

## 8.2.10 Landslide hazard and steep land overlay code<sup>37 38</sup>

### 8.2.10.1 Application

- (1) This code applies to accepted development and assessable development:-
  - (a) subject to the landslide hazard and steep land overlay shown on the overlay maps contained within **Schedule 2 (Mapping)**; and
  - (b) identified as requiring assessment against the Landslide hazard and steep land overlay code by the tables of assessment in **Part 5 (Tables of assessment)**.
- (2) The acceptable outcomes in **Table 8.2.10.3.1 (Requirements for accepted development and performance outcomes and acceptable outcomes for assessable development)** are requirements for applicable accepted development.
- (3) All provisions in this code are assessment benchmarks for applicable assessable development.

### 8.2.10.2 Purpose and overall outcomes

- (1) The purpose of the Landslide hazard and steep land overlay code is to ensure:-
  - (a) development avoids or mitigates the potential adverse impacts of landslide hazard on people, property, economic activity and the environment; and
  - (b) development on *steep land* is avoided or otherwise limited in scale and intensity, and is sensitively located and designed to minimise adverse impacts on scenic amenity, the environment and public safety.
- (2) The overall outcomes sought for the Landslide hazard and steep land overlay code are the following:-
  - (a) development in areas at risk from landslide hazard is compatible with the nature of the hazard;
  - (b) the risk to people, property and the natural environment from landslide hazard is minimised;
  - (c) development does not result in a material increase in the extent or severity of landslide hazard; and
  - (d) development on *steep land* occurs only where the scenic and environmental quality and integrity of the landscape is maintained and safe and efficient access can be provided.

### 8.2.10.3 Performance outcomes and acceptable outcomes

**Table 8.2.10.3.1 Requirements for accepted development and performance outcomes and acceptable outcomes for assessable development**

Performance Outcomes		Acceptable Outcomes	
<b>Landslide Hazard Areas</b>			
<b>Risk of Harm to People and Property</b>			
<b>PO1</b>	Development does not increase the risk of harm to people and property as a result of landslide by either:- (a) avoiding development in a landslide hazard area; or (b) undertaking development in a landslide hazard area only	<b>AO1</b>	Development, including associated access, is not located on land identified as a landslide hazard area on a Landslide Hazard and Steep Land Overlay Map.  <b>OR</b>

<sup>37</sup> Editor's note—landslide hazard areas and *steep land* (slopes of 15% or greater) are identified on the Landslide Hazard and Steep Land Overlay Maps in **Schedule 2 (Mapping)**. Landslide hazard may also be a risk in other areas and warrant further assessment.

<sup>38</sup> Editor's note—the **Planning scheme policy for the landslide hazard and steep land overlay code** and the **Planning scheme policy for development works** provide advice and guidance for achieving certain outcomes of this code, including guidance for the preparation of a site-specific geotechnical assessment report.

Performance Outcomes		Acceptable Outcomes	
	where strictly in accordance with <i>best practice</i> geotechnical principles.		<p>Development, including associated <i>access</i>, is located in a low or very low landslide hazard area, as determined by a geotechnical investigation prepared by a competent person.</p> <p>Note—a site-specific geotechnical assessment may be used to demonstrate that although the proposed development is shown on a Landslide Hazard and Steep Land Overlay Map as being located within a landslide hazard area, the landslide hazard risk is in fact low or very low.</p> <p><b>OR</b></p> <p>Where development is located on land identified as a landslide hazard area<sup>39</sup>:-</p> <p>(a) a competent person has certified that:-</p> <p>(i) the stability of the <i>site</i>, including associated buildings and <i>infrastructure</i>, will be maintained during the course of the development and will remain stable for the life of the development;</p> <p>(ii) development of the <i>site</i> will not increase the risk of landslide activity on other land, including land above the <i>site</i>; and</p> <p>(iii) the <i>site</i> is not subject to the risk of landslide activity originating from other land; and</p> <p>(b) any measures identified in a site-specific geotechnical assessment for stabilising the <i>site</i> or development have been fully implemented.</p>
<b>Steep Land</b>			
<b>Risk of Harm to People and Property</b>			
<b>PO2</b>	Development, including associated <i>access</i> , does not increase the risk of harm to people and property by:-	<b>AO2</b>	Development, including associated <i>access</i> , is not located on <i>steep land</i> as identified on a Landslide Hazard and Steep Land Overlay Map.
	<p>(a) avoiding development on <i>steep land</i>; or</p> <p>(b) undertaking development on <i>steep land</i> only where strictly in accordance with best-practice geotechnical principles.</p>		<p><b>OR</b></p> <p>Development, including associated <i>access</i>, is located on land with less than 15% <i>slope</i>, as determined by a site-specific <i>slope analysis</i> prepared by a competent person.</p> <p><b>OR</b></p> <p>Where development is located on steep land<sup>40</sup>, a site-specific geotechnical assessment prepared by a competent person certifies that:-</p> <p>(a) the stability of the <i>site</i>, including associated buildings and <i>infrastructure</i>, will be maintained during both the construction and operational life of the development; and</p> <p>(b) the <i>site</i> is not subject to risk of landslide activity originating from other land.</p>

