Forest Health Protection
Pacific Southwest Region

Date: August 30, 2010
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To: Patricia Grantham, Forest Supervisor, Klamath National Forest

Subject: Biological Evaluation of Tennent WUI Strategy – Goosenest Ranger District (FHP Report No. N10-008)

On June 1 – 4, 2010, Cynthia Snyder (Entomologist) and Pete Angwin (Plant Pathologist) from Forest Health Protection visited the Klamath National Forest to review past, current and future thinning projects requesting FHP funding with Roger Siemers (Klamath National Forest SO).

On June 4, Cynthia, Pete and Roger were joined by Sam Solano, Tori Blakeney and Mike Reed (Goosesnest Ranger District) and to look at possible thinning projects to be proposed for FY2011 Western Bark Beetle Initiative funding.

Observations and recommendations for the planned projects areas are as follows:

Round Valley Plantations
The Klamath NF wants to accomplish 957 acres of thinning, piling and burning in Round Sink, Pollic Sphere and Cedar Circle ponderosa pine plantations in FY2011. This project area is covered under the Tennant WUI Strategy NEPA (Tennant WUI EA Decision and Round Valley EIS Decision and Memo). We visited plantation units 730-2 (N41º40.792', W121º55.660'), 730-5 (N41º40.646', W121º55.078'), 730-7 (N41º40.105', W121º54.295') and 722-32 (N41º44.160', W121º52.052'). Plantations were planted in the 1980s in the Round Mountain and Cedar Circle Areas. Trees were originally planted at 6-8 foot spacing, about 450-600 trees per acre (TPA). Stands have a current density of approximately 300 TPA, primarily 4-8 inch DBH, reaching capacity with canopies interlocking and self-pruning starting to occur. The trees are primarily precommercial-sized ponderosa pine, 25-45 years old with the majority of the trees occupying the codominant crown class, creating a closed canopy (Figures 1 and 2). The stands are becoming very dense, and the risk to attack by western and mountain pine beetle (*Dendroctonus brevicomis* and *D. ponderosae*, respectively) is increasing. The risk to crown fire and mortality from drought is likewise increasing. To address this problem, the District plans to thin the plantations, leaving only the healthiest, most vigorous,

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Figure 1. Plantation pines at about 6 foot spacing.

Figure 2. Stand is very dense.

defect-free trees, mastication may be used to remove brush and precommercial-sized trees. Stocking levels will be reduced by thinning to a 20-30 foot spacing. This treatment will be sufficient to reduce bark beetle risk and meet Regional Density Management policy.

Thompson Ranch

We revisited Thompson Ranch stand 728-3 (N41º40.056', W121º50.116') which had a juniper removal/pine release thinning in 2009-2010 (Figures 3 and 4). The juniper removal revealed a ponderosa pine stand that would benefit from a follow-up timber sale; this is a possibility that would not have been sale-able prior to the juniper removal. It is expected that the residual pines will show benefit of the release with increased growth and vigor over the next couple of years improving wildlife habitat and future stand resiliency to stress. Down juniper will be made available for fuelwood cutters.

Figure 3. Residual ponderosa pine stand after juniper removal at Thompson Ranch.

Figure 4. Ponderosa pine stand would benefit from follow-up timber sale.

Orbit Juniper Removal

Stand visited (N41º39.805', W121º56.180') consisted of 20-40% ponderosa pine and 60-80% juniper across 600 acres. This stand has already been sold as part of a commercial timber sale and the Forest would be asking for WBBI funds to do follow-up

juniper removal of trees less than 4 inches DBH. I suggested that this not even get submitted as it was not suitable for WBBI funds and very low priority for suppression.

Supporting Details	
Forest Type	Plantations
Location	Tennant and Round Valley WUIs
Landscape Treatment	Thin to 15-30 foot spacing, pile, remove for biomass
Proposed Treatment	Mechanized thinning followed by hand where needed
NEPA	Tennant WUI EA Decision and Round Valley EIS Decision and Memo
Proposed Acres	957
Requested Funding	$143,550
Total Cost Per Acre	$150
Matching Funding	
Species Composition	PP, WF
Current Diameters	4-8 inches
Residual Diameters	6-8 inches
Current Stocking	300 TPA
Target Stocking	150 TPA
Agents of Concern	*D. brevicomis, D. ponderosae*
Recent Activity	None
Current Susceptibility	Moderate susceptibility at this point in time

Summary

The proposed treatments, if fully implemented, will be effective in addressing concerns regarding bark beetles, fire and drought, and will meet the Regional Forester's density management policy that high risk density levels will not be reached again for at least 20 years. I fully support the treatments as described.

If you have any questions regarding this report and/or need additional information please contact Cynthia Snyder at 530-226-2437 or Pete Angwin at 530-226-2436.

/s/ Cynthia Snyder

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CC: Roger Siemers, Sam Solano, Dan Blessing, Mike Reed, Pete Angwin, Sheri Smith, Julie Lydick and Phil Cannon

References:

Oliver, W. W. 1995. Is self-thinning in ponderosa pine ruled by Dendroctonus bark beetles? Proceedings of the 1995 National Silviculture Workshop, May 18–21, Mescalero, New Mexico, 21213–18. General Technical Report RM-GTR-267. Fort Collins, CO: U.S. Forest Service.