

Effective Mitigations for Berkeley's Ember Resilience



Berkeley City Council Meeting

June 17, 2025

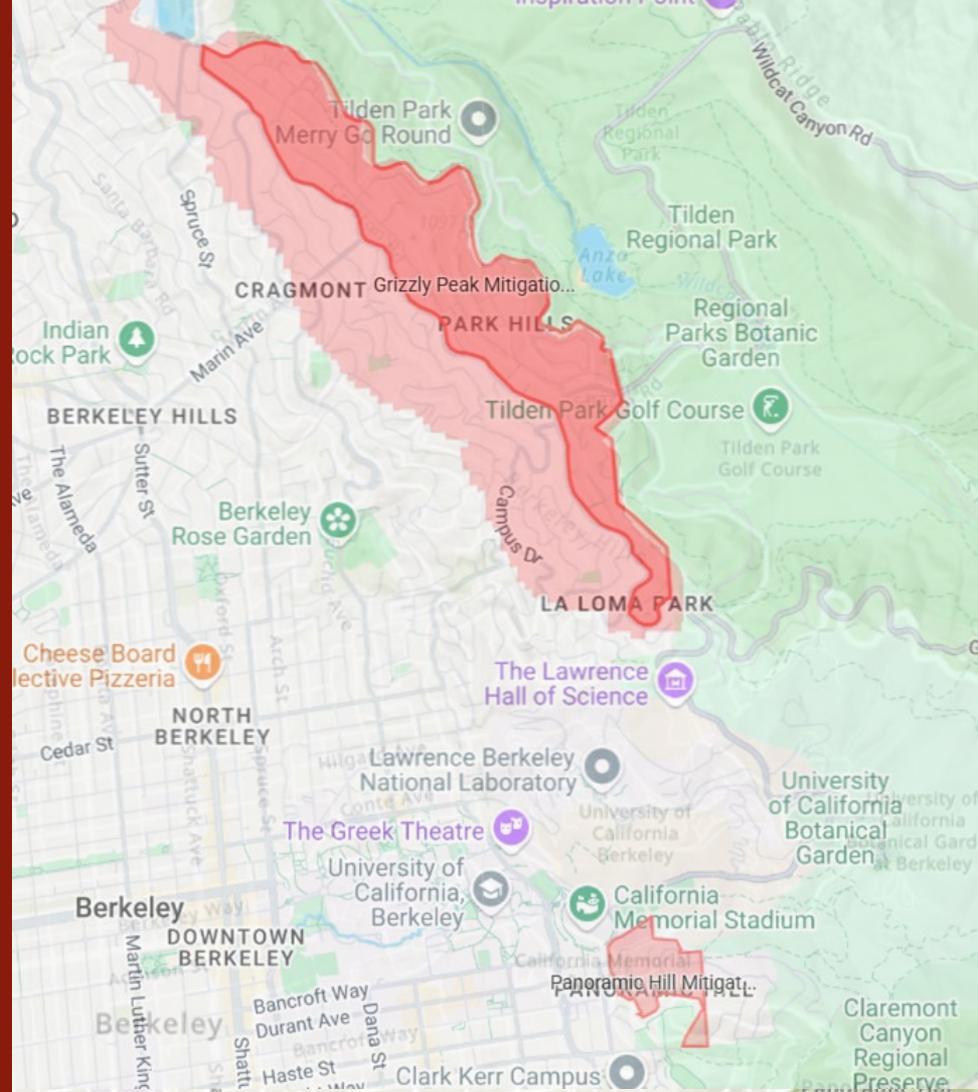


Item 43a: Modification and Adoption of Berkeley Fire Code Local Amendments

Zone 0, when and where?

- Effective January 1, 2026
- Inspections begin in May 2026
- Panoramic Mitigation Area:
 - Piedmont East to the City Boundary
- Grizzly Peak Mitigation Area:
 - Grizzly Peak East to the City Boundary

Note: In 2029 the City will be required to enforce Zone 0 in the entire CalFIRE identified Very High Fire Hazard Severity Zone.



Zone 0 extends 5' around structures

Within Zone 0:

- No in-ground vegetation or combustible mulch
- Fences or gates that are directly attached to a structure require a 5 ft non-combustible span
- No wood or combustible items such as patio furniture unless easily moveable on high fire danger days
- Trim trees so branches don't extend into the Zone



Zone 0 and Trees

- Mature, scenic trees are ok
- Trees Provide: Shade/cooling, beauty, soil stability and habitat
- **We do not recommend you remove trees to create defensible space** unless specifically directed to do so following a Defensible Space Inspection



Zone 0 does not require ...

