#### **CITY OF LOS ANGELES**

COUNCIL MOTION REPORT BACK 10-2468-S2

DATE: September 8, 2025

TO: Public Safety Committee - City Council

City of Los Angeles

FROM: City of Los Angeles Community Forestry Advisory Committee (CFAC)

Los Angeles Fire Department (LAFD)

# RE: Recommendations on the State's proposed landscape management regulations

#### I. Introduction

On July 1, 2025, the Los Angeles City Council adopted an amended Motion (CF <u>10-2468-S2</u>) directing the Community Forest Advisory Committee (CFAC) and the Los Angeles Fire Department (LAFD) to report on the State of California's (State) proposed regulation changes to landscape management in Very High Fire Hazard Severity Zones (VHFHSZ) and propose recommendations for revising those regulations to allow for better integration of biodiversity and ecological health in fire mitigation planning. The goal is to protect our natural resources while reducing fire risk within the fire hazard severity zone.

The proposed regulations add a new enforcement zone to the existing Zones 1 and 2. The new Zone 0 would create a more restrictive buffer prohibiting trees (with some exceptions), and all in-ground plants, shrubs, and lawn, within five-feet of any structure in the VHFHSZ, resulting in the estimated removal of nearly 2,000 acres of vegetation within the City of Los Angeles.. This report focuses on the unintended impacts, principally from an ecological perspective, but also its actual effectiveness in a dense urban setting. Furthermore there are economic, social, equity, historical, cultural, and health consequences which these changes could impose on communities across Los Angeles.

Our conclusions and recommendations reflect real world conditions in Southern California. The primary factors driving destructive fires in our communities are: proximity of homes to one another, high wind conditions, and the condition of vegetation.

This report will above all recommend exempting well-maintained vegetation and trees from removal, allow for an appeals process, and give flexibility to local fire departments and their inspectors.

#### II. Background

Wildfire has long shaped Southern California's ecology. As development pushed deeper into fire-prone wildlands, entire communities were built in what ecologists call the wildland-urban interface (WUI), where natural fires persist despite urbanization. This combined with invasive species and high-wind events, has increased fire intensity and risk. Research shows that modern urban fires are primarily driven by house-to-house ignition during wind events rather than vegetation, making structure spacing and home hardening more effective than widespread vegetation removal. Effective mitigation should focus on ignition prevention, building hardening, and managing the spacing and vulnerability of structures, more than removing vegetation.

## **Current State Fire Code**

The California Legislature has enacted a series of evolving policies to protect communities from wildfires. In 1965, it passed California Public Resources Code (PRC) <u>Section 4291</u>, establishing minimum standards for vegetation management. These were amended in 2013 and 2024 to further define rules and responsibilities. In 1982, the legislature mandated the mapping of Fire Hazard Severity Zones to identify

areas most likely to experience wildland fires. <u>These CalFire maps</u> define State Responsibility Areas (SRAs), usually in rural areas, where the financial responsibility for preventing and suppressing wildfires is primarily the responsibility of the state, and the mostly urban Local Responsibility Areas (LRAs), where local fire departments, like the Los Angeles Fire Department, have primary responsibility.

The maps define three tiers of Fire Hazard Severity: Moderate, High, and Very High. The vegetation management requirements in Section 4291 apply to *all properties in SRAs* and *properties in the Very High Fire Severity Zones in LRAs*.

The broad clearance standards set by the state in these areas are designed to maintain vegetation in wildland areas "so as to effectively manage fuels and not form a means of rapidly transmitting fire from other nearby vegetation to a structure or from a structure to other nearby vegetation."

# Current Zone 1 Requirements – Within 30 feet of all structures or to the property line

- Remove all dead or dying grass, plants, shrubs, trees, branches, leaves, weeds, and pine
  needles from the Zone whether such vegetation occurs in yard areas around the "Building or
  Structure," on the roof or rain gutters of the "Building or Structure," or any other location within the
  Zone.
- Remove dead tree or shrub branches that overhang roofs, below or adjacent to windows, or which are adjacent to wall surfaces, and keep all branches a minimum of ten feet (10 ft.) away from chimney and stovepipe outlets.
- Relocate exposed firewood piles outside of Zone 1 unless they are completely covered in a fire resistant material.
- Remove flammable vegetation and items that could catch fire which are adjacent to or under combustible decks, balconies and stairs

#### Current Zone 2 Requirements – Within 30–100 feet of all structures or to the property line

- Cut annual grasses and forbs down to a maximum height of 4 inches
- Remove fuels to create proper horizontal and vertical spacing among shrubs and trees, and remove lower tree limbs
- All exposed woodpiles must have a minimum of 10 feet clearance, down to bare mineral soil, in all directions
- Remove all dead and dying trees, branches, shrubs, or other plants, and surface debris. Loose surface litter, normally consisting of fallen leaves or needles, twigs, bark, and cones, shall be permitted to a depth of 3 inches

#### **Current LA Municipal Fire Code**

The fire code for the <u>City of Los Angeles</u> encompasses the full state code and clarifies that the clearance rules "shall not require the removal of trees, ornamental shrubbery or plants which are used as ground cover, provided such do not provide a ready fuel supply to augment the spread or intensity of a fire." The rules for the first 100' surrounding a structure otherwise are stricter than the state's, requiring that vegetation be cut to a maximum height of 3 inches, prescribing a pruning and spacing regimen for established trees and shrubs, and doubling the amount of defensible space from 100' to 200'. In the first 100" the rules include:

• For trees taller than 18 feet, remove lower branches so no foliage is within 6 feet of the ground, and remove all dead material. For trees and shrubs less than 18 feet, remove lower branches to 1/3 of their height, and remove all dead material.

- Native shrubs trimmed up from the ground to 1/3 of their height and not exceed 216 cubic feet in volume.
- Native shrubs spaced at a distance of not less than three times their maximum diameter, but not less than 18-feet from the edge of any other native shrub, building or structure
- All dead wood and other combustible material within 18-feet of such shrub removed except as provided above.
- All roof surfaces shall be maintained free of substantial accumulation of leaves, needles, twigs and any other combustible matter.
- Maintain 5 feet of vertical clearance between roof surfaces and portions of overhanging trees.
- Comply with protected native tree and shrub ordinance.

