

Photos provided by Julia Michaels



FEB 21, 2023, 12pm ET, 11am CT, 10am CT, 9am PT

**CASE STUDY BUTTE FIRE:
POST FIRE SEEDING AND MULCHING TREATMENT EFFECTS ON NATIVE
PLANT COVER, RDM, EROSION CONTROL AND INVASIVE SPECIES REDUCTION**

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natural
areas
ASSOCIATION

Title: Case Study Butte Fire: Post Fire Seeding and mulching treatment effects on native plant cover, RDM, erosion control and invasive species reduction

Presentation Abstract: Since 2002, the use of seed in post-fire mitigation projects in California has been confined almost exclusively to state highway and county roads, Federal Emergency Management Agency (FEMA) and other private reseeding efforts. These agencies have found specific situations where seeding and mulching offers appreciable value for the protection of property and reduction of on-site erosion. In this presentation we outline the results of an interdisciplinary effort to reseed and mulch 46 acres of the 2015 Butte Fire. These efforts included native seed and straw mulching, aerial mulching, and manual application coordinated by BLM and EBMUD. During the spring of 2015 we collected data and analyzed the effects of the seeding treatments. A control site was identified, and the team collected field data for total cover, including native and other plant cover and RDM. Treated slopes were also measured for soil loss to estimate first year potential soil loss and the potential loss over 5 years. We found that prompt reseeding with natives and mulching reduces bare ground and thus lowers potential invasive weed establishment in the first and second year after treatment. We encourage prompt native seed applications on other fire rehabilitation projects.



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Julia Michaels completed her PhD in Ecology at UC Davis where she focused her research on strategies for restoring native CA vernal pool wetlands. Prior to joining Hedgerow Farms, Julia served on the faculty at Reed College in Portland, OR. Julia loves working at Hedgerow Farms because it is her favorite way to connect with the public about the importance of conserving native plants, and to help practitioners apply the best available science to their restoration projects.