



The BAER Essentials



Archeologists from the Horseshoe Two Fire BAER Team examine archeologic sites to determine what rehabilitation techniques will be needed to protect the sites from post-fire runoff.

BAER is "First Aid"

Immediate stabilization that often begins before a fire is fully contained. BAER (Burned Area Emergency Response) does not seek to replace what is damaged by the fire, but reduce further damage due to the land being temporarily exposed in a fragile condition.

What happens after the fire?

While many wildfires cause minimal damage to the land and pose few threats to the land or people downstream, some fires cause damage that requires special efforts to prevent problems afterwards. Loss of vegetation exposes soil to erosion; water runoff may increase and cause flooding; sediments may move downstream and damage houses or fill

reservoirs putting endangered species and community water supplies at risk.

The BAER program is designed to address these situations through its key goals of protecting life, property, water quality, and deteriorated ecosystems.

What do BAER Teams do?

BAER teams are activated when wildfires become large or are intense. Individuals with specialties in areas including hydrology, soil science and botany come together to form either Department of Agriculture Forest Service or Department of Interior teams. Although these teams function in the spirit of interagency cooperation, they retain some operational differences.

BAER teams are directed to:

1) Identify post-fire threats to life, property, natural or cultural resources,

2) Determine whether efficient and effective measures to mitigate or minimize the risks exist,

3) Prescribe and design appropriate measures,

4) Implement emergency stabilization treatments ,and

5) Monitor the effectiveness of the treatments.

The first four activities must be completed within short time frames.

Ideally, BAER teams arrive prior to a fire's containment, complete their assessment of post-fire values at risk by containment, and are ready to implement the recommended treatments immediately after containment. BAER teams have 12 months from the date of the fire's

containment to implement emergency stabilization measures. However, risk-triggering events (such as impending storm seasons) usually dictate much shorter implementation time frames.

Is everything treated?

In most cases, only a portion of the burned area is actually treated. Severely burned areas, very steep slopes, places where water runoff will be excessive, fragile slopes above homes, businesses, municipal water supplies, and other

valuable facilities are focus areas. The treatments must be installed as soon as possible, generally before the next damaging storm. Time is critical if treatments are to be effective.

What can BAER do?

What BAER may do:	What BAER cannot do:
Install water or erosion control devices.	
Plant for erosion control or stability reasons.	Replant commercial forests or grass for forage.
Install erosion control measures at critical cultural sites.	Excavate and interpret cultural sites.
Install temporary barriers to protect treated or recovering areas.	Replace burned pasture fences.
Install warning signs.	Install interpretive signs.
Replace minor safety related facilities.	Replace burned buildings, bridges, corrals, etc.
Install appropriate-sized drainage features on roads and trails.	Repair roads damaged by flooding.
Remove critical safety hazards.	
Prevent permanent loss of Threatened & Endangered species habitat.	Replace burned habitat.
Monitor BAER treatments.	Monitor fire effects.
Plant grass to prevent spread of noxious weeds.	Treat pre-existing noxious weeds.

Types of Treatments

There are a variety of rehabilitation techniques that the BAER team can recommend. Reseeding of ground cover with quick-growing or native species, mulching with straw or chipped wood, construction of straw bale dams in small tributaries, placement of fallen trees to catch sediments on steep slopes and digging of below-grade pits to catch runoff and store sediments are

the primary rehabilitation techniques used. The team also assesses the need to modify drainage structures by installing debris traps, enlarging culverts, installing standup inlet pipes to allow drainage to flow if culverts become plugged, adding additional culverts and constructing emergency spillways to keep roads and bridges from washing out during floods.