	2,912	81,596	418,052
	Utilities	475	360	654	1,489
	Exempt*	74,688		10,274	84,962
	Total	474,170	3,272	98,963	576,405
Palisades	Commercial	19,309		76,766	96,075
	Other Nonresidential	492,786	35,210	113,393	641,389
	Exempt*	59,825			59,825
	Total	571,920	35,210	190,159	797,289
Total		1,046,090	38,482	289,122	1,373,694

[&]quot;Exempt" structures typically refer to areas that are not subject to certain regulations or assessments

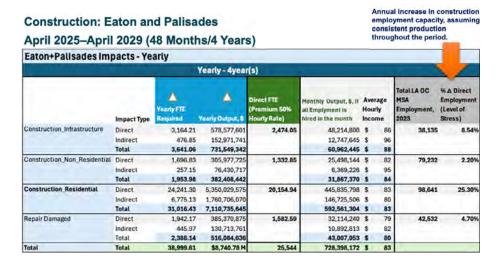
Source: UrbanFootprint and California Department of Forestry and Fire Protection (CAL FIRE)

Calculating the Labor and Supply Chain Demand

Based on a four-year build-out of structures, the model in this report indicates that the choke point for reconstruction will be in the residential construction labor market, which is currently anticipated to require on average 25 percent more labor than the market currently has. This implies that construction projects will need to secure additional residential construction labor outside Los Angeles County or potentially pull additional labor resources from the commercial side of the region.

As a result of this significant impact on the labor market, the team anticipates significant inflation in the labor rates for residential construction. due to the cost of housing and per diem for out-of-town labor and/or the premium of drawing labor from the commercial markets.

LA County: Total Economic Impact Faton and Palisades



The graph to the right shows the impact of spreading out the work of all categories of construction from four years to six years, resulting in a 25 percent reduction in the peak demand of labor.

Supply Chain Impact: The Indirect Multiplier Effect

When considering the supply chain impacts from construction efforts aimed at rebuilding affected areas, jobs are created in the construction sector and also in industries providing services and materials via the supply chain, such as steel and concrete production, and transportation. This is known as a *ripple* or *multiplier* effect. For every 100 workers directly employed in construction, an additional 27 jobs are created in various occupations throughout the supply chain, indicating an employment multiplier effect of 1.27.

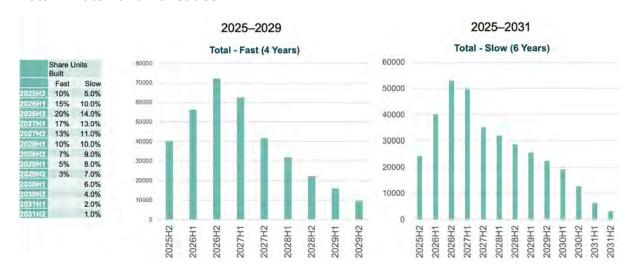
Material Supply Chain Demand

The rebuilding of 3,000 single-family homes annually represents a small percentage of the total produced nationally each year.

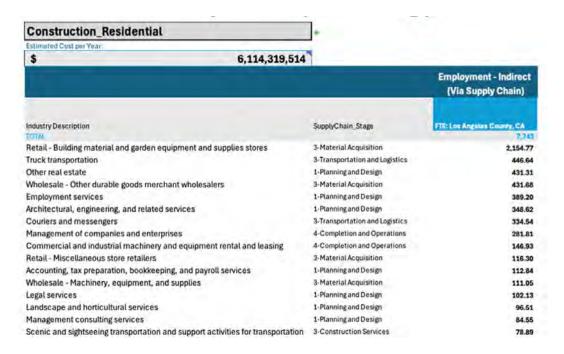
Manufacturers should be able to anticipate demand based upon the first nine months of rebuilding to be able to maintain typical lead times. Early procurement of equipment by homeowners further enhances timely delivery as well.

Most construction materials are imported from outside Los Angeles County and should present no lead time problems except for specialty materials. Materials sourced externally,

Projected Construction Employment Needs by Semester: Total – Eaton and Palisades



Supply Chain Employment Demand – Industries Most Impacted (Indirectly)



including imports from foreign countries, pose risks from disruptions, international shipping delays, and price fluctuations in raw materials.

Interest rates, tariffs, and changes in the national economy that heighten demand can also present disruptions to labor and supply chain.

Logistics Impacts

The graph on the right shows the daily average number of full-time equivalent workers by semester (six months) for a four-year and six-year construction model for the Eaton and Palisades areas. The important thing to note is by stretching the rebuilding period from four years to six, the peak demand and inflationary pressures on labor are reduced.

Logistically, the challenges are going to be significant for transporting workers and materials to the job sites, especially to the Palisades area, where the semester peak is 40,000 workers per day for the four-year buildout and a semester peak of 30,000 workers per day for the slower six-year buildout.

Recommendations

1. Learn lessons from past fires, such as the Sonoma County Tubbs Fire. The Sonoma Tubbs Fire recovery effort demonstrated the value of organizing the homeowners at the neighborhood and block level. They banded together to form groups to share knowledge, fight fraud, procure services, and enhance their voice with government.

Supply Chain Insights and Potential Risks

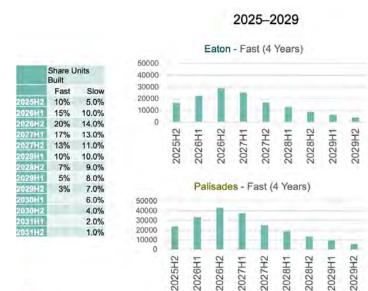
 The occupations most affected by supply chain issues, showing indirect ripple effects beyond construction workers, include:

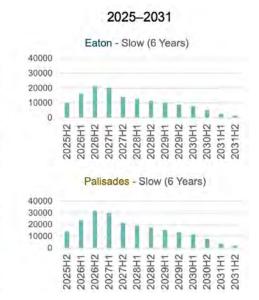


- Carpenters
- · Construction laborers
- First-line supervisors of construction trades and extraction workers
- Construction managers
- · Project management specialists
- Cost estimators
- Automotive service technicians and mechanics

- Painters, construction, and maintenance
- Helpers—carpenters
- Drywall and ceiling tile installers
- Floor layers, except carpet, wood, and hard tiles
- Carpet installers
- Stonemasons

Projected Employment Needs by Semester: Eaton/Palisades





The local government responded with enhanced permitting processes (issuing 300 permits per month at peak demand). The result was 80 percent of the Coffey Park community had been rebuilt in three years. (For more information, see "Earlier California Fire Shows How Los Angeles Could Rebuild," Inc., January 27, 2025, and "How to Rebuild from the Ashes," The Atlantic, February 8, 2025.) The team recommends recognizing and encouraging residents to organize at the neighborhood council, homeowners association, and similar levels, to ensure that they are receiving any and all relevant communications regarding remediation and construction activity, and to promote their working together to fight fraud, secure services for rebuilding, and to effectively communicate with various agencies as one voice.

2. The team recommends the establishment of Onsite Community Rebuilding Logistics Centers for each wildfire area to address the coordination of the massive concentration of multiple operating projects (up to 1,000 to 2,000 separate residential projects ongoing in each area concurrently).

The centers would be managed by construction management teams (an agency or third party) to ensure that the construction activities (parking, deliveries, work hours, haul routes, staging of materials, worker housing) are well choregraphed and that owners and their consultants and contractors have in-person access to the utility companies and

- government agencies (plan check, permitting, and inspectors) for the efficient delivery of the projects for all concerned.
- 3. Resolve the infrastructure scope as soon as possible. Coordination of the infrastructure work is critical to the planning of the residential rebuilding logistics. Ideally, the infrastructure work would be completed in a way that would allow the expeditious rebuilding of the residential structures.
- 4. Establish a permitting process that will average one month or less and have the capability to process 250 to 350 residential permits per month for each wildfire area. The team recommends having the permit support in the logistics center discussed in recommendation number 2 above.
- Create hubs (transfer points) for moving people and material to reduce the traffic flow in and out of the affected areas, when practical.

6. Consider using existing infrastructure for

temporary housing and material staging.

The locations should be as close as practical, without creating additional and unnecessary costs. For example, perhaps student housing at UCLA and other institutions could be used over the summer months and while temporary housing is being stood up, assuming the schedule aligns. Find large commercial parking lots and other areas within the recovery zone for materials staging. Busing and carpooling will reduce traffic in the affected areas and decrease emissions. Is this an opportunity

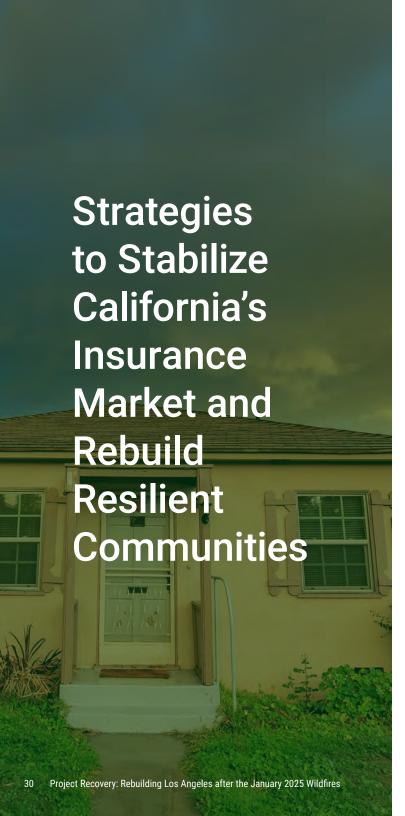
to stand up tiny homes or some other form of transitional housing in areas of Los Angeles west of Interstate 405 that struggle with street homelessness? Does that also open other streams of funding?

Acknowledgments

We would like to thank Beacon Economics for their outstanding work in the development of data and analyses that are the foundation of this report.

Collaborating with our fellow teams under the challenge of time and many unknowns gave us an appreciation of the profound challenges our public leaders and staff are facing to rebuild LA.

We have been pleased and honored to be part of the ULI/UCLA/USC Rebuild Committee and to be able to contribute in a small and hopefully meaningful way.



Scope

The insurance team was charged with developing a strategy for rebuilding focused on those construction practices (both civic and private) that will appeal to/be required by insurance companies. They also reviewed insurance status, changes, and solutions from other post-disaster areas and developed recommendations for property owners in fire zones going forward.

Executive Summary

The purpose of this work product is to address California's ongoing home insurance crisis, where increased wildfire risk and losses have led to skyrocketing premiums, widespread policy nonrenewals, and a shrinking pool of coverage options for property owners and business owners in high-risk areas. The California Fair Access to Insurance Requirements (FAIR) Plan, which is the insurer of last resort, has seen the number of policyholders double in just five years and its exposure increase substantially. Because FAIR Plan policies cover only fire

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risk, FAIR Plan policyholders must purchase private coverage in addition to the FAIR Plan policies to cover the rest of the risks covered by a traditional home insurance policy. Rising rates for traditional home insurance and FAIR Plan insurance have resulted in some property owners dropping insurance or buying less insurance coverage than they need to replace their home. The Insurance Commissioner issued new regulations in 2024 to give insurers increased rates faster, in exchange for which insurers are supposed to write more insurance in high wildfire risk areas and to start writing new insurance policies.

This report seeks to provide actionable insights for California to undertake in addition to those actions performed last year by the Insurance Commissioner to help make insurance more available and support recovery efforts. Some other states have implemented measures such as expanded insurance pools, state-backed reinsurance, and fire-resistant construction incentives—approaches California can adopt to mitigate wildfire risks and promote long-term recovery. In addition, California can lead the nation in requiring insurers in their underwriting (writing and renewing insurance) to account for proven property, community, and landscape mitigation measures that reduce the risk of loss, along with rate discounts already required for home hardening and defensible space.

This report recommends a set of actions, designed to address both immediate and long-term challenges:

 Construction Practices: Promote fireresistant building materials and design and

- ensure compliance with updated building codes, zero zone requirements, and defensible space in alignment with the latest science, empirical evidence, and insurance industry standards. These measures will help reduce future risk of loss from wildfires, while ensuring that properties meet insurance industry standards for coverage. These measures should not be waived as home and business owners rebuild after disasters.
- 2. Insurance Solutions: Establish federal- or state-backed reinsurance for the FAIR Plan to improve FAIR Plan solvency, sustainability, and pricing. Pass a state law to authorize the sale of tax-exempt bonds by the State of California to loan funds to the FAIR Plan to enable it to cover shortfalls in claims. Pass state law to require insurers' underwriting models to account for property, community, and landscape scale mitigation. Pass state laws requiring insurers to transition from investments in, and writing insurance for, the fossil fuel industry, whose emissions are a major driver of climate-driven catastrophic events.
- 3. Practical Recommendations: Provide clear, actionable guidance for property owners in wildfire-prone areas on insurance, mitigation, and rebuilding efforts. This will ensure compliance with insurance standards. The rub is that insurance underwriters do not factor in the property owners' investment in fire hardening and defensible space, or local, state, and federal landscape scale forest and chaparral land

- treatment, in the models they use for underwriting (making decisions to write or renew insurance). As a result, insurers do not write insurance for homes that have undertaken home hardening, defensible space, or homes proximate to community and landscape scale forest treatment. To change this will require state legislation. To make sure that rates reflect mitigation, the Insurance Commissioner should issue regulations to require the models used by insurers for "rate segmentation" to account for property, community, and landscape scale mitigation and to require that rate segmentation accounts for property, community, and landscape scale mitigation.
- 4. Forest and Wildfire Management: Increase federal, state, and local funding for forest and chaparral management strategies, such as controlled burns and fuel load reduction, to minimize wildfire risk, protect communities, and enhance the long-term sustainability of fire-prone areas. Pass state law that requires insurers to take forest management into account in their underwriting.

These recommendations, developed by experts in real estate and insurance, aim to build on efforts made last year to stabilize California's home insurance market, expand investments in forest and wildfire management, and provide more relief to wildfire victims. The goal is to improve the availability of insurance and the sustainability of insurance markets and the FAIR Plan, while addressing long-term wildfire risks and promoting sustainable recovery.

By implementing these actions, California can build on prior efforts to stabilize its insurance market and reduce wildfire risks but also ensure comprehensive support for rebuilding efforts. Having a proactive approach will improve the ability to provide immediate relief and contribute to long-term stability, ultimately protecting property owners, businesses, and insurers while fostering a sustainable, resilient future.

Key Insurance Issues and Recommendations

California's ongoing property insurance crisis has reached critical levels, with property owners facing skyrocketing premiums, policy nonrenewals, and fewer coverage options. The California FAIR Plan, which was created to help property owners who cannot obtain insurance through the traditional insurance marketplace, has seen the number of its policyholders double in just five years and its exposure increase substantially. Because FAIR Plan policies cover only fire risk, FAIR Plan policyholders must purchase private coverage in addition to the FAIR Plan policies to cover the rest of the risks covered by a traditional home insurance policy. Rising rates for traditional home insurance and FAIR Plan insurance have resulted in some property owners deciding to drop insurance or buy less insurance coverage than they need to replace their home. As a result, underinsured and uninsured property owners are left vulnerable, especially after catastrophic wildfires that devastate properties. California should continue to explore strategies that benefit property

owners and stabilize the insurance market that improve programs already in place and include expanded insurance pools, state-backed reinsurance programs, fire-resistant construction incentives, and wildfire risk-reduction programs. These measures have not only helped keep insurance available but also provided property owners, builders, and business owners with the resources to rebuild and recover.

California has similar programs but should do more to enact laws, regulations, and strategies that help to further stabilize the insurance market, reduce risks, and provide immediate relief for homeowners and business owners in wildfire-prone areas. Immediate action is critical to protect California's residents and the stability of the insurance market. Provided below is a summary of recommended solutions based on historic precedent and best practices currently being used in other states.

Given the timing of these recommendations, our immediate priorities regarding home and business property insurance are

- the appropriate adjudication of existing claims, including rebuilding with fire resistant materials; and
- ensuring there is insurance following the rebuild.

Need for Actionable Solutions

In recent weeks, California's insurance market has faced increasing pressure due to wildfires. State Farm, the state's largest home insurer, requested a 22 percent rate increase to offset wildfire losses but had its request denied by the Insurance Commissioner, highlighting the ongoing tension between insurers adjusting rates and state regulators protecting consumers. At the same time, Mercury General and Safeco received approval for rate hikes of 12 percent and 7.2 percent, respectively, as they deal with rising costs from wildfire damage. The California FAIR Plan, the insurer of last resort, has requested a \$1 billion fund to cover wildfire claims, which could lead to premium hikes for all property owners across the state. In addition, more than 80 percent of new homes built in California from 2020 to 2022 are located in high fire-risk zones, exacerbating risks for both property owner and insurers.

In other developments, Mercury General and Safeco plan to raise rates for 666,000 customers due to inflation and increased construction costs. Zurich Insurance reported \$200 million in losses from California wildfires in 2024, highlighting the significant financial toll wildfires are having on insurers. Meanwhile, the performance of insurance stocks has been volatile, with many insurers, including Chubb and Allstate, seeing significant declines in stock value due to the mounting losses from wildfire claims, which reflects growing instability within the property insurance market. Finally, Liberty Mutual announced it will exit the condominium and renters' insurance market by 2026, reducing options for consumers in these segments.

These developments underscore the increasing financial strain on insurers and the complex challenges they face in adjusting operations to remain sustainable in high-risk areas. As insurers navigate the tension between financial

stability and providing coverage, property owners are facing higher premiums, fewer options, and a less competitive market. The impact is particularly severe for the uninsured, who struggle to find affordable coverage, and for the underinsured, whose existing policies fail to fill the coverage gap. With fewer insurers willing to operate in the state, many property owners are forced to rely on the California FAIR Plan, which is often more expensive and offers limited protection.

The shrinking pool of insurers in California is pushing property owners to the brink, leaving them with limited options and making it increasingly difficult to secure adequate coverage in fire-prone regions. With fewer insurers willing to operate, many property owners are forced to pay exorbitant premiums or face insufficient protection. This crisis highlights the urgent need for the California Department of Insurance to take immediate and decisive action, implementing viable solutions to stabilize the market. Only through this approach can we ensure long-term stability, affordability, and accessibility for property owners across the state.

The following section outlines eight key issues and recommendations for immediate action in both the short term and the long term, which are critical to stabilizing the market and protecting California's property owners and renters.

I. Address Lack of Robust Competitive Insurance Market

California's wildfire crisis has reached an alarming level, placing unprecedented strain

on the state's insurance market. Due to the increasing frequency and intensity of wildfires, climate change, and growing property damage risks, many major home and business property insurers, while renewing most of their customers and making positive underwriting returns from 2019 through 2023, increased nonrenewals of properties facing higher risks and stopped writing insurance for new customers in 2023. Major insurers such as State Farm, Allstate, and Farmers Insurance stopped writing insurance for any new customers in 2023, regardless of where the property was in the state. Insurers started reducing their exposure to wildfire losses well before 2022, with many declining to renew or write insurance for homes and businesses in high-wildfire-risk areas. This trend significantly intensified in the early 2020s, underscoring the urgency of addressing the situation.

In response to these growing concerns, Governor Gavin Newsom issued an executive order on September 21, 2023, instructing the California Insurance Commissioner to take immediate action to stabilize and improve California's property insurance market. The executive order focused on ensuring availability and affordability of homeowners insurance in high-risk wildfire areas, addressing insurers' increased nonrenewals and declining to write new insurance, and directing the Insurance Commissioner to collaborate with industry leaders to find long-term solutions. Newsom's order aims to increase coverage options for residents in wildfire-prone zones and stabilize the market amidst growing wildfire risks.

In concert with the Governor's executive order. California's Insurance Commissioner announced that he would adopt new regulations requested by the insurers as a part of his "Sustainable Insurance Strategy." The Insurance Commissioner launched a year-long public process to adopt new rate regulations in 2024. The new regulations and orders, which went into effect in January 2025 before the LA wildfires, allow insurers to use catastrophe models for the catastrophe portion of their rate, allow them to include the cost of reinsurance in their rates, and shift the burden of covering a FAIR Plan shortfall in claims-paying capacity from the private insurers to all policyholders in the state, with insurers exposure limited to only \$500 million in the event of a FAIR Plan reserve shortfall. According to the Insurance Commissioner, private insurers agreed that if these regulatory changes were enacted, they would begin writing for new customers, and renew and write more insurance in the areas of high wildfire risk.

The Los Angeles wildfires occurred after the effective date of the new regulations. Before the LA wildfires, the insurers' own catastrophe models told them that the LA wildfires were a question of when, not if. State Farm, for example, declined to renew a substantial number of insurance policies for homes in Pacific Palisades the year before the Los Angeles wildfires, recognizing how high the risk of loss there was. At the time they asked for and obtained the regulatory changes discussed above, insurers' own models told them that there was a likelihood of a major catastrophic wildfire somewhere in California, including Los

Angeles. Nonetheless, insurers told the Insurance Commissioner that if he issued the regulations, they would start writing insurance for new customers and renew and write more insurance in the high-wildfire-risk areas.

After the Los Angeles wildfires, with an estimated \$35 billion in insured losses and with the FAIR Plan needing a \$1 billion bailout to cover its claims, it remains to be seen whether insurers will follow through or not.

In addition to the above, California faces significant challenges related to environmental and air quality regulations, which hinder effective forest management practices such as fuel reduction and prescribed burns. Strict regulations from the California Air Resources Board (CARB), particularly those concerning air quality and particulate emissions, limit controlled burns, a crucial tool for reducing wildfire fuel. Furthermore, Environmental Impact Reports (EIRs) required for forest management activities often create delays in wildfire mitigation efforts. Protecting endangered species under California law also limits access to forested areas that require thinning, making it harder to implement proactive wildfire risk-reduction strategies. The lack of collaboration between environmental agencies, CAL FIRE, and insurers exacerbates these challenges and complicates efforts to stabilize the insurance market.

Key Issues

 Reduced Availability of Insurance: Due to the escalating wildfire risks, exacerbated by state-mandated limits on insurers' freedom to price insurance commensurate with their underwritten risk analysis, insurance companies have reduced the writing and renewing of insurance in California. As a result, the FAIR Plan has seen its policyholders go from 180,000 in 2018 to 455,000 in 2024. Insurers argued that they could not accurately price wildfire risks due to their inability to use catastrophe models in setting the catastrophe load-in rates, restrictions in including reinsurance costs in their rates, and sought and obtained major regulatory changes in 2024.

2. Environmental and Air Quality Regulations Impeding Forest Management:

Environmental and air quality regulations have unintentionally hindered the effective implementation of forest thinning and scheduled burns, both critical strategies in reducing wildfire intensity. While these measures are necessary for wildfire prevention, air quality standards and environmental protections on emissions can delay or restrict these actions, leaving forests more vulnerable to catastrophic fires. The lack of coordination between state agencies overseeing environmental protection and those managing wildfire mitigation further complicates efforts to reduce fire risk.

3. Wildfire Risk and Climate Change:

California's climate and the growing intensity of wildfires, exacerbated by climate change, have made it the most wildfire-prone state in the nation. With dense populations living in high-risk wildland-urban interface zones, the potential for damage is substantial. Insurers argue that California's regulatory and risk

management strategies have not kept pace with these growing risks. While efforts such as prescribed burns and forest management aim to reduce the fire risk, these solutions often face significant environmental opposition, liability concerns, and logistical challenges.

Recommendations

Dealing with the insurance crisis requires an acknowledgment of several key realities. First, we must accept that California's semi-arid environment is conducive to fire-related events, and as climate change goes largely unchecked, these fires are likely to increase. Second, improved building standards can reduce the magnitude of losses when such events occur. Third, the current state-controlled insurance marketplace, which forces the state to bear an unreasonable amount of risk-particularly during major catastrophic fires—is unsustainable. To address these issues, a comprehensive and coordinated approach is needed. California should welcome an open insurance market, where insurers are permitted to assess risk through models that consider the frequency and severity of risks, based on location, construction methods, and mitigation measures. If insurers are allowed to assess risk and apply the premiums necessary for profitability, competition on price will follow, much like in the automobile and other insurance markets. The Insurance Commissioner should ensure insurers are sufficiently capitalized, that policies are understandable and reasonable, and that adequate reinsurance is in place to support significant losses.

Short-Term Actions

In the short term, California should open the insurance market to allow insurers to assess risk and set premiums accordingly. This will encourage competition and help stabilize pricing. Additionally, the Insurance Commissioner must oversee that insurers are properly capitalized, ensuring financial stability in the market. The state should take immediate steps to lower insurance premiums by promoting risk-reducing behaviors, such as requiring fire-retardant materials in construction, ensuring appropriate setbacks from neighboring properties, and restricting fire-prone foliage. Regular maintenance of brush and mandating setbacks between buildings and vegetation should also be enforced. The state should review its climate adaptation infrastructure, focusing on preparing homeowners and insurers for future wildfire seasons, including encouraging the installation of pumps for pool water access in emergencies. Lastly, the state must address regulations that delay essential forest thinning and controlled burns to mitigate fire risks.

Long-Term Actions

For long-term solutions, California should focus on creating a sustainable insurance model that balances both private market participation and state-backed interventions, particularly in underserved communities. These interventions should be targeted, transparent, and fair to the state's taxpayers. Investment in forest and chaparral treatment by federal, state, and local governments is critical to mitigate fire risks, though such investments are outside the scope of this report. Additionally, transitioning away

from fossil fuels and other greenhouse gasemitting industries is essential to reducing global temperatures and the extreme weather events they cause. Long-term efforts should also include ensuring insurers use comprehensive models that account for property, community, and landscape-scale mitigation in their risk assessments. Promoting climate adaptation and resilience planning will help homeowners and insurers prepare for future wildfire seasons, ensuring the development of more resilient communities over time.

By focusing on these immediate and long-term actions, California can help stabilize its insurance market, protect homeowners in high-risk areas, and build a more resilient, adaptable system to address the growing wildfire threat.

II. Uninsured Property Owners

The key issue is some property owners in California are uninsured due to the rising cost of insurance premiums and the reduced number of insurers in the state due to the unattractive profit-making environment for insurers in this state. Others may have chosen to forgo coverage due to a lack of understanding that government programs currently will not assist in the rebuilding of their homes, prior denial of claims, or the belief that wildfires won't directly impact them. This is now a post-loss social issue. Insurers cannot provide coverage for a wildfire post-loss to property owners who had no insurance at the time of the wildfire. As a result, property owners will need to seek help from funding mechanisms such as a lender, Federal Emergency Management Agency, Small Business Solutions, or the like to finance the cost of repairs and/or rebuilding. But by and large state and federal resources are very limited with regard to assisting private homeowners to rebuild, which is why it is critical that homeowners purchase insurance in the first instance. An insurance marketplace that allows insurers to set premiums based upon their loss models and that encourages competition among a larger number of insurers will help increase the availability of insurance correctly priced for the risks associated with all properties. Property owners also need to get insured to protect the property against future damage if it is being rebuilt under a debt structure that will be required by any lender to ensure the property is properly protected on a go-forward basis.

Recommendations

The FAIR Plan is facing a significant financial shortfall, requiring an additional \$1 billion to cover claims from recent wildfires. This highlights the urgent need to reshape the insurance market to encourage private insurers to re-enter the market, reduce reliance on the FAIR Plan, and ensure homeowners can access affordable coverage. A crucial part of this transformation is for the California Department of Insurance and the Insurance Commissioner to continue working closely with insurers to implement more coordinated and proactive measures. By enabling private insurers to properly assess risk and to factor in costs—such as climate-related risks, mitigation efforts, and operational expenses—while also supporting vulnerable populations, California can stabilize the market and create a more resilient system.

Short-Term Actions

In the short term, the state should introduce a sliding scale premium subsidy for low- and moderate-income households to help them access insurance through the FAIR Plan. This will reduce over-reliance on state-backed insurance and ensure that these vulnerable populations maintain necessary coverage.

Additionally, California should allow private insurers to adjust rates based on risk, enabling them to accurately factor in climate-related risks, operational expenses, and mitigation measures. This will allow insurers to price premiums according to the real exposure to risks, encouraging them to re-enter high-risk areas. For high-income property owners in these zones, they should bear the cost of their location, rather than relying on taxpayer funds. Ensuring that these homeowners pay premiums reflecting the actual risks of living in wildfire-prone areas will help create a more financially sustainable market.

Finally, the state should establish a reinsurance framework to help insurers manage catastrophic losses and provide incentives for homeowners in high-risk areas to maintain adequate coverage. Instead of requiring insurers to share extensive rebuilding data for underinsured properties, the state can encourage insurers to collaborate on better assessing risk and providing adequate coverage options. Tax incentives or rebates for maintaining appropriate insurance could help expand the market and reduce the dependence on the FAIR Plan.

Long-Term Actions

Over the long term, California must continue to allow private insurers to assess risks and adjust rates based on exposure, while accounting for all relevant expenses. Investments in climate resilience, including fire prevention and forest management, will help reduce overall risk, making these areas more attractive to insurers. These investments will also support a more sustainable, proactive approach to wildfire risk.

The state could also explore a statewide risk-pooling system, where wildfire risks are shared across high-risk communities. This would ensure that high-income property owners in high-risk areas are paying premiums that align with their exposure to disasters, reducing the financial burden on the state and increasing fairness in the market. Spreading the risk across various communities would help ensure adequate coverage and prevent over-reliance on state-backed insurance.

The ultimate goal is to create a dynamic, competitive insurance market where private insurers can thrive, offering affordable coverage in both high-risk and underserved areas. With reinsurance, climate adaptation, and strategic incentives, California can stabilize the market and protect homeowners, while ensuring the system is financially sustainable in the face of increasing disaster risks.

III. Underinsured Policyholders

The key issue with underinsured policyholders is that many have insufficient coverage to fully rebuild or recover after a disaster like a wildfire. This often happens because policyholders underestimate the cost of rebuilding their homes or fail to adjust their coverage as the cost of replacing their home rises, leaving them with gaps in coverage when disaster strikes. The other issue is the policyholder may not be aware of gaps in their coverage or they may have chosen to select the minimum coverage required as required by their mortgage or they selected cover based on the premium amount they can afford. Shortages in skilled labor, contractors, subcontractors, and construction materials often result in higher construction costs after a wildfire, further exacerbating the problem for underinsured property owners.

Recommendations

Insurers should be required to calculate the replacement cost of the home at the time they are writing or renewing insurance, and provide that cost calculation to homeowners. Currently, insurers are required to provide a replacement cost calculation if requested. Many homeowners do not know they should request the calculation. To make sure that homeowners understand whether and how much insurance they need to replace their home, insurers should be required to provide a replacement cost calculation every time they write or renew a home insurance policy. To address the issues of homeowners declining to get enough insurance because of the cost of the insurance, the federal or state government should establish a sliding scale premium subsidy for low- and moderateincome policyholders on the FAIR Plan.

IV. California FAIR Plan

The state-run insurance program provides basic fire coverage to property owners in high-risk areas who are unable to secure coverage from private insurers. The benefits of the FAIR Plan include offering access to essential fire insurance for property owners in wildfire-prone areas, providing a safety net for those unable to find coverage elsewhere, and serving as an affordable option compared to having no insurance at all.

Key issues with the California FAIR Plan include limited coverage, as it only provides basic fire insurance, leaving property owners vulnerable to other types of damage such as theft or water damage. However, the Insurance Commissioner has ordered the FAIR Plan to offer an all-risk insurance policy. The FAIR Plan sued the Insurance Commissioner to block this order and lost. The FAIR Plan needs to accelerate its work to create an all-risk insurance policy consistent with the Insurance Commissioner's order and be given a hard deadline to do so. Additionally, premiums can be high, making it financially burdensome for many residents. The coverage limits may also be insufficient to fully rebuild homes, especially given the rising costs of construction in wildfire-prone areas. Lastly, the FAIR Plan is seen as a temporary fix rather than a long-term solution, offering little flexibility or choice for property owners in need of more comprehensive protection.

Recommendations

As previously noted, California's FAIR Plan, the insurer of last resort, is facing a \$1 billion

shortfall due to wildfire claims, underscoring the need for urgent reform in the state's insurance market. To reduce reliance on the FAIR Plan, California must encourage private insurers to re-enter the market and enable them to assess risks more freely, adjusting rates based on actual exposure to wildfire and climate-related risks. This will foster competition, attract insurers to high-risk areas, and ensure homeowners pay premiums reflecting their true risk.

In the short term, the state should introduce a sliding scale premium subsidy for low- and moderate-income households, helping these vulnerable populations maintain access to insurance while reducing reliance on the FAIR Plan. Additionally, the FAIR Plan must be accelerated in its transition to an all-risk policy, as mandated by the Insurance Commissioner, with a clear deadline for implementation. A reinsurance framework should be established to mitigate catastrophic losses, alongside tax incentives to encourage homeowners in high-risk areas to maintain coverage.

Over the long term, a sustainable insurance model should be built by enabling private insurers to factor in all necessary operational costs, supported by investments in climate resilience. The state could also consider creating a statewide risk-pooling system to distribute wildfire risks more equitably, ensuring that high-income property owners in high-risk zones pay premiums that reflect their exposure.

For more detailed discussions on these issues, please refer to section II <u>Uninsured Property</u>
<u>Owners</u>.

V. Insurance Underwriting Risk Premium Model

A key issue is that insurers do not factor fire mitigation efforts, such as home hardening, defensible space, and landscape scale mitigation such as forest and chaparral treatment, into the risk models they use to decide whether to write or renew insurance. Despite property owners, local governments, homeowners associations, and the state and federal government taking proactive steps to reduce wildfire risk, these actions are not considered when deciding whether to write or renew insurance, unlike how safe driving can affect auto insurance rates. As a result, property owners in fire-prone areas are not rewarded for their efforts, and insurance is not provided to them despite all of their investments in mitigation.

