



# The Oakland Hills Wildfire Prevention District Proposal

Presentation By the District 4 Council  
Member Jean Quan

Richard Cowan, Senior Policy Analyst

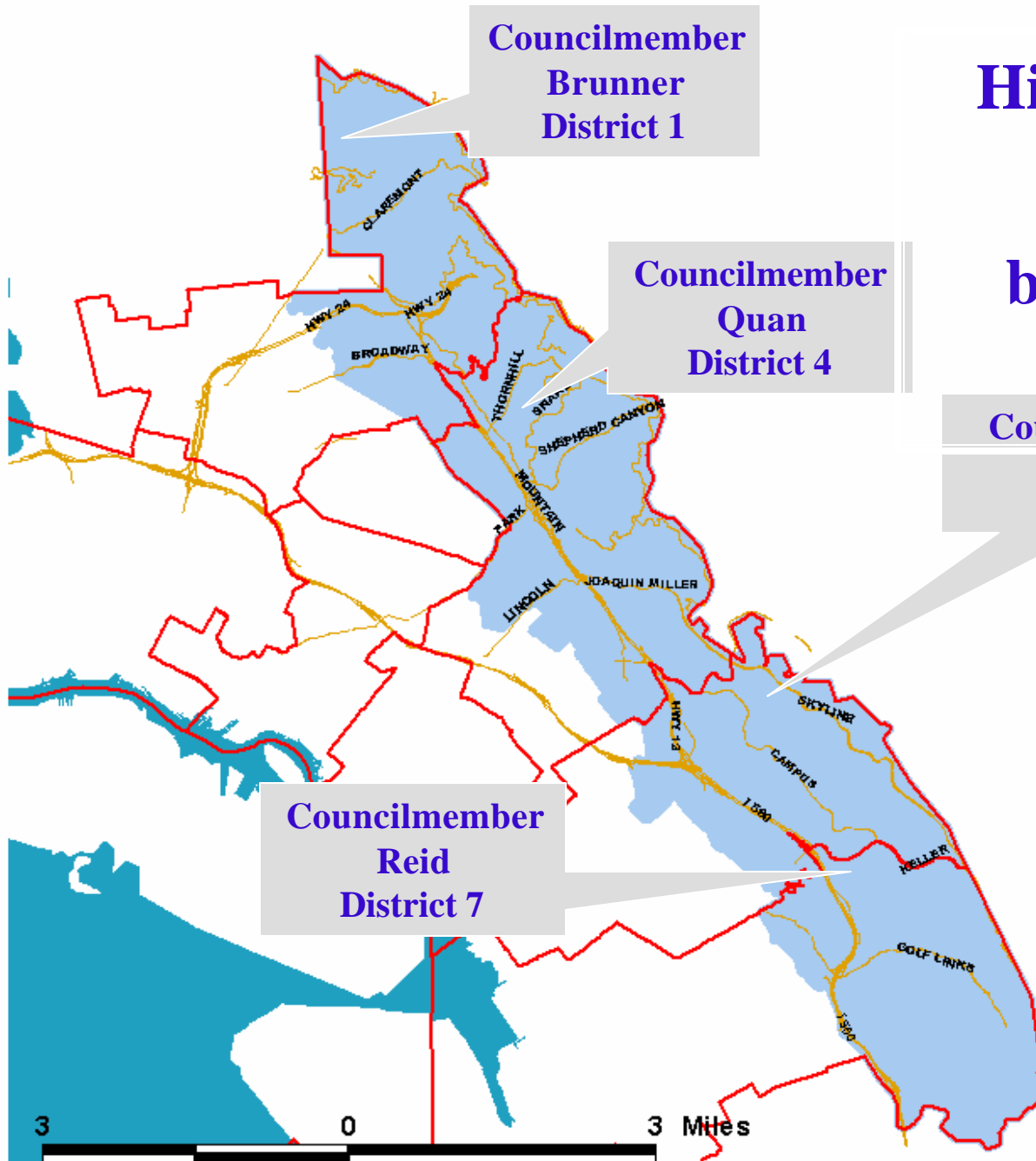
Ryan Peeks, Coro Summer Intern

Thanks to Our Oakland Fire Fighters,  
Linda Wong, Chief Simon & Jerry Kent

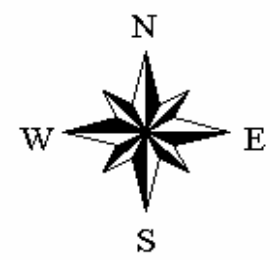


# High Hazardous Fire Areas

## by Council District



-  Council District
-  Hillarea Main Streets
-  Bay.shp
-  Fire District



# History

- Fire is a natural part of the East Bay environment
- Major fires have occurred **every 10 to 15** years in the East Bay hills

- 1923: 130 acres , 584 homes
- 1931: 1,800 acres, 5 homes
- 1933: 1,000 acres, 5 homes
- 1937: 700 acres
- 1946: 1,000 acres
- 1960: 1,200 acres, 2 homes
- 1970: 204 acres , 37 homes
- 1980: 2 acres, 5 homes
- 1990: 200 acres
- 1991: **1,700 acres, 3,400 homes, 25 died**
- 1995: 3 homes
- 2002: 5 acres



1936 PHOTO

THE 1923 BERKELEY FIRE WAS OUR FIRST MAJOR DIABLO WIND FIRE THAT DESTROYED MULTIPLE HOMES

# The 1923 Fire Destroyed 584 Homes in 2 HOURS



# 1924 • Butters Canyon

- District 4



# 1933 • Leona Heights

- District 6
- Burned more land than the Firestorm

4 EASTBAY CITIES JOIN TO  
BATTLE FLAMES SWEEPING  
TOWARD LEONA HEIGHTS

Mine Buildings, Contractors' Shacks Are  
Destroyed; Mills Girls  
Join in Fight

1912 5/19/31  
EAST OAKLAND GRASS FIRE  
THREATENS HILL HOMES;  
500 BATTLE 2-MILE BLAZE

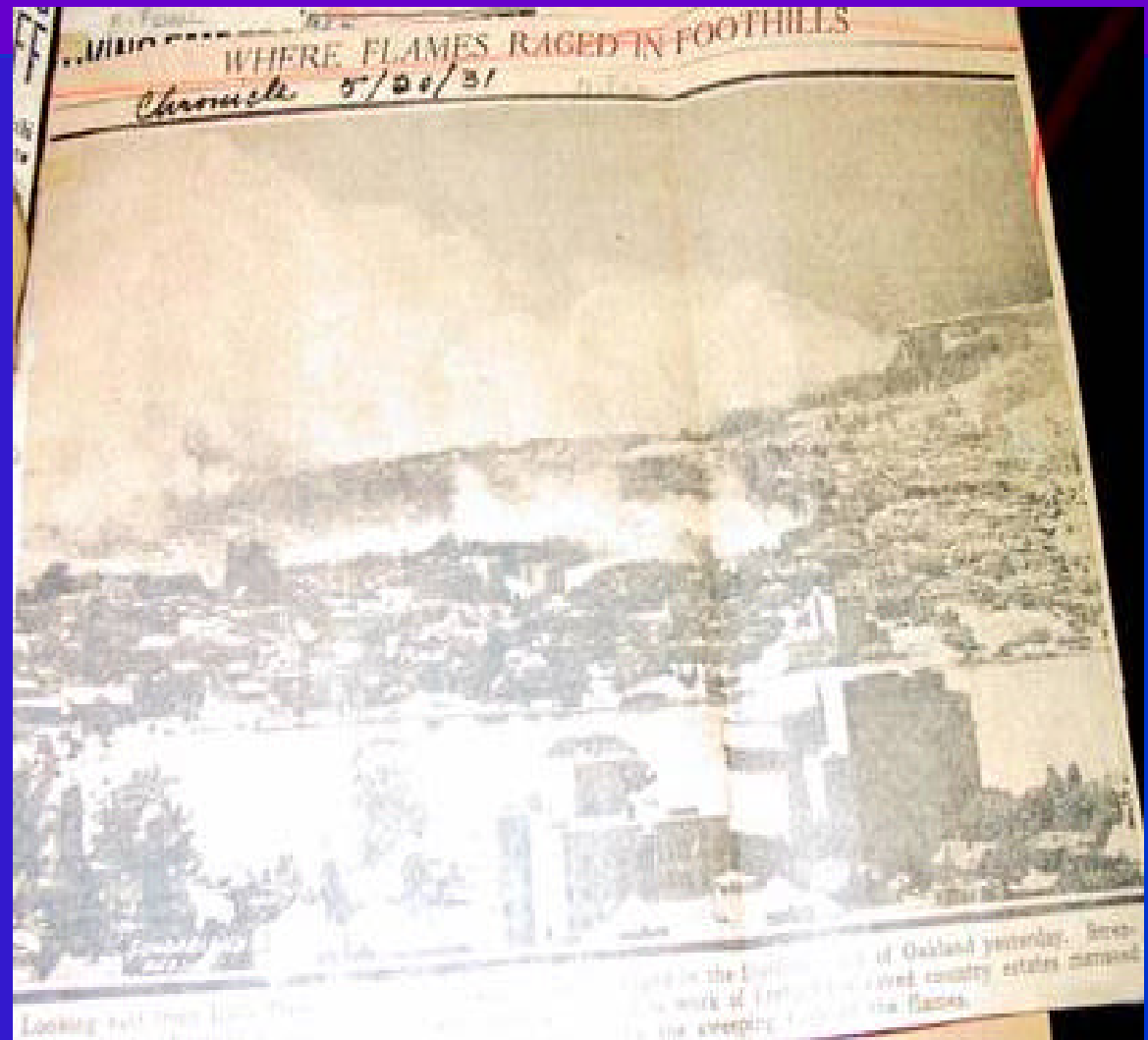
All Off-Duty Firemen Are Called  
To Help Curb Flames Which  
Are Sweeping on Leona Heights

