FUEL LOAD REDUCTION AND WEED ERADICATION

San Mateo County
Board of Supervisors Workshop
Wednesday October 14, 2020
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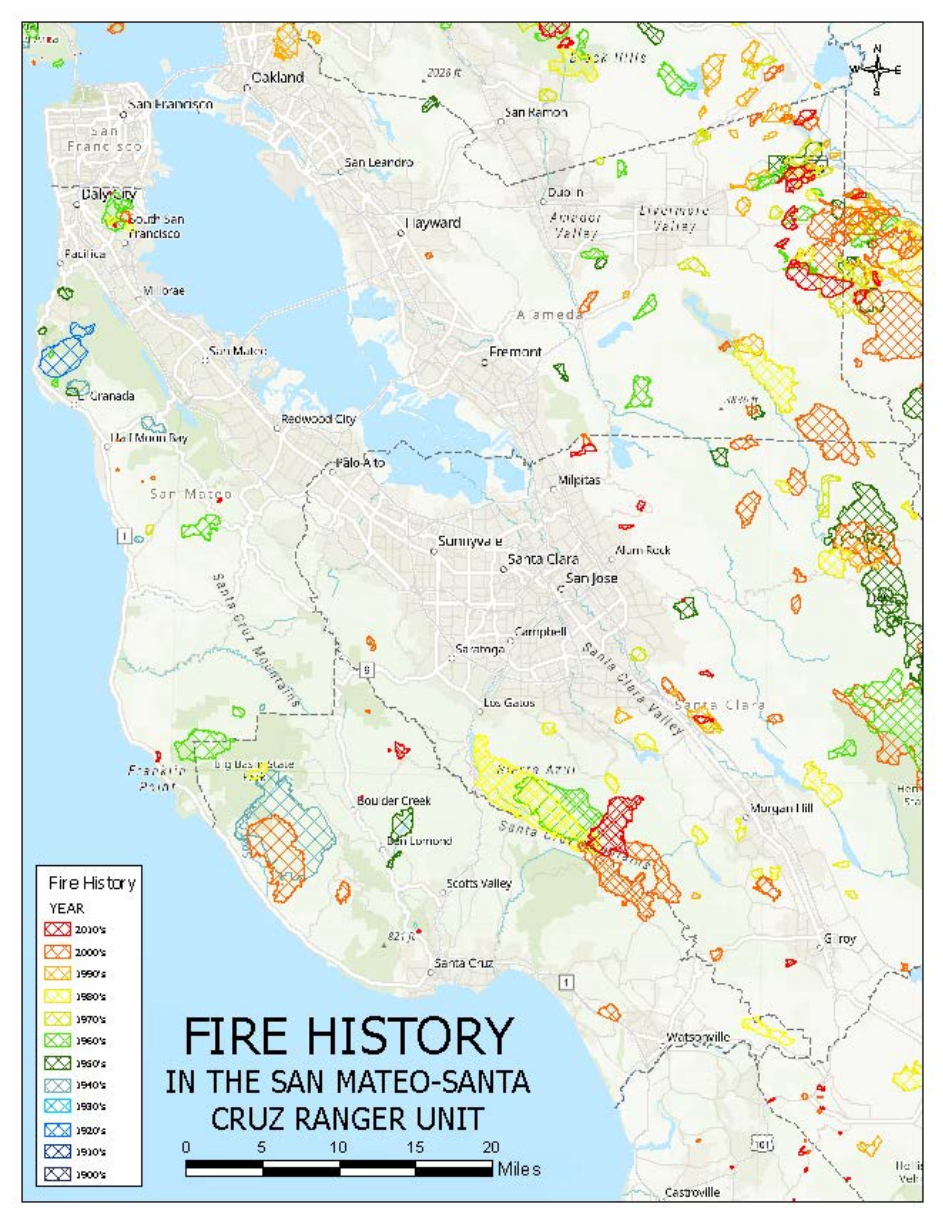
Division Chief - Forester II
CAL FIRE - San Mateo – Santa Cruz Unit



What was our local Fire History

Last large fire was in 1961 in Gazos Creek for 3,400 acres. (5 others)

Several during early 1900's about same size including one in Montara.

