
WILDFIRE SAFETY RECOMMENDATIONS FOR C4

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EXECUTIVE SUMMARY

The recent wildland fire history of Santa Cruz County demonstrates that cannabis cultivation can be a grave public safety and environmental threat in rural settings. It is our conclusion that safe and sensible cannabis cultivation in rural areas requires people resident on site, water & electricity, and adequate access to the site for emergency vehicles. Therefore, we believe that cultivation sites in mountain areas must include a permanent permitted residence, since only then would existing building and fire codes, if enforced, substantially mitigate the threat of wildfire.

Note that we do address fire safety issues neither around indoor cannabis cultivation in commercial zoned areas nor cultivation in agricultural and commercial agricultural zoned areas. In these areas, existing fire codes already apply.

INTRODUCTION

THE THREAT

Wildland fire lies at the intersection of public safety and the environment.

The Wildland Urban Interface [WUI] is defined by a condition, that wildland fire can easily spread to homes and overwhelm the available suppression resources. Santa Cruz County has the second highest percentage of residences in the WUI of any county in California, surpassed only by Riverside County.

Additionally, the recent introduction of both permitted and non-permitted rural residences in the county have placed hundreds of new residents in the WUI which has increased the number of fire ignitions and the number of people at risk because of these ignitions.

The Santa Cruz mountains stand out as a biodiversity hotspot within the larger, globally recognized California Floristic Province biodiversity hotspot. It lies at the southern end of the habitat of coast redwoods and includes areas of northern maritime chaparral, an Environmentally Sensitive Habitat Area protected by the California Coastal Act. The northern maritime chaparral of Santa Cruz County contains more endemic species of Manzanita than any other county in California.

The resilience of the coastal redwood forest here has been severely compromised by intensive logging and misguided fire suppression of the last century, resulting in dangerously high fuel loads from weedy, dead and dying transitional species. Chaparral is an outstanding example of a fire-adapted community; its fragile health is both dependent upon and conducive to frequent wildfire.

CANNABIS RELATED FIRES

Since cannabis related infractions have been treated as the lowest priority offenses in Santa Cruz County for decades, there are no good statistics available from the Sheriff's Office. Statewide, 95% of wildland fires in California are started by people, usually on account of ignorance or incompetence. While official County Fire/CAL FIRE statistics unfortunately don't differentiate cannabis related and non-cannabis related wildland fires, the consensus among the Incident Commanders of recent wildland fires in the county is that 2014 saw a 35% increase in cannabis related fires over dozens in 2013. Due to the missing statistics, we will concentrate on just two particular areas: Deer Creek / Lost Valley and the Summit.

DEER CREEK / LOST VALLEY

The Deer Creek cannabis cultivation region has some of the most egregious public safety problems in the County arising from unregulated cannabis cultivation. Fortunately, CAL FIRE usually is successful in suppressing these fires before they spread to the surrounding forest and homes. Of the 11 cannabis related fires since 2010, 7 are alleged to have resulted from arson, though official public statements are only made in case the District Attorney brings charges.

The region, located at the northern end of Santa Cruz County in Supervisorial District 2, is accessed on a matrix of over 10 miles of roads, most of them unpaved, originally built for seasonal logging. Only about 5% of these roads are in compliance with local and state fire standards for emergency fire access. (See Appendix 1 and section 503 of Appendix 2 for County and State requirements for fire access roads.) When driving these roads one is struck by dense forest clinging to steep canyons. It is contained in the triangle formed by Bear Creek Road, Highway 9 and Highway 35. (See the supplemental map in Appendix 3.) The area contains only the sites most visible in Google Earth spans approximately 1200 acres.

Rivalry between competing growers is believed to be the cause of the alleged arson incidents. One theory, according to a CAL FIRE investigator is that the goal of the perpetrators was to “do in” a competitor either by “burning them out” or attracting authorities to an illegal grow site, which would result in shutting it down

The remaining 4 of cannabis related wildfires in the region came from causes typical of cannabis related wildfires county wide. Most stemmed from either escaped cooking, camp, & debris fires, or from substandard wiring of greenhouses, or from inadequate vegetation clearance around generators.

