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Agriculture

Forest
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Route To:

Subject: Conifer Forest Density Management for Multiple Objectives

To: Forest Supervisors and Directors

When we met at McClellan on April 21, I voiced my concern about density related forest health and agreed to clarify our direction and my expectations. This is part of the serious forest health problem in the Region and we need to be more proactive in addressing the density situation. This is necessary if we are to stem the spread of tree mortality and reduce fuel conditions supporting large fires.

The problem is most evident in Southern California where an extended period of increasing forest densification and now drought has resulted in unacceptable tree mortality across thousands of acres. Drought conditions that are currently occurring can be expected to continue. The situation has lead to severe fire risks including potential loss of life, cast a heavy economic cost to the local communities, and created a significant impact on the natural resources.

The Southern California situation is not unique. Forest health problems are emerging elsewhere. Tree mortality is now evident and spreading across the Southern Sierras. Many forested areas now have stand densities that exceed their biological potential density considering current drought conditions.

The Region's Fireshed Assessment Process provides an integrated approach to address desired conditions on a landscape. Thinning activities should be designed to achieve the multiple objectives of increased resistance to damage from crown fires, reduced surface/ladder fuels, reduced insect damage, and inter-tree competition, and restoration of densities more characteristic of the past under the influence of natural fire regimes. Placed properly on the landscape, thinnings also help protect denser forest patches with important habitat function from damage by wildfire. Economic considerations should be considered as well. When we address these objectives as part of fuels and vegetation management, our forests will be healthier and our work will be more efficient. I am aware of situations where projects have been planned and implemented to meet more limited objectives by treating only surface/ladder fuel and postponing upper canopy thinning, or by thinning so lightly that health risks return in too short a period of time. Projects must be viewed to meet multiple objectives and be effective for longer timeframes.

Therefore, when designing thinnings ensure that density does not exceed an *upper* limit (for example: 90% of normal basal area, or 60% of maximum stand density index); this is a prudent way to avoid the health risks associated with density. Design thinnings to ensure that this level will not be reached again for at least 20 years after thinning.



The Directors of NRM (lead), EC, EP, FAM, and S&PF will continue to coordinate and provide oversight of these efforts. Also the Directors will assist forests in achieving better density management by including this topic in reviews and functional assistance trips, and by incorporating density management principles in relevant training sessions (for example: Fireshed Assessment Process Training, Silvicultural Certification Training, Continuing Education in Fuels Management Training).

/s/ Bernie Weingardt (for)
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cc: Michael Landram, Ray Hermit