Recommendations

To address the lack of availability of insurance, a law should be enacted that requires insurance underwriters to factor fire mitigation efforts, such as home hardening and the creation of defensible space, into their risk models. By recognizing and rewarding property owners who take proactive steps to reduce wildfire risks, this law would encourage more individuals to invest in fire prevention measures, ultimately making communities safer and more resilient.

Insurers should incorporate fire mitigation actions, like home hardening and defensible space and landscape scale mitigation, into the risk models they use for underwriting (deciding whether to write or renew insurance).

Additionally, insurers should provide accurate replacement cost estimates and require property owners to actively decline it if they choose lower coverage. These steps will reduce coverage gaps and strengthen California's insurance market overall.

Additional information on many of these key issues and recommendations are outlined in more detail under the section <u>Stakeholder Engagement for Proposed Legislation</u>, <u>Programs</u>, and <u>Funding Strategies</u>.

VI. Forest Management and Wildfire Mitigation Measures

California's forest management programs play a crucial role in mitigating wildfire damage by reducing hazardous vegetation, restoring ecosystems, and improving forest resilience. The California Forest Improvement Program (CFIP) helps landowners manage their forests by thinning and reforesting, which reduces fuel for wildfires. Programs like the Wildfire Prevention Program (WPP) and Forest Health and Fire Prevention Program (FHFPP) use prescribed burns to reduce fuel loads, while the Resilient Forests Program and the Forest Improvement and Restoration Ecosystem (FIRE) program address overgrowth and ecosystem health. Collaborations with communities through the California Fire Safe Council (CFSC) and Community Wildfire Protection Plans (CWPP) help build local resilience and develop strategies to protect properties. Collectively, these efforts reduce wildfire risks and protect both the environment and communities from devastating fire damage.

Key issues in California's forest management programs are delays in consistent implementation stemming from budget constraints, environmental constraints and bureaucratic challenges. Budget limitations have hindered the scale and reach of wildfire prevention efforts, with funding often falling short to fully address the growing wildfire threat, particularly in high-risk areas. Environmental concerns, such as air quality and wildlife protection, complicate the use of prescribed burns, while efforts to balance forest health with ecosystem preservation remain contentious. Bureaucratic hurdles, including lengthy permitting processes and interagency coordination issues, delay the timely implementation of necessary measures, such as thinning and restoration projects. These documented issues in recent years highlight the difficulty of addressing wildfire risks effectively despite the urgency, slowing down progress toward building more resilient forests and communities.

Recommendations

Federal, state, and local governments should increase substantially their investments in forest and chaparral treatment. State environmental and air quality regulations should be reviewed and adjusted to reduce unnecessary impediments to prescribed fire and thinning.

VII. Consumer Legal Support, Protection, and Insurance Market Collaboration

Property owners and renters in California, particularly those in wildfire-prone areas, face significant challenges when navigating the complexities of insurance coverage, hiring reliable contractors for repairs, and protecting

themselves from fraud, especially in the wake of natural disasters like wildfires. While California has made strides through legislative measures and consumer protection initiatives, critical gaps remain in addressing contractor fraud, ensuring equitable access to insurance, and fostering better collaboration between state regulators, insurers, and property owners. This section explores both the progress the state has made and the recommendations for further improvements to safeguard consumers and stabilize the insurance market. By enhancing consumer education, strengthening fraud oversight, and improving coordination between key stakeholders, California can better protect property owners and renters and ensure a more resilient recovery process in the aftermath of wildfires.

Key Issues

Property owners and renters in California, particularly those in wildfire-prone areas, face significant challenges when navigating the complexities of insurance coverage, hiring reliable contractors for repairs, and protecting themselves from fraud, especially in the wake of natural disasters like wildfires. California has made notable strides in addressing these challenges through legislative actions and consumer protection efforts. Key legislation such as AB 2395 (2016) "Insurance: Contractors and Adjusters," AB 1701 (2017) "Labor Code: Contractors and Subcontractors," to name a few, and the California FAIR Plan have contributed to improved contractor oversight, enhanced insurance options for high-risk areas, and expanded consumer protections, particularly for those impacted by wildfires.

Initiatives like the California Wildfire Fund were implemented to address insurance market conditions and mitigate the impact of catastrophic fires on homeowners by providing a financial backstop for insurers. The Contractors State License Board (CSLB) and other agencies have also taken steps to improve oversight of contractors, to help homeowners verify credentials and report fraudulent activity.

However, significant gaps remain, particularly in addressing contractor fraud, improving insurance literacy, and ensuring equitable access to coverage in high-risk areas.

Recommendations include expanding fraud investigation resources, enhancing consumer education programs, targeting insurance affordability for underserved communities, and improving collaboration between regulators and insurers to stabilize the market.

Recommendations

In response to the impact of wildfires on property owners and renters, legal service organizations have played a pivotal role in supporting wildfire survivors through advocacy and assistance, including cosponsoring legislation to strengthen consumer protections. Despite these efforts, many homeowners still face significant challenges in recovering and rebuilding, particularly with issues such as contractor fraud, insurance complexities, and other obstacles.

While California has made progress in addressing these concerns, critical gaps remain in contractor oversight, transparency, and equitable access to recovery resources. To further enhance consumer protection and recovery efforts, this

set of recommendations proposes the creation of specialized programs, expanded legal assistance, and improved oversight mechanisms. Fostering stronger collaboration with agencies such as the Department of Consumer Affairs (DCA), CSLB, and other oversight bodies would help ensure that wildfire survivors have the support and protections necessary to navigate the rebuilding process with greater security. Other recommendations to consider include the following:

- Wildfire-Specific Contractor Certification
 Program: While California has a general contractor licensing system overseen by CSLB, the state should consider a specific wildfire-specific certification program for contractors. This recommendation proposes the creation of a certification program specifically for contractors working on wildfire recovery, ensuring that they have the expertise needed to handle the unique challenges of rebuilding in wildfire-prone areas.
- Wildfire Recovery Contractor Fraud Task
 Force: The CSLB investigates contractor
 fraud, and the Department of Insurance (DOI)
 addresses some fraud-related issues, but
 there may not be a dedicated task force
 focused solely on contractor fraud in wildfire
 recovery. This recommendation suggests
 creating a specialized task force involving
 CSLB, DCA, and other agencies to directly
 target fraud in wildfire recovery areas.
- Public Wildfire Recovery Contractor
 Complaint Database: CSLB provides a
 database for consumers to file complaints
 against contractors and view licensing

statuses. However, there is no specialized, public-facing database specifically for contractor complaints and disputes related to wildfire recovery. This recommendation calls for a wildfire-specific contractor complaint database to provide transparency and help homeowners make informed decisions.

- Contractor Fraud Awareness Campaign for Wildfire Survivors: While CSLB and DCA offer general fraud education programs, there is no targeted campaign specifically focused on wildfire recovery and fraud prevention. This recommendation suggests launching a statewide fraud awareness campaign aimed at educating wildfire survivors about contractor fraud risks and how to protect themselves.
- Contractor Insurance Verification for Wildfire Recovery: While contractors must be licensed by CSLB and meet certain insurance requirements, there is no system in place that requires public verification of contractor insurance and bonding specifically for wildfire recovery projects. This recommendation proposes that contractors working in wildfireaffected areas provide proof of insurance and bonding, with this information made publicly accessible. This does not currently exist in the context of wildfire recovery.
- Wildfire Recovery Legal Hotline for Contractor Issues: California offers legal aid services generally, and CSLB provides resources for contractor disputes, but there is no dedicated hotline specifically for legal issues related to contractor fraud and

wildfire recovery. This recommendation proposes creating a specialized legal hotline to offer free or low-cost assistance to homeowners dealing with contractor disputes during the wildfire recovery process.

 Wildfire Recovery Contractor Dispute Mediation Program: California offers mediation programs for general consumer disputes, but there is no formal mediation program specifically for contractor disputes arising in wildfire recovery. This recommendation suggests creating a state-run mediation program specifically for resolving disputes between homeowners and contractors in the context of wildfire recovery.

This includes ensuring the use of advanced technology and websites integrated with artificial intelligence (AI) where consumers can access the services offered through government oversight agencies, and legal support and resources in real time.

VIII. Insurance Education and Outreach to Property Owners

Another key issue contributing to the uninsured and underinsured property owners is the lack of education. Many property owners are either unaware of the importance of adequate coverage or do not understand the full scope of fire mitigation efforts and available insurance options. This lack of awareness leads to significant gaps in coverage, leaving property owners vulnerable to financial ruin in the event of a wildfire. In addition, insurance underwriters fail to factor in fire mitigation efforts, such as home hardening and defensible space, when

determining risk and pricing premiums. As a result, responsible property owners who take proactive steps to protect their properties are not rewarded with lower premiums, which exacerbates the problem of being underinsured.

Moreover, the current risk-pricing models used by insurers fail to fully address future risks, and budget constraints limit the ability of the California Department of Insurance to ensure adequate protection for all property owners. There is also a growing challenge of providing accurate replacement cost estimates, with some property owners underinsuring their properties because they are not fully informed about the actual costs of rebuilding after a disaster.

Recommendations

To address the issues of uninsured and underinsured property owners, recommendations include ongoing education and outreach to ensure property owners understand insurance options, fire mitigation efforts, and the financial risks associated with inadequate coverage. Also strengthening partnerships between local governments, insurance providers, and community organizations can help create tailored solutions, including subsidies or assistance programs for those most vulnerable. This comprehensive approach will help foster a more resilient community, reduce potential losses, and encourage proactive risk management.

The development of an Insurance Policy Review website with AI integration would also be a useful and innovative tool for consumers, giving them the ability to upload an insurance policy or quote, and the site would review and abstract

the coverage. The user can then prompt the website to look for gaps in the coverage as it relates to wildfires or any other incident causing damage to the property. This would give property owners a useful tool to vet coverage before and after binding a policy to better understand how well the property is covered. This would also help consumers to have a more informed conversation with the insurer about their policy and how to improve it, if necessary.

Discussion of Targeted Market Adjustments

Many of the key issues and recommendations in the previous section involve targeted market adjustments. California's property insurance market faces significant challenges due to the growing frequency of wildfires and a complex regulatory environment. While regulations are meant to protect consumers, they have led insurers to exit high-risk regions, offer limited coverage, and not renew certain policies, especially in wildfire-prone areas. To address these challenges, it's essential to allow insurers to better reflect wildfire risks in their pricing and operations.

Experts support targeted adjustments to improve competition, increase stability, and provide relief to property owners. Reforms could include offering tax breaks to mitigate the cost of fire resilience efforts and updating underwriting practices to account for fire-resistant measures.

In recent months, public officials have introduced measures to support recovery and rebuild efforts in wildfire zones. Recently executive orders were passed by Governor Gavin Newsom and Insurance Commissioner Ricardo Lara. These targeted adjustments focus on removing barriers and streamlining recovery, helping create a more resilient and accessible market for Californians. See the examples below for reference.

Governor Gavin Newsom's Executive
 Orders (Executive Order N-4-25, January 27,
 2025): Governor Newsom issued this
 executive order to expedite recovery efforts
 for areas impacted by the Southern California
 wildfires. The order temporarily suspends
 certain regulations under the California
 Environmental Quality Act (CEQA) and the
 California Coastal Act to speed up repairs,
 demolitions, or replacements of structures
 that were substantially damaged or
 destroyed. This move is designed to
 accelerate the rebuilding process while
 balancing environmental protections.

View the executive order.

Insurance Commissioner Ricardo Lara's
 Actions (Order on Expedited Advance Claim
 Payments, January 23, 2025): Commissioner
 Lara issued an order directing insurers to
 expedite advance claim payments for
 homeowners impacted by recent wildfires.
 This order is designed to provide immediate
 financial relief to homeowners in need of
 funds for rebuilding, debris removal, and
 other critical recovery activities. The aim is to
 reduce the financial strain and allow residents
 to begin the recovery process more quickly.

View the commissioner's order.

Targeted Market Adjustments, Not Broad Deregulation

While these actions could be seen as deregulation, they are more accurately described as targeted adjustments aimed at addressing specific barriers to recovery. The focus is not on dismantling protections, but on making practical modifications to regulatory frameworks that enable quicker recovery for wildfire-impacted areas. These adjustments—such as streamlining permits and reducing restrictions in wildfire recovery areas—create a more adaptable and resilient system that allows California to better address the increasing frequency of natural disasters while protecting consumers' long-term interests.

Key Issues

1. Insurers Reducing Coverage Offerings: Due to regulatory and environmental constraints, many insurers have reduced the coverage offered or did not renew policies, in an effort to reduce their exposure to high-risk areas in California. While these insurance companies have not physically left the market, the act of not renewing and no longer offering certain policy types is in essence exiting the market. This act has negatively impacted policyholders and property owners who are now left with fewer private insurance options to protect their property in the event of damage. Major companies such as State Farm, Allstate, Farmers Insurance, AAA, and USAA have pulled out of high-risk markets, citing the inability to adequately price risks and the financial impact of wildfire-related claims.

Following the severe wildfires of 2024 and January 2025, insurers further tightened their policies, raising premiums and reducing coverage limits for properties in fire-prone areas. This reduction in market competition and rising costs has pushed more homeowners to rely on state-backed options like the California FAIR Plan, which offers limited coverage at higher rates.

- 2. Complex Environmental Regulations: California's environmental policies, while essential for preserving natural resources, often create significant complex and lengthy environmental regulations that hinder construction and wildfire resilience efforts. The intricate web of rules not only delays development but also increases the costs associated with building homes in wildfire-prone areas. Several agencies and regulations contribute to these challenges:
 - California Environmental Quality Act:
 CEQA imposes a lengthy and complicated environmental review process for construction projects, resulting in delays and higher costs in building new properties (homes and businesses), especially in wildfire-prone regions.
 - California Coastal Commission (CCC): In coastal areas, the CCC is responsible for overseeing development and construction projects, which can include fire resilience measures in high-risk wildfire zones. While these regulations aim to preserve the natural environment and promote sustainable development, they can increase the cost of construction.

- Other Environmental Agencies: Various state and local environmental agencies, such as the California Air Resources
 Board, impose regulations regarding air quality, landscape maintenance, and construction material standards. These regulations add complexity and cost to building efforts in high-risk areas, which insurers must consider when setting premiums. For example, restrictions on certain materials or construction practices can further hinder efforts to build cost-effectively in these areas.
- Fire-Resistant Building Codes: Local and state building codes require fire-resistant materials, fire breaks, and defensible space around homes in wildfire-prone areas. While these measures are essential for reducing damage in the event of a fire, they significantly increase the cost of building and remodeling homes.
- Forest Management and Wildfire Risk:
 - The inability to conduct controlled burns and other essential forest management practices due to stringent environmental regulations, such as CEQA and air quality restrictions, has led to the accumulation of excess vegetation, increasing wildfire intensity and frequency.
 - Delayed Prescribed Burns:
 Prescribed burns, which are critical for clearing underbrush and reducing fuel for wildfires, are often delayed or restricted because of

- regulatory constraints. This lack of forest management allows fires to grow more intense and widespread, driving up risks for insurers.
- Overregulation of Forest Mitigation Efforts: Strict oversight on forest management and fire prevention programs can limit the flexibility necessary to manage wildfires effectively. Forest thinning and other mitigation activities are frequently hindered by environmental policies that slow down the pace of necessary risk-reducing measures.
- 3. Costs of Mitigation and Fire Prevention: In addition to building codes, California's fire prevention programs also contribute to higher costs. Homeowners in high-risk areas are required to create defensible space around their homes and implement other wildfire risk mitigation measures, which can be expensive.
 - California Department of Forestry and Fire Protection (CAL FIRE): CAL FIRE plays a major role in setting guidelines for wildfire prevention and defensible space requirements. These fire prevention measures, while critical for reducing wildfire damage, add to the financial burden on property owners and insurers alike.

Recommendations

 Targeted Market Adjustments: To stabilize the insurance market, state and local officials should continue to reduce bureaucratic red tape through targeted market adjustments that streamline regulations and improve the permitting process, allowing for faster and more efficient rebuilding. The recent emergency measure by City and State officials are examples of positive steps in this direction. Other adjustments can be made to stabilize the market by encouraging insurers to reintroduce coverage in high-risk areas, while also improving the rebuilding process by streamlining regulations and making it easier to rebuild and recover from wildfire damage.

- 2. Incentivize Wildfire Risk Mitigation: California should implement additional incentives for homeowners to adopt wildfire risk mitigation measures, such as defensible space and fire-resistant building materials. Providing financial incentives, subsidies, or tax credits for fire-hardening measures would encourage homeowners to reduce their property's vulnerability to wildfires. These steps would result in lower insurance premiums and reduced wildfire damage, ultimately benefiting both homeowners and insurers. Moreover, insurers would be able to price risk more accurately, reflecting the mitigated risk in areas where homeowners take steps to
- 3. Mandate Insurers Factor in Wildfire Mitigation: California should mandate that insurers factor wildfire mitigation measures such as fire hardening, defensible space, and fire-resistant materials and landscape scale mitigation into their underwriting

protect their property.

processes. This mandate will incentivize homeowners to invest in wildfire risk reduction, provide insurers with a more accurate picture of the risk, and encourage them to cover these homes.

- 4. Strengthen the California FAIR Plan to help provide affordable coverage options for homeowners in wildfire-prone areas who cannot secure insurance from private companies. The FAIR Plan acts as a safety net for high-risk properties. The federal or state government should provide a nonprofit reinsurance program for the FAIR Plan, in order to reduce its insurance costs and make FAIR Plan insurance more affordable.
- 5. Building and Environmental Codes: While California's environmental and building codes are crucial for reducing wildfire risks, subsidies could be provided to reduce the financial burden on homeowners. For instance, fire-resistant building codes could be made more cost-effective by offering subsidies for fire resilience upgrades. Tax incentives could be provided for homeowners who implement fire-hardening measures, such as installing fire-resistant roofing or creating defensible space around their homes. These changes would help balance safety and affordability, reducing costs while still promoting wildfire resilience.
- 6. Require Insurers to Use Advanced Risk Modeling: California will require insurers to use advanced risk models and share wildfire risk data. By mandating that insurers adopt more accurate and up-todate risk assessment tools, California can

ensure that premiums are reflective of the actual risks posed by wildfires. Improved risk modeling will lead to fairer pricing, enhanced transparency, and more informed decision-making by both insurers and homeowners.

See Appendix D for more references from academic and industry experts.

Rebuild Aligned with Insurance Standards

Rebuilding homes and businesses in Los
Angeles County following the recent wildfires
presents unique challenges due to the scale of
destruction and the region's specific risk factors.
Whether the rebuild is a small-scale individual
build or a large-scale production build,
understanding the insurance requirements for
property owners, business owners, and builders
is essential for ensuring a successful and timely
recovery. Given the complexity of the rebuilding
process in California's wildfire-affected areas,
having the right insurance coverage is crucial to
mitigate risks, prevent delays, and manage
costs effectively.

Individual build involves rebuilding a single home or business property, where insurance solutions need to be tailored for the specific needs of Los Angeles County residents and businesses. Property owners should ensure their insurance covers wildfire damage, replacement costs, fire-resistant upgrades, and temporary living expenses during the rebuilding process. Business owners in the region must focus on securing business interruption

coverage and ensuring their commercial property insurance is updated to reflect the new, higher rebuild costs. Builders handling individual rebuilds in Los Angeles County are required to carry course of construction (COC) insurance, which provides general liability, workers' compensation, and other construction-related risks—essential for wildfire recovery projects in the region.

In contrast, production build typically involves the rebuilding of multiple homes or business properties in a coordinated effort across wildfire-affected areas. This large-scale rebuilding requires specialized insurance management. Builders managing these projects often opt for Contractor Controlled Insurance Programs (CCIPs), which offer comprehensive coverage for general liability, workers' compensation, and builder's risk under a single policy, reducing the administrative burden and ensuring protection across all contractors and subcontractors. In wildfire recovery zones such as Los Angeles County, it is critical that policies include coverage for pollution liability and environmental liabilities to address potential contamination from ash, hazardous materials, and debris left behind by the fire.

The key to a successful rebuilding strategy in Los Angeles County lies in engaging with insurance providers early, customizing policies to meet the needs of each rebuild, and ensuring coordination between property owners, business owners, and builders. For property owners and business owners, it is essential to align property owner's insurance, commercial property policies, and builder's risk insurance to ensure

comprehensive protection against delays, damage, and rising costs. Builders should prioritize COC and CCIP policies to ensure cost-effective and streamlined coverage for multi-site projects, and to protect against the specific wildfire-related risks faced in this region.

Individual Build Insurance Considerations

Key considerations for individual build generally involve rebuilding a single home or business property, with the property owner or business owner working directly with the builder and insurance providers. It tends to be more customized and personalized, but it still presents unique challenges that require careful insurance planning and understanding of higher premium levels as more robust coverage is requested. It is critical that all parties to the rebuild process are adequately insured.

Property Owner: Builder's risk coverage must be in force for the duration of construction up to and including issuance of a certificate of occupancy. Builder's risk provides physical damage coverage for insured loss or damage during the construction process. It is important that this insurance be placed on a completed value basis to avoid under insurance and possible coinsurance penalty. This policy can be extended to cover the perils of earthquakes and floods. When construction is completed and a certificate of occupancy issued, this coverage is replaced by a homeowners insurance policy. The homeowner should also maintain liability insurance during this process.

Individual Build Insurance - Key Insurance Considerations

Property Owners

1. Property Owner's Insurance Coverage

Significance: Property owner's insurance at the correct replacement cost valuation avoids uninsured coverage gaps.

In addition, policy language that provides additional coverage for full (also known as extended or guaranteed) replacement cost of rebuilding the home, including any fire-resistant upgrades required by new building codes, and additional living expenses (ALE), which covers the cost of temporary accommodation during the rebuild process, similarly ensures additional levels of coverage. Be conservative when estimating the replacement cost of your home. Construction costs tend to escalate during "area wide" events, so making sure you have limits adequate to cover the increased costs (also referred to as demand surge) is important.

Key Considerations: Confirm the appropriate home replacement cost valuation. Review extent of replacement cost to ensure [the policy limit] is sufficient to cover the true costs of rebuilding and meeting new fire standards. Make sure any temporary living expenses or ALEs are covered, as the property owner may need to live elsewhere while their home is being rebuilt.

2. Builder's Risk Insurance

Significance: Builder's risk insurance protects against damage to the home during construction, including fire and theft.

Key Considerations: Ensure that the builder's risk insurance covers wildfire damage and includes adequate protection for hazardous materials and debris management.

3. Pollution Liability and Environmental Liability

Significance: After a wildfire, the risk of hazardous material contamination (e.g., ash, toxic runoff) increases.

Key Considerations: Ensure pollution liability and environmental liability coverage are in place for hazardous debris cleanup and addressing potential environmental risks.

4. Extended Coverage for Construction Delays

Significance: Wildfire recovery areas often face construction delays due to material shortages and supply chain disruptions.

Key Considerations: Ensure that extended coverage is in place to protect against construction delays, which may extend beyond the originally planned rebuild timeline.

Business Owners

1. Commercial Property Insurance

Significance: Business owners need to secure commercial property insurance to rebuild the physical structure of their business and protect against disruptions.

Key Considerations: Ensure that commercial property insurance is updated to reflect the rebuild cost and includes business interruption including extra expense coverage.

2. Builder's Risk Insurance

Significance: Business owners should ensure builder's risk insurance is in place to cover damage during construction.

Key Considerations: Ensure that there are no limitations with respect to wildfire and that coverage is placed on a completed value basis to avoid the risk of underinsurance.

3. Business Interruption Insurance

Significance: This coverage will provide protection against lost income and extra expenses incurred while the business is closed during the rebuild process.

Key Considerations: Review the business interruption policy to cover both temporary shutdowns and lost revenue during construction.

General Contractor (GC): The GC is exposed to liability related to poor workmanship and potential for liability associated with bodily injury and/or property damage to third parties. It is critical that the GC maintain general liability insurance including coverage for construction defects. The homeowner must be named as an additional insured on the GC's coverage. The GC should also maintain workers' compensation coverage to protect their employees. The GC must ensure that any and all subcontractors engaged are also properly insured.

Production Build Insurance Considerations

Key considerations for production build involve the rebuild of multiple homes or business properties simultaneously, often as part of a larger recovery project. Insurance needs increase due to the larger scope of the project and the involvement of multiple subcontractors, workers, and contractors. Here, the role of course of construction insurance and Contractor Controlled Insurance Programs is more prominent.

Property owners and business property owners need to ensure their property owner's or commercial property insurance covers both rebuilding costs and temporary living expenses (ALE), along with any new fire-resistant upgrades. Builders managing production rebuilds should secure COC and CCIP to simplify coverage management for large-scale projects, ensuring comprehensive protection for all parties involved.

	Indi	vidual Build Insurance – Key Insurance Considerations, continued
Builders	1. L	iability
		Significance: General contractor–procured liability insurance is necessary to protect the GC against hird-party claims alleging bodily injury or property damage during the construction process.
	c "c a h	Key Considerations: Ensure the GC's coverage includes coverage for general liability, workers' compensation, and other risks related to the construction process. Coverage should include construction defect" for the duration of the applicable statute of limitations (10 years from completion of construction for latent defects in California). The homeowner should be included as an additional insured on the GC's general liability policy to extend coverage protection to the comeowner for any third-party bodily injury or property damage claims due to the acts of the GC luring construction.
	2. B	Builder's Risk Insurance
		Significance: Builder's risk insurance protects the project against damage during construction, especially in wildfire-prone areas where the risk of damage is high.
		Key Considerations: Ensure that builder's risk insurance includes wildfire and hazardous debris coverage, particularly for sites located in wildfire recovery zones.

	Production Build Insurance – Key Insurance Considerations		
Property Owners	1.	Property Owner's Insurance Coverage	
		Significance: As with an individual rebuild, property owners need to ensure their property owner's insurance covers the full replacement cost of their property.	
		Key Considerations: Confirm that the property owner's policy is in sync with the builder's coverage to prevent gaps. Ensure coverage for fire-resistant upgrades and temporary living expenses (ALE) if the home is uninhabitable during rebuild.	
	2.	Builder's Risk Insurance	
		Significance: Builder's risk insurance is essential for protecting the property during construction, particularly in wildfire recovery zones.	
		Key Considerations: Confirm that the builder's risk policy covers the specific wildfire risks, such as fire damage, ash, and environmental contamination.	
Business Owners	1.	Commercial Property Insurance	
		Significance: Just as with property owners, business property owners need coverage to ensure the physical structure of their business is rebuilt and any losses from business interruption are covered.	
		Key Considerations: Ensure the commercial property insurance covers wildfire damage, hazardous debris, and environmental contamination.	
		Business Interruption/Extra Expense Insurance	
		Significance: This coverage helps businesses recover lost income during the rebuild process.	
		Key Considerations: Verify the business interruption insurance includes coverage for fire-related closures and any unforeseen delays.	

Whether it's for property owners, businesses, or builders, understanding the right mix of insurance policies—builder's risk, pollution liability, workers' compensation, and environmental liability-is key to managing the complexities of wildfire recovery and ensuring the safe, timely, and financially sound rebuilding of homes and businesses.

Insurance-Required Inspections and Testing for Claims Approval

In California, insurance companies require a series of tests, inspections, and certifications before processing and paying out claims for rebuilding after wildfires. These include hazardous materials testing, fire risk and mitigation inspections, soil stability assessments, debris removal certifications, air quality checks, flood and water damage testing, and zoning compliance inspections. While these requirements are essential for ensuring safety, compliance with regulations, and minimizing future risks, delays in obtaining these approvals can significantly hinder the ability to start rebuild construction. These delays impact builders, as they are often unable to begin work until all testing is completed and insurance payouts are processed. This results in extended downtime, increased construction costs, and difficulty in scheduling labor and materials.

Best practices from other states, such as Colorado, Oregon, Florida, and Texas, offer valuable insights. For example, Colorado and Oregon have streamlined hazardous materials testing and fire risk assessments, while Florida

Production Build Insurance - Key Insurance Considerations, continued

Builders

1. Course of Construction

Significance: COC is required for all builders to protect their own liability and risks during the construction process.

Key Considerations: This is a basic requirement that covers general liability, workers' compensation, and other standard construction risks.

2. Contractor Controlled Insurance Program

Significance: CCIP is an overlay policy often used in large-scale production rebuilds. It covers general liability, workers' compensation, streamlining insurance for all subcontractors and contractors involved.

Key Considerations: CCIP is typically more cost-effective than individual policies since it consolidates coverage across all contractors, making it ideal for larger projects. It simplifies insurance management, reducing potential gaps in coverage and ensuring comprehensive protection for all parties involved.

3. Builder's Risk Insurance

Significance: Builder's risk insurance protects the project during construction, addressing both physical damage and potential environmental risks like ash, pollution, or soil contamination.

Key Considerations: Ensure the builder's risk policy covers wildfire-related damages and is comprehensive for all stages of construction.

4. Pollution Liability and Environmental Liability Insurance

Significance: Construction in wildfire zones can lead to hazardous debris and pollution risks that need coverage.

Key Considerations: Ensure coverage for hazardous materials, pollution cleanup, and other environmental risks associated with post-fire rebuilding.

and Texas integrate flood risk assessments into wildfire insurance policies.

Recommendations

Based on these precedents, California could improve its process by creating clearer guidelines, adopting standardized inspection protocols, and providing state-backed support for quicker testing and certifications. These improvements would help reduce delays, ensuring faster payouts and a more efficient rebuilding process for property owners, business owners, and builders.

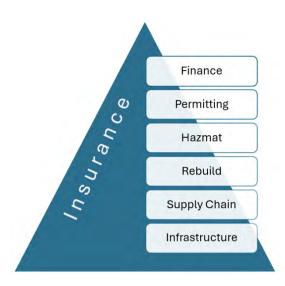
Insurance Claims Workflow-Coordination and Overlapping **Deliverables**

The wildfire insurance claim process is inherently complex, requiring extensive coordination between the property owner, insurer, builder, and various municipal agencies, such as the fire marshal, planning departments, utilities, code compliance officials, and other local authorities.

Efficient claims processing, review, approval, and payout rely heavily on the insurer receiving comprehensive and timely documentation from property owners and business owners. While the overall structure of the claims process remains consistent, there are specific documentation requirements that differ for property owners and business owners. Successful processing and payout depend on the insurer receiving clear, accurate, and timely submissions across key areas.

The following areas—finance, permitting, hazmat, rebuild, supply chain, and infrastructureeach involve distinct actions and required deliverables that must be provided to the insurer at each stage of the claims process. Ensuring the prompt and accurate submission of these documents is critical to accelerate the release of financial support and facilitating a smoother rebuilding process.

For the process to be efficient, active coordination is essential. This means close collaboration between the insurer, property



owner, builder, and relevant municipal and regulatory agencies. Only through effective communication and timely submissions can the claims process proceed smoothly, ultimately restoring the property to its pre-wildfire condition and ensuring a swift recovery.

1. Finance: The financial aspect is essential for ensuring the policyholder receives compensation for both temporary living expenses and construction costs. The insurer must receive timely submission of documents such as proof of mortgage payments, receipts for living expenses, a copy of the builder's contract including scope of work, receipt of repairs, and other related documents from the property owner. The insurer relies on these documents to review and approve temporary living expense reimbursement and initiate the payout of construction costs for rebuilding, paid in stages. During construction rebuild, the policyholder will need to provide to the insurer regular monthly payment requests (construction draw requests) prepared by the builder with a detailed scope of work, costs to date compared to budget, conditional lien releases, and current amount due for each payout request until the final payment. A delay or inaccuracy in providing financial documentation can cause bottlenecks in the claims process, hindering the approval and payout timelines.

Whether during construction or after construction is completed, insurers will, at a minimum, require insurance against physical loss or damage due to fire, including wildfire. A named perils policy is

generally acceptable, although a special causes of loss policy (once referred to as "all risks" coverage) is preferable because coverage is provided unless specifically excluded by the policy. During construction, a builder's risk (also known as course of construction) policy is required by lenders. Once construction is completed, the builder's risk policy is replaced by a homeowners policy (typically HO-3) and in the case of a commercial business, by a property insurance policy. Liability/general liability coverage is also required to protect the homeowner/business owner as well as the lender against claims brought by third parties alleging bodily injury or property damage. Requirements associated with "risk management/mitigation" will more likely be communicated by the insurer, in many cases as a precondition to accepting the risk. In the wake of the Los Angeles wildfires, it is likely that insurers will take an even harder line regarding risk mitigation.

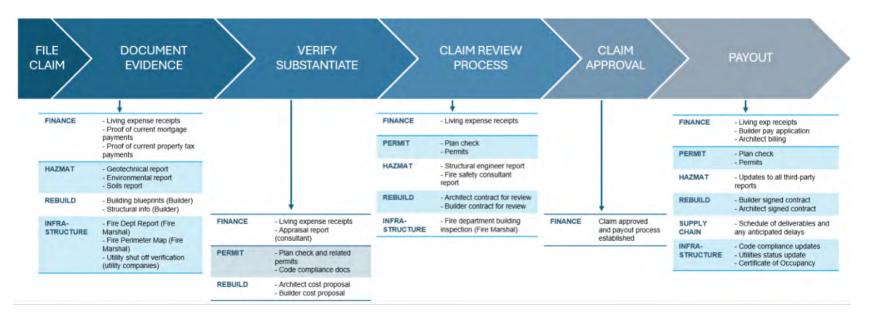
2. **Permitting:** Before the rebuild can begin, permits must be obtained, and local fire marshal, plan check, and code compliance inspections must be coordinated. The property owner, with the help of the builder, must submit the required building permits, fire safety permits, and compliance documentation to the insurer. The insurer must receive proof that all necessary permits and approvals are in place before moving forward with payment stages. The insurer's review and approval of these documents is critical to ensuring compliance and avoiding delays in the claims process.