All but four of the 11 fires were controlled before they reached $\frac{1}{4}$ acre; compare this with the statewide wildfire average of 98%. The remaining 4 grew to 4, 6, 7, and 22 acres. Due to the lack of proper road access and adequate water during the cannabis related 22-acre Castle Rock Fire in 2008, suppressing the fire required air tankers and helicopters, which drove the cost to \$20 million. Had the fire not been contained at that size, it could easily have swept up steep brushy slope to consume the entire Skyline Boulevard area. A more recent cannabis related fire off of Lost Valley Road burned within 1300 feet horizontally and 1000 feet vertically of the 125 homes in the Los Cumbres residential neighborhood above.

THE SUMMIT

Summit Road runs East Southeast from Highway 17 near its summit and marks the boundary of Santa Cruz and Santa Clara Counties. Red Dog Ridge runs South off of Summit Road about 16 miles from Highway 17. (See the supplemental map in Appendix 3.) Summit Road and its tributary roads are unpaved in this area; only about 40% are in compliance with local and state fire standards for emergency fire access. (See Appendix 1 and section 503 of Appendix 2 for County and State requirements for fire access roads.)

This is the center point for a robust cannabis cultivation region that has been thriving for more than a decade. Large semi-permanent greenhouses (also known as hoop houses) poke up out of the chaparral. Within 2.5 miles of Red Dog Ridge there are more than 30 grows spread over roughly 20 parcels. Many of the grows are owned by limited liability corporations which obscure the true ownership. Parcel sizes run between 10 and 400 acres. Cannabis growers were attracted to the area

because it is remote, and the high dry conditions in the transitional chaparral community, which has grown up after the stand-replacing 2008 Summit fire, are preferred by many local growers.

The history of cannabis related fires in the area is grim. There have been numerous brush fires and homes destroyed since the Summit Fire. CAL FIRE engines have been denied access by growers and sheriff's deputies have had to be called in to ensure their access. One site has suffered three explosions within two years, the last in February 2016.

FOUR RECOMMENDATIONS

RESIDENCE / SHELTER

The first requirement for fire safety is an adult on site at all times to detect when something goes wrong, summon professional help, brief responders on the situation upon their initial arrival, and, in the rare circumstance that it is prudent to do so, provide an initial response. This, in turn requires a permanent residence; having people camping or in temporary shelters on site adds to the danger on account of the risk of fire spreading from unattended campfires and recreational vehicles, not to mention public health impacts of a lack of sanitation. Moreover, having a permitted, permanent residence on site would automatically ensure that the remaining three recommendations are followed.

WATER

The most effective tool that can be deployed in the early stages of a wildfire is water to extinguish the fire. A single fire hose from a wildland engine distributes 100 gallons per minute. Obviously, fighting fire requires far more than a single hose. Hence there must be a large, dedicated reservoir of water on site; while cannabis cultivation itself requires water, there must not be contention for a resource which is likely to be scarce at precisely the times when wildfire risk is highest. Section 7.92.507.1 of the county fire code (see Appendix 4) requires a permanent 10,000 gallon tank on site, dedicated to fire suppression only, for newly permitted, permanent residences; this is in keeping with current best practices in the WUI nationwide.

ELECTRICITY

Even assuming that there is a portable pump, with standard fire fittings, on hand to draw water, deploying a pump takes at least 90 seconds, and this will be a time when seconds mean the difference between containment and escape of a fire. For that reason, the water requirement specifies that the water source supply 500 gallons per minute for 20 minutes, without power.