<sup>39</sup> As specified on a Landslide Hazard and Steep Land Overlay Map or as determined by a site-specific geotechnical assessment.

<sup>40</sup> As specified on a Landslide Hazard and Steep Land Overlay Map or as determined by a *slope analysis*.

Performance Outcomes		Acceptable Outcomes	
<b>Additional requirements for accepted development and performance outcomes and acceptable outcomes for assessable development where for a Dwelling House</b>			
<b>PO3</b>	Where for a <i>dwelling house</i> , the development:- (a) is responsive to the natural topography of the <i>site</i> and minimises the need for cut and fill; (b) does not visually dominate the hill slope or interrupt the skyline; and (c) is visually integrated with natural site characteristics including <i>vegetation</i> .	<b>AO3.1</b>	Where for a <i>dwelling house</i> and located on land having a <i>slope</i> exceeding 15%, as identified on a Landslide Hazard and Steep Land Overlay Map:- (a) buildings are of a split level design that steps down the slope or incorporates a suspended floor construction that avoids filling and/or excavation;  <b>OR</b> (b) any <i>filling or excavation</i> associated with buildings, structures or driveways is confined to the driveway and plan area of the <i>dwelling house</i> , with ground level being retained around the driveway and the external walls of the building(s);  <b>OR</b> (c) any <i>filling or excavation</i> associated with buildings, structures or driveways:- (i) is not more than 2 metres relative to ground level or 1.0 metre relative to ground level where within 1.5 metres of any property boundary; and (ii) does not necessitate the construction of a retaining wall exceeding 2 metres in height relative to ground level.
		<b>AO3.2</b>	Any <i>filling or excavation</i> associated with buildings, structures or driveways provides for the stabilisation of any cut or fill batter through the use of landscapes and/or retaining walls.
		<b>AO3.3</b>	Driveways are not steeper than 20% for more than 20 metres or one quarter of their length, whichever is the lesser, and not more than 25% in any location.
		<b>AO3.4</b>	Parts of a driveway steeper than 20% are provided with a slip-resistant surface.

**Table 8.2.10.3.2 Additional performance outcomes and acceptable outcomes for assessable development**

Performance Outcomes		Acceptable Outcomes	
<b>Landslide Hazard and Steep Land</b>			
<b>Essential Community Infrastructure</b>			
<b>PO1</b>	<i>Essential community infrastructure</i> is able to function effectively during and immediately after landslide events.	<b>AO1</b>	Development involving <i>essential community infrastructure</i> is not located within a landslide hazard area, or on <i>steep land</i> , as identified on the applicable Landslide Hazard and Steep Land Overlay Map.  <b>OR</b>

