

## **Optimization of a Post-Wildfire Hillslope Erosion Model**

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**Abstract.** Erosion following a wildfire can potentially pose a threat to life, property, and habitat. Post wildfire rehabilitation teams assess the risks and recommend remediation techniques. These treatments range in cost and effectiveness and can be rather expensive. Erosion models such as the Water Erosion Prediction Project can be valuable tools to aid in remediation planning only if they provide reasonable results. Burn scars cover vast areas containing spatially varying variables that are not well known; these factors pose challenges to forecasting erosion. Utilizing U.S. Forest Service data from two small burned watersheds, soil parameters were optimized to minimize residual error between measured and predicted sediment yield. Several calibration techniques from the optimization package Ostrich were evaluated.