- 3. Hazmat (Hazardous Materials):
 - Environmental testing to detect hazardous materials such as asbestos, smoke residue, or contaminated soil is essential before rebuilding can proceed. The property owner must ensure that hazmat testing is completed, and all relevant reports (e.g., soil, air, and water assessments) are submitted to the insurer. If hazardous materials are detected, the insurer must receive the remediation plans before it can approve further payouts for cleanup and rebuilding. Delays in submitting these reports or inaccurate documentation can impede timely processing and approval of the claim.
- 4. Rebuild: The rebuild phase requires comprehensive coordination between the property owner, builder, and insurer. The insurer reviews and approves the builder's contract, ensuring that the scope of work, materials, costs, and timelines meet the

- policy's requirements. Permitting, inspections, and compliance checks are an ongoing requirement. The property owner and builder must submit necessary inspection reports and updates to the insurer for each stage of the rebuild. Delays in submitting contract details or inspection updates can slow the insurer's ability to release staged payouts for construction.
- 5. Supply Chain: Supply chain issues, such as material shortages or delays, can disrupt the rebuild timeline. Builders must communicate any disruptions to the property owner and the insurer, providing material availability reports and updates on delays. The insurer will adjust the payout schedule if necessary to accommodate these changes. Timely communication and accurate reporting of supply chain issues are crucial for the insurer to manage payments appropriately, avoiding delays in claims processing.
- 6. Infrastructure: Restoring essential services such as water, electricity, and gas is vital to the rebuild process. The property owner, builder, and utility companies must ensure that these services are restored and tested. The insurer relies on the property owner and utility companies to provide confirmation of restoration before finalizing the claim. Once the property is habitable, the insurer releases the final payout. Timely verification of utility restoration and submission of final inspection reports are necessary to ensure a smooth and efficient end to the claims process.

Insurance Claim Deliverables Workflow

On the following page is a high-level summary of the communication and collaboration necessary to submit the required deliverables to insurers as part of the wildfire insurance claims process. This includes collaboration with



		version 1.0, 3.4.202		
Property Owner	Business Owner	Builder		
1. Ensure Accurate and Timely Documentation	1. Submit Detailed Financial Documents	Prepare Detailed Estimates and Contracts		
 a. Mortgage and Living Expense Proof: Submit documents such as proof of mortgage payments, receipts for temporary living expenses, and any other documentation needed for financial reimbursement as quickly as possible. 	a. Tax Returns and P&L Statements: Provide the insurer with business tax returns, profit-and-loss statements, and detailed loss-of-revenue documentation to show the impact of the wildfire on your business operations.	a. Rebuild Cost Estimates: Provide accurate and detailed rebuilding cost estimates that reflect current material prices, labor rates, and timeline. This is essential for ensuring the insurer can approve payouts without delay.		
b. Detailed Rebuild Estimates: Work with builders to provide clear estimates and contract details to the insurer for rebuild approval.	 b. Temporary Business Interruption Costs: Submit detailed business interruption claims to cover temporary loss of income and extra expenses related to rebuilding operations. 	b. Work with Insurers: Ensure that the contracts and estimates you provide are in line with the insurer's guidelines for payouts. Offer transparency and clarity about the work involved.		
c. Track Temporary Living Expenses: Keep a detailed log of temporary living costs and any additional expenses incurred as a result of displacement.	operations.			
2. Work Closely with the Insurer	2. Communicate with Insurer about Business Needs	2. Foster Communication Between Property Owner/Business Owner		
a. Clear Communication: Maintain consistent communication with the insurer to ensure that you understand the documentation requirements at every stage of the process. Ask for clarity if you're unsure about what to submit or when to expect payouts.	 a. Clarify Coverage: Make sure you understand your insurance policy's coverage for business losses, rebuilding costs, and temporary business accommodation. b. Set Clear Expectations: Work with the insurer to outline 	 and Insurer a. Act as a Liaison: Help property owners and business owners navigate the claims process by communicating directly with the insurer on their behalf when possible. This includes helping them understand insurance policy limits, the permitting process, and expected timelines. 		
b. Request Policy Guidance: If you're unclear about the specifics of your insurance policy or rebuilding coverage, ask the insurer for a thorough review of your policy and coverage limits. If you have engaged the services of an insurance broker to place your insurance coverage, you	the timeline for your business recovery, including how payouts will be disbursed based on the rebuild process and supply chain delays .	b. Provide Documentation: Ensure that all required documentation for the insurer is submitted promptly, including inspection reports, progress updates, and contractor certifications.		
 should address any coverage questions to the broker. c. Proactive Follow-up: Regularly follow up with your insurer to monitor the progress of your claim, ensuring no necessary documentation or steps are overlooked. 		c. Provide Updates on Rebuild Status: Regularly update the property owner, business owner, and insurer on the status o the rebuild, including any delays or changes in cost due to supply chain issues or other challenges.		
3. Coordinate with Municipal Agencies	3. Plan for Commercial Rebuilds	3. Ensure Compliance with Local Regulations		
 understand Permitting Requirements: Start the permitting process as early as possible, understanding the local building codes, fire marshal inspections, and other necessary requirements for rebuilding. 	a. Coordinate with Builders: Collaborate with your builder to create a clear, detailed contract and outline commercial- specific needs (e.g., commercial-grade materials, equipment, specialized inspections).	a. Coordinate with Local Authorities: Builders should have a clear understanding of local zoning laws, fire marshal inspections, and building codes to ensure that the rebuild is compliant with all necessary regulations.		
 b. Hazmat Testing: Quickly arrange for hazardous materials testing (e.g., asbestos or smoke contamination) and submit the results to your insurer. Delays here can hold up construction. 	b. Regulatory Compliance: Ensure your business complies with specific zoning laws and commercial fire safety regulations that apply to your business. Consult with local code enforcement to ensure you meet all requirements for the rebuild.	b. Obtain Necessary Permits: Assist property owners and business owners in securing the proper building permits, fire safety permits, and code compliance certificates. Work directly with municipal agencies to expedite this process.		
4. Keep an Eye on Insurance Adjustments	4. Mitigate Supply Chain Disruptions	4. Address Supply Chain Challenges		
a. Adequate Coverage: If you're underinsured, contact your insurer to discuss adjustments to your current coverage to ensure adequate protection going forward for rebuild costs. This is especially important if your policy does not cover inflation or rising construction costs.	 a. Alternative Suppliers: Work with your builder to identify alternative suppliers or materials in case of supply chain disruptions that could delay the rebuilding of your business. b. Update the Insurer: Keep your insurer informed about any disruptions to the rebuild process so they can adjust payout schedules as needed. 	 a. Material Alternatives: Have contingency plans in place to source materials if there are delays or shortages. Work closely with suppliers to ensure that all materials are available and delivered on time. b. Communicate Delays: If supply chain delays occur, promptly inform the property owner, business owner, and insurer of the expected impact on the rebuild timeline and costs. 		
		5. Hazmat Remediation Coordination		
		a. Environmental Testing: Ensure that hazardous material testing (such as for asbestos or smoke contamination) is carried out early and that remediation work follows regulatory requirements. Promptly send the results to the insurer for approval to prevent delays in construction.		

various municipalities to ensure code compliance, permitting, testing, and inspection requirements are obtained. Having an efficient workflow between these end-users is essential to policyholders getting claim approval and release of funds necessary to rebuild.

Recommendations

The wildfire insurance claims process in California can be complex and time-consuming, but careful preparation and proactive coordination between property owners, business owners, builders, and insurers can greatly improve efficiency and ensure timely payouts. It is crucial that all parties involved understand the documentation required at each stage—whether it's financial records, permitting, hazmat testing, rebuild costs, or supply chain updates—and maintain clear, consistent communication with insurers.

Property owners and business owners should work closely with their builders to meet local regulatory requirements, obtain necessary permits, and address potential delays early in the process. By taking these steps, all parties can help minimize inefficiencies, reduce delays, and streamline the path to rebuilding. Ultimately, strong collaboration and timely action will lead to a more successful and less stressful recovery following a wildfire. The following is a high-level summary of documents and information the insurer needs throughout the claims and rebuild process, which requires detailed coordination and communication between the parties below.

The complexity of California's wildfire insurance claims process has also been underscored by recent events and expert analyses. For example,

in early 2023, State Farm, a major insurer, halted new policies and increased rates in California, dropping around 30,000 property owners, many of whom had to turn to the state's high-cost FAIR Plan. This highlights the challenges property owners face in securing adequate coverage and navigating the claims process. Urban planning experts emphasize the need for proactive measures to enhance resilience and streamline recovery efforts. The UCLA Luskin Center for Innovation offers guidance on critical issues such as water safety, air quality, equitable rebuilding, and climate adaptation to promote resilience and sustainability. In addition, the California Policy Center provides a roadmap for enhancing fire prevention and readiness across the state, empowering leaders to protect their communities from future disasters.

Improvements to Technology, Coordination, and Government Efficiency

Several urban planning experts and insurance analysts have outlined key areas for improving the wildfire insurance claims process in California to reduce complexities and delays with an emphasis on technology, coordination, and government efficiency. Improving the process will benefit multiple stakeholders including property owners, business owners, insurers, builders, and various government agencies. The following summarizes the expert recommendations to streamline the claims process and improve overall efficiency.

1. Use of Technology for Faster Processing

Adopt Digital Platforms for Claims
 Submission: Experts suggest that insurance companies and government agencies use

digital platforms to streamline the claims process. These platforms would allow property owners to submit all necessary documentation (photos, financial records, permits) electronically, reducing delays in paperwork processing.

Real-Time Communication Tools: Insurers
and municipalities can implement real-time
communication tools (e.g., mobile apps,
online portals) to keep property owners,
builders, and local officials informed
throughout the claims process, reducing the
back-and-forth typically required for
clarifications.

2. Coordinating Efficiently between Property Owners, Builders, Insurers, and Municipalities

- Create a Unified Claims Workflow: A major recommendation from urban planning experts is to create a unified claims workflow, where property owners, insurers, and builders follow a clearly defined process. This involves sharing critical information through a centralized system, ensuring that everyone involved is updated in real time about the status of the claim, permits, inspections, and approvals.
- Insurer and Builder Coordination: Builders and insurers must work closely to align the cost estimates and scope of work for rebuilds. This ensures faster approval of construction budgets and avoids disputes later on.

3. Government Efficiency for Faster Review and Approval

 Streamline the Permitting Process: Urban planning experts urge local governments to expedite the permitting process, especially for fire-damaged properties. Governments should create emergency permitting channels to fast-track rebuilding efforts and waive certain fees associated with rebuilding in fire-impacted zones.

Increase Government Capacity for Post-Wildfire Reviews: One of the major challenges in California is the overburdened permitting process. Local governments need additional resources to handle the increased demand for inspections, particularly when wildfires impact large areas. Some experts have recommended the use of dedicated review teams to fast-track post-fire inspections and permit approvals.

Stakeholder Engagement for Proposed Legislation, Programs, and Funding Strategies

This section highlights the urgent need for immediate and coordinated engagement with key stakeholders to buy in to address the growing challenges in responding to the impact of the wildfires. Insurers face escalating financial pressures, making it crucial to ensure the long-term stability and sustainability of California's personal lines insurance market. Two critical priorities identified by insurance executives include the efficient adjudication of claims, with a focus on rebuilding homes and businesses with fire-resistant materials and ensuring ongoing coverage for property owners post-rebuild to support their recovery.

Economic research suggests that a comprehensive, integrated approach is necessary to stabilize the market and improve wildfire resilience. This includes leveraging fire-hardening measures, using climate change projections to better assess risks, and using capital markets to fund mitigation efforts. Equally important is engaging stakeholders such as insurers, lenders, fire agencies, and state policymakers to develop solutions that balance affordable insurance access, resilient development, and equitable protection for vulnerable communities.

The urgency of these priorities is heightened by State Farm's February 3, 2025, request to increase rates by 22 percent for nontenant property owners, 15 percent for renters and condo owners, and 38 percent for rental dwellings. In its open letter to the California Department of Insurance (CDI), State Farm says the increased rates would go into effect on May 1, 2025, signaling an immediate need for a solution that balances insurer risk with affordability for property owners. To stabilize the personal lines insurance market and ensure that Californians can access reliable coverage, collaboration among key stakeholders is critical. The groups that must be engaged in these discussions include the following:

- Direct Underwriters (e.g., State Farm):
 Engaging directly with underwriters is vital to addressing concerns about underwriting practices, rate increases, and the broader health of the market.
- National Admitted and Non-Admitted High Net-Worth (HNW) Carriers (e.g., PURE,

- **Chubb, and Cincinnati):** These insurers are essential to understanding the needs of high-net-worth individuals, who are more vulnerable to increasing wildfire risks.
- Reinsurers (e.g., Munich Re, Swiss Re, and brokers such as Gallagher, Aon, and Guy Carpenter): Reinsurers play a key role in ensuring primary insurers can maintain adequate coverage while managing wildfire risks.

In addition to these critical industry groups, the California Insurance Commission, pension fund managers, fire prevention and emergency response leaders, fire marshal, and other key stakeholders must be engaged in discussions around wildfire recovery and risk mitigation. The California Insurance Commission will ensure that regulatory decisions align with market needs, guiding effective solutions that support both insurers and property owners. Pension funds, as major investors in the insurance sector, must be included to help ensure long-term market stability and resilience. Furthermore, collaboration with fire prevention experts, emergency response agencies, code enforcement agencies, and the fire marshal is essential to integrating mitigation strategies into the insurance framework, reducing exposure, and enhancing community resilience.

Collaborating across these diverse sectors—including insurers, policymakers, the fire marshal, and fire agencies—is critical for stabilizing California's personal lines insurance market. Research has shown that such coordinated efforts have proven effective in other regions, particularly when state agencies, the fire marshal, and insurance providers work together. These collaborations have led to

improved market stability, more efficient risk management, and reduced costs for consumers, setting a strong precedent for California's efforts to address wildfire risk.

Economics of Mitigating Wildfire Risk, Insurance Solutions, and Financial Innovation

The following highlights the urgent need for coordinated action to address the growing wildfire challenges and their impact on California's insurance system. As wildfires become more frequent and severe, insurers are facing increasing financial pressures, which threatens the stability of the personal lines insurance market. Insurance executives have identified two priorities: efficiently managing existing claims, particularly rebuilding with fire-resistant materials, and ensuring continued coverage for property owners post-rebuild.

Research by Professor Nancy E. Wallace, an economist at University of California, Berkeley, offers solutions to stabilize California's insurance market and enhance resilience. The approach emphasizes fire-hardening, climate change projections, and using capital markets to fund mitigation. The recommendations call for broad stakeholder engagement, including insurers, lenders, fire agencies, and policymakers, to promote equitable access to affordable insurance and incentivize resilient development.

The findings advocate for a strategy that supports both short-term recovery and longterm sustainability, balancing the needs of property owners, insurers, and communities. Below is a summary of the key recommendations.

1. Integrate Climate Change Projections into Risk Models

Recommendation

Improve and vet the accuracy of the climate models used to predict fire risk and set prices for property owner property and casualty insurance. This would include forecasting temperature changes, wind speed, vegetation changes, and drought conditions to improve the accuracy of property-specific wildfire-risk assessment across California.

Impact

Enhanced forecasting will allow for better preparedness and support long-term planning for high-risk regions across California.

2. Encourage Fire Hardening and Mitigation Measures

Recommendation

Insurers should factor in fire resilience measures, such as fire-resistant materials, defensible spaces, and fire breaks, into underwriting processes. Property owners who engage in fire-hardening should receive premium discounts and rebates to reduce the financial burden of insurance costs.

Impact

This practice will encourage property owners to adopt fire-resistant strategies, lowering overall wildfire risk and reducing insurance premiums for policyholders.

3. Develop Equitable Insurance Solutions

Recommendation

Implement subsidized property owner mitigation programs, and potentially subsidized insurance programs, that provide affordable premiums for low-income and vulnerable households in wildfire-prone areas. This could include state-supported insurance products or low-cost premium offerings to reduce financial barriers.

Impact

This practice will ensure equitable access to wildfire insurance and protect those most vulnerable to wildfire-related financial shocks.

4. Foster Public/Private Collaboration

Recommendation

Strengthen the collaboration between insurance companies, local governments, fire agencies, and climate experts. Share data and resources to develop comprehensive wildfire risk management strategies that include resilience-building initiatives and response systems.

Impact

Enhanced coordination leads to better preparedness and a more robust strategy for managing wildfires.

5. Use Capital Markets for Mitigation Projects

Recommendation

Local governments can issue municipal bonds to finance large-scale wildfire mitigation and prevention projects, such as firebreaks, fireresistant infrastructure, and community-wide resilience measures. Capital markets can provide the funding necessary to reduce long-term wildfire risks through community-wide efforts that in the long run will be important to the climate resiliency of the California municipal bond market that is also exposed to wildfire risk.

Impact

Capital markets can provide the funding necessary to reduce long-term wildfire risks through community-wide efforts.

6. Leverage Lenders for Fire Resilience Financing

Recommendation

Offer low-interest loans or second liens to property owners to finance fire-hardening upgrades, including the expansion of tax lien financing such as residential PACE for home-hardening mitigation. These loans would allow for the retrofitting of homes without significant upfront costs and could be repaid through mortgage refinancing, long-term payment plans, and, potentially, house-specific liens funded by property taxes.

Impact

This practice will enable property owners to make necessary fire-resilience upgrades without the immediate financial strain, improving overall community fire safety.

7. Create Financial Products Linked to Fire Mitigation

Recommendation

Develop insurance-linked securities or fire resilience bonds that offer financial incentives

for property owners who engage in firehardening. These products would allow insurers to reduce risk exposure, while property owners receive financial benefits for improving fire resilience.

Impact

This market-driven approach incentivizes fire resilience and makes it easier for property owners to implement mitigation strategies.

8. Implement State-Level Policies for Fire Risk Mitigation

Recommendation

Enforce statewide policies that incentivize fire-resistant building materials, fire-resistant landscaping, and community fire-prevention strategies. The state should support property owners through financial products aimed at improving fire resilience.

Impact

State-driven policies can reduce wildfire risks across California, helping to manage long-term risks while promoting sustainable development in wildfire-prone areas.

9. Promote Public/Private Partnerships for Preparedness

Recommendation

Establish stronger public/private partnerships focused on wildfire preparedness. This includes data sharing, joint funding for fire prevention infrastructure, and the development of better disaster response systems to ensure swift action when wildfires occur.

Impact

These partnerships will result in more effective wildfire prevention and response, benefiting communities, fire agencies, and insurers alike.

10. Adopt Fire-Resilient Building Codes and Development Guidelines

Recommendation

Local governments should implement fireresistant building codes and urban planning principles to ensure new developments are built with wildfire resilience in mind. These codes would mandate the use of fire-resistant materials and the inclusion of fire breaks and defensible spaces.

Impact

This practice will reduce long-term wildfire risks and mitigate the spread of fire in vulnerable communities.

11. Use Financial Mechanisms to Fund Wildfire Mitigation

Recommendation

Local governments could use municipal bonds to raise funds for large-scale mitigation projects such as fire breaks and fire-resistant infrastructure. The longer-run benefits of the community-level mitigation efforts would be to protect local-level bond ratings from wildfire risk downgrades and the risks of increased insurance-related costs of municipal bond funding.

Impact

These mechanisms will provide the capital necessary for widespread mitigation efforts, enhancing community resilience.

Professor Wallace's analysis offers a multidimensional approach to tackling the wildfire crisis in California. By focusing on the role of insurance underwriting, fire resilience, and financial innovation, Wallace presents a strategy that incentivizes property owners to adopt fire-hardening practices, stabilizes premiums, and ensures equitable access to insurance. Her recommendations provide a clear pathway to not only addressing the economic challenges of wildfire insurance but also building a more resilient and equitable California. (See Appendix E for more information and research from Professor Wallace.)

Enact State Law to Require Insurers to Account for Mitigation in the Underwriting Models

The Problem

Although California is investing billions in forest treatment, and local governments and property owners are investing in home hardening and maintaining defensible space, the underwriting models used by insurers to renew or write new insurance do not account for the risk-reduction benefits of these activities. The failure of insurance underwriting models to account for the lower risk of losses from these wildfire mitigation investments contributes to nonrenewals of insurance and insurers' decisions not to offer new policies for homes facing wildfire risk. At the same time, property owners are denied the benefits associated with the investments that they, their communities,

and the state have made in hazardous fuels reduction, home hardening, defensible space, and other fire prevention activities.

The Solution

To help address the insurance crisis, insurance underwriting models should be required to account for the mitigation benefits of the billions being invested in forest treatment, community mitigation efforts, home hardening, and defensible space. A 2021 study published by The Nature Conservancy and global insurance broker Willis Towers Watson found forest treatment reduced modeled average annual insurance losses for a community of 81,000 homes by 40–60 percent and could save a total of \$21 million annually by reducing premium prices.

State legislation is needed to require that underwriting models fairly give credit for the billions of dollars that California and Californians have invested in wildfire resilience, forest health, community protection, home hardening, and defensible space. Property insurers' underwriting models should be required to include wildfire risk reduction associated with hazardous fuel reduction, home hardening, defensible space, and other fire prevention activities. In doing so, this legislation will increase the availability of insurance coverage for Californians.

Background: Billions invested in mitigation but insurers don't account for this risk reduction in their underwriting models.

California has the highest wildfire risk in the United States. In recent years, the state has

experienced a growing number of highly destructive wildfires due to climate change and over a century of logging and fire suppression. Of the 20 most destructive wildfires in California's recorded history, 13 have occurred since 2017. Together, these 13 fires have caused tremendous damage, destroying nearly 40,000 structures, taking 148 lives, and damaging millions of acres.

The devastating impacts of these increasingly frequent and severe wildfires have accelerated insurance rate increases, nonrenewals, and market instability, causing an insurance crisis in California. Last year, companies representing more than half of California's insurance market have either stopped or capped writing new insurance policies and have increased nonrenewals due to heavy losses from wildfires and the potential for more destruction in the future. This has forced a rapidly increasing share of property owners, particularly those in fire-prone regions, onto the FAIR Plan as a last resort to protect their homes. Since 2019, FAIR Plan enrollments have increased by more than 70 percent. However, the FAIR Plan currently offers reduced coverage at high prices.

In an effort to save lives, protect property, and address the insurance crisis, California has prioritized efforts to prevent wildfires and reduce their severity. Targeted hazardous fuel reduction through ecological thinning, prescribed fire, and managed wildfire can reduce accumulated high fuel loads and promote healthier, more resilient forests, thus decreasing the risk of high-severity wildfire at large spatial scales.

In 2020, Governor Newsom and the U.S. Forest Service established the Agreement for Shared Stewardship of California's Forest and Rangelands, including a commitment to treat 1 million acres of forest each year. Governor Newsom also established the California Wildfire and Forest Resilience Task Force to address the growing threat of devastating wildfire. The task force works to align the activities of federal, state, local, public, private, and tribal organizations to support programs and projects that reduce wildfire risk, and to bring the best available science to forest management and community protection efforts. In 2021, the task force released California's Wildfire and Forest Resilience Action Plan that provides a framework and strategy to improve wildfire resilience and forest health throughout the state.

Additionally, more than 500 communities in California have developed Community Wildfire Protection Plans to identify actions needed to reduce wildfire risk and losses in their communities, such as home hardening and defensible space, thereby lower the cost of wildfire disasters. Maintenance of defensible space around structures moderates the destructive impact of wildfires by reducing the chance a home will ignite, while home hardening efforts increase the resistance of structures to the intrusion of flames or embers projected by a wildfire. Recognizing the risk-reduction benefits of these activities, California's Insurance Commissioner issued a regulation in 2022 that requires insurance companies to provide discounts to customers who implement wildfire safety measures including home hardening and defensible space. However, the discount is

meaningless if the insurer will not renew or write insurance for the property owner who has undertaken home hardening and defensible space and whose home is proximate to forest treatment.

In recent years, California has made significant investments to support wildfire resilience, forest health, and community safety. Since 2017, the state alone has committed more than \$3.6 billion in investments in forest treatment to address wildfire risk and protect communities.

The Insurance Commissioner does not have authority over underwriting and therefore does not have the authority to require the models used for underwriting to account for property, community, and landscape scale mitigation.

State legislation is needed to require property insurers to consider the wildfire risk-reduction benefits of hazardous fuel reduction, home hardening, defensible space, and other fire prevention activities by incorporating these mitigation activities into insurance underwriting models. In doing so, this state legislation will allow insurance customers to benefit from the significant investments that they and California have made to reduce wildfire risks.

Proposals for Three Insurance Rebuild Programs

1. Builders Risk Rebuild Insurance Program

In response to the challenges and complexities associated with rebuilding efforts following the California wildfires, Venbrook Insurance Services is in the early stages of developing a specialized

Builders Risk Rebuild (BRR) insurance program. This program will be designed to offer comprehensive coverage for property owners seeking to rebuild their properties, accessible through any licensed insurance broker acting on behalf of their clients.

Initial discussions with Lloyd's underwriters have been promising, with a focus on establishing a primary loss limit of \$5 million per property. This coverage will address total exposure during the construction phase, extending until the issuance of the certificate of occupancy. Discussions with underwriters will continue in the coming months to further refine the program and solidify underwriting terms. Input from both committees is welcomed as the initiative progresses.

Once the primary \$5 million coverage is secured, efforts will be made to arrange excess coverage, as necessary. This excess coverage will be sourced through one or more carriers, and can also be facilitated through the property owner's broker, ensuring robust protection throughout the rebuilding process.

Benefits to the Insurance Market, Builders, and Property Owners

- For the Insurance Market: The BRR program fills a critical coverage gap for properties under reconstruction, creating a more competitive market. It offers a standardized solution that attracts diverse underwriters, encouraging broader participation in highdemand, post-wildfire rebuilding efforts.
- For Builders: Builders will have clear, comprehensive coverage for their work

during reconstruction, reducing financial risks from damage or delays. This promotes smoother project timelines and protects against unforeseen costs, enhancing overall efficiency.

 For Property Owners: Property owners and business owners gain access to tailored, reliable coverage that protects their property during the rebuild. The \$5 million primary coverage limit ensures significant protection, with excess coverage available for additional peace of mind. This reduces financial strain and helps accelerate recovery.

2. Master Course of Construction Insurance Program

A new insurance program being developed to support rebuilding after significant disasters is the Master Course of Construction (CoC) insurance program. This program will offer comprehensive coverage for property owners seeking to rebuild, available through any licensed insurance broker acting on behalf of their clients. By leveraging the collective buying power of multiple insureds, the CoC program aims to provide enhanced coverage options at competitive rates. The coverage will address the specific needs of the rebuilding process, providing protection throughout construction until the certificate of occupancy is issued. In addition, participants can work with their own brokers, ensuring tailored service and terms.

3. Master Contractor/Owner-Controlled Insurance Program

Another offering is the development of a general liability "wrap-up" program, such as a Master

Contractor/Owner-Controlled Insurance
Program (COCIP). Typically, wrap-up programs
are more common for larger projects, but this
program is being designed to extend
comprehensive coverage to qualifying projects
of various sizes. The COCIP will cover all parties
on the job site, streamlining coverage and
reducing gaps. This proactive approach aims to
mitigate potential losses early in the process. If
a project doesn't qualify for a COCIP, a standard
general liability option will also be available to
ensure broad coverage for all involved.

Proposed Insurance-Related Financing Option (Pooled Fund)

In response to the large number of uninsured and underinsured homeowners devasted by the California wildfires, Radcliff Fairman LLP is in the early stages of developing an insurancerelated financing option designed to provide immediate financial relief to wildfire victim homeowners, both insured and uninsured. By creating a pooled fund backed by contributions from insurance companies, property owners would receive the full pre-fire market value of their homes, regardless of their insurance status. This approach simplifies the recovery process, avoids complex coverage disputes, and ensures equitable compensation. Additionally, it sets the stage for future variations in insurance underwriting standards, promoting better rebuilding practices that may lead to lowering premiums for such best-practices policies.

With collaboration from insurance companies, an interested and supportive California Department

of Insurance, and involvement by key City departments, this solution could be implemented quickly, offering both immediate relief for property owners and the insurance market.

The Solution

- Incentivize relevant insurance companies to collectively provide the total amount of funds needed.
 - Place the funds in a public bond.
 - Use market investments in the bond to repay the insurers in full, plus interest.
 - As the pooled funds are distributed to property owners, obtain releases from each recipient, releasing any claims under or arising from policies insured or issued by the contributing insurance companies.
- Incentivize property owners to accept payment from the pooled funds.
 - Offer property owners the full, fair market value of their home, pre-fire, regardless of whether the home is insured, under-insured, or uninsured.
 - Give property owners the unrestricted right to choose between two options:
 - Transfer the title of their property to the bond administrator or another designated official, with no additional conditions.
 - Use the funds to rebuild, provided they meet reasonable, prescribed rebuilding standards.

Benefits

The pooled funds can be assembled quickly—within weeks, not months—allowing the recovery and rebuilding process to begin without unnecessary delays. Insurers, including the California Fair Plan, will not only be released from claims, thus avoiding years of litigation, but they will also be repaid in full, with interest.

All property owners—whether insured, underinsured, or uninsured—will be fully taken care of, eliminating the complexities and long struggles involved in coverage disputes with insurers. They will receive the full fair market value (pre-fire) of their property and can choose between walking away or rebuilding. This approach ensures simplicity and fairness for all.

Additionally, future benefits and opportunities will arise, particularly in terms of better rebuilding practices and also in opportunities for beneficial insurance underwriting standards via the California Department of Insurance. Prescribed rebuilding standards can significantly reduce insurers' future loss exposure. This would, in turn, open the door for the DOI to incentivize insurers to offer policies incorporating best practices for lower premiums, by reducing mandated reserve requirements on such policies in actuarially calculated amounts.

Status of Steps Taken and Progress to Date

This solution is based on a four-legged stool:

- 1. Interested and willing insurance companies;
- Meeting conditions for an appropriate bond and support for the bond vehicle from key players;

- Engaging an interested and supportive DOI and Commissioner; and
- 4. Support and involvement from key departments within the City of Los Angeles.

To date, steady progress has been made on three of these legs. However, measurable engagement from key departments of the City of Los Angeles remains the missing piece. Once this fourth leg is in place, this solution could come to fruition within weeks, given the current progress on the first three steps.

Historical Precedent: Lessons from the Big Rock Mesa Landslide

In this section of the report, which focuses on securing City funding to provide immediate assistance to the uninsured wildfire victims, the effort is admirable but may lead to frustration unless a larger, long-term solution is addressed first.

A valuable precedent can be drawn from the 1983 Big Rock Mesa landslide, which affected 250 property owners in the Malibu area. Although it was not a fire-related disaster, this landslide provides important lessons in managing the complexities of disaster response and recovery. The challenges faced by Los Angeles County during this event are similar to the wildfire insurance issues today, including insurance hurdles, delays in rebuilding infrastructure, and the growing public pressure for immediate relief.

One of the key struggles in Big Rock Mesa was insurance. Many property owners were underinsured, meaning they had insufficient coverage to rebuild or recover. Others

experienced delayed claims processing, while some insurers outright denied claims, citing the unpredictability of natural disasters or property owner actions as causes. At the same time, public frustration grew, as victims—lacking the necessary insurance—had no resources to rely on for even temporary help. These insurance issues, combined with practical challenges in rebuilding and public policy concerns, slowed the County's response. As public outrage reached a crescendo, there was a strong call for immediate funding to help those most in need. However, despite these calls, no action was taken.

The Board of Supervisors faced several difficult decisions, such as how to determine who should receive assistance, setting criteria for aid, and deciding whether or not to rebuild at all. The complexity of these overlapping issues led to delayed decision-making. The Supervisors feared that making emergency decisions could set a dangerous precedent, creating more problems down the line. As a result, they opted for inaction.

A significant complication in Big Rock Mesa was liability—was Los Angeles County responsible for issuing building permits on a landslide-prone bluff, or were the property owners at fault for actions that contributed to the disaster? This question of liability, like the current debates around wildfire insurance, was heavily tied to public policy and left the Supervisors hesitant to make any decisions.

Despite the California Department of Insurance and Insurance Commissioner receiving numerous complaints and requests for intervention after the Big Rock Mesa landslide, they had limited authority to address the systemic insurance market issues such as claims denials and underinsurance. Their failure to act on these pressing concerns allowed the insurance market instability to persist. While the current Department of Insurance and Insurance Commissioner are working to be more proactive in addressing today's challenges, their actions have yet to provide sufficient relief, underscoring the urgent need for a coordinated response to stabilize the insurance market.

The inaction during Big Rock Mesa serves as a critical reminder: failure to act in a crisis can be as harmful as rash decision-making. Despite the strong push for immediate assistance and proposals for funding, the Board's failure to act left victims without the support they needed. This inaction compounded the uncertainty and devastation they faced.

Key Takeaways

- Coordinated Action Is Essential: Just as inaction following the Big Rock Mesa landslide exacerbated the crisis, we cannot afford to delay action in stabilizing the property insurance market today. Swift and decisive action is critical to prevent a similar lack of support for wildfire victims.
- Insurance Market Stability: The insurance struggles during Big Rock Mesa underinsurance, claims denials, and delayed processing—demonstrate the importance of addressing systemic insurance issues head-on. Proactive measures by the California Department of Insurance and

- Insurance Commissioner are needed to create a sustainable solution to the current insurance crisis.
- Lessons Learned: The failure to act in 1983 teaches us that an immediate, coordinated effort to address the insurance market instability and ensure accessible coverage for homeowners is the only way to avoid the long-term consequences of inaction.

