

Boulder: Becoming a Fire Adapted Community

A community-wide strategy to reduce the risk of a wildfire-driven urban conflagration

Executive Summary

According to the U.S. Forest Service's Wildfire Risk to Communities tool, Boulder ranks in the top 3 percent of communities whose lives, properties, and community assets are at risk due to wildfire. Boulder's existential risk is that a fast-moving wildfire on its western edge could become a wildfire-initiated community conflagration (WICC). The central vulnerability is not the initial wildfire alone, but the high likelihood of the fire to ignite homes and then spread from structure to structure faster than evacuation and suppression systems can respond, leading to large scale loss of properties and lives.

The proposed first-stage response is a coordinated, city-led program that applies accepted fire science to harden the highest-risk neighborhoods to one common standard and reduce fire intensity and ember production on adjacent public lands, with completion by 2030. The strategy combines mandatory structure hardening, meaningful financial assistance, risk-ranked Open Space and Mountain Parks (OSMP) vegetation management, dedicated funding, and public accountability.

What This Is

This proposal is a practical framework for dramatically increasing Boulder's community-wide wildfire resilience by 2030. These recommendations focus on the 3,179 existing properties within Boulder's Wildland-Urban Interface (WUI) Classes 1 and 2, together with immediately adjacent OSMP lands and likely fire pathways.

The policy would establish the Insurance Institute for Business & Home Safety (IBHS) Wildfire Prepared Home Essential/Base standard as the common baseline for existing structures. It would pair that requirement with financial assistance, a clear completion schedule, verified work, and a risk-ranked, multi-year operating plan for public-land vegetation management.

The approach is intentionally focused on all the highest risk properties in a connected fashion. A prepared home can still be destroyed when an untreated neighboring structure ignites, and combustible fences or vegetation can carry fire across property lines. For these reasons, the solution is not a collection of isolated improvements; it is completion of connected blocks and neighborhoods. Home hardening, vegetation management, evacuation readiness, and emergency response remain complementary parts of one system. None is a substitute for the others. Our recommendations focus on home hardening and vegetation management, which changes the available fuel for the fire and reduces the chance of ignition and sustained combustion.

Why It Exists

A wildfire could threaten the city extremely quickly. Human-caused fires such as the NCAR, Dinosaur, Bluebell, and Goat Trail fires started close to densely built neighborhoods and could have produced very different outcomes under the windy conditions we regularly experience. A fire beginning near Boulder's western edge may reach homes in approximately 20 to 60 minutes. Without preventive measures, frequent strong-wind events from September 1 to May 1 increase the risk of wildfire becoming a WICC. City modeling indicates that Boulder already faces roughly 100 high fire-risk days per year compared with a historical average of 15 annually, and projects that number will approach 200 days by 2030.

Life safety is a major concern because suppression resources become easily overwhelmed during wind-driven wildfires. Boulder's neighborhoods were not designed for rapid, simultaneous evacuation. Models have shown evacuation time for Table Mesa at roughly two hours, with Chautauqua, University Hill, and north Boulder potentially taking longer. Boulder Fire-Rescue may be able to fight only about six home fires at one time, and the water system could be compromised if roughly 15 homes ignite. If they are available, which is no guarantee, fire suppression aircraft are unable to operate in winds above 30 miles per hour—the conditions in which conflagration risk is highest.

When a wildfire enters a community, the built environment becomes the fuel. Wood siding and decks, open roof vents, landscaping, fences and accumulated debris allow homes to ignite. Closely spaced homes and combustible fences then create a path for fire to move from one house to the next and destroy an entire

community. IBHS finds that even a fully hardened home has a 90 percent chance of total loss if a neighboring structure ignites.

The consequences would be citywide and unequal. A WICC could cause loss of life, prolonged displacement, hazardous urban-fire smoke, business interruption, and a severe reduction in an already constrained housing supply. Older adults, people with disabilities, households without cars, limited-English speakers, renters, lower-income residents, and families with young children may have less ability to evacuate, secure temporary housing, or rebuild. Reducing risk at the community's western edge where it would gain entry to the city is therefore a citywide public-safety, health, economic, housing, and equity investment.

Boulder residents are aware of the risks. The city's own polling has identified wildfire as the top priority and recognizes Climate Tax funds as a means to address this critical concern. In addition to the existential threat to life and property, homeowners insurance is becoming difficult to retain and premiums are rising rapidly. Data from recent urban fires show that recovery costs can reach the tens of billions of dollars, and empirical evidence indicates that at least 50 percent of disaster recovery costs are borne by local communities.

How It Works

The strategy uses two mutually reinforcing lines of defense. The first reduces the probability that buildings ignite and transmit fire into and throughout the community. The second reduces fire intensity and ember production on adjacent public lands before fire reaches the first row of homes. The basis is common technical standards implemented community-wide at the WUI and backed by public financial assistance. The resulting reduction in overall risk and fire intensity would also support suppression operations and evacuation.

