



PreparedBC

Landslide Information for Homeowners and Home Buyers

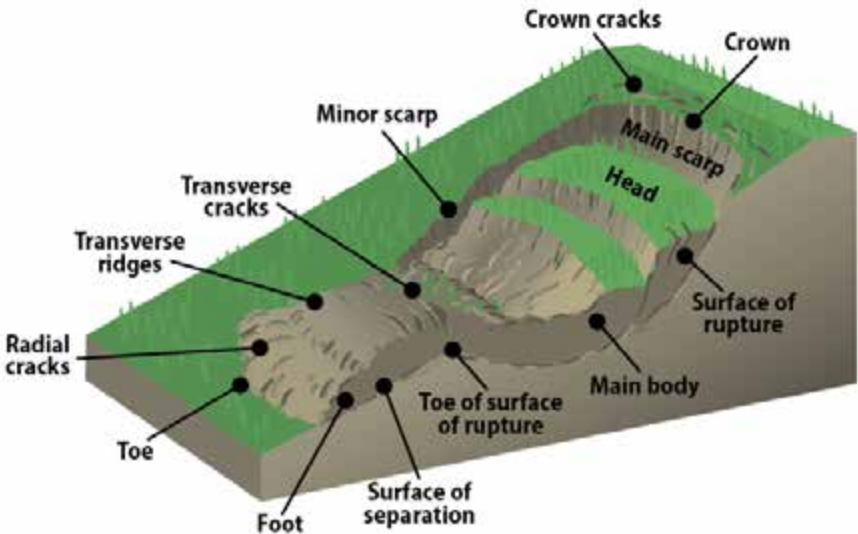
ADVICE FOR PROTECTING YOUR HOME



What a view! But with that view comes potential risk. When residential development expands onto steep slopes, landslides become a greater hazard for both people and infrastructure. Residential developments at the base of slopes may also be at risk.

There are several different types of landslides, but generally they're defined as the downward and outward movement of debris, such as rocks, boulders, soil, sediment or logs. The materials may move by falling, toppling, sliding, spreading or flowing. The rate of movement can range from virtually imperceptible to greater than 100 km/hour, and the volume of debris can range from a few cubic metres to millions of cubic metres.

The advice provided in this guide will help you make informed choices when purchasing a home or working to protect it.



Purchasing a home

When buying a home, it is important to know if the property is in a landslide hazard area. Here are some things to do and questions to ask:

- Contact your local government and ask if landslide hazard and/or watershed mapping is available for the area, along with slope stability information.
- Complete a home inspection.
- Consider hiring a registered, professional geotechnical engineer or geoscientist to conduct a site assessment.
- Ask the seller for site surveys and engineering reports.
- Be aware of landslide or flood control structures that may be protecting your property. Some of these may not be maintained any longer. If you have any concerns or questions, check with the B.C. Dike Safety Program at www.gov.bc.ca/dam-safety.
- Check with the Land Title Office to see if there is a registered covenant regarding potential landslide hazards on the property title.
- Speak with neighbours to learn more about the area's history.



Protecting your home and property

- Get to know your watershed and monitor waterways near your property. This will familiarize you with what is “normal” and make it easier to recognize changes that indicate a potential upslope danger.
- Consult a professional, such as a certified contractor, for advice on appropriate preventative measures for your home, such as flexible pipe fittings, which can better resist breakage.
- Do not build near steep slopes, close to mountain edges, near watercourses or natural erosion valleys. If you do, ask a professional geotechnical engineer to do an assessment.
- Protect your property by planting ground cover on slopes and/or work with a professional engineer to design and build retaining walls.
- Consult with a geotechnical engineer before altering an existing slope, such as extending a backyard by undercutting the base of a slope.
- Minimize lawn watering or other irrigation on slopes. Avoid removing organic material from the base of slopes or adding material or excess water to the top of slopes.
- Direct runoff from roads, driveways, gutters and downspouts away from steep slopes.
- Contact your insurance representative or the Insurance Bureau of Canada at 1-844-227-5422 to discuss your coverage options. Losses or damage caused by landslides are generally excluded from a home insurance policy; however, overland flood and earthquake insurance may be available.

Recognizing landslide indicators

Get to know your terrain and waterways. The best way to prepare is to be aware of changes that could signal a landslide. These may include:

- Sudden changes in stream flow.
- Rapid changes or pulses in flow (e.g. changes in volume) or pulses of sediment (e.g. from clear to murky).
- Abnormally dirty water.
- Accumulation of large logs or debris.
- Rapid accumulation of sediment or bed-load along a flat section of a creek channel.
- Tension cracks near the top of the slope.
- Falling rocks or boulders or flowing or sliding soil. This may precede a much larger landslide.
- To report landslide or debris flow indicators, call the 24-hour provincial toll-free number at 1-800-663-3456 or contact your local fire, police or public works department.

***NOTE: Not all landslides are preceded by these indicators.**



Landslide preparedness

If your home or property is in a landslide risk area, now is the time to visit www.gov.bc.ca/PreparedBC to download guides and plans that will help you:

- Put together an emergency kit.
- Develop a household plan.
- Connect with your neighbours.



First Aid kit and medications



Local maps and some cash in small bills



Battery-powered or hand crank radio



At least a three-day supply of non-perishable food. Manual can opener for cans



Battery-powered or hand crank flashlight with extra batteries



Garbage bags, moist towelettes and plastic ties for personal sanitation



Whistle to signal for help



Cell phone with chargers, inverter or solar charger



Water, four litres per person per day for at least three days, for drinking and sanitation



Seasonal clothing and footwear



Dust mask to help filter contaminated air

Be ready to act

Leave the area **immediately** and move to a safe location if you observe the following:

- A faint rumbling sound that increases in volume.
- Unusual sounds, such as trees cracking or boulders knocking together.

When you are safe, report the situation by calling 9-1-1. If you are caught in a landslide with no option to evacuate, curl in a tight ball and protect your head and neck.

After a landslide

Depending on the severity of the landslide, you may not be able to return home right away. If authorities say it is safe to go back home, be aware of the potential for additional slides or flooding. Leave the area immediately if you observe unusual activity.

Recovering from a landslide

- Replant damaged ground as soon as possible since erosion caused by loss of ground cover can lead to additional instability issues.
- Seek advice from a geotechnical expert for evaluating landslide hazards or designing corrective techniques to reduce landslide risk.
- Photograph damage to your property and contact your insurance broker.

Additional resources

- PreparedBC:
www.gov.bc.ca/PreparedBC
- Insurance Bureau of Canada:
www.IBC.ca
- Natural Resources Canada –
Landslides: [www.nrcan.gc.ca/
hazards/landslides](http://www.nrcan.gc.ca/hazards/landslides)
- USGS Landslide Program:
landslides.usgs.gov
- Ready.gov:
[www.ready.gov/landslides-
debris-flow](http://www.ready.gov/landslides-debris-flow)

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Ministry of
Forests, Lands and
Natural Resource Operations



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