Frequently Asked Questions about Zone 0

1. What is Zone 0 and why is it important?

Zone 0 is an area of defensible space within the first five feet of a home or structure. It is considered the most important area to keep clear of combustible items such as woody mulch and plants to reduce the risk of a structure igniting during an ember-driven wildfire.

Keeping the area closest to structure clear of combustibles helps prevent embers from igniting flammable materials on or adjacent to the structure. Why? Because data shows the majority of buildings are lost to wildfire are ignited by flying embers that can travel miles ahead of an active front of a wildfire.

Creating an ember-resistant Zone 0 will help *save lives and protect homes, buildings, and other vital resources*, because:

- Wildland fires are spread by a combination of a moving flame front and the distribution of embers by wind creating new spot fires. Embers are small pieces of plants, trees, or buildings that are light enough to be blown through the air and can result in the rapid spread of wildfire when blown ahead of the main fire, especially during high winds.

- Home and structure loss during wildfires occur because of some part of the building igniting from one or more of the three basic wildfire exposures: 1) embers, 2) radiant heat, and 3) direct flame contact (see Figure 1).

- Embers cause structure ignitions by directly igniting a component of a structure or igniting vegetation or combustible materials on or near a structure that results in flames touching the house or creating radiant heat exposure that may directly ignite combustible siding or break glass in a window.

- Wildfires with the greatest amount of structure loss all have had a significant component of wind, including the Tunnel Fire, Tubbs Fire, Cedar Fire, Camp Fire, and most recently the Eaton Fire and Palisades Fires.

- Adding an ember-resistant Zone 0 addresses a significant missing component in California's current defensible space protection.

- By working from the structure outward there are multiple ways that residents and business owners can participate in creating their own fire resilience and directly influence the outcomes from future wildfire exposures.

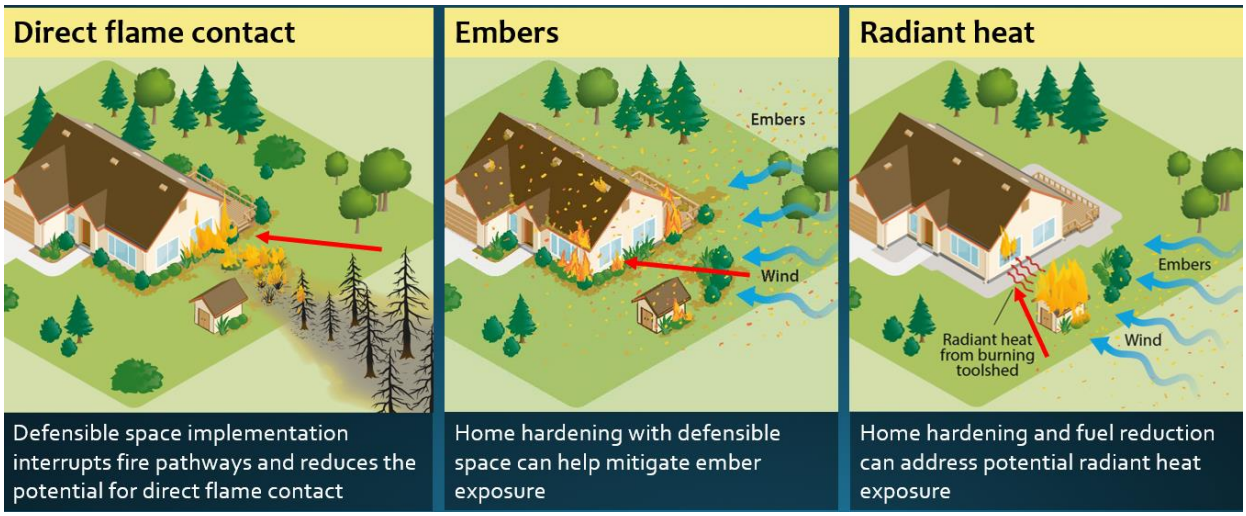

Figure 1: An illustration of the three types of fire exposures that occur during a wildfire. The caption below each panel describes how both defensible space actions, coupled with home hardening measures such as upgraded vents and windows, can help mitigate the exposures and protect buildings from wildfire.