#### The AB3074 "Ember-Resistant Zones Act" and Zone 0

Citing a measurable increase in the frequency and destructiveness of California fires, in 2020, California Assemblymember Laura Friedman introduced AB 3074. The "Fire prevention: wildfire risk: defensible space: ember-resistant zones act" instructed the State Board of Forestry and Fire Protection to create a new defensible zone that would eliminate materials "likely to be ignited by embers" in a new zone of 0'-5' around structures in SRAs and Very High Fire Severity Zones in LRAs. The bill aimed to increase property protection while allowing for consideration of ecological and other impacts and required consultation with fire officials, government representatives, environmentalists, and other stakeholders. It included these parameters:

- The guidance document shall include, but not be limited to, regionally appropriate vegetation management suggestions that preserve and restore native species that are fire resistant or drought tolerant, or both, minimize erosion, minimize water consumption, and permit trees near homes for shade, aesthetics, and habitat; and suggestions to minimize or eliminate the risk of flammability of nonvegetative sources of combustion such as woodpiles, propane tanks, decks, and outdoor lawn furniture.
- It should consider the elimination of materials in the ember-resistant zone that would likely be ignited by embers.
- The amount of fuel modification necessary shall consider the flammability of the structure as affected by building material, building standards, location, and type of vegetation.
- Fuels shall be maintained in a condition so that a wildfire burning under average weather conditions would be unlikely to ignite the structure.
- That "in the development of this program, the State Fire Marshal shall consult with representatives from local, state, and federal fire services, local government, building officials, utility companies, the building industry, insurers and insurance research organizations, and the environmental community"
- That suggested administrative procedures "allow for appeal of the citation by the property owner."
- That the Department of Forestry take "into account property owners' financial resources and the scope of work necessary to achieve compliance"

The bill instructed the Board of Forestry (BOF) to create guidelines for these provisions, but no action was taken until after the Palisades and Eaton Canyon fires when Governor Newsom issued an <u>executive order</u> instructing them to finalize them by the end of 2025.

# Proposed Zone 0 Requirements

The Board of Forestry's Zone 0 Advisory Committee began issuing proposed regulations in March. They have evolved over the months but as of August 2025 (full text of their August Plead is provided in Appendix A), the proposed Zone 0 requirements included the following:

- No landscaping materials that are likely to be ignited by embers are permitted including but not limited to grass, ornamental or native plants, shrubs, fallen leaves and tree needles, weeds, and combustible mulches including bark and woodchips. (No in-ground plants allowed.)
- Potted plants are allowable within certain parameters regarding size, placement, and materials.
- Trees are allowed provided there are no dead or dying branches and that all live branches are kept 5' above the roof of any structure, 10' above any chimneys or stovepipes and 5' from the side of any structure.
- The provisions for trees are exempted in the case of single specimen of trees that are well-pruned and maintained so as to effectively manage fuels and fuel ladders, as provided in Public Resources Code Section 4291.
- No combustible boards, timbers, firewood, combustible petroleum-based products, window boxes, and trellises are permitted.
- Fences that are directly attached to a Building or Structure shall have a five foot (5 ft)
  non-combustible span at the point of attachment. After the effective date of this regulation, no
  new Combustible fences are permitted within five feet (5 ft) of a Building or Structure including an
  attached deck.
- Outbuildings are not permitted in Zone 0.
- The requirements for Zone 0 will take effect for new Structures upon the date that the regulations are updated and for existing Structures three years thereafter.

The rule regarding excluded materials within the 0-5' zone goes beyond what was intended in AB3074, taking it from an "ember-resistant zone," to a non-combustible zone. Non-combustible suggests no vegetation or other burnable

material, while ember-resistant allows for healthy, well-maintained vegetation because it is full of water, unlike other more easily ignited items, such as wood mulch.

In the case of trees, the proposed regulations seem comparable to current LA Municipal Fire Code, requiring a distance of 5' from an adjacent roofline and 10' from a chimney or stovepipe. But they also require removal of branches within 5' of an adjacent wall. This requirement could mean virtually no branches on the trunk of the tree to above the roofline, or on just one side of the tree. Either scenario could inflict structural or life-threatening damage to the tree. Native trees and shrubs especially are ill-suited to this kind of pruning.

#### Southern California Context - LA Is Different

The state's proposed regulations impose a one-size-fits-all solution on an enormous state with vast differences. Many of the underlying case studies, graphics, and demonstration projects used in devising the rules were based on conditions more commonly found in forested areas in Northern California. LA's hillside communities, however, are a mix of irrigated landscapes, over-cleared and degraded hillsides, native chaparral, and ever-expanding, often densely-built residential areas. LA's wildland-urban interface areas – distinct from Northern California – make fire behavior more complex and firefighting more challenging. In a letter to the Zone 0 Advisory Committee, the nonprofit wildfire advisory group <a href="MySafe:LA">MySafe:LA</a> urges it to "explicitly recognize the geographic and structural differences between Northern and Southern California. In Southern California, particularly in Los Angeles County, many homes are situated in densely populated neighborhoods with limited setbacks, multistory construction, and closely spaced neighboring structures. These conditions sharply contrast with many Northern California communities, where larger parcels and greater opportunities for defensible space exist."

Additionally, the hotter, drier climate, combined with persistent drought, Santa Ana winds and highly-flammable invasive species, complicate fire management and highlights the necessity of creating strategies specifically tailored to Southern California's conditions.

Despite the requirement for local input, Los Angeles City and LAFD officials have thus far not been included in discussions on the proposed changes, nor has the Board of Forestry's Zone 0 Advisory Board visited the region to observe local conditions first hand. Only after persistent pressure from local advocates has the Board of Forestry agreed to hold a meeting in Southern California in September of 2025, six months into the rulemaking process.

#### **Relevant Research**

The current state proposal reflects fire hazard conditions more typically found in forested areas common to Northern California. The graphic illustrating Zone 0 on the <u>Board of Forestry website</u> shows a large flat lot with ample property separation seldom found in LA's WUI zones.



Board of Forestry graphic shows a large flat lot more common in Northern California than LA's WUI areas.

But recent peer-reviewed studies on urban conflagrations in WUI areas – where fire spreads uncontrollably from structure-to-structure – have shown that building materials, home spacing, and moisture content in nearby vegetation are more predictive of home survival than the presence of nearby vegetation.

#### Wind-Driven Fires

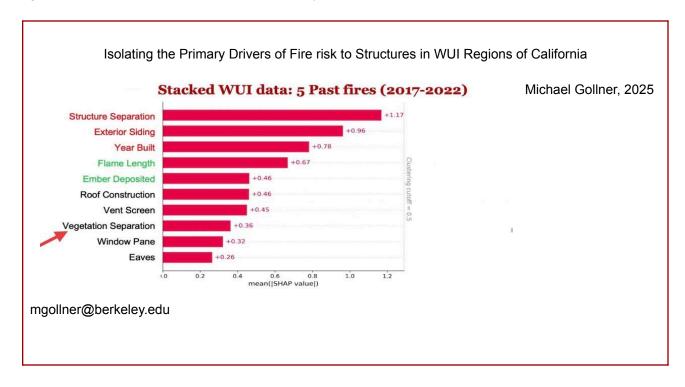
Following the January fires, US Geological Survey fire ecologist Jon Keeley <u>observed to LAist</u> that fires change when they go from chaparral to neighborhoods. "The bottom line is the winds far outweigh the fuel in terms of fire spread in a (high wind) situation like this. When you have these winds it makes fuels less relevant. And the fuels are definitely not relevant once it gets into the urban environment, because the primary fuels are the homes."



