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Forecast for heaviest period of rain lasts until Monday afternoon. What we know about risks for mudslides

By Jacob Margolis
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After the Thomas Fire, heavy rains triggered tremendous mud and debris flows in Montecito in early 2018. Rains following fires always raise concerns.

(Al Seib/Los Angeles Times via Getty Images)

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WHAT YOU SHOULD KNOW



With the arrival of much-needed <u>rain finally</u>, debris flows are a real concern below steep, recently burned areas. Just how much water, rock, mud and other debris can flow will depend on how much rain falls in a short period.

Where things stand

Rain is expected to stick around from Saturday through Monday, though the period of greatest risk will be between 4 p.m. Sunday and 4 p.m. Monday. That's when the heaviest precipitation is expected to fall, according to the National Weather Service.

While 0.25 inches an hour is likely across the broader region, isolated thunderstorms could drop more than 0.5 inches an hour, exceeding the threshold of concern for debris flows. Anticipate problems if rainfall rates exceed a quarter-inch in 15 minutes, especially in mountainous areas.

FLOOD WATCH is in effect for 4pm Sun to 4pm Mon. Here are the key details. While damaging debris flows are not the most likely outcome, there is still a lot of uncertainty with this storm. The threat is high enough to prepare for the worst-case scenario. #PalisadesFire #EatonFire pic.twitter.com/bbBGMJX90Y

— NWS Los Angeles (@NWSLosAngeles) January 25, 2025

The NWS will issue additional flood watches as needed.

• Understanding flood warnings and watches

What we know about the risks

"I'm most worried about the Eaton Fire," said Jason Kean, research hydrologist with the U.S. Geological Survey. That's because the steepness of the San Gabriel Mountains and the deep drainages that run throughout can capture tons of debris, funneling mud, plants and rocks toward communities below. There's a long history of mudslides in the area, which is why a <u>network of debris basins</u> was built.

While the overall risk should be quite low for this rain event, that doesn't mean we won't see isolated problems.

"The worst would be a debris flow that's several feet deep, that closes roads in the area, isolates people in their homes and brings mud into homes," said Ryan Kittell, meteorologist with the NWS.

If you live downhill from one of the burned areas and feel especially concerned, consider leaving ahead of the storm. If you choose not to leave, it would be a good idea to stock up with a few days' worth of food and water in case roads are blocked.

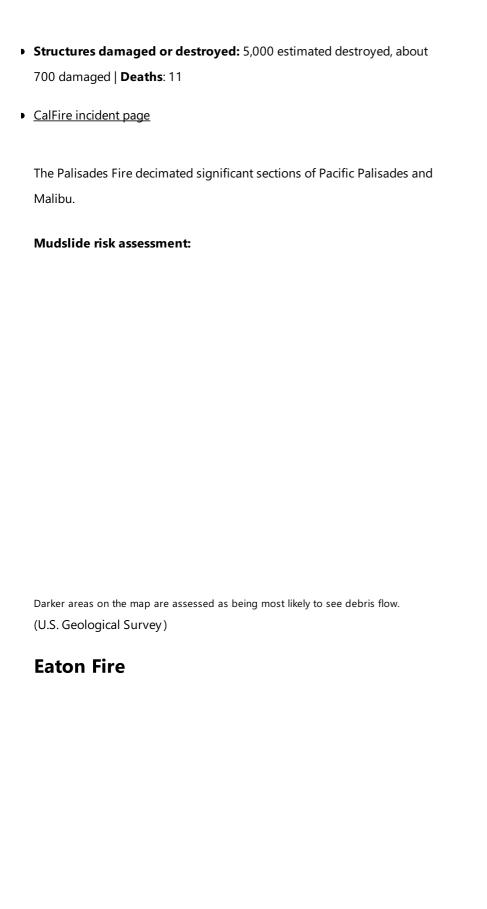
Post-fire debris flow risk is highest right after a wildfire, but lasts anywhere from three to five years after a blaze, depending on how much rain an area gets and how long it takes for plants to repopulate hillsides.

Not every fire gets a post-fire debris flow risk assessment. So far, the USGS has only received requests to perform debris flow modeling for the Eaton, Palisades and Hurst fires, according to Kean.

Palisades Fire

Palisades Fire perimeter and evacuation orders (CalFire)

• Acreage: 23,448 acres | Containment: 77%



Eaton Fire perimeter.

