

SHF Iron-Alps Complex – Burned Area Emergency Response

Soil Resource Assessment

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Eagle Fire, Big Bar Vicinity

Executive Summary – Soil Resource Condition Assessment:

The SHF Iron-Alps Complex burned just over 105,000 acres, mostly upon slopes above the Trinity River corridor stretching from Junction City past Burnt Ranch in Trinity County. The Complex included 4 large (>5000 ac), 2 medium (1000-5000 ac), and 1 small (300-1000 ac) fires. Overall soil burn severity was found to be 54% unburned & very low, 29% low, 15% moderate, and 2% high. The high severity class has evidence of severe soil heating, evidenced by deep char, considerable destruction of structure and organic matter, and severe water repellency; these areas have long-term soil damage and high to very high erosion hazards. The moderate areas have extensive to complete vegetative mortality, but with less soil heating and having potential soil cover in most places; these areas are still sources of increased flows and sediment production in the near term (2-4 years). The remaining 83% of soils still have good surface structure, contain intact fine roots and organic matter, and are not significantly impacted from the fires. Vegetation is a mix of chaparral and forested, with some alpine ecotypes in the Wilderness. Topography and vegetation type dominated the observed burn intensity patterns. Most severely burned slopes occurred on upper slopes and ridges. Suppression related resource damage was not an issue here as observed on other Complexes on the Forest. Land treatments are proposed in specific areas, to maintain soil productivity and promote recovery of Late Successional Reserve areas, as well as to reduce off-site sedimentation into critical fisheries habitats.