- Structural changes to homes
- Removal or alteration of decks
- Removal of mature trees
- Removal of existing parallel fences
- Removal of trees beyond 5' of a structure



Zone 0 Testing and Observations

- Field studies conducted by NIST and FSRI and testing conducted by UNR and IBHS have resulted in the best practice recommendation to remove all combustible material from the Home Ignition Zone.
- Of note, large-scale real time observations and testing have not been completed due to technical limitations resulting in limited multi-factor analysis



Tip: Consider shifting social areas from mid-yard to immediately adjacent to structures to create Zone 0



Tip: Maintain a beautiful garden outside in Zone 1 & 2



Tip: Trim branches from trees to protect homes but maintain a forest setting while clearing duff and litter on a regular basis



Zone 0

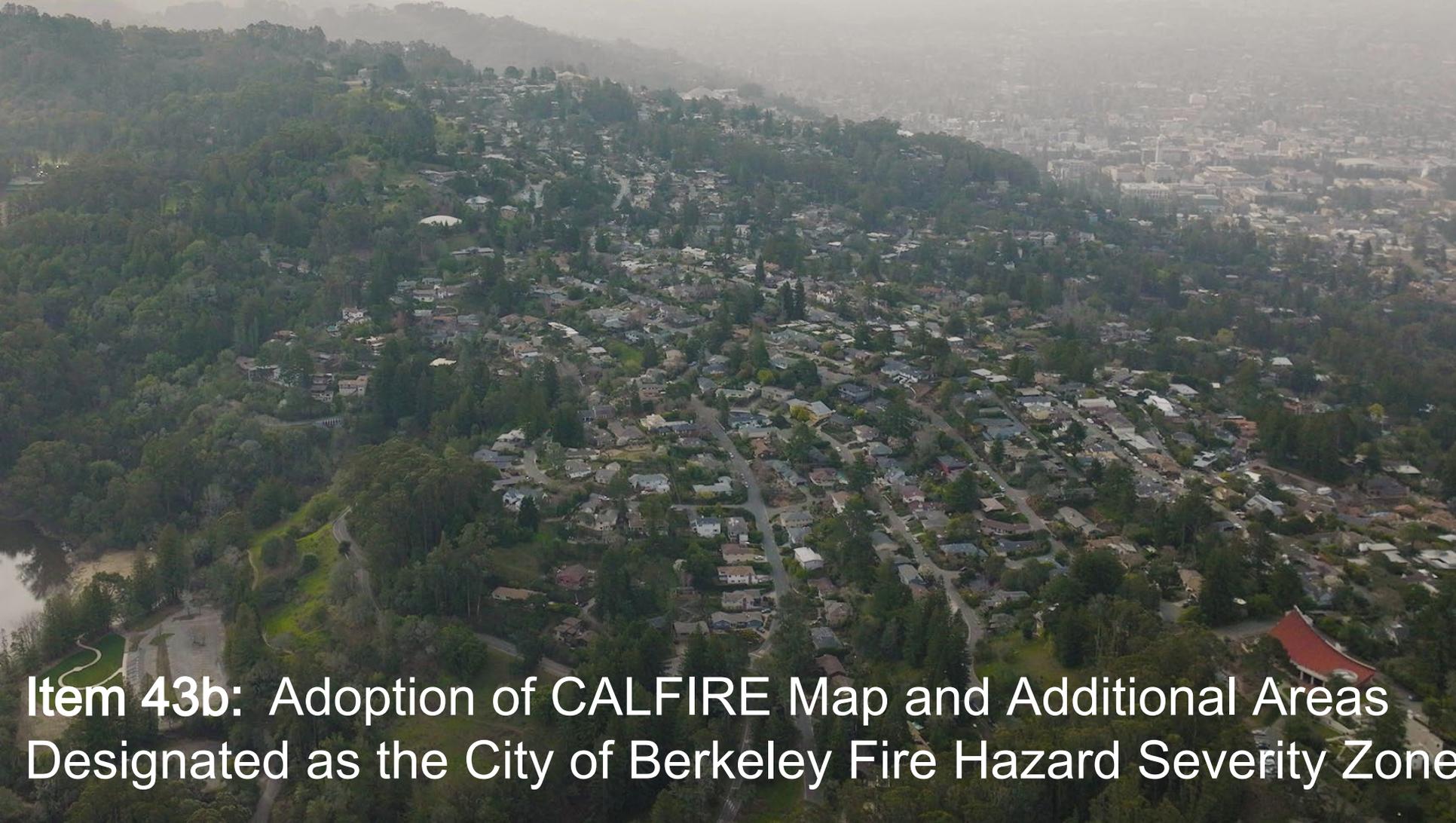
Closing Thoughts

- While lacking the certainty that future research may bring, firefighter experience supports passive defensible space mitigations making homes savable in fire after fire over the last decade
- The validity of Zone 0 is supported by post fire reconstruction work and lab testing, but there is certainly more to learn
- Our goal is to prevent homes from igniting – and to give firefighters a chance to be effective when the next fire occurs
- We have brought forward the best ways we know to reduce ignition risk and improve resiliency



Homes that ignite by wildfire have a 90+% chance of completely burning down

Source: CAL FIRE DINS Data



Item 43b: Adoption of CALFIRE Map and Additional Areas Designated as the City of Berkeley Fire Hazard Severity Zone

Fire Hazard Severity Zone (FHSZ) Facts

- AB337 (Bates, 1992) prompted by the Berkeley/Oakland Hills fire of 1991
- Does not require existing structures to be hardened or improved
- Will not be used by insurance companies to determine which properties to underwrite or what rate to charge