Nonetheless, cannabis cultivation typically requires ample power for lights, ventilation, and drying fans. Just as in the case of campfires, using a portable generator adds to danger of fire, from the wiring, proximity to nearby vegetation, and from the necessary fuel storage. Permanent and emergency electrical power requirements for permitted residences are covered in sections 604 & 605 of the state fire code (in Appendix 2).

ROAD ACCESS

You can't fight a fire unless you can get to it. Once there, you don't start fighting the fight until civilians are out of harm's way and there is a secure escape route for the firefighters. While it is true that some

rural areas where cannabis is currently cultivated are accessible by logging roads, the specifications for logging roads are entirely different from emergency access roads. Logging roads are only used for short periods in good weather. If a logging truck gets stuck, the other logging equipment at a timber harvest can be used to extract it, and the consequence is merely a delay in an already fluid timeline. If a fire engine, tanker, or other equipment gets stuck, not only is the escape route blocked for both residents and trapped firefighters blocked, but bulldozers must be brought in and other emergency equipment be diverted from fighting the fire to extricate the stuck vehicle.

FIRE CODE & ENFORCEMENT REGIME

EXISTING CODES

Once there is a permitted residence on site, the existing County and State Fire Codes apply and suffice to largely mitigate the risk of wildland fire. In addition to the State Fire Code in Appendix 2, access and onsite water requirements are contained in Section 4290 of the California Public Resource Code and vegetation clearance for defensible space is specified in Section 4291. (For both, see Appendix 5)

ENFORCEMENT

Just as in any other permitted activity, there needs to be an inspection to guarantee compliance with the existing codes before a cultivation license is granted. For grandfathered cultivation sites, this means requiring that existing residences be brought into compliance with county code and retroactively permitted. The bad habits, ingrained from decades when cultivation was illegal, and the ease with which non-compliant uses can be hidden behoove us to stipulate that there be regular, unannounced inspections post licensing. The process by which this enforcement takes place is beyond the realm of our expertise and should be handled by the county planning department and sheriff's office.

APPENDICES

1. COUNTY FIRE CHIEFS' ASSOCIATION FIRE PREVENTION STANDARDS
– [FIRE ACCESS ROADS](#)

<https://drive.google.com/open?id=0B-eh2eLiI5gdc3d2c1VGd0pSeFU>

2. [2013 CALIFORNIA STATE FIRE CODE](#)

<https://drive.google.com/open?id=0B-eh2eLiI5gdQVFKYzFydGJUeVU>

[2015 revisions](#)

<https://drive.google.com/open?id=0B-eh2eLiI5gdVGtGSWZOY2ppVXc>

3. SUPPLEMENTAL MAPS

Showing the [Los Cumbres residential neighborhood and Deer Creek Lost Valley cannabis cultivation region](https://www.google.com/maps/d/edit?mid=zIruXJ5mo7LM.kftDDXSOXKFg&usp=sharing). Online at:

<https://www.google.com/maps/d/edit?mid=zIruXJ5mo7LM.kftDDXSOXKFg&usp=sharing>

Showing the [Summit Road Red Dog Ridge cannabis cultivation region](https://www.google.com/maps/d/edit?mid=zIruXJ5mo7LM.kgRTLgqJmH20&usp=sharing). Online at:

<https://www.google.com/maps/d/edit?mid=zIruXJ5mo7LM.kgRTLgqJmH20&usp=sharing>

4. CHAPTER 7.92 OF THE SANTA CRUZ COUNTY CODE

[Concerning fire code.](https://drive.google.com/open?id=0B-eh2eLiI5gdX2g1RTI2N0h3N1U)

<https://drive.google.com/open?id=0B-eh2eLiI5gdX2g1RTI2N0h3N1U>

5. CALIFORNIA PUBLIC RESOURCES CODE SECTIONS 4290 AND 4291

[Concerning fire fighting water and vegetation management.](https://drive.google.com/open?id=0B-eh2eLiI5gdTW1qbks4NktaWFE)

<https://drive.google.com/open?id=0B-eh2eLiI5gdTW1qbks4NktaWFE>