

MANAGING LANDSLIDE RISK

Good practices for development in Yarra Ranges

Many areas in the Yarra Ranges are at risk of landslides. To help protect residents and properties, Yarra Ranges Council applies an Erosion Management Overlay (EMO) as a planning control.

This overlay requires specific measures for building or other works on properties within the designated area.

Residents and property owners can also reduce their landslide risk by maintaining their properties and staying aware of how storms and bushfires can impact landslide conditions.

All land has some form of planning controls and understanding what planning controls apply to your home is important.

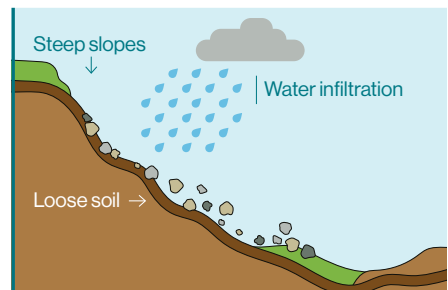
Residents can find out what overlays apply by contacting our visiting officers on **1300 368 333** or searching **www.planning.vic.gov.au** and click on planning property report to enter your address.

Why do landslides happen?

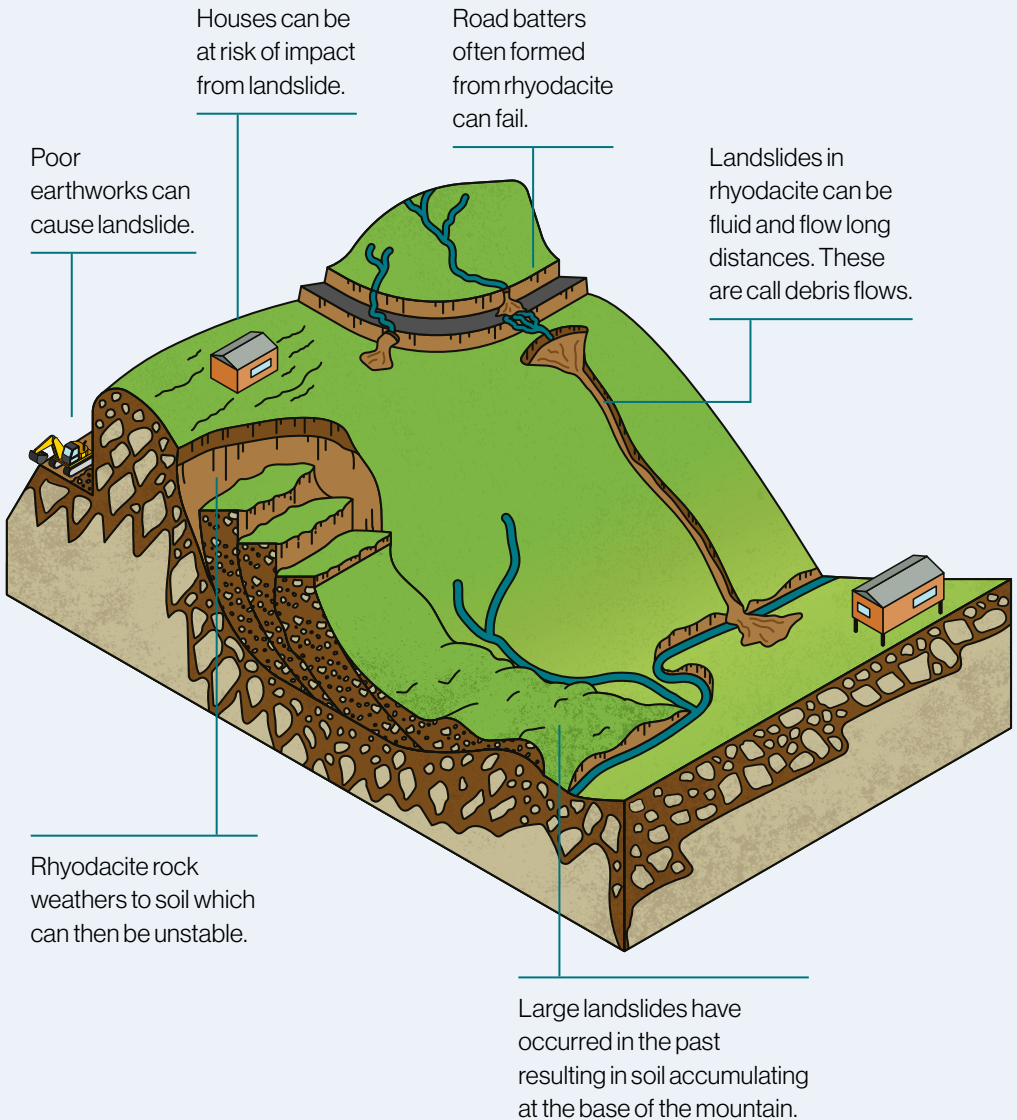
The following factors typically contribute to landslides in Yarra Ranges:

