# Planning for the risk of landslide hazard and steep slope in the region

#### **Background**

Landslides can take diverse forms including falls, topples, slides, flows and spreads, with a wide range of sizes and velocities. Landslides occur when the inherent strength of the soil or weathered rock is no longer sufficient to resist the forces of gravity. Factors such as slope geometry, geology/material type and groundwater play key roles in this process.

The mountainous Scenic Rim region offers spectacular views and desirable locations for housing and *vulnerable uses*. The steep slopes do however have an inherent risk of landslide in many parts of the region. Landslide movement is easily visible on some of our cleared hillsides.

Surveys of the Tamborine Mountain, Canungra and Beechmont areas were undertaken by the Geological Survey of Queensland (W.F. Willmott) in the early 1980's to identify existing and potential landslide hazard areas. This data forms the basis of the **Landslide Hazard Area** component of the Landslide Hazard and Steep Slope Overlay Map (OM-07-B). The Willmott report indicates areas which require further detailed study, should development occur.

Areas in the region with slopes over 15% have also been identified and depending on the type of development, certain outcomes will need to be achieved. Very steep slopes, which have greater potential for landslide, not only require special building design, but also consideration for safe access, wastewater disposal, vegetation retention, earthworks and subdivision design. Land with slopes of over 15% comprise the **Steep Slope Area** component of the Landslide Hazard and Steep Slope Overlay Map (OM-07-A).

NOTE: Vulnerable use means any of the following uses: (1) Child care centre; (2) Community residence; (3) Community Care Centre (4) Detention facility; (5) Educational establishment; (6) Emergency services; (7) Hospital; (8) Indoor sport and recreation; (9) Industry activities involving the manufacture or storage of hazardous materials in bulk; (10) Major electricity infrastructure (for the purpose of the Bushfire Hazard Overlay); (11) Multiple dwelling; (12) Nature-based tourism; (13)

Non-resident workers accommodation; (14) Outdoor sport and recreation; (15) Place of worship; (16) Relocatable home park; (17) Residential care facility; (18) Retirement facility; (19) Relocatable home park; (20) Rooming accommodation; (21) Shopping centre; (22) Short-term accommodation; (23) Substations (for the purpose of the Bushfire Hazard Overlay); (24) Telecommunication facilities (for the purpose of the Bushfire Hazard Overlay); (25) Tourist attraction; (26) Tourist Park; (27) Utility installation (for the purpose of the Bushfire Hazard Overlay).

## What is the role of the planning scheme in landslide hazard and steep slope areas

Within a planning scheme, Council is required to ensure the risks associated with landslide hazard and steep slope are avoided or mitigated to protect people, property and infrastructure, and enhance the community's resilience to natural hazards.

While recognising the need for new development, Council has a duty of care to protect the community and minimise property and infrastructure impacts from landslide and slope instability. The Landslide Hazard and Steep Slope Overlay Code provides clear guidance and requirements for any future development in landslide and steep slope areas.

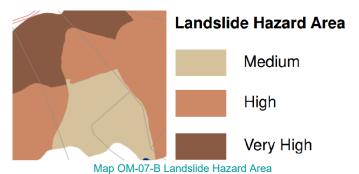
It is important to understand however that the Landslide Hazard and Steep Slope Overlay Code does not deal with building requirements for structures in areas at risk of landslide and slope instability.

## How does the planning scheme regulate development in a landslide hazard and steep slope area

The Landslide Hazard and Steep Slope Overlay Code guides the future development of sites at risk of landslide and slope instability by including overlay mapping. The overlay mapping shows a **Landslide Hazard Area** and **Steep Slope Area** that triggers specific assessment criteria to ensure that development addresses the potential hazard on the site. These regulations only apply

to new development (including extensions and reconstruction).

The **Landslide Hazard Area** is based on reports prepared by W.F. Willmott covering Tamborine Mountain, Canungra and Beechmont areas. The overlay identifies land with existing or potential landslide and the degree of risk associated with each area.



The **Steep Slope Area** is based on the outputs of a model that identifies slope exceeding 15%. Council has further categorised this data into three risk levels being:

- Slope Hazard 15.1 20%;
- Slope Hazard 20.1 25%; and
- Slope Hazard over 25%.



Where development occurs within the mapped areas, Section 5.10 Categories of Development and Assessment - Overlays must be checked to see if a planning application is required or not. It is possible that land can be mapped in one or both maps.

### Is Council planning approval required for development in a mapped area?

#### No if:

- identified as accepted development in <u>Section 5.10</u>
   <u>Categories of Development and Assessment -</u>
   Overlays
- identified as accepted development (subject to requirements) in Section 5.10 Categories of Development and Assessment - Overlays and all acceptable outcomes of the Code can be met (please refer to the below table for the acceptable outcomes).

#### Yes if:

- identified as accepted development (subject to requirements) and it does not meet <u>all</u> the acceptable outcomes, the development will be code assessable only against the outcome/s not met, or
- identified as code assessable in <u>Section 5.10</u>
   <u>Categories of Development and Assessment of</u>
   Assessment Overlays.

#### **Accepted development checklist**

For accepted development (subject to requirements) only, the Accepted Development Checklist identifies the acceptable outcomes required to be met in full to remain accepted development (which does not require planning approvals from Council). The below table is an extract from section 8.2.7 Landslide Hazard and Steep Slope Overlay Code.

#### **Accepted Development Checklist**

(Applicable to development identified as *accepted*development (subject to requirements) in Section

5.10 Categories of Development and Assessment of

Assessment - Overlays only)

For development only located in:

- Steep Slope Area Slope Hazard 15.1 20% or
- Steep Slope Area Slope Hazard 20.1 25%

#### **Acceptable Outcomes**

#### AO1

Development involving building, earthworks, vegetation clearing or an increase in the number of people living and working on a site, is undertaken on land identified as a Steep Slope Area - Slope Hazard 15.1 - 20% or Steep Slope Area - Slope Hazard 20.1 - 25%, and Landslide Hazard - Medium, only where a geotechnical stability assessment report, prepared and certified by a Registered Professional Engineer in Queensland (RPEQ), confirms that the proposed development:

- (1) is designed, located and managed to ensure the safety of people is maintained;
- (2) is located so that it is geologically stable in the long term and not at risk from landslide;
- (3) is appropriate for the sloping nature of the site; and
- (4) that the risk of landslide adversely affecting the subject lot, adjoining properties and the proposed development is at a low level.

**Note** - Certification is to consider all relevant matters including but not limited to safety of persons using the site, adjacent land stability impacts, rockfall, development siting and layout, vegetation and vegetation removal, waste disposal areas, stormwater management, earthworks, driveways, car parking and maneuvering areas.

#### **Related information**

The Overlays fact sheet can be found here:

https://www.scenicrim.qld.gov.au/homepage/138/scenic-rim-planning-scheme-fact-sheets.

#### **TALK TO A PLANNER**

Council's Planners are available for confidential discussions to help you navigate the planning scheme and how it affects you. Call (07) 5540 5111 or email <a href="mail@scenicrim.qld.gov.au">mail@scenicrim.qld.gov.au</a> to make an appointment.

#### FOR MORE INFORMATION

The planning scheme and mapping is available to view on Council's website at <a href="www.scenicrim.qld.gov.au/planning-and-permits/planning-schemes">www.scenicrim.qld.gov.au/planning-and-permits/planning-schemes</a>.

Hard copies of the planning scheme and mapping are also available at Council's Customer Service Centres.