

## 5.0 Management Recommendations

(Spencer, W.D., H.L. Rustigian, R.M. Scheller, A. Syphard, J. Strittholt, and B. Ward. 2008. Baseline evaluation of fisher habitat and population status, and effects of fires and fuels management on fishers in the southern Sierra Nevada. Unpublished report prepared for USDA Forest Service, Pacific Southwest Region. June 2008. 133 pp + appendices.)

***Maintaining Habitat Quality and Continuity*** – Our analysis of the current status of fisher habitat and the fisher population in the southern Sierra Nevada confirms that the population is small (160 to 360 individuals) and at risk of extirpation by stochastic events, including uncharacteristically large or severe wildfires that could fragment habitat and isolate fishers in smaller areas. *Management should strive to sustain and increase the area and continuity of fisher habitat at the landscape scale. Fuels management efforts should be prioritized in areas at highest risk of large, severe wildfire that could move through the relatively narrow band of fisher habitat or widen gaps between current habitat segments (e.g., corresponding with major river canyons).*

***Fuel Treatment Intensity*** – We recommend that fuel treatments be designed to reduce fire spread rates and severity based on site-specific analysis that also considers fisher habitat value in and near the treatment. In areas of very high fire hazard and outside of fisher habitat, a higher intensity treatment may be warranted. *Within fisher habitat, treatments should be designed to balance desired fuel conditions with maintaining sufficient overstory and habitat elements to Sierra Nevada Fisher Baseline and Fire Report 99 sustain or encourage occupancy by fishers. Removing larger trees and other essential habitat elements should generally be avoided within fisher habitat, to the degree feasible while meeting fuel reduction and landscape vegetation management goals.* There may be benefits to fisher of removing, for example, some larger firs or cedars to stimulate growth of black oaks, which provide important habitat elements for fishers and their prey.

***Fuel Treatment Location*** – Our simulation results suggest that placing treatments inside fisher habitat is not necessarily detrimental to fisher (at least for the limited range of treatment types and at the scale we simulated). The positive indirect effect of treatments in reducing fire size and severity can help protect fisher habitat value despite potential short-term, localized, negative effects on fisher. Because treatment effects on fire spread are relatively local, treatments inside landscape-level fisher habitat (areas of large tree biomass) may better protect fisher habitat than those placed outside fisher habitat (at least under the baseline fire regime). However, treatments in high biomass areas should still strive to maintain sufficient overstory canopy and avoid removing fisher habitat elements, such as large old trees that provide resting structures.