2. What is defensible space?

Defensible space is an area around a structure where fuels are removed or reduced to provide a buffer between a structure and the surrounding area that is vital for protecting homes and communities from wildfire. Adequate defensible space acts as a barrier to slow or halt the progress of fire that would otherwise engulf a home or structure. It also helps ensure the safety of firefighters defending a structure. Defensible space is the first line of defense for homes and buildings against wildfire.

Currently, California regulations provide for a two-zone defensible space system. Zone 1 is within 30 feet of the home or building and was established in 1965. Zone 2 was added in 2006 and extends outward from 30-100 feet of the home or building, or to the edge of the property if there is less than 100 feet. These traditional zones are important for reducing home ignition from direct flame contact and providing a safe place for fire crews to locate. Fire data shows, however, that these zones have been repeatedly compromised by wind-distributed embers, leaving structures and homes at risk of ignition.

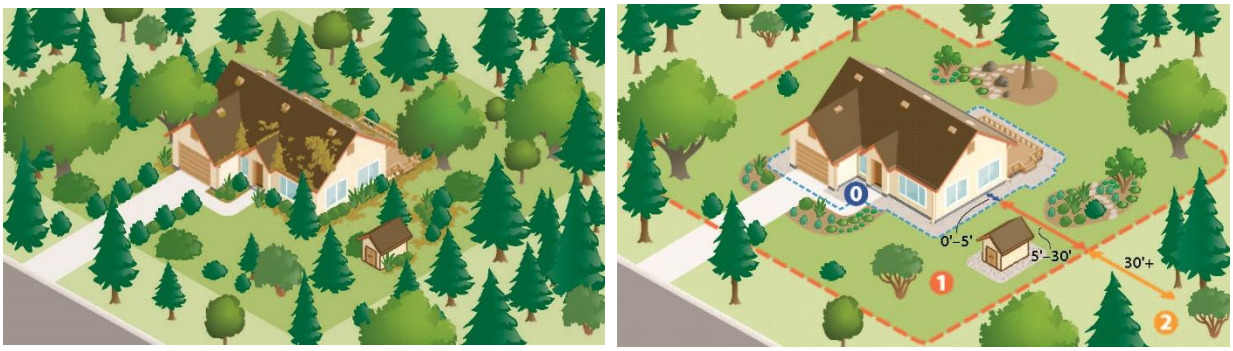

Figure 2: This is an illustrative example of the defensible space actions taken before and after using the three defensible space zones. Zone 0 applies to all structures. In the after instance (on the right), the pathways for fire to travel have been disconnected between planting groups or islands of landscaping. Additionally, the lower branches of trees have been removed to prevent fire from traveling through the treetops. Zone 0 actions eliminate the potential for embers to ignite combustibles adjacent to the structure.

3. This is the first time I have heard of Zone 0. Where did it come from?

Following decades of structure losses in California, the devastating wind-driven fires in Santa Rosa (2017), Redding (2018), and Paradise (2018) were a tipping point and the Legislature directed, through AB 3074 (2020), the California Board of Forestry and Fire Protection to create a third zone of defensible space. The zone has been termed "Zone 0" as it applies to the first five feet around the house and any attached decks or stairs in a 0-5 feet perimeter (see Figure 2).

4. Why is the Board of Forestry and Fire Protection involved?

The Board has regulatory authority over defensible space in the State Responsibility Area and has already adopted regulations governing Zones 1 and 2. The Legislature in 2020 further directed the Board, in consultation with the Office of the State Fire Marshal, to adopt regulations for Zone 0. This means that the rules for Zone 0 will be developed in an open public process where experts and affected parties can work together to craft the best strategy for Zone 0.

5. What is the timeline?

The Board has already invested significant time working on Zone 0 regulations over the last several years, with the input of a diverse group of experts and stakeholders. At the direction of Governor Newsom, the Board is now moving to incorporate what it has learned so far from stakeholder input and finalize a draft for public comment, feedback, and improvement. The Board has been receivign informal input during 2025, followed by a formal rulemaking process that includes hearings and public comment by the end of 2025. The public will have the opportunity to review and comment on regulatory text both before and during the formal rulemaking process.

6. Where will Zone 0 apply to?

- Once the regulations and the statutorily required guidance document are finalized, Zone 0 will immediately apply to all new construction in California's State Responsibility Area.
- For existing structures, home and business owners will have three years to clear the vegetation and other combustibles from the first five feet around the structure. This three-year phase-in is designed to give families and businesses the time to plan, budget, and implement the changes.
- Zone 0 applies to all areas identified as State Responsibility Area and "very high" fire hazard severity zones of Local Responsibility Areas (See Figure 3).

