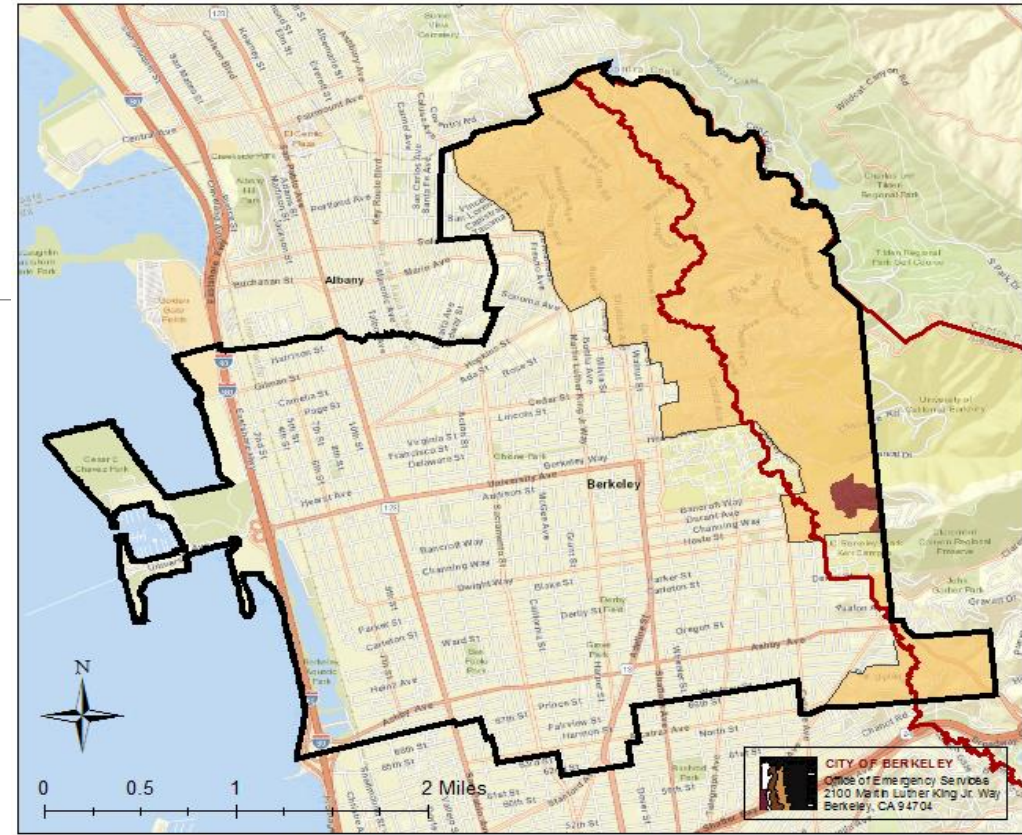# Wildfire Planning

Topics

- History

- Wildfire Training and Response

- City of Berkeley Plans

- Equity and Environmental Impact

- Partner Agency Collaboration

- Current City Programs

- Spring 2019 One-Time Work

- Future Action

History
Berkeley's Fire Zones

- Zone 3 – Panoramic Hill

- Zone 2- The rest of the hills

- Zone 1 – The rest of the City
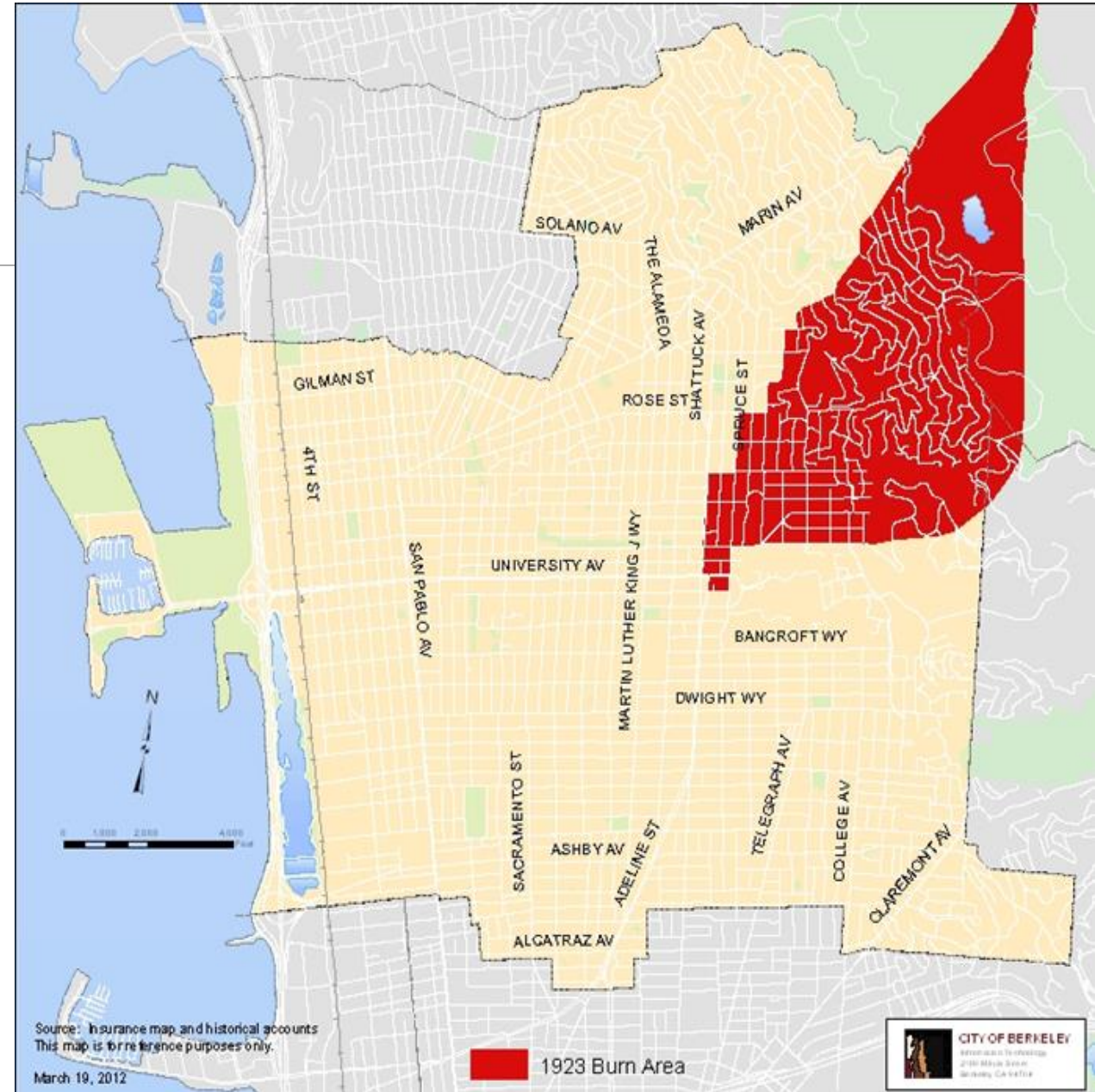
- Cal Fire Very High Fire Hazard Severity Zone

Sources: Fire Zones 1, 2, and 3 as of 01/2013 Berkeley Ordinance NO. 7,157-N.S., and California Department of Forestry.

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community

City of Berkeley
CA Dept of Forestry, Very High Fire Severity Zone
Berkeley Fire Zones
Hazardous Fire Zone 1
Hazardous Fire Zone 2
Hazardous Fire Zone 3

History – 1923 Fire

- September 17, 1923
  - Wildfire in North Berkeley Hills
  - 640 Structures Burned

SOLANO AV
MARIN AV
THE ALAMEDA
SHATTUCK AV
ROSE ST
SPRUCE ST
GILMAN ST
4TH ST
SAN PABLO AV
UNIVERSITY AV
MARTIN LUTHER KING J WY
BANCROFT WY
DWIGHT WY
SACRAMENTO ST
ASHBY AV
ADELINE ST
TELEGRAPH AV
COLLEGE AV
CLAREMONT AV
ALGATRAZ AV

Source: Insurance map and historical accounts
This map is for reference purposes only.

