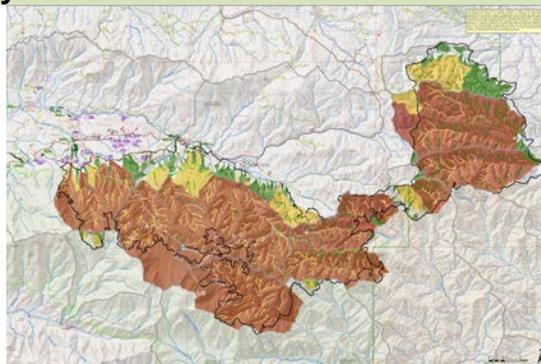




Burned Area Emergency Response (BAER)

BAER Information: (909) 747-9878

Emergency Assessment of Post-Fire Debris Flow Hazards



The [San Bernardino National Forest BAER assessment team](#) coordinated early with **US Geological Survey (USGS)** staff during its evaluation of the [Lake Fire](#) burned area to strategically assess potential post-fire impacts to the watersheds and debris flow predicted response during damaging storm events.

From the **USGS** website found at http://landslides.usgs.gov/hazards/postfire_debrisflow/:

“Wildfire can significantly alter the hydrologic response of a watershed to the extent that even modest rainstorms can produce dangerous flash floods and debris flows. The USGS conducts post-fire debris-flow hazard assessments for select fires in the Western U.S. We use geospatial data related to basin morphometry, burn severity, soil properties, and rainfall characteristics to estimate the probability and volume of debris flows that may occur in response to a design storm.”

USGS used satellite images of the pre-fire and post-fire burned area of the **Lake Fire** to produce mapped debris flow hazard assessment predictions. The [USGS Lake Post-Fire Debris Flow Hazard Assessment Map](#) displays estimates of post-fire debris-flow probability, volume, and combined hazard for the areas burned by the **Lake Fire**. Both federal agencies used a 2-year design storm for modeling and analyzing data used in the **USGS** debris flow hazard assessment and the **San Bernardino National Forest’s BAER** watershed response assessment. The **BAER** team’s report contains its post-fire watershed response findings, potential risks to human life, safety, property, cultural resources, and critical natural resources along with recommended short-term emergency stabilization treatments for burned federal lands. The **Forest Service** expects to release the **BAER** team’s report early next week and it will be posted on the **Lake Post-Fire BAER** InciWeb page at <http://inciweb.nwcg.gov/incident/4346/>.

[USGS Fact Sheet 176-97](#), entitled “*Debris Flow Hazards in the United States*” contains information used to interpret the debris flow map and analysis that was incorporated into the **BAER** assessment team’s anticipated soil erosion and hydrologic response findings.

In 2005, **USGS** prepared a report published as [USGS Fact Sheet 3106](#) entitled “*Southern California—Wildfires and Debris Flows*” that describes how the agency “developed its methods that are used to estimate the locations, probability of occurrence, and size of potentially destructive debris flows. Public officials can use this information to plan and execute emergency response and post-fire rehabilitation.”

According to the **USGS**, “Analysis of data collected from studies of debris flows following wildfires can answer many of the questions fundamental to post-fire hazard assessments— what and why, where, when, how big, and how often?”

This information is extremely important to assist the public with increasing their safety awareness of the areas where there may be a higher increase in flooding, sediment and soil erosion, and a high probability of debris flows -- all of which are potential risks to human life, safety, and property.

Lake Post-Fire BAER Assessment information is available at <http://inciweb.nwcg.gov/incident/4346/>.