Resources

"The Big Rock Mesa Landslide, Malibu, California: A Case History." Geological Society of America, 2007. https://gsa.confex.com/gsa/2007AM/webprogram/Paper128287.html.

"Big Rock Mesa Landslide Maintenance District No. 98-1." City of Malibu, accessed February 22, 2025. https://www.malibucity.org/409/Big-Rock-Mesa.

"Big Rock Landslide Still Lurking Underneath Eastern Malibu Homes." Radio Malibu, accessed February 22, 2025. https://www.radiomalibu.net/big-rock-landslide-still-lurking-underneath-eastern-malibu-homes-above-pch.

"State Farm Fire and Casualty Co. v. Von Der Lieth." FindLaw, accessed February 22, 2025. https://caselaw.findlaw.com/ca-court-of-appeal/1847009.html.

"California Department of Insurance: 1983 Report on Claims Handling and Market Stability." California Department of Insurance, accessed February 22, 2025. https://www.insurance.ca.gov. "What's Next for Home Insurance in California after the Los Angeles Fires?" *Berkeley News*, January 14, 2025. https://news.berkeley.edu/2025/01/14/whats-next-for-home-insurance-in-california-after-the-los-angeles-fires/.

"Challenges in California's Property Insurance Market." California Legislative Analyst's Office, accessed February 22, 2025. https://lao.ca.gov.



Scope

This team of experts in various fields of real estate and finance focused on the vertical rebuilding of the properties ravaged by the January 2025 Palisades and Eaton Canyon wildfires after the area has been cleared of toxic materials and fire debris and the infrastructure has been repaired. The report presents recommendations that aim to foster local community and government collaboration and support that would result in building back better, faster, and cost effectively.

Executive Summary

This section of the report, compiled by several teams of experts in various fields of real estate and finance, focuses on the vertical rebuilding of the properties ravaged by the January 2025 Palisades and Eaton Canyon wildfires, after the area has been cleared of toxic materials and fire debris and the infrastructure has been repaired. The report presents recommendations that aim to foster local community and government collaboration and support that would result in building back better, faster, and cost effectively.

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To facilitate the vertical rebuilding of physical commercial, residential, and community facilities as quickly and effectively as possible, and to enable the recovery of the communities and the lives so severely disrupted and devastated by the fires, we recommend setting up a community rebuilding authority (CRA) for each of the fire areas.

These CRAs should be viewed as the "general managers," empowered to plan and implement the rebuilding and recovery efforts, with oversight from independent governance boards but with complete operational autonomy and authority. The authorities should follow the following mandates:

- Establish a financing authority to arrange and implement the investment of the capital required to rebuild and recover—from infrastructure rebuilding to construction funding to mortgage financing.
- Establish a financial assistance fund to help property owners cover the gap between the cost to rebuild and the financial resources they have, funded by public, philanthropic, and private sources.
- Establish an insurance fund to secure insurance coverage for the rebuilt communities.
- Establish a nonprofit, privately run rebuilding resource center to assist property owners, residents, nonprofit organizations, and businesses with rebuilding and recovery.
- Establish a privately operated dedicated planning approval, permitting, inspection,

- and certification center under one roof and allow self-certification to shorten the approval and inspection cycle time with appropriate government oversight and supervision.
- Create a builder consortium to offer turnkey rebuilding solutions to property owners who prefer not to hire an architect, find a contractor, and undertake the rebuilding on their own.
- 7. Facilitate acquisition and certification of both goods and labor to help rebuilders benefit from economies of scale.

Some of the above could be joint efforts for the various fire areas (such as financing, insurance, philanthropic funds, etc.), while others are best established to address each area separately.

Introduction and Background

Introduction

The Eaton and Palisades Fires of January 2025 stand among the most devastating natural disasters in the nation's history. These catastrophic fires destroyed thousands of homes and businesses, displacing families and communities while causing billions of dollars in damage. Beyond the immediate toll, the fires have radically upended the Altadena and Palisades communities, leaving residents and local institutions grappling with the daunting challenge of rebuilding. The scale of destruction demands an unprecedented response—one that is swift, respects the characters of the Palisades

and Altadena, supports affected residents and business owners, and enhances the communities.

This report is the product of a collaborative effort between the UCLA Ziman Center for Real Estate, the USC Lusk Center for Real Estate and academic and private-sector leaders, and ULI Los Angeles, reflecting a shared commitment to restore what was lost and where possible seize this moment as an opportunity to build back better. While the fires have brought profound hardship, they also present a unique chance to reimagine the region's approach to disaster response in a way that is inclusive, sustainable, and resilient against future threats. The challenge ahead is immense, but so too is the opportunity to rebuild better. Rebuilding efforts must focus on what the property owners want, prioritizing speed, efficiency, affordability, sustainability, and equity, all while preserving and enhancing the unique character, culture, and lifestyle of each affected community.

The magnitude of this crisis requires novel solutions and the mobilization resources from a broad range of stakeholders in unprecedented ways. A key pillar of the rebuilding effort is the partnership between various community stakeholders including the private and public sectors, nonprofits, community organizations, and more. In particular, the mobilization of private-sector resources presents an immense opportunity, and this report delves into initiatives such as a Builders Alliance that can accelerate and enhance the rebuilding process. By aligning private-sector expertise and investment with rebuilding goals, these partnerships can serve as powerful engines for progress.

One of the most critical lessons from past disaster recovery efforts is that a fragmented, piecemeal approach can delay rebuilding and lead to suboptimal outcomes. Without coordination, individual efforts can work at cross-purposes, slowing down recovery and resulting in a disjointed, less-cohesive community. The scale of destruction caused by the Eaton and Palisades Fires calls for a reimagined framework—one that places communitywide priorities at the forefront of the rebuilding effort.

Guiding the coordination must be a clear set of priorities. First and foremost, the rebuilding effort should prioritize speed in returning residents and businesses to their community in an efficient and affordable way. Affording property owners and other stakeholders the right to rebuild their properties with minimal interference and fewer hurdles is the north star. Beyond this foundational focus, the community can provide additional resources to complement individual rebuilding efforts, offering solutions that enhance affordability, efficiency, resiliency, and overall community outcomes.

In order to maximize the effectiveness of these resources, the rebuilding effort should embrace a collective approach that aligns a broad set of resources holistically. Viewing key elements such as insurance, financing, infrastructure restoration, and construction at a communitywide scale rather than as isolated projects can lead to improved outcomes. By shifting the focus from purely individual recovery efforts to a more coordinated and community-driven strategy, the rebuilding process can move forward more efficiently and

effectively, leveraging collective resources to accelerate recovery while enhancing long-term sustainability and resilience.

Background

Below are some initial important insights into the two different regions:

- · Palisades Fire:
 - Not surprisingly, the Pacific Palisades population is affluent, with 57 percent earning \$200,000 or more annually. More than 40 percent of households have a net worth of at least \$2 million, and the average household net worth is \$4.6 million.
 - Perhaps less understood is the advanced age of the Palisades population, with 42 percent of households headed by someone over the age of 65 (22 percent over the age of 75).
 - Palisades residents also put down meaningful roots: over 40 percent of owner households have lived in their homes for over 20 years, with almost 25 percent residing for over 30 years. Most homes are also older: 71 percent live in homes built before 1980. The majority of the area's 8,900 households are owners (78 percent) with just under one-quarter (22 percent) renting their home.
 - There are over 1,280 businesses in the Palisades, employing 7,365 people.
 - The commercial center of the Palisades (defined for this analysis as the area

- surrounding the intersection of Sunset Boulevard and Via de la Paz) attracted about 4.6 million visits during 2024 and 575,000 unique visitors. Approximately 58 percent of visits originated from zip codes outside of the Palisades. The most frequent guests came from zip codes stretching from Malibu to Cheviot Hills in Los Angeles (averaging 10 visits per individual in 2024), but repeat visitors came from a much larger region, averaging eight unique visits per individual).
- Over 30,000 people were employed in the Palisades. Ninety-one percent came from outside the area, with the largest proportions coming from West Los Angeles, Santa Monica, Mid-Cities, the San Fernando Valley, Culver City, and Inglewood.

Eaton Fire:

- The households living within the Eaton Fire area are affluent with a median household income of \$143,000, which is 63 percent higher than the median income for households in the County overall. Twenty-eight percent of households have a net worth of at least \$2 million, and the average household net worth is \$3 million.
- The population of the Eaton Fire area also skews older, with 37 percent of households headed by someone over the age of 65 (17 percent over the age of 75).
- Area residents have put down meaningful roots: almost 50 percent of

- owner households have lived in their homes for over 20 years, with almost 30 percent residing for over 30 years. Most homes are also older: 90 percent live in homes built before 1980. The majority of the area's 8,770 households are owners (77 percent) with just under one-quarter (23 percent) renting their home.
- There are over 789 businesses in the Eaton Fire area, employing 4,073 people.

Key Themes Guiding the Rebuilding Effort

This report identifies a range of proposals and strategies to support the rebuilding process. Across all recommendations, several key themes emerge that should serve as guiding principles:

- New Collaborations and New Ideas: The unprecedented scale of this rebuilding effort requires fresh thinking and innovative partnerships. Traditional approaches will not be sufficient, and success depends on engaging a broad spectrum of stakeholders including government entities, private developers, nonprofits, and community groups. This moment calls for the establishment of new collaboration models that encourage creative problem-solving and the integration of technology to facilitate community engagement. By fostering new networks of cooperation, the rebuilding process can be more agile, responsive, and effective in addressing the diverse needs of affected communities.
- Collective Action: The rebuilding process cannot be left to fragmented, individual efforts. While individual property owners play a crucial role, uncoordinated reconstruction risks inefficiencies, inconsistencies, and long-term dysfunction. Instead, the effort must be approached with a communitywide mindset, ensuring that rebuilding is not just about restoring what was lost but about strengthening the social and economic fabric of these neighborhoods and making them better prepared and more resilient to future natural disasters should they occur. A shared vision and collective approach will facilitate better planning, equitable distribution of resources, and the creation of vibrant communities.
- One-Stop and Simplification: Rebuilding efficiently requires minimizing bureaucratic hurdles and ensuring that residents and businesses can navigate the process with clarity and ease.

The Big Picture

The Eaton and Palisades Fires serve as a sobering reminder of the growing risks posed by natural disasters, but they also present an opportunity for Los Angeles to pioneer a new model of disaster recovery. The challenge ahead is formidable, but through innovation, cooperation, and collective determination, Los Angeles has the potential to emerge stronger than before.

The wildfires destroyed or damaged some 18,000 structures and exposed the communities' vulnerability to natural disasters.

The cost of rebuilding could be \$20 billion or more (\$6 billion for the 10,500 homes destroyed by the Eaton Fire, and \$11 billion for 7,500 homes lost in the Palisades Fire), not including the cost to rebuild the damaged infrastructure and public and commercial facilities, and to harden the communities to be more resilient. The time to rebuild and recover could stretch over a decade or longer if not managed better.

Anecdotal evidence from interviews and informal conversations with residents, which will be further tested by the formal survey about to be implemented, strongly suggests that residents want to rebuild and return to their homes and the community they lost as soon as they can, and that they do not wish the character of their communities to change—they do not seem to want their communities reimagined—they just want them rebuilt as they were, with better ability to withstand natural disasters in the future.

This became the "north star" in the team's work. The overarching objective of this report aims to address is to help property owners "build back better" and to do it quickly, efficiently, affordably, sustainably, and equitably while preserving and, ideally, enhancing the character, culture, and lifestyle of each community.

Importantly, based on lessons learned from rebuilding and recovery efforts from other natural disasters, it is clear that rebuilding through "business-as-usual" channels is impractical, if not impossible, in order to achieve these objectives, particularly in the case of the Palisades and Eaton Fires. Los Angeles City and County services and departments are already

financially strapped and understaffed, with mounting backlogs and long lead times to review and approve projects in the day-to-day workload, even before adding the wildfire rebuilding efforts. They lack the necessary financial and staff resources to implement an aggressive expedited review, approval, inspection, and certification process, which is imperative to achieving these objectives. Given these constraints, it would take much longer and be much more expensive if the rebuilding were to be managed and executed by the City and County resources alone. It will also impede community cooperation and the development of the public's trust in the process, which will be so critical to success.

Conclusions and Recommendations

Challenges

With the overarching goal of helping property owners rebuild and the communities recover as quickly and effectively as possible, one has to recognize that there are several major challenges to overcome:

1. Authority and Execution Capacity: Multiple layers of approval and oversight, limited staffing, and a traditional bias against development within the fire areas could severely curtail the speed of redevelopment. Overcoming these structural challenges to facilitate the vertical (ground up) rebuilding of commercial, residential, and community facilities as quickly and effectively as

possible, and the recovery of the communities and lives so severely disrupted and devastated by the fires, likely requires setting up a CRA for each of the fire areas.

These authorities should be viewed as the "general managers," empowered to plan and implement the rebuilding and recovery effort with oversight from independent governance boards but with complete operational autonomy and authority. The authorities should collaborate with one another when possible, sharing resources and knowledge and leveraging the combined scale as appropriate.

- 2. Confusion and Lack of Information: There currently exists much confusion and frustration among residents, business owners, and property owners regarding the rebuilding and recovery process. There does not exist a single trusted, credible resource that provides current and reliable information. Such a resource needs to be developed and should start as a virtual portal but could also consist of a physical presence. The existing virtual and physical resource centers are not (yet?) considered by residents and property owners to be informative, current, and reliable. So, there is a need to either bolster the existing ones or design new ones.
- Access to Affordable Insurance and Financing: Insurance and financing are essential to being able to rebuild—without insurance, lenders will not lend, and without financing, rebuilding cannot occur. Understandably, insurers are hesitant to

cover high-fire-risk areas, and California regulations make it even more prohibitive. Once access to insurance is secured, financing will become abundantly available and less expensive. The longer it takes to secure access to insurance and therefore to financing, and the more costly they are, the less likely it is that rebuilding and recovery can occur quickly and efficiently, and more property owners may end up being priced out of rebuilding and returning to their communities. Hence the recommendations to create insurance and financing solutions are described.

4. Vertical Rebuilding: Rebuilding can be expensive, time consuming, and confusing to those who are not in that business. The scale of the rebuilding is unprecedented. It will be even more difficult than it would normally be to rebuild your own home amid the activity and competition for resources that undoubtedly will emerge in the months to come. An opportunity exists to help property owners, particularly owners of small commercial properties and individual homeowners, navigate these challenges and find affordable solutions by aggregating (and thus gaining economies of scale efficiencies and pricing power) the demand for insurance, financing, building materials, contractors, etc. Also, forming a Builders Alliance to offer residential property owners the option to purchase a predesigned, preapproved home from a builder who will then handle the entire rebuilding processfrom permit to completion including arranging financing and insurance—can help reduce

the cost of rebuilding to half or less of what it might cost a homeowner to "go it alone."

- 5. Logistics and Supply Chain: Once insurance and financing are made available, the next major challenge is the ability to implement the construction program of thousands of homes and structures simultaneously. This will require a major coordination effort and provides an opportunity to think and act creatively to solve, as recommended herein, for on- and off-site logistics and transportation, supply chain and procurement, labor, etc. Create a programmatic rebuilding plan (PRP) to coordinate and manage the sequence of rebuilding infrastructure on a grid basis in sections to avoid construction chaos. (See Appendix G for more detailed information.)
- 6. Expedited Approvals: The next challenge is the permitting, inspection, and certification process. The executive orders promise expedited processing, but the devil is in implementation. It is widely expected that it is unlikely that the City and County can staff up to handle the volume of activity, hence the recommendation for outsourcing these tasks is described herein.
- 7. Financial Assistance: Lastly, many property owners are likely underinsured, and a significant portion of them may not have the financial ability to fund the gap between what it costs to rebuild and the insurance proceeds. In addition, the commercial rents required by new construction may be out of reach for the tenants who previously occupied space and added to the high

quality of life in the fire areas. To help close that gap, a not-for-profit entity should be set up to connect those who need financial support with funds available from government, philanthropic, and other sources.

Overcoming these challenges is addressed in the following sections.

Key Recommendations

1. Survey of Property Owners, Residents, and Business Owners

ULI, USC, and UCLA will conduct a survey of residents and commercial property owners and tenants who were affected by the Eaton and Palisades Fires. The survey is intended to provide a clear view of affected residents' and business owners' intentions and expectations regarding their individual futures to ensure that resources and efforts are aligned with these intentions and expectations. The survey will be administered in early March and will be readministered periodically to refine and revise as resident and business needs evolve.

Through comprehensive outreach to residents and business owners and tenants by means of an anonymous statistically significant consumer survey, we will ask questions regarding whether owners intend to sell or rebuild their properties, their goals and objectives in either of these scenarios (timing, size, customization, etc.), their means to accomplish their objectives, and any financial or other gaps that may need to be filled.

This effort recognizes that the communities affected by the Palisades and Eaton Fires were never static and won't be static going forward: residents and businesses came and went, and the population and economic base in both communities—no matter what interventions we may make-will be different in the future. As Christian Redfearn and Clemens Pilgram of USC point out in an unpublished op-ed, in Pacific Palisades: "... over the last 10 years, 601 new homes were built with a median size of 3,680 square feet; the median size of the home they replaced being 2,177 square feet, an average increase in size by 69 percent. In the decade before that, these numbers were 3.183 and 2.224 square feet, for an average increase of 43 percent. The community that the residents yearn to restore never lived in the same set of houses over any two years, let alone over the decades for which we have data."

Nevertheless, research into the pre-fire populations will provide an important baseline and summary of current intentions. This survey analysis can and should be updated periodically.

In addition, through analysis of publicly available, aggregated demographic and economic information (age, household size, income/net worth, mortgage, etc.) on residents, the survey responses and analysis should be supplemented with analysis of likely demographic and economic demand. This aims to bridge any potential differences between what residents currently say they want to

accomplish, with an analysis of what is likely economically feasible.

Next steps would include:

- Resident and business surveys (launch in early March)
 - The survey will be compiled and administered via a web-based survey provider (Survey Monkey, QuestionPro, etc.).
 - Outreach will include (but not be limited to) pushes by local resource groups, community councils, announcements in local media, interactions with neighborhood groups, the interfaith communities, school communications systems, etc.
 - Administer the survey over two to three weeks with the goal to survey as many residents and business owners as possible (target 80 percent of the populations).
 - Use expert demographers and economists to analyze, including cross-tabulation, the survey results and prepare a summary for leadership and the public. Results should be transparent.
 - Survey findings will be used to develop outlines for focus groups.
- Resident and business focus groups (within four weeks of survey)
 - Leverage the outreach effort to identify a series of focus group

- conversations with residents and businesses to supplement the quantitative survey findings with more robust qualitative feedback.
- Convene a series of focus groups (four to six for residents, two to three for business owners) by trained facilitators across a representative sample of the population (age, income, household status, intentions around rebuilding, etc.).
- Analyze results and prepare a summary of focus group findings for recovery leadership and the public.
- Demographic analysis (parallel to survey efforts)
 - Identify a team of experts and academic researchers to develop a granular and robust demographic and economic profile of the Palisades residents and businesses by neighborhood, with the objective of evaluating likelihood of and means to rebuild.
 - Researchers will collaborate to identify useful and relevant datasets and methodologies to project likely demand for various rebuilding options.

2. Financing Authority

The financing authority will arrange and implement the investment of the capital required to rebuild and recover—from infrastructure rebuilding to construction funding to mortgage financing.

Capital for the financing authority will come from all sources available, including construction lenders, commercial banks and private lenders, mortgage lenders, government programs, capital markets (bond financing and other collateralized funding sources and vehicles), and the government-sponsored enterprises.

Ideally, the financing authority will be able to

- Aggregate the funds in pools to spread the risk and reduce the cost to borrowers;
- Originate and service the loans to reduce the administrative costs and manage risk:
- Manage the distribution of the loans to the capital markets to recycle the capital and efficiently redeploy it as needed; and
- Establish and implement a financial assistance fund, funded by philanthropic, government assistance programs, and private enterprises to:
 - Help provide gap capital to homeowners and to commercial property owners to cover the gap between the cost of rebuilding and the financial resources they have so they can secure construction financing to rebuild; and
 - Provide rent and mortgage payment assistance to qualified (i.e., means tested periodically) residents and business owners to help keep them from leaving the community, as

rebuilt structures will require higher rents than what these occupants had paid before the fire. This way, for the duration of the occupant's tenure in the rebuilt premises, they can afford to stay while the property owner is made whole.

3. Insurance Authority

Following the same principles, the insurance authority will arrange insurance coverage for construction and property owner insurance coverage. It may be possible to aggregate the coverage for the construction risk into an overall policy that covers all construction activity. Addressing the "take out" insurance may require a back stop from a governmental body that will take the "last dollar" risk to cap the commercial insurers' risk and help bring down the cost of insurance to property owners.

4. Vertical Rebuilding

The following recommendations aim to make it easier for property owners to rebuild, focusing primarily on owners of smaller commercial properties and homeowners who do not plan to use their own architect and builder to rebuild a custom home:

 Resource Portal: There is an information void in the fire-impacted area, causing confusion and frustration among residents, business owners, and property owners who crave reliable and accurate information regarding the rebuilding and recovery process. Such a resource should start as a virtual portal but could also consist of a physical presence. The existing virtual and physical resource centers are not (yet?) considered by residents and property owners to be informative, current, and reliable. So, there is a need to either bolster the existing ones or design new ones. (See Appendix F for further details.)

Among other functions, the resource centers should:

- Provide current information regarding clean up; infrastructure improvement' access to information; construction schedules; schools, parks, and public facilities opening and operating schedules; access to supportive services; etc.
- Afford property owners to identify their property, view rebuilding options, estimate the cost to rebuild, explore financing and insurance options, access professionals who can help (architects, contractors, insurance and mortgage brokers, realtors, etc.)
- Along with a virtual interface, create a physical interactive center or community hubs where property owners can visit in person and be guided by rebuilding specialists.
- Link the virtual portal to the financing authority, to the insurance authority, and to the Builders Alliance portal (so they could become a "one-stop-shop" for rebuilding).

- Streamlined, Expedited, One-Stop-Shop Permitting Center: The goal is to establish a dedicated planning approval, permitting, inspection, and certification center for each community to facilitate self-certification to shorten the permit approval process, lower the cost of processing and permitting, and expedite inspection approval cycle time.
 - Consistent with the Los Angeles mayor's executive order, there should be a special permitting center in each of the impacted burn areas.
 - The center should be staffed by dedicated private sector professionals trained and licensed that have worked at or closely with the relevant department (e.g., Planning, Building and Safety, Recreation and Parks, Transportation, Water and Power, Public Works, Fire Department, Housing Department, etc.).
 - The center should be authorized to approve all applications conforming with zoning and building codes, as well as nonconforming "eligible" projects.
 - The center should be authorized to delegate inspections and selfcertification to qualified, licensed professionals in their respective fields.
- Turnkey Rebuilding Solutions and Builders Alliance: Set up a Builders Alliance that offers turnkey solutions to property owners. (See Appendix F for further details.)

- The Builders Alliance will provide property owners with lower cost, faster delivery timelines, end-to-end rebuilding options by passing to the property owner the benefits of their know-how, operational efficiencies, design and building expertise, and cost advantage on a cost plus modest markup that could result in savings of 50 percent or more of alternative rebuilding options.
- For commercial property owners:
 - Provide resources to understand, with the help of professional architects and contractors, rebuilding versus reimagining options (what is possible within land use regulation, what are the costs, etc.)
 - Provide access to licensed professionals to design, permit, finance, insure, and rebuild the property.
- For residential property owners:
 - Provide resources to understand rebuilding within the 110 percent guidelines versus reimagining options (what is possible within land use regulation, what are the costs, etc.).
 - Provide information from the various Builders Alliance members regarding the options they each offer (floor plans for various lot sizes and configurations,

- architectural designs for these homes, cost and time estimates, upgrade options, financing and insurance options, etc.).
- Link to individual builder websites to further explore a transaction.
- Access to licensed professionals to design, permit, finance, insure, and rebuild properties that the Builders Alliance cannot accommodate (irregular lots, hillside lots, etc.).
- Expected outcomes:
 - Improved customer experience:
 The Builders Alliance will provide an easier, streamlined process that builds trust and empowers homeowners with confidence when making big decisions. There is also the potential to introduce affect partners, like a full-service homeowner concierge, to enhance traditional builder experiences.
 - Operational platform: This is a functional prototype that enables users to identify their lot and choose from a list of participating builders with floor plans and architectural design.
 - Builder and property owner adoption: Create initial partnerships with builders and early adopters from the City and County and community residents.

- Financial and legal frameworks in place: This entails an agreement between lenders and local governments to facilitate smooth transactions as well as direct access to funding for expedited services.
- Market validation and scaling strategy: Early success metrics will inform expansion following clean-up schedule, approvals, etc.

Conclusion:

- The Builders Alliance initiative presents a comprehensive, turnkey solution to support homeowners affected by the Palisades and Eaton Fires. By integrating a digital marketplace, a physical resource hub, and a collaborative network of builders, architects, insurers, and financial institutions, this initiative simplifies and accelerates the rebuilding process.
- Through innovative technology, strategic partnerships, and a streamlined approach to construction, the Builders Alliance ensures that fire-affected homeowners have access to cost-effective, high-quality, and timely rebuilding solutions. By leveraging GIS analytics, regulatory collaboration, and financial support, this effort reduces

- uncertainty and empowers homeowners with the tools they need to rebuild their lives.
- With a strong foundation of stakeholder engagement, policy advocacy, and community-driven solutions, this initiative has the potential to set a new standard for disaster recovery and housing resilience. Moving forward, continued collaboration and early adoption by key partners will be critical to the success and scalability of this model, ensuring that affected communities can rebuild stronger, safer, and more efficiently.
- Commercial, Public Facilities, and Community Life:
 - Goals and needs:
 - Rebuild the civic institutions and business base (services and retail) as soon as possible.
 - Create opportunities for the types of small businesses—oftentimes locally owned and operated—that previously occupied the commercial real estate.
 - Build back in a more fire-resistant/ resilient manner.
 - Create opportunities for more multifamily housing that caters to a broader range of households.

- Upgrade facilities relative to their previously dated conditions.
- Specific areas to investigate:
 - City- and County-owned land in these cities has not been touched in some cases since the 1970s.
 - The library, City Hall, and community centers, for example, could perhaps be combined/ reimagined as a better center—a hub—for the community.
 - Doing so may create additional opportunities such as parking and space for events.
 - Near-term future of these cities will be to have facilities, places of worship, parks, and programs for families, such as Pacific Palisades Baseball Association Baseball, basketball league, American Youth Soccer Organization, etc.
 - These services need to be staged as headcount increases but happen as soon as possible.
 - When safe to do so, put up tents for karate schools, yoga, indoor gyms, etc.
 - Government should create waivers for commercial construction to land use permitting and approval processes that can cause delay and uncertainty (e.g., California Environmental Quality Act, Coastal,

- etc.) when established criteria have been met, in order to ensure timely and certain rebuilding of commercial infrastructure.
- Streamline permitting (for example, if there are building plans on file at the City, let them pull the plans).
- Hold special events during clean-up for fundraising and community spirit (involve church groups to help organize events as soon as possible).
- New retail for essential goods and services should cater to families and bringing back farmers markets, local retailers, and casual dining, while identifying missing nonresidential offerings in the community and ensuring that space is created for previously unmet community needs.
- As important as rebuilding these services, encourage commercial owners to build back smarter and more resilient.
- The City should be implementing long-term solutions to harden these new essential buildings/ facilities to prevent future fire devastation.
- Building standards that integrate resilient fire design including use of noncombustible materials need

- to be created and become the backbone of a vibrant community.
- Evaluate need for pop-up retailing; secure temporary shelters and services.
- The City and County should identify large parcels where additional investments in community needs could be met, focusing on those parcels where control of surrounding parcels may be under the same ownership and where negotiations for additional development potential may be feasible.
- Evaluate need for pop-up spaces for socialization (community center, kid leagues, etc.).
- Identify local developers who will aid places of worship in the design and rebuilding as they raise funds to do so.
 - They would need to be vetted and willing to assist for cost only, or a small percentage on top.
- Encourage small business revival.
 - Create programs to help small businesses restart, including training and marketing assistance.
 - In downtown areas and along commercial corridors, and

- consistent with existing land use planning, explore opportunities to create vibrant commercial spaces with a high-street feel, taking lessons from other community/ commercial revitalization efforts, while addressing community driven needs.
- Many owners of smaller retail buildings cannot afford to rebuild or if they do, will have to charge rents that will push out basic services (nail salons, yogurt shops).
 - Evaluate rebuilding the main street with street-level retail with apartments/town homes above, which would make basic retail more viable for the owner as well as providing density in the right areas without changing the character of the town.
- Use the rebuilding effort in commercial corridors as an opportunity to consider incorporating market-rate workforce housing in affected communities to provide much needed housing for emergency service, education, and other City and County workers so they can reside in the communities they serve.

 Look for opportunities to use land owned by the City and County to meet parking needs while also designing pedestrian friendly spaces when parcels/buildings are consolidated.

o Challenges:

- Timing commercial rebuilding to avoid creating food/retail deserts for returning residents
- Issues related to scattered ownership, underinsured owners, cost increases, limited availability of labor, environmental toxins, etc.
- Likely huge differences between what tenants previously paid and can afford to pay in the future, and what redevelopment economics will require
- Likely disconnect between the demand base (surrounding rooftops) and commercial supply over time
- Immensity of rebuilding commercial real estate will be hard to focus on when potentially 100 homes are going up around it
- Lack of ingress and egress will complicate the process
- Labor shortages

Opportunities:

 Streamline permitting and approvals for landlords aiming to build back what was there, including grandfathering uses and features that wouldn't be approved under current zoning.

- Provide public financial support (use "carrots" rather than "sticks") to landlords who choose to incorporate fire resiliency into rebuilt (or surviving existing) structures in the form of grants or tax rebates/exemptions.
- Create tax increment financing districts (TIFs) to provide financial support to landlords who provide space to local tenants at rents that match pre-fire rents (plus inflation over time). A new TIF district could further assist in organizing redevelopment efforts, financing community events, etc.
- Create opportunities to increase housing density to help pay for redevelopment of retail and to create greater diversity of housing in the Palisades and Altadena.
 - bonuses to commercial property owners agreeing to include a certain percentage of floor area ratio for market-rate housing on site (as market rate will still be more affordable than single-family housing).
 - Onsite parking requirements should be waived for

landlords, while at the same time accommodated by a new City-owned, paid lots or structures.

Applying the Master Planning Approach:

- Vision and strategic rebuilding/ growth for accelerated recovery:
 - Use the community survey results to guide a Community Planning Team to create a long-term community vision plan (CVP).
 - Align immediate community needs with long-term fire-resilient strategies.
 - Develop virtual (website) and physical spaces where residents can visualize their lots, explore financial and design options, and where builders and governing agencies can monitor development through the PRP.
- Land use and zoning:
 - Understand trends and land options that align with landowners' individual needs and preferences while still adhering to the CVP for each community.
 - Define appropriate land uses based on opportunities for land aggregation, exemptions, special zones, single-lot density increase, and a mix of uses and services beneficial to the community.

- Infrastructure and transportation:
 - Secure emergency approval from the Public Utilities Commission to allow utilities to underground electrical, phone, and cable systems.
 - Establish a Mello-Roos (or a community facilities district) or other bond types to finance the costs.
 - Implement modernized and fire-resilient solutions, including firebreak roads, alleys, foothill streets, utilities, and undergrounding of overhead electrical, phone, and cable systems.
- o Fire master plan:
 - Establish Fuel/Hazard Modification Zones.
 - Implement structure hardening and fire-resistant measures for new structures.
 - Develop proactive emergency notification/alert, access and response systems to improve preventative measures and expedite disaster response.
- Housing and community redevelopment:
 - Create community alliance collaboratives (CACs) to address affordable housing and other needs consistent with the CVP and the survey.

- Rezone Palisades Village to allow vertical mixed use with ground floor retail and residential above consistent with the CVP.
- Develop turnkey solutions through a Builders Alliance (see Appendix F).
- Provide temporary services and infrastructure, including virtual and physical spaces dedicated to community engagement on rebuilding options, Town Hall website where community stakeholders can participate in the CAC, the Community Survey and the CVP, etc.
- Financing and optionality:
 - Establish physical and virtual spaces to allow property owners to explore financial options (see Appendix F).
 - Coordinate with private enterprise to provide gap equity financing for rebuilding.
- Economic redevelopment:
 - Facilitate reinvestment in the community.
 - Strengthen logistics and supply systems (see Appendix G).
 - Promote job creation and employment opportunities.

- Expand access to financing resources.
- Implementation and phasing:
 - Adopt a phased approach to development to ensure speed, feasibility, and alignment with construction labor and materials supplies and funding sources. Monitor progress and adapt to evolving needs.
- Key partners:
 - Community stakeholders, residents and landowners
 - Government agencies/officials (State, County, City, District Representatives, Fire Department, Public Works, FEMA, Cal OES, etc.)
 - Homebuilders, architects, planners, engineers, and landscape architects, contractors, consultants
 - Utility and private-sector services (Southern California Edison, phone, cable, sewer, water districts, insurance providers)
 - · Gap equity sources
 - Construction lenders (banks, private lenders)
 - Mortgage providers for residents

- Permanent loan lenders (banks, insurance companies, private capital, other)
- Potential impact partners (e.g., a full-service homeowner concierge)

Conclusion:

 The Master Planning Approach provides a strategic and structured framework to facilitate the rebuilding and long-term growth of affected communities. By integrating fire-resilient infrastructure, economic redevelopment, and communitycentered planning, this approach ensures sustainable recovery and future preparedness. Collaboration among key partners—including government agencies, utility companies, homebuilders, financial institutions, and local residentswill be instrumental in executing this vision successfully. Through programmatic phased implementation by section under a PRP it will be possible to quickly rebuild a resilient and thriving community that meets both immediate and future needs.