Density is a major factor in spread of fire

#### Structure Spacing and Home-Hardening

Once in the built environment, a wildland fire becomes an urban conflagration where characteristics of the homes and businesses become primary factors of fire spread. A 2025 study analyzing five California fires from 2017 - 2022, showed that of ten primary drivers measured as factors for fire risk, *structure spacing was the most significant*. "Vegetation separation" (defensible space) was eighth, though the models did not take into account the possible presence of *irrigated* vegetation which might have reduced its role even further. ("Isolating the Primary Drivers of Fire Risk to Structures in WUI regions in California," Michael Gollner, et al. 2025.)



In urban conflagrations, home hardening is also more predictive of structure survival than proximity to vegetation. A study of the 2018 Woolsey fire in which more than 1,600 homes were lost, high-resolution data analysis shows vegetation around buildings explained very little about structure loss. "Despite detailed pre-fire information on vegetation around nearly 11,000 buildings, we did not find a critical role for vegetation in defensible space in relation to building outcomes after the Woolsey Fire. Instead, building materials and landscape attributes were higher-ranking in variable importance." ("Using high-resolution land cover data to assess structure loss in the 2018 Woolsey Fire in Southern California" Miranda H. Mockrin, Dexter H. Locke, Alexandra D. Syphard, Jarlath O'Neil-Dunne. Journal of Environmental Management, 2023.)

## Protective Properties of Vegetation

In many cases, trees, especially oaks and other large trees and hedges can offer protection in wind-driven fires by catching embers and slowing winds. In an article for the LA Times, wildfire researchers Max Moritz and Luca Carmignani cautioned against mandating the removal of vegetation that could prove protective in urban fires. "Green, well-maintained plants can slow the spread of a fire by serving as heat sinks, absorbing energy and even blocking embers." The moisture in well-hydrated plants stops the flames like green firewood. "When well-watered, living plant material is heated by a nearby energy source, such as a fire, the moisture inside it must be driven off before it can ignite. That evaporation cools the surrounding area and lowers the plant's flammability." (Moritz and Carmignani - LA Times) While most healthy vegetation offers some protection, fire-adapted native oaks are particularly effective as has been stated clearly by public agencies such as the Resource Conservation District of the Santa Monica Mountains (see: https://youtu.be/tKc66QITkr8).



Photos before and after the 2025 Palisades fire show thick green vegetation between two closely spaced homes. The arrow shows the direction of the fire's spread. When surviving plants appear scorched after these fires, it is often on the side of the plant facing a nearby structure that burned. That suggests that wind-blown embers ignited houses first: The houses were then the fuel as the fire spread through the neighborhood. (Max Moritz; Cal Fire damage inspection photos)

Plant health and hydration are key to fire resilience:

- US Forest Service scientists showed that moisture content in trees correlates with lower structure loss. ("Exploring urban vegetation type and defensible space's role in building loss during wildfire-driven events in California" Landscape and Urban Planning. Escobedo et al, 2025.)
- Plant moisture data based on NDWI\* (Normalized Difference Water Index) data confirms that irrigation and plant hydration are key fire-resistance variables. (Escobedo et al. 2025)
- Historic orchard buffers reduced fire spread in LA suburbs like Altadena. "The urban environment
  was surrounded by citrus orchards. And that's what buffered the communities from the wildland
  areas. And if fires ... burned into them, they generally burned out. Today, we don't have citrus
  orchards. We just have more homes." (John Keeley, Interview with <u>The Smokey Wire.</u>)

\*The Normalized Difference Water Index (NDWI) is a new method that has been developed to delineate open water features and enhance their presence in remotely-sensed digital imagery. The NDWI makes use of reflected near-infrared radiation and visible green light to enhance the presence of such features while eliminating the presence of soil and terrestrial vegetation features.

## **Board of Forestry Research**

The Board of Forestry has relied heavily on data from the Insurance Institute for Business and Home Safety (IBHS) – the insurance industry's research arm – in developing its proposed regulations. IBHS' experiments and demonstrations routinely cast vegetation in the role of primary culprit for fire spread, even when these tests fail to accurately or fully simulate real on-the-ground conditions. One IBHS demonstration contrasted the performance of a structure benefitting from home-hardening and Zone 0-protections with a test structure that included a Zone 0 non-compliant wooden fence and adjacent wood pile along with no hardening improvements. Not surprisingly, the more vulnerable structure burned more quickly. Given the insurance industry's vested interest in California fire policy, these test results cannot be considered unbiased. Insurance companies benefit from simplified rules that facilitate remote inspections, and streamline policy and claims disputes. Environmental impacts are likely not a consideration. (The insurance industry is pressing hard for these restrictive rules. With insurance companies starting to pull out of California, legislators and regulators may be feeling pressure to comply.)

#### **Unintended Consequences**

The specifics of the Board of Forestry's proposed guidelines are in conflict with realities of Southern California's unique ecology, the density of the built environment, and environmental vulnerabilities.

When Assemblymember Laura Friedman authored AB3074 creating an *ember-resistant zone*, she considered these conditions, emphasizing the importance of preserving native species and weighing impacts on soil erosion, shade, and aesthetics and instructed the Board of Forestry to do the same. Noting that the Zone 0 Committee's proposed *non-combustible* zone does not reflect those concerns, now Congresswoman Friedman wrote to the chair in July 2025, urging him to "publish a guidance document that provides regionally appropriate vegetation management suggestions that preserve and restore native species that are fire resistant or drought tolerant, or both." She reminded the Committee that the bill "calls for fuels to be maintained in a condition so that wildfires burning under average weather conditions will be unlikely to ignite structures nearby" and urged the Board to "prioritize regulations that are both scientifically informed and reasonably attainable to ensure maximum compliance."

MySafe:LA echoes that sentiment in their letter to the committee: "We strongly caution against a universal mandate to eliminate all vegetation within the 5-foot Zone 0, including in new construction. It is ... important to emphasize that the original 2020 legislation (AB 3074) called for an "ember-resistant" zone—not an "ember-free" one. The distinction is critical. While there is no guarantee that any hardened home will survive a wildfire, the spirit of this legislation is not to create absolute prevention of ignition, but rather to reduce the scale of wildfire destruction by improving structure survivability. A flexible, science-informed approach is more likely to meet this intent than a rigid ban on all vegetation within Zone 0.

