

## **Increased Erosion Risk after Wildfires**

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**Abstract.** Wildfires are predicted to increase in frequency, area, and severity in many places in the world in the coming years. Major concerns after wildfires are the increased flooding, erosion and debris flows due to loss of the protective forest floor layer, loss of water storage, and creation of water repellent soil conditions. To assist postfire assessment teams evaluate fire effects and make appropriate postfire treatment decisions, numerous studies have been undertaken to improve our understanding of the underlying causes of the increased response. Dr. MacDonald has contributed to this understanding by leading numerous projects that look at the processes and empirical relationships of hydrological and erosional responses after fire. He has taught numerous courses, workshops and mini-series at home and abroad. He provides critical review of others in a constructive and meaningful method that advances the knowledge with a succinct writing style. Numerous studies will be discussed. These results have helped managers make better land management decisions regarding the postfire environment including erosion mitigation treatment decisions.