

Fire in Oak Woodlands

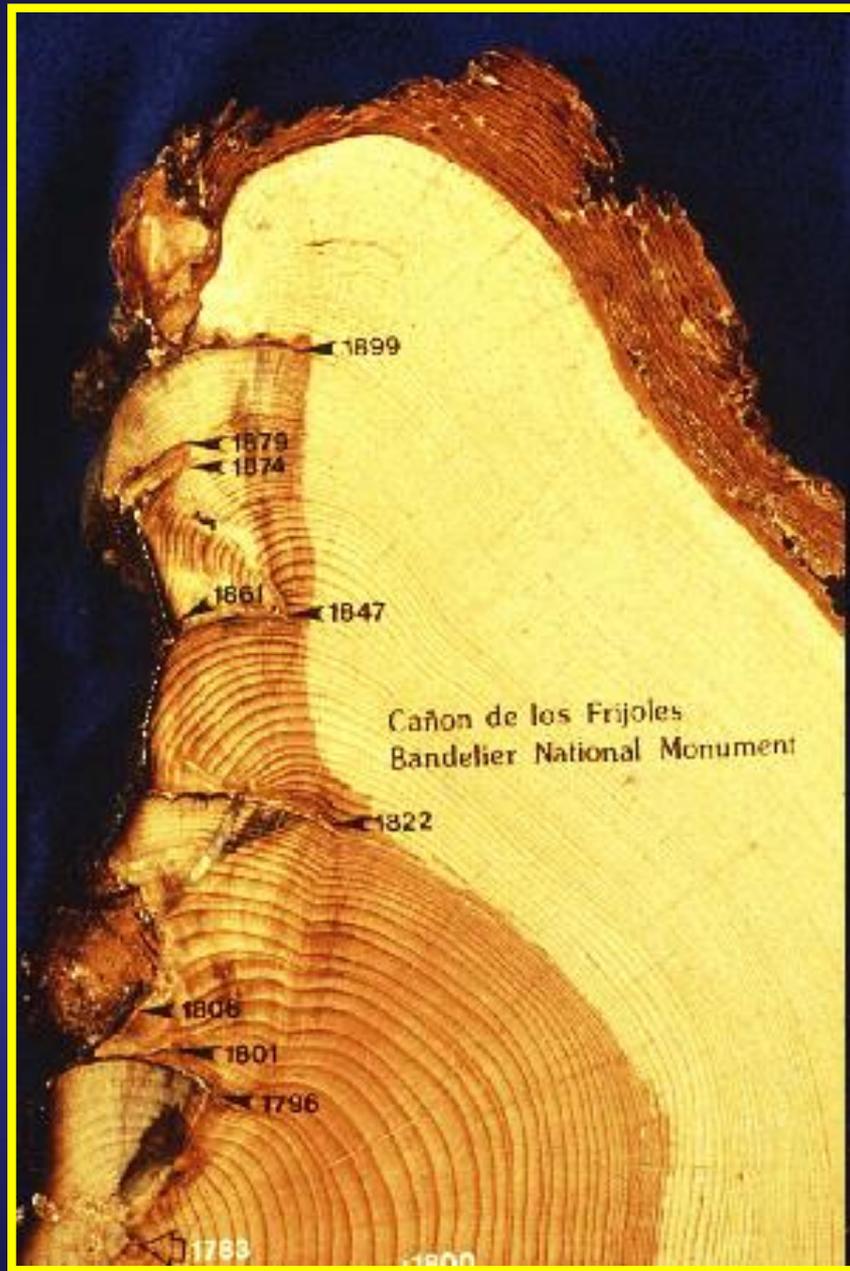
Recovering From Wildfire Workshop: Resources for Private Landowners