March 19, 2012

1923 Burn Area

CITY OF BERKELEY

History – Tunnel Fire

- October 19, 1991
  - Wildfire in North Oakland/South Berkeley Hills
  - 62 Structures Burned in Berkeley
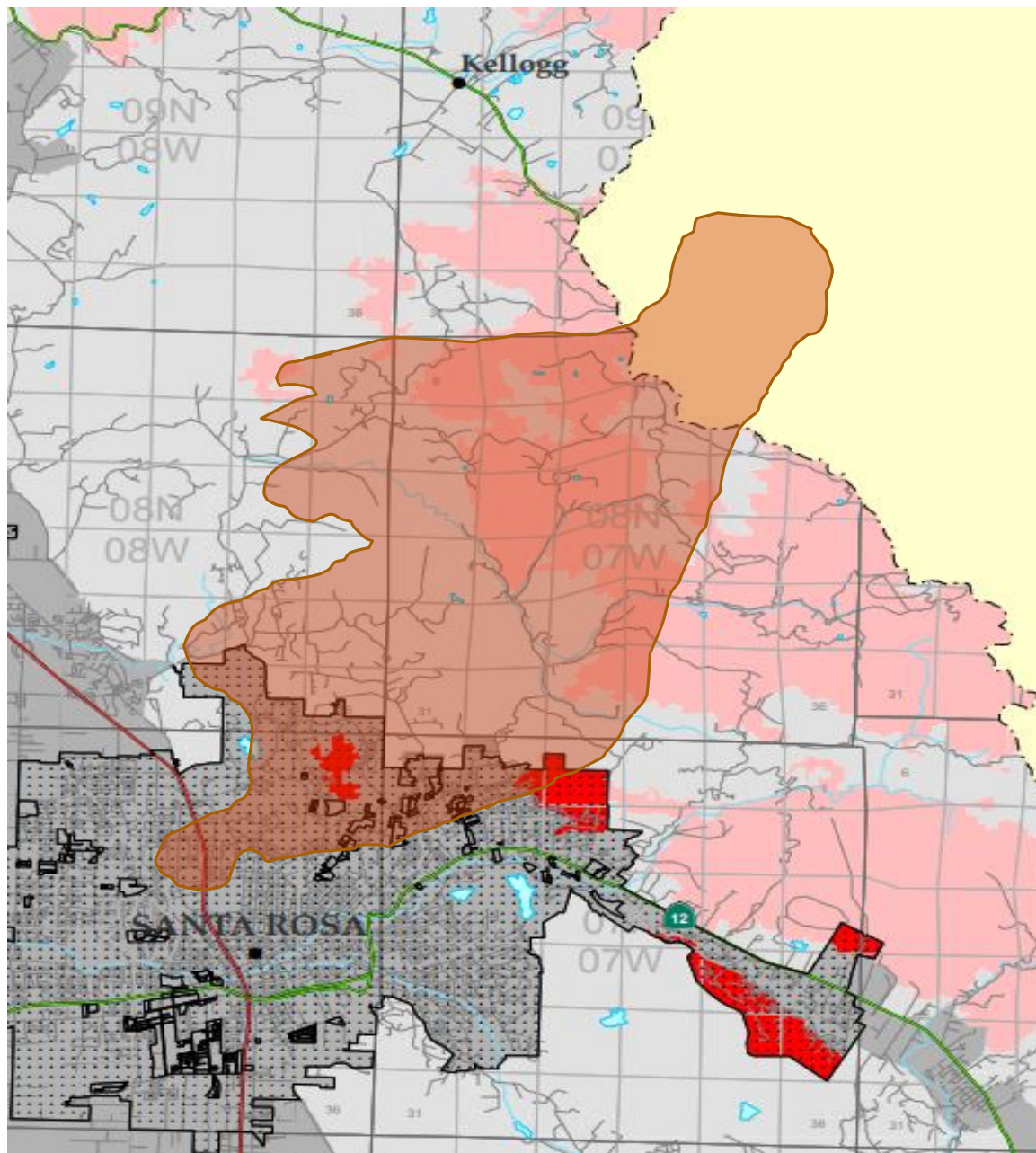 - 3,000 Total Structures Burned
  - 25 Fatalities