- geology, including the type and thickness of soil overlying bedrock
- the slope angle
- drainage and vegetation conditions that influence how much water is in the ground.

Landslides are generally more likely to occur where soils are thicker, slope angles are steeper, or the amount of water in the ground is higher.



Landslide hazards that can occur in the rhyodacite of Mount Dandenong



Information for new developments



Why is this important to me?

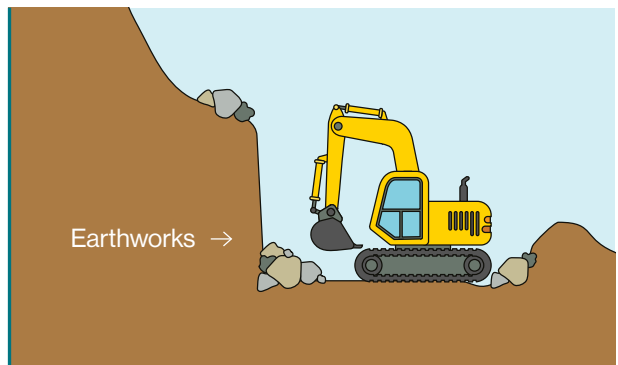
Landslides can cause serious harm to people and property, impacting single or multiple properties. In some cases, landslide hazards may originate outside your property boundary and may not be immediately visible.



Certain activities can contribute to landslides, including:

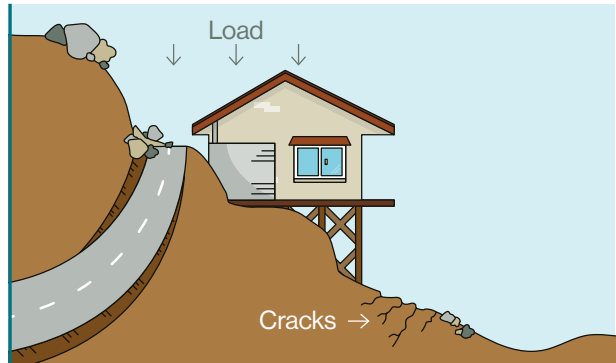
Earthworks

Excavation, soil placement, or rock removal can steepen slopes and alter soil stability.



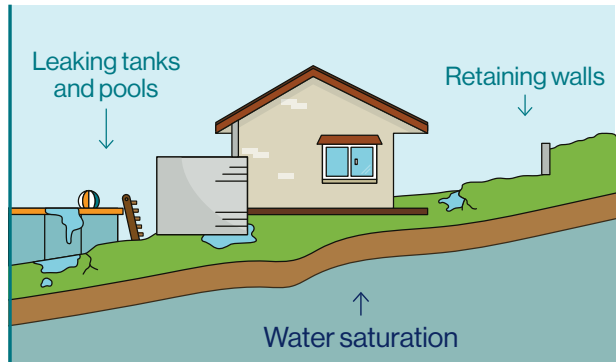
Increased load

Structures and earthworks add weight to slopes, potentially triggering landslides.



