

Mechanical Treatment Methods in the Piñon-Juniper Type

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Abstract—Mechanical treatments in the piñon-juniper type are driven by the objectives of the treatment. Objectives of restoring meadows or grassland from encroachment or returning to a savanna can require a different method of treatment than thinning piñon-juniper woodlands. Often these types of objectives are intermingled within a treatment area as site characteristics vary across the landscape. Characteristics such as tree/shrub density and size, soils (or the lack of), slope, terrain, species, and selectivity of treatment method can determine the type of mechanical treatment(s) suited for an area. Management of the area following the treatment also can determine the type of mechanical method utilized. Post-treatment management of the site (need for soil/site stabilization, grazing management, wildlife habitat, etc.) and biomass material produced from treatments can define the needs of the mechanical treatment. Examples of variation of treatments are piling/windrowing material for burning, preparation for broadcast burning, lop and scatter, firewood harvesting, biomass harvesting for energy or other products, or maintenance. Treatment methods are presented including positive and negative attributes; selectivity/sensitivity to resource values and objectives; post-treatment management options; and relative or approximate costs.

In: Gottfried, Gerald J.; Shaw, John D.; Ford, Paulette L., compilers. 2008. Ecology, management, and restoration of piñon-juniper and ponderosa pine ecosystems: combined proceedings of the 2005 St. George, Utah and 2006 Albuquerque, New Mexico workshops. Proceedings RMRS-P-51. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station.

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