Flexibility and common sense are key. A bipartisan coalition of Oregon legislators are currently moving to revoke the state's fire maps in order to free residents of "costly home hardening measures and strict defensible space mandates" that go along with them. As one State Senator put it, "Repealing the fire maps and associated government overreach cannot wait. Oregonians have lost too much of their lives and resources worrying about this issue already. Many of them fear they will not be able to continue living in their houses."

The rules as currently proposed place a huge burden on property owners, imposing *known current* harms in an effort to reduce the risk – with debatable effectiveness – of *possible future* harms.

## III. Impact and Key Considerations

The reaction to disasters like the fires of January of 2025 is often to enact extreme and prescriptive safety measures, but there is a risk of letting fear and "the need to do something" override science-based decision making. Policymakers should resist the impulse to impose inappropriate models state-wide when flexibility might offer more regionally appropriate and effective and ultimately, less costly, solutions.

The state's proposed regulations are a well-meaning attempt to protect our communities, but their implementation could cause widespread negative impacts. In addition to loss of habitat and biodiversity, these include rising temperatures and increased energy use, inequitable impacts, and a cascade of other unintended consequences that will fall at the front door of the City Council and virtually all city departments. Los Angeles residents will be looking to city officials to demonstrate good stewardship of LA's unique ecosystem and find both constructive and effective solutions.

# **Key Impacts**

#### Ecological - Biodiversity

- Compromise LA's Unique Biodiversity: Los Angeles is a biodiversity hotspot, meaning that
  while it is home to an exceptionally high concentration of endemic species, its native biodiversity
  is also under threat. The removal of hundreds of acres of trees and other vegetation would
  exacerbate that threat.
- Undermine LA's Biodiversity Goals: LASAN's Biodiversity Program has established a set of
  broad biodiversity goals to ensure "that ecosystems are protected, enhanced, and restored,
  environmental and public health benefits are maximized and equitably shared by all, and that Los
  Angeles is a resilient, biophilic City for generations to come." Adopting the current Zone 0
  regulations is in conflict with those goals.
- Loss of Tree Canopy: Interactive <u>GIS maps</u> produced by LA County quantify the potential tree loss. Across 37,381 VHFHSZ acres in Los Angeles, approximately 1,783 acres (4.7%) of canopy fall within Zone 0. High-loss communities include Silver Lake (18%), and Echo Park (16%).

Neighborhood	CD	Acres	% Tree Canopy
Silver Lake	13/4	108	18
Echo Park	13	26	16
Eagle Rock	14	83	12
Highland Park	1/14	53	12
Hollywood	13	76	11
Chinatown	1	.29	11
Pacific Palisades	11	113	8.9
Hollywood Hills	4	147	7.6
Sherman Oaks	4	108	7.7
Shadow Hills	7	20	6.6
Porter Ranch	12	25	5
Encino	4	104	4.7
Beverly Crest	5	105	3.9



Al Rendering shows that some residences like this apartment building on Franklin Ave. in Hollywood could see a significant loss of surrounding vegetation.

- Loss of Habitat: In addition to the trees are the shrubs, ground cover and young trees that could be lost. The County GIS maps only capture data on trees over 10', so the vegetation loss would be far greater than indicated. Vegetation (especially native plants) provides forage and shelter for wildlife such as bugs, birds, lizards and mammals. Hedges are like condos for local birds. Even street trees play a crucial role. While connectivity is crucial, analysis of urban wildlife shows even small yards and areas with sparse vegetative cover can also have ecological value and can benefit bird populations. ("The ecological role of native-plant landscaping in residential yards to birds during the nonbreeding period" Smallwood & Wood 2023)
- Landscape Type Conversion: Excessive clearing can lead to "Landscape Type Conversion," where sage scrub, chaparral, or other habitat type is converted to non-native, weedy grasslands, destroying habitat and increasing the risk of wildfire.
- Disruption of Bird Nests: Removing or disturbing wild bird nests is illegal in California. The removal of thousands of acres of trees and hedges would impact countless nesting bird pairs and require widespread education to avoid illegal destruction.
- Weakened Trees: Tree health and structural integrity may be severely impacted if limbed up or "broccoli-topped" to avoid structures as a result of the new rule requiring all limbs be removed within 5 feet of walls.

A City Defined by "Defensible Space": Zone 0 worsens an already excessive vegetation clearing regimen. Given the tree and shrub spacing required in Zones 1 and 2, with the addition of Zone 0, instead of landscaping, the majority of the city's green space and yards will become "defensible space" and hardscape. Spacing plants unnaturally far apart destroys plant communities, leaves openings for flammable invasives to become established, creates wind tunnels and openings for wind-driven embers, and may lead to soil degradation, dehydration and destabilization.

## Ecological - Other

- Increased Wildfire Risk: Removal of healthy, well-irrigated landscape vegetation creates an
  opening for the establishment of invasive and highly flammable mustard and grasses.
   Overclearing vegetation can also create "wind tunnels" that accelerate ember spread, especially
  after moisture-retaining vegetation is removed.
- **Increased Mudslide Risk:** Excessive clearing removes stabilizing vegetation, dries out soil, and increases the risk of mudslides and flooding.
- Increased Carbon Emissions: A hotter city means more electricity use for air conditioning. Embedded carbon in new concrete hardscape, replacement metal fencing, and masonry walls will not only increase heat but also exacerbate climate change.
- Increased Heat and Pollution: A reduced urban tree canopy will increase the heat island effect, reduce the pollution-mitigating properties of trees, and increase the use of electricity for cooling which contributes to the climate crisis.

#### Public Health

Trees play a crucial role in a community's overall well-being, providing mental and physical health benefits, and saving lives during excessive heat events. At a time when we need to be adding shade to protect residents from the growing threat of climate change, Zone 0 will be contributing to these impacts:

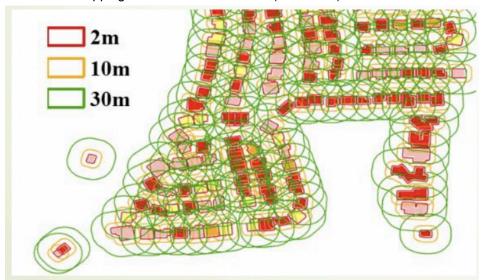
- Loss of shade and increased heat: Excess heat kills on average more than 200 residents in LA County per year and leads to hundreds of hospitalizations. Trees don't just shield us from the sun, they are natural air conditioners and can lower air temperatures up to 10 degrees on a very hot day, a difference that lowers the death risk from heat.
- Inequitable Distribution of Impacts: Because they have so few trees to start with, neighborhoods with the smallest tree canopies will suffer the largest percentage losses under Zone 0, and suffer disproportionate impacts especially if they are in high heat severity areas.
- Loss of Mental Health Benefits: Exposure to urban nature creates a sense of belonging and connection to community. Lack of nature can lead to increased stress, anxiety, and depression. Children may also experience learning impairments and difficulties with emotional regulation.
- Loss of Walkability: Front yard and street trees provide pedestrian shade. Their removal means more time indoors.