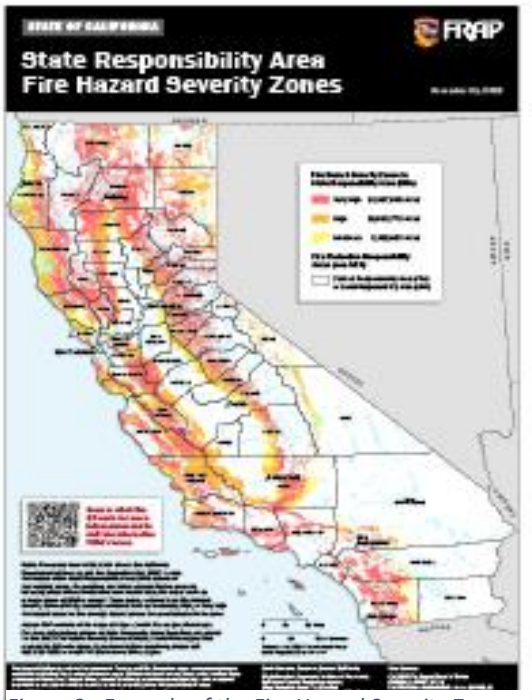

Figure 3 : Example of the Fire Hazard Severity Zone Map for California. More details can be found at: https://osfm.fire.ca.gov/what-we-do/community-wildfire-preparedness-and-mitigation/fire-hazard-severity-zones

7. How many structures does Zone 0 apply to statewide?

CAL FIRE has estimated that 1.25 million structures are in State Responsibility Area (SRA) and there are an additional 870,000 structures in Local Responsibility Area (LRA) Very High Fire Hazard Severity Zones. Combined, this is estimated to be 17% of all structures statewide.

8. Will new and existing structures have to meet the same standards for Zone 0?

Yes, the legislature has specified through SB 504 (2024) that existing and new structures shall meet the same standard for the ember-resistant zone, but as specified above, there will be a three-year period for existing structures to meet the standards.

9. What will Zone 0 address?

Zone 0 will generally apply to flammable items such as woody vegetation, wood products, and petroleum-based products located around the perimeter of buildings and attached decks or stairs.

The Board's work on the development of Zone 0 has generally taken a pragmatic approach and suggested some items for regulation and others using an educational, non-enforcement-oriented approach. For example, moveable items such as garbage and recycling receptacles, vehicles, dog houses, HVAC and heat pumps, BBQs, and built-in outdoor kitchens may be approached with inspectors offering guidance around their maintenance and the best practice of moving these items upon evacuation.

The regulations will likely address combustibles such as wood-based mulch, woody plants, dry grass, synthetic lawns, stored lumber, storage sheds, wooden gates and fences attached to the structure, small trees, and other landscape materials within the first five feet of the structure and any attached decks.

10. How will trees be considered if their stem or branch is located in Zone 0?

The Board understands that trees are important; they provide shade, minimize heat impacts, support wildlife and other biodiversity, and are beautiful. However, the Board also understands that trees drop leaves and needles on and adjacent to homes, on roofs, and in rain gutters, providing a regular source of "fuels" that are easily ignited by embers. The lower limbs of trees can also serve as fuel ladders that allow fire to climb to the upper canopy. To protect and preserve trees within Zone 0, the regulations will focus on removing fallen leaves and needles from the roof, rain gutters, and ground, as well as the pruning of lower branches. These maintenance actions are essential for protecting structures from wildfire.

Trees are allowed in Zone 0 as long as they are maintained and their lower branches are pruned to prevent fire from climbing into the canopy of the tree. Maintained trees cannot have dead and dying branches, and no branches should be within 5 feet of the roof or walls or 10 feet of chimneys.

"Single specimen" trees (or live trees that stand alone and where there is no vertical overlap with the canopy of other trees, and lower branches are pruned to prevent ignition) and trees protected by local ordinance have exceptions from the regulations.

