

Wildfires and Trees

Observations after the October 2017 Fires, Napa & Sonoma Counties

Napa County Watershed Information and Conservation Council

January 25, 2018

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My Experience:

Around Homes in the Atlas and Nunn's Fires

- Soda Canyon Road
- Atlas peak Road
- Westgate, Napa
- Glen Ellen



Crape myrtle

Coast redwoods





Japanese maples



Incense
Cedar



Camphor

Coast live oak



Live oak:
Blistered leaves





Burned
natural
litterfall
mulch

Loma Vista

Oak
woodland



Singed oaks



Two survivors
From
Candlestick Park



Imagine the heat









Mt. Veeder

Coast redwoods

Marked for
removal



Douglas fir

Marked for
removal



Mt. George Ave
Area.
Valley oaks





An olive tree



Loma Vista



Canary Island date palm



Looking under bark

Blue mold



Madrone



Looking
under
redwood
bark





Mt. Veeder: Singed redwoods



Lokoya
November 8



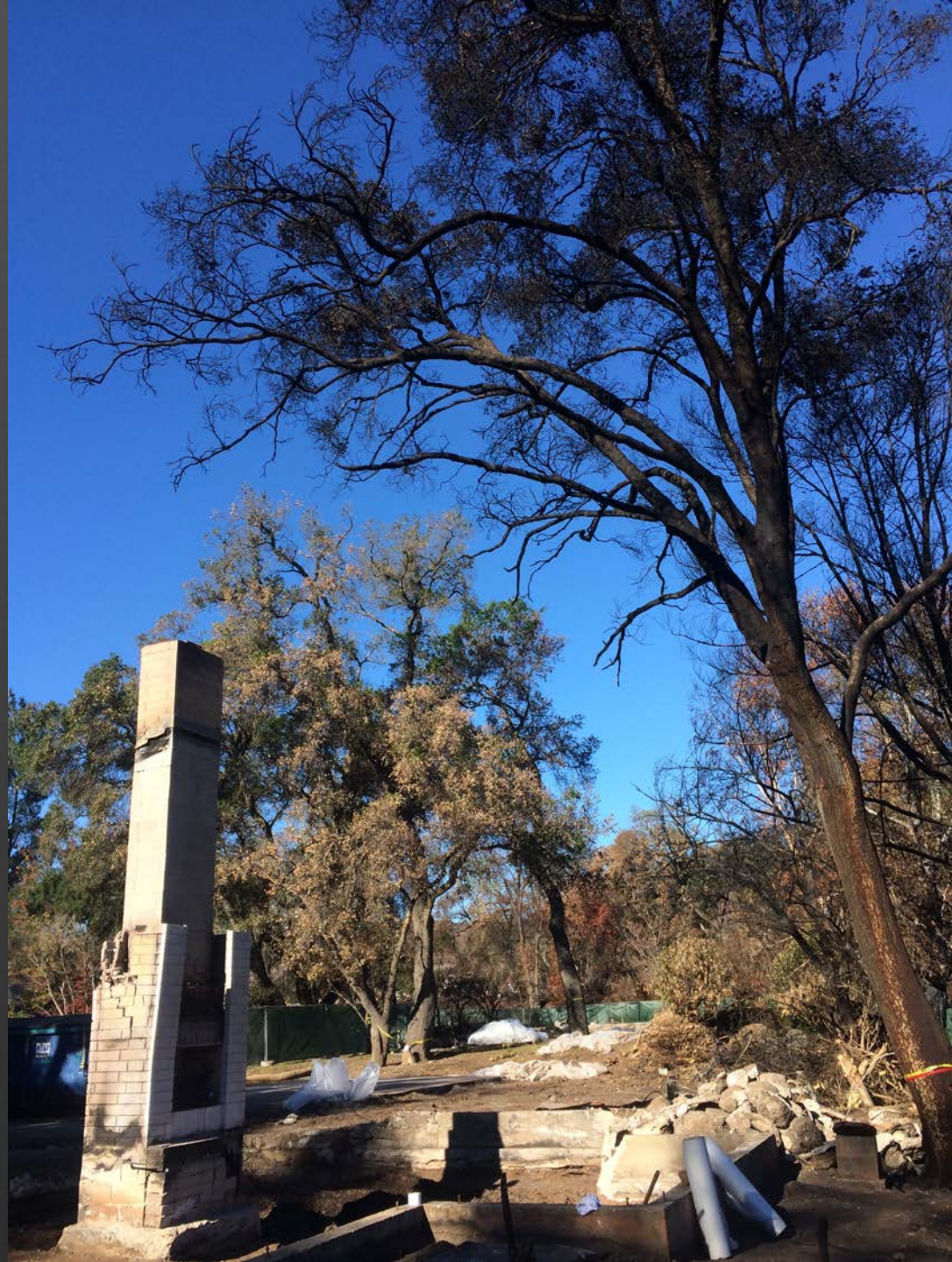
Judging severity
of burns

Bark burned away
on left



Judging severity of
Damage:
Live oak in
close proximity
to fire.

Branches burned



Coast live oak

Heat damage

No charring
Bark splits
open.