Actions Resulting From the Tunnel Fire

- Fire Assessment District
- 3 Full Time Inspectors
- Fire Fuel Chipper Program
- Debris Bin Program

- Proposition 218
- Mutual Response Areas
- Hills Emergency Forum

History – 2015 to 2018

- Lake County Fires – 2015
  - Rocky Fire
  - Valley Fire
  - Jerusalem Fire

- Sonoma/Napa Fires – 2017
  - Tubbs Fire
  - Atlas Fire
  - Nuns Fire

- Northern California – 2018
  - Carr Fire
  - Camp Fire

Tubbs Fire Perimeter

Cal Fire VHFHSZ

US 101

Training and Response

- Emergency Public Information and Warning

- Training

- MRA

- Master Mutual Aid

- Pre-positioning

Photo: BFD, BPD, CERT Volunteers, 2015 Wildfire Exercise

Emergency Public Information and Warning

- *https://www.cityofberkeley.info/EmergencyAlerting/*
- *AC Alert*
- *Nixle*
- *Wireless Emergency Alerts (WEA)*
- *City of Berkeley Website*
- *Radio/Television/Social Media*

Training

- Annual Wildland Firefighting Training

- Upcoming Evacuation Plan Training

- Past and Upcoming Functional Exercises

Photo: Berkeley Firefighters, 2015 Wildfire Exercise
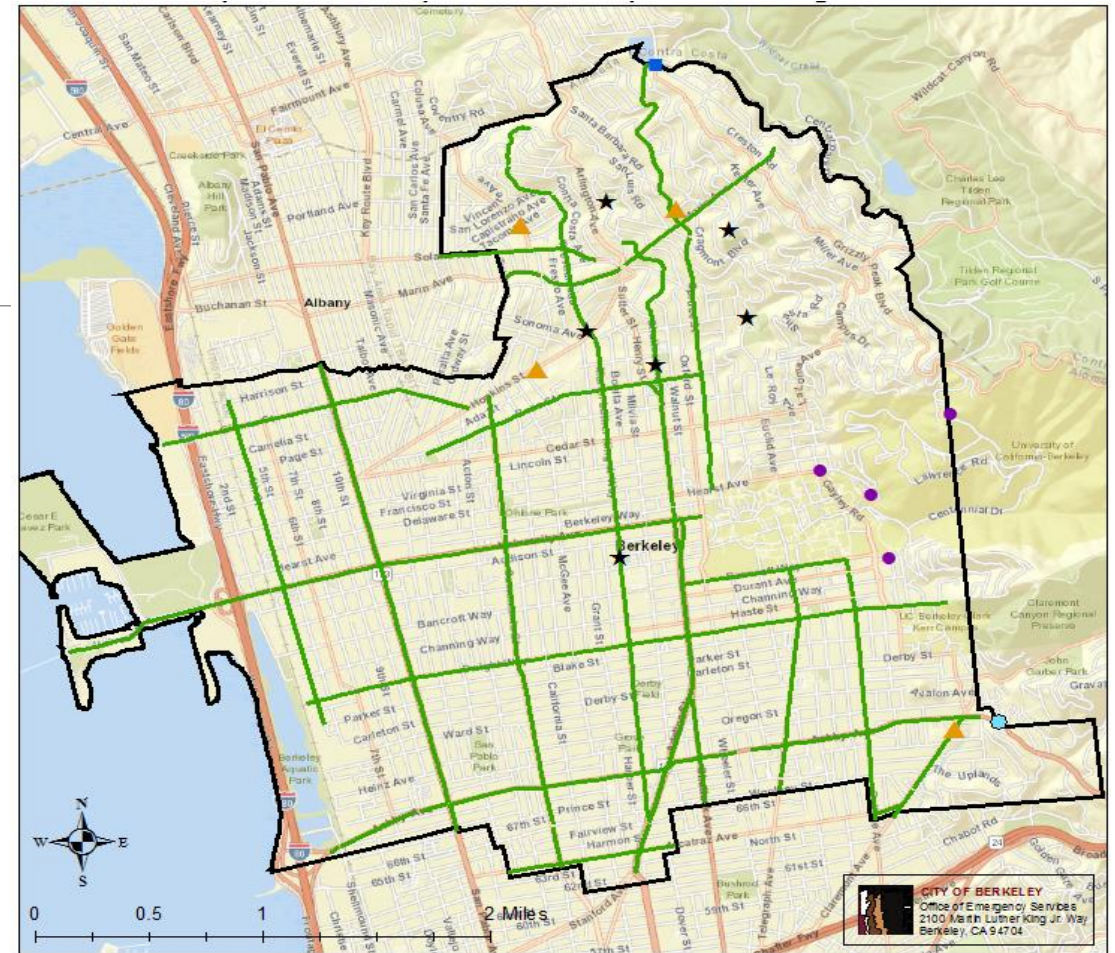
Response