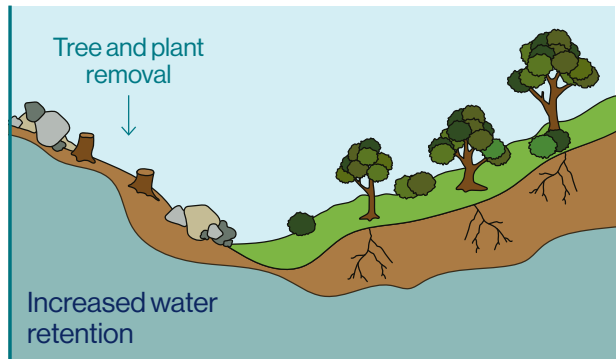
Drainage changes

Buildings, retaining walls, septic tanks, leaking pipes, pools, dams, and water tanks can increase the amount of water in the ground, affecting slope stability.



Vegetation clearance

Removing trees and plants removes reinforcement from the ground and allows more water to be retained in the soil.



Climate and Landslide Risk

Changing weather patterns may influence landslide risks. While overall rainfall is expected to decrease, extreme storms could become more frequent. Bushfires may also become more common, damaging vegetation and infrastructure like retaining walls and drainage systems—factors that can increase landslide susceptibility.

It is important that developments work within the EMO and consider the factors that can cause landslides, to help protect you and your property and those around you.

What can I do to manage my risk?

For most new developments within the EMO, a suitably qualified geotechnical engineer or engineering geologist must assess the landslide risks applicable and advise you on measures to manage those risks.

The engineer/geologist will prepare a report which you will need to submit to Council with your planning application. Contact Council's planning department if you are unsure about what you need to do.

When do I need a geotechnical report?

You will need a geotechnical assessment and seek recommendations for risk mitigation from a suitably qualified geotechnical engineer or engineering geologist if:

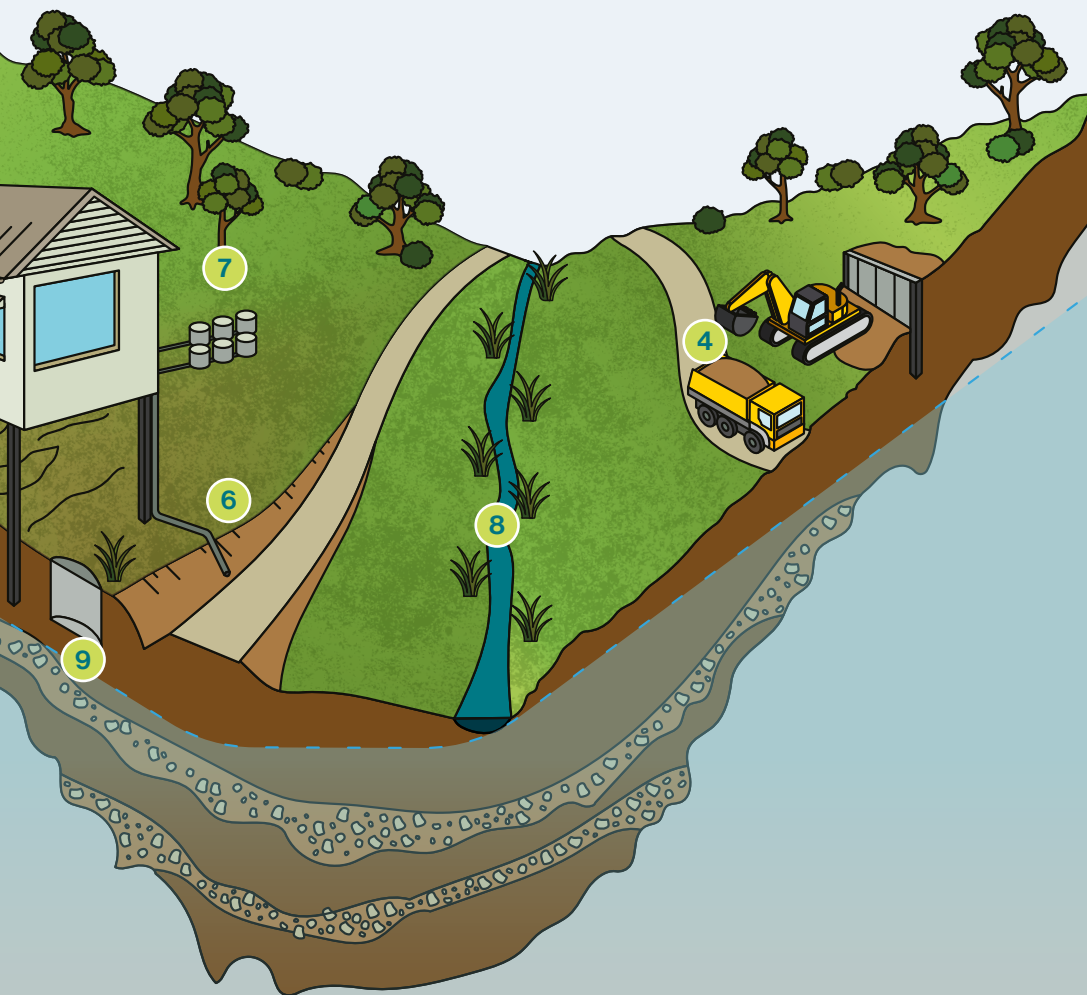
- your site has a higher susceptibility to landslide
- new water tanks, pools or spas with greater than 5,000 litre capacity
- new earthworks deeper or higher than one metre or new retaining wall higher than one metre
- changes to the location, footprint or habitable space of buildings and outbuildings
- vegetation removal.

