

Density in the Very High Fire Danger Severity Zone

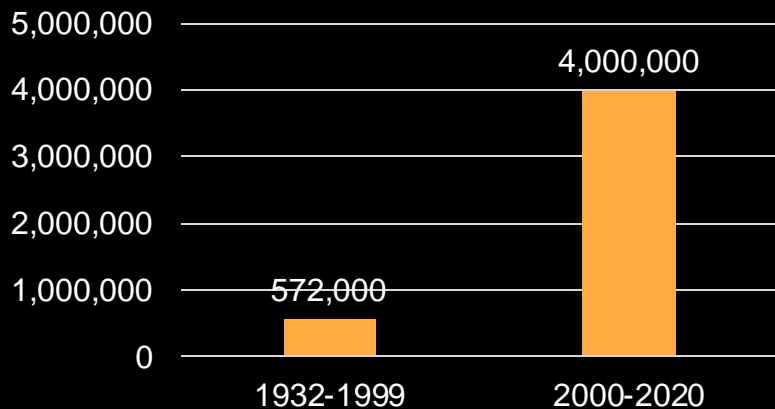
Berkeley Fire Department

September 19, 2023

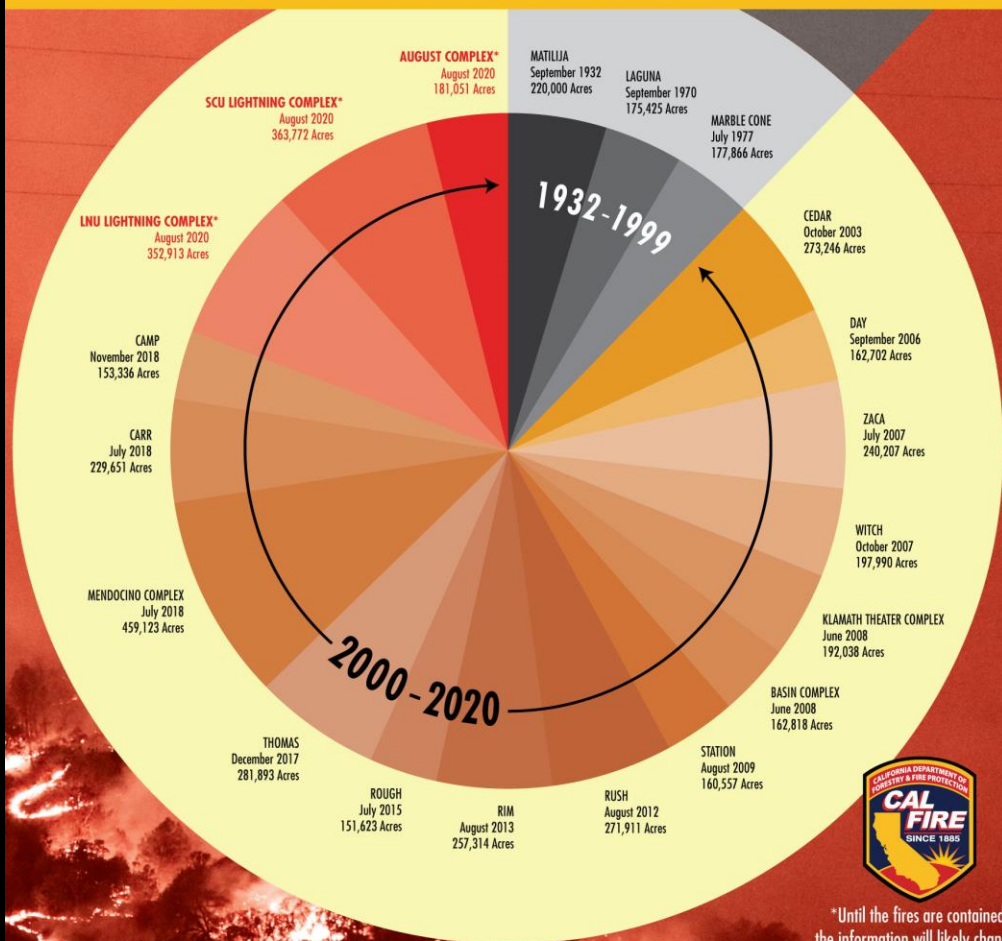


Climate Change

Acres Burned



TOP 20 LARGEST CALIFORNIA WILDFIRES



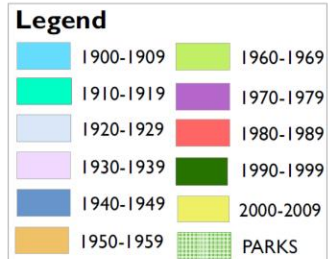
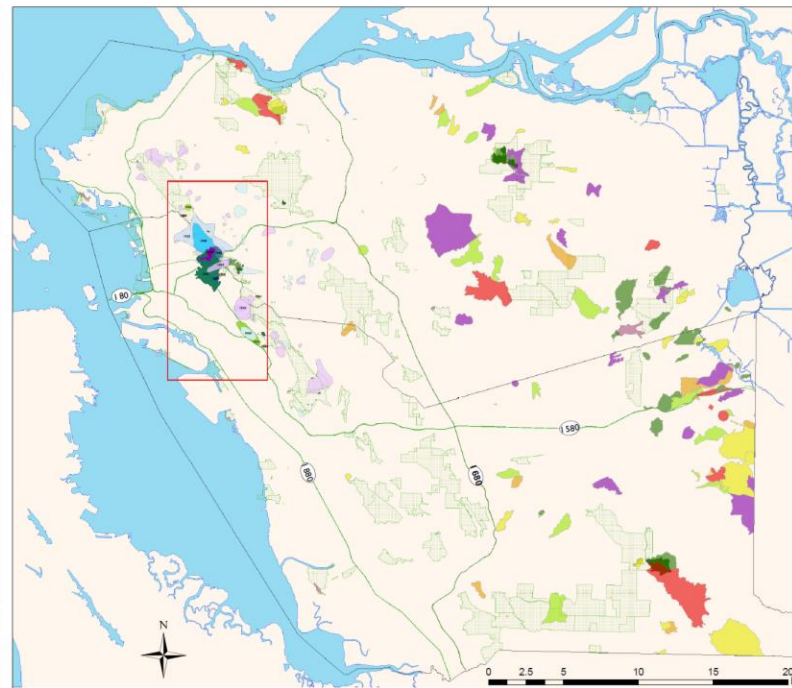
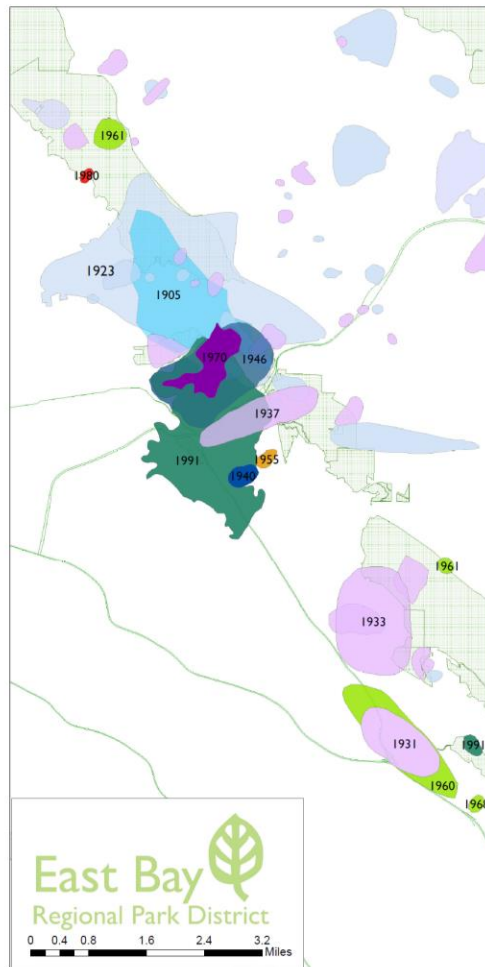
*Until the fires are contained, the information will likely change

Predictable is Preventable

There is a History of Significant Fires in the Fire Zone

Fire in the East Bay Hills is Cyclical every 20yrs

Fire	Gap
1905	-
1923	18yrs
1946	23yrs
1970	24yrs
1991	21yrs
2023	32yrs



INFORMATION SOURCES

These fires have been mapped using the best available information, including boundaries described in newspaper articles, lookout tower records and the CAL FIRE FRAP database. Particularly for early fires, boundaries are approximate. The fires shown include all for which known data is available. However, many more fires occurred which were never mapped, therefore those displayed here represent a small percentage of this area's fire history.