Cambial zone
and sapwood
discolored



Coast live oak

Less damage

White cambial zone



Japanese maple



Normal cortex
On the cool side



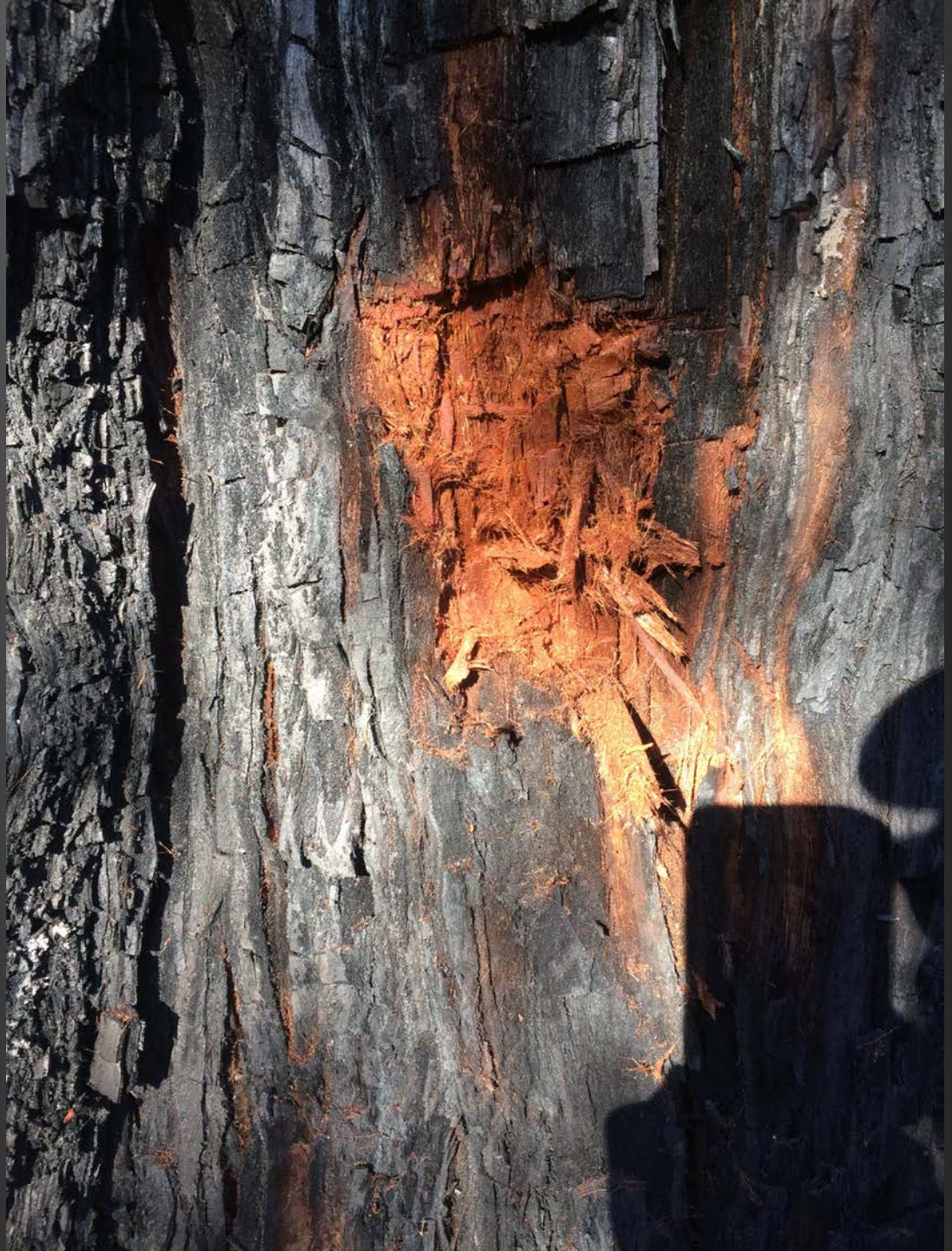
Discolored cortex
on the hot side



Coast redwood
Superficial charring



Coast redwood:
Moderate charring
Spongy bark is still thick



Coast redwood:
Deeper charring
Outer, thick bark burned
away.
Sapwood still white



Coast redwood:
Severe burn



Diagnostic tool:

Sharpened pick-hoe



December 6:
Burned valley oak
Sprouted new leaves



December 6

Partially burned
California bay laurel
sprouting



January 13

Cork oak
Sprouting
new leaves



January 13
After good rainfall:
Orange peel fungus
(*Aleuria aurantia*)

An indicator
the environment
is recovering



Conclusions

- Tree species vary in resistance to fire. Coast redwood and coast live oak appear to be most resistant. Maples and walnuts are not resistant.
- Proximity, intensity and duration of fire makes a big difference.
- Roots can burn underground.
- Coast redwood “fairy rings” with burned below ground cavities are next to impossible to assess with confidence.
- Exposed wood in open cavities burns more readily than inner wood in intact trees.
- Most of the fire-damaged trees I have seen do not appear likely to fail (fall over or fall apart) within one year.
- The majority of fire damaged trees I have inspected should be assessed again next summer.