Performance Outcomes		Acceptable Outcomes	
			<p>Development involving <i>essential community infrastructure</i> is located in a low or very low landslide hazard area, as determined by a site-specific geotechnical assessment prepared by a competent person.</p> <p><b>OR</b></p> <p>Development involving <i>essential community infrastructure</i>:-</p> <ul style="list-style-type: none"> <li>(a) does not result in any new building work, other than an addition to an existing building;</li> <li>(b) does not involve <i>vegetation clearing</i>; and</li> <li>(c) does not alter ground levels or stormwater conditions.</li> </ul> <p><b>OR</b></p> <p>Development involving <i>essential community infrastructure</i> includes measures identified by a site-specific geotechnical assessment, prepared by a competent person, that ensure:-</p> <ul style="list-style-type: none"> <li>(a) the long term stability of the <i>site</i>, including associated buildings and <i>infrastructure</i>;</li> <li>(b) <i>access</i> to the <i>site</i> will not be impeded by a landslide event; and</li> <li>(c) the <i>community infrastructure</i> will not be adversely affected by landslides originating from other land, including land above the <i>site</i>. </li></ul>
<b>Storage of Hazardous Materials</b>			
<b>PO2</b>	Development ensures that public safety and the environment are not adversely affected by the detrimental impacts of landslide on hazardous materials manufactured or stored in bulk.	<b>AO2</b>	<p>Development involving the manufacture or storage of hazardous materials in bulk is not located within a landslide hazard area, or on <i>steep land</i>, as identified on a Landslide Hazard and Steep Land Overlay Map.</p> <p><b>OR</b></p> <p>Development involving the manufacture or storage of hazardous materials in bulk is located in a low or very low landslide hazard area, as determined by a site-specific geotechnical assessment prepared by a competent person.</p> <p><b>OR</b></p> <p>Where development is located in a landslide hazard area<sup>41</sup>, a site-specific geotechnical assessment prepared by a competent person certifies that:-</p> <ul style="list-style-type: none"> <li>(a) the stability of the <i>site</i>, including associated buildings and <i>infrastructure</i>, will be maintained during both the construction and operational life of the development; and</li> </ul>

<sup>41</sup> As specified on a Landslide Hazard and Steep Land Overlay Map or as determined by a site-specific geotechnical assessment.

Performance Outcomes		Acceptable Outcomes	
			(b) the <i>site</i> is not subject to risk of landslide activity originating from other land.
<b>Steep Land</b>			
<b>Site Responsive Design</b>			
<b>PO3</b>	Development, including associated access, is designed and constructed to:- (a) sensitively respond to the constraints imposed by slope; (b) minimise impacts on the natural landform and landscape character; and (c) avoid any potential instability and associated problems, including long term stability of the <i>site</i> and long term stability of the development and adjoining properties.	<b>AO3.1</b>  <b>AO3.2</b>  <b>AO3.3</b>	No additional lot which includes a house site is created on land with a <i>slope</i> of 25% or greater.  Development avoids or minimises <i>filling or excavation</i> by using elevated construction or stepped (split level) building forms.  Development provides for cut and fill batters to be stabilised and protected from erosion by measures such as grassing, dense landscapes, retaining walls or other suitable stabilisation/protective methods.
<b>PO4<sup>42</sup></b>	Development is sensitively designed, sited and erected to respect and be visually integrated into the <i>streetscape</i> and the natural surroundings by ensuring:- (a) adequate screening of the underneath of buildings; (b) retention, where possible, of natural landforms, drainage lines and <i>vegetation</i> ; and (c) buildings and structures are not visually intrusive, particularly from ridge lines, public open spaces, scenic routes and other critical vantage points, outside of the <i>site</i> .	<b>AO4.1</b>          <b>AO4.2</b>	Any building, including any associated car parking structure:- (a) has a maximum undercroft height at the perimeter of the building of 3 metres above ground level; or (b) incorporates undercroft skirting or screening (such as timber battens) to the full height of any undercroft higher than 3 metres above ground level at the perimeter of the building; or (c) incorporates landscape screening for the full height of any undercroft higher than 3 metres above ground level at the perimeter of the building.  The extent of <i>filling or excavation</i> is revegetated immediately following completion of the works.
<b>Safe and Efficient Access</b>			
<b>PO5</b>	Development provides safe and efficient access for vehicles and pedestrians.	<b>AO5.1</b>  <b>AO5.2</b>  <b>AO5.3</b>  <b>AO5.4</b>	Road grades comply with the standards specified in the <b>Planning scheme policy for development works</b> .  Driveways are not steeper than 20% for more than 20 metres or one quarter of their length, whichever is the lesser, and not steeper than 25% in any location.  Vehicle turning areas are provided at the end of driveways so that it is not necessary to reverse up or down driveways.  Where a driveway is steeper than 20% in any part, it is provided with a slip-resistant surface.

<sup>42</sup> Editor's note—the acceptable outcomes corresponding to this performance outcome represent only partial fulfilment of the performance outcome. In order to adequately address this performance outcome, other measures are also likely to be necessary.