Fire Spread Rates

Are a product of...

- Topography
- Weather
- Fuel (Vegetation & Structures)



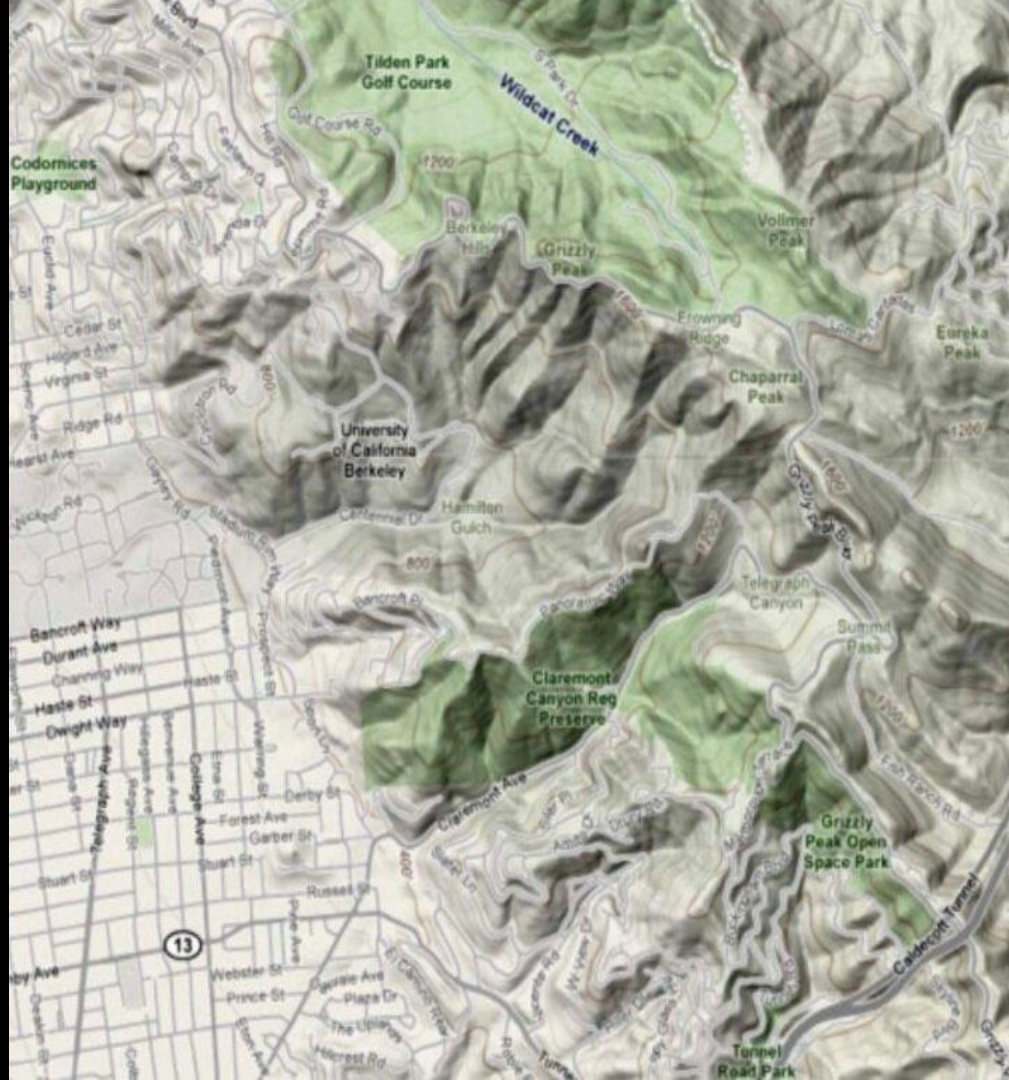
Topography

The East Bay Hills rise from Sea Level to approx. 1,700ft at some points on Grizzly Peak

The hills have many canyons that have a particular impact on fire behavior.