OTHER CITIES SEND CREWS

East Oakland residential hill sections were being raked by tw  
at blaze late this afternoon, one raging north, the other south

# 1931 • Leona Heights

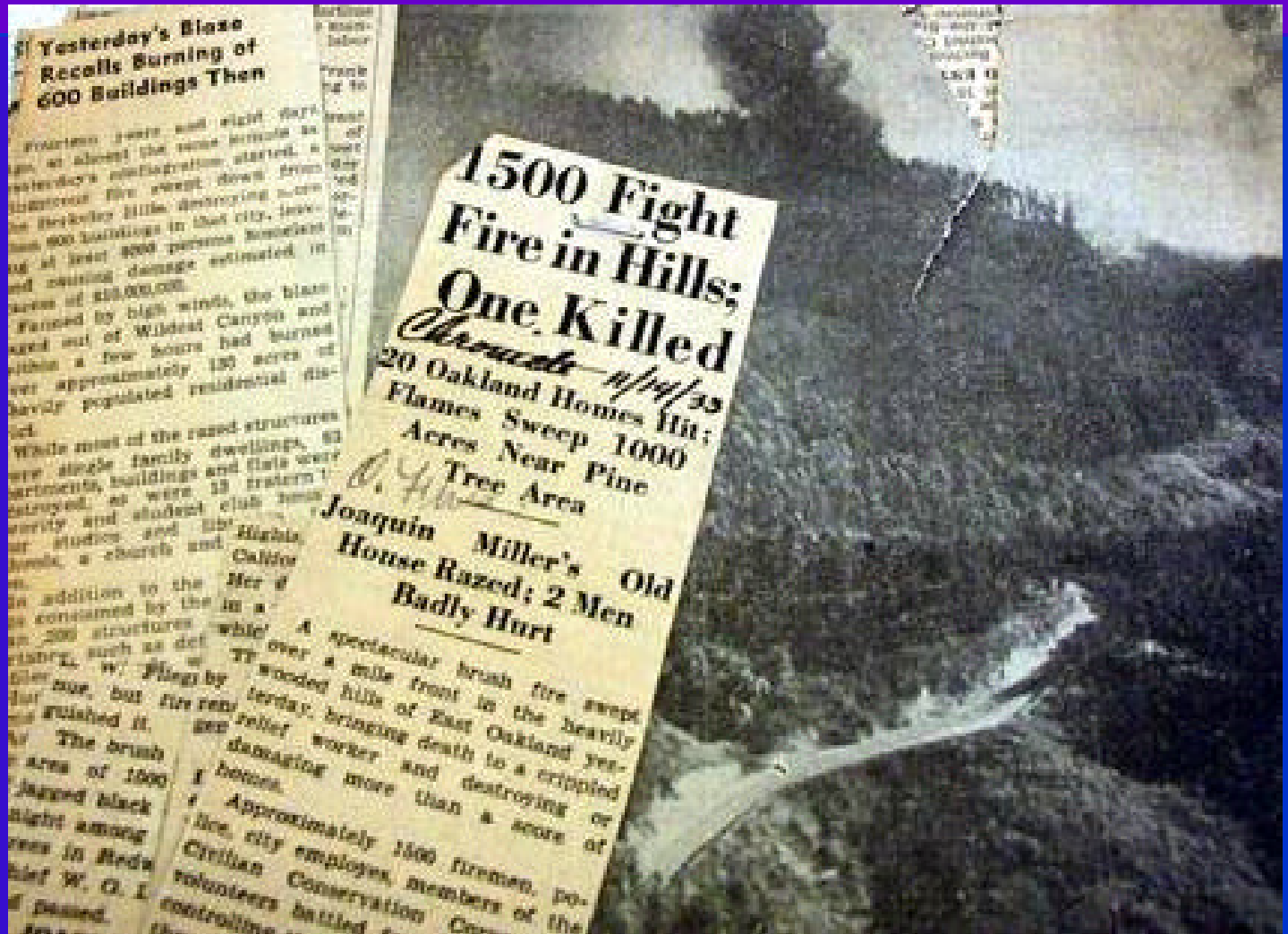
- View from Downtown
- Note the secondary fire in the Crocker Highlands





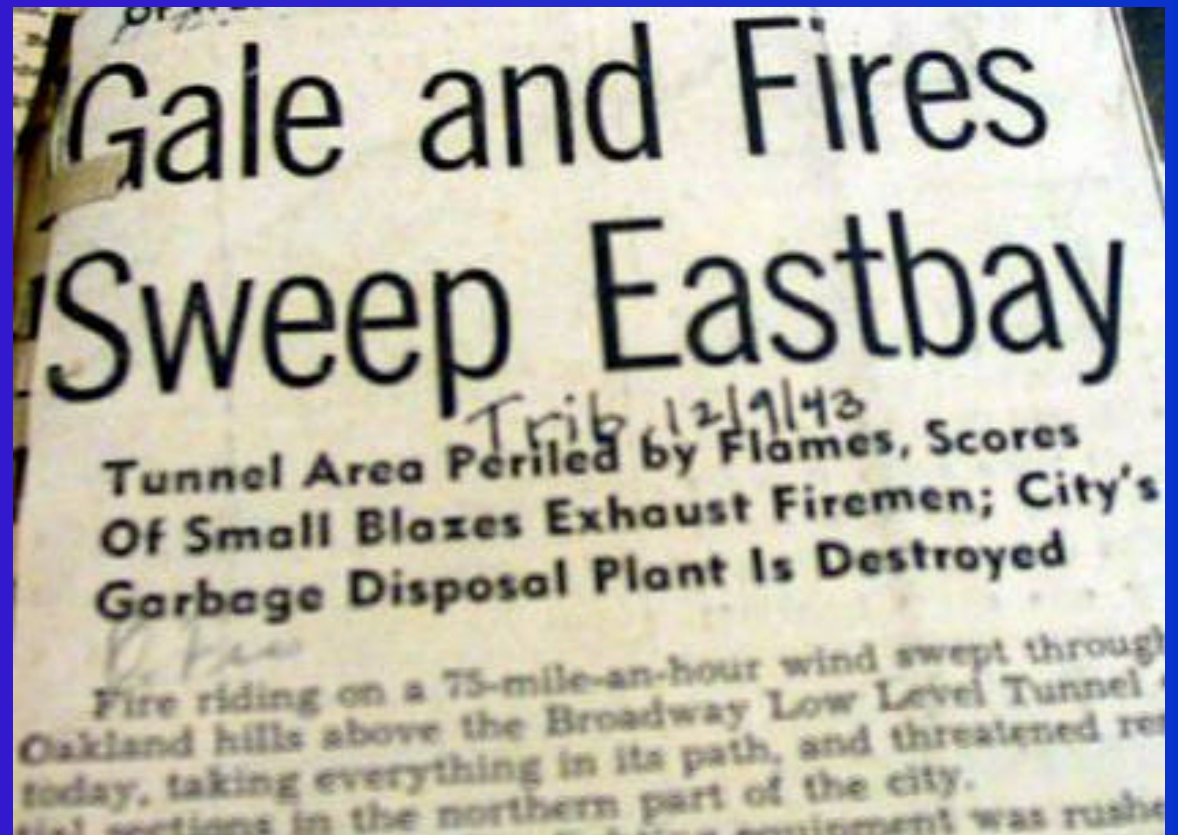
# 1933 • Joaquin Miller

■ District 4



# 1943 • Upper Broadway

- Districts 4 and 1



# 1960 · Leona Heights

## ■ District 6

### Gale-Whipped Flames Ravage Bay Area Hills

Complete  
Fire Report  
Pages 2, 48

#### Big Oakland Fire Rages, Burns Homes

By BILL LIVINGSTON

A firestorm raged out of control through the Napa Valley early today in the wake of a blaze that swept the East Oakland hills yesterday and threatened to become a major disaster.

The fires, striking in chain reaction, were fanned by freak gale winds and encouraged by near-zero humidity.

State forestry officials termed the fire situation in Northern California "desperate."

Another blaze was reported still out of control this morning on Mt. Hamilton, less than four miles from the University of California's famous Lick Observatory.

The observatory was not in danger, however, as winds sent the flames away from the costly installation.

