
Wildfires are unplanned, difficult to anticipate, with no way to predict their severity. Agencies across the nation create fire management plans to help determine what type of response protocols and procedures should be considered when a wildfire occurs. The fire management plan identifies the resources needed for effective wildfire response, have information regarding valuable manmade, cultural, historical, and natural resources in the fire zone with best practices for protecting them, and necessary restoration treatments after the fire has been contained and controlled.

The protection of cultural resources during a fire are a high priority and is undertaken if it does not endanger life, property, or the effectiveness of fire management efforts. When cultural resources are identified, the fire management team will engage the expertise of Natural and Cultural Resource Advisors.
(READs) to advise on preventing fire suppression damage. The READs ensure significant resources are identified assisting in resource protection planning and fire suppression strategy creation.

Rapid fire suppression is the objective while restricting potential resource damage. An efficient way to work towards suppression is creating a fire containment line as quickly as possible. These fire lines are built around the expected area of the fire perimeter to stop the fire from spreading further. The main purpose of a fire line is to cut off the fire’s fuel supply with hopes of preventing the fire from spreading.

Fire lines are constructed by exposing the mineral soil by cutting, scraping, or digging the earth with hand tools and mechanized equipment. One of the common pieces of equipment used for this task is the bulldozer. The “dozer” has the ability to create a quick and effective fire line. On the Red Salmon Complex fire, personnel have worked judiciously utilizing fire lines from previous fires in the area. Prior to putting a fire line in either by hand or with a dozer, READs accompany fire crews inspecting the area to determine what will cause the least impact to resources.

“READs, many whom are with the local tribes, are in the field working with crews to minimize impact to cultural and natural resources,” explained Lead Resource Advisor on the Red Salmon Complex Fire, Todd Johnson with the Shasta-Trinity National Forest. Todd went on to say that “on federal land there are three phases of rehabilitation that begin during a fire: Fire Suppression Damage Repair, Emergency Stabilization – Burned Area Emergency Response (BAER) and Long-Term Recovery and Restoration.”

Fire Suppression Damage Repair starts before the fire is contained and is a series of immediate postfire actions done to repair the damage and minimize potential soil erosion and other impacts resulting from fire suppression. These repairs focus on hand and dozer lines, roads, trails, staging areas, safety zones, and the drop points used during fire suppression efforts. Fire crews work to replace any dug-out soil and duff leaving it to appear natural and blend into the landscape contours. Sometimes these lines maybe kept as future fire breaks in some areas.

When rehabilitating dozer fire line, the use of a mechanized excavator or tractor is used to pull native soils and organic plant materials back onto the dozer line. Personnel will use existing native materials on site for sediment traps and replace section of logs that were cut out of the fire line. Any berms or mounded materials that are two feet higher than original contour will be obliterated. The use of brush, limbs, and poles and naturally appearing arranged logs will help to discourage these lines as being trails. Dozer fire line located on existing off-highway vehicle trails (OHV), are returned to standard. Finally, water bars are constructed to help erosion control.
Emergency Stabilization – BAER begins after the fire is contained. BAER teams do an emergency risk management assessment identifying any imminent threats to human life, property, and critical natural or cultural resources. It also evaluates any risks that could further destabilize or degrade the burned area. A BAER plan is developed based on the assessment and land management objectives. BAER teams may recommend the following actions: seeding ground with quick-growing or native species, mulching with chipped wood to stabilize hillslopes, installation of debris traps, and removing or modifying culverts created for proper drainage and to avoid erosion and water runoff.

Long-Term Recovery and Restoration also referred to as Burned Area Rehabilitation (BAR) – these are actions that help improve fire-damaged lands that are unlikely to recover naturally while also helping to repair or replace facilities damaged by fire that are not critical to life and safety.

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