

Uneven-aged Working Group Update -July 13, 2021

○ Overview

- The working group, through discussion and examination of the issues, has identified no problems with the general basal area retention requirements (e.g., 75 sq. ft. for Site II and III) per se- at least not in the same vein as the point count standard, which was somewhat archaic with increased stocking survival. Rather, it is the application of these standards in certain situations that require more flexibility that have caused concern, as well as technical issues that can improve the overall objectives of uneven-age management.

One issue was identified at the outset- the issue of flexibility in using uneven-age management in areas of mixed conifer. As has been well documented, the use of uneven-age management in these stands has resulted in much higher stocking levels of shade tolerant species like white fir. Group members expressed concern that the only alternative in many cases is the use of even age management. For some landowners, this presents a problem for various reasons, such as long-term management commitments that preclude the use of those methods. Since the formation of this group, increasing attention has also been placed on overall spatial arrangement. The rules themselves are geared to a well-distributed and evenly distributed stand, but there are indications that “patchy” distributions may be more favorable to overall stand resilience in certain fire conditions.

The issues identified because of these discussions focus on several primary issues discussed below.

○ #1- Alternative RX

- The group discussed the applicability of Alternative Prescription methodology in lieu of promulgating a new standard rule. Alternative Prescriptions fit the problems identified somewhat neatly. They are designed to allow a silvicultural system that is tailored to site specific conditions.

Also, under 912.7, an alternative stocking standard may be proposed for any regeneration method provided:

- (A) Improved fire resilience; or
- (B) Increased drought tolerance; or
- (C) Improved forest pest and disease resistance; or
- (D) Increased carbon sequestration rates and climate benefits related to forests and durable wood products; or
- (E) Appropriate stocking for resilient forests in a changing climate; or
- (F) Avoidance of large-scale disturbances which promote homogeneity in forests.

General experience has been that such creative “non-standard” approaches are met with skepticism by reviewing agencies, which in turn leads to extended review times. Such review times are especially problematic for non-industrial landowners, who lack the staff and financial resources to undertake such an endeavor. It is potentially problematic for landowners committed to uneven age management under NTMPs and SYPs.

○ **#2- Group selection issues**

- The group discussed utilization of openings larger than those contemplated by the forest practice rules. Currently the rules provide for openings of up to 2.5 acres, but the group contemplated the potential of utilizing group openings of up to five acres. The rationale for this was that on some areas larger openings might have more efficacy. Examples given included utilization of group selection in cable logging.
- The group discussed unique situations involving third generation entries into areas previously harvested under group selection. The issue discussed was whether adjacent areas that have suitable minimum stocking but don't meet the basal area requirements might be able to utilize the standard identified under commercial thin for trees less than 14 inches diameter breast height.
- The group discussed utilizing more group openings than the 20% contemplated by the rules. Discussion focused on the possibility of moving this standard to approximately 1/3 of the stand.

○ **#3- Transition method**

- The group discussed utilizing the transition method in areas of single tree selection. This would mean using this expanding this method to not only encourage uneven age structure, but to gain control of species composition (see opening remarks). This could also apply in certain coastal areas, according to those RPFs practicing there. After much discussion, it was concluded that a field tour would probably be needed to demonstrate how and when this prescription could be applied.

Transition Silviculture Potential Changes as discussed:

1. Eliminate the upper limit of stocking, which is presently 150 sq. ft. BA/ac for Site I and 125 sq. ft. BA/ac for Site II, III, IV, and V. Allows for transitioning overstocked mixed conifer forests dominated by white fir back to ponderosa pine dominated stands.
2. Reduce Site I stocking level from current 85 to 50 sq. ft. BA/ac. Allows more flexibility and more incentive to practice unevenaged management on the best sites. This would be the one FPR standard that should be examined as potentially being too high for Selection.
3. Allow up to 35% of the area in group clearings with a requirement for immediate postharvest restocking of groups with appropriate species to meet point count stocking within 5 years if more than 20% of the area is harvested in groups. Allows more area to be actively regenerated with the proper species.
4. Remove the requirement for Selection regeneration method after two subsequent Transition entries. Allows for more flexibility in transitioning stands to a more regulated unevenaged state, and also allows for adaptive management as current research is indicating maintaining lower standing inventory levels for more drought and fire resiliency, which reflects data from pre-fire suppression stands and also more allowance for clumpy/gappy stand structures such as described in the ICO Guide. High stocking levels may not lead to Maximum Sustained Production if mortality is increased due to high levels of competition for soil moisture.