#### CAUSES WIDE HAVOC

The Napa blaze swept along the historic Silverado Trail at 5 p.m. yesterday, jumped the Napa River in several spots, destroyed at least 18 structures, and was threatening about 500 farm homes.

No one was reported injured in the conflagration which sent flames 200 feet in the sky



Dramatic photo from Tribune Tower shows how close city came to

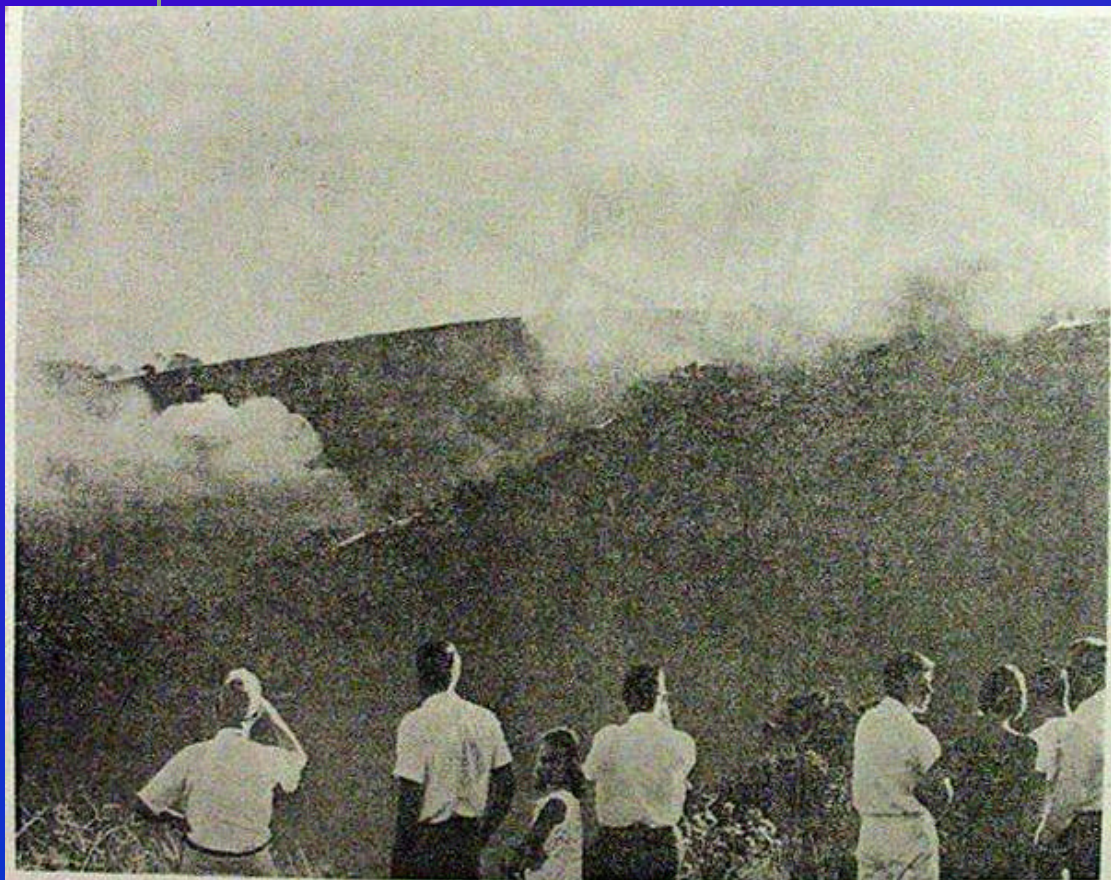
# 1960 • Leona Heights

## ■ District 6



# 1968 · Oak Knoll

## ■ Districts 6-7



Spectators on Skyline Boulevard watch brush fire on hillside north of Oakland Naval Hospital

*10/24/68 Oakland 2nd*

## Fire Sweeps *7 mes* 150 Acres in Eastbay Hills

A fire that swept through 150 acres of bone-dry brush and trees on a hillside north of the Oakland Naval Hospital site yesterday was the 49th fought by crews throughout the state in its worst fire weekend of the year.

Earlier in the day a forest fire in Yosemite temporarily

of chemical retardant on the flames.

In Yosemite, flames rushed through treetops and brush on the southwest edge of the park, and some 300 firemen were still fighting them today.

Boulders and debris fell onto Highway 140 near the Arch Rock entrance, and

# 1970 · Claremont Canyon

- District 1
- 204 acres
- 37 homes



# The 1991 Firestorm



# Losses from the 1991 Oakland Firestorm

- **25** Dead
- **150** Injured
- **3,471** Homes Lost
- **1,520** Acres Burned
- Largest Fire Loss in the History of the nation up to that time - **\$2.2 Billion**
- Economic Loss: **15-20% Business failure** in nearby retail, citywide unknown





**HILLER  
HIGHLANDS  
BEFORE**



**AFTER**

# 2002 • District 6

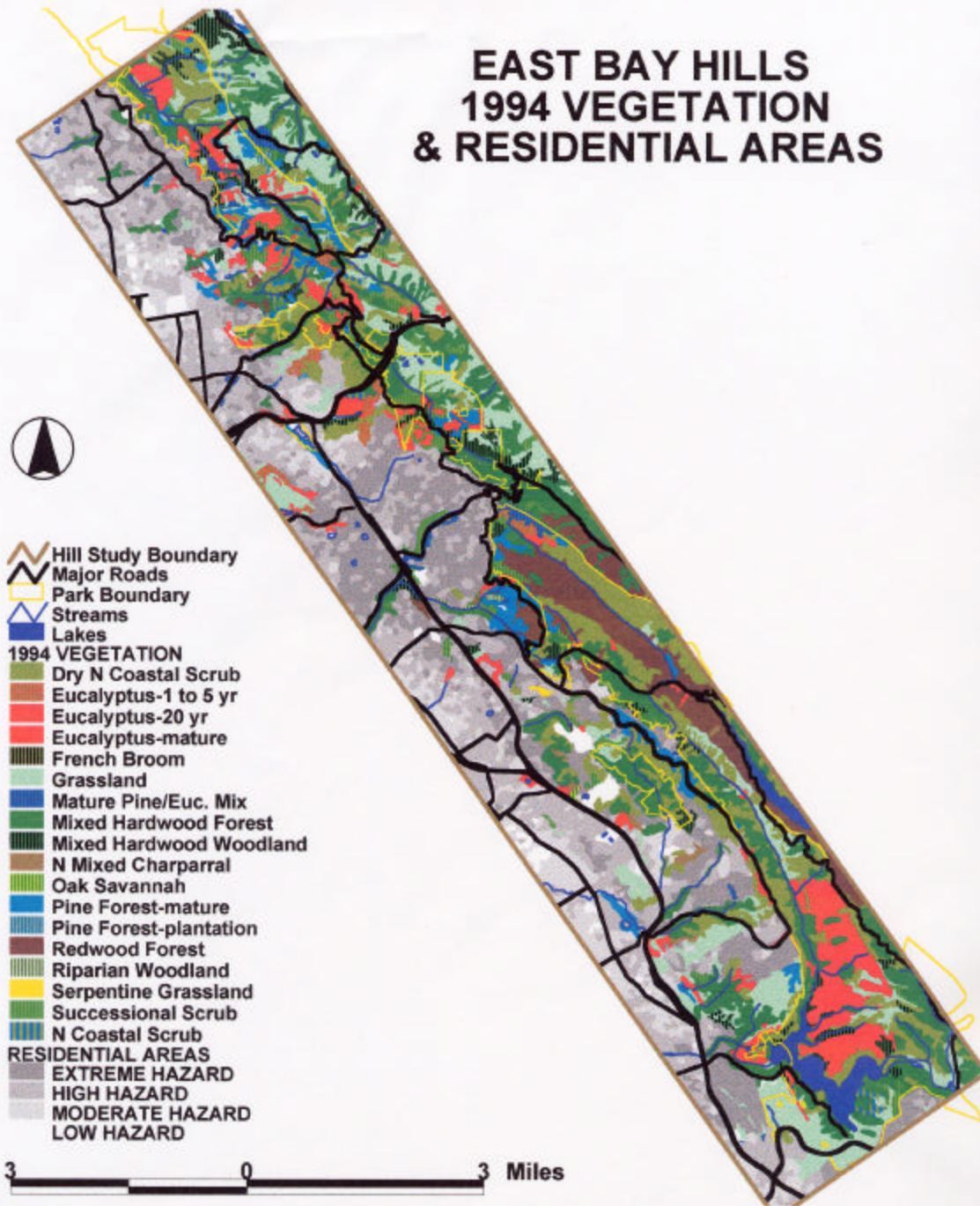


## EAST BAY HILLS 1900 VEGETATION



Vegetation is more dense now than 100 years ago.

# EAST BAY HILLS 1994 VEGETATION & RESIDENTIAL AREAS



Highly flammable non-native plants like Eucalyptus make the vegetation more dangerous.