#INSURECA

CALIFORNIA CONSUMER ALERT

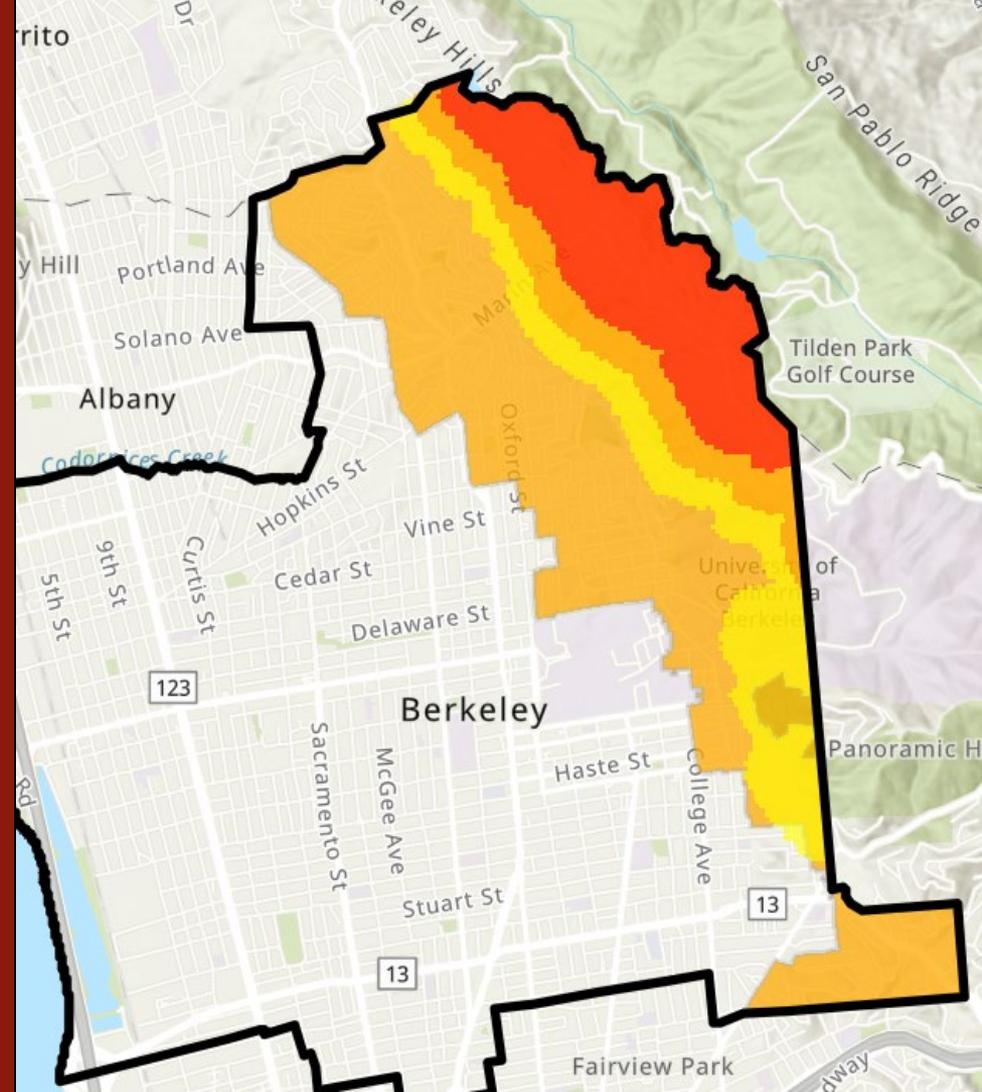
Insurance Commissioner Ricardo Lara

“Let me be clear: The CALFIRE hazard maps are not used for insurance rates or underwriting decisions.”

- Ricardo Lara, California Insurance Commissioner

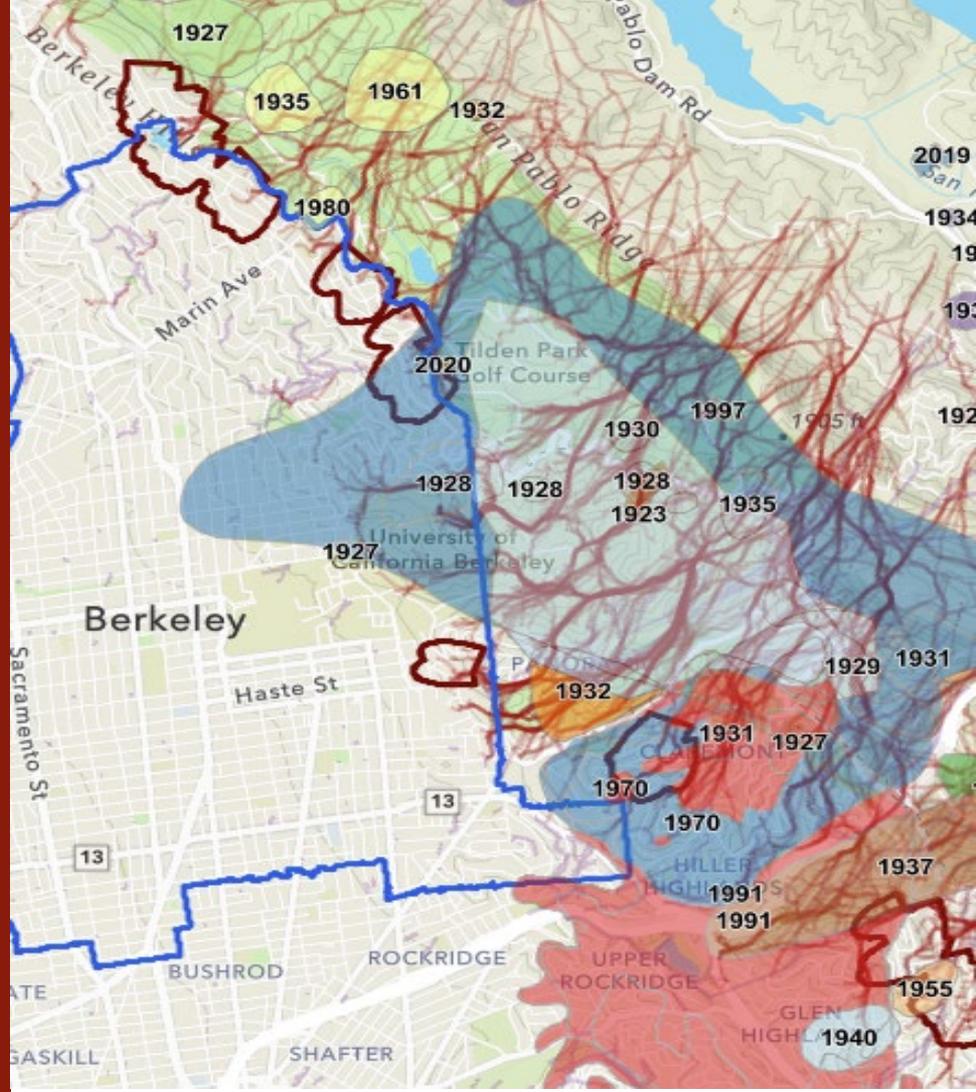
FHSZ History

- Berkeley is required to designate, at minimum, the CALFIRE FHSZs
- Berkeley has designated a larger FHSZ since the early 1990s
 - This action is based on local conditions that CALFIRE does not consider
- Currently the **Very High** FHSZ is the larger, **Orange area**
- The 2025 recommendation **shrinks and downgrades** most of the Hills from Very High to High