San Andreas, CA

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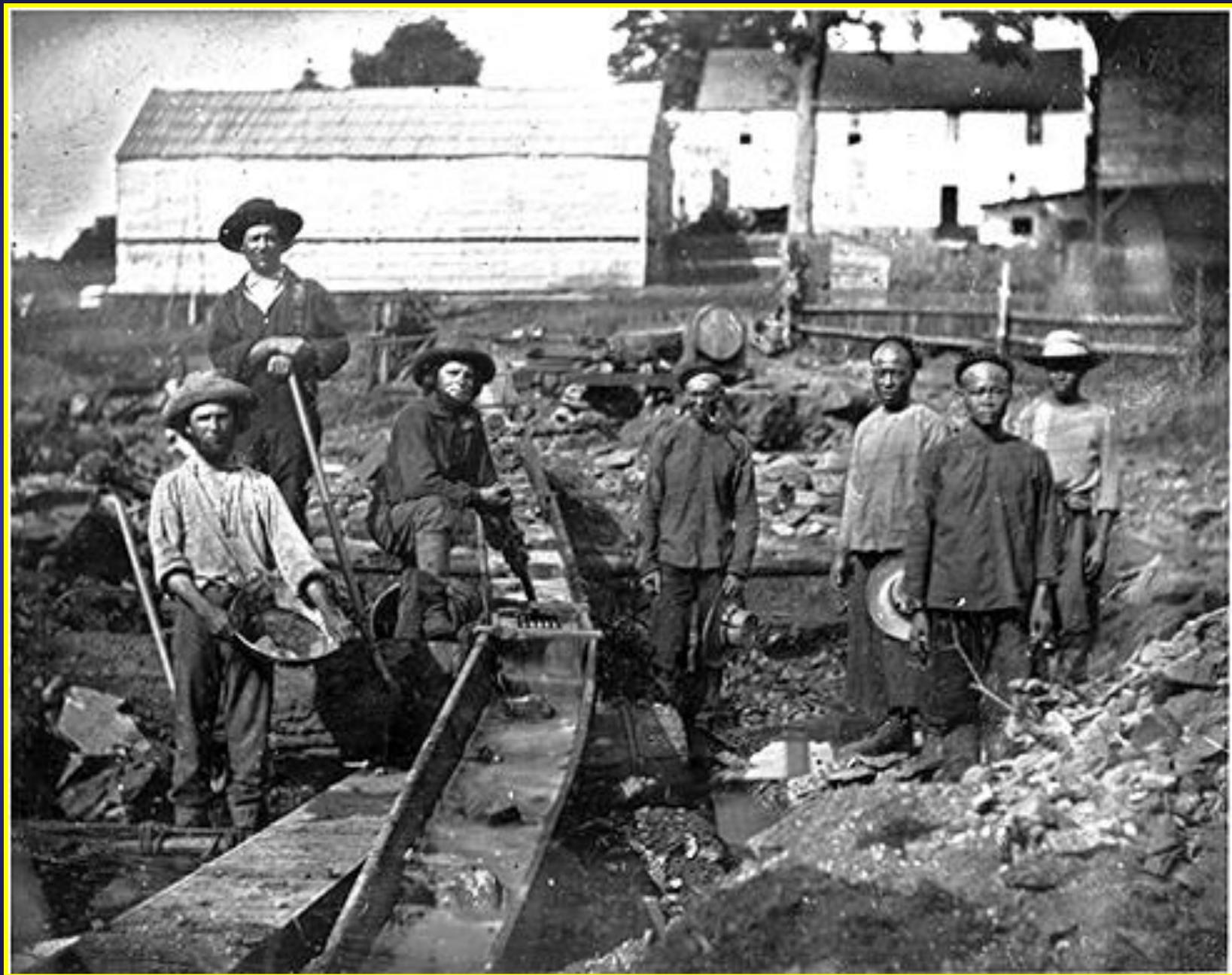


Cañon de los Frijoles
Bandelier National Monument











PLEASE!



Only you can prevent forest fires

Lassen National Park

Early 20th Century



Same Place 1992



Prescribed or Controlled Fire

- Intentionally set under favorable weather conditions
- Seeks to mimic natural fire and remove flammable materials
- Also used to control vegetation and to remove noxious weeds
- Fires create and air quality concerns often limit ability to use
- Are also risks involved. Fires may escape!





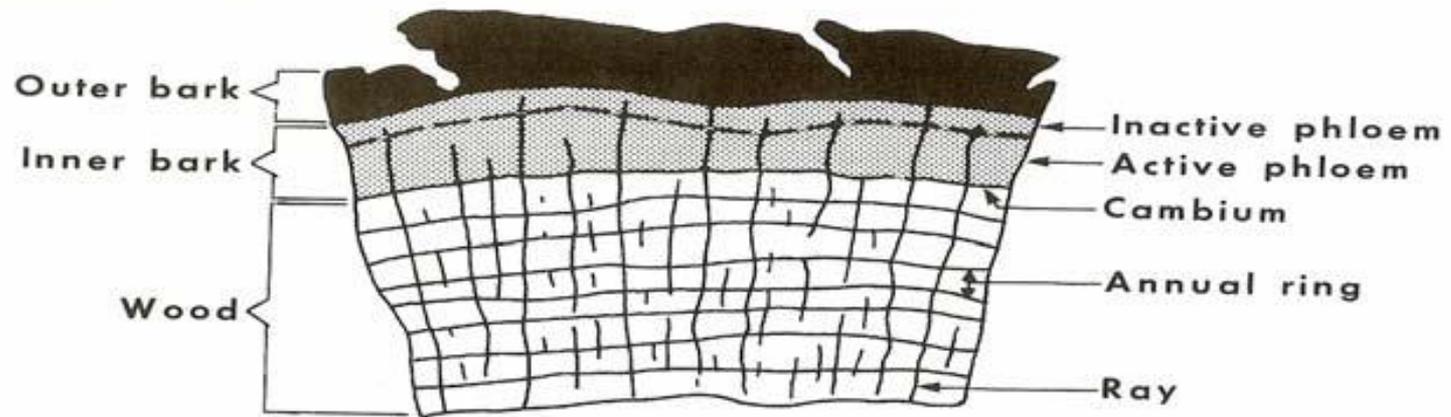


The Effects of Fire on Native California Oaks









Response of Oaks to Fire

- **Critical Factor is How Severely the Cambium Has Been Heated**
- **Trees with Thicker Bark Better Able to Survive Fires (Protects Cambium)**
- **Little Long-Term Damage From Defoliation**
- **Even if Top is Killed, Trees Often Sprout**









