



BERKELEY LAB

Bringing Science Solutions to the World



U.S. DEPARTMENT OF
ENERGY

Office of Science

Wildland Fire Risks, Mitigation, and Preparedness

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Discussion Topics

- Defining the Wildland Urban Interface (WUI)
- Describing the WUI Problem
- What Berkeley Lab is Preparing For
- Berkeley Lab Wildland Fire Prevention Measures – Past, Present, and Future

Presenter's Caution: *Some of the videos in this presentation may be unsettling, as they show real evacuations in real wildland fire scenarios. Please watch at your discretion.*

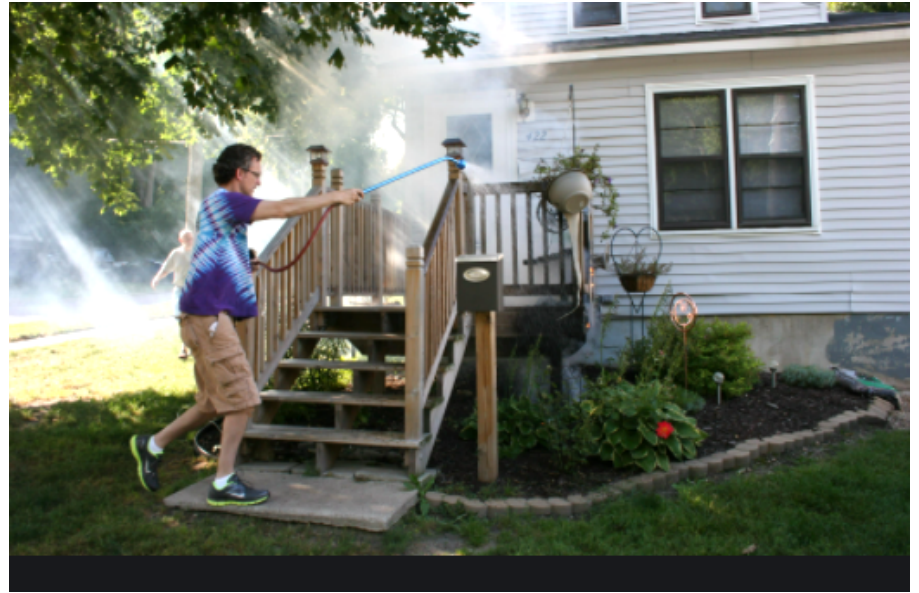
What is a Wildland Urban Interface?



- Zone where structures and human development meet or intermingle with wildland or vegetative fuels
- Area where a wildland fire can potentially ignite homes and businesses

Perception vs Reality

- Wildland fire perception



- Wildland fire reality

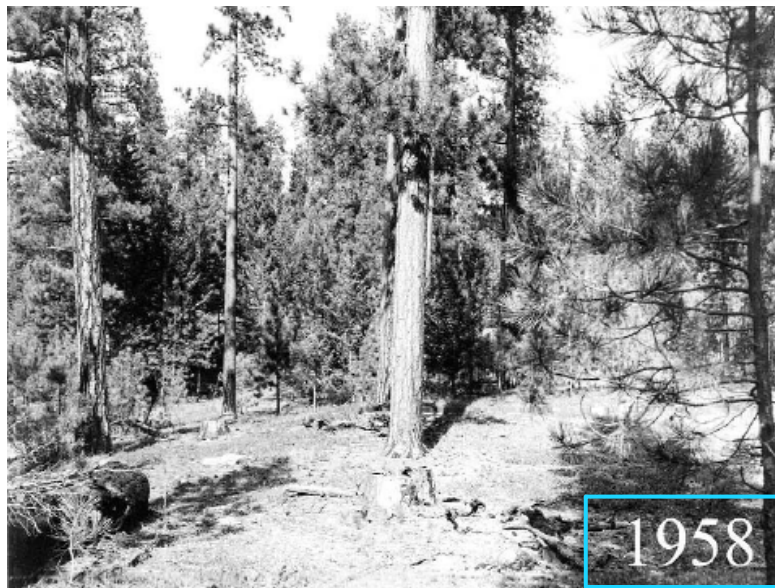


The WUI Issue in the East Bay

- Strong winds, narrow canyons, dry brush
 - “Red Flag” Days
 - Seven in 2020 to date
- The East Bay Hills have had Diablo-driven wildland fires thirteen times since 1923:
1923, 1931, 1933, 1937, 1940, 1946, 1955, 1960, 1961, 1968, 1970, 1980, and 1991.



