

Shasta-Trinity & Klamath National Forests

Burned Area Emergency Response (BAER)

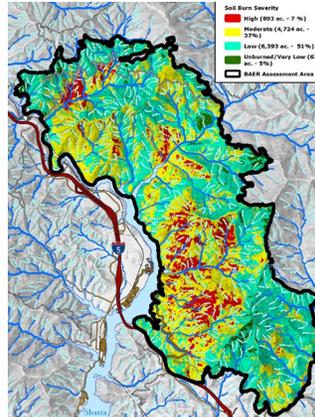
Post-Fire BAER Assessment



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BAER Information: (707) 853-4243

SALT POST-FIRE BAER SOIL BURN SEVERITY MAP RELEASED



Burned Area Emergency Response (BAER) specialists recently completed their data gathering and analysis for the Salt Fire burned area to produce a soil burn severity map. This map and data display categories of unburned/low, moderate, and high. Approximately 56% of the 12,645 acres are either unburned and/or low soil burn severity, while 37% sustained a moderate soil burn severity and only about 7% identified as high soil burn severity.

The low category of soil burn severity indicate that there was only partial consumption of fine fuels and litter coverage remains relatively intact on the soil surface. Residence time at the soil surface was short, leaving root systems and structure undamaged. Recovery time in the low category will vary based on ecological community but is expected to recovery in the short-term.

A moderate category of soil burn severity indicates consumption of litter and fine fuels at the soil surface. In forested communities, the heat from moderate severity fire will result in water repellent conditions at the mineral soil surface. The canopy in the forest is browning and it is expected that trees will drop needles and leaves that can provide some litter cover at the soil surface. In these systems, recovery can take longer for tree species to re-establish.

The moderate soil burn severity category in lower-elevation communities indicates complete consumption of shrub cover that can but does not necessarily result in water repellent conditions at the soil surface. Several shrub species in the lower-elevation communities do re-sprout after fire and recovery time will be variable. Moderate soil burn severity category in the lower-elevation shrub communities that did not express water repellent behavior can still result in a runoff potential category of high as a result of the soils inherent qualities and the removal of effective vegetative cover.

A high soil burn severity category is the result of higher intensity fire behavior or longer residence time at the soil surface. This category is found in forested or dense woodland communities and the litter and fuels, including an overstory canopy, was consumed. The soil structure is weakened, roots are charred and water repellent soil conditions persist through the upper horizon of mineral soil. Recovery time in the conifer systems can be significant.

The Lava-Salt-Tennant BAER assessment team used initial remote sensing imagery with its field validated soils data, to develop and produce a map showing soil burn severity levels for the burned areas within the three wildfires. The BAER team and the US Geological Survey (USGS) both use the soil burn severity maps as an analysis tool to estimate post-fire flows and debris flow probability.

The BAER team relied on its refined soil burn severity map to produce data used in its subsequent modeling and determination of post-fire runoff and sedimentation. In specific areas that experienced moderate-to-high burn severity, there could be increased runoff from steep hillslopes and resultant increases in post-fire soil erosion and potential debris flows.

The Salt Fire soil burn severity map can be downloaded at the “Salt Post-Fire BAER” InciWeb site (<https://inciweb.nwcg.gov/incident/7697/>) as a JPEG or PDF version under the “Maps” tab.

SPECIAL NOTE: *Everyone near and downstream from the burned areas should remain alert and stay updated on weather conditions that may result in heavy rains over the burn scars. Flash flooding may occur quickly during heavy rain events--be prepared to take action. Current weather and emergency notifications can be found at the **National Weather Service** websites: <https://www.weather.gov/sto/> and <https://www.weather.gov/mfr/>.*

*Lava Post-Fire BAER Assessment information is available at: <https://inciweb.nwcg.gov/incident/7693/>
Salt Post-Fire BAER Assessment information is available at: <https://inciweb.nwcg.gov/incident/7697/>
Tennant Post-Fire BAER Assessment information is available at: <https://inciweb.nwcg.gov/incident/7699/>*