Recommended Next Steps

To implement the above, the following are the recommended next steps:

- Organize and coordinate the activities of the many volunteer and philanthropic organizations that have pledged to assist in the rebuilding and recovery effort to make more efficient use of their energies and funding.
- Conduct a survey of fire area residents and property owners to understand what they intend to do and what assistance they will need.
- Formulate the organization strategy and governance form, legally form, and capitalize the CRAs and the subsidiaries/ departments:
 - a. Financing authority
 - b. Financial assistance fund
 - c. Insurance fund
 - d. The rebuilding resource center
 - The dedicated planning approval, permitting, inspection, and certification center
 - f. The builder consortium

- 4. Hire the general manager (or retain the services of the entity) that will build and manage the rebuilding.
- Set up operations (office space, furniture and equipment, IT, etc.), and hire the staff to implement.
- 6. Open doors.

Parting Thought

The scale of the rebuilding effort represents an unprecedented challenge. As such, many of the recommendations herein go well "outside the box," suggesting innovative approaches to addressing the multiple complex hurdles the successful rebuilding effort will face in the rebuilding and recovery of the communities and the restoration of the way of life of the thousands of people affected by the fires. We trust that the readers will focus on the desired outcome and help design solutions to meet these lofty goals. Further, we urge the readers to be decisive and act with diligence yet with urgency. The challenge ahead is worthy, the suffering is real, and everyone should aim to help address this problem as quickly as possible.



Scope

The finance workstream was established to assess and develop strategies for financing alternatives that are available to pay for the cost of rebuilding public infrastructure, and cover the gap of costs above available insurance proceeds to redevelop the structures that were destroyed or heavily damaged. The analysis was supported by data that looked at the underlying financial needs for rebuilding. The group explored the use of existing financial instruments. and further assessed the use of innovative ideas that could be deployed given the large scope of the losses. Some ideas they developed include Tax Increment Financing (TIF) and Enhanced Infrastructure Financing Districts (EIFD), and a newer, related type of financing called a Climate Resilience District (CRD), as well as other government-supported bond instruments. The group also explored financing options for uninsured and underinsured property owners related to existing mortgages in place as well as mechanisms to allow for incremental financing that would make it possible to rebuild. In addition, due to the scale of the impacts both to structures, but also to the underlying land, the group also looked at ways to help sustain land values through the recovery.

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Rebuild LA: Financial Strategies for Rebuilding Infrastructure, Homes, and **Communities**

In the wake of the devastating Eaton, Palisades, and Hughes fires, Los Angeles faces the enormous challenge of rebuilding homes, infrastructure, and communities. This report outlines comprehensive financial and funding strategies to facilitate this massive undertaking, exploring various mechanisms to assist fire victims and their communities.





Key Stakeholders

- City and County of Los Angeles Local government bodies leading the rebuilding efforts
- State of California Providing support and resources at the State level
- **Federal Government** Offering crucial Federal funding and support for reconstruction
- **Property Owners and Businesses** Direct stakeholders impacted by and participating in rebuilding initiatives

The Scale of the Challenge

\$75B

Estimated Losses

The unprecedented scale of losses from the fires

Major Fires

Eaton, Palisades, and Hughes fires caused widespread destruction

The sheer scale of the losses, estimated at upwards of \$75 billion, presents a monumental challenge. Gaps from under-insurance, limited local and regional funds, and the urgency of moving forward efficiently yet with focus on long-term resilience necessitate exploring a diverse range of financial options.



Immediate Assistance Programs

Federal Emergency Management Agency (FEMA) Grants Initiated by President Biden's major disaster declaration on January 7, 2025 **Private Sector Donations** Philanthropic programs supporting immediate relief efforts U.S. Small Business Administration (SBA) Low-Interest Rate Loans Offering support for businesses, homeowners, and renters



SBA Disaster Assistance Loans

Home Disaster Loans

Low-interest loans for homeowners to repair or replace damaged property

Business Physical Disaster Loans

Loans to help businesses recover from physical damage

Economic Injury Disaster Loans

Working capital loans to help small businesses meet financial obligations

These SBA loans offer interest rates of approximately 2 percent over the 10-Year Treasury Bond rate, with maturity terms up to 30 years. Available funding is limited relative to the scope of losses incurred.



Tax Increment Financing (TIF) Districts



Enhanced Infrastructure Financing Districts

Specialized TIF districts focused on funding critical infrastructure improvements including roads, utilities, and public facilities



Climate Resilience Districts

TIF districts specifically designed to fund climate adaptation and resilience projects in vulnerable communities



Community Development Impact

TIF districts enable comprehensive funding solutions for infrastructure and housing development needs

Understanding TIF

TIF Fundamentals

Tax Increment Financing is a method of capturing increased property tax revenue from new development or property value increases within a designated area to fund public improvements or those that implement public policy, such as housing.

How It Works

As private property investments occur, the resulting increase in property tax revenue is deposited into a separate TIF fund and used to pay for public improvements within the district.

Types of Projects TIF Can Fund

















TIF districts can fund a wide variety of projects, including child-care facilities, affordable housing, transit infrastructure, environmental remediation, broadband installation, water and sewer improvements, parks, and nonprofit facilities.

Advantages of TIF

Resource Preservation

No encumbrance of existing city/county resources

Collaboration

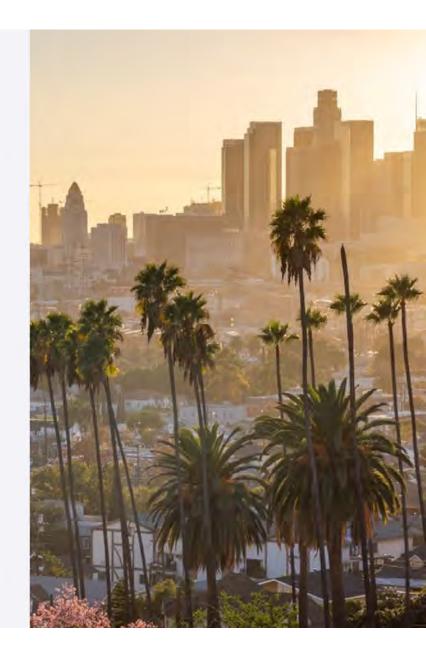
Attract tax increment contributions from other taxing entities

Grant Priority

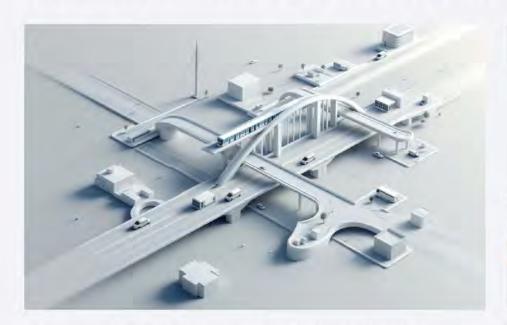
Increased priority for grant funding

Private Sector Catalyst

Demonstrated commitment to infrastructure projects to attract private development



TIF Alternatives for Fire Response



Enhanced Infrastructure Financing Districts (EIFDs)

Long-term districts with a 45-year lifespan from first bond issuance, which are governed by a Public Financing Authority (PFA) that implements an Infrastructure Financing Plan (IFP)



Climate Resilience Districts (CRDs)

Created by SB 852, these districts can fund projects to mitigate climate change, with broad financing powers including the ability to levy taxes with voter approval.

EIFD Fundamentals

District Duration

45 years from first bond issuance; can be formed in 12 to 18 months

Governance

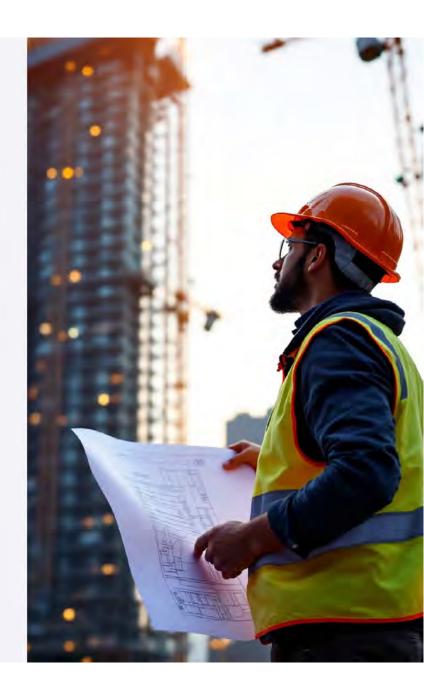
PFA, which prepares and adopts IFP

Approvals

Mandatory public hearings for EIFD formation with protest opportunity; no public vote

Eligible Projects

Any property with useful life of 15 or more years and of communitywide significance



CRD Fundamentals

Purpose

To provide TIF for climate action and sustainability. Allows city, county, special district, or combination of entities to form districts to fund projects mitigating climate change, including developments resilient to climate change

Eligible Projects

Capital projects, Public/Private Partnerships, and payment for ongoing operations and maintenance relating to sea level rise mitigation, extreme weather preparation, wildfire prevention, and drought management



CRD Financing Powers



Tax Increment Capture

Capture future property tax from new construction without imposing new taxes.



Additional Taxing Power

Levy benefit assessments, special tax assessments, and other fees (with voter approval).



Grant Eligibility

Apply for and receive federal/state grants and allocations from public and private entities.



Bond Issuance

Issue revenue bonds and incur general obligation bonds.

CRD versus EIFD: Key Differences



Climate Resilience Districts

Specialized districts focused on climate adaptation with broad powers, including:

- Operating cost funding capability
- Special tax and assessment financing authority
- Staff hiring authority



Enhanced Infrastructure Financing Districts

Infrastructure-focused districts emphasizing:

- Non-climate resilience projects
- Infrastructure development
- Affordable housing initiatives



Shared Capabilities

Both district types feature:

- Tax Increment Financing authority
- Capital and maintenance funding ability



CRD Recommendations

Urgency

Pursue accelerated implementation of CRDs in fireimpacted areas through special legislation.

Preferred Eligibility

Seek preferred eligibility for Proposition 4 (Climate Action Bond) funds.

Tax Basis Adjustment

Install base at declared disaster emergency adjusted tax value to maximize TIF yield.

TIF as Part of the Economic **Development Toolkit**

Advantages of TIF

No encumbrance of existing resources, can attract tax increment from other entities, increased priority for grant funding, demonstrates commitment to infrastructure projects, no additional taxes to property owners

Disadvantages of TIF

Security is supported by statutory versus constitutional authority, TIF rechannels the additional tax revenue generated within a district into paying recovery costs rather than into the City's general fund for distribution among other taxing bodies

Complementary Tool

TIF serves as a complementary tool alongside other successful financing methods within the same community.



Potential Cash Flow / Debt Issuance Approaches



Tax Increment Only

Leveraging solely the incremental tax revenue generated within the district



Overlapping TIFs and CFDs

Community Facilities Districts (CFDs), are special taxing entities established to finance infrastructure and services. CFDs enable local governments to levy special taxes, subject to approval by two-thirds of the CFD's registered voters, and can serve as additional security or in combination with TIF



Tax Increment with **Government Backstop**

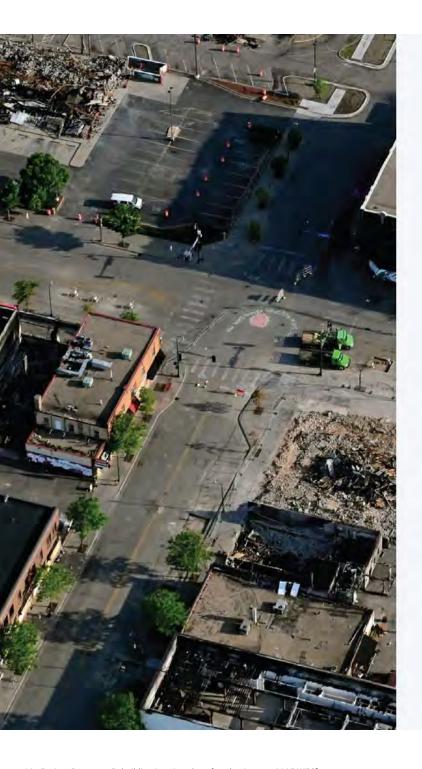
Using Federal, State, City or County funds or pledges as a debt service backstop



Private Sector Capital Advancement

Landowners/developers advance infrastructure funding for reimbursement from TIF proceeds

Each approach has its own advantages and disadvantages in terms of upfront proceeds available, public agency risk, and cost of capital, with the choice depending on specific project needs and risk tolerance.



TIF Today versus Former Redevelopment Agencies (RDAs)

Aspect	Former RDAs	EIFDs / CRDs
Eligible Use of Funds	Infrastructure, housing, land clearing, business subsidies	Public infrastructure, facilities, affordable housing
Eminent Domain	Allowed	Not allowed
Eligible Areas	Must qualify as "blighted"	No "blight" finding required
Governance	City Council or County Board of Supervisors	Public Financing Authority including public members
Formation	Vote of governing body	1 meeting, 2 public hearings, majority protest opportunity

TIF Formation and Funding Strategies



City/County Partnerships

TIF districts involving City and County joint efforts help to win State grant funding. This collaborative approach enhances a district's ability to attract additional resources and implement larger-scale projects.



Formation Timeline

The TIF district formation process typically spans several quarters, involving stakeholder outreach, boundary determination, plan drafting, public hearings, and final adoption. Tax increment allocation begins in the fiscal year following district formation.



Funding Sources

TIF districts can leverage various funding sources, including Federal and State grants (e.g., Cap-and-Trade, Housing and Community Development, Strategic Growth Council, and private funding sources through development agreements, benefit assessments, and private equity investment.



TIF District Governance

1 Public Financing Authority

Designated body to oversee the district

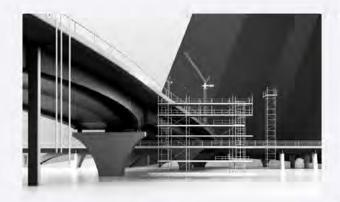
- Public Members
 Inclusion of public representatives in governance
- 3 Public Hearings

Three required meetings — two of which are public hearings —with landowners and registered voters within the district having the right to protest

4 No Public Vote Required

Streamlined approval process

Rationale for Tax-Exempt Bonds



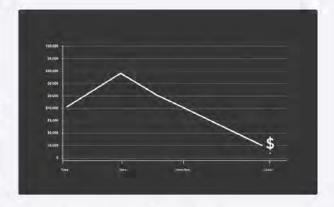
Strategic Funding

Fund significant public needs without immediate tax increases



Attractive Investment

Interest exempt from federal (and potentially state) income taxes



Lower Borrowing Costs

Tax exemption allows for lower interest rates on bonds

Tax-exempt bonds offer a cost-effective way to finance large-scale rebuilding efforts while providing attractive investment opportunities.

California Tax-Exempt Bonds for Rebuilding

State Issuance

Bonds issued by the State of California through legislative action and governor approval

Specific Designation

Funds earmarked for underinsurance related to the California FAIR Plan or other rebuilding incentives

Market Appeal

Tax-exempt status attractive to institutional and individual investors

Financing Structure

Interest and principal payments financed through existing revenue sources and specific levies



Federal Legislative Action Precedents



2001: Liberty Bonds

Issued after 9/11 to support Lower Manhattan redevelopment



2005: Gulf Opportunity **Zone Bonds**

Authorized after Hurricane Katrina for Gulf Coast recovery



2008: Hurricane Ike **Disaster Area Bonds**

Issued to support recovery in designated disaster areas



Midwestern Disaster Area Bonds

Created after severe storms and flooding in the Midwest

Proposed Disaster Area Bonds

New Category

Creation of a new category of Disaster Area Bonds

Purpose

Provide capital to fund FAIR Plan claims and support rebuilding efforts

Congressional Action

Requires action from Congress to establish this new bond category

These bonds would provide a crucial source of tax-exempt financing to stimulate economic recovery in the wildfire-stricken regions of Los Angeles.



Filling the Housing Equity Gap for Homeowners



Equity Gap Challenge

Many homeowners face significant gaps between their home's pre-disaster value and rebuilding costs.



Insurance Shortfall

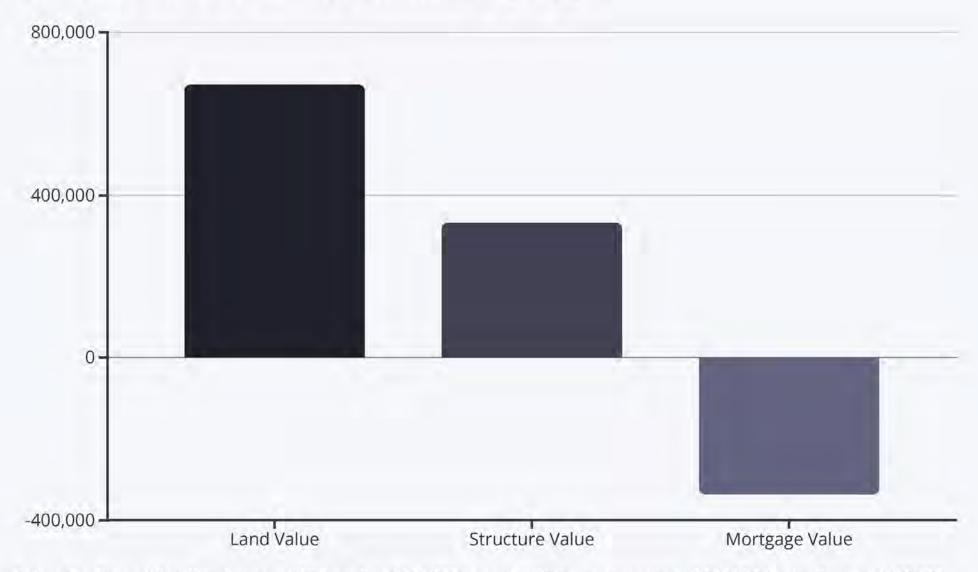
Insurance coverage often falls short of current construction costs and market values.



Bridging the Gap

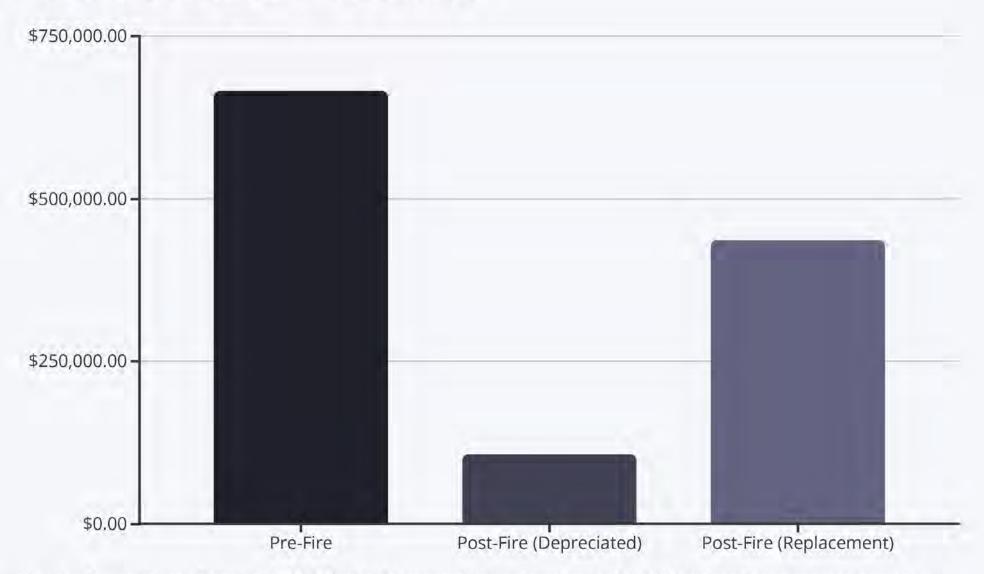
Financial strategies and assistance programs help homeowners overcome equity shortfalls.

Impact of Fires on Home Equity



Before the fires, a \$1 million house might have had \$665,000 in equity. This was composed of \$670,000 in land value, \$330,000 in improvements, minus \$335,400 in mortgage value (43 percent loan-to-value at 78 percent present value due to low-interest mortgage).

Post-Fire Equity Scenario



After the fire, equity could drop to \$106,000 with depreciated value insurance, or \$436,000 with replacement cost insurance. This significant loss in equity makes it difficult for families to rebuild what they had before.

Factors Contributing to Equity Loss

Land Value Diminution

Twenty percent reduction due to delayed rebuilding and cash flow interruption

- **Insurance Coverage**
 - Gap between depreciated value and replacement cost
- Mortgage Payoff Requirement Loss of benefit from existing low-interest mortgages
- Leverage Effect Amplification of losses due to property leverage



Suggestions to Help Affected **Families**

Mortgage Forbearance

Require lenders to help families keep their current mortgages.

California Bond Authority

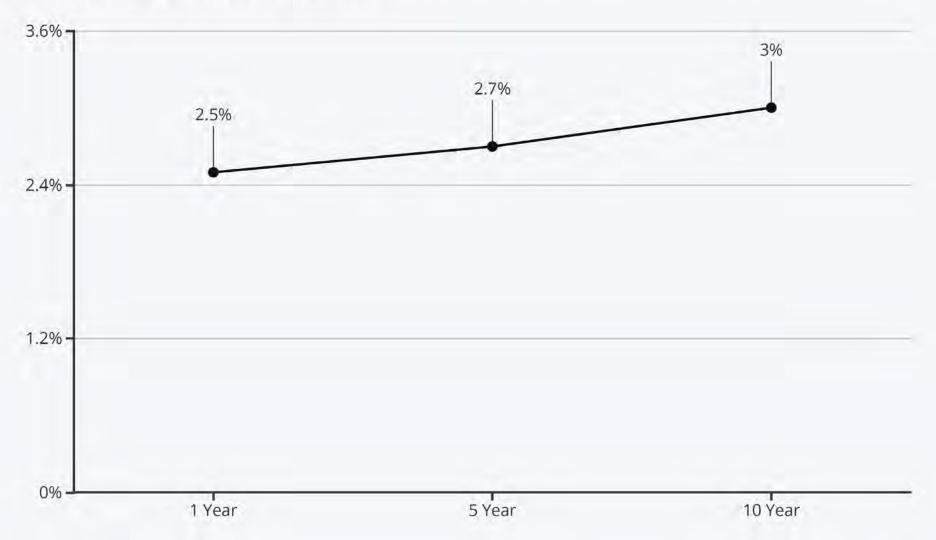
Create mortgages with interest rates similar to those in place before the fires.

Property Subdivision

Use State laws permitting subdivision and addition of accessory dwelling units (ADUs) to replace lost land value.



Municipal Bond Yields: Financing Recovery Through State Bonds



Current yields for AAA-rated California Municipal Bonds range from 2.5 percent for one-year maturities to 2.9 percent for 10year maturities. These favorable rates enable the State to offer mortgages to homeowners affected by fires at approximately 4.5% rates —comparable to their pre-disaster mortgages. This creates a sustainable financing pathway for rebuilding efforts.

Potential ADU Value Addition

For homeowners affected by the fires, adding an ADU could help recover lost property value while providing additional rental income. The most favorable scenarios are those with lower construction costs and higher achievable rents, typically found in areas with strong rental markets. table below shows the potential added land value from building an 800 square feet ADU, based on different construction costs and rental rates. It assumes a 5 percent cap rate and a 40 percent operating expense ratio.

To interpret the table: The left column shows different potential rental rates per square foot, ranging from \$2.00 to \$4.50. The top row shows construction costs per square foot, from \$300 to \$550. The values in the table represent the net value addition in dollars after considering construction costs and potential rental income.

For example, if you can build at \$350 per square foot and rent the ADU for \$3.50 per square foot, the net value addition would be \$123,200. Negative values indicate scenarios where construction costs exceed the capitalized value of rental income.

800 Square Feet ADU Potential Added or Lost Value:

\$300	\$350	\$400	\$450	\$500	\$550
\$ -9,600	\$-49,600	<u>Value</u> \$-89,600	\$-129,600	\$-169,600	\$-209,600
48,000	8,000	-32,000	-72,000	-112,000	-152,000
105,600	65,600	25,600	-14,400	-54,400	-94,400
163,200	123,200	83,200	43,200	3,200	-36,800
220,800	180,800	140,800	100,800	60,800	20,800
278,400	238,400	198,400	158,400	118,400	78,400
	\$-9,600 48,000 105,600 163,200 220,800	\$-9,600 \$-49,600 48,000 8,000 105,600 65,600 163,200 123,200 220,800 180,800	\$-9,600 \$-49,600 \$-89,600 48,000 8,000 -32,000 105,600 65,600 25,600 163,200 123,200 83,200 220,800 180,800 140,800	Value \$-9,600 \$-49,600 \$-89,600 \$-129,600 48,000 8,000 -32,000 -72,000 105,600 65,600 25,600 -14,400 163,200 123,200 83,200 43,200 220,800 180,800 140,800 100,800	Value \$-9,600 \$-49,600 \$-89,600 \$-129,600 \$-169,600 48,000 8,000 -32,000 -72,000 -112,000 105,600 65,600 25,600 -14,400 -54,400 163,200 123,200 83,200 43,200 3,200 220,800 180,800 140,800 100,800 60,800





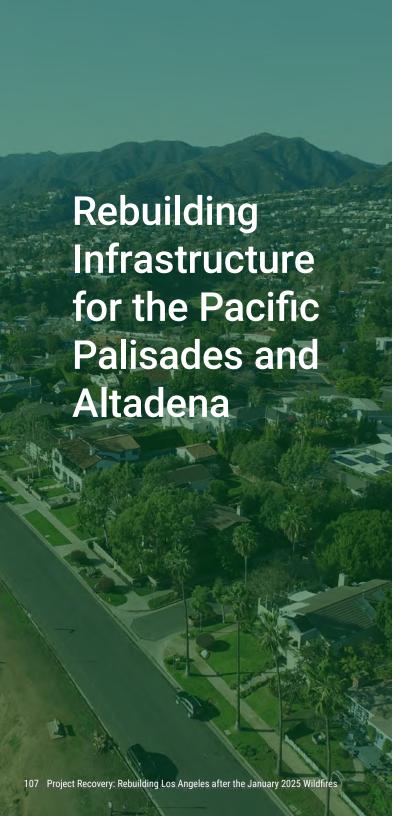
Conclusion: A Path Forward

Comprehensive Approach

Combining various financial strategies to address the complex rebuilding challenge

- Innovation Leveraging new financial tools like CRDs and Disaster Area Bonds
- Collaboration Coordinating efforts between local, state, and federal entities
- **Long-term Resilience**

Focusing on sustainable rebuilding to mitigate future risks



Scope

This team was tasked with developing a strategy for rebuilding the infrastructure in the affected areas using best practices of large master-planned communities and formation of Community Facilities Districts, including information about staging, phasing, vendor recommendations, bond issuance, public finance experts, etc.

Major Issues

Organization. The City of Los Angeles (City) and the County of Los Angeles (County) should each have a single organization that can manage all of the functions necessary to rebuild infrastructure in the fastest, most efficient manner. What form should the organization take?

Scope of Infrastructure Work. There will be an inevitable need and desire to expand, upgrade, and improve infrastructure. Will these improvements be reimbursed by the Federal Emergency Management Agency (FEMA) or other sources?

Permitting requirements for projects that exceed the safe harbors in the Mayor's Emergency Executive Order No. 1 and

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Governor's Executive Order N-4-25 (i.e., rebuilding in excess of 110 percent safe harbor for existing floor area or height) and the County's "like for like" rebuilding program, will trigger the need for zoning approvals, the California Environmental Quality Act, and, in the Pacific Palisades, possible Coastal Commission approvals.

Funding Shortfalls. In light of the uncertainty regarding federal and state budget priorities, there is a possibility of shortfalls in reimbursements and funding from FEMA, the state, or other governmental sources to rebuild infrastructure. How will these shortfalls be financed?

Wildfire Prevention Infrastructure.

Infrastructure for preventing and fighting future wildfires will need to be improved.

Opportunities. The fire event presents a unique opportunity to greatly improve infrastructure in the Pacific Palisades and Altadena and the way the City and County build infrastructure. How can the City and County capitalize on these opportunities?

Primary Recommendations

The team's primary recommendations fall into the following categories.

Organization

The City and County should each create a single agency with comprehensive authority to complete all aspects of the reconstruction of the Pacific Palisades and Altadena, respectively. The employees of each agency should be

devoted full-time to rebuilding and recovery and not have responsibility for other matters.

Reasons for a Single Authority

- For example, the current arrangement of approximately 15 different departments and bureaus responsible for aspects of infrastructure in the City will not be able to produce the speedy and efficient recovery in the Pacific Palisades that is everyone's goal. Similarly, the County has several departments that will be needed to rebuild infrastructure and centralizing these functions in a single agency may expedite reconstruction of infrastructure.
- Only with a single agency will it be possible to have a streamlined, collaborative, and efficient recovery process.

Scope of Agency Authority

- · Construction. Perform all functions required to rebuild infrastructure (damage assessment, design, engineering, construction, contract administration, etc.).
- **Permitting.** Perform all permitting functions for private property (residential and commercial) and public infrastructure (including zoning and land use, plan check and building permit issuance, certificate of occupancy, etc.).
- Finance. Manage the financing for the reconstruction (i.e., negotiate and administer reimbursement from FEMA, State of California, Housing and Urban Development Community Development Block Grants, and other sources) and, where necessary, arrange

- for additional financing, including creating special financing districts.
- EIFD/CRD. Special districts can include a Climate Resilience District (CRD) and **Enhanced Infrastructure Financing District** (EIFD) (both of which have tax increment financing), Community Facilities District, etc.
- Eminent Domain. Where necessary, acquire land for public purposes.

Options for Forming the Organization

Following are options for forming the agency, along with their advantages and disadvantages.

Create a Dedicated Task Force Advantages:

- In the City, this could occur quickly and without City Council approval. The Mayor could also invoke her emergency authority. Similarly, the County Board of Supervisors could create a task force to be housed in the Chief Executive Office.
- After each task force is created, direct oversight by the legislative body would not be required.
- Employees from the various departments and bureaus would be transferred to the Task Force and would be dedicated full time to the recovery and reconstruction effort.

Disadvantages:

 This Task Force would not have its own legal authority but would have to work through other departments or bureaus for most functions.

- · This arrangement is not optimal for a long-term project.
- · The Task Force would have to depend on other departments and bureaus for staffing and carrying out many basic functions.
- The Task Force would be indirectly subject to oversight from the legislative body by virtue of budget oversight.
- Under the City Charter, transfers lasting longer than 120 days require City Council budgetary and other approvals.

Form a New Department by Ordinance Advantages:

- · This will create a single department with clearly established authority and the powers necessary to achieve the recovery and reconstruction. Alternatively, the public financing authority created as part of the Climate Resilience District could be the central lead department/agency proposed to manage the entire rebuilding process.
- · To form the new department, existing employees could be transferred to the new department and the department could hire new employees from outside.
- A new department provides the most flexibility in creating a workforce and structure for maximizing speed and execution.
- · The department would have a single, welldefined purpose and its employees would be 100 percent committed to recovery and rebuilding without the distractions of other non-recovery projects.

- The department head would have sole managerial authority for running the department, thereby increasing accountability and transparency.
- The department could be included in the structure of the CRD described below.

Disadvantages:

- An ordinance adopted by the legislative body would be required, which may take time and wrangling.
- The department would be subject to oversight by the legislative body and budget requirements.
- The department may, but need not, be subject to oversight by a commission.

Funding

To address any shortfalls, explore various financing options available.

Enhanced Infrastructure Financing District

- An EIFD is intended to provide a sustainable funding source for a wide array of public infrastructure (e.g., roads, flood control, open space, utilities, parks, libraries, sewers, etc.), affordable housing, and environmental remediation.
- An EIFD can fund climate change adaptation infrastructure (same as a CRD).
- For the Pacific Palisades, the district would be established by the Los Angeles City Council and, for the County, the Los Angeles

Board of Supervisors. Three public hearings and approval of the legislative body, subject to majority protest proceeding by landowners and voters in the district is required. These districts usually take about nine months to be formed. The district board would be made up of three members of the legislative body and two public members.

Importantly, an EIFD receives tax increment from property in the district.

Climate Resilience District (est. 2022 SB 852)

- A CRD is intended to provide a sustainable funding source for capital projects and ongoing operations and maintenance to adapt, mitigate, and build resilience to climate change.
- · A wide array of public infrastructure can be financed, including fire breaks, prescribed burning, structure hardening, and vegetation control. A CRD can oversee ongoing operations and maintenance.
- The formation process is the same as for an EIFD. In the City, Councilmember Traci Park has filed a motion to study a CRD for the Pacific Palisades.
- · CRDs receive tax increments from property in the district.
- · A CRD can have taxing power-it can levy a benefit assessment, special tax, propertyrelated fee, or other service charges.
- A CRD can access other funds—it can apply for and receive federal/state grants, and

- receive gifts/grants/allocations from public and private entities.
- A CRD can issue revenue bonds and incur general obligation bonds.
- A CRD can have powers needed to administer the district, such as hiring staff. The public financing authority created as part of the CRD could be the central lead department/agency proposed above to manage the entire rebuilding process.

Opportunities

The rebuilding process presents an opportunity to improve infrastructure in the Pacific Palisades and Altadena, including opportunities to do the following:

- · Evaluate the existing water network system and to implement upgrades, as necessary.
- Incentivize homeowners and business owners that will rebuild to "harden" the structure to improve fire resistance, including installing roof sprinklers and using pool water, if available,
- Expand sources of water to fight fires and protect specific and important structures, including more tanks, reservoirs, and pumping water from the ocean.
- Upgrade to new technology for water and power systems.
- · Change city codes based on lessons learned from this event.

