# Landslide and Flooding Risks Due to Wildfires What you can do to recognize and deal with the hazards

A severe wildfire can cause significant damage to drainage areas.



## HOW does wildfire activity increase the risk of landslides and flooding?

Periodically, British Columbia experiences severe wildfires near populated areas.

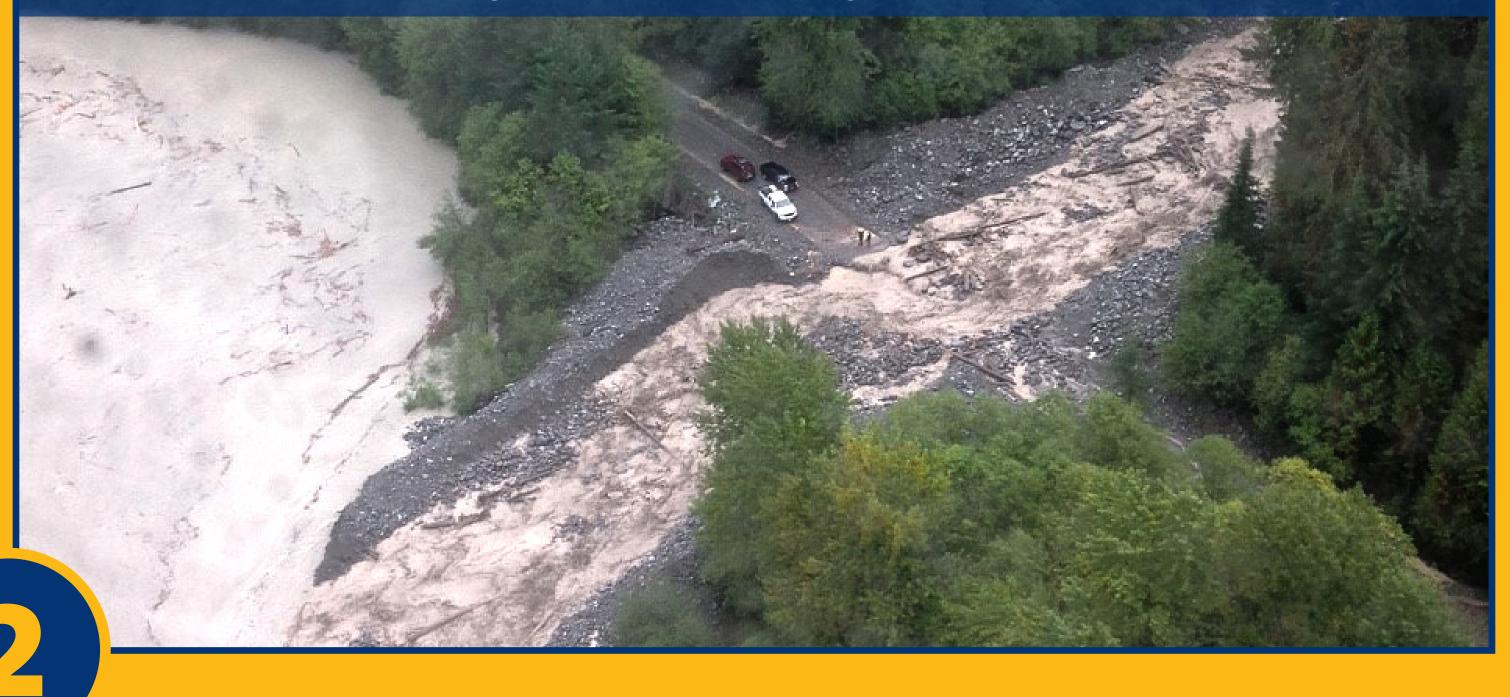
A severe wildfire damages the forest canopy, as well as the smaller plants and soil below the trees. This can result in increased runoff after intense rainfall or a rapid snowmelt, putting homes or other structures below the burned area at risk of localized floods and landslides.

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Large debris flow/flood event can occur during localized, high-intensity rainstorms, blocking traffic and stranding recreationalists.



#### WHAT specific hazards should you watch for after a wildfire?

- » Flooding, especially after an intense rainfall.
- » Landslides, which could include a debris flow and/or rockfall.

#### What weather conditions trigger post-wildfire floods and debris flows?

The most common trigger is extreme rainfall (for example, 10 mm of rain falling in under 30 minutes).