#### Social

Removing tens of thousands of trees and untold tons of vegetation from neighborhoods with disparate resources will strain the fabric of society.

Expanded <u>Fire Severity Zone Maps</u> <u>Hit Low-Income Neighborhoods Hardest</u>: Areas never before subject to brush clearance requirements will now face the costs and impacts

- of these new rules. Communities like Thai Town, Hollywood, and Chinatown could see a loss of up to 40% of tree cover and the loss of potential for *expanding* their tree cover.
- Homes on Small Lots Face Outsize Impacts: Losing two trees in a yard with four trees means a 50% reduction in shade and green space. The 0-5' clearance zone may also mean no side yard vegetation for these homes.
- Conflict with City Laws: Mandated tree removal or aggressive limbing may violate the
  City's Protected Tree Ordinance. Mandated planting of Protected Tree replacement trees
  would also conflict with Zone 0 requirements.
- Impact on Aesthetics, Privacy, and Quality of Life: Loss of vegetation will mean a
  hotter, uglier, less safe living experience and loss of privacy, especially for homes with
  smaller yards.
- Impact on Cultural and Educational institutions: Landmark properties such as UCLA and the Getty Museum could see the removal of historic gardens and green space.
- **Impact on ADUs and Outbuildings:** Compliance with Zone 0 boundaries could push homes, ADUs, and sheds into conflict with Zone 0 boundaries of neighboring properties, requiring vegetation removal by the neighbor. (Escobedo, Maranghides) See photo below of overlapping zones in an urban area (Escobedo).



Homeowner Revolt: The rules make no allowance for appeals on clearance mandates
for rare or valuable specimen plants or for plants that can retard fire. Residents are
already vowing to refuse to comply, creating conflict with fire inspectors and other city
officials. Potential loss of property values and flight of homeowners to other states.

#### **Economic**

A significant portion of Angelenos and the City itself will be negatively impacted economically by the proposed regulations:

- Impact on green waste system: Estimated amount of vegetation and combustible material that
  will need to be removed will be in the hundreds of thousands of tons. Current green waste
  processed is 620,000 tons/year.
- Homeowner Vegetation and Wood Fencing/Gate Removal: Minimum estimate of average cost of compliance is \$13,000 per home

- Municipal Vegetation Removal: An unprecedented strain on the city's waste management system
- Rebuilding, Repairing and Replacing: Once cleared, impacted properties will need new
  hardscaping and fencing and possible repairs. Hillside properties may need geological surveys
  and retaining walls to shore up slopes left newly vulnerable by the loss of stabilizing vegetation.
  The average estimated expense is in the tens of thousands of dollars and where extensive
  retaining walls are required, costs could go into six figures
- **Utility Bills:** Hotter homes mean more air conditioning use, greater peak-period electricity use, and an estimated minimum 5% increase in electric bills for all customers, and reduced electrical system reliability. Existing infrastructure may not support the increase in demand
- Loss of economic value of trees: TreePeople estimates that for each dollar invested in an urban tree in California, \$5.82 in benefits are generated

AB3074 instructs the Department of Forestry and Fire Protection to "pursue collaborative approaches to achieve compliance with new defensible space requirements, taking into account property owners' financial resources and the scope of work necessary to achieve compliance." The Zone 0 Advisory Committee has indicated that some funding will be available, primarily to low-income households but would likely not be adequate to cover the most costly modifications.

## Urban Street Trees, Drought, and Risk Considerations

Per Bureau of Streets Services (Streets LA) Los Angeles faces a growing street tree maintenance backlog, with its 17-year trimming cycle far exceeding the recommended 5-7 years for its 654,000 trees. This leads to increased deadwood and compromised limbs, elevating fire and safety risks, especially in high winds.

In the Very High Fire Hazard Severity Zone (VHFHSZ), 637 of approximately 6,400 trees are dead, and the rest need trimming. Without dedicated funding, the City faces liability for unmaintained trees linked to fires or public safety issues.

This zone also has 787 vacant tree well sites that may never receive planting. Additionally, Zone 0 implementation may require removing existing street trees where 7-foot sidewalks and property-line structures eliminate replanting, causing permanent canopy loss, particularly in vulnerable, already treeless communities.

Street trees are crucial for urban water cycles, capturing stormwater, enhancing infiltration, and cooling the environment through transpiration, which aids climate adaptation and fire resilience. Restrictive Zone 0 interpretations could undermine water conservation and heat mitigation goals by removing this vegetation.

Los Angeles' street trees provide essential shade, a stated goal to increase for our city. Ensuring these trees are maintained — not removed — should be a critical component of LA's fire resilience strategy.

#### Enforcement and Impact on the LAFD

It will fall to the LA Fire Department to enforce these new clearance requirements and add to an already challenging workload. LAFD is currently tasked with inspecting about 155,000 properties a year and can make physical inspections of only a small fraction of those. Although LAFD is prepared to follow the law, there will be challenges with the addition of a mostly vegetation-free Zone 0.

## Workforce Capacity

- With the expanded Fire Hazard Severity Zone maps, the number of properties LAFD requiring inspection may increase by 25-30,000.
- The Department employs 5-6 inspectors for every 10,000 properties in the VHFHSZ, meaning an additional 12-18 inspectors, plus support staff and at least one new Captain.

- Estimated personnel cost will be about \$2 million.
- The Department also anticipates increasing the use of drone and satellite technology to facilitate inspections.

# Additional Challenges

- Homeowner resistance: Grassroots opposition is emerging in reaction to Zone 0 with many homeowners already vowing to refuse to comply. There is concern about possible conflicts with fire inspectors which could increase legal actions, costs, and the time LAFD spends on citations and legal actions.
- **Homeowner disputes:** Overlapping Zone 0 areas could lead to disputes between neighbors over whose tree or structure must be modified or removed
- **Outreach:** Education and communication will be essential for compliance but there are concerns about funding and execution.
- **Conflict with insurance companies:** Both entities do property inspections. Who has ultimate authority?