11. What are the purposes of the three defensible space zones?

The Board has clarified that the three defensible space zones are designed to:

- **Zone 0** (0-5 feet) reduces the likelihood of structure ignition by reducing the potential for direct ignition of the structure from flame contact, by embers that accumulate at the base of a wall, and/or indirect ignitions when embers ignite vegetation, vegetative debris ,or other combustible materials located close to the structure that result in either a radiant heat and/or a direct flame contact exposure to the structure.
    - Zone 0 is the horizontal area within the first five feet around the structure and any outbuildings, attached decks, and stairs. The zone also includes the area under attached decks

and stair landings. Zone 0 should incorporate a 6-inch vertical area between the ground and the start of the building's exterior siding to be most effective.
    - Zone 0 is a critical component of structure defense and, when coupled with Zone 1 and Zone 2, is essential to providing effective defensible space.

- **Zone 1** (5-30 feet) reduces the likelihood of fire burning directly to the structure. This is accomplished by modifying fuels and creating a discontinuity between planting groups that limits the pathways for fire to burn to the structure and reduces the potential for near-to-building ember generation and radiant heat exposures. An additional and important purpose of this zone is to provide a defendable zone for fire personnel to stage and take direct action

- **Zone 2** (30-100 feet) is designed to reduce the potential behavior of an oncoming fire in such a way as to drop an approaching fire from the crown to the ground. Fuel modification includes removing dead vegetation and reducing living vegetation to eliminate fuel ladders and create vegetation separation between individual or islands of trees or shrubs.
    - These vegetation modification requirements are more significant for those properties with steeper terrain, larger and denser fuels, highly volatile fuels, and areas subject to frequent fires.
    - Zone 2 also facilitates direct defense actions, improving the function of Zones 0 and 1 by reducing the flame heights and the potential for ember generation and radiant heat exposure to structures.

12. How can I become involved?

Anyone is welcome and encouraged to participate in the Board's process for developing the Zone 0 regulations. Since March 2025, the Board has been hosting public workshops. The public can participate in these workshops virtually or in person at the California Natural Resources Agency, 715 P Street, Sacramento. The Board anticipates completing this process by the end of 2025. When the Board enters the formal rulemaking process, public comments will be welcomed and will guide the development of the rulemaking package. To subscribe to the Board's electronic mailing list, please sign up here: State Board of Forestry & Fire Protection

13. Will this help with my homeowner's insurance?

This is outside the scope of the Board's authority, but reducing the vulnerability of homes and businesses to wildfire will benefit both homeowners and insurers. Insurers are aware of the importance of Zone 0, and the Department of Insurance's "Safer from Wildfire" program identifies the Zone as critical for action. The Board's understanding is that some insurance companies are taking into account whether an insured party has implemented defensible space standards. The Board recommends that you consult with your insurer.

14. What will enforcement look like?

The Board is not responsible for enforcement. However, the Board understands that Zone 0 will be enforced like other defensible space inspections. If you live in a State Responsibility Area, CAL FIRE's Defensible Space Inspectors will work with you to understand the importance of the zone and help you prioritize actions to take over three years. If you are in "very high" mapped local areas, your local fire department will also take the same approach. **The goal is not to penalize property owners** but to help people better understand their risks and help property owners implement critical mitigations that are within the homeowners' control to reduce the impacts of future wildfire exposures. These actions also help improve the potential for fire response personnel to safely stage on the property and take

defensive fire actions. Making a home "attractive" and safe for fire response is a critical action that can help protect your home, family, and community.

15. How can I prepare and prioritize my work?

The first step is what you are doing by reading this FAQ document and learning about how to protect your structure from embers, radiant heat, and direct flame contact. Helpful resources are available on https://readyforwildfire.org/ and the Department of Insurance's Safer From Wildfire web page. The Board of Forestry and Fire Protection, CAL FIRE, the legislature, and others involved in community fire protection all recognize that implementing Zone 0 will take some time and require some changes.

For those doing the work themselves, start under and around attached wood or composite decks and stairs, pulling away weeds, woody mulch, and vegetation. This will help protect the deck from ignition. Next, you can start to remove other combustibles around the house. One strategy may be to work on the side of the house that is less visible to get some experience with the work. Over time, it may become easier to develop a new aesthetic that provides property protection and meets your standards. For those with a wood fence running parallel to the house, prioritize upgrading the five feet of wood fence or gate that touches the house with a noncombustible panel or gate. This will break the wick of fire, should the fence ignite in the future.