Forest Overgrowth



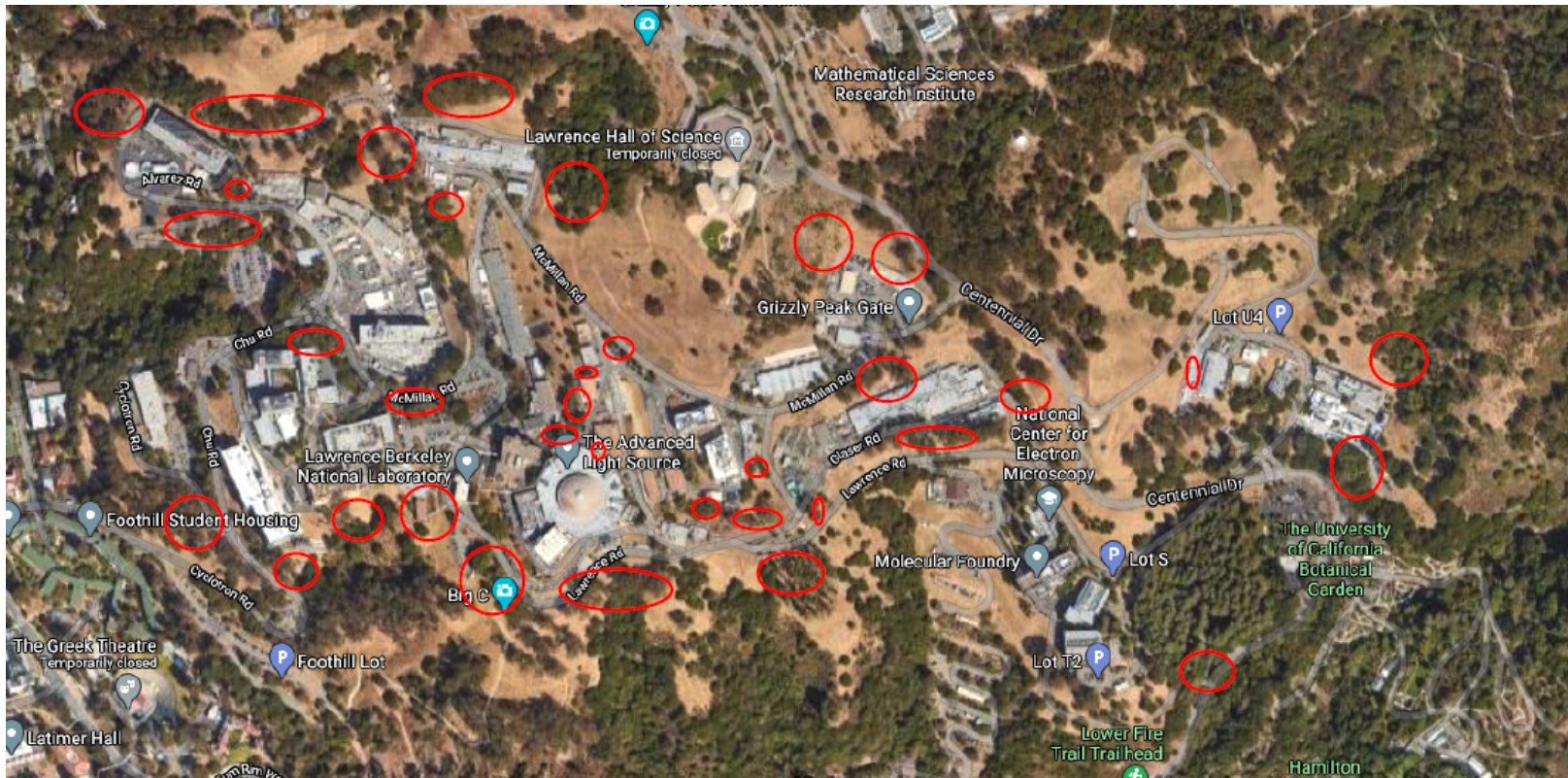
Berkeley Lab Wildland Fire Risk Reduction Commitment

- PAST EFFORTS
- Allocation of over \$8 million in resources to the reduction of the wildland fire risk both to and from the Berkeley Lab and the surrounding region
- A massive tree removal effort in 1995-1998 removed several hundred eucalyptus trees



Berkeley Lab Wildland Fire Risk Reduction Commitment

- RECENT EFFORTS
- Active tree removal, ground cover restoration, and annual fuels reduction since the 2010s