- Evaluate emergency response plans for water and power use, including training for how to act during such events and hire an experienced program manager to support the need of the proposed "emergency department."
- Upgrade the electrical system in the Palisades, which has long been deficient due to inadequate substation capacity.
- Develop a state-of-the-art wildfire resilience program that can be expanded to protect all of the communities living near brush, including firefighting infrastructure, fire breaks, prescribed burning and other brush control methods, structure hardening, etc.
- These wildfire resilience measures will be increasingly important for helping homeowners gain confidence to rebuild in these areas and to improve the availability and cost of homeowners insurance on the new homes.

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Appendix A: Jurisdictional Survey: Self-Certification, Liability, and Risk Management

The self-certification programs in various jurisdictions deal with code compliance certifications (state and local code compliance), liability allocation in the self-certification process, insurance for projects that use selfcertification, indemnification, and other related issues. The jurisdictions analyzed to date include the City of Bellflower, the City of San Diego, San Diego County, and Carlsbad, California; Denver, Colorado; Phoenix, Arizona; and New York City. Information for each of these jurisdictions follows; where noted, text is from the jurisdictions' respective websites.

City of Bellflower

• Background: The Self-Certification Program is a voluntary program to expedite the issuance of Building Permits without reducing the building's integrity and still adhering to life and safety requirements. The program is only available to Licensed Professionals (Architects and Engineers) who agree to self-certify the building plans. Self-certifying is accepting full responsibility in assuring the architectural, structural, mechanical, electrical, plumbing, energy, and accessibility requirements are compliant with the current California Code cycle, as well as the City's laws, codes, rules, and regulations.

- In addition, the Licensed Professional confirms that the submittal package was prepared by him/her (or under his/her direct supervision) and it does not contain falsified information. [Program Guidelines, p. 1.]
- Information related to code compliance certifications, liability allocation, insurance, indemnification, and more:
 - Licensed Professional Qualifications: A Licensed Professional is eligible to participate in the Self-Certification Program if he/she is a registered State of California Licensed Architect or Engineer who is in good standing with the State. City Staff verifies the license number through the DCA License Search to certify the provided information. [Program Guidelines, p. 1.]
 - Hold Harmless Letter Requirement: A "Hold Harmless" Letter must be written by the Property Owner to the City's Building Official. The Property Owner agrees to protect, defend, indemnify, and hold the City of Bellflower, the Planning Department, the City Officers, Representatives, Managers, and Employees harmless against any and all claims, demands, awards, suits, judgement, liabilities, losses, or damages arising out of, or being in any way connected with the design, construction, and/or code compliance review for the specific project. (Note: A Hold Harmless Letter sample is on p. 4 of the Program Guidelines.)

Certificate of Insurance Requirement: A Certificate of Professional Liability Insurance is required to be furnished to the City's Building Official. The Certificate is issued by an authorized Insurer recognized by the State of California. The coverage amount required will be reasonably determined by the City Manager (or his designee). The minimum amount is typically \$1,000,000.00, but never less than the Project's Valuation. [Program Guidelines, p. 1.]

San Diego County

- **Background:** The Self-Certification Program eliminates plan review by allowing a registered professional to take responsibility for and certify a project's compliance with building codes, standards, and ordinances. Depending on the scope of the project, permits can be issued within one to five business days. The expanded program includes tenant improvements on small commercial projects, residential minor grading, residential minor grading on a lot without a house, residential driveway permits onto County roads, residential landscape plans, and private roads serving four or fewer homes.
- · Information related to code compliance certifications, liability allocation, insurance, indemnification, and more: The requirements for San Diego County are similar to those of Phoenix and the city of Bellflower. It appears that San Diego County and Phoenix follow the same (or very similar) rules and regulations for the self-certification process.

- According to the county's overview, all projects are required to submit a hold-harmless letter signed by all registrants, an owner/tenant indemnification letter, a copy of the self-certified professional's Certification of Insurance, and a self-certification project application.
- **Insurance Requirements:** For each project, the Self-Certified Professional is required to furnish to PDS a certificate of professional liability errors and omissions insurance, issued by an insurer authorized to insure in California, with limits of not less than \$250,000 per claim and \$500,000 in the aggregate for all claims made during the policy period. [Rules and Regulations, p. 8.]
- Professional of Record Statement Requirement: For each project, the Self-Certified Professional is required to submit a Professional of Record Self-Certification Statement in which the Self-Certified Professional shall be required to certify to the County of San Diego and to the person hiring or otherwise retaining the Self-Certified Professional for such project that:
 - The Self-Certified Professional has been a registered engineer or architect for at least three (3) years and is registered in the State of California; and
 - Within the preceding five-year period, the Self-Certified Professional has

- not been convicted or found liable of: (1) knowingly making a false statement of material fact on or in connection with any building permit application, or (2) knowingly submitting in support of a building permit application any document containing false or fraudulent information, or (3) knowingly affixing a false signature to any building permit application; and
- The attached application and every page of the accompanying plan(s) stamped by the Self-Certified Professional: (1) were prepared by, under the direct supervision of, or reviewed by such Professional; (2) are complete; and (3) are, as of the date of submission, in accordance with the requirements of the County of San Diego Amended Building Code and Zoning Ordinance and all other applicable laws; and
- The attached application and all technical submissions made by the Self-Certified Professional in connection with the self-certified project were prepared in accordance with and meet the "standard of care" required of the profession; and
- · All information and assertions made by the Self-Certified Professional in the permit application and documents submitted in support of such permit application are true and correct; and

- If the Self-Certified Professional becomes aware of any false or inaccurate statement in the permit application, accompanying plans or any document submitted in support of such permit application, regardless of whether such false or inaccurate statement was made by such Self-Certified Professional or by his agent or employee, the Self-Certified Professional will immediately take all measures necessary to correct such false or inaccurate statement; and
- The Self-Certified Professional understands that the Building Chief will rely on the truth and accuracy of the certifications contained in the Professional of Record Self-Certification Statement as the basis for issuing a permit under the Self-Certification Permit Program; and
- The Self-Certified Professional understands that the self-certified project identified in the building permit application is being approved for a building permit subject to audit and/or field inspection by PDS and the permit is subject to revocation by the Building Chief if necessary or appropriate to protect the public health, safety, or welfare; and
- If PDS determines that the submitted plans do not conform to the requirements of the County of San Diego Amended Building Code and

- Zoning Ordinance or any other applicable law, the Self-Certified Professional agrees to submit a revision to permit to PDS in a timely manner and to take all remedial measures within such professional of record's control to bring the submitted plans and any construction there under into conformity with the requirements of the County of San Diego Amended Building Code and Zoning Ordinance and any other applicable law; and
- The Self-Certified Professional understands that the failure to submit any required plan revision to PDS in a timely manner will result in automatic suspension of their self-certification privileges under the Self-Certification Permit Program, until such time that a plan revision is submitted to PDS and/ or the matter is resolved by PDS; and
- · The Self-Certified Professional understands that failure to take all remedial measures within their control to bring the submitted plans and any construction thereunder into compliance with the County of San Diego Amended Building Code and Zoning Ordinance or any other applicable law shall result in revocation of the Self-Certified Professional's privileges under the Self-Certification Program and may result in notification of such fact to the California Department of

- Consumer Affairs Board of Professional Engineers, Land Surveyors, and Geologists.
- · The Self-Certified Professional understands that a Stop Work Order can be issued at the discretion of the Building Chief. [Rules and Regulations, pp. 8-9.]
- **Owner/Designer Certification Statement Requirement:** For each project, the Self-Certified Professional is required to submit to PDS, on a form prepared by PDS, an Owner/Tenant Certification Statement, which shall be signed and dated by the owner or tenant responsible for the work identified in the permit application and in which such owner or tenant shall certify to the County of San Diego that such owner or tenant:
 - · Authorized the work of all professionals and consultants named in the permit application and accompanying plans; and
 - · Agrees to take all measures necessary to correct any misrepresentation or falsification of facts made knowingly or negligently in the building permit application or in any document submitted in support of such application by the owner or tenant, as applicable, or by such owner's or tenant's agents, contractors or employees; and

- Understands that the Self-Certified project is being approved for a permit subject to audit and/or field inspection by the County; and
- Agrees to take all remedial measures necessary to bring the plans and all construction completed under the permit for the project into conformity with requirements of the County of San Diego Amended Building Code, Zoning Ordinance, Grading Ordinance and all other applicable laws. Rules and Regulations, p. 10.]
- Hold Harmless Letter Requirement: For each project, the Self-Certified Professional is required to submit to PDS, on a form provided by PDS, an Owner Hold Harmless Letter, which shall be signed and dated by the owner responsible for the work identified in the permit application and in which such owner shall agree to the following:
 - To protect, defend, indemnify, and hold harmless the County of San Diego and its officers, representatives, managers, and employees against any and all claims, liabilities, judgments, costs, expenses, delays, demands, or injuries arising out of or in any way connected with the design, construction, code compliance review, or issuance of a building permit for the project identified in the building permit application; and

That if construction is contrary to the County of San Diego Amended Building Code and Zoning Ordinance or any other applicable law or to any permit issued under the Self-Certification Program, the owner, as applicable, shall, without undue delay, remove, or modify, at such owner's own expense, any component of such construction that does not conform to the requirements of the County of San Diego Amended Building Code and Zoning Ordinance or any other applicable law or to such permit. [Rules and Regulations, pp. 10-11.]

Carlsbad

- Background: According to Information Bulletin 270, the Carlsbad Building Permit Self-Certification Program (SCP) allows for a California-licensed contractor to certify that certain minor construction projects were completed in compliance with required building codes in-lieu of a city inspection. Eligible projects include roof (shingle) replacement (nonstructural); re-plumbing or re-piping of existing plumbing; HVAC system (new or replacement); water heater replacement (except tankless/solar); insulation installation; window replacement, with stucco/siding repair; exterior siding/plaster; interior drywall; fence; and commercial sign.
- · Information related to code compliance certifications, liability allocation, insurance, indemnification, and more:

- Minimum Requirements: The following requirements must be met to participate in the SCP.
 - The individual responsible for completing and inspecting work under this program must hold a valid and active credential, as reflected below:
 - California B-General Building Contractor's license: or
 - California C-type Contractor's license, depending upon construction work being completed; or
 - State certified civil or structural engineer.
 - Current worker's compensation insurance or certificate of exemption. [IB-270, p. 1]
- Self-Certification Declaration Requirement: There is also a Self-Certification Declaration, which requires the Contractor/Architect/Engineer to state the following: "I shall assume responsibility and liability for the overall installation, inspection, and certification of all work associated with the referenced building permit and will ensure that all work is completed in compliance with all applicable requirements of the California Building Standards Code as adopted and amended by the City of Carlsbad and in accordance with any manufacturer's installation requirements."

Phoenix

- Background: The Self-Certification Program eliminates plan review by allowing a registered professional to take responsibility for and certify a project's compliance with building code, standards, and ordinances. Depending on the scope of the project, permits can be issued within one to five business days. The program includes most buildings over 25,000 square feet; inventory, salvage, landscape, and parking lot plans by landscape architects; and grading and drainage and parking lot plans by civil engineers.
- Information related to code compliance certifications, liability allocation, insurance, indemnification, and more: Each project requires a hold-harmless letter, indemnification letter, and certification of insurance. Additionally, some projects require Structural Peer Review Certificates or Electrical Peer Review Certificates. Lastly, there are Professional Record Statement and Owner/Tenant Certification requirements as well. Each is summarized below.
 - Peer Review Certificates Required: A Structural Peer Review Certificate by a city-approved Structural Peer Reviewer is required for projects with structural scope of work; an Electrical Peer Review Certificate by a city-approved Electrical Peer Reviewer is required for installation or modifications to electrical systems that exceed 400 amperes or the available fault current exceeds 22,000 amperes. Self-Certification Program Overview

- Hold-Harmless Letter, Indemnification Letter, and Certification of Insurance: All projects require a hold-harmless letter signed by all registrants, a building owner/tenant indemnification letter, and a copy of the Self-Certified Professional's Certification of Insurance. [Self-Certification Program Overview
- **Insurance Requirements:** For each project, the Self-Certified Professional is required to furnish to the Department a certificate of professional liability insurance, issued by an insurer authorized to insure in Arizona, with limits of not less than \$500,000 per claim and \$1,000,000 in the aggregate for all claims made during the policy period. [Rules and Regulations, p. 9]
- Professional of Record Statement **Requirement:** For each project, the Self-Certified Professional is required to submit a Professional of Record Self-Certification Statement in which the Self-Certified Professional shall be required to certify to the city and to the person hiring or otherwise retaining the Self-Certified Professional for such project that:
 - The Self-Certified Professional has been a professional registered engineer or architect for at least three (3) years and is registered in the State of Arizona; and
 - Within the preceding five-year period, the Self-Certified Professional has

- not been convicted or found liable of: (1) knowingly making a false statement of material fact on or in connection with any building permit application, or (2) knowingly submitting in support of a building permit application any document containing false or fraudulent information, or (3) knowingly affixing a false signature to any building permit application; and
- The attached application and every page of the accompanying plan(s) stamped by the Self-Certified Professional: (1) were prepared by, under the direct supervision of, or reviewed by such Professional; (2) are complete; and (3) are, as of the date of submission, in accordance with the requirements of the Phoenix **Building Construction Code and all** other applicable laws; and
- The attached application and all technical submissions made by the Self-Certified Professional in connection with the self-certified project were prepared in accordance with and meet the "standard of care" required of the profession; and
- All information and assertions made by the Self-Certified Professional in the permit application and documents submitted in support of such permit application are true and correct; and

- If the Self-Certified Professional becomes aware of any false or inaccurate statement in the permit application, accompanying plans or any document submitted in support of such permit application, regardless of whether such false or inaccurate statement was made by such Self-Certified Professional or by his agent or employee, the Self-Certified Professional will immediately take all measures necessary to correct such false or inaccurate statement; and
- The Self-Certified Professional understands that the Building Official will rely upon the truth and accuracy of the certifications contained in the Professional of Record Self-Certification Statement as the basis for issuing a permit under the Self-Certification Permit Program; and
- The Self-Certified Professional understands that the self-certified project identified in the building permit application is being approved for a building permit subject to audit and/or field inspection by the Department and the permit is subject to revocation by the Building Official if necessary or appropriate to protect the public health, safety or welfare; and
- If the Department determines that the submitted plans do not conform to the requirements of the Phoenix Building Construction Code or any other applicable law, the Self-Certified

- Professional agrees to submit a revision to permit to the Department in a timely manner and to take all remedial measures within such professional of record's control to bring the submitted plans and any construction there under into conformity with the requirements of the Phoenix Building Construction Code and any other applicable law; and
- The Self-Certified Professional understands that the failure to submit any required plan revision to the Department in a timely manner will result in automatic suspension of their self-certification privileges under the Self-Certification Permit Program, until such time that a plan revision is submitted to the Department and/or the matter is resolved by the Department; and
- · The Self-Certified Professional understands that failure to take all remedial measures within their control to bring the submitted plans and any construction thereunder into compliance with the Phoenix Building Construction Code or any other applicable law shall result in revocation of the Self-Certified Professional's privileges under the Self-Certification Program and may result in notification of such fact to the Arizona Board of Technical Registration. [Rules and Regulations, pp. 9-10]

Owner/Tenant Certification Statement: For each project, the Self-Certified Professional is required to submit to the Department, on a form prepared by the Department, an Owner/Tenant Certification Statement, which shall be signed and dated by the owner or tenant responsible for the work identified in the building permit application and in which such owner or tenant shall certify to the

city that such owner or tenant:

- · Authorized the work of all professionals and consultants named in the building permit application and accompanying plans; and
- Agrees to take all measures necessary to correct any misrepresentation or falsification of facts made knowingly or negligently in the building permit application or in any document submitted in support of such application by the owner or tenant, as applicable, or by such owner's or tenant's agents, contractors or employees; and
- Understands that the Self-Certified project is being approved for a building permit subject to audit and/or field inspection by the Department; and
- Agrees to take all remedial measures necessary to bring the plans and all construction completed under the permit for the project into conformity with requirements of the Phoenix **Building Construction Code and all**

- other applicable laws. Rules and Regulations, pp. 10-11]
- Hold Harmless Letter Requirement: For each project, the Self-Certified Professional is required to submit to the Department, on a form provided by the Department, an Owner Hold Harmless Letter, which shall be signed and dated by the owner responsible for the work identified in the permit application and in which such owner shall agree to the following:
 - To protect, defend, indemnify and hold harmless the City of Phoenix and its officers, representatives, managers and employees against any and all claims, liabilities, judgments, costs, expenses, delays, demands or injuries arising out of or in any way connected with the design, construction, code compliance review or issuance of a building permit for the project identified in the building permit application; and
 - That if construction is contrary to the Phoenix Building Construction Code or any other applicable law or to any permit issued under the Self-Certification Program, the owner, as applicable, shall, without undue delay, remove or modify, at such owner's own expense, any component of such construction that does not conform to the requirements of the Phoenix **Building Construction Code or any** other applicable law or to such permit. [Rules and Regulations, p. 11]

Denver

Background: Quick permits are trade-specific permits that can be issued without the need for a plan review. The types of projects that qualify for quick permits include minor work that introduces little to no visible change to a historic structure or property, certain types of boiler and commercial air-conditioning projects, certain types of electrical work projects (only if the utility service is rated 400 amperes or less), certain types of mechanical and plumbing projects, and roof or siding work. (Note: The team has not yet been able to locate information related to code compliance certifications, liability allocation, insurance, indemnification, and related issues for the quick permit process but will continue looking for it.)

New York City

- Background: Self-certification in New York City is governed by Directive 14. Projects that do not propose a change to use, egress, or occupancy or any other change that might affect the Certificate of Occupancy are eligible for a limited review under the Directive 14 of 1975 (D14) program. The applicant assumes responsibility for the job and is authorized to perform the final inspection of his/her project and request a letter of completion. [Directive 14]
- Information related to code compliance certifications, liability allocation, insurance, indemnification, and more:
 - Insurance Requirements: According to Directive 14, "[i]t will be required that proof of [workmen's] compensation insurance and disability benefits insurance be filed before the permit is issued." [Directive 14(1)]
 - **Professional Certification:** The New York City Buildings Department also offers a Professional Certification (Pro Cert) **Program** which enables Professional Engineers (PE) and Registered Architects (RA) to certify that the plans they file with the Department are in compliance with all applicable laws. This reduces the amount of time a builder normally has to wait for a permit by eliminating the process of Department plan examination and approval. [Professional Certification Program | See the Professional and Owner Certification document.

Santa Rosa

- Background: In October 2017, the Tubbs Fire in Santa Rosa, California, destroyed almost 7.000 structures—of which more than 3.000 were homes (5 percent of the overall housing stock). According to the report "Rebuilding after the Fires: Housing Lessons for All Communities," the city of Santa Rosa responded to this crisis by creating the Resilient City Permit Center to expedite the plan review and permitting process. Although not a self-certification program per se, Santa Rosa's wildfire recovery efforts, including the permit center, provided
 - Dedicated staff—up to 30 new positions
 - Reduced permit fees for all rebuild projects
 - Reviewing plans within five days
 - Expedited review of plans relating to fire safety, landscaping, water service, etc.
 - Inspections within 24 hours of request
 - Changes in policies, allowing for expedited construction of accessory dwelling units

The results in Santa Rosa have been impressive. According to a recent article in the Los Angeles Times, by 2020, just three years after the fire, more than 80 percent of the neighborhood homes lost in the fire had been rebuilt and families had moved back in.

Appendix B: Overview of Los Angeles Rebuilding **Supply Chain Analysis**

Research by Beacon Economics

There is a wide interest in expediting the rebuilding of both the Palisades and the Altadena neighborhoods. The primary impediments to a rapid recovery can be broken into distinct issues—regulatory (zoning and permitting), financial (including insurance), and logistical. Our effort focused on the overall material and labor needs of the rebuilding process. We have done so by generating estimates of the costs of construction. We have included residential, nonresidential, and infrastructure construction in these estimates. although residential represents the bulk of the expenditures.

At issue is whether or not the Los Angeles economy has the capacity to absorb the increases in material and labor inputs needed for the rebuilding process. This question can be explored by considering the overall scale of the effort but must also take into account the pace of rebuilding. To that end we also gathered information on the historical patterns of rebuilding. This data can provide a better sense of what realistic goals are for the region and helps highlight the potential barriers to success. The summary of our conclusions are as follows:

The overall scale of rebuilding is moderate compared to the standard pace of construction in the Southern California

region. We see little reason to worry about the capacity of supply chains to provide the necessary materials to rebuild. The bigger problem will be to get the needed materials into the neighborhoods during the rebuilding process given the constrained road access, particularly in the Palisades.

- The additional labor needs can also be easily met by the substantial pool of construction workers that already live in the state. The larger issue here will be to find housing for these workers within a region that is already facing a substantial housing shortage. This problem will be exacerbated with the Palisades given its location, implying large-scale commuting into a region that already has congestion issues.
- In terms of the expected pace of rebuilding, our analysis suggests that the absolute best-case scenario for the region would be to have 90 percent of homes rebuilt by the end of 2028, with a more likely outcome to hit 90 percent rebuilt by the start of 2030. Our analysis also suggests that the process could take much longer if the City and County fail to substantially reduce/ streamline the permitting process.

Supply Chain Analysis

According to state records, the Altadena and Palisades fires destroyed slightly over 16,000 structures and damaged another 2,000. Many of these structures were auxiliary. The number of residential units destroyed was slightly over

12,000 of which 11,000 were single-family, while the rest were multifamily or mobile homes. There were roughly 200 commercial units destroyed as well. Context shows that this is a large but not unmanageable number. In 2024 there were 12,000 single-family homes permitted in the Los Angeles and Orange counties according to the Census, and another 12,000 in the Inland Empire. In short, even if everything was rebuilt in one year it would still only represent a 50 percent increase in the standard flow of housing construction in Southern California. There is a precedent for this pace as back in 2005 over 60,000 single-family units were permitted in the four-county region.

To create an estimate of overall supply chain needs for the rebuilding process, we created estimates of the square footage of building that would take place. There are two estimates to be had here—one using the replacement sizes (1,658 square feet in Altadena and 2,748 square feet in Palisades) as well as to account for the idea that many owners will take this opportunity to build a larger structure on their land, an understandable decision given the increase in housing prices in the region. We used the floor area ratio (FAR) for recently rebuilt structures to provide guidance on this front and arrived at an estimate of 2,184 square feet and 3,770 square feet average sizes, an increase of 32 and 37 percent respectively. We used a rebuilding cost of \$500 and \$750 per square foot for the two areas. This implies roughly \$20 billion cost to rebuild the 11,000 residential units, with over two-thirds to be spent in the Palisades given the larger structures and higher cost.

Average Size (Square Feet)									
	Units	Cost PSF	Destroyed	As Rebuilt					
Altadena	6,000	\$500	1,658	2,184					
Palisades	5,000	\$750	2,748	3,770					

For the overall cost of reconstruction, we also added in commercial buildings based on a \$450 per square foot blended average for costs—which is roughly \$1 billion total, again with two-thirds in the Palisades. We also calculated a \$2 billion cost for infrastructure reinvestment evenly divided between the two regions based on 200 miles plus of roadway at \$4 million per mile. Altogether we arrive at about \$23.5 billion in reconstruction costs in 2025 prices. Gross revenues in the construction industry in California are slightly over \$300 billion, so this price is about 8 percent of total activity, or 2 percent if spaced out over four years, well within normal fluctuations.

For a deeper look at how this demand will ripple across the economy, we created an estimate of the needed types of inputs by running our cost estimates through IMPLAN, a standard economic impact program. The results show that most of the increases in demand by product can easily be met by existing supply chains in the state. It is our belief that the largest challenge lies not in obtaining these supplies but rather porting and storing them in the areas. A few pressure-points that we see are as follows:

Within the state there will be a modest but visible increase in the demand for concrete. stone products, windows, and doors.

- The state relies on the rest of the United States for steel, wood, and stone construction inputs. Given that Los Angeles is one of largest logistics hubs in the nation, we do not feel bringing these products into the region for use will be an issue.
- Potential tariffs are an issue, as steel products, windows, lumber, and doors are all markets that have a substantial share of foreign produced supply. Higher tariffs will raise overall material costs, even on products that are domestically produced, since domestic producers will raise their prices as well.

As for labor, we anticipate that the rebuilding would need a total of 150,000 years of full-time equivalent (FTE) employment to accomplish—a relatively high number compared to the damage amounts given that residential construction tends to be relatively labor intensive compared to heavy and commercial construction. The employment will be mainly in construction, but this does include supply chain employment such as drivers, warehouse workers, and wholesalers. The building process will take a number of years to accomplish, so these jobs will be spread out over time.

Looking at an aggressive flow of work, we can expect labor demand to peak at roughly 40,000 to 50,000 workers during the peak rebuilding period, which will likely be in late 2026, early 2027 (see the following section). Even this number exaggerates the actual head-count increase as some of this employment can be

filled by the existing workforce working on more houses per week.

To put this in context, the five-county area (Los Angeles, Orange, Ventura, Riverside, and San Bernardino) had 386,000 payroll construction employees in 2023, out of 915,000 for the state overall. Of course, many workers in construction are self-employed and thus wouldn't be included in these figures. To capture the full potential workforce, we looked at household statistics from the American Community Survey and found that over 600.000 workers in the fivecounty region state that they are employed in construction. In other words, the in-state labor pool can surely handle the additional load.

- Given that construction proceeds at a much slower pace after fires as compared to post-hurricane or flood rebuilding efforts, the labor demand is spread out over time, reducing the need for out-of-state workers.
- As with materials, the largest issue will be finding housing for workers close to the work sites to reduce the traffic impacts and increase the number of available working hours.
- The bottlenecks will not be in overall labor, but in the skilled professions where there is a high need for region-specific knowledge. For example, the hilly terrain in the Palisades suggests a need for a small set of engineers, architects, and general contractors who understand the unique physical and regulatory needs.

This final point suggests that the City and County might invest in some system to match local with out-of-area experts to allow these companies the ability to scale up to meet peak load needs.

The Pace of Rebuilding

Lastly, we looked at the patterns of rebuilding that occurred after a number of previous fires to provide some reasonable benchmarks for what Los Angeles could label a rapid or slow recovery. The two that stood out as the best examples of right and wrong policy were the rebuilding in Sonoma after their 2017 fires and the rebuilding after the fires in Paradise in 2018. Sonoma was as good of a case as we could find, with over 90 percent rebuilding five years on.

This analysis is behind us considering our two different rebuilding paths—a very rapid goal pace where 85 percent of all units are rebuilt by the middle of 2028, or a moderate pace where 90 percent of units would be built by the middle of 2030-one that matches Sonoma. We did not provide a Butte County example as the region has not come close to recovery as of 2025.

The difference between Butte and Sonoma has largely to do with the finances and permitting process. Residents of Paradise were far more likely to be underinsured. The area also did not streamline its permitting process in any significant way. The result was that many people simply sold their land and left the region, and the housing was never rebuilt. The population of the county is 10 percent lower today than before the fires.

Sonoma fire victims, in contrast, were better off than the folks in Paradise. And the County and City did streamline the process significantly making it easy for residents to rebuild. Only roughly a quarter of people sold their land-most clearly rebuilt and this likely also hastened the rebuilding process. There was no significant decline in county population after the fire.

Of the two regions, it seems as if the Altadena neighborhood has a higher likelihood of a Paradise-type post-fire exodus from the area due to financial constraints, unless there is significant financial intervention. It should be noted that this will not likely lead to a Paradisestyle outcome, as these folks will likely find new places within the broader Southern California region to reside given the far wider range of opportunities in our highly populated area. This will surely lead to a rush of investors eager to take advantage of housing shortages and high prices in the region. This can speed up the process but will alter the character of the region.

The Palisades will likely see more people rebuild rather than move. This could stretch the process out much longer, however, if these residents face significant regulatory hurdles or even if they aren't in any true hurry to finish-causing other families to slow walk the process as well to avoid living in empty neighborhoods. One way to overcome this issue would be to reduce the regulatory hurdles, but only for a limited period of time.

Appendix C:

Rebuild Los Angeles: Supply Chain Analysis and Historic Case Studies





Rebuild Los Angeles Supply Chain Analysis and Historic Case Studies

February 2025

Study Conducted by Beacon Economics

This research was made possible through the generous support of MATT Construction.



Eaton and Palisades Fire Damage Overview

Eaton Fire Damage Overview:

- **Total Impact:** The Eaton fire affected a total of 10,487 residential buildings, with 9,413 destroyed and 1,074 damaged.
- **Single-Family Residences:** 6,039 single-family homes were destroyed and 752 were damaged, totaling 6,791 impacted homes.

Palisades Fire Damage Overview:

- **Total Impact:** The Palisades fire led to 6,833 units being destroyed and 973 units damaged, affecting a total of 7,806 units.
- **Single-Family Residences:** 5,068 single-family homes were destroyed and 762 were damaged, resulting in 5,830 homes being affected.

Combined Impact of Eaton and Palisades Fires:

•Together, the Eaton and Palisades fires resulted in a combined total of 16,246 buildings destroyed and 2,047 buildings damaged across various residential and other categories.





Residential Damage Eaton and Palisades Fires – Destroyed

	Eat	ton	Palis	ades		
		Destroye	Total			
Structure Type	# Units	# Buildings	# Units	# Buildings	# Units	# Buildings
Mobile and Motor Home	12	12	361	361	373	373
Multifamily Residence	323	96	530	135	853	231
Single-Family Residence	6,009	6,039	5,075	5,068	11,084	11,107
Residential Total	6,344	6,147	5,966	5,564	12,310	11,711
Mixed Commercial/Residential	9	5	4	3	13	8
Commercial	116	99	216	101	332	200
Utility Misc. Structure*	3,096	3,096	1,107	1,107	4,203	4,203
Nonresidential Other	67	66	58	58	125	124
Total	9,632	9,413	7,351	6,833	16,983	16,246

*Utility and miscellaneous include structures of an accessory character and miscellaneous structures not classified in any specific occupancy category, such as private garages, tanks, barns, greenhouses, sheds, and aircraft hangars.

Source: California Department of Forestry and Fire Protection (CAL FIRE)

Residential Damage Eaton and Palisades Fires - Damaged

	Eaton		Palis	ades	Total		
			Damaged	(1%-50%)			
Structure Type	# Units	# Buildings	# Units	# Buildings	# Units	# Buildings	
Mobile and Motor Home			4	4	4	4	
Multifamily Residence	277	28	475	52	752	80	
Single-Family Residence	751	752	764	762	1,515	1,514	
Residential Total	1,028	780	1,243	818	2,271	1,598	
Mixed Commercial/Residential	2	2	2	2	4	4	
Nonresidential Commercial	40	30	47	31	87	61	
Utility Misc Structure*	238	238	109	109	347	347	
Nonresidential Other	24	24	13	13	37	37	
Total	1,332	1,074	1,414	<mark>973</mark>	2,746	2,047	

^{*}Utility and miscellaneous: Include structures of an accessory character and miscellaneous structures not classified in any specific occupancy category, such as private garages, tanks, barns, greenhouses, sheds, and aircraft hangars.

Source: California Department of Forestry and Fire Protection (CAL FIRE)





Residential - Damage by Square Footage in Eaton and **Palisades Fires**

 Combined Impact of the Palisades and Eaton Fires: Together, the Palisades and Eaton fires caused extensive damage to residential properties, resulting in the total destruction of 23,161,219 square feet and damage to 2,840,705 square feet.

This accumulates to an affected area of 26,001,924 square feet (approximately 597 acres) across both regions.

- Eaton Fire Square Footage Impact: The Eaton fire alone was responsible for destroying 9,451,091 square feet (217 acres) and damaging 979,025 square feet of residential property. Notably, single-family accounted for 95% of the residential destroyed square footage in Eaton.
- Palisades Fire Square Footage Impact: In Palisades, the fire destroyed 13,710,124 square feet (315 acres) and damaged 1,861,680 square feet of residential space. Single-family homes were similarly the most affected, comprising 96% of the total destroyed residential square footage.





Residential - Damage by Square Footage in Eaton and Palisades Fires

Fire	Structure Type	Destroyed (>50%)	Major (26–50%)	Minor (1–25%)	Total
Eaton	Apartment	147,617	1,316	77,262	226,195
	Duplex	325,175		7,573	332,748
	Single-Family Residence	8,978,303	42,611	850,263	9,871,177
	Total	9,451,095	43,927	935,098	10,430,120
Palisades	Apartment	338,010	17,678	35,342	391,030
	Condominium	23,453		8,225	31,678
	Duplex	163,344		24,894	188,238
	Single-Family Residence	13,185,317	112,266	1,663,275	14,960,858
	Total	13,710,124	129,944	1,731,736	15,571,804
Total		23,161,219	173,871	2,666,834	26,001,924

Source: UrbanFootprint and California Department of Forestry and Fire Protection (CAL FIRE)



Nonresidential - Damage by Square Footage in Eaton and Palisades Fires

• Combined Impact of the Palisades and Eaton Fires: Together, the Palisades and Eaton fires resulted in the destruction of 1,046,090 square feet (approximately 24 acres) and damage to 327,604 square feet of nonresidential property.

The total accumulated effect across both regions spans 1,373,694 square feet, equivalent to about 31.5 acres, where office buildings, hospitals, and retail spaces were the most affected.

• Eaton Fire Detailed Impact: The Eaton fire alone was responsible for destroying 474,170 square feet (10.9 acres) and damaging 102,235 square feet.

Retail and hospital structures were the most affected, together accounting for 49% of the total nonresidential damaged area.

