In the SLRD

Avalanches, landslides, and other geological processes can occur on steep slopes in certain areas of the SLRD. Identifying how, why, and where avalanches occur can make the difference between developing on avalanche prone areas, or avoiding them (and avoiding hazards).

Avalanches typically give little warning to when or where they will occur, but as technology, monitoring and research increases, we have a better understanding of where and when they may strike. Living at the base of steep chutes and natural ravines poses an increased risk, since these natural features act like a funnel.
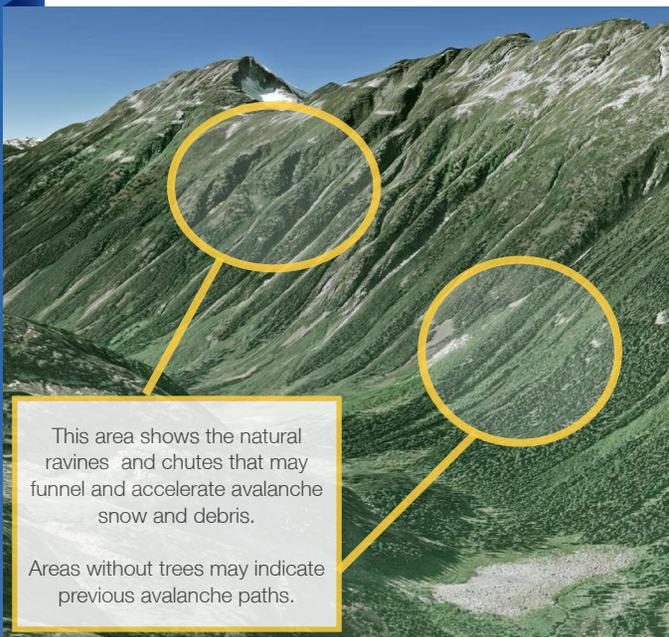
This area shows the natural ravines and chutes that may funnel and accelerate avalanche snow and debris.

Areas without trees may indicate previous avalanche paths.

Avalanche control work takes place during key winter snow events, however avalanches can be unpredictable due to the many factors that initiate a slide. Homes on steep slopes or at the base of slopes can be affected by avalanches and the risk should be considered before developing.

Avalanche conditions are monitored and reported by DriveBC and the Ministry of Transportation, as well as:

- Parks Canada
  avalanche.pc.gc.ca

- Canadian Avalanche Centre

CONTACT INFORMATION

Area A
Gun Lake
Gold Bridge
Bralorne
Road 40
Hurley FSR

Area B
Fraser River
To Cache Creek
99
Seton Portage
Lillooet
12
To Lytton

Area C
Lillooet River
D'Arcy
Anderson Lake
Pemberton
Mt. Currie
99

Area D
Squamish
Squamish Valley Rd.
River
Whistler
Squamish
Britannia Beach
Furry Creek
99
To Vancouver

Phone: 604.894.6371
Toll Free: 1.800.298.7753
Fax: 604.894.6526

Email: info@slrd.bc.ca

Squamish-Lillooet Regional District
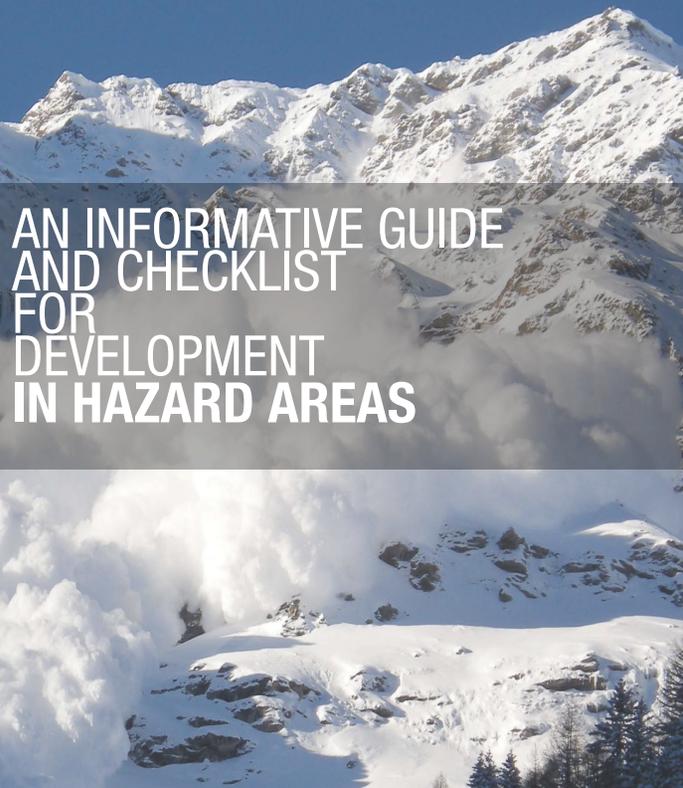Box 219, 1350 Aster Street
Pemberton, BC V0N 2L0

Sign up for Emergency Notifications at slrd.bc.ca/SLRDAlert

SLRD ALERT
Powered by the ePACT Network

Avalanche
Hazards

AN INFORMATIVE GUIDE AND CHECKLIST FOR DEVELOPMENT IN HAZARD AREAS

72 HOURS
Public Safety Canada
Tune into Weatheradio for Updates
Weatheradio Canada / Radiométéo Canada
slrd.bc.ca

INFORMATION IN YOUR AREA

Avalanche Preparedness: Warning Signs

Anyone considering purchasing land in the SLRD should consult with the Planning and Development Department as there may be terrain studies conducted in the area. For site specific information, you may also consider seeking advice from a geo-technical expert for evaluating avalanche hazards or designing techniques to reduce avalanche risk.

