











typically classified as ladder fuels. The standard of 75 square feet is lower than currently required, but also allows Maximum Sustained Production, as growth on residual trees is increased due to reduced nutrient competition.

The importance to allow for the cutting of larger trees is to promote an increase in Canopy Base Height (CBH) (which is one of the most effective ways to reduce the probability of torching and spread of fire into tree crowns) but also to reduce the horizontal continuity between larger, more established canopies that require greater modification in order to effectively prevent crown to crown travel of fire. The Emergency Notice as written already promotes the recruitment of larger trees in 14 CCR 1052.4(d) Vegetation Treatments. It states “Tree removal shall target understory trees. The residual stand shall consist primarily of healthy and vigorous dominant and co-dominant trees from the pre-harvest stand.” However, there is no current standard for addressing dead, dying, and otherwise hazardous trees to the infrastructure listed in 1052.4(c). Additionally, the current standards assume that the largest trees are always healthy and desirable to be left in the stand. A revision stating that the largest trees are required to be retained only if healthy would be helpful in maintaining the longevity of these fuel treatments, reducing the input of future large fuels in the stand from mortality, and protecting the assets listed in 1052.4(c).

In order to reflect the changes in stocking, canopy closure must also be revised and we suggest that the standards are revised to more closely reflect historical conditions. Canopy closure has drastically increased in forested systems since the inception of fire exclusion. Historic canopy closure as presented by Stephens et al 2015 is recommended as a guide to obtain fire resilience and effective fuels conditions for firefighting efforts. The current standards are much too high to slow fire rates of spread or provide a safe location for suppression efforts and are much higher than illustrated historical levels. In the data presented by Stephens et al (2015), the highest historical value for canopy cover percentage in fire resilient stands was less than 30% in all stand types, and even lower in most stand types.

Modification to stands that have at present experienced over 100 years of fire suppression should be treated to promote fire resilience, reduce competition, increase growth and recruitment of large trees, and allow for management and protection of dynamic stand types and ages for the benefit of all forest use in the future. As Stephens et al states, “Current forest restoration goals in the southern Sierra Nevada are often skewed toward the higher range of these historical values, which will limit the effectiveness of these treatments if the objective is to produce resilient forest ecosystems into the future.” We are proposing these revisions to inform standards for fuelbreaks with historic forest conditions which did not support the types of high severity wildfire that former Governor Brown dubbed “the new normal”. If we do not accept the “new normal” for our society, then there is indeed an Emergency need for the creation of fuel breaks and defensible zones.