16. How much is it going to cost me to comply with the Zone 0 requirements? Will the Board's regulations address the cost of compliance?

The actual costs of compliance will likely vary on a case-by-case basis, depending on a variety of factors, including a property owner's existing compliance with defensible space principles and requirements, as well as the choices that they make to implement the requirements. The Board recognizes that compliance costs will be a major point of interest for the public. The Legislature is also sensitive to the potential costs. Toward those goals, 2024 legislation (SB 504) requires the Board's regulations to address the costs of compliance. An important part of the public process will be to solicit input on possible ways the regulations can address the costs of compliance.

If a homeowner intends to sell their home, keep in mind that a defensible space inspection ("AB 38" as they are known) may be required to provide the future buyer documentation of compliance with defensible space requirements.

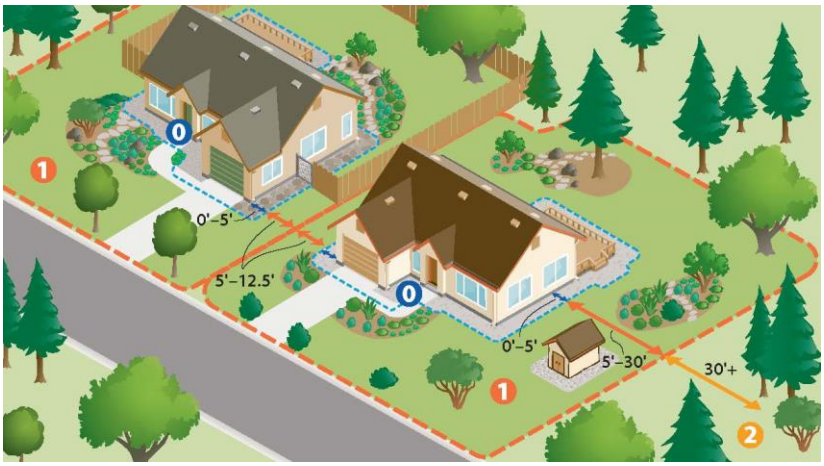

Figure 4: An illustrative example of how defensible space works between homes

17. Will the Board of Forestry's Zone 0 regulations be able to adapt to new science?

Yes, the Board of Forestry and Fire Protection takes a pragmatic and adaptive response to all its regulations. The Board has a long track record of improving and incorporating new information, via the annual "Call for Regulatory Review" (open for 2026 until October 15, 2025). In 2006, the Board updated the Defensible Space regulations, creating Zone 2 (30-100 feet from the house), requiring fuel modifications out to 100 feet for larger properties. The Zone 0 development reflects how regulations are adapting to new information and improved scientific understanding of the mitigations that matter for structure protection and in response to ember vulnerability. When new relevant information is available, the public can expect that the Board's guidance and "regulations" can change in response.

18. I have heard that vegetation near my house may catch embers before they reach my house. Is that true?

While vegetation may seem like it could interrupt the path of embers, the history of California's wildfires has shown that houses still burn, often due to the contemporary style of "foundation plantings" or vegetation surrounding the base of buildings, concealing the foundation of the structure. This is in part because embers can ignite the dry debris and leaves at the base of these plantings, or they can collide with some portion of the wall above the plants and drop to the base of the structure, where they may find combustible items (e.g., mulch, vegetative debris, or stored items) and create a spot fire that leads to flames touching the structure or a radiant heat exposure to the home.

It is common to see green vegetation surviving after a building has burned, and some correlate that green vegetation with building survival. This outcome is not due to those plants acting as "fire safe" barriers, but rather to variability in ember landing patterns, wind shifts, suppression efforts, or simple chance. It's an example of correlated observation, not causal information.

19. Can green vegetation help shield the structure from the radiant heat of an adjacent burning building?

Higher moisture content plants are indeed harder to ignite. That's why fuel moisture content is such an important factor in predicting fire spread. However, even high-moisture-content fuels ignite, especially under higher heating conditions such as forest fires with over 100% foliar moisture content (McAllister et al., 2012). The heat produced in a house-to-house scenario, commonly seen in dense urban neighborhoods under high winds, would be high enough to evaporate moisture in plants quickly and ignite them.