# View from Tilden Park 1910



# View from Same Spot in Tilden Today



# Oakland Expands Into Wild Lands

MONTCLAIR AREA- 1936

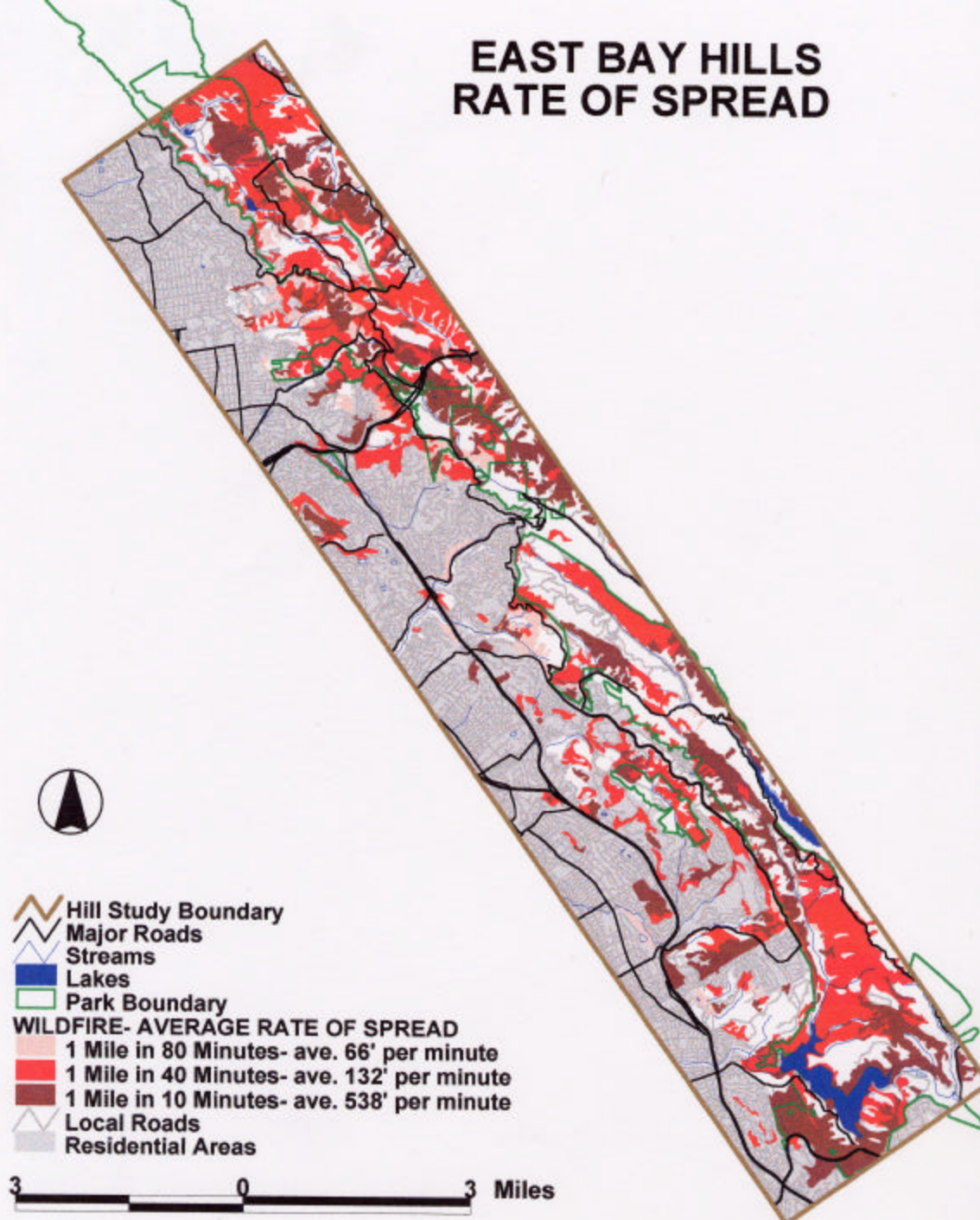


# Oakland Hills Area Today

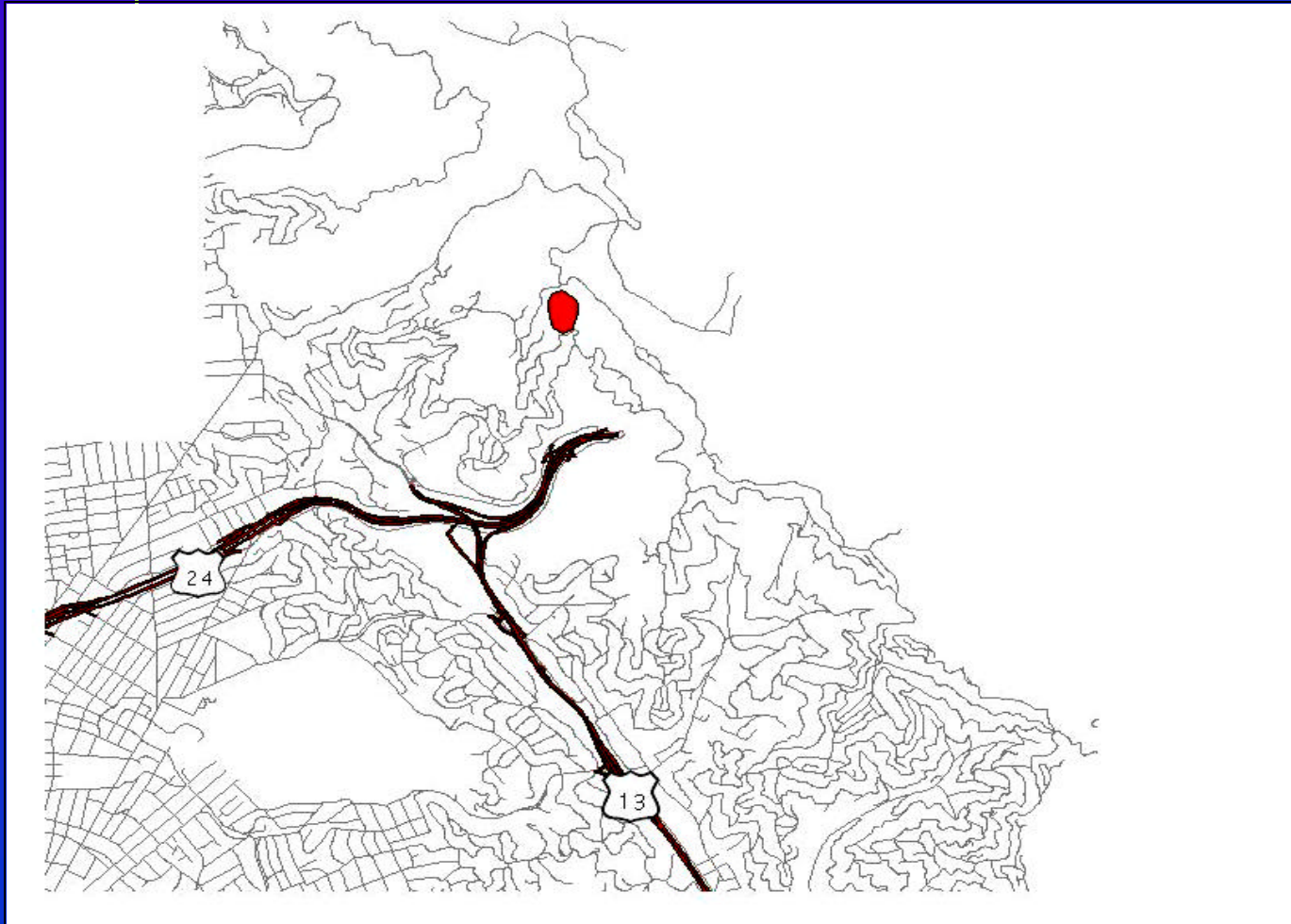




# EAST BAY HILLS RATE OF SPREAD



# Progression of the 1991 Firestorm



11:15  
AM

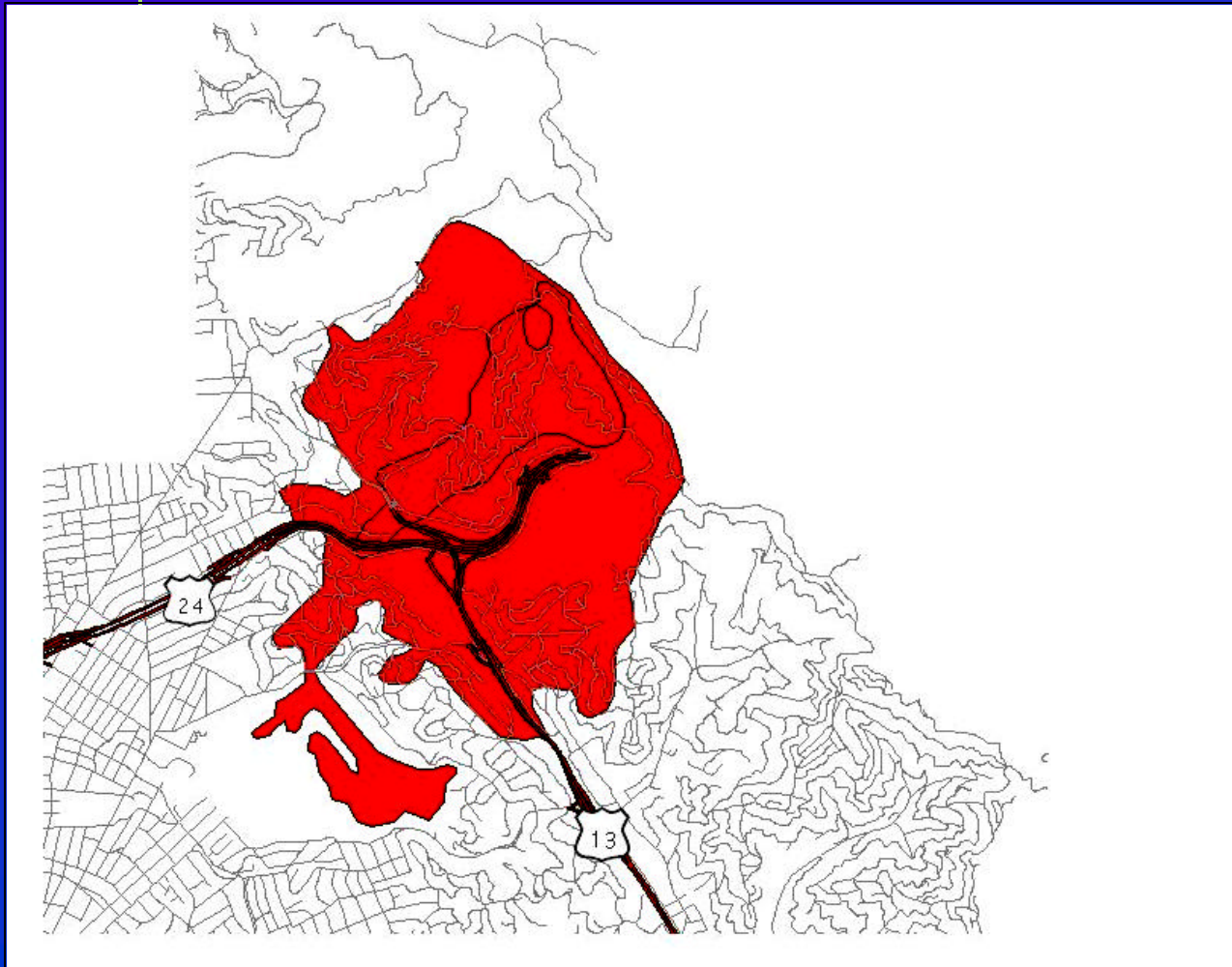
Reported  
size of fire  
at 11:15  
AM

# 11:30 AM



In 15  
minutes  
the fire  
jumped  
Highways  
13 & 24

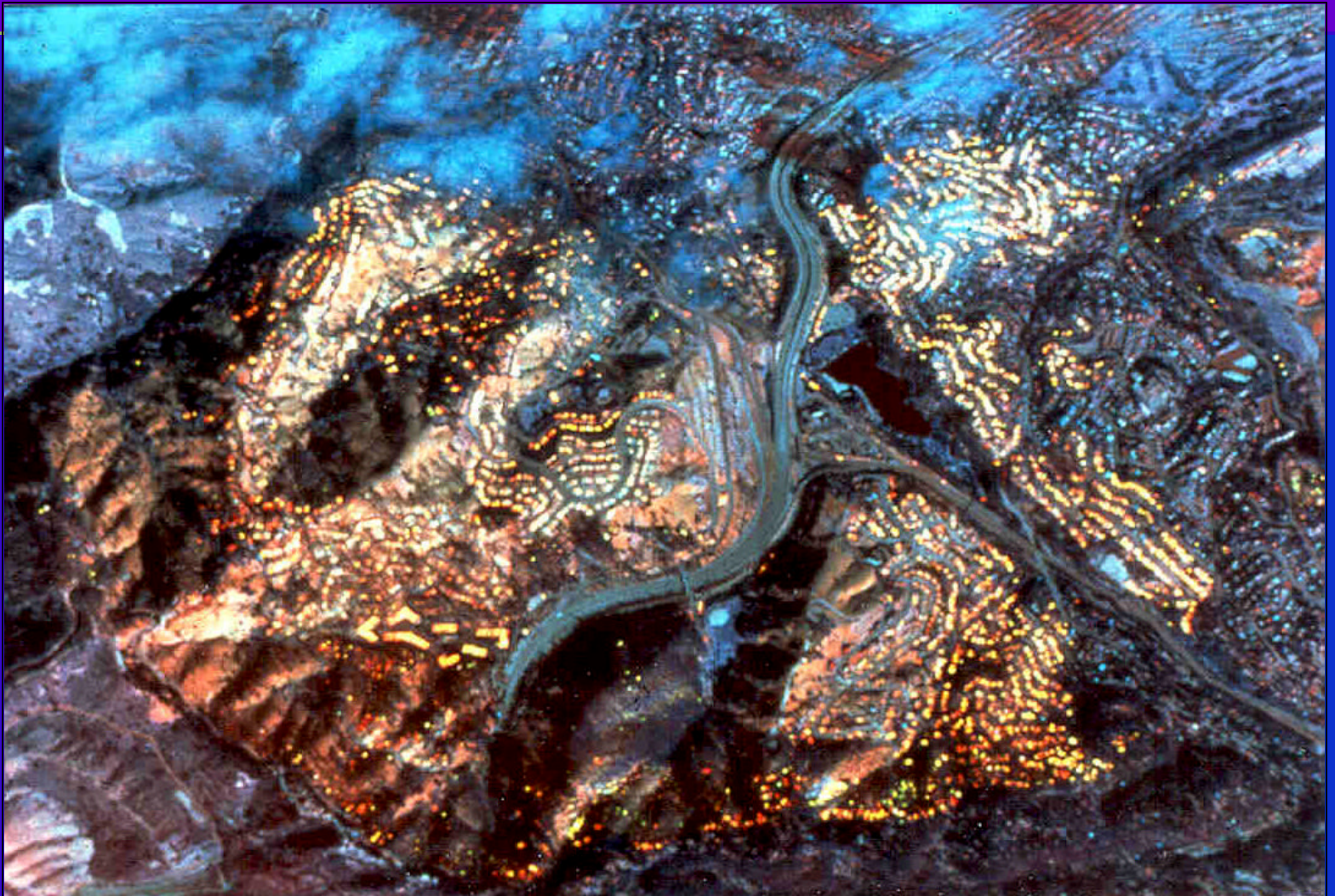
# 5:00 PM



By Evening  
the fire  
threatened  
Berkeley,  
Rockridge,  
