

## Post-Fire BAER Assessment

# Burned Area Emergency Response (BAER) Information Brief



## Forest Service BAER Program Overview

The **Burned Area Emergency Response (BAER)** program is designed to identify and manage potential risks to resources on **National Forest System** lands and reduce these threats through appropriate emergency measures to protect human life and safety, property, and critical natural or cultural resources. **BAER** is an emergency program for stabilization work that involves time-critical activities to be completed before the first damaging event to meet program objectives:

### BAER Objectives:

- Determine whether imminent post-wildfire threats to human life and safety, property, and critical natural or cultural resources on **National Forest System** lands exist and take immediate actions, as appropriate, to manage the unacceptable risks.
- If emergency conditions are identified, mitigate significant threats to health, safety, human life, property and critical cultural and natural resources.
- Prescribe emergency response actions to stabilize and prevent unacceptable degradation to natural and cultural resources, to minimize threats to critical values resulting from the effects of a fire, or to repair/replace/construct physical improvements necessary to prevent degradation of land or resources.
- Implement emergency response actions to help stabilize soil; control water, sediment and debris movement and potentially reduce threats to the **BAER** critical values identified above when an analysis shows that planned actions are likely to reduce risks substantially within the first year following containment of the fire.
- Monitor the implementation and effectiveness of emergency treatments that were applied on **National Forest System** lands.

While many wildfires cause minimal damage to the land and pose few threats to the land or people downstream, some fires result in damage that requires special efforts to reduce impacts afterwards. Loss of vegetation exposes soil to erosion; water run-off may increase and cause flooding, soil and rock may move downstream and damage property or fill reservoirs putting community water supplies and endangered species at-risk.

The **BAER** team presents these findings in an assessment report that identifies immediate and emergency actions needed to address post-fire risks to human life and safety, property, cultural and critical natural resources. This includes early detection and rapid response (EDRR) treatments to prevent the spread of noxious weeds into native plant communities. The **BAER** report describes watershed pre- and post-fire watershed response information, areas of concern for life and property, and recommended short-term emergency stabilization measures for **Forest Service** lands that burned.

In most cases, only a portion of the burned area is actually treated. Severely burned areas steep slopes, and places where water run-off will be excessive and may impact important resources, are focus areas and described in the **BAER** assessment report if they affect critical values. Time is critical if the emergency stabilization measures are to be effective.

A **BAER** assessment team conducts field surveys and uses science-based models to rapidly evaluate and assess the burned area and prescribe emergency stabilization measures. The team generates a "**Soil Burn Severity**" map by using satellite imagery which is then validated and adjusted by **BAER** team field surveys to assess watershed conditions and model potential watershed response from the wildfire. The map identifies areas of soil burn severity by categories of very low/unburned, low, moderate, and high which may correspond to a projected increase in watershed response. The higher the burn severity, the less the soil will be able to absorb water when it rains. Without absorption, there will be increased run-off with the potential of flooding.

### BAER Funding:

Special Emergency Wildfire Suppression funds are authorized for **BAER** activities and the amount of these expenses varies with the severity of the fire season. Some years see little **BAER** activity while other years are extremely busy.

Because of the emergency nature of **BAER**, initial requests for funding of proposed **BAER** treatments are supposed to be submitted by the Forest Supervisor to the Regional Office within 7 days of total containment of the fire. The Regional Forester's approval authority for individual **BAER** projects is limited. Approval for **BAER** projects exceeding this limit is forwarded onto the Washington Office.

