

Synopsis of the Cedar Valley Strategy from Resolution of Timely Comments Cedar Valley Project Environmental Analysis

The Cedar Valley Strategy evolved from public recommendations for creating more heterogenous stands by emphasizing the reestablishment of ecological processes across the landscape. It was further modified as a consequence of public comments on the Cedar Valley Project during a public field review conducted on June 8, 2007

The modified prescription maintains a higher level of canopy cover in the highest quality fisher habitat (CWHR 5D) and provides heterogeneity across the landscape by retaining shrub/understory patches and higher densities of 20-30" dbh trees when they are associated with clumps of larger trees (>30" dbh). Average canopy cover of a stand should not drop below 50% (overall) where it currently exists and portions of the treated stands would be maintained at 60% or greater canopy cover (primarily in the high quality fisher habitat).

Following are the specific modifications that comprise the Cedar Valley Prescription:

1) Retain greater than 60% canopy cover in habitat classified as CWHR 5D. Maximize the retention of areas with high canopy cover and large trees. Such areas are more favorable for fisher resting/denning.

2) Retain higher basal area than the balance of the stand in areas where large trees (>30" dbh) are clumped with 20 to 29" trees interspersed. Increase the basal area target to approximately 80 percent of full stocking which would be from 180 ft²/acre to 240 ft²/acre for mixed conifer and to 210 ft²/acre for ponderosa pine stands. To increase the basal area, add only trees larger than 20" dbh if they are available. This will allow an additional number of larger trees to be retained in denser clumps at basal areas that are more reflective of resting/denning sites. It will create heterogeneity across the landscape with a higher density of medium and large trees in some places. Over time, mortality in large to medium sized trees in these clumps could produce valuable large snags and down woody material.

Approach: Initially, it was important to recognize the groups or patches that were present in the stands. Then the approach worked as follows:

1. Look for groups or patches of five or more large trees
2. Determine if the trees present in the group or patch were >30" dbh
3. Determine whether or not the trees being retained in the group or patch had touching or nearly touching crowns or could have by retaining additional trees

4. If necessary, retain additional trees to create groups or patches of large trees that had touching or nearly touching crowns.

5. Use the basal area target to determine whether or not to harvest trees with marginal value for increasing crown closure and/or forest health or ones on the edge of a group or patch

3) Retain some patches of understory shrub, hardwoods and small trees across the landscape with a rough target of 10 to 15% of the area to be treated. This is intended to provide understory cover and habitat for fisher and its prey. Riparian areas and steep slopes within the area to be harvested may contribute sufficient amounts of this type of habitat already. A balance is necessary because retention of too much shrub habitat can pose an increased fire risk which is adverse to the purpose of benefiting fisher.

4) Develop a monitoring approach to measure the overall canopy cover of the stand and the canopy cover within the high value habitat after the commercial thinning phase of the project is completed then again after the cultural and fuels treatments have been completed.

Approach: Prior experience on the Sierra has shown that canopy cover can be determined within +/- 10 percent at an 90 percent confidence limit by measuring cover at 8 to 14 systematically selected random points in a homogenous stand of trees. So, in the selected polygons that are 20 acres or larger 14 random points will be measured in the field for canopy cover using a moose horn and a digital camera (a method recently developed by Steve Hanna, Sequoia and Sierra Forest Silviculturist). Selected polygons of 20 acres or less will be combined with adjacent ones for monitoring.

Aerial photo classification of canopy cover is considered by most practitioners to be the most accurate method. To validate the field measurement approach, the selected polygons will be measured before commercial thinning and the canopy cover determination compared to the classification made under Suggestion No.1. If the determination standard of +/- 10 percent at an 90 percent confidence limit is not being achieved by at least one of the measurement devices, the monitoring approach will be revised as necessary (i.e. increase the sample size).