Montclair,  
and parts of  
the City of  
Piedmont

**8:00PM**

NASA Photo of Firestorm  
Caldecott tunnel is at bottom



# The Oakland hills fire: 8 years ago

## Fire statistics

Deaths	25
Injuries	150
Houses destroyed	2,843
Apartments destroyed	433
Dwellings destroyed	3,276
Acres burned	1,520
Fire perimeter	5.25 miles
Dollar loss	\$1.537 billion

## Some changes made

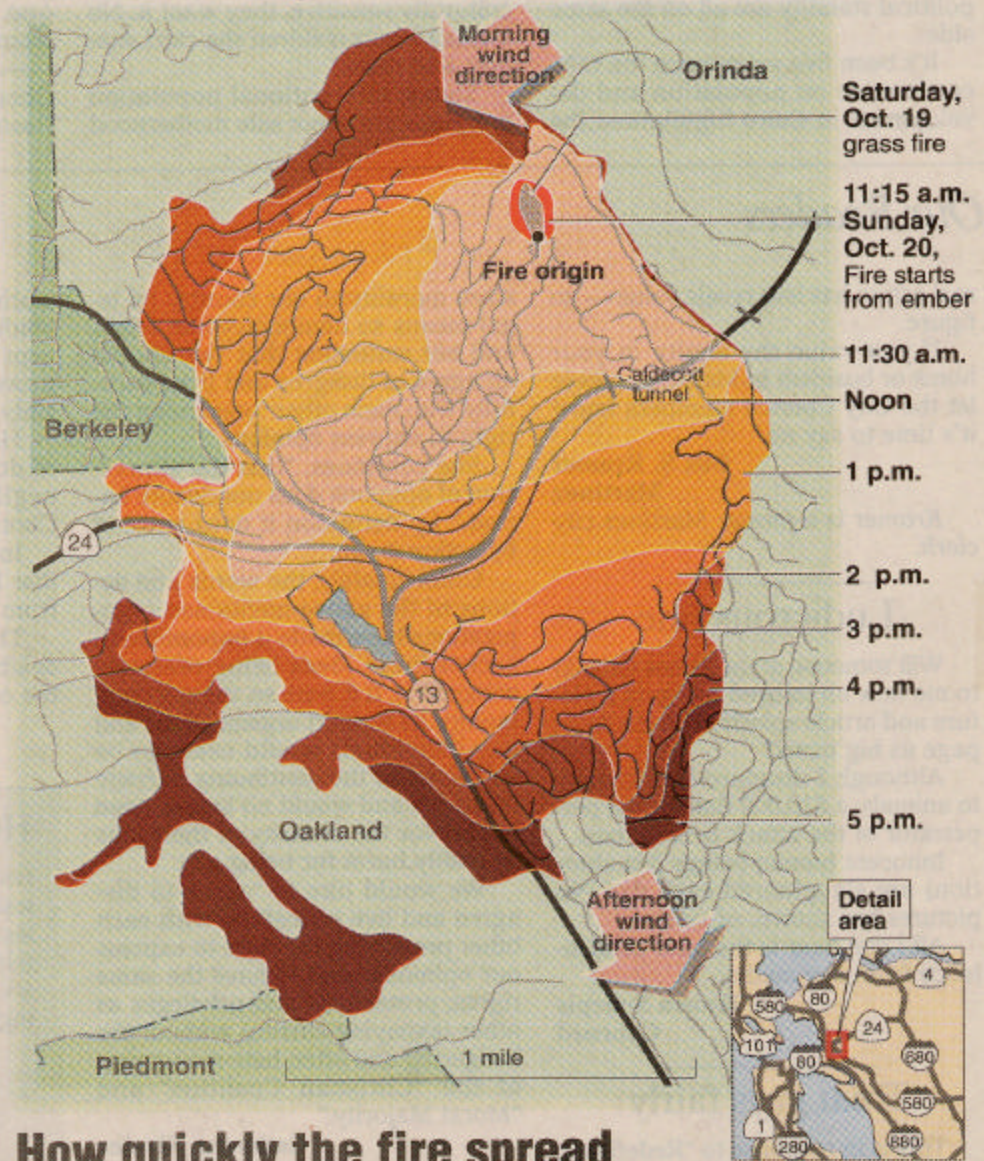
**An automated weather station** was installed in the Oakland-Berkeley hills, linked to the Department of Forestry, alerting departments to low-humidity and high-temperature conditions.