Berkeley Lab Wildland Fire Risk Reduction Commitment

- RECENT EFFORTS
- Vegetation Management
 - Thinning and trimming of trees and understory
 - Removal of “high hazard trees”
 - Goats and ground cover

BEFORE



AFTER



Berkeley Lab Wildland Fire Risk Reduction Commitment

- CURRENT EFFORTS
 - Vegetation Management
 - Property Line Fire Break – reduces potential fire spread both to and from the Berkeley Lab



Berkeley Lab Wildland Fire Risk Reduction Commitment



- CURRENT EFFORTS
- Leadership in the Hills Emergency Forum (HEF)
- Regional Issue Focus and Partnerships
- Annual Fuels Reduction

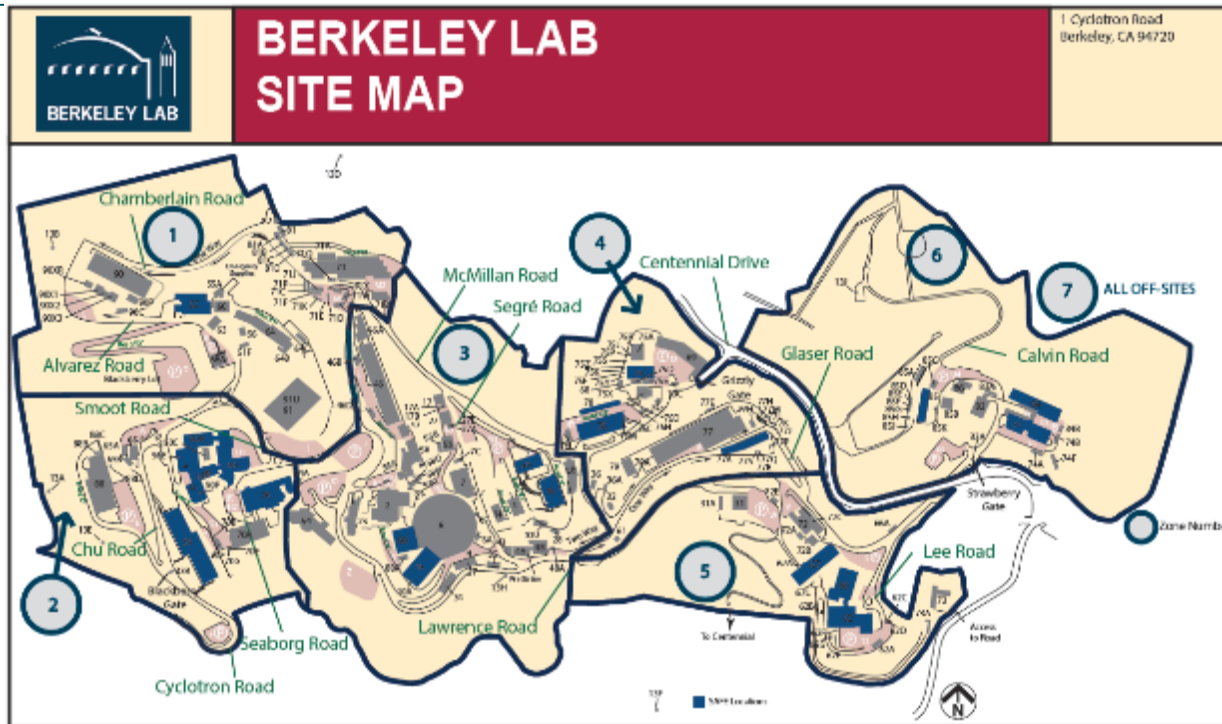


Berkeley Lab Wildland Fire Risk Mitigation - Infrastructure

- Building Construction
 - All new buildings use noncombustible concrete and steel
 - All occupied buildings have fire sprinkler protection
 - Class A roofs
- Fire Protection Water Supplies
- Roads and Buildings serve as active fire breaks
- Comprehensive Vegetation Management Plan

Wildland Fire Risk Mitigation at Berkeley Lab

- Evacuation Planning – Emergency Management – Zones and Building Plans
- Site Evacuation may not be possible
- Relocation to other buildings vs. evacuating



What Can You Do? Tips for the Home

1. Fuel Management and Reduction is a Collaboration
2. Create a Defensible Space around your home
3. Be Aware of Ember Threats
4. Home Improvements – Fire Resistive Construction
5. Be Informed, be Prepared – [nfpa.org](https://www.nfpa.org)



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Questions?

Thank You