- Mutual Response Areas

- Master Mutual Aid Plan

- Pre-Positioning

Photo: Firefighter Mike Shuken, E6, Tubbs Fire

City of Berkeley Plans

- Wildfire Evacuation Plan

- Fire Weather Coordination Plan

- Local Hazard Mitigation Plan

Legend:
- ▲ BUSD Owned
- ● UC Owned
- ■ EBMUD Owned
- ◉ Privately Owned
- ★ City Owned
- — Major streets
- ▭ City of Berkeley

Wildfire Evacuation Plan

- Describes how the City of Berkeley will direct, coordinate, and support the evacuation of people and animals out of an area threatened by wildfire.

- Collaboration amongst many stakeholders

- Available for Commission Review and Public Comment

Fire Weather Coordination Plan

- Coordinates Red Flag Warning information
  - Red Flag vs Extreme Fire Weather

- During a Warning, the plan describes how:
  - The City adjusts activities to focus on WUI fire readiness
  - The City provides warning and notification to the public

- Draft plan under review by strategic partners
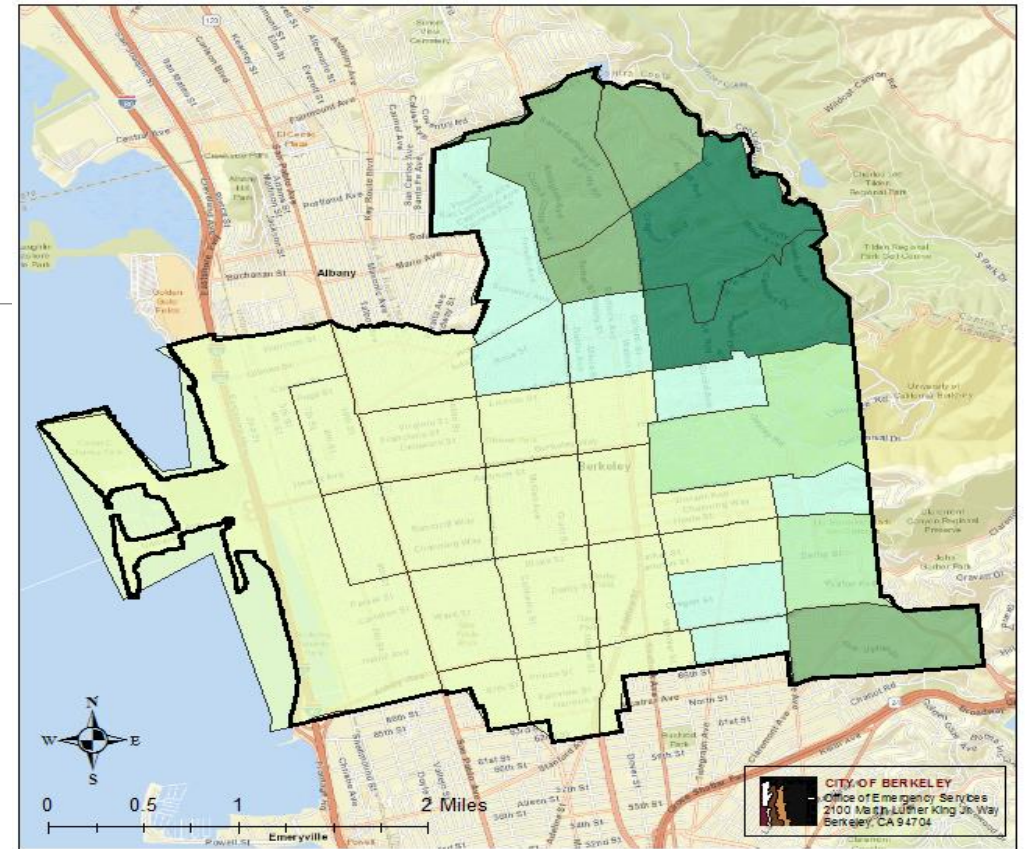
Fire Weather Coordination Plan