**In interagency drills**, local fire departments practice coordinated firefighting in field conditions, training urban firefighters in wildland firefighting techniques.

**Properties are inspected** and fire codes enforced for clearing combustibles near houses and maintaining fire roads.

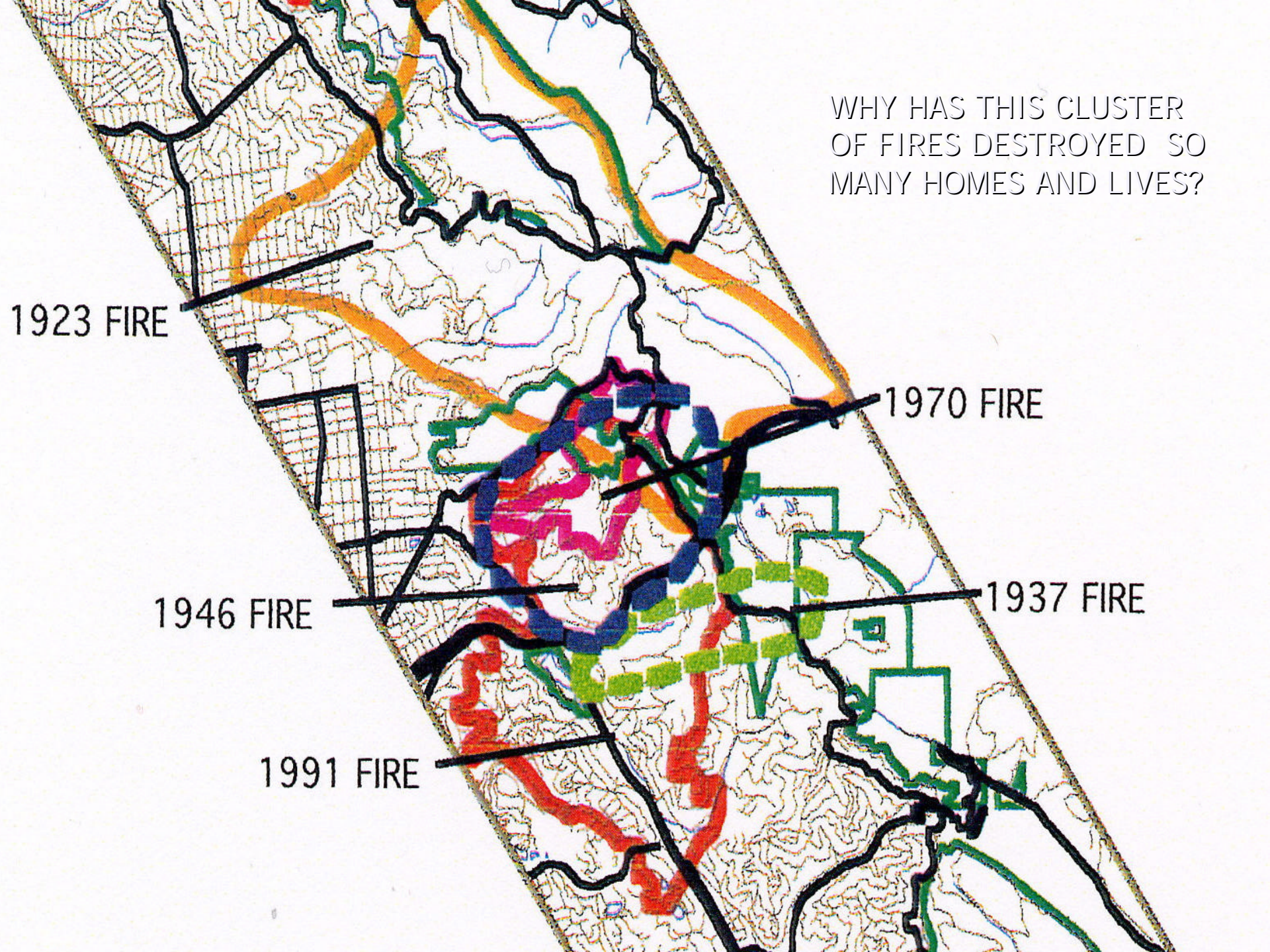
**Controlled burns** have eliminated more than 1,200 acres of fuel.

**Communication systems have improved.** In 1991, the Oakland Fire Department used a 2-band radio, limiting all emergency communication to 2 channels, which were overloaded during the blaze.



How quickly the fire spread

WHY HAS THIS CLUSTER  
OF FIRES DESTROYED SO  
MANY HOMES AND LIVES?



1923 FIRE

1970 FIRE

1946 FIRE

1937 FIRE

1991 FIRE

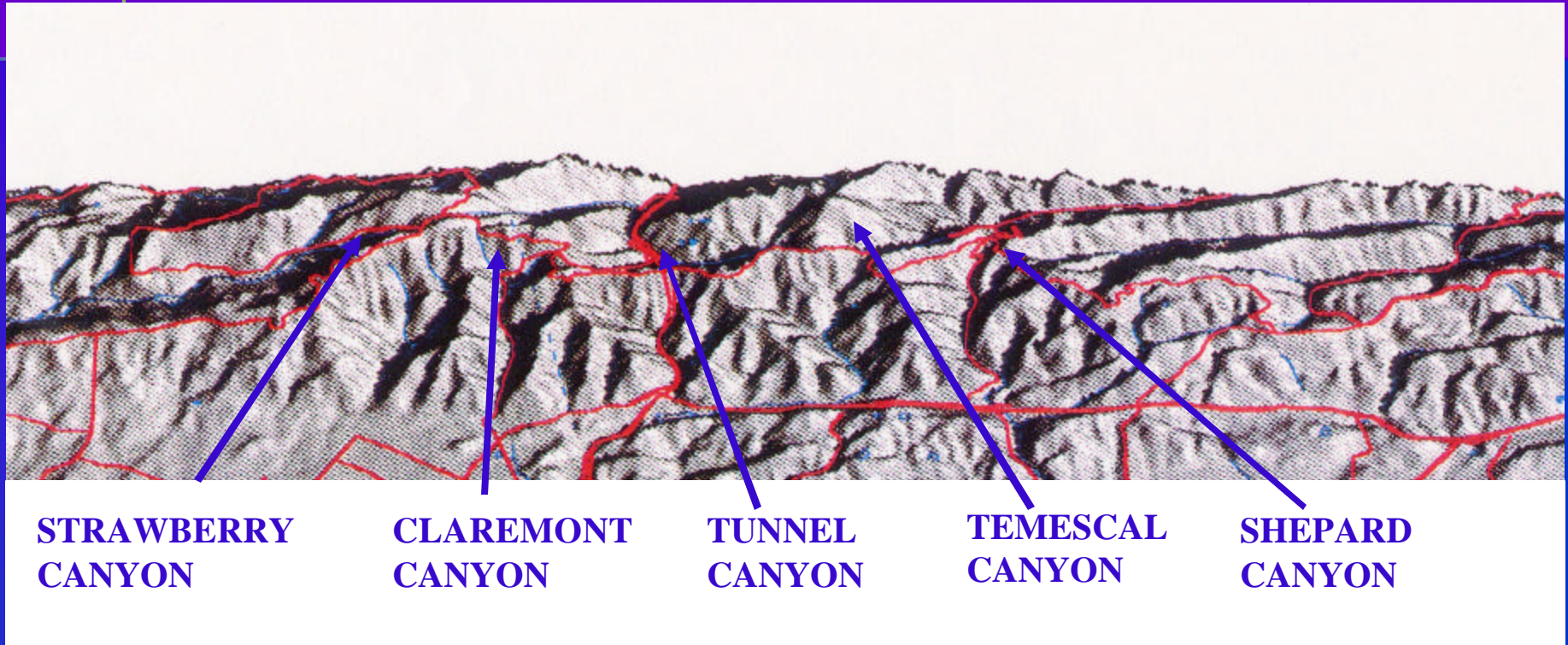
# Causes of East Bay Firestorms

- Urban-Forest-Wild Lands Interface
- Built up brush, highly flammable non-native trees
- Seasonal Dry Vegetation on the ground
- Seasonal 60 mph+ Diablo winds lead to rapid spread
- Dangerous topography: hills, ridges, and canyons are difficult to reach and spread fire rapidly