Palisades Fire Detailed Impact: In Palisades, the fire destroyed 571,920 square feet (13.1 acres) and damaged 225,369 square feet.

Office buildings and retail structures sustained the most damage, comprising 57% of the nonresidential square footage affected in Palisades.





Nonresidential – Damage Summary by Square Footage in Eaton and Palisades Fires

Fire	Category	Destroyed (>50%)	Major (26–50%)	Minor (1–25%)	Grand Total
Eaton	Commercial	65,463		6,439	71,902
	Other Nonresidential	333,544	2,912	81,596	418,052
	Utilities	475	360	654	1,489
	Exempt*	74,688		10,274	84,962
	Total	474,170	3,272	98,963	576,405
Palisades	Commercial	19,309		76,766	96,075
	Other Nonresidential	492,786	35,210	113,393	641,389
	Exempt*	59,825			59,825
	Total	571,920	35,210	190,159	797,289
Total		1,046,090	38,482	289,122	1,373,694

^{*&}quot;Exempt" structures typically refer to areas that are not subject to certain regulations or assessments.

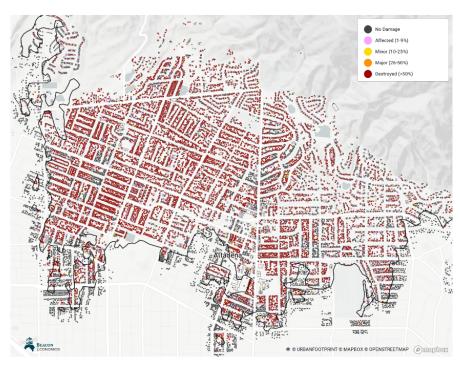
Source: UrbanFootprint and California Department of Forestry and Fire Protection (CAL FIRE)

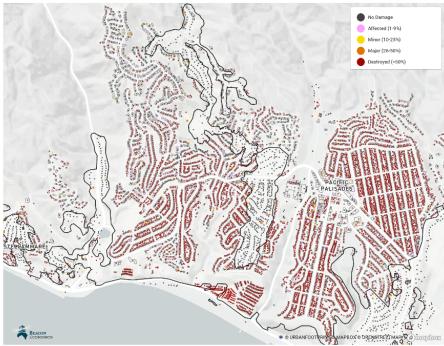




Most Impacted Areas



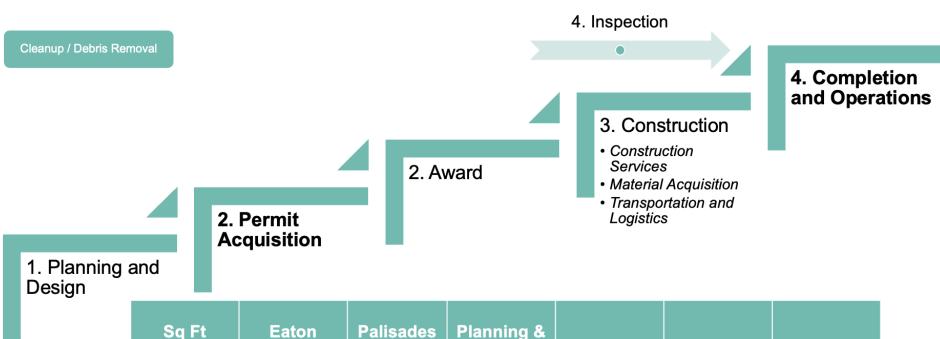








Construction Supply Chain Lead Times for New Homes



Sq Ft Buildings	Eaton \$/Sq Ft	Palisades \$/Sq Ft	Planning & Design	Permit	Award	Construction
<=2000	500	700	3-4 mo	1 mo	1 -3 mo	10-12 mo
<=5000	700	1000	4-6 mo	1 mo	1 -3 mo	12-18 mo
>5000	1000	1500	12-24 mo	1 mo	1 -3 mo	24-48 mo





LA County: Total Economic Impact Eaton

Construction: Eaton

April 2025–April 2029 (48 Months/4 Years)

Annual increase in construction employment capacity, assuming consistent production throughout the period.

Eaton Impacts - Year	ly										
Yearly – 4 years											
	Impact Type	Yearly FTE Required	▲ Yearly Output, \$	Direct FTE (Premium 50% Hourly Rate)	Monthly Output, \$, if all Emplyment is hired in the month	Avera Hourly Incom	y	Total LA Payroll Employment, 2023	% \(\Direct \) Employment (Level of Stress)		
Construction_Infrastructure	Direct	1,318.79	241,141,754	1,031.14	20,095,146	\$	86	38,135	3.56%		
	Indirect	198.74	63,756,139		5,313,012	\$	96				
	Total	1,517.53	304,897,892		25,408,158	\$	88				
Construction_Non_Residential	Direct	589.03	106,216,700	462.68	8,851,392	\$	82	79,232	0.77%		
	Indirect	89.27	26,532,057		2,211,005	\$	95				
	Total	678.30	132,748,757		11,062,396	\$	84				
Construction_Residential	Direct	8,214.85	1,813,007,575	6,830.07	151,083,965	\$	83	98,641	8.57%		
	Indirect	2,295.94	596,664,635		49,722,053	\$	80		0.57 %		
	Total	10,510.79	2,409,672,210		200,806,017	\$	83				
Repair Damaged	Direct	468.01	92,862,875	381.36	7,738,573	\$	79	42,532	1.13%		
	Indirect	107.46	31,498,114		2,624,843	\$	82				
	Total	575.47	124,360,989		10,363,416	\$	80				
Total	Total	13,401.81	\$3,008.46 M	8,767	250,705,055	\$	83				





LA County: Total Economic Impact Palisades

Construction: Palisades

April 2025–April 2029 (48 Months/4 Years)

Annual increase in construction employment capacity, assuming consistent production throughout the period.

Palisades Impacts -	Yearly										
Yearly – 4 years											
	Impact Type	Yearly FTE Required	▲ Yearly Output,\$	Direct FTE (Premium 50% Hourly Rate)	Monthly Output, \$, if all Emplyment is hired in the month	Avera Hourly Incom	i	Total LA Payroll Employment, 2023	% A Direct Employment (Level of Stress)		
Construction_Infrastructure	Direct	1,845.42	337,435,847	1,442.91	28,119,654	\$	86	38,135	4.98%		
	Indirect	278.11	89,215,602		7,434,634	\$	96				
	Total	2,123.52	426,651,449		35,554,287	\$	88				
Construction_Non_Residential	Direct	1,107.79	199,761,025	870.17	16,646,752	\$	82	79,232	1.44%		
	Indirect	167.88	49,898,660		4,158,222	\$	95				
	Total	1,275.68	249,659,685		20,804,974	\$	84				
Construction_Residential	Direct	16,026.46	3,537,022,000	13,324.88	294,751,833	\$	83	98,641	40 700/		
	Indirect	4,479.19	1,164,041,435		97,003,453	\$	80		16.72%		
	Total	20,505.65	4,701,063,435		391,755,286	\$	83		-		
Repair Damaged	Direct	1,474.17	292,508,000	1,201.23	24,375,667	\$	79	42,532	3.57%		
	Indirect	338.50	99,215,647		8,267,971	\$	82				
	Total	1,812.67	391,723,647		32,643,637	\$	80				
Total	Total	25,889.78	\$5,822.02 M	16,929	485,168,689	\$	83				





LA County: Total Economic Impact Eaton and Palisades

Construction: Eaton and Palisades April 2025–April 2029 (48 Months/4 Years)

Annual increase in construction employment capacity, assuming consistent production throughout the period.

Eaton+Palisades Imp	acts - Ye	arly							
		Y	early – 4 years						
	Impact Type	Yearly FTE Required	Yearly Output,\$	Direct FTE (Premium 50% Hourly Rate)	Monthly Output, \$, if all Emplyment is hired in the month	Avera Hourl	y	Total LA OC MSA Employment, 2023	% \(\Direct \) Employment (Level of Stress)
Construction_Infrastructure	Direct	3,164.21	578,577,601	2,474.05	48,214,800	\$	86	38,135	8.54%
	Indirect	476.85	152,971,741		12,747,645	\$	96		
	Total	3,641.06	731,549,342		60,962,445	\$	88		
Construction_Non_Residential	Direct	1,696.83	305,977,725	1,332.85	25,498,144	\$	82	79,232	2.20%
	Indirect	257.15	76,430,717		6,369,226	\$	95		
	Total	1,953.98	382,408,442		31,867,370	\$	84		
Construction_Residential	Direct	24,241.30	5,350,029,575	20,154.94	445,835,798	\$	83	98,641	25.30%
	Indirect	6,775.13	1,760,706,070		146,725,506	\$	80		
	Total	31,016.43	7,110,735,645		592,561,304	\$	83		
Repair Damaged	Direct	1,942.17	385,370,875	1,582.59	32,114,240	\$	79	42,532	4.70%
	Indirect	445.97	130,713,761		10,892,813	\$	82		
	Total	2,388.14	516,084,636		43,007,053	\$	80		
Total	Total	38,999.61	\$8,740.78 M	25,544	728,398,172	\$	83		





LA County: Total Economic Impact

2026 (1 Year/12 months)

Cleaning: Eaton

			Yearly – 1 year					
	Impact Type	Yearly FTE Required			Monthly Output, \$, if all Emplyment is hired in the month	_	Total LA Payroll Employment, 2023	% \(\Direct\) Employment (Level of Stress)
Cleaning_Remediation	Direct	288.46	99,252,650	248.30	8,271,054		15,530	1.93%
	Indirect	190.40	47,870,582		3,989,215			
	Total	478.86	147,123,232		12,260,269			
Cleaning - Palisa	des							
Cleaning_Remediation	Direct	415.08	142,820,440	357.29	11,901,703	3	15,530	0 2.77%
	Indirect	190.40	68,883,778	1	5,740,315	5		
	Total	605.48	211,704,218		17,642,018	3		
Cleaning – Eaton	and Palis	ades						

242,073,090

116,754,360

358,827,450

703.53

190.40

893.94

Direct

Total

Indirect

605.59





Cleaning_Remediation

4.70%

15,530

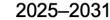
20,172,758

9,729,530

29,902,287

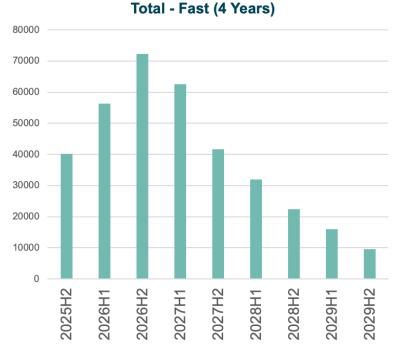
Projected Construction Employment Needs by Semester: Total – Eaton and Palisades

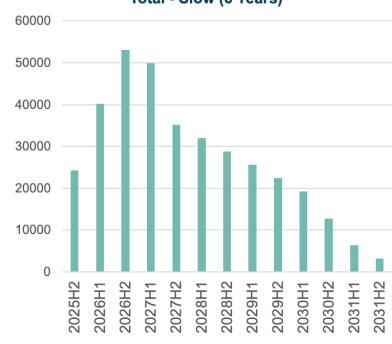
2025-2029















Projected Employment Needs by Semester: Eaton/Palisades

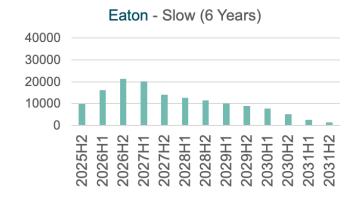
2025-2029

2025-2031















Supply Chain Insights and Potential Risks

- The presence of low State Purchasing Content (RPC) or high imported content, coupled with significant demand changes, suggests a structural reliance on non-local sources for critical construction operations.
- Materials sourced externally, including imports from foreign countries, pose significant risks of disruptions, international shipping delays, and price fluctuations in raw materials.

Potential risks:

- Iron and steel mills
- Structural metal manufacturing
- **Engineered wood**
- Sawmills

- Stone mining
- Oil and gas
- Petrochemical manufacturing/other plastics





Supply Chain Output Demand – Industries Most Impacted (Indirectly)

	Output - Indirect (Via Supply Chain)					
Industry Description TOTAL INDIRECT OUTPUT EFFECT (RIPPLE)	SupplyChain_Stage	Los Angeles County, (CALIFORNIA) 1,760,706,070	Domestic (United States) 4,018,177,163	% Regional Purchases in California (Regional State Purchase Content -RPC)	% Industry New State Purchases / Total Industry California Output	%Foreign Purchases Content (Foreign PurchasesContent)
Retail - Building material and garden equipment and suppl	ie: 3-Material Acquisition	377,904,489	418,513,589	99.6%	1.6%	3%
Ready-mix concrete manufacturing	3-Material Acquisition	4,111,626	157,045,757	91.9%	3.1%	6%
Management of companies and enterprises	4-Completion and Operations	65,571,252	117,626,339	78.0%	0.1%	4%
Other real estate	1-Planning and Design	84,305,566	111,518,163	87.5%	0.0%	4%
Petroleum refineries	3-Material Acquisition	70,514,419	94,558,741	79.7%	0.1%	27%
Architectural, engineering, and related services	1-Planning and Design	74,132,861	79,956,762	96.3%	0.1%	8%
Commercial and industrial machinery and equipment rent	al 4-Completion and Operations	62,121,908	72,992,388	91.9%	0.4%	4%
Employment services	1-Planning and Design	43,790,093	65,044,397	83.6%	0.1%	3%
Iron and steel mills and ferroalloy manufacturing	3-Material Acquisition	510,899	47,023,353	15.9%	0.2%	13%
Sawmills	3-Material Acquisition	97,489	46,722,177	27.1%	0.5%	7%
Wood kitchen cabinet and countertop manufacturing	3-Material Acquisition	3,620,838	43,650,135	42.1%	0.8%	8%
Oil and gas extraction	3-Material Acquisition	1,796,361	37,187,082	18,8%	0.1%	11%
Other plastics product manufacturing	3-Material Acquisition	3,167,915	36,324,521	41.9%	0.2%	10%
Other concrete product manufacturing	3-Material Acquisition	111,309	36,015,170	88.1%	2.2%	8%
Metal window and door manufacturing	3-Material Acquisition	3,569,974	35,994,109	71.6%	1.3%	15%
Stone mining and quarrying	3-Material Acquisition	2,087,820	35,453,199	36.1%	1.6%	4%
Electric power transmission and distribution	2-Permit Acquisition	1,115,558	33,179,429	9.5%	0.0%	0%

Supply Chain Employment Demand – Industries Most Impacted (Indirectly)

Construction_Residential	•	
Estimated Cost per Year:		
\$	6,114,319,514	
		Employment - Indirect (Via Supply Chain)
Industry Description TOTAL	SupplyChain_Stage	FTE: Los Angeles County, CA
Retail - Building material and garden equipment and supp	olies stores 3-Material Acquisition	2,154.77
Truck transportation	3-Transportation and Logistics	446.64
Other real estate	1-Planning and Design	431.31
Wholesale - Other durable goods merchant wholesalers	3-Material Acquisition	431.68
Employment services	1-Planning and Design	389.20
Architectural, engineering, and related services	1-Planning and Design	348.62
Couriers and messengers	3-Transportation and Logistics	334.54
Management of companies and enterprises	4-Completion and Operations	281.81
Commercial and industrial machinery and equipment rer	ntal and leasing 4-Completion and Operations	146.93
Retail - Miscellaneous store retailers	3-Material Acquisition	116.30
Accounting, tax preparation, bookkeeping, and payroll se	rvices 1-Planning and Design	112.84
Wholesale - Machinery, equipment, and supplies	3-Material Acquisition	111.05
Legal services	1-Planning and Design	102.13
Landscape and horticultural services	1-Planning and Design	96.51
Management consulting services	1-Planning and Design	84.55
Scenic and sightseeing transportation and support activit	ties for transportation 3-Construction Services	78.89
	•	





Supply Chain Insights and Potential Risks

The occupations most affected by supply chain issues, showing indirect ripple effects beyond construction workers, include:



- Carpenters
- Construction laborers
- First-line supervisors of construction trades and extraction workers
- Construction managers
- Project management specialists
- Cost estimators
- Automotive service technicians and mechanics

- Painters, construction, and maintenance
- Helpers—carpenters
- Drywall and ceiling tile installers
- Floor layers, except carpet, wood, and hard tiles
- **Carpet installers**
- **Stonemasons**





Supply Chain Employment Demand – Occupations Most Impacted (Indirectly)

	Impacts Wage and		LA_Total Wage and	% 🛕 Total	Location	
Dim Occupation Occupation	Salary FTE	Hourly Rate	Salary Employment	Employment	Quotient	Supply Chain - Stage
Carpenters	3,415.42	40.46	24,101.52	15.4%	0.68	3-Construction and Execution
Construction Laborers	2,077.17	32.25	23,933.24	9.4%	0.69	3-Construction and Execution
First-Line Supervisors of Construction Trades and Extraction	1,259.44	43.68	15,709.32	8.7%	0.68	0-Miscellaneous/General Duties
Construction Managers	935.96	61.57	9,745.65	10.4%	0.69	2-Permit Acquisition
Project Management Specialists	622.33	55.01	29,575.01	2.3%	0.91	1-Planning and Design
Cost Estimators	244.66	44.61	4,851.42	5.5%	0.75	1-Planning and Design
Automotive Service Technicians and Mechanics	246.30	35.95	20,239.18	1.3%	0.77	7. Inspection and Regulation
Painters, Construction and Maintenance	211.82	37.34	4,390.09	5.2%	0.73	3-Construction and Execution
HelpersCarpenters	149.42	30.09	902.39	18.0%	0.66	6. Construction and Execution
Drywall and Ceiling Tile Installers	136.29	36.36	1,590.17	9.3%	0.65	3-Construction and Execution
Floor Layers, Except Carpet, Wood, and Hard Tiles	75.53	30.81	450.98	18.2%	0.67	3-Construction and Execution
Carpet Installers	27.91	30.88	313.93	9.7%	0.79	6. Construction and Execution
Stonemasons	16.42	39.89	158.90	11.2%	0.64	6. Construction and Execution





Historical Impacts

The historical impacts profiled consider the following events:

- Camp Fire (2018)
- Tubbs Fire (2017)
- Woolsey Fire (2018)
- Cedar Fire (2003)
- Thomas Fire (2017)
- Marshall Fire (2021)



- California Department of **Finance**
- Construction Industry Research Board
- **Bureau of Labor** Statistics Quarterly Census of Employment and Wages
- **United States** Department of Housing and Urban Development
- HdL Companies
- **Boulder County Building** Safety and Inspection Services
- **ATTOM Data Solutions**

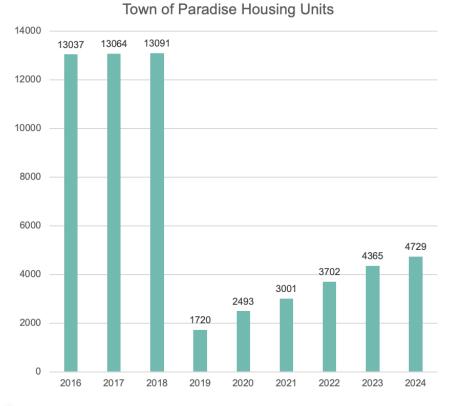




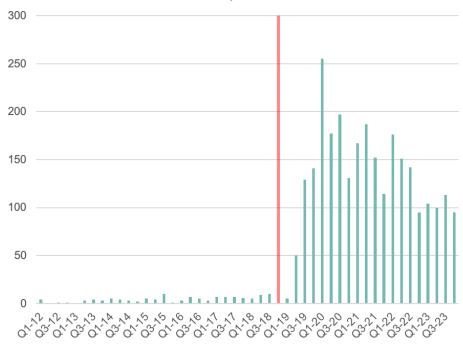
Camp Fire Impacts (Partial Recovery)







Single-Family Permits Issued in Paradise, California



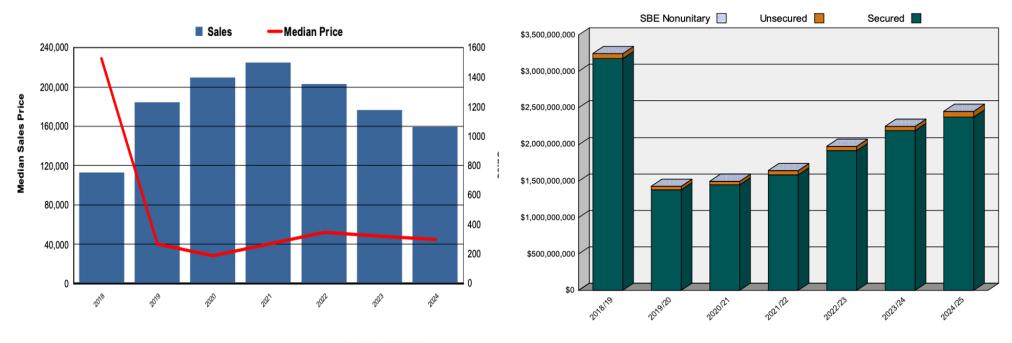




County of Butte Camp Fire

~ 56% decline in FY20







Analysis Provided by HdL Coren and Cone

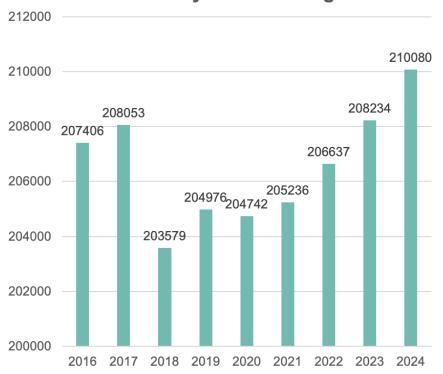




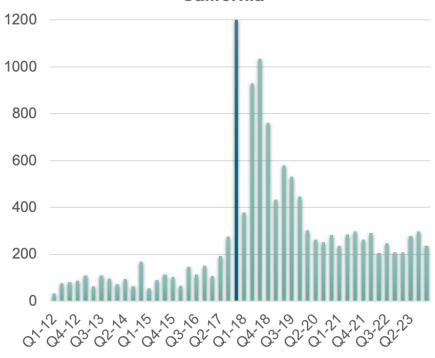
Tubbs Fire Impact: Rapid Recovery with Better Long-Run Permit Trends



Sonoma County Total Housing Units



Single-Family Permits in Sonoma County, California





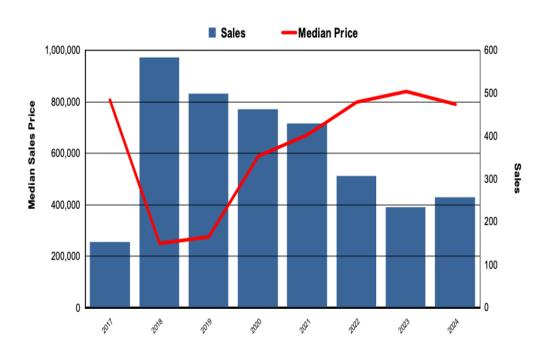


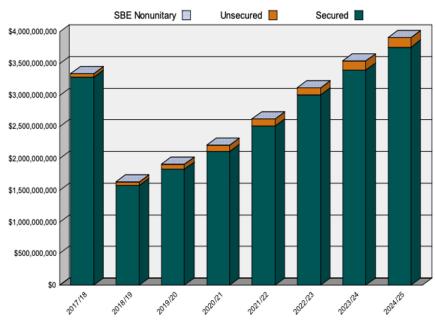
County of Sonoma Tubbs Fire

(Coffey Neighborhood)

~ 51% decline in FY19









Analysis Provided by HdL Coren and Cone





Single-Family Transactions following Wildfires

Parcel Designation	Camp Fire	Tubbs Fire	Transactions for Damaged Residential Parcels				
				Oaman Fina	Tulklea		
Major/Destroyed	6.0%	17.8%		Camp Fire	Tubbs		
	0.4.40/		Year 1	178	403		
Minor	24.4%	-					
			Year 2	260	341		
No Damage/Affected	19.8%	10.2%	Year 3	443	328		





Parting Thoughts



The impact of historical fires is mixed, with some fires having more discernible effects than others.



In terms of population, the Camp Fire (2018) and Tubbs Fire (2017) had the most significant and visible impacts in recent memory.



Rebuilding efforts are evident following major fires, as seen in Paradise (Camp Fire), Malibu (Woolsey Fire), and Santa Rosa (Tubbs Fire).



The Camp Fire is unique and saw a large amount of land sales without rebuilds. As a result, secured AV has not fully recovered, whereas in Ventura and Sonoma AV recovered in the following years.



Sales tax revenues tend to increase in response to rebuilding efforts.



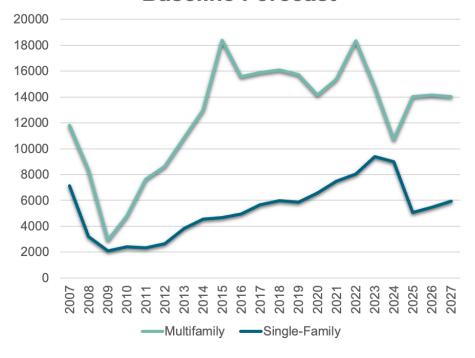
Construction employment, however, no clear relationship with rebuilding activity.



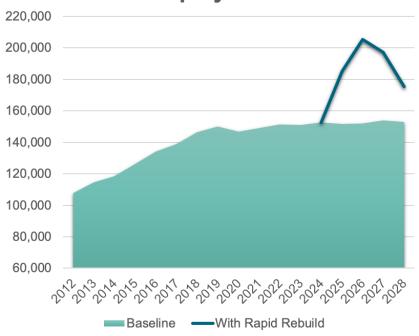
Baseline Projections (Pre-wildfires)



Los Angeles County Residential: Baseline Forecast



Los Angeles Construction Employment







Get in Touch with Us:

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- **Economic Outlooks**
- Revenue Forecasts
- **Cost Projections**
- Regional Development
- **Housing Studies**

- Impact Reports
- **CEDS Analysis**
- **PolicyStudies**
- **Industry Studies**
- **Labor Markets**





Appendix D: Insurance **Publications by** Academic and Industry **Experts**

Title: Economic Impact of the Los Angeles Wildfires

Authors: Zhiyun Li, UCLA Anderson Forecast; William Yu, Economist, UCLA Anderson Forecast

Date: February 2025

Report Highlight: The report highlights the importance of investing in wildfire mitigation efforts to prevent further economic strain. The Los Angeles wildfires of January 2025 resulted in estimated total losses ranging from \$95 to \$164 billion, with insured losses making up \$75 billion. The region's GDP is projected to decline by 0.48 percent in 2025, amounting to a \$4.6 billion loss. Local businesses and employees are also facing significant economic challenges, with wage losses totaling \$297 million. In addition, the housing market in Los Angeles, particularly rentals, is becoming increasingly unaffordable, and the cost of insurance is likely to rise due to the ongoing risks of wildfires. Without stronger wildfire mitigation strategies, the area will continue to experience substantial economic and social impacts.

Source: UCLA Anderson School of Management

Title: Bisnow: Rebuilding from "Utter Devastation" Will Intensify California's Existing Cost, Housing Problems

Authors: USC Lusk Center for Real Estate

Date: January 2025

Report Highlights: This report discusses how the destruction caused by wildfires in California, particularly in areas like Los Angeles, will only worsen the state's existing housing affordability crisis. The rebuilding process is expected to drive up housing costs even further, as demand for construction materials, labor, and insurance continues to rise. The report highlights the long-term economic impacts on California's housing market, where increased costs are likely to exacerbate the already difficult situation for homeowners, renters, and those looking to rebuild.

Source: USC Lusk Center for Real Estate

Appendix E: Work of **Contributors from UC Berkeley**

Professor David E. Jones's Work

Articles and Publications

"Federal Reinsurance for State FAIR Plans" (October 2024)

"Scenario Analysis for California's Insurance Regulator" (April 2023)

"Comment Letter: Federal Insurance Office Climate Risk Data Call" (December 2022)

"Developing Climate Risk Policy for State Procurement and Bond Issuance" (October 2021)

"Insuring Extreme Heat Risks" (December 2020)

"The California Roadmap" (September 2020)

"Insuring California in a Changing Climate" (March 2019)

"Trial by Fire: Managing Climate Risks Facing Insurers in the Golden State" (September 2018)

Source: Climate Risk Initiative - UC Berkeley Law

Legislative Efforts

AB 1519 (2020) - Fire Hardening Insurance Discounts AB 2339 (2020) - Wildfire Risk Reduction Discounts SB 1021 (2021) - Fire Hardening Pilot Program

The above measures sought to address these issues, but failed largely due to concerns over the potential costs for insurers and the challenge of aligning insurer practices with the state's goal of improving affordability for homeowners.

Professor Nancy Wallace's Work

Working Papers and Presentations

"Housing and Mortgage Markets with Climate Risk: Evidence from California Wildfires," Paulo Issler, Richard Stanton, Carles Vergara-Alert, and Nancy Wallace, working paper, 2024.

"Measuring the Wildfire Risk of California Residential Real Estate with Spatiotemporal Convolutional Neural Networks," Paulo Issler, Richard Stanton, Nancy Wallace, and Yao Zhao, working paper, 2025.

Climate Action 2023, 70-page grant application to UCOP Funding Opportunity: California Climate Action Seed and Matching Grants: "Helping California Communities Adapt to Wildfire: Information, Adaptation, and Risk Mitigation," Nancy Wallace PI, with Judson Boomhower, Andrew Plantinga, Meredith Fowlie, and Richard Stanton, April 2023. (NOT FUNDED)

Recent Public Speaking Engagements

"Volatility and Risk Institute, Conference on Insurance and Wildfire Risk, New York University Stern School of Business, Discussion with Nancy Wallace and Robert Engle, April 2024, https://www.youtube.com/ watch?v=WmCUXrr3oDw&authuser=0.

"The Wildfire Risk of California Residential Real Estate: Casualty Insurance, Measurement, and Mitigation Policies," Keynote address, National American Real Estate and Urban Economics Conference, May 31, 2024.

"The Wildfire Risk of California Residential Real Estate: Casualty Insurance, Measurement, and Mitigation Policies," Keynote address, Workshop on "Energy Transition and Climate Change", UC

Irvine, Redondo Beach, California, September 27-28, 2024.

"Housing and Mortgage Markets with Climate Risk: Evidence from California Wildfire," paper presentation, University of Wisconsin School of Business, October 2024.

"The Wildfire Risk of California Residential Real Estate: Casualty Insurance, Measurement, and Mitigation Policies," Keynote panel address, Conference on Consumer Finance: New Perspectives on Policies and Products, Golub Center for Finance and Public Policy, October 2024.

"The Wildfire Risk of California Residential Real Estate: Casualty Insurance, Measurement, and Mitigation Policies," paper presentation, Philadelphia Federal Reserve Bank, October 2024.

"Some Facts on the Wildfire Risk of California Residential Real Estate: Casualty Insurance, Risk Measurement, and Mitigation Policies," "Financial Stability: Emerging Risks in a Time of Interconnectedness and Innovation." Conference co-sponsored by the Cleveland Federal Reserve Bank and the Office of Financial Research, November 21, 2024.

"The Wildfire Risk of California Residential Real Estate: Casualty Insurance, Measurement, and Mitigation Policies," Keynote address, Federal Housing Finance Agency, 2024 Economic Summit on Climate Risk, November 12, 2024.

"Spatiotemporal Convolutional Neural Networks and the Wildfire Risks of California Residential Real Estate," Advanced Financial Technologies Laboratory, Stanford Engineering, December 2024.

Appendix F: Turnkey Endto-End Home Rebuilding Solutions

1. Develop a Digital Marketplace (Portal) and a

Goals and Opportunities

Physical Interactive Resource Center/ Community Hub: Create a seamless online platform where landowners can identify their lots and view options for rebuilding their homes, inclusive of home configurations, ready-to-build plans, financial scenarios, collaboration with insurance companies, etc. Along with a virtual interface, there would be a physical interactive center or community hubs where landowners can visit in-person and be guided by a Builders Alliance rebuilding specialist.

Note: The Builders Alliance portal will be customized to deliver comprehensive support for fire victims.

- 2. Simplify the Homebuilding Process: Offer a streamlined, all-in-one solution that minimizes complexities for landowners and builders alike usually brought forth by city regulations/code (zoning code restrictions), insurance, labor, materials, etc.
- 3. Create a Builders Alliance: Establish a network where multiple homebuilders and developers can join forces to increase efficiency, reduce costs, and unite as one.

The Builders Alliance will provide the following:

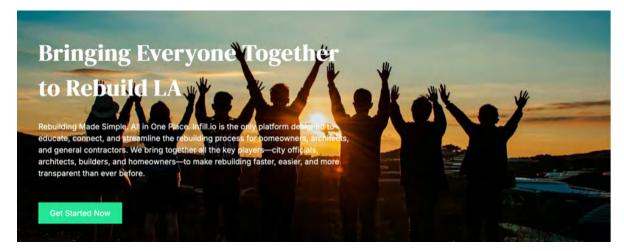
- Architecture
- Structural engineering
- Mechanical, electrical, and plumbing design
- Title-24 energy efficiency design
- Exterior color design
- Project management

- General contractor
- Interior design
- 4. Leverage Data and GIS Analytics/ **Technology:** Integrate technology to guide decision-making on sites from "smart" master planning (see Applying the Master Planning Approach) to on-the-fly renderings of home floorplans and lot configurations.
- 5. Ensure Financial and Regulatory Compliance: Provide tools for estimating underwriting and costs, securing financing, adherence to local and state codes. Builders would have direct access to insurers for an easier experience for the landowner.

