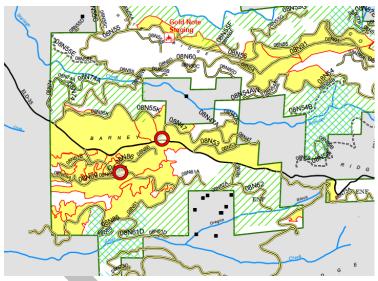
Amador Calaveras Consensus Group (ACCG)

[EXCERPT] Planning Work Group Meeting Summary, June 26, 2019, Pioneer, CA Combined Comments from Rich Farrington, Craig Ostergaard, and Ben Solvesky -- 9/18/2019

Scottiago Field Trip

The ACCG Planning Work Group hosted a field trip in the Scottiago Forest Health Project area on June 26, 2019 exploring how to mechanically increase forest complexity and spotted owl habitat quality in uniform stands. Field trip participants visited two commercial thinning sites in spotted owl Home Range Core Areas (HRCA) that were treated under the CASPO guidelines (GTR 133, spotted owl strategy in place from 1992-2001). Units in these areas were previously treated with dbh limits in the low-to mid-20" range within the past 20 years. Under CASPO prescriptions, most of the trees less than 20" dbh were removed, and the residual trees are now fairly evenly spaced. Eventually the goal is to create fire and climate resilient high-quality



nesting, roosting and foraging habitat where appropriate in the project area.

Several forest management experts, including USFS Pacific Southwest Research Station ecologists Malcolm North and John Keane, attended to offer their insights on management approaches. Key takeaways included:

- Climate Change Implications for Scottiago stand Prescriptions GTR 220 prescriptions were tested in a Southern Sierra Forest (Dinky Creek) and there was a large amount of tree mortality afterward. When asked why, M. North thought not enough trees were taken out.
- "Clumps and Gaps" stand structure is more beneficial over uniform spacing. Gaps are especially important for large clumps to allow for roots to expand and for fire protection. Tall, big trees in "wet" areas for clumps with tight crown closure benefit owl nesting. Make gaps around clumps that open the canopy, allow light in and accelerate growth of clump canopies. Gaps increase horizontal heterogeneity and habitat complexity by providing open areas, patches of shrubs, and areas for tree regeneration next to higher density clumps that owls need for protection from predators. In some cases, it may be necessary to remove trees greater than 30" DBH to create gaps. However, because >30 inch trees provide important owl habitat, gap placement should minimize larger tree removal whenever possible. Clumps could be 3 to 15 trees or so. Gaps could be as large as ¼ to ½ acre in size. Fire can add natural gaps by killing trees, which is acceptable. Gaps should be greater in number on dry, ridge and south slope sites, and fewer in wet sites.
- **Oaks** with cavities can be nesting habitat for owls. Oaks should be retained and gaps could be created next them to let in light so they don't get shaded out by conifers. However, oaks could also be thinned around to increase light and left in clumps if it would improve future habitat for spotted owls.

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- **Ground fire** is needed to reduce duff and eliminate ground fuels in clumps and gaps. Otherwise burning heavy ground fuels can damage clumps. Avoid high canopy cover of *ladder* fuels.
- **Restricting +30" tree cutting** can be a future problem if all the trees in a clump are over 30" and thinning is needed to grow the trees taller, increase canopy closure, and regenerate young replacement trees. Trees will not grow much or be able to reproduce.
- Use water availability/soil quality as guide. Wetter areas can support larger/denser clumps; gaps between trees can be as small as 6-8 feet (approximately 12 feet but could be as small as 6 feet). For drier areas, aim to create 12-15 foot spacing between intermediate-sized trees. After thinning ladder fuels and intermediate-sized trees, thin white fir and cedar co-dominants in *drier* areas; some co-dominant thinning may be needed in wetter areas.
- **Prey availability**. Small mammal (e.g., woodrat, and others) abundance and availability also affects the quality of habitat for spotted owls. Gaps are important to increase shrub and understory habitat to for some small mammals to improve owl foraging habitat. Woodrat upper range is about 4,000 feet elevation. Only relevant to lower elevation forest service lands. Upper elevation prey includes flying squirrels.
- Thinning around existing tree groups. If the stand is in a high quality growing site, thin around the clumps. If the stand is in poor/thin soil, creating gaps may increase forest health. Conifer regeneration in the gaps should be thinned by PCT and or fire to increase growth of understory stand and to prevent the creation of ladder fuels or to maintain open gap conditions.
- Allow fire to burn large dbh areas. Mechanical thinning treatments are limited for areas dominated by large dbh trees (i.e., cannot remove trees with >30" dbh). Prescribed fire may be an option in these areas.
- **Rely on multiple rounds of experts to mark trees.** After trained crews initially mark trees for thinning, bring in experts (e.g., wildlife biologists and local silviculturists) on site to check and provide recommendations.
- Wildfire threats. Analyze likely direction of wildfires when deciding on a thinning strategy. Consider creating larger gaps in places where wildfire threats are higher.
- **Future field trips.** Consider visiting the Callecat project site where GTR 220 was used for the first time. Dinkey Creek is an example of GTR 220- prescriptions impacted by tree mortality.
- **Thoughts on Purpose of field trip:** to inform future projects. What are the implications of utilizing DxP (Designation by Prescription) to achieve vertical and horizontal heterogeneity.