

## USDA Forest Service (Region 5) Policy on Burned Area Emergency Rehabilitation as it Relates to Seeding

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**Abstract.** The process of postfire rehabilitation by aerial seeding is described for Region 5 of the U.S. Forest Service.

**Keywords:** Erosion; postfire rehabilitation; seeding prescriptions.

In order to fully understand current policy on seeding after a wildfire, it will be necessary to take a look at the process from which seeding prescriptions are often derived.

Currently, Region 5 (National forest in California) of the USDA-Forest Service has a policy that establishes a process for determining the need for planning and managing emergency rehabilitation work on a burned area.

The objective of emergency rehabilitation is to initiate action promptly following destruction of vegetative cover by a wildfire to minimize:

1. Loss of soil and on-site productivity
2. Loss of water control and deterioration of water quality
3. Threats to life and property, on- and off-site.

Burn area emergency rehabilitation recommendations/actions are derived from the interactions of an interdisciplinary team, referred to as the Rehab Team, of resource specialists. The makeup of the Rehab Team and the technical expertise of its individual members will vary according to the size and complexity of the burned area.

The job of the Rehab Team is to complete a survey of the burned area within a limited period, normally two days, after the fire has been controlled. The purpose of the burned-area survey in the field is to utilize the expertise of several disciplines working together to:

1. Assess on-the-ground conditions
2. Identify and define the emergency
3. Locate, geographically, the existing emergency and potential treatment measures in relation to observed conditions.

The results of the burned-area survey then lead to development of a set of alternatives designed to meet the objectives of emergency rehabilitation, which are environmentally acceptable and when do not conflict with long-term restoration of the burned area.

The objective of seeding is to provide short-term soil cover to help meet emergency burned-area rehabilitation objectives where "natural" revegetation is not likely to produce timely watershed protection.

Several factors are considered by the Rehab Team to determine if the application of seed to a burned area is warranted. These include 1) size of the burn 2) burn intensity 3) soil stability 4) steepness of slopes 5) hydrophobic soil conditions 6) potential threats to life and property, on and off-site, and 7) cost of treatment.

Relative values are assigned to each of these factors. But, generally, seeding will be recommended for a large area (>120 ha or 300 ac) that burned under moderate-to-high burn intensities on steep slopes with unstable hydrophobic soils, and where there is a high threat to life and property.

Several criteria are used by the Rehab Team to develop a seeding prescription or "mix". These include the following:

1. A demonstrated effectiveness for erosion control. Plants have a proven capability to provide soil cover in a short period of time.

**2. Conflict with other resource objectives.**

Species are selected to provide essential erosion control. Plants that may cause short-term competition with reforestation or native plant communities may be used as long as they do not conflict with long-term plant community diversity and resource management goals.

**3. Species adaptability.**

Species selected are adapted to climatic and soil conditions of the treatment area.

**4. Native versus non-native.**

Indigenous or appropriate naturalized species are used where there is no reasonable expectation that natural revegetation will produce timely watershed protection. Non-indigenous or naturalized species may be used to provide short-lived ground cover provided it does not hybridize with local species, or offer serious long-term competition to recovery of local native plants.

This represents an overview of the considerations that go into designing emergency rehabilitation programs for Region 5.