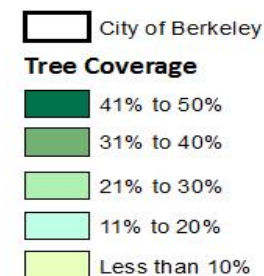| Relative Humidity	Sustained Wind 6-11mph	Sustained Wind 12-20mph	Sustained Wind 21-29 mph	Sustained Wind 30+
Daytime Min RH 29-42% and/or Nighttime Max RH 60-80%				Red Flag
Daytime Min RH 19-28% and/or Nighttime Max RH 46-60%			Red Flag	Extreme
Daytime Min RH 9-18% and/or Nighttime Max RH 31-45%		Red Flag	Extreme	Extreme
Daytime Min RH <9% and/or Nighttime Max RH <31%	Red Flag	Red Flag	Extreme	Extreme

Local Hazard Mitigation Plan

- Outlines the 5 Year effort to minimize the impact of natural disasters

- Current plan: 2014

- Draft plan: 2019 under review and public comment

Equity and Environmental Impact

- Collaborative Planning
  - UC Berkeley Sagehen Creek Field Station process
  - https://sagehen.ucnrs.org/
- Climate impact of wildfire mitigation
- Tree and vegetation coverage in Berkelye

Source: Cal Adapt https://cal-adapt.org/
Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community

City of Berkeley
Tree Coverage
- 41% to 50%
- 31% to 40%
- 21% to 30%
- 11% to 20%
- Less than 10%

Partner Agency Collaboration

- **Hills Emergency Forum**
  - City of Berkeley
  - City of El Cerrito
  - City of Oakland
  - Cal Fire
  - EBMUD
  - East Bay Regional Parks District
  - Lawrence Berkeley National Lab
  - Moraga Orinda Fire District
  - UC Berkeley

Partner Agency Collaboration

- Pacific Gas and Electric
  - Community Wildfire Safety Program
  - Actively trim vegetation from power lines in Berkeley
  - Panoramic Way Tree Removal
  - Undergrounding and utility hardening
  - Impact of bankruptcy?

Current Programs

- Annual Fire Zone Inspection Program

- Fire Fuel Chipper Program

- Debris Bin Program

- Fire Fuel Abatement on Public Land

https://www.cityofberkeley.info/fire_fuel_program/

Spring 2019 One-Time Work

Program	Budget
Fuel Reduction - Parks	$200,000
Fuel Reduction - Evacuation Routes/Foot Paths	$200,000
Public Education - Demonstration Fire Resistive Garden	$50,000
Public Education - Safe Passages Pilot and Evacuation Plan Outreach	$25,000
Fire Safety Signs for Parks and Fire Stations	$50,000
Fire Break Tree Removal	$25,000
Seasonal Fire Crew Program Setup	$25,000

Future Action

- Ongoing review and prioritization of Council referred fire safety items
- Identify ongoing funding for the one-time work funded in FY 2019.
- Identify ongoing funding for Wildland Urban Interface and Public Fire Safety Education positions in Fire Prevention

Future Action

- Develop a Comprehensive Wildfire Fuel Reduction Plan
  - City of Berkeley
  - Berkeley Camps
- Support Utility Hardening
  - Undergrounding consultant in Public Works
  - Undergrounding Subcommittee
- Fire code review and updates

Future Action

- Public Education and Outreach
- Safe Passages Pilot and expansion
- Consider additional emergency public warning systems