The firestorms in California over the last decade have often followed periods of prolonged drought or high-temperature days. Under these conditions, shrubs and other herbaceous vegetation can become desiccated because they often have thin branches and leaves that are more susceptible to drying. Looking at radiant heat alone and ignoring ember ignition of dry materials lodged on the ground around the base of a hedge, a hedge may act as a temporary "heat shield," but if the heat from the adjacent building or vegetation is sustained, it is most likely that the hedge will dry out and become an additional source of fuel and burn. Fire professionals have long observed this condition, and studies are underway to evaluate the efficacy of these observations.

20. Will the proposed regulation force residents to take out ALL vegetation within 30 feet of their home?

No. The regulation applies only to the first five feet around a home or structure. Trees are allowed within the first five feet (Zone 0) if they are pruned and maintained appropriately (see question # 10 in this FAQ). The existing Zone 1 regulation only requires that trees 5-30 feet from a building are kept free from dead or dying branches and that lower branches are pruned to prevent fire from climbing to the top of the tree.

21. I am a great gardener, and all my plants are healthy. Isn't that good enough?

Members of the Board of Forestry and Fire Protection love plants, trees, and gardens, and are also a part of the regulated public. However, the Board, fire professionals, and the State of California recognize that conditions can change rapidly, with water availability limited by short or prolonged droughts, irrigation malfunctions, and an individual's ability to maintain their yard.

Furthermore, the Board lacks the authority to mandate homeowners to irrigate their landscapes, and enforcing such a standard would be very difficult, especially in communities where water is costly or limited. Zones 1 (5-30 feet from the house) and 2 (30-100 feet) are suitable locations for lush and well-maintained gardens, and if conditions change and water becomes limited, the presence of these plants in a drier state in Zones 1 and 2, can be mitigated by disconnecting planting groups and by the low combustibility of a future zone 0.

22. I have heard that certain plants are more fire-resistant. Is that true?

All plants will burn under the “right or certain” conditions, regardless of their classification (“fire resistant,” “fire safe,” “firewise,” etc.). This is because growing conditions and maintenance can have a greater impact on the flammability of plants than the species itself. Native plants, pollinator-friendly, or drought-tolerant plants can be good choices for those labeled qualities, but these features don’t directly translate to fire-resistance. Whether a plant ignites depends more on pruning, maintenance, and cleanup than on what type of plant it is. Some plants, such as lavender, may initially exhibit lush, non-woody growth, only to become woody and choked with dead material several years later. Other plants may develop a dead thatch layer under a green surface that is highly combustible (e.g., succulents such as ice plant or “hens and chicks” species).

Do note that plant “resilience” is different from “resistance”. Resiliency refers to a plant that may have adaptive characteristics to respond quickly after a fire, such as seedbeds and cones that germinate or open after heat exposure.

23. Why isn’t the Board of Forestry focused on helping homeowners harden their homes?

Building survival in the face of wildfire is improved by a combination of factors including home hardening, reduced fuels through defensible space, and support from fire personnel. The Board’s Zone 0 work is a part of a multi-pronged state-led approach to help safeguard people, their homes, and communities. The Governor’s Wildfire and Forest Resilience Task Force has identified 25 key deliverables, which include several measures to improve home and community wildfire resilience, including measures to promote home hardening.

The Board of Forestry and Fire Protection recognizes the importance of "home hardening" or taking measures to improve ignition resistance of structures, but does not have regulatory authority over building construction. In 2008, California's building code was updated to address wildland fire exposures for new construction (known as Chapter 7A), which incorporates many of the most protective elements of home hardening. The Office of the State Fire Marshall is currently working to update the Chapter 7A requirements to provide a single regulatory reference for effective home hardening.

However, there are ~2 million homes in high fire risk areas, and around 90% of California's homes were built before the development of these building codes. Where homes have been built to this new code, homes have fared better in the face of wildfires than those without home hardening measures such as flame- and ember-resistant vents (e.g., Paradise, where the Camp Fire burned 18,000 structures, but the limited number built after 2008 performed better).

Other State efforts and incentives are being deployed to help homeowners retrofit their homes in anticipation of future wildfires. These include the California Wildfire Mitigation Program Authority, grants to community groups to help harden homes, requiring disclosures to buyers about home hardening details at the time of real estate sale (i.e., AB 38 disclosures), the State Insurance Commissioner's "Safer from Wildfire" program, and ongoing policy discussions about tax credits and other strategies.

