

VEGETATION RESPONSE TO POST-FIRE TREATMENTS

The number, size, and severity of wildfires have continued to increase throughout the past decade and the effects of these wildfires often lead to increased runoff, erosion, flooding, sedimentation, and vulnerability to invasive weeds. In response, the application of post-fire treatments to mitigate these secondary effects has also increased. In addition, post-fire salvage logging operations often occur in an effort to extract economic value from burned timber resources. The vegetative response to post-fire management activities are being monitored on the 2002 Hayman Fire in the Pike San Isabel NF in Colorado and more extensively on the 2005 School Fire in the Umatilla NF in southeastern Washington. Over 100 ground cover plots on each fire have been monitored annually to compare recovery in burned-untreated areas to burned areas that have been treated with hydromulch, hydromulch and seeding, seeding, contoured-felled logs, agricultural straw, wood straw, and ground based salvage logging. Monitoring results suggest that 1) vegetation on the hydromulch and contour-felled log treated sites is similar to the untreated sites; 2) seeded sites on the School Fire, where native grass was seeded at two times the normal post-fire treatment rate, has significant grass cover that may be inhibiting regrowth of native forbs and shrubs; 3) agricultural straw mulch may inhibit vegetation recovery; 4) areas treated with wood straw have fewer native shrubs and more tree seedlings than untreated areas; and 5) ground-based salvage logging may delay vegetative recovery and encourage invasive weed spread.