What will the geotechnical engineer do?

The geotechnical engineer will prepare a report which you will need to submit to council with your planning application. The geotechnical engineer or engineering geologist should also provide you with a geotechnical declaration form on which the engineer will declare they have assessed and advised you of your landslide risk. Council may require that you implement the geotechnical recommendations as a condition of your planning permit.

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- A cross-sectional diagram of a coastal profile. On the left, a blue dashed line represents the sea level. The land is shown in brown, with a green grassy area on top. A house is built on the land, elevated on stilts. The ground level is marked with a yellow circle containing the number 10. The house's foundation is marked with a yellow circle containing the number 3. A small structure, possibly a shed or garage, is marked with a yellow circle containing the number 5. A tree stump is marked with a yellow circle containing the number 2. Another tree stump is marked with a yellow circle containing the number 1. The diagram illustrates the relationship between the sea level, the ground level, and the building's foundation.

- ✓ Consult a qualified geotechnical engineer.
- ✓ Keep records of works done on your property.
- ✓ Contact Council or emergency services if safety is a concern. Report landslides, blocked drains, or leaks.



Yarra Ranges Council applies the Erosion Management Overlay (EMO) to help protect residents and properties from the risks of landslides.

This overlay requires specific measures for any construction or land development within affected areas. If your property falls within the EMO, it is important to follow the good practice guidelines outlined in this information sheet.

The EMO covers areas more susceptible to landslides, based on factors such as geology, slope angle, and past landslide activity.

These areas may already have existing landslide hazards or may be at risk of developing new ones due to construction or land use changes.

Since ground and slope conditions vary between properties, and each development is unique, most projects within the EMO must be assessed by a qualified geotechnical engineer or engineering geologist. This approach is intended to ensure that landslide risks are properly identified and managed, protecting both people and property.

Where do I find more information?

Information about landslides and good hillside construction practice

www.australiangeomechanics.org

Provisions of the Erosion Management Overlay

www.planning.vic.gov.au

Victorian State Emergency Service

www.ses.vic.gov.au/plan-and-stay-safe/emergencies/landslide

View free planning map that outlines the zones and overlays that apply to your property:

mapshare.vic.gov.au/vicplan/

You can find out what Erosion Management Overlay exemptions apply to you at:

planning-schemes.app.planning.vic.gov.au/Yarra%20Ranges/ordinance/44.01

Contact us

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