24. I have a small lot with minimum setbacks between my house and the neighbor's house. Implementing Zone 0 feels like it will have a significant change to my yard. What can I do?

The Board certainly understands that this change can feel impactful. The challenge is that many homes built on small lots, with minimal setbacks (< 10 feet), were built before the 2008 building code that improves ignition resistance. This means that radiant heat exposures from adjacent buildings and connected fuels between houses are likely, further underscoring the vulnerability in this style of development. Recent experiments by NIST (National Institute of Standards and Technology) and IBHS (Insurance Institute for Business & Home Safety) have demonstrated that when adjacent buildings burn, they can produce substantial heat exposures to neighboring buildings.

For homeowners in high fire hazard areas, reducing fuel loads, hardening their homes, and working with their neighbors are highly recommended in this situation. In terms of landscaping aesthetics, working with the local UC Master Gardeners may offer some suggestions for your situation, where they can help you identify focal points for plantings that are disconnected from other fuels. A recent design competition from UC Berkeley landscape architects offers some ideas (see https://wildfireprepared.org/csaa-uc-berkeley-wildfire-prepared-home-design-winners/).

25. How can the regulations fit different vegetation communities? Are these the same issues across the state, or are there regional differences? Can the local vegetation type be taken into consideration with Zone 0 and left to the local fire professionals to decide what can be grown within the first five feet of the structure?

Wildfires are having devastating impacts across the American West and on Maui, Hawaii, and fuels within Zone 0 are common and relatively homogeneous across these locations and California. Regional vegetation conditions and differences in plant types are most evident in Zone 2 (30-100 feet from the house), where native trees or other vegetation may be present, and to some degree in Zone 1 (5-30 feet). Foundation plantings, wood mulch, and storage of flammable items are ubiquitous in Zone 0.

The western landscaping "aesthetic" has been informed by the English gardening styles in the form of "cottage gardens" and architects such as Frank Lloyd Wright, who sought to soften the line between the horizontal line of the wall of the house and to anchor the building to the land. The challenge is that water availability differs significantly across California, and a person's ability to maintain these levels of vegetation varies and can change quickly. This has resulted in buildings being surrounded by what can become a moat of flammable fuels, akin to kindling used to start a campfire. Defensible space inspectors are not looking to penalize homeowners and will work with them to help prioritize the work needed to protect their home. Local vegetation will always be a consideration in Zones 1 and 2.

26. What is the scientific justification for Zone 0? Many people are saying that there is no research supporting this policy change. Is that true?

We appreciate the range of research available on defensible space and the commitment by many to ensure that this body of research and work is evidence-based. However, we do want to clarify a few key points. The basis comes from years of observations from fire suppression efforts as well as from controlled research experiments (e.g., Lin et al., 2024, 2025, Suzuki et al., 2016, IBHS, 2019), post-fire investigations (Knapp et al., 2021, Cohen et al., 2008), and analysis of remote-sensing observations (Syphard et al., 2014, Gollner et al., 2025) that support the role of defensible space near the structure in reducing structure losses. Other studies in Australia (Leonard et al., 2009) have demonstrated that vegetation overhanging structures was strongly correlated with structure loss. IBHS and CAL FIRE have even performed multiple side-by-side burn demonstrations showing the hazards presented by flammable material present in Zone 0.

A recent paper by Escobedo et al. (2025) used a remote sensing approach (not field-based or calibrated) and challenged the effectiveness of Zone 0. The unfortunate limitation of the Escobedo et al. analysis is that their resolution size of the imagery is too coarse a scale to see fine details, and the roofline conceals what is present within the 5 feet around the house and largely under the rooflines. The authors do point out that they also cannot tell what is in the "non-vegetated" classification and recognize that it could be either something flammable or noncombustible (mulch or decking, versus bare ground or rock). The ability for well-watered plants to correlate with survivability does not necessarily demonstrate that there is an overwhelming impact, and it is not shown to be comparable to fully implementing Zone 0 recommendations. The Escobedo paper presents a concept for analyzing Zone 0; however, without field calibration and the ability to collect field data in the first five feet around a structure, it does not provide definitive information.

Fire professionals have decades of experience observing how connected fuels can transmit fire to structures and the impact of embers igniting mulch and debris dropped at the base of plants.

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