Before, During, and After an Avalanche

Before:

Check the Canadian Avalanche Centre's latest bulletin, and watch and listen to news in the area. Plan ahead if driving on highways during extreme avalanche warnings.

During:

If you are caught in an avalanche while driving, stay in your vehicle with your seat-belt fastened. It is easier to find a car than a person in an avalanche. Do not try to drive through an avalanche area. If you are not in a vehicle, grab onto trees and rocks to avoid being swept away, and stay on the surface using a swimming motion.

After:

Keep away from the avalanche area as more may follow. Stay inside your vehicle for rescuers to arrive. Call emergency services and check yourself and others for any injuries.

Signs of an Impending Avalanche

Heavy snowfall periods, significant warming, steep slopes and areas of little forestation are all typical of an avalanche prone area. Although avalanche areas are usually zoned for little development, an avalanche can reach beyond its predicted size. Like flooding, there are probabilities that a rare, and extremely large avalanche may occur and extend beyond its predicted size.

Areas generally prone to avalanches are:

On steep slopes (sun facing)
Areas near gullies and natural ravines
Along highways and mountain passes

Avalanches in British Columbia

Avalanches can be triggered suddenly, carrying ice and debris down slopes greater than 25 degrees at speeds up to 90km/h. British Columbia had an average of 10.3 avalanche related fatalities per year from 1996 to 2013, most of which occurred during recreational activities.

Avalanches can be triggered by any of the following:

- Overloading: The weight of the snow increases until it overcomes cohesion to the snow pack underneath.

- Temperature: A rise in temperature weakens the bonds creating weakness.

- Slope angle: Most avalanches occur on slopes between 25 and 40 degrees.

- Snow pack conditions: Layers below the surface are not visible making it hard to tell if a slope will fail.

- Vibration: Thunder, earthquakes, gun shots, explosions, or other very loud noises can trigger avalanches.
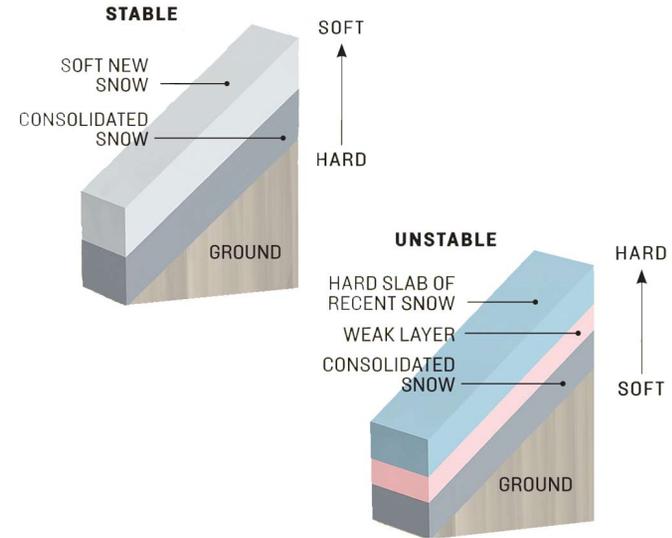
Survey your Surroundings

Look around your neighbourhood and examine the layout and structure of buildings, trees and landscape. This can give you an idea of what types of development is allowed and what work may need to be done to get your property ready to develop (and to mitigate any potential hazards).

Mitigative Measures

You may choose to design, landscape, and reinforce your property so that it mitigates avalanche risk. Below are several examples that are used in avalanche prone areas around the world.

Structural Mitigative Measures

- Artificial Triggering (Bombing)
- Avalanche Zoning (Land Use)
- Afforestation (Keeping Trees on Property)
- Snow "Sheds" and Deflecting Structures
- Snow Loading Requirements for Structure

STABLE
SOFT
SOFT NEW SNOW
CONSOLIDATED SNOW
HARD
GROUND

UNSTABLE
HARD
HARD SLAB OF RECENT SNOW
WEAK LAYER
CONSOLIDATED SNOW
SOFT
GROUND

SLRD Mapping and Parcel Lookup

What Development Permits Apply to Your Area?

The SLRD Web Map uses GIS (Geographic Information Systems) to show information about a particular piece of land or feature on the landscape.

1. Visit the SLRD Website and click on the SLRD Maps Quick Link.

2. Read the Getting Started guide to learn which map layers can help you identify information on your land parcel.

3. Find your parcel.

It can help you find key information about your property, such as:

- Effects of Zoning on your Property

- If your property is in a Development Permit Area (DPA)

When developing in an area that may experience avalanches, seek advice from a professional on proper design of buildings, and landscaping to reduce the likelihood of damage to your property.

slrd.bc.ca/avalanche

SQUAMISH - LILLOOET REGIONAL DISTRICT

MAPS.SLRD.BC.CA