Figure Legends

Figure 1—Regular spacing of "leave' trees in a defensible fuel profile zone.

Figure 2—An example of the clumped tree distribution and canopy gaps produced by an active fire regime. The photograph is an aerial view of the Beaver Creek Pinery, which has experienced very little fire suppression.

Figure 3—Pacific fisher resting on a limb of a large black oak. Although this picture is from the Klamath Mountains, it is typical of the stand conditions associated with fisher resting locations.

Figure 4—Photograph taken in 1929 of mixed-conifer forest before thinning and approximately 40 years after the last fire, near Pinecrest, California. Note the extensive cover of understory shrubs, particularly under the canopy gap in the foreground.

Figure 5—Transect of a mixed-conifer forest in Yosemite National Park's Aspen Valley, which has experienced three understory burns within the last 50 years. Note that the stand has vertical heterogeneity but that trees in different canopy strata tend to be spatially separated (drawing courtesy of Robert van Pelt).

Figure 6—Stand-level schematic of how forest structure and composition would vary by small-scale topography after treatment. Cold air drainages and concave areas would have high stem densities, more fir and hardwoods. With increasing slope, stem density decreases and species composition becomes dominated by pines (mature tree drawings courtesy of Robert van Pelt).

Figure 7—Mixed-conifer stand structure at Aspen Valley, Yosemite National Park, produced by frequent, low-intensity fire. Note the higher stem density and hardwoods in the seep drainage in the background.

Figure 8—Upslope stand conditions where thinner soils and rock outcrops are often associated with drier conditions, and lower density forests, which burned frequently.

Figure 9—Landscape variation in burn intensity on the Moonlight Fire (2007), Plumas National Forest.

Figure 10—Landscape schematic of variable forest conditions produced by management treatments that vary by topographic factors such as slope, aspect, and slope position. Ridgetops have the lowest stem density and highest percentage of pine in contrast to riparian areas. Midslope forest density and composition varies with aspect: density and fir composition increase on more northern aspects and flatter slope angles (mature tree drawings courtesy of Robert van Pelt).

Figure 11—Density of live trees (stems per hectare) in seven size classes for seven conditions in the Teakettle Experiment. The five fuel-reduction treatments (prescribed burn only, understory thin, understory thin and burn, overstory thin, and overstory thin and burn) retain the same reverse-J-shaped diameter distribution as the pretreatment (fire-suppressed old growth) and do not approximate the reconstruction of the diameter distribution in 1865 active-fire conditions. Reconstruction methods probably underestimate the number of small stems in 1865 active-fire conditions, but even a three- to fourfold increase would not produce a reverse-J distribution. (reprinted from North et al. 2007).

Figure 12—Fire suppressed stand in the Teakettle Experimental Forest with white fir (Abies concolor) 20- to 30-in d.b.h. with ladder fuel potential.

Figure 13—MultiAged Stocking Assessment model of a three-strata (or three-cohort) Oregon ponderosa pine (Pinus ponderosa Dougl. Ex Laws.) stand. Growing space can be allocated in a variety of patterns providing flexibility in stand structure design (from O'Hara et al. 2003).