Fire Impacts to Oaks

- **Oaks Have Evolved in an Environment Where Fires Occur Regularly**
- **Oaks Are Able to Survive Low-to-Moderate Intensity Fires**
- **Scorching of Leaves Has Little Long-Term Impact**
- **Even If Tops of Trees Are Killed By Fire, Are Able to Sprout From Root Systems**
- **Reduction in Fires May Adversely Affect Natural Regeneration – But Not Clear**

Effects of Fire on Seedlings

- Even in low-intensity fires, seedling shoots are killed
- Almost all seedlings will resprout from their base following the death of the shoot
- Research indicates shoot death sets the seedlings back – don't grow as fast as if weren't burned in the first place
- Conclusion – fire doesn't seem to promote oak regeneration

General Recommendations

Cut Trees If --

Trees are less than 6 inches in diameter	Scorched all the way around their base
Trees are 6-12 inches in diameter	Have continuous charring around base with reductions in bark thickness
Trees are greater than 12 inches in diameter	Continuous charring with pronounced reductions in bark and exposure of wood
Trees have basal wounds on 50% or more of trunk	Trees are located in high-risk areas if fell down

General Recommendations

Retain Trees If --

Trees have lost all of their foliage (turned brown or fallen off)

Trees have sustained only minor stem damage

Trees only have spotty scorching around their base

At least 10% of the cambium is still alive

Trees are over 12 inches in diameter and scorched all the way around

There is no reduction in bark thickness from scorching

**Artificial Regeneration
of
Native California Oaks**



SIERRA FOOTHILL RANGE
FIELD STATION
← HEADQUARTERS

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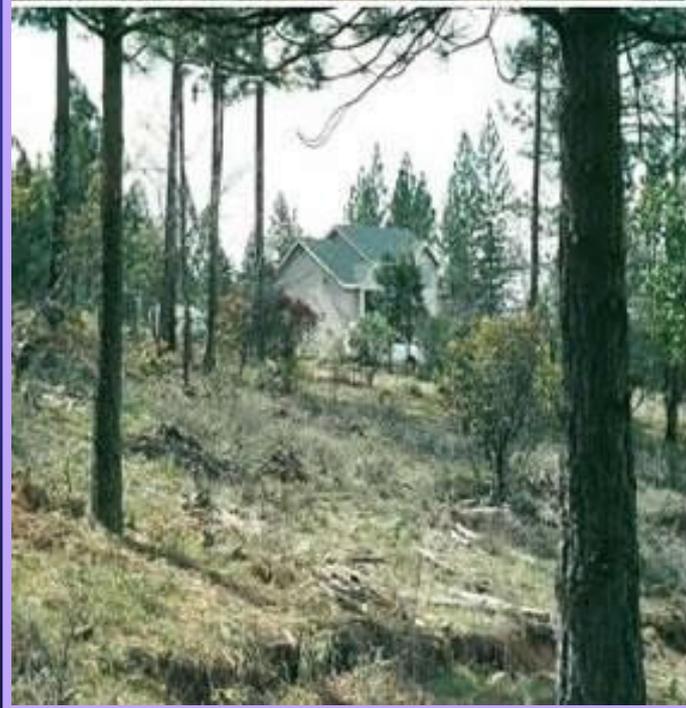






**Preventing
Damage From
Fires in the Future**









Internet Sources of Information on Fires in California

- <http://www.fire.ca.gov/FireEmergencyResponse/FirePlan/FirePlan.asp>
- <http://www.firesafecouncil.org/>
- <http://www.firewise.org>
- <http://www.fs.fed.us/database/feis/>
- <http://www.usfa.fema.gov/>
- <http://www.cnr.berkeley.edu/forestry/>
- [curr_proj/fireabatement/fire.html](http://www.cnr.berkeley.edu/forestry/curr_proj/fireabatement/fire.html)
- http://www.cnr.berkeley.edu/forestry/curr_proj/fireabatement/fireuc.html

OAK MANAGEMENT

http://ucanr.org/sites/oak_range/

- **Subject Area Pages**
- **Sources of Assistance**
- **Oak Woodland Blog**
- **Conference Announcements**
- **Oak Related Publications**
- **County Oak Activities**
- **Species Information**

End