# DIABLO WINDS BLOW OVER HIGH RIDGES, AND DOWN VERY STEEP SLOPES



Five Reverse Chimneys Can Funnel Leeward Diablo Winds Into Dense Residential Areas

# Wildfire Prevention Efforts After the 1991 Firestorm

Oakland became one of the few cities in the nation to enact new systemic efforts to prepare for and prevent urban wildfires, enacting a \$75 per year for the new services including vegetation management.





# In Recent Years Funding for Prevention Has Declined



- In 1996 efforts to continue a vegetation management district failed narrowly.
- Recent funding came from grants and city capital funds
- Current funding will be depleted by June 2004.



## Current Mitigation Efforts

- This year the City will spend about a million in grants and one-time funds for:
  - Goats
  - Private Contractor Clearance
  - Roving fire patrols for Red Flag Days
  - Tree Removal
  - Roadside Clearance
- Effective July 2004 all these funds will be depleted

# Grants & Funds for Current Services are Depleted

Vegetation  
Management  
Inspection and  
Code  
Enforcement

Hazard  
Abatement

**Fire Hazard Area  
Special Services**

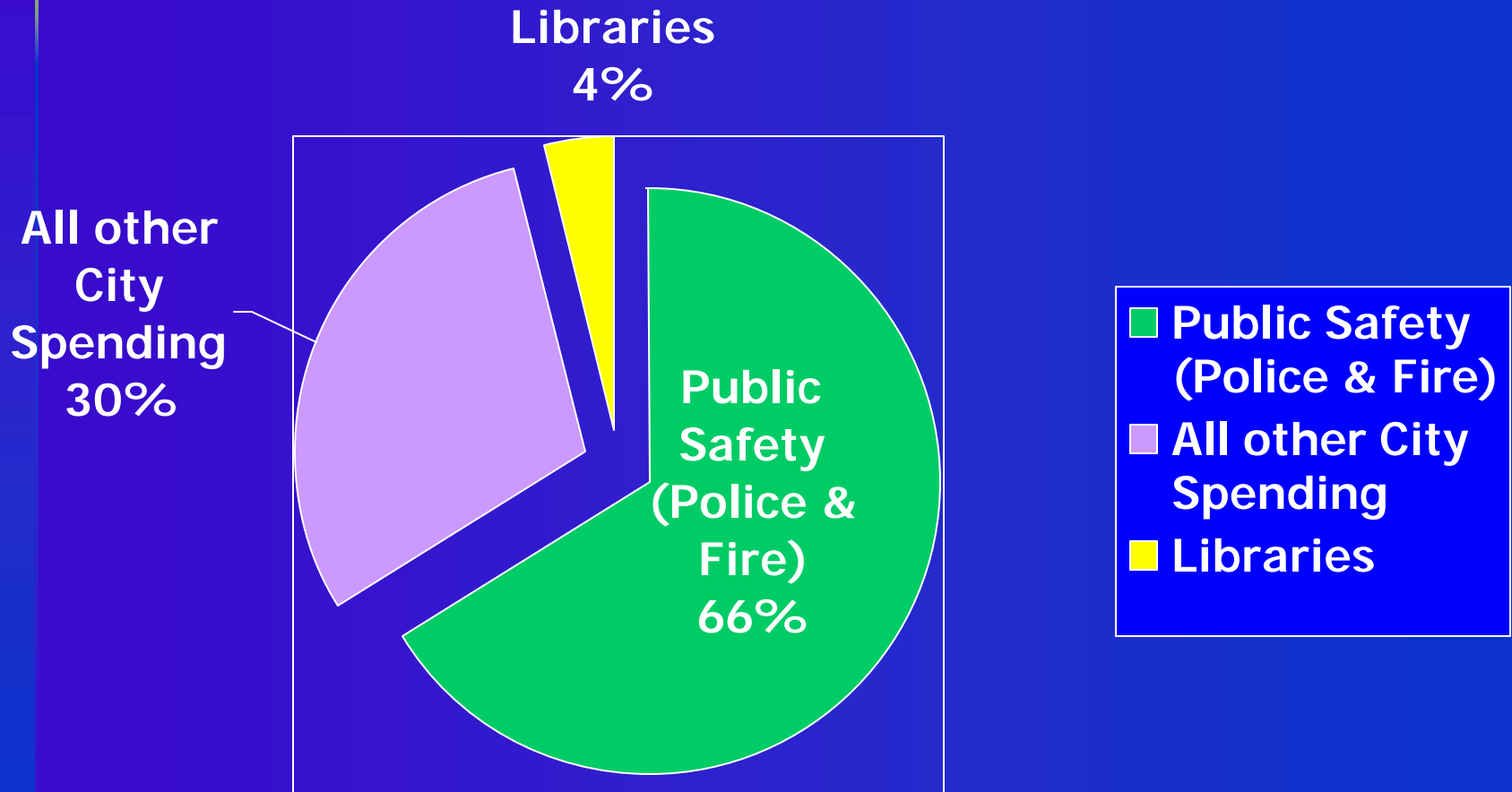
Fire  
Company  
Inspections

Free Tools and  
Equipment Use

Free  
Abatement  
Consultation



# Two-thirds of All City Funds are Spent on Fire & Police





# This Year Oakland Cut \$34 Million from its Budget

- Adding the costs of the Special District to the City Budget is not viable in view of the cuts.
- Saving basic fire services is the priority, even so the equivalent of 3 fire stations will be closed by rotation.
- It costs \$2.3 million to operate ONE fire station.
- The Wildfire Prevention District will raise only about \$1.8 million
- Hill fire stations receive 300-900 calls per year, other Oakland stations receive 3000-5000 calls. However, to keep response times down hill stations must be kept open.

# Current conditions

Each arrow points to a house hidden in the vegetation





# Present Day Problems

- Re-growth of underbrush & highly flammable trees and vegetation on previous cleared properties
- Dangerous properties
- Large amounts of dry fuel
- Fuel laddering (fire can step up from dry grasses to bushes to trees)