(CalFire)

• Acreage: 14,021 | Containment: 95%

•	Structures damaged or destroyed: About 9,400 destroyed, more than 1,000 damaged Deaths: 17
•	CalFire incident page

The Eaton Fire devastated whole neighborhoods of Altadena and forced mass evacuations from parts of Altadena, Pasadena, Sierra Madre and Glendale.

Mudslide risk assessment:

Darker areas are assessed as being more likely to see debris flows. (Courtesy USGS)

Hughes Fire

- Acreage: 10,396 | Containment: 56%
- Structures damaged or destroyed: None
- CalFire incident page

The <u>Hughes Fire</u> prompted the temporary shutdown of the 5 Freeway, evacuation orders and the shut down of many schools.

Mudslide risk assessment: The risk is still being assessed by the U.S. Geological Survey.

Hurst Fire

The Hurst Fire burn zone. (CalFire)

- Acreage: 799 acres | Containment: 100%
- Structures damaged or destroyed: None
- CalFire incident page

The Hurst Fire started above Olive View Medical Center and spread toward the 210 Freeway in Sylmar.

Mudslide risk assessment:

Darker areas are assessed as being more likely to see debris flows. (U.S. Geological Survey)

Kenneth Fire

The area burned by the Kenneth Fire. (CalFire)

• Acreage: 1,052 acres | Containment: 100%

• Structures damaged or destroyed: None

• CalFire incident page

The Kenneth Fire that broke out along the western edge of the San Fernando Valley and was fully contained relatively quickly. The fire started in the Upper Las Virgenes Canyon Open Space Preserve and pushed toward dense developments in the cities of Calabasas and Agoura.

Mudslide risk assessment: A USGS risk assessment wasn't performed

Sunset Fire

Area burned by the Sunset Fire. (CalFire)

• Acreage: 61 acres | Containment: 100%

Structures damaged or destroyed: None

CalFire incident page

The Sunset Fire forced evacuations of densely populated areas in the Hollywood Hills before being contained.

Mudslide risk assessment: A USGS risk assessment wasn't performed for this fire.

Other recent fires

Franklin Fire

• Acreage: 4,037 acres | Containment: 100%

• Structures damaged or destroyed: 28 damaged, 20 destroyed

CalFire incident page

The Franklin Fire sparked on Dec. 18 and was active for nine days.

Mudslide risk assessment:

Darker areas have been assessed as more likely to see debris flow. (U.S. Geological Survey)

Auto Fire

• Acreage: 61 acres | Containment: 100%

• Structures damaged or destroyed: None

• CalFire incident page

This fire burned in a riverbed area in Ventura and was quickly contained.

Mudslide risk assessment: A USGS risk assessment wasn't performed for this fire.

Lidia Fire

• Acreage: 395 acres | Containment: 100%

Structures damaged or destroyed: None

• CalFire incident page

This fire burned in a remote area north of Soledad Canyon Road in L.A. County.

Mudslide risk assessment: A USGS risk assessment wasn't performed for this fire.

Sepulveda Fire

- Acreage: 30 acres | Containment: 100%
- Structures damaged or destroyed: None
- CalFire incident page

The Woodley Fire was reported near North Woodley Avenue and the Sepulveda Basin. In the early hours of the fire, officials warned that it posed "a threat of crossing Burbank Boulevard."

Mudslide risk assessment: A USGS risk assessment wasn't performed for this fire.

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39:42

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Jacob Margolis, LAist's science reporter, examines the new normal of big fires in California.

Do you have a question about the wildfires or fire recovery?

Check out LAist.com/FireFAQs to see if your question has already been answered. If not, submit your questions here, and we'll do our best to get you an answer.



Fire resources and tips

Check out **LAist's wildfire recovery guide**

If you have to evacuate:

- Why fire officials don't want you to stay and defend your home
- How to get packed up
- How to leave your house
- What evacuation terms mean and how to sign up for alerts

Navigating fire conditions:

- How to drive in high winds and fire danger
- How to prep for power outages
- How to navigate poor air quality

How to help yourself and others:

- Resources for fire victims, evacuees and first responders
- If you want to help fire victims, resist the urge to volunteer
- How to help find lost pets

How to start the recovery process:

- ▶ What to do and not do when you get home after a wildfire
- How to make an insurance claim
- How to safely clean up wildfire ash

What to do for your kids:

- How to talk to children about wildfires and losing a home
- What parents should know about wildfire air quality

Prepare for the next disaster:

- Every day is now fire season. Let's get you ready for the next wildfire
- Yes, wildfires are getting worse. The history that got us to this moment

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