Canyons draw air from the canyon bottom, creating strong upslope drafts. They can also channel offshore winds – even perpendicular to the canyon – into strong downslope winds.

This effect can result in extreme fire behavior and can be very dangerous.



Weather: Strong Seasonal Diablo Winds

- Air from 4000' is compressed as it descends to sea level
- The compression warms and dries the air
- As its forced over mountains and through canyons, it accelerates
- Historically October is most dangerous as fuels are at their driest



NOW



Fuel: Grasslands to Urban Fores

THEN



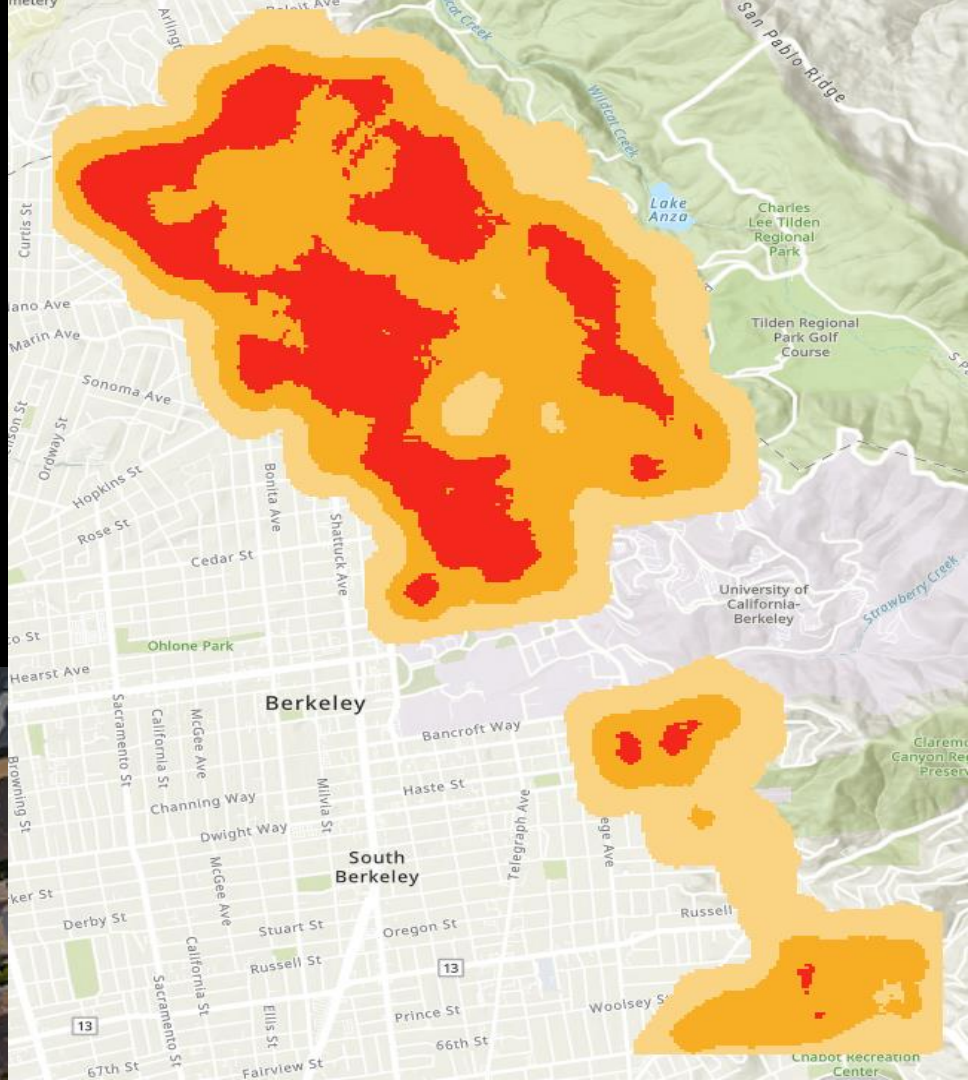
Fuel: Structures/Acre

Density increases risk of rapid fire spread

Most of Berkeley hills are

high density

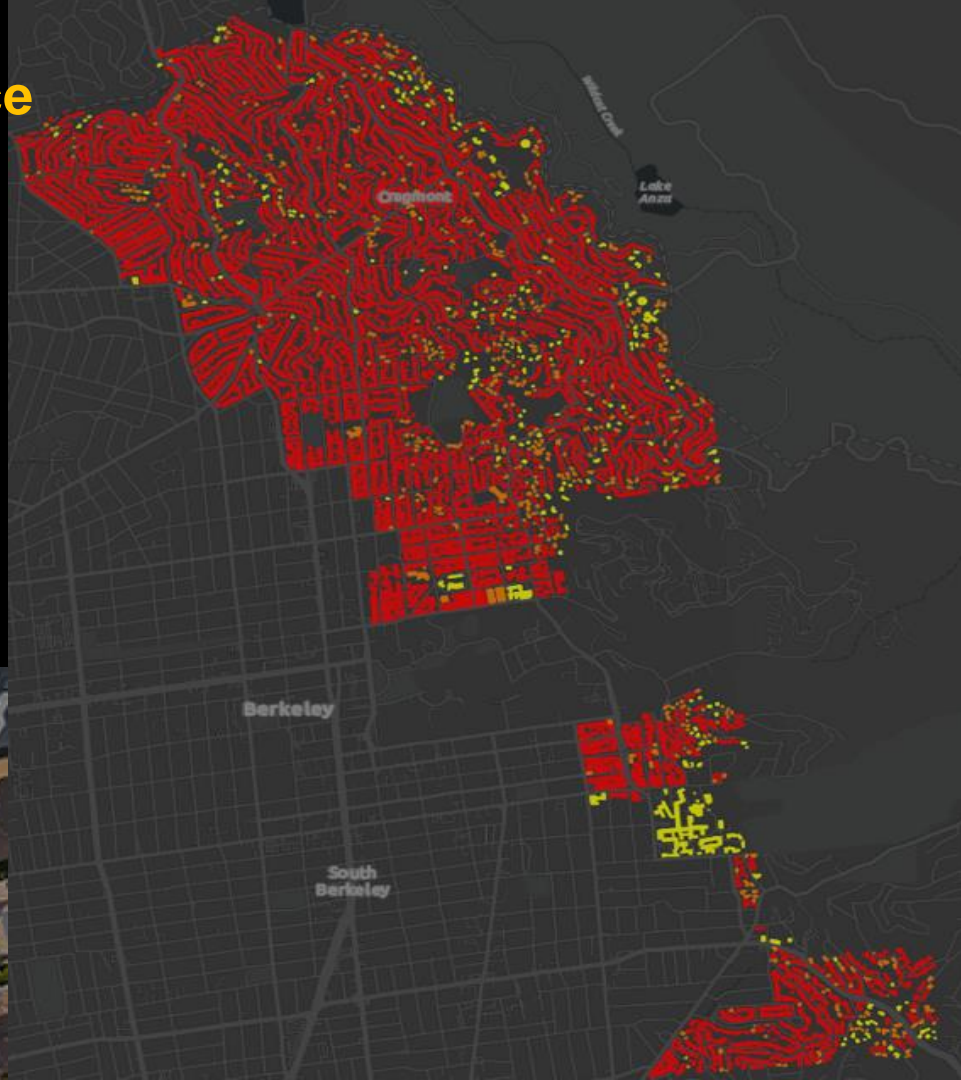
HU/ac	Risk Category	Map Color
> 4	1 - 2	Red
2 - 4	1 - 2	Orange
< 2	3 - 4	Yellow



Fuel: Structures Separation Distance

High Density = risk of entire community loss is very high due to structure-to-structure fire spread

Category	SSD	Map Color
High Density	>50ft	Red
Moderate Density	25 – 50ft	Orange
Low Density	<25ft	Yellow



Fire Department Position Summary

- The scientific data presented in the supplemental, coupled with the region's cyclic relationship with significant fire events, are the reason that the Berkeley Fire Department strongly believes that a moratorium should be considered on any development within the Fire Zones that:
 - increases HU/ac,
 - reduces existing non-conforming SSD,
 - increases population, or
 - increases the number of vehicles that will use the roadway during a wildfire