#### IV. Recommendations

Given the long list of negative impacts likely to result from the current proposed Zone 0, City officials could reasonably advocate before the Zone 0 Advisory Committee for appropriate defensible space regulations that would protect the city's overall ecosystem health while enhancing fire safety.

The following specific recommendations are offered to reduce the environmental impacts of the proposed rules:

- Exempt healthy, hydrated and well-maintained vegetation that is "not likely to be ignited by embers": The *moisture content* of vegetation is far more predictive of fire spread than the *presence* of vegetation.
- **Focus on maintenance and irrigation:** Well-maintained and well-hydrated vegetation in Zone 0 is not a source of fire spread and is consistently shown to slow fire progress.
- **Prioritize fire adapted native plant species as appropriate:** Because they evolved with fire, some native plants offer protective qualities such as thicker bark and greater moisture retention that can limit a fire's ability to spread.
- Explicitly exempt locally protected native trees and shrubs from all tree regulations: These plants are essential for biodiversity and in most cases, adapted to and resilient to fire.
- **Explicitly exempt historic and heritage trees:** These majestic trees can define a neighborhood and their size makes them unlikely to burn in a fast-moving wildfire.
- Explicitly exempt living municipal street trees: Live, well-maintained municipal street trees should not be subject to mandatory removal within Zone 0, consistent with current L.A. Municipal Fire Code. If well pruned and maintained the threat is minimal in most cases, but the loss of shade would be devastating, especially to tree-poor communities.
- Allocate targeted defensible space resources for dead tree removals and hazardous limb mitigation.
- Acknowledge and integrate urban water cycle benefits of street trees into defensible space and vegetation management policy.
- Allow for an appeals process: Special cases for particular trees or circumstances should be allowed the possibility of additional consideration.
- Move away from a one-size-fits-all approach: An urban area in chaparral vegetation should not be treated the same as a rural setting in a coniferous forest—the strategies to reduce fire risk are not the same and the risks are inherently different.
- Fund educational campaigns on vegetation management and home hardening: Because
  vegetation maintenance and home-hardening are more reliable predictors of survivability, funds
  should be directed to education in these areas.
- **Give flexibility to local fire departments and their inspectors:** Fire inspectors regularly assess the condition of vegetation and the likelihood it will contribute to the spread or intensity of a fire. We should respect their expertise and allow them to do their jobs.
- Ban artificial turf by name from defensible space: An earlier draft of the Zero Zero proposed
  regulations called for the ban of artificial turf from Zone Zero, but this was removed at the behest
  of lobbyists. Restore a ban for this product from all defensible space, as artificial turf has the
  highest heat generating index of any building material, and it releases toxic fumes during a fire
  that threaten the health of first responders.

As the research shows, the urban wildfire problem is not principally with vegetation, it is with high density construction in WUI areas, inadequately defended structures, and invasive plants causing habitat degradation or loss. The focus of the state from both a policy and investment standpoint should not be on

healthy vegetation removal but on home hardening and other defensive measures such as rooftop sprinklers and pool pumps. AB3074 includes a home hardening component, instructing the State Fire Marshal to "develop a list of low-cost retrofits that provide for comprehensive site and structure fire risk reduction to protect structures from fires spreading from adjacent structures or vegetation and to protect vegetation from fires spreading from adjacent structures." Yet no action has been taken by the State Fire Marshal, nor ordered by the Governor. The state PRC Code 4291 (a) (1) (B) also allows for a balancing of approaches to fire protection, "the amount of fuel modification necessary shall consider the flammability of the structure as affected by building material, building standards, location, and type of vegetation."

Though it is not in the purview of the Board of Forestry's Zone 0 Committee to consider the structure itself in its guidelines, the research provided herein suggests a more holistic and flexible approach to wildfire safety would achieve substantial, scientifically-supported protection without sacrificing the multiple, invaluable benefits of trees and other vegetation.

The City of Los Angeles could support that approach by issuing recommendations for property owners and responsible parties for additional fire safety strategies such as Home Hardening, On Site Water Retention, and Landscape Strategies and Management/Stewardship.

Recommendations regarding select strategies are included in Appendix B.

#### V. Conclusion

Based on the research and data presented in this report, the proposed removal of essentially all vegetation in Zone 0 will not necessarily reduce fire risk, it may in fact exacerbate it. Additionally, the cost of such drastic measures as proposed by the Zone 0 Advisory Committee will be enormous to the City and its residents, both financially and environmentally.

By opposing these regulations as currently proposed and promoting fire-resilient development and stewardship practices, the City of Los Angeles can significantly reduce fire vulnerability and the costs associated with wildfire damage without the associated harm to the city's biodiversity. Implementing the recommendations outlined in this report citywide will help to increase public safety and support the resilience of communities in the face of increasingly destructive wildfire events.

As of the submission of this report, the Zone 0 Advisory Committee plans to hold a public workshop in the Los Angeles area on the afternoon of Thursday, September 18, 2025, where in-person and remote public comment will be taken. The meeting location and time have not been announced. We strongly encourage Councilmembers – especially those whose districts include high fire hazard areas – to attend this meeting and urge advisory board members to create guidelines that will work for all of California. A position letter from the City of Los Angeles to the Board of Forestry and the Governor will also be essential to ensure these regulations are appropriate for the City of Los Angeles.

The Zone 0 Advisory Committee expects to meet on Monday September 22nd in Sacramento, just days after the Southern California meeting, presumably to finalize proposed draft regulations. The finalized regulations would then likely be presented to the full Board of Forestry for review and approval in October and then to the Governor for approval by the end of this calendar year.

To receive emails about upcoming meetings, subscribe to Board of Forestry notifications here: https://list-manage.us20.list-manage.com/subscribe?u=172af298a6a70bf21ef09866c&id=f9d930c4f0

#### VI. Relevant City Contacts

#### A. Community Forest Advisory Committee

CF 10-2468-S2 Ad Hoc Report Back Subcommittee:
Cyndi Hubach - Subcommittee Chair, CD 13 Alternate Representative
Joanne D'Antonio - CFAC Chair, CD 2 Representative
Marianne King - CD12 Representative
Lynnette Kampe - CFAC Secretary, CD1 Alternate Representative

#### B. Los Angeles Fire Department

Chris Thyfault, Brush Clearance Captain. David Perez, Fire Marshall Ronnie Villanueva, Interim Fire Chief

#### C. Contacts for More Information

- 1. Travis Longcore Urban Ecologist, Adjunct Professor UCLA Institute of the Environment and Sustainability. <a href="mailto:longcore@urbanwildlands.org">longcore@urbanwildlands.org</a>
- 2. John Todd Wildland Fire Consultant, Retired Deputy LAFD Fire Prevention Bureau, former L.A. County Fire Department Deputy Chief. <a href="mailto:frstrydude@verizon.net">frstrydude@verizon.net</a>
- 3. Greg Rubin Landscape designer / leading expert in native landscaping and fire resilience. <a href="mailto:greg@calowndesign.com">greg@calowndesign.com</a>
- 4. Francisco Escobedo Research Social Scientist at USDA Forest Service Pacific Southwest Research Station. Francisco.Escobedo@usda.gov

#### Appendix A

August Zone 0 Rule Plead of the Board of Forestry Zone 0 Advisory Committee (as it appears with their deletions and revisions on their website)

Below is draft rule text that the Zone 0 Regulation Advisory Committee will discuss at a public workshop on Monday August 18 2025. The Board invites comments on all provisions of the draft rule text.