Recommended City Council Actions

- 1. Require all existing WUI Class 1 and Class 2 properties to achieve the IBHS Wildfire Prepared Home Essential/Base standard within three years.** Amend Ordinance 8695 and establish a three-year completion requirement.
- 2. Pair the ordinance with meaningful and equitable assistance.** Headwaters Economics estimates existing properties can reach the IBHS Essential standard for an average cost of \$9,000 per parcel, or approximately \$29 million for the initial 3,179 properties. Continue the Wildfire Resilience Assistance Program (WRAP), but direct grants and rebates toward verified work that advances IBHS designation and prioritize WUI Classes 1 and 2 until the three-year deadline or full completion, if sooner. Offer larger incentives for early action and deeper support for households requiring additional assistance. Encourage grant programs and coordinated efforts with nonprofit organizations to further motivate and enable homeowners to act sooner.
- 3. Adopt a risk-ranked OSMP vegetation-management program.** Direct OSMP to produce an action plan within one year, aligned with the 2024 Community Wildfire Protection Plan and Colorado State Forest Service practices. Use current or new modeling to prioritize the most likely fire pathways into the community. At a minimum, the plan should include annual grassland mowing for at least 300 feet from private properties within the WUI; timber and shrub treatment for at least 1,500 feet from the western edge of the WUI within three years; regular prescribed fire where safe and appropriate; and recurring maintenance. Evaluate a ballot measure that adds Wildfire Resilience to the OSMP Charter directives.
- 4. Create a funding package that matches the schedule.** Negotiate for greater use of City Climate Tax revenue, more than \$7 million annually, for verified home hardening, and consider bonding against future receipts if funding in excess of current receipts is necessary. Seek an appropriate allocation from the Boulder County Wildfire Mitigation Sales Tax, estimated at \$9 million annually, to supplement the City Climate Tax. Prioritize wildfire mitigation on OSMP land, including ongoing maintenance, within the approximately \$42 million annual OSMP budget. Apply for the variety of federal, state, and county wildfire mitigation grant programs (Larimer and Jefferson Counties recently received \$10M federal wildfire grants).
- 5. Assign accountability and report measurable results.** Designate a City Manager-led implementation team, led by one accountable leader, spanning Fire-Rescue, OSMP, Planning, Housing, Finance, Climate Initiatives, Emergency Management, and Communications. Report progress at least quarterly, tracking IBHS-certified parcels, fully completed blocks, vulnerable households served, acres and linear feet of OSMP treated, priority OSMP pathways mitigated, OSMP maintenance backlog, budget and schedule variance, and modeled reductions in structure ignition and spread.

Sustainability, Equity, and Resilience

Unlike some other natural disasters, wildfire can intensify when it moves from the wildland into the built environment, creating a chain reaction of structure-to-structure fire spread. Loss of life, negative health impacts, and economic disruption disproportionately affect vulnerable communities. Following a framework for community wildfire resilience would provide substantial benefits for Boulder as a whole.

Community engagement in strengthening homes and creating defensible space across entire neighborhoods significantly lowers the chance of widespread destruction. Mitigation work reflects inclusive engagement of diverse communities and, when implemented at scale, helps property owners benefit from reduced risk, improved survivability, and better insurability. It also reduces reliance on disaster aid and strengthens fiscal stability by protecting local tax bases and real estate markets. Boulder has a strong public-safety, resilience, equity, and economic interest in becoming a Fire Adapted Community as soon as possible and certainly by 2030.

Expected Result

By 2030, Boulder will have hardened the highest-risk WUI areas, beginning to reduce the possibility that a wildfire becomes a WICC in connected neighborhoods, and treated the most important adjacent fire pathways. The proposal would create a durable program that residents can understand and afford and that the city can continue to implement into the remainder of the WUI. The work would not prevent every ignition or remove the need to evacuate. Nor is the proposal the complete fire mitigation the city must complete. It would, however, reduce the chance of a wind-driven fire overwhelming local response, becoming a citywide disaster, and imposing the greatest losses on residents least able to recover. Success must be measured not only by acres treated or homes improved, but by whether Boulder remains a place where its residents can safely live, work, and belong after the next major fire. Residents should benefit with home insurance retention and possibly improved rates.

Glossary

Term	Definition
WUI	Wildland-Urban Interface: an area where a built environment meets or intermingles with a natural environment. Human development in the WUI is at greater risk of catastrophic wildfire.
WICC	Wildfire-Initiated Community Conflagration: a fire event in which wildfire ignites structures and spreads through the built environment.
Fire Adapted Community	A framework for community wildfire resilience in which a community identifies wildfire risk and works collectively on actionable steps to reduce loss of life, property, and economic stability. See fireadapted.org .
IBHS	Insurance Institute for Business & Home Safety: an independent nonprofit scientific research and communications organization supported by property insurers, reinsurers, and affiliated companies. Its Wildfire Prepared Home standard is a science-based designation program using proven mitigation actions and third-party verification.
CWPP	Community Wildfire Protection Plan: a collaboratively developed formal plan that identifies wildfire risk and recommends actions to reduce risk and improve wildfire resilience within a community.

Appendix:

[IBHS Wildfire Prepared Home](#)

[CSFS Home Ignition Zone guide](#)

[Headwaters Economics Home Retrofit Guide](#)

[Headwaters Economics The Full Community Costs of Wildfire](#)

[Headwaters Economics Redefining the Urban Wildfire Problem in the West](#)

[CSFS Grasslands fire management](#)

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