- **14 CCR § 913.4(d) - Variable Retention Silviculture:**

Objective: Several questions have been raised regarding implementation of this Special Prescription: (1) Should the Variable Retention regulation specify a minimum re-entry period for designated retention areas?; (2) Should the current regulation require a minimum stand age necessary for harvest to occur in order to demonstrate maximum sustained production (MSP) as is required for even-age silviculture under 14 CCR § 913.11(c)?; and (3) Are the minimum stocking requirements of CCR § 913.4 (d)(3)(H) relative to aggregate versus dispersed retention clear enough for consistent application and enforcement?

Status: No reportable actions were made on this topic in 2019.

- **14 CCR § 913.2 (b) – Transition Silviculture:**

Objective: It has been reported that CAL FIRE does not allow use of the Transition silviculture method in timber stands which were most previously harvested utilizing the Selection method. This ‘policy’ is not consistent with 14CCR § 913.2(b) or (b)(2). THP was returned on this issue without being evaluated through PHI to support the determination.

Status: No reportable actions were made on this topic in 2019.

- **#4- Southern Sub District Rules**

- Following the fires in the CZU last year, some foresters have asked for examination of the Southern sub-district rules, which are prescriptive and require significant retention of trees post-harvest. The issue here would be to examine whether lowering these requirements would be helpful in managing stands for more resilience. This is an emerging issue and will require more investigation. Issues to consider include:

- Allow more harvesting than 50% of trees between 12 and 18 inches?
- decrease BA retention for Site I (125 down to 100) and II lands (100 down to 75)?
- remove requirement for 75' between leave trees?
- allow for group selection units up to 1.5 acres in size as long as they contain seed tree seed step retention?

Of these, the primary focus will be to examine possible reduction of trees retained in smaller size classes.

- **#5- Technical Issues**

- Technical issues discussed by the group include items such as:

- Allow for basal area credit hardwoods as well as snags (like current oak silviculture standard). Allow for lower snag standards (smaller sizes allowed).
- Allow for more flexibility in group B justification- like current oak standards.
- Rules do not reflect heterogeneity in many stands.
- More flexibility for plan submitters on the “8 18” rule to allow for better spacing.

As to the last issue (the commonly referred to as "8 18 or 4 24" rule) it is stated in 913.2 (a) (2) (A) 4:

"Unless the plan submitter demonstrates how the proposed harvest will achieve MSP pursuant to 14 CCR § 913.11 [933.11, 953.11] (a) or (b), the residual stand shall contain sufficient trees to meet at least the basal area, size, and phenotypic quality of tree requirement specified under the Seed Tree method."

This issue has been in question for many years. In fact, the Department raised this issue many years ago by stating:

The minimum leave requirements are the same as for the seed tree method. The seed tree method applies to even-aged management and the selection method to uneven-aged management. The Review Team and CDF field foresters have difficulty in assessing the impacts of proposed timber operations which have "selection" designated on the timber harvesting plan. Currently, the stocking of the residual stand (four seed trees 24" DBH or eight seed trees 18" DBH) often prohibits the use of the selection method. "Diameter cuts" or "modified selection methods" are prescriptions result in even-aged stands, contrary to the objective of selection. Cutting practices are economically oriented and not necessarily aimed at stand age-class improvement.

○ **Next steps:**

The Working group will be meeting via zoom over the weekly over the next five weeks, discussing each of the five issues separately, to determine what possible recommendations can be made to the Board.