Board of Forestry and Fire Protection

Defensible Space Zone 0

Title 14 of the California Code of Regulations

Division 1.5, Chapter 7,

Subchapter 3 Article 3

§ 1299.01. Purpose.

The intent of this regulation is to provide guidance for implementation of Public Resources Code Section 4291 to improve safety for fire fighters defending a home as well as increase the survivability of a "Building or Structure" as defined, that exists in grass, brush, and forest covered lands within the designated State Responsibility Area (SRA) of California.

Note: Authority cited: Sections 4290 and 4291, Public Resources Code. Reference: Section 4291, Public Resources Code.

§ 1299.02. Definitions.

The following definitions apply to this article:

- (a) Attached: Directly connected or affixed to a Building or Structure.
- (b) Building or Structure. Anything constructed that is designed or intended for support, enclosure, shelter, or protection of persons, animals, or property, having a permanent roof that is supported by walls or posts that connect to, or rest on the ground. <u>A Building or Structure</u>, for the purpose of an ember-resistant zone, includes an attached deck.
- (c) Combustible: Vegetative, wood, or petroleum-based materials that are likely to ignite and transmit flames.
- (ad) Defensible space. The buffer that landowners are required to create on their property between a "Building or Structure" and the plants, brush and trees or other items surrounding the "Building or Structure" that could ignite in the event of a fire.

- (e) Existing Building or Structure. An Existing Building or Structure is a Building or Structure other than a New Building or Structure.
- (f) New Building or Structure. A New Building or Structure is a Building or Structure that did not exist prior to the effective date of the regulation that added this subsection.
- (g) Outbuilding. Buildings or <u>Setructures</u> that are less than one hundred-twenty (120) square feet in size and not used for human habitation. For purposes of this Section, an-"Outbuilding" is not a "Building or Structure" as defined in subsection (b) above.

Note: Authority cited: Sections 4290 and 4291, Public Resources Code. Reference: Section 4291, Public Resources Code; and Sections 18908 and 18917, Health and Safety Code.

§ 1299.03. Requirements.

Defensible space is required to be maintained at all times, whenever flammable vegetative conditions exist.

(a) One hundred feet (100 ft.) of defensible space clearance shall be maintained in two three distinct "Zzones" as follows: Zone 0 is the area within five feet (5 ft.) around each Building or Structure or to the property line, whichever comes first. "Zone 1" extends from five (5ft.) to thirty feet (30 ft.) out from each "Building or Structure," or to the property line, whichever comes first; "Zone 2" extends from thirty feet (30 ft.) to one hundred feet (100 ft.) from each "Building or Structure," but not beyond the property line. The vegetation treatment requirements for Zone 0 are more restrictive than for Zone 1; the requirements for Zone 1 are more restrictive than for Zone 2; as provided in this section (a) and (b) below. The Department of Forestry and Fire Protection's "Property Inspection Guide, 2000 version, April 2000," provides additional guidance on vegetation treatment within Zone 1 and Zone 2, but is not mandatory and is not intended as a substitute for these regulations.

#### (b) Zone 0 Requirements:

(1) No landscaping materials that are likely to be ignited by embers are permitted within Zone 0. This includes, but is not limited to grass, ornamental or native plants, shrubs, fallen leaves and tree needles, weeds, and combustible mulches including bark and woodchips.

(A) Exception: Plants in pots are allowable if they are in areas that are not directly beneath, above, or in front of a window, glass door, or vent; are kept in an unaffixed, not combustible pot or container that is no larger than five (5) gallon capacity; and set apart by one and a half (1.5) times the height of the plant or twelve inches (12"), whichever is greater, from the structure and each other. These plants shall be no greater than 18 inches in height. Dead or dying material on the plants shall be removed.

(2) Trees within Zone 0 shall be maintained so that there are no dead or dying branches. All live tree branches shall be maintained five feet (5') above the adjacent Building or Structure's roof,

ten feet (10') away from chimneys and stovepipe outlets, and five feet (5') away from the sides of any Building or Structure.

- (B) Exception: this subdivision does not apply to single specimens of trees or other vegetation that are well-pruned and maintained so as to effectively manage fuels and fuel ladders, as provided in Public Resources Code Section 4291.
- (3) No items that are likely to be ignited by embers are permitted within Zone 0, including but not limited to combustible boards, timbers, firewood, Combustible petroleum-based products, window boxes, and trellises. The roof and rain gutters of a Building or Structure shall be kept clear of leaves and needles. The area under decks, balconies, and stairs shall be kept free from vegetative material and combustible items.
- (4) Combustible gates shall not be directly adjacent to or attached to a Building or Structure.
  (5) Fences that are directly attached to a Building or Structure shall have a five foot (5 ft) non-combustible span at the point of attachment. After the effective date of this regulation, no new sections of Combustible fences are permitted within five feet (5 ft) of a Building or Structure including an attached deck.
- (6) Outbuildings are not permitted in Zone 0.
- (7) The requirements for Zone 0 shall take effect for New Buildings or Structures upon the date that the guidance document, as described in PRC § 4291(e), is updated and for existing Buildings or Structures three years thereafter. Upon updating the guidance document, the Board shall post it on its website.
- (8) For existing structures, the Department may allow work in stages to support implementation of Zone 0 and address the costs of compliance.

#### (ac) Zone 1 Requirements:

- (1) Remove all dead or dying grass, plants, shrubs, trees, branches, leaves, weeds, and pine needles from the Zone whether such vegetation occurs in yard areas around the "Building or Structure," on the roof or rain gutters of the "Building or Structure," or any other location within the Zone.
- (2) Remove dead tree or shrub branches that overhang roofs, below or adjacent to windows, or which are adjacent to wall surfaces, and keep all branches a minimum of ten feet (10 ft.) away from chimney and stovepipe outlets.
- (3) Relocate exposed firewood piles outside of Zone 1 unless they are completely enclosed in a fire-resistant material.
- (4) Remove flammable vegetation and items that could catch fire which are adjacent to or under combustible decks, balconics and stairs.