Biggest was Pine Mtn Fire in 1948 at approximately 15,000 acres.

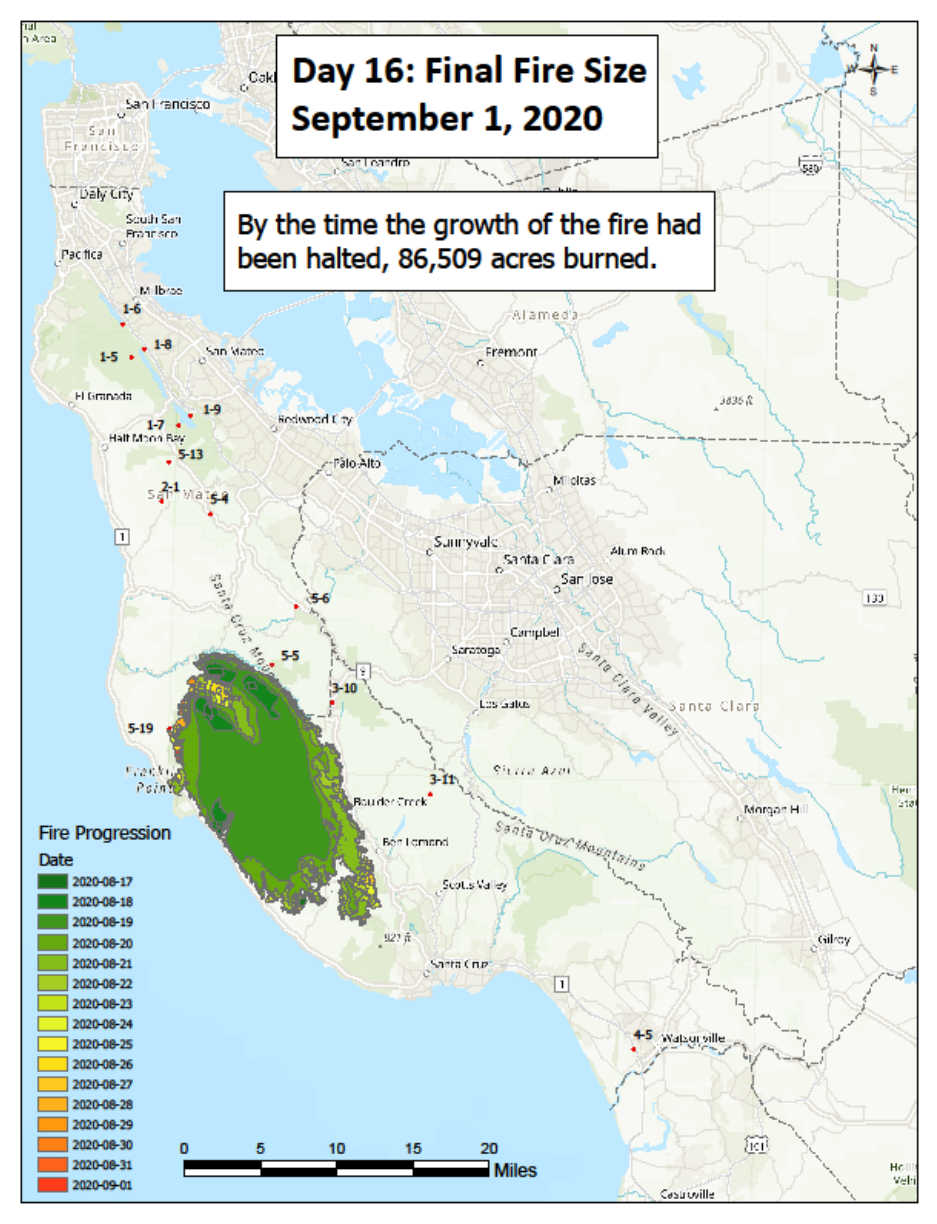
Other than years like 1961, larger fires normally during Fall Season or into droughts.

