

Landslide and Flooding Risks Due to Wildfires

What you can do to recognize and deal with the hazards



1

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

Periodically, British Columbia experiences severe wildfires near populated areas, such as those that occurred in 2003, 2009, 2010 and 2015.

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.



2

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 intense rainfall (for example, 10 mm of rain falling in under 30 minutes).

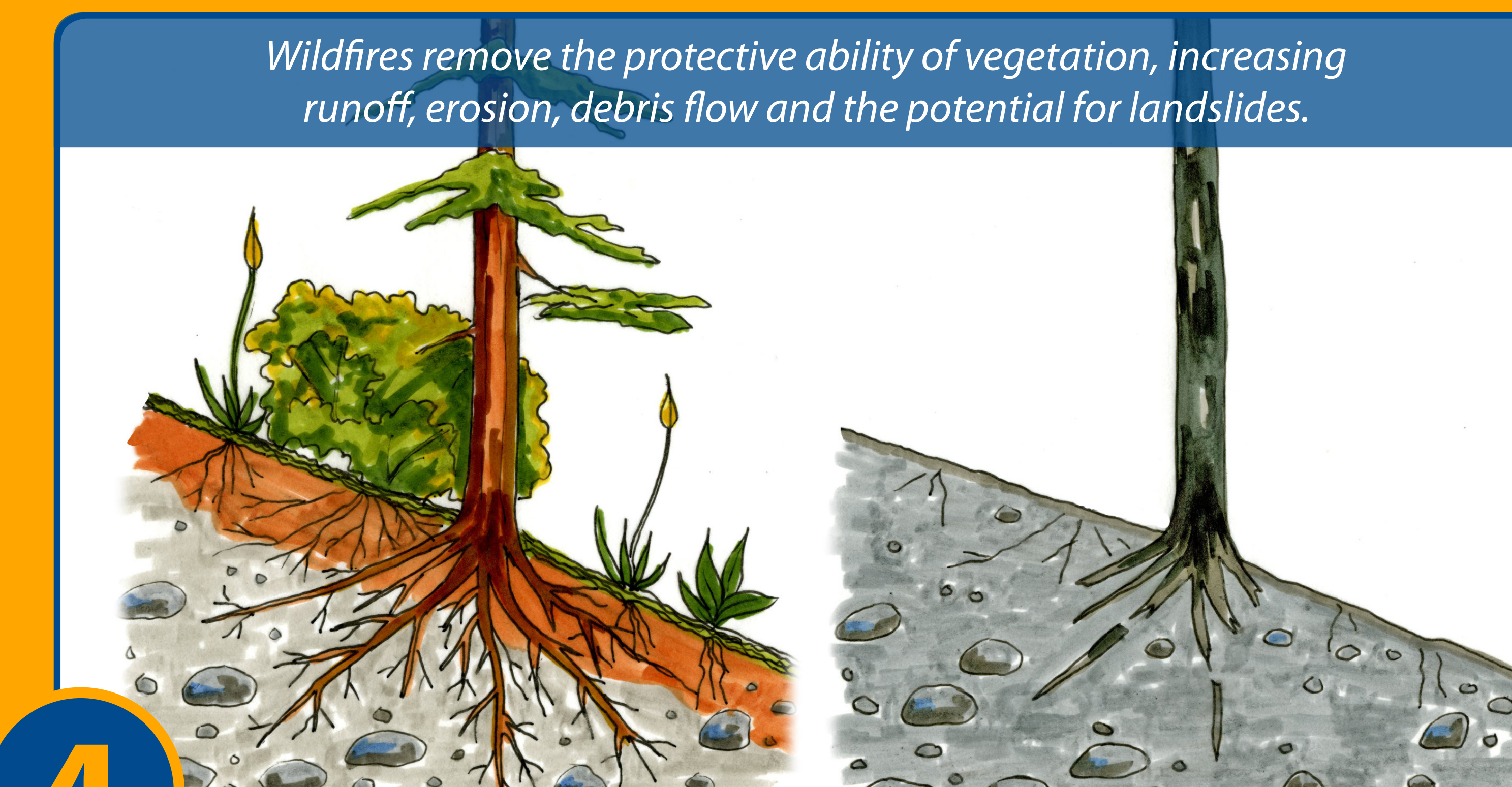
The risk increases if the rainfall follows a prolonged dry period, because water can't soak into dry, fire-altered soils quickly.



3

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.



4

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.
- » Never drive across a flooded road.
- » Do not enter water channels or hike upstream.
- » Consider leaving the area if you are concerned.
- » On forested land where a wildfire has recently occurred, avoid camping on floodplains, beside streams, on alluvial fans or at the base of burned slopes.

How long do post-wildfire risks last?

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



BRITISH
COLUMBIA

Additional resources are available online:

- BC Wildfire Service: www.bcwildfire.ca
- Environment Canada weather: www.weather.gc.ca/canada_e.html
- Ministry of Forests, Lands and Natural Resource Operations: www.gov.bc.ca/for