
California Wildfire Fund Stakeholder Input

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To SB254Input <SB254Input@calquake.com>

California Earthquake Authority
Administrator, California Wildfire Fund

Subject: Stakeholder Input on SB 254 Natural Catastrophe Resiliency Study – Role of Active Exterior Sprinkler Systems in Wildfire Risk Mitigation

October 31, 2025

To Whom it May Concern;

Thank you for this opportunity to submit recommendations in response to the SB 254 Call for Contributions.

As California designs its comprehensive assessment of new models and approaches to complement or replace the Wildfire Fund, I am writing to encourage consideration of active fire fighting measures – specifically active external sprinkler systems (or “defensive sprinkler networks” around buildings and landscapes) be considered explicitly among the “additional mitigation measures and technology solutions” to reduce ignition risk and limit damage from wildfires.

Historical Precedent

Historically, urban conflagrations were among the most feared disasters of city life. In the 19th and early 20th centuries, dense wood construction, limited water infrastructure, and flame spread across adjacent buildings led to catastrophic losses (e.g. Chicago 1871 and San Francisco 1906). Over time, building codes, fire department organization, and importantly, interior automatic sprinkler systems and fire escapes drastically reduced both the frequency and severity of such urban fires. Together, these innovations did not eliminate all fire risk, but fundamentally changed the baseline of acceptable safety, allowing higher-density development with much lower risk of fire-induced catastrophe.

With these advances, we’ve seen the success of not only passive resistance or suppression (i.e. fireproof materials, compartmentation) but on active fire control systems (i.e. automatic sprinklers and suppression), working in tandem. As the threat of wildfire spreads to our urban communities, I encourage you to consider technological advancements, like specialized exterior sprinkler systems, be incorporated amongst the slate of tools used to protect our communities.

Wildfire, embers, and the challenge of home hardening

In California’s WUI, a major cause of ignition is windborne embers landing on or near structures. The standard “hardening” toolkit (fire-resistant roofs, ember-resistant vents, noncombustible siding, screened soffits, and defensible space) is crucial. But these home hardening techniques are not enough. They do not actively reduce ignition like exterior sprinklers can by pre-wetting surfaces where embers might land. As we saw in the January Los Angeles fires, plenty of Chapter 7a compliant homes were lost. Exterior sprinkler systems like Frontline’s present an added and effective mitigation measure that can further protect structures and communities from ember-induced ignition.

In extreme conditions, embers may accumulate on nearby vegetation or surfaces, or ignite secondary fuels (e.g. mulch, gutters, nearby shrubs). At that point, passive measures may not suffice. An exterior sprinkler system can provide a dynamic buffer that cools surfaces, increases ambient humidity, and prevents ignition of vulnerable materials during an ember assault.

In effect, exterior sprinkler systems extend the concept of interior sprinklers outward – creating an automated defense against fire while also producing a microclimate barrier around structures facing ember attack.

Suggested Policy & Program Levers

To ensure that exterior sprinklers are seriously considered in the SB 254 study, I propose the following potential policy levers:

1. Incentive or rebate programs

- Offer rebates or tax credits to homeowners in designated high-risk zones who install exterior sprinkler systems meeting appr
- Tie rebate eligibility to simultaneous compliance with the home-hardening measures of ember resistant vents and Zone Zerc

2. Pilot / demonstration projects

- Fund pilot installations in representative WUI communities (e.g. mountain foothills, chaparral zones, semi-rural interface neighborhoods)
- Encourage academic/engineering partners to monitor performance (e.g. temperature reduction, ember suppression, structural hardening)

3. Insurance / underwriting incentives

- Coordinate with California Department of Insurance to allow insurers to discount premiums for homes with certified exterior sprinkler systems
- Include sprinkler systems as recognized mitigation credits or risk reduction measures in wildfire risk models used for rate setting

4. Risk-sharing and socialization of costs

- Use portions of Wildfire Fund or complementary funding mechanisms to partially subsidize systems in lower-income or high-risk communities
- Explore pooled procurement or community sprinkler clusters to reduce per-unit cost through economies of scale.

5. Standards and oversight

- Develop or adopt building code standards (e.g. NFPA, ANSI) for exterior sprinklers under WUI fire conditions.
- Create periodic inspection requirements (analogous to interior fire sprinkler systems).

About Frontline Wildfire Defense

Frontline Wildfire Defense is the country's leading exterior sprinkler expert. Our Defense System 2 is an active exterior wildfire protection solution designed specifically to address the most common cause of home loss during wildfires: ember ignition. The system operates by combining early detection, automated activation, and exterior saturation of the home and its immediate surroundings. When wildfire activity is detected within seven miles and red flag conditions are present, the system can automatically initiate unless the homeowner intervenes, providing a critical head start before flames or embers reach the property.

Once activated, the system sprays the roof, gutters, eaves, walls, and surrounding vegetation with water, often enhanced by a Class A firefighting foam. This activation is not constant, rather it cycles intermittently, saving valuable water supplies while consistently keeping the property protected by a moisture barrier that is far less likely for embers landing on the structure or nearby fuels to ignite.

Sprinkler heads are strategically placed to provide overlapping coverage, particularly around vulnerable areas such as roofs and eaves where embers tend to accumulate. The system is further supported by redundant features, including backup water sources, battery power, and multiple communication channels to ensure functionality even when utilities fail during fire events.

Frontline Wildfire Defense's approach is particularly valuable because most homes in the wildland-urban interface are ignited not by direct flame contact, but by wind-blown embers igniting roofs, furniture or objects placed near the home, or dry landscaping. By keeping these critical areas saturated, the system reduces the flammability of surfaces and materials, creating conditions that are "too wet to burn." Importantly, the automation and remote functionality allow the system to protect homes even when residents must evacuate, offering a layer of defense that continues to operate independently during the most dangerous stages of a wildfire, allowing homeowners to evacuate safely and supporting our hard-working fire fighters as they triage elsewhere.

Our systems were put to the test during the recent Palisades and Eaton fires. Of the 61 structures protected by a Frontline system within the burn area, 59 survived.

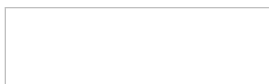
Conclusion

California's SB 254 study is an opportunity to broaden the toolkit of wildfire resiliency beyond passive, structural hardening toward more active mitigation strategies. Just as interior sprinkler systems revolutionized urban fire safety in their era, exterior sprinkler systems can become an essential component of protection in the age of more frequent, intense wildfires.

I strongly encourage you to include exterior sprinkler systems, like Frontline Wildfire Defense's specialized systems, in the "mitigation measures and technology solutions" evaluation and to prioritize pilot demonstrations, incentive mechanisms, code integration, and insurance alignment to accelerate their deployment in high-risk communities.

Thank you for your thoughtful consideration. As a leader in the exterior sprinkler space, Frontline Wildfire Defense is happy to provide further technical detail, modeling, or data if requested.

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