These previous large fires had little to no structure loss. It was mostly vacant wildland.

Less than 2% of local fires exceed 10 acres in this unit. (Typically <.25 acre)

That gave us the title of "The Asbestos County".

We need to get out of the mindset that San Mateo County is too wet to burn.



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What is different now?

- Huge influx of residents into previously un-occupied wildland.
  - Subdivisions in the woods.
  - Population has increased significantly.
- Climate Change
  - Hotter
  - Drier
  - Longer fire season.
- 100 years of heavy suppression efforts with little burning.
- Significant Vegetation and Fuel load changes related to the above.

What can we do to counter this?

- It’s too late to change having a large population in the County’s WUI so we must mitigate the danger.
- We are not going to mitigate a fire like we just experienced.
- Defensible space
  - Structures as well as access routes
  - Appropriate building placement and construction.
  - Appropriate Landscape vegetation choices.
  - Maintenance of all the above.
  - PRC 4291 and local ordinances
  - Will to enforce.
- Some of this is insurance driven.

What can we do to counter this?

- Evacuation Plans
- Temporary Refuge Areas (TRA's)
- **Maintain them.**
- This is a long-term effort. It took us more than 100 years to get here.
- Major changes in how we look at vegetation.
- Can't be solved with a one time grant.

Eucalyptus (*Eucalyptus globulus*)

- Large trees with dense canopies.
- Leaves produce a volatile highly combustible oil.
- Leaves and bark shed prolifically, forming deep (<2') duff layer.
- Phenolics produced preventing fungus breaking down duff layer.
- Wind Rows planted in early 1900's for subdivisions, farms and trains. (1'/year radial expansion)
- Dense stands of large diameter stems equals significant cost to dispose of debris.
- Oil in leaves break down in about 6 months.
- Not a very diverse habitat for wildlife.

Coastal Chaparral

- This is what was normal.
- Dense stands but shorter and lower fuel loads.
- Desired on thin soils on southern exposures with lower/drier moisture levels.
- Healthier watershed - sustainable.
- More wildlife diversity.
- Introduction of Eucalyptus changes this balance.
- Douglas fir intrusion into chaparral.

OTHER EXOTIC FIRE HAZARD SPECIES

Pine (various)

Once a stand is established, reseeding is extensive.

Flammable ground litter and canopy.

Torching

Most planting is non-native and likely hybrids.

High mortality rates.

OTHER EXOTIC FIRE HAZARD SPECIES

Gorse (*Ulex europeaus*)

Imported from Europe

Extremely flammable (Brandon Oregon 1936)

Prolific seeder and sprouter.

Rated number 1 invasive in Southern Oregon

San Bruno Mountain stands and program

Other Exotic Fire Hazard Species

Acacia, all species.

- Roadside encroachment.
- Oily and flammable.
- Weak wood trees that fail onto road.
- Sprouts from stump or roots.
- Seed pods, prolific seeder.
- Extremely rapid growth in this climate.
- Extremely hard to control w/o years of follow-up.

Private Roads

- Multiple Residences with private access roads.
- This is a private road on private property.
- Both Exotic and native vegetation.
- Must be maintained forever, not just for closing out a building permit.
- There has been little incentive for maintaining Defensible Space along private roads.
- The Private Landowner is responsible.

Public Roads
(Evacuation Routes)

- Evacuation routes must be maintained for Defensible Space.
- Evacuations have to be dynamic and have options.
- Imagine escaping on these roads in the dark with everything on fire with your family in the car.
- The key to a successful evacuation is to Leave Early, don't wait.
- Imagine fighting a fire without proper clearances.

Public Roads (Evacuation Routes)

- Public works, Parks and Caltrans are working hard to maintain these roadside clearance corridors.
- Publicly maintained roads with private lands on each side.
- CAL FIRE/County Fire is working with measure K money to work this issue.
  - Extra engine in the winter for projects.
  - Forestry Asst. and Fire Captain positions.
  - Fuel reduction projects.
  - CAL FIRE VMP program.