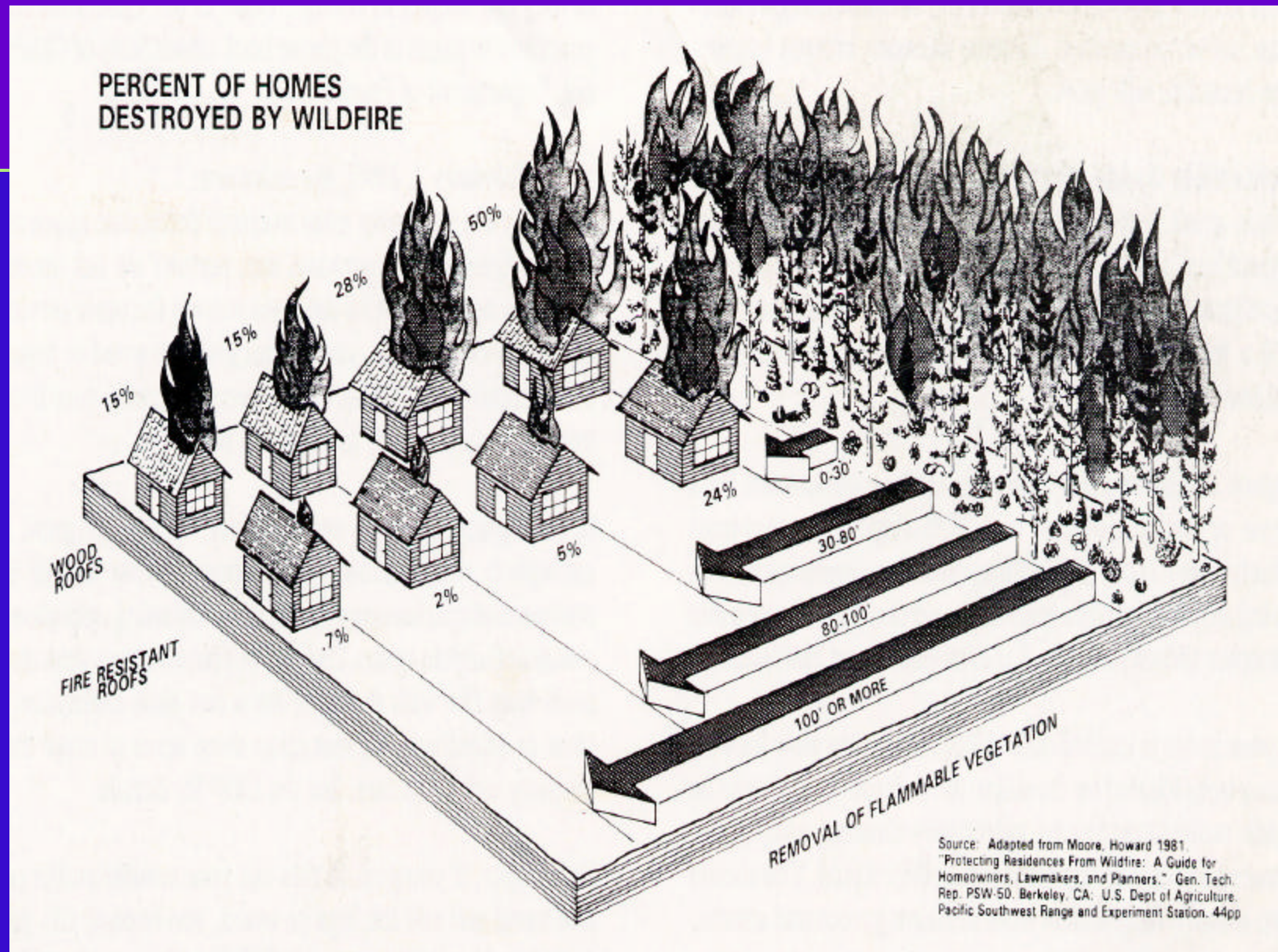


# More Problems

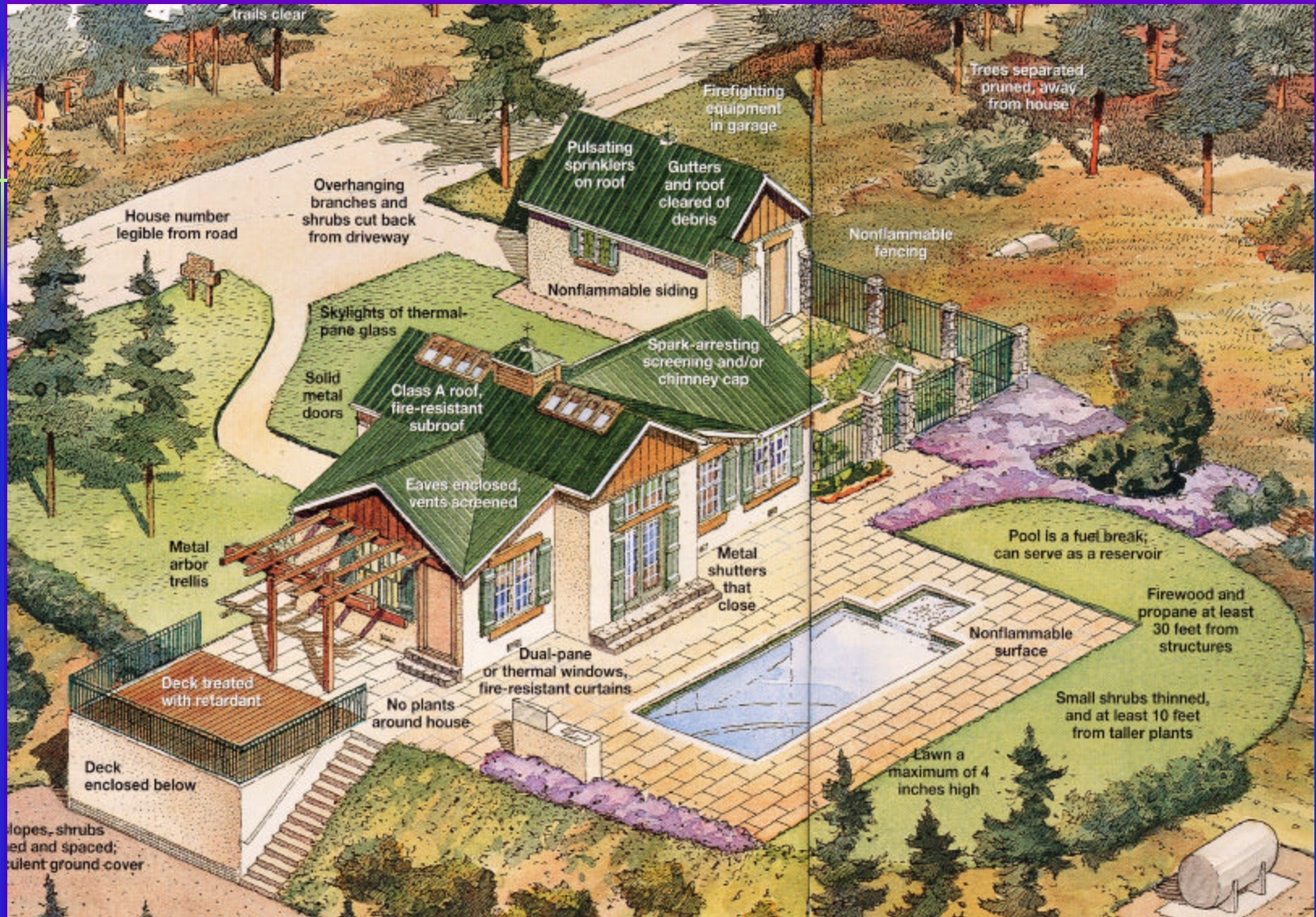
- Dangerous home design: shake roofs, wood decks, etc.
- Lack of defensible space around houses
- Restricted accessibility for fire vehicles (unsafe parking & narrow streets)
- Potential for swift fire runs both uphill and across ridges



# Fire Resistant Roofs & Defensible Space Saves Homes



# Design & Landscape Changes: Sunset's Firesafe House



# Defensible Space through Vegetation Management Works!

Through defensible space,  
these houses were able to  
survive the 2002 District 6  
fire



Clearing ground cover, removes the first two steps of the fuel ladder, grasses and brush, dramatically reducing the chances of fire



**BEFORE**

**AFTER**

Before clearance a spark could have set the grasses on fire.  
The fire could have spread to the bushes and thus to the trees.



BEFORE

AFTER

# Narrow Streets

- Narrow streets make it harder for firefighters to reach fires
- It also makes it harder for residents to escape the fire





# Narrow Streets

Fire trucks can barely fit on narrow streets



# WHAT CAN WE DO?

- Restrict parking on narrow streets.
- Strictly enforce on site parking requirements for all new construction.
- Improve widths on curves and add turning areas on roads with limited egress





# The Quan-Brunner Legislation Limits "In-Law" Units

- SECTION 73, 17.102.360, G
- Emergency access – minimum width. A secondary unit may be permitted only if all streets connecting the lot to the nearest arterial street...have a minimum pavement width of at least 24 ft. Secondary units may be allowed on streets wider than 20 ft up to 24 ft. only upon the issuance of a Conditional Use Permit





# The Wildfire Prevention District Would...

- Stabilize funding for long term vegetation controls: fire breaks, planting fire resistant native plants, roadside/median strip clearance
- Save Urban Goat Grazing
- Continue roving fire patrols on Red Flag Days
- Inspections & enforcement on 22,000 private lots
- Non-compliant properties cleared, owners billed
- Curbside pick up of vegetation debris, optional chipping
- School Inspections & Evacuation Plans
- Neighborhood training & organization (C.O.R.E.)



# Wildfire District Protections

- The Wildfire Prevention District would cost homeowners \$65/year for 10 years.
- All money collected would be used only in the Fire District
- All funds will go into a separate account, audited annually
- A Citizens Oversight Committee will review spending and make recommendations on how to spend the funds.





# Election Process

**Nov 4, 2003**

- City Council approves Wildfire Assessment District Process
- Each property owner is sent a legal notice and ballot
- Notice and ballot must be sent 45 days prior to Public Hearing
- Assessment votes property owners amount of are weighted by each assessment

**Jan 6, 2004**

- Ballots must be returned by mail or in person to the City Clerk's Office in City Hall by 5 pm, January 6<sup>th</sup>, 2004
- Public Hearing Held at Council that Evening. Ballots cannot be tabulated until the close of the Public Hearing on January 6<sup>th</sup>.

**Jan 7 or 8, 2004**

- Election results announced



## For More Information:



- Voting Process or Assessments:  
339-3092
- City Website: [www.oaklandnet.com](http://www.oaklandnet.com)
- Fire Prevention Problems/ Fire Marshall  
238-4051
- Organize a neighborhood group to prepare for fire,  
earthquake and other disasters - 238-6351
- District 4 Council Offices: 238-7004
- Sign Up for Email Newsletters at [www.jeanquan.org](http://www.jeanquan.org)