

Forest Service and Bureau of Land Management

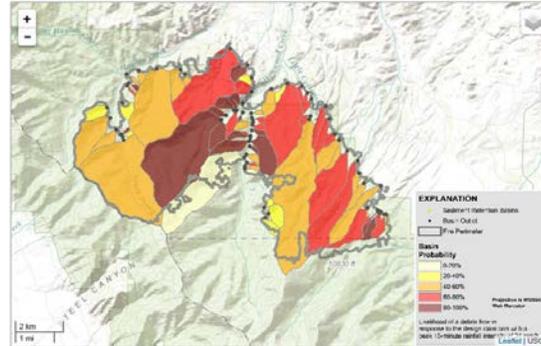
Burned Area Emergency Response (BAER)

Hayden Pass Post-Fire BAER Assessment



BAER Information: (415) 881-1871

Emergency Assessment of Post-Fire Debris Flow Hazards



The interagency BAER assessment team coordinated early with **US Geological Survey (USGS)** staff during its evaluation of the [Hayden Pass 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 the BAER team’s soil burn severity map of the post-fire burned area of the **Hayden Pass Fire** to produce mapped debris flow hazard assessment predictions. The [USGS Hayden Pass 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 **Hayden Pass Fire**. The BAER team’s report will contain 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 next week and it will be posted on the **Hayden Pass Post-Fire BAER** InciWeb page at <http://inciweb.nwcg.gov/incident/4879/>.

[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.

SPECIAL NOTE: Everyone near and downstream from the **Hayden Pass Fire** burned area should remain alert and stay updated on weather conditions that may result in heavy rains over the fire area. Flash flooding may occur quickly during heavy rain events. Current weather and emergency notifications can be found at the **National Weather Service, Pueblo** (<http://www.weather.gov/pub/>) website.

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