Local Factors Considered

- Structure Age
- Structure Construction Type
- Structure Separation Distance
- Structures Per Acre
- Fire History
- Road Network and Evacuation Challenges
- Fire Pathway Modeling



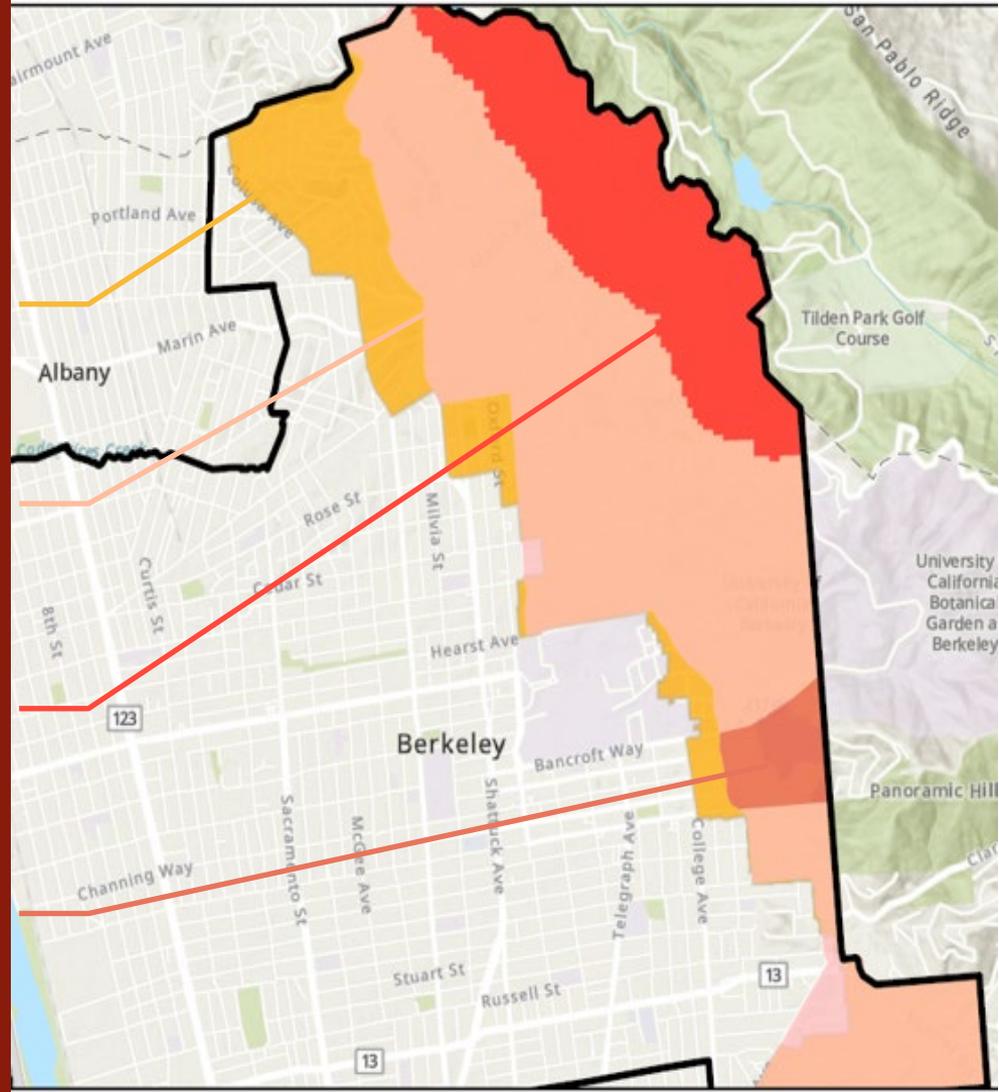
2025 Action

Existing/Legacy **Very High** Fire Hazard Severity Zone

2025 Proposed **High** FHSZ

2025 CALFIRE **Very High** FHSZ
(Must Designate/Adopt)

2025 Berkeley Designated **Very High** FHSZ



Questions