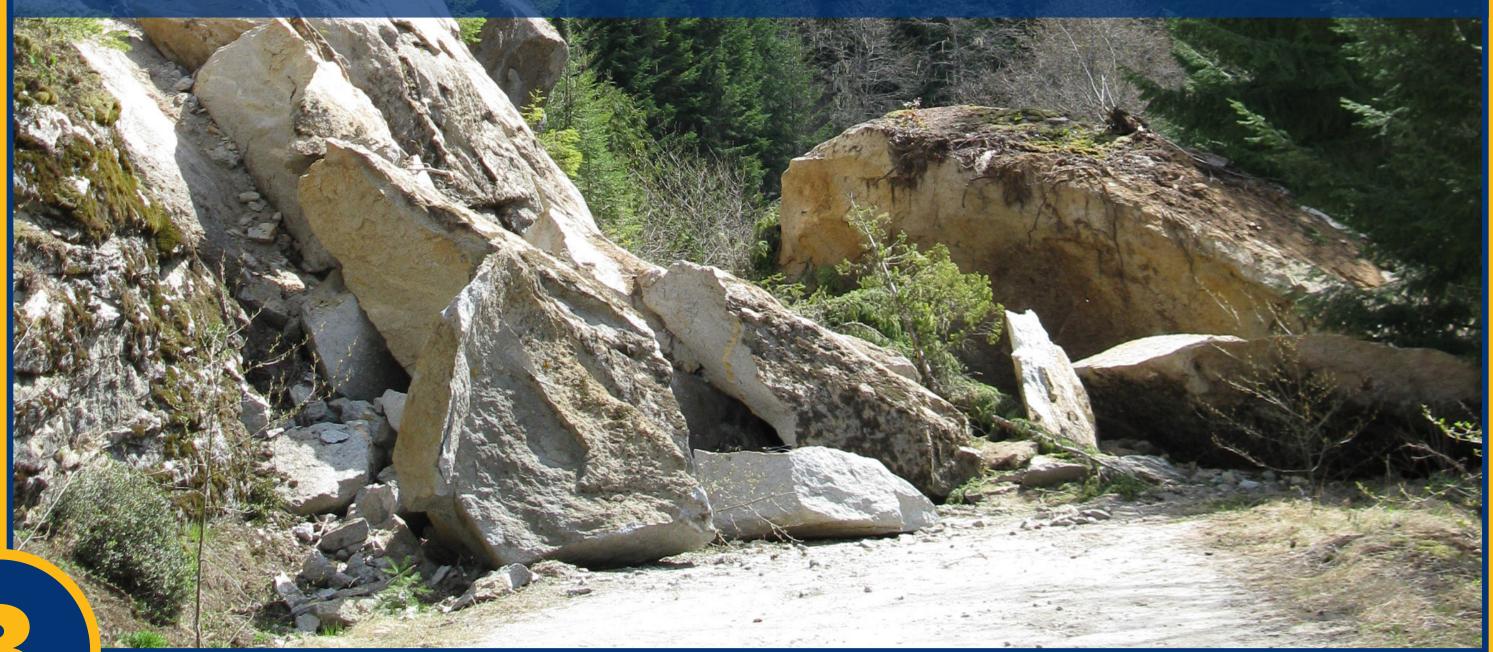
The risk increases if the rainfall follows a prolonged dry period, because water can't soak into dry, fire-altered soils quickly.

## Additional resources are available online:

BC Wildfire Service: www2.gov.bc.ca/gov/content/safety/wildfire-status/recovery

- Environment Canada weather: www.weather.gc.ca/canada\_e.html
- Ministry of Transportation: www.drivebc.ca

An intense rainfall can trigger a landslide, debris flow or rockfall.



#### HOW can you deal with post-wildfire hazards?

- » Be informed. Be ready.
- » Familiarize yourself with the landscape and its normal drainage channels.
- » Contact local authorities to learn about any emergency response plans and evacuation plans for your area.
- » Develop your own emergency plans.

Wildfires remove the protective ability of vegetation, increasing runoff, erosion, debris flow and the potential for landslides.



#### WHAT should you do during a storm or heavy runoff event?

- » Pay attention to weather forecasts.
- » Check the Environment Canada weather forecast at http://weather.gc.ca/canada\_e.html.
- » Avoid areas where a wildfire has recently occurred.
- » Use caution if crossing floored or landslide debris areas due to hidden hazards.
- » Do not enter water channels or hike upstream.
- » Avoid camping on floodplains, beside streams, on alluvial fans or at the based of burned slopes when on forested land where a wildfire has recently occurred.

#### How long do post-wildfire risks last?

In areas that have been severely burned, post-wildfire risks may last for five years or more. Increased flood or debris flow risks may persist for longer.

Visit the Post-Wildfire Natural Hazard Risk Hub https://pwnhr-bcgov03.hub.arcgis.com