Key Partner Groups and Stakeholders

- 1. Homeowners: Individual landowners looking for simplified rebuilding experience with more certainty on home delivery timelines and reduced total costs
- 2. Commercial Property Owners: Access to contractors, architects and consultants, lenders, etc. to help rebuild
- 3. Builders and Developers: The Builders Alliance would provide a united front to the large pool of individuals wanting to rebuild their homes. The Builders Alliance offers their expertise and services for a predetermined price to protect landowners from being treated unfairly. Builders working together can achieve lower costs which can be passed on to landowners.

Web Based Portal Example



- **4. Architects:** Third-party (nonbuilder contract) architects who elect to work on the custom build solutions needs for specific locations, homesites, and other challenging sites
- 5. Insurance Companies: Insurance companies have an obligation to meet the terms of the insured's policy. The insurance companies will be overwhelmed with over 10,000 claims and will welcome builders that partner with them to make the process better for both the insured and the insurer.
- 6. Financial Institutions and Lenders: Mortgage providers and banks facilitating financing options, inclusive of FEMA, Cal OES, etc.
- 7. Technology and GIS Providers: Technologists developing the interactive platform along with data integrations including mapping, zoning, development timelines, and monitoring
- 8. Local Governments and Regulatory Agencies: Entities responsible for zoning approvals, permits, and development regulations

Value Proposition

- 1. For Homeowners: A one-stop solution for viewing options on their land, choosing a builder, selecting a floor plan, architectural design, etc.-reducing the hassle and complexity of the rebuilding process by eliminating the need to hire design consultants and contractors
- 2. For Commercial Property Owners: A onestop solution for viewing options on their land, choosing a builder, selecting a floor plan, architectural design, etc.-reducing the hassle and complexity of the rebuilding process

Portal - Landowners/Homeowners Page Example

For Homeowners

We guide you through every step of the process-from understanding your insurance claim to selecting a pre-approved home design, finding a vetted builder, and tracking your progress. With Infill.io, you have everything you need to rebuild your home in one place.

- Stay updated with checklists & to-do lists Know exactly what steps to take and when,
- Choose from pre-approved home plans Get your permits faster with city-approved designs.
- Work with trusted builders We vet general contractors so you don't have to.
- Track progress Stay informed from start to finish with real-time updates.

Get Started - Claim Your Property ->



Portal – Builders Page Example

Help Rebuild LA—One Home at a Time

Be Part of the Solution. Build the Future of LA. Los Angeles is facing one of the largest rebuilding efforts in its history. Homeowners need trusted, reliable builders to bring their homes back to life. Infill.io is creating a vetted network of licensed, bonded, and insured general contractors to connect homeowners with builders they can trust. By joining our platform, you can:

- Get Matched with Homeowners Ready to Build Work directly with property owners who have plans in place.
- Streamline Your Workflow Access pre-approved plans and expedited permits to speed up construction timelines.
- Help Rebuild Communities Be part of a mission-driven effort to restore neighborhoods and help families return home.

Join the Movement - Rebuild LA ->



- 3. For Builders and Developers: Increased visibility and access to ready-to-build projects with customers as well as coordinated partnerships to lead expedited development timing and lower costs
- 4. For Custom Home Builders: Potential for portal representation as "custom build" solutions. They receive access to a pipeline of customers, ensuring transparent communication, demonstrating other options and building trusted connections.
- **5. For Architects:** Potential for portal representation as "custom build" solutions for those that want to act as owner/ builder. Architects will receive access to a pipeline of customers, ensuring transparent communication.
- **6. For Insurers:** Much like having "partner auto collision centers," we will provide "partner builders" who will know how to navigate the

- insurance process and provide a quality re-build at a much lower cost.
- 7. For Financial Institutions: A pipeline of customers with structured financing options, ensuring smoother transactions. For institutions that hold current mortgages, the one-stop solution offers assurances and solutions for faster builds and asset restoration.
- 8. For Local Governments: A more efficient and transparent building process that aligns with urban planning goals, zoning policies, and fire-resistant strategies. The potential exists to develop a streamlined pre-approval process of the Builders Alliance library plan offerings that would ease the stress and workload on entitlement and planning teams.

Expected Outcomes

1. Improved Customer Experience: The Builders Alliance will provide an easier, streamlined

- process that builds trust and empowers homeowners with confidence when making big decisions. There is also the potential to introduce impact partners, like a Virtuo or a full-service homeowner concierge, to enhance traditional builder experiences.
- 2. Operational Platform: A functional prototype that enables users to identify their lot, choose from a list of participating builders with floor plans and architectural design (similar to a rental car center at an airport).
- 3. Builder and Landowner Adoption: Initial partnership with builders and early adopters from the City and County and community residents.
- 4. Financial and Legal Frameworks in Place: Agreement with lenders and local governments to facilitate smooth transactions as well as direct access to funding for expedited services.
- 5. Market Validation and Scaling Strategy: Early success metrics to inform expansion following clean-up schedule, approvals, etc.

Preview to a Strategic Marketing Approach: Builders Alliance Solutions for Fire Victims

This strategic marketing plan outlines a comprehensive approach to support the Builders Alliance addressing the housing crisis for fire victims of the Palisades and Eaton Fires. By leveraging community engagement, policy advocacy, and strategic partnerships, this initiative aims to expedite recovery, provide sustainable housing solutions, and rebuild resilient communities.

Portal - Custom Builder and Architects Page Example



For Architects

We are working with architects to create citywide pre-approved home designs that will streamline permitting and help homeowners rebuild faster. Whether you're designing new plans or modifying existing ones, our platform connects you with homeowners in need.

- Accelerate the Rebuilding Process Your designs help homeowners navigate rebuilding without delays.
- Expand Your Reach Get your plans in front of more homeowners who need ready-to-build solutions.
- Make a Lasting Impact Play a key role in reshaping communities and helping families return home.

Join the Movement - Submit Your Plans ->

Objectives

- 1. Build Trust: The biggest impediment to achieving the objectives of Build Back Better is human nature. Rebuilding the Palisades and Altadena communities will be an experiment in community engagement and cooperation from all stakeholders. It will be a disaster if the plan and its implementation is not embraced by the communities and fails to garner the trust of its stakeholders.
- 2. Raise Awareness: Educate fire-affected residents, policymakers, and key stakeholders about the master-planned rebuilding effort.
- 3. Engage Stakeholders: Position the collaborative as a leading advocate for resilient and sustainable rebuilding efforts.
- 4. Support Fire Victims: Provide transparent and accessible information on housing options, funding, and rebuilding processes.
- 5. Influence Policy and Zoning: Work alongside government agencies to integrate best practices into land use planning and zoning regulations.
- 6. Attract Partnerships and Funding: Secure collaboration with developers, financial institutions, nonprofits, and funding agencies to facilitate the rebuilding process.

Target Audiences for Communication and Outreach

- · Fire-affected property owners, renters and stakeholders
- Government and policymakers
- Home builders and developers

- Financial institutions and insurers
- · Community organizations and media

Marketing Strategies and Tactics

Digital Marketing and Online Presence

- Develop a dedicated website with resources, FAQs, success stories, and a homeowner and partner portal.
- Launch social media campaigns highlighting rebuilding progress, homeowner testimonials, and expert insights.
- Leverage email marketing for updates, funding opportunities, and rebuilding tips.

Public Relations and Media Outreach

- Issue press releases and op-eds to media outlets on project milestones and policy updates.
- Organize media events showcasing rebuilding projects and community impact.
- Collaborate with influencers and industry leaders to amplify the initiative.

Community Engagement and Advocacy

- · Host town halls, webinars, and workshops for fire victims to guide them through the rebuilding process.
- Partner with local nonprofit organizations for outreach programs and support services.

Conclusion

The Builders Alliance initiative presents a comprehensive, turnkey solution to support homeowners affected by the Palisades and Eaton Fires. By integrating a digital marketplace, a physical resource hub, and a collaborative network of builders, architects, insurers, and financial institutions, this initiative simplifies and accelerates the rebuilding process.

Through innovative technology, strategic partnerships, and a streamlined approach to construction, the Builders Alliance ensures that fire-affected homeowners have access to cost-effective, high-quality, and timely rebuilding solutions. By leveraging GIS analytics, regulatory collaboration, and financial support, this effort reduces uncertainty and empowers homeowners with the tools they need to rebuild their lives.

With a strong foundation of stakeholder engagement, policy advocacy, and communitydriven solutions, this initiative has the potential to set a new standard for disaster recovery and housing resilience. Moving forward, continued collaboration and early adoption by key partners will be critical to the success and scalability of this model, ensuring that impacted communities can rebuild stronger, safer, and more efficiently.

Turnkey Residential Solutions: Production Builder-to-Consumer Model and Value Proposition

Landowners:

- Ease the decision-making
 - Clear step-by-step guide with definitions and visual examples of the journey to rebuild
 - View pre-approved, ready-to-build plans based on lot size, zoning, and budget
 - View alternative strategies: ADUs (attached/detached), lot splitting
- **Builder matching**
 - Compare builders based on cost, designs, and services
 - Direct communication with various builders
- Online tools for visualizing floorplans, 3D models, and estimating costs

Production Builders Solutions:

- · Lot analysis for optionality and optimal configurations
 - Max allowable FAR, ADU, Lot Splitting, align with zoning, etc.
- Cost effectiveness
 - Variety of pre-approved, ready-to-build plans
 - Bulk purchasing power: discount on labor and materials
- Speed and efficiency
 - Faster construction due to pre-approved plans and alignment with government
 - Fewer delays (schedule/timeliness and delivery dates)
- Experience and reliability
 - o Reputable builders
 - Licensed and insured
 - Warranty (may provide)
- Design variability
 - o Architectural styles/community identity forward
 - Interior design center optionality/preferences
- - May offer preferred lenders and pre-qualification financing options
 - o May work with insurance companies
- Resale value
 - Homes built by reputable builders are often more desirable

Builders Alliance Brookfield Christopherson LENNAR Residential Toll Brothers Virtual Interactive Portal & Physical Resource Center Governmental Homeowners Agencies

Government Agencies/Insurance:

- Ensures compliance with building codes and standards
- Public accountability and transparency
 - Public engagement
 - · Regulation and oversight
 - o Public/private partnership
- Fosters a community-centric precedent
- Promotes commitment to rebuild faster
- Provides GIS data, growth plans, zoning, etc.

Appendix G: Supply **Chain and Logistics**

Goals

The rebuilding logistics and supply chain coordination aims to support those rebuilding homes in affected areas by:

- · Reducing rebuilding costs to assist homeowners
- Minimizing rebuilding timeframes for faster recovery
- · Ensuring fair market pricing for goods and services associated with the rebuilding effort
- Coordinating procurement efforts to keep costs down
- Fostering a competitive marketplace to maintain fair pricing
- Securing market-rate construction labor pricing through coordinated efforts
- Providing temporary labor housing to attract workers to the rebuilding effort
- Organizing transportation for laborers across rebuilding sites to improve efficiency
- Ensuring the construction workforce has the capacity to meet rebuilding demands
- Collaborating with stakeholders to expand the residential construction workforce
- · Establishing a safe and efficient working environment for trade contractors
- Attracting labor by ensuring efficient task completion and timely payment

Supporting subcontractors who operate on a piecework basis, rewarding efficiency

Solutions

Below is a strategic outline that expands the goals for Residential Rebuilding Logistics and Supply Chain in the LA Rebuild Effort. The plan focuses on cost reduction, time efficiency, fair pricing, workforce capacity, and safe, efficient operations.

Centralized Procurement and Vendor Management

1. Establish a Central Procurement Team

- a. Create a dedicated platform to coordinate purchasing of building materials in bulk.
- Centralize relationships with major suppliers (e.g., lumber, concrete, roofing materials) to negotiate volume discounts.

Preferred Vendor Network

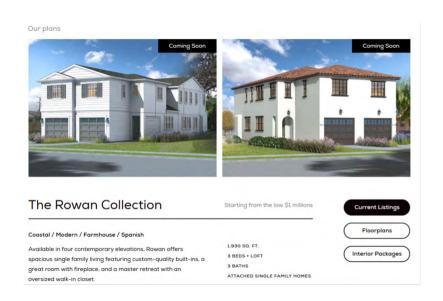
- a. Develop a list of vetted suppliers and contractors who meet quality, price, and timeline criteria.
- b. Encourage multiple suppliers for each category of materials to foster competitive pricing.

3. Bulk Purchasing Agreements

- a. Lock in volume discounts with suppliers for frequently used materials (e.g., lumber, drywall, insulation).
- b. Leverage demand forecasts to ensure stable pricing and consistent supply.

4. Certified Floor Plan Library

a. Establish a pre-approved library of permit-ready floor plans within city/ county regulations.



b. Develop a single site, online access to all resources developed by the Builders Alliance. (See Appendix F.)

Fair Market Pricing and Competitive Marketplace

1. Transparent Pricing System

- a. Publish regular updates on market rates for key materials and labor.
- b. Encourage homeowners, contractors, and suppliers to reference a shared pricing guide to prevent price gouging.

2. Competitive Bidding Process

- a. Require multiple bids for major contracts to maintain competitive pricing.
- b. Implement guidelines for fair selection, balancing cost, quality, and capacity.

3. Price Monitoring and Adjustment

- a. Monitor fluctuations in material and labor markets, adjusting procurement strategies accordingly.
- b. Use data analytics to identify pricing anomalies or potential supply bottlenecks.

Workforce Coordination and Capacity Building

1. Central Labor Pool and Coordination

- a. Create a database of skilled and semi-skilled labor available for the rebuild effort.
- b. Coordinate schedules to deploy labor where most needed, reducing idle time.

2. Training and Certification Programs

Partner with local trade schools.

- community colleges, and unions to fast-track certifications.
- b. Offer short-term, intensive training for specific construction tasks (e.g., framing, roofing).

3. Temporary Housing for Labor

- a. Collaborate with local agencies and nongovernmental organizations to set up temporary housing near job sites.
- b. Provide incentives (e.g., subsidized rent, meal stipends) to attract and retain workers.

4. Organized Transportation for Laborers

- a. Contract shuttle services to transport crews between housing and job sites efficiently.
- b. Coordinate routes to reduce travel time. and improve daily productivity.





Efficient Construction Scheduling and Project Management

1. Phased Construction Approach (PRP)

- a. Group rebuilding projects by location or by construction phase to streamline resource allocation.
- b. Coordinate trades (e.g., plumbing, electrical) so they can complete multiple homes in a single area before moving on.

2. Central Project Management Office (PMO)

- a. Establish a PMO to oversee scheduling, resource allocation, and milestone tracking across all rebuild sites.
- b. Use project management software for real-time updates on progress, material usage, and labor needs.

3. Lean Construction Techniques

- a. Implement just-in-time delivery of materials to reduce storage costs and on-site clutter.
- b. Emphasize waste reduction through careful planning and measurement.

Safe and Efficient Working Environment

1. Safety Protocols and Training

a. Standardize safety guidelines for all trade contractors (e.g., personal protective equipment requirements, site hazard communication).

b. Conduct regular on-site safety inspections and provide corrective training as needed.

2. Insurance Company Certification

a. Pre-approve general contractor and trade contractor contracts to ensure fair pricing and expedite rebuilding efforts.

3. Quality Control and Inspection

- a. Schedule regular quality checks at key milestones (e.g., foundation, framing, electrical rough-in).
- b. Use independent inspectors or thirdparty verifiers to ensure compliance with building codes.

4. Streamlined Permitting and Inspections

- a. Collaborate with local government agencies to expedite permits and reduce red tape.
- b. Set up a dedicated liaison team to handle permit applications and inspection scheduling.

Financial Incentives and Payment **Structures**

1. Digital Payment and Inspection Systems

- a. Implement an automated payment system for subcontractors and suppliers to ensure quick, predictable payouts.
- b. Leverage digital records and video technology for efficient lender and insurance company approvals.

Piecework Compensation

- a. For subcontractors operating on a piecework basis, ensure clear definitions of tasks and rates.
- b. Reward efficiency and quality by offering bonuses for early or on-time completion without defects.







Financial Assistance for Homeowners

- a. Partner with lending institutions and private equity to provide low-interest construction loans or grants, and gap equity and mortgages.
- b. Negotiate group insurance rates to help homeowners manage costs.

Stakeholder Collaboration and **Continuous Improvement**

1. Regular Stakeholder Forums

- a. Host monthly or quarterly forums with homeowners, contractors, suppliers, and local authorities.
- b. Share updates on pricing trends, labor availability, and project timelines to maintain transparency.

2. Feedback Loop and Data Analytics

- a. Collect data on rebuild progress, cost overruns, and delays.
- b. Use analytics to identify bottlenecks and propose corrective measures (e.g., more labor, different suppliers).

3. Scalability and Future Resilience

- a. Design the logistics model to be replicable for future disaster recovery efforts.
- b. Document best practices and lessons learned for continuous improvement.

Conclusion

By centralizing procurement, ensuring fair pricing, organizing a robust labor force, and maintaining transparent, safe, and efficient operations, this strategy aims to minimize rebuilding costs and timelines while upholding quality standards. Consistent collaboration among stakeholders-homeowners, contractors, suppliers, and government agencies-will be key to rebuilding Los Angeles's communities quickly and affordably, with an eye toward long-term resilience.

Appendix H: Resources for Rebuilding

We understand these are extremely tough times. Many who formulated this document have lost their homes, while others have close friends and family members who have. We provide this guide as a roadmap, and we are sure not all questions will be answered. We hope we have provided you with enough information to ask questions and we are here as a resource for you. We also understand these communities affected by this tragedy are a diverse collection of different neighborhoods. It is important each of these distinct neighborhoods work together rebuilding their communities and have a voice. We have provided this guide to help spur the conversation and be a roadmap to rebuilding.

This is a rapidly changing situation; therefore, it is best to check back and stay vigilant with the County of Los Angeles Recovery website, https://recovery.lacounty.gov, and your local jurisdictions for planning and building and safety updates, as resources such as bulletins, mapping, and relief programs are being created to support you all. There are several items which we have tried to highlight below that cannot be defined and we recommend property owners wait until there is more clarity from the state and local governments along with their departments.

Property Owner, Consultant, and Builder Resources: What Do Residential and **Commercial Property Owners** Need to Know?

- Access
 - PPE (personal protective equipment): Please follow the EPA and County health advisory on all PPE.
 - For homes and structures not destroyed and not part of the FEMA recovery program it is best for homeowners to take steps to review their property. See guidelines from the Western Fire Chiefs Association.
 - Concurrent process: Sites will be going through different phases of cleanup without waiting for the entire region to be complete before going on to the next site.
 - · Phase 0: Early access to your property before Phase 1 by the EPA is now granted in all areas-some to property owners themselves or some accompanied by EPA.
 - Phase 1: Household hazardous waste removal by the EPA is currently underway; see progress.
 - o Timeline: Estimated completion for the County by the end of February.
 - Phase 2: General debris removal by Army Corps of Engineers under FEMA.

- Starts upon Phase 1 completion and property owners providing right of entry (ROE) either "Opt In" or "Opt out"; see more information.
- Deadline for property owners to fill out their ROF selection is March 31, 2025; see more information.
- Option 1 "Opt In": Allows debris removal by the U.S. Army Corps of Engineers with government contractors, free of charge.
 - If property owner's insurance policy has debris removal coverage, the County will work with insurance providers to ensure any proceeds specifically for debris removal are assigned to the government. Government will pay costs above insurance recovery.
 - Property owners are asked if they want to be present during the removal for any length of time. (Please wear PPE if you opt to be present.)
 - Foundation removal is an option, depending on the type of foundation, age, condition, and plans for rebuilding. Otherwise, ash perimeter/debris, six inches of topsoil within the ash perimeter, and hazardous structures are removed. However. driveways, swimming pools,

- walks, and other non-debris items outside the ash perimeter will not be removed.
- Lost and found items that are recovered by government crews will be secured, but if the owner can be on site to direct them this can help locate lost items.
- Homeowners should request verification from the Army Corps of Engineers and/or contractors of all the County and City permits.
- Timeline estimates per site:
 - · Flat sites of about quarter acre: one to two days
 - Larger sites and sloped sites along those with many hazardous trees/structures: much longer
- Timeline for the entire LA County/City: At the speed of trust but likely 12 months, according to the Army Corps of Engineers
- Option 2 "Opt Out" of U.S. Army Corps Program: Privately funded
 - Property owners pay out of pocket or from their insurance policy for debris removal, however, they must follow all the steps and certifications as the Army Corps of Engineers.
 - Can be difficult to find licensed. certified, qualified, and approved

- demolition contractors and landfills for hazardous materials.
- Property owners must apply for a permit from the jurisdiction such as County in EPIC-LA, City of Los Angeles, City of Malibu, or City of Pasadena.
- Debris removal can be more costly than insurance coverage. Pricing increases with sloped lots, basements, and other unique features.
- Timeline for removal is estimated to be +/- two months depending on availability of contractors and landfills.

After site debris is removed:

- · City/County will review the site to approve that clearances are complete and if Option 1 "Opt In" is chosen, then ROE goes back to the property owner.
 - Timeline estimate for Option 1 "Opt In" is a few days or a week after the site is cleared.
 - Timeline estimate for Option 2 "Opt Out" depends on the private contractor hired by the property owner and the quality of work and paperwork filed.
- Reconstruction can begin if a building permit is obtained/approved.
 - The timeline estimate for a permit

- depends on rebuilding options and execution options.
- The timeline for occupancy depends also on public and private utilities and infrastructure being restored and/or improved.
- As an example, the City of Santa Rosa reports three years after the Tubbs fire destroyed over 3,000 homes, 80 percent of those homes are rebuilt and reoccupied. They feel the City is more vibrant and resilient. This rebirth happened through community involvement and the use of multiple rebuilding and execution options. See LA Times article.

· Cost:

Hard costs include physical materials, labor, and general contractor fees to build the structures, hardscape, and landscape.

Soft costs include:

- Government and utility fees: plan check fees, permit fees, utility hook-up fees (water, power, communications, etc.). Check with your local government and municipality as to what fees they may be able to waive.
- Consultant fees: surveys, geotechnical/soils reports, testing reports, permit expeditors, architect, designer, interior designer, landscape architect, and engineering consultants such as structural, civil, energy code,

mechanical, electrical plumbing. Confirm with your project type and choice of execution option.

- · Life cycle costs are the total costs of owning and operating the building over its entire life, such as energy and utility use, maintenance, insurance, property tax, financing, resale value.
 - Property tax: Currently the County is defining the full cash value of the new replacement improvement as if it does not exceed 120 percent of the full cash value of the older damaged or destroyed improvement, and then the trended base year value of the prior damaged or destroyed improvement will be restored without any adjustment. If the full cash value of the replacement property exceeds 120 percent, the amount of full cash value above 120 percent is added to the destroyed improvement's trended base year value. See more information.
 - · A property tax relief and reassessment form needs to be filled out within 12 months of the fire. See more information.
- · Rebuilding options and their costs: what residential and commercial property owners can do if rebuilding
 - **Definition "like for like":** Jurisdictions are currently in the process of defining "like for like." But in the City of Los Angeles, "like for like" is currently defined as envelope (height, number of stories) and the use to be the same as before the fire, but will need to comply with the current building codes. However, if you

have building plans from a recent code, it should make plan check quicker. "Like for like" also doesn't require Coastal approval per the State.

- Rebuilding "like for like" provides the shortest timelines for City/County permitting approval.
- Rebuilding "like for like" plus 10 percent improvements results in a moderate increase in timelines for City/County permitting approval,
- · Rebuilding with a new footprint exceeding 110 percent results in even longer timelines for City/County permitting approval.
- Single-family homeowners consider these options:
 - · Temporary tiny home, recreational vehicle, or mobile home: See your local jurisdiction for applying for temporary use while your primary residence is being worked on or rebuilt.
 - Build an accessory dwelling unit (ADU) prior to your main house being occupiable:
 - The State has approved an ADU of 800 square feet or less can be installed on your property. Many of these homes already have State/City/County plan check approval and many are prefabricated so they can be installed permanently, allowing a future rental income on your

property. However, the definition is under review by many jurisdictions. Be sure to review how this will affect your allowable buildable area and property taxes.

- State Bill 9 (SB9): Consider increased density by allowing lots to split into two separate lots. See information from the City and County. However, using this would not be a "like for like" rebuild.
- Design standards and resilience: How to rebuild better, more resilient, and more sustainable structures.
 - Wildland-urban interface (WUI) resources:
 - Cal Fire: <u>Preparation and Mitigation</u>

Cal Fire: Products

Cal Fire: Low-cost retrofit

Cal Fire: Guide to retrofit

- US Fire Administration/FEMA: Creating a Community Plan
- Building Code upgrades could be required, such as:
 - High fire zone requirements for roof, wall, and window hardening
 - Structural/seismic
 - Energy code
 - Interior fire sprinkler
 - All-electric buildings
 - Grading

- Low impact development (LID)
- Hillside grading/foundations
- Please review upcoming new building codes to be adopted and to take effect on January 1, 2026.
- Landscape types and buffer
- Exterior sprinklers/fire retardant foam
- Water storage tanks
- Emergency generator/water pumps for pools/water storage tanks
- Passive House design: a "passive building" is a set of design principles for attaining a rigorous level of energy efficiency while also creating comfortable indoor living spaces
- Alternative energy (solar) components
- **Execution options**
 - There are multiple options for how every individual will want to proceed based on site/location/type, speed, cost, and customization.
 - Owner builder (the property owner takes on the role of the general contractor, managing the construction process themselves)
 - Complete control over the project
 - Requires extensive knowledge of construction and project management
 - · Higher risk of errors, delays, and increased costs if not managed properly

- Significant time commitment and responsibility
- · Cost: Potential cost savings by eliminating contractor fees
- **Production** (use predesigned homes or buildings as is without modifications)
 - · Standardized designs with limited customization; generally, the most affordable option due to economies of scale
 - Property owner selects a predesigned home or building and works with the builder to site the building
 - Limited customization to the site and the property owner's needs
 - Builders have more labor and resources to draw on, making the supply less challenging
 - · Timeframe: least time frame, especially if preapproved permitting
 - · Cost: least expensive as these are seen as products, engineered efficiently
- Semi-custom production (use predesigned homes or buildings but make small modifications)
 - · Use existing designs with modifications; more cost-effective than custom builds while allowing for some personalization
 - Property owner selects a predesigned home or building and works with the

- builder's design team to customize within a range
- Moderately customizable to the site and the property owner's needs
- Builders have more labor and resources to draw upon making the supply less challenging
- Timeframe: moderately longer based on how much customization is needed
- Cost: less expensive based on how much customization is needed
- Custom (a tailored design for you; you have complete control)
 - Tailored designs to specific preferences; typically, the most expensive option due to personalized features and unique architectural design elements
 - Property owner hires an architect to design their home and a general contractor to build it
 - Highly custom to the site and the property owner
 - Hiring a qualified architect and general contractor may be challenging with demand, and custom supply can be a challenge with demand
 - Timeframe: longest
 - Cost: higher, as unable to capture economy of scale compared to production homes

- Rebuilding financing and insurance options costs during construction and post completion
 - FEMA assistance applications for coverage beyond what insurance can cover and other relief
 - See how to apply.
 - Deadline to apply is March 10, 2025.
 - SBA loans for gap coverage of your insurance: lower interest rates on both rebuilding the properties and contents; open to all properties including singlefamily residences
 - · See how to get assistance.
 - Insurance resources available
 - United Policy Holders Organization
 - Public Adjuster:
 - **NAPIA**
 - **PCAPIA**
 - California Department of Insurance
 - Tips for managing insurance and recovery
- Resources (list of architects, advisers, contractors, builders, insurance, mortgage, legal, etc.)
 - Word of mouth: what your friends, family, and neighbors are recommending is always important in any selection.
 - **Interview** several professionals to see what is the best fit for you.

- **Architects and design professionals:**
 - · AIA California, a guide to recovery
 - · Licensed architects are not required for:
 - Single-family dwellings or accessory structures of wood frame construction not more than two stories and basement height.
 - Multiple dwellings containing no more than four dwelling units of wood frame construction not more than two stories and basement in height. However, this paragraph shall not be construed as allowing an unlicensed person to design multiple clusters of up to four dwelling units each to form apartment or condominium complexes where the total exceeds four units on any lawfully divided lot.
 - · American Institute of Architects (AIA) Los Angeles member directory
 - California Architect License Search
 - HOUZZ for single-family homes
 - Architizer
- Contractors:
 - Contractor State License Board. license verification
- Financing: Tax relief and property values: What financial structures (sell versus joint venture, for instance) and options for each scenario

- Income tax relief
- Selling the property: Provides immediate funds but relinquishes future appreciation potential
- Gap equity: Private entities may provide preferred ("gap") equity to enable property owner to retain 100 percent ownership and control. Cost is less than a joint venture but more than debt.
- Joint ventures: Partnering with developers or investors can distribute the financial burden and potential profits. This structure allows owners to retain partial ownership while leveraging external expertise and capital.
- Traditional financing: Securing construction loans or mortgages to fund rebuilding efforts. This requires a good credit standing and the ability to service debt.
- Government grants and loans: Using available federal, state, and local programs offering financial assistance for rebuilding.
- Miscellaneous:
 - Each property can be appraised for land value; use back end residual method.
 - Insurance payoffs are determined.
 - Owners must decide whether to pay down loan with insurance proceeds or rebuild.

- If the remaining loan value is higher than the land value, the owner will likely have to pay off the loan or deed land to lender.
- If loan value is less than land value, the owner may keep the loan and continue making interest payments or require the lender to accrue interest payments for up to three years pending reconstruction of the home and then refinance when the home is finished.
- Each owner will have the option to sell their property or rebuild (should take no more than 3-6 months to decide).
- If the homeowner wants to sell, they can negotiate timing with the buyer and lender. Property price discounts for quick exits will be higher due to carry costs to the buyer. Holding on longer should yield higher price for lots.
- If the homeowner wants to rebuild, the value of their property will be imputed equity. If equity is substantial, no additional equity may be required. Frank Dodd may be restricted to lending to homeowners without substantive income.
- Lenders and property owners enter mandatory mediation if there are disputes.
- Mediation is to be accelerated and decisions determined within three months.

Property Owners: Other Things to Consider in the **Reconstruction Process**

- · Consult various construction advisers (e.g., architects, engineers, contractors) to ask about the viability of rebuilding.
- Investigate insurance coverage.
- Determine the lot/parcel value after accounting for insurance recovery.
- Determine the equity on property after insurance and loan balance.

- What should or can be built relates to residential and commercial considerations:
 - What do you want versus what can you afford?
 - What does zoning allow?
 - Can zoning be modified to allow for higher density?
- Consider timelines and inflation.
- Take into account mitigation and features to prepare for any future wildfires. See below.



Wildfire Prepared by Insurance Institute for Business & Home Safety (IBHS): https://wildfireprepared.org

Appendix I: Outline of Infrastructure Issues

- Define infrastructure:
 - All wet and dry utilities within public right-of-way:
 - Domestic water supply (reservoirs, pipes, meters)
 - Fire protection and hydrants
 - Sewer
 - Storm drains
 - Gas
 - Electric
 - Communication (telephone, fiber)
 - Streets and sidewalks
 - Streetlights
 - Traffic signals
 - Street trees and landscaping Urban Forestry
 - Street signs
 - Traffic signs
 - Regional serving systems (water, sewer, power, etc.)
 - Public buildings:
 - Fire station—Fire Department
 - Police station—Los Angeles Police Department and County Sheriff's Department

- Libraries
- Parks
- Schools
- Permittina:
 - · All of the above departments and bureaus
 - City: Department of City Planning; County: Department of Regional Planning
 - · City: Department of Building & Safety (LADBS); County: Building and Safety in the Department of Public Works
 - · For portions of the Pacific Palisades, California Coastal Commission
- Survey existing systems:
 - Assess damage and destruction to systems
 - Determine: Which systems need to be replaced entirely? Which systems can be repaired? Which systems need no action? Which systems are near the end of their useful life and should be retained? Which systems need technology or other upgrades or expansions?
 - Recovery needs
 - Cost, schedule, and phasing of new systems
 - Whose responsibility is it to conduct the assessment?

- Present design and construction process:
 - The present City methods involving separate permits and approvals from the following departments and bureaus will impede a speedy reconstruction process:
 - LADBS
 - DOT
 - Bureau of Street Services
 - **LADWP**
 - Bureau of Sanitation
 - Planning Department
 - **Urban Forestry**
 - Bureau of Street Lighting
 - Gas-So Cal Gas
 - Library Department
 - Recreation and Parks
 - LAUSD
 - Telecom-Verizon, AT&T, T-Mobile, Spectrum, Charter
 - California Coastal Commission
 - Bureau of Contract Administration
 - Others
 - Request for quote (RFQ) and request for proposal (RFP) to design and engineering professionals and awarding of bids
 - RFO and RFP from construction companies and awarding of bids

- Construction and inspection government inspectors
- Release of bonds and start use of systems
- Discussion on how to improve the present design and construction process
 - Single authority to coordinate and conduct all design, engineering, contracting, and construction
 - Could be a dedicated Task Force in the Mayor's office to be formed by Executive Directive or, in the County, the Chief Executive Office to be formed by Board resolution
 - Could be a newly formed department/authority that is formed from personnel from the different departments
- Discussion on the opportunities to improve existing infrastructure:
 - Upgrade quality
 - Upgrade capacity
 - Combine technology
 - Cost and timing of upgrades
- Improvement of Fire Protection System:
 - Upgrade of the Fire Code
 - Brush removals

- Landscaping
- Fire breaks
- **Building materials**
- Response systems
- Evaluate and upgrade of the water system for fire protection such as the following:
 - Larger reservoirs
 - More local tanks
 - More hydrants
 - · Higher capacity of pipes and better looping of pipes
 - Better redundancy
 - · Wider roads and better access
- · Cost and responsibility for payments:
 - FEMA and other federal agencies
 - State
 - City
 - Raising other funds