# (<u>bd</u>) Zone 2 Requirements:

- (1) In this zone, create horizontal and vertical spacing among shrubs and trees using the "Fuel Separation" method, the "Continuous Tree Canopy" method, or a combination of both to achieve defensible space clearance requirements. Further guidance regarding these methods is contained in the State Board of Forestry and Fire Protection's, "General Guidelines for Creating Defensible Space, February 8, 2006," incorporated herein by reference, and the "Property Inspection Guide" referenced elsewhere in this regulation.
- (2) In both the Fuel Separation and Continuous Tree Canopy methods the following standards apply:
  - (A) Dead and dying woody surface fuels and aerial fuels shall be removed. Loose surface litter, normally consisting of fallen leaves or needles, twigs, bark, cones, and small branches, shall be permitted to a maximum depth of three inches (3 in.).
  - (B) Cut annual grasses and forbs down to a maximum height of four inches (4 in.).
  - (C) All exposed wood piles must have a minimum of ten feet (10 ft.) of clearance, down to bare mineral soil, in all directions.

#### (ee) For both Zones 1 and 2:

- (1) "Outbuildings" and Liquid Propane Gas (LPG) storage tanks shall have the following minimum clearance: ten feet (10 ft.) of clearance to bare mineral soil and no flammable vegetation for an additional ten feet (10 ft.) around their exterior.
- (2) Protect water quality. Do not clear vegetation to bare mineral soil and avoid the use of heavy equipment in and around streams and seasonal drainages. Vegetation removal can cause soil erosion, especially on steep slopes. Keep soil disturbance to a minimum on steep slopes.

Note: Authority cited: Sections 4290 and 4291, Public Resources Code. Reference: Section 4291, Public Resources Code; and Sections 18908 and 18917, Health and Safety Code.

## § 1299.05. Alternative Methods.

The provisions of these regulations are not intended to exclude alternative methods not specifically prescribed by these regulations. A fire expert designated by the Director may approve alternative practices which provide for the same practical effects as those stated in these regulations within the SRA.

Within the LRA the authority having jurisdiction may choose to develop alternative practices for Zone 0 compliance that take into account local variation, including differences in geography, geology, ecology, city and county ordinances, and architecture.

Note: Authority cited: Sections 4290 and 4291, Public Resources Code. Reference: Sections 4291 and 4291.3, Public Resources Code.

# Appendix B

#### **Recommendations for Holistic Fire Resistance Strategies**

These recommendations combine home hardening, landscape stewardship, and water retention strategies to reduce fire risk while balancing ecological health, urban livability, and housing needs. The approach emphasizes incentives, flexibility, and education rather than rigid one-size-fits-all rules, ensuring resilience across both hillside and urbanized areas of Los Angeles.

#### **Home Hardening**

- Encourage voluntary adoption of fire-resistant construction practices beyond code requirements.
- Examples: building placement with greater setbacks from slopes and adjacent structures, retrofitting vents/eaves, fire-rated doors/windows, defensible space, fire-resistant landscaping, limiting combustible materials.
- Incentives:
  - Streamlined permitting for projects incorporating fire-resistant materials.
  - Financial rebates (e.g., fireproof roofs, rooftop sprinklers, dual-paned windows).
  - Optional certification (e.g., IBHS Wildfire Prepared Home) to improve insurance options.
  - Support for natural materials (adobe, cob, earth blocks).
- Expand project types required to comply with Very High Fire Hazard Severity Zone (VHFHSZ) standards.

**Resources:** CalFire Retrofit Guide, USGBC Wildfire Guides, CA Fire Code Chapter 49 & 7A, cost analyses.

#### **Landscape Strategies & Management**

- Shift from "brush clearance" to "vegetation management":
  - o Prioritize removal of invasive/flammable species.
  - Properly maintain vegetation free of dead material
  - Promote native, fire-adapted plants.
  - Maintain ecological health (hillsides, watersheds, wildlife).
- Develop best practices such as through the Mayor's Office Climate Cabinet (soil regeneration, invasive species management, fire-resilient plant palettes).
- Establish tailored landscape standards for VHFHSZ areas (hillsides vs. urbanized zones like Ventura Blvd., Hollywood, NE LA) avoiding conflicts with urban tree canopy protections
- Require landscape inspections and fees for compliance.

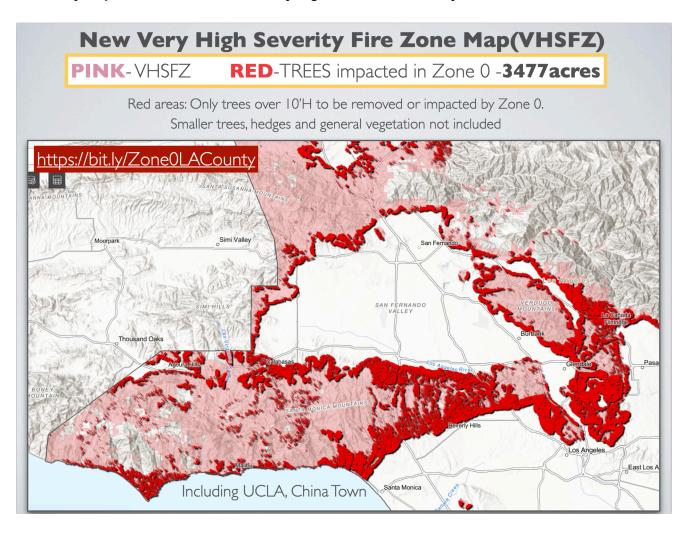
**Resources:** CA Native Plant Society Fire Guides, Post-Fire Restoration Manual, City of LA Forest Management guidance, CalFire standards (for reference and response).

#### **On-Site Water Retention Strategies**

- Use Low Impact Development (LID) to capture and store stormwater for:
  - o Irrigation (keeping landscapes green),
  - o Fire suppression,
  - o Dust control in burned/arid areas.
- Incentives: waived/expedited permits for voluntary LID adoption.
- Promote rainwater harvesting systems and healthy soil strategies (reduce compaction, increase moisture, create shaded/hydrated gardens).
- Encourage or require pool pumps and rooftop sprinklers in high fire hazard areas to support firefighting.
- Incentivize greywater systems in the VHFSZ. This is a waterwise way to abide by the AB3074 instruction to "minimize water consumption." Greywater systems sustainably hydrate plants and mitigate fire risk in Zone Zero while not utilizing potable water resources.

# Appendix C Additional Graphics

LA County map of affected areas in the Very High Fire Hazard Severity Zones.



# Homes protected by their vegetation that survive the Palisades fire:







