

8.2.11 Landslide hazard overlay code

8.2.11.1 Application

This code applies to assessing material change of use, reconfiguring a lot or operational work for development located on any lot partially or completely subject to the Landslide hazard overlay and identified within **Part 5.10 Categories of development and assessment – Overlays**.

When using this code, reference should be made to **Section 5.3.2** and, where applicable, **Section 5.3.3**, in **Part 5**.

8.2.11.2 Purpose

- (1) The Landslide hazard overlay code deals with areas of land identified in the local government area as having landslide potential. It applies, at a minimum, to development that:
 - (a) increases the number of people living and working in the natural hazard management area, except where the premises are occupied on a short term or intermittent basis; or
 - (b) involves institutional uses where evacuating people may be difficult; or
 - (c) involves the manufacture or storage of hazardous materials in bulk.
- (2) The purpose of the Landslide hazard overlay code is to regulate development which occurs on land or part of any land containing steep slopes or unstable slopes.
- (3) The purpose of the code will be achieved through the following overall outcomes:
 - (a) The potential for erosion or landslide is minimised.
 - (b) The risk of landslides damaging property or endangering persons is minimised.
 - (c) Stormwater runoff and waste water disposal is effectively managed so that it does not increase landslide risk on the site or neighbouring sites.
 - (d) Erosion events on slopes exceeding an average gradient of 20% are minimised.
 - (e) Safe and efficient vehicular access onto steeply sloping land is provided.
 - (f) Development does not occur at the expense of other environmental values.

8.2.11.3 Specific benchmarks for assessment

Part A applies to accepted development subject to requirements.

Part B applies to assessable development.

PART A – ACCEPTED DEVELOPMENT SUBJECT TO REQUIREMENTS

Table 8.2.11-1: Landslide hazard overlay code – for accepted development subject to requirements

Required outcomes	
Site slope constraints	<p>RO1</p> <p>Development is not to be undertaken on any lot partially or completely identified on the Landslide hazard overlay map, unless certification is provided by a Registered Professional Engineer in Queensland, whose primary business is geotechnical engineering or engineering geology with over five years' experience in slope stability matters (RPEQ), confirming that the proposed development is appropriate for the sloping nature of the site, and that the risk of landslide adversely affecting the subject lot, adjoining properties and the proposed development is at a low level.</p> <p>Note: For guidance on how to meet this required outcome, refer to SC6.109 City Plan policy – Geotechnical stability assessment guideline.</p>

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Required outcomes

Advisory note

Accepted development identified in the assessment tables as subject to requirements must comply with all the nominated requirements in this and other applicable codes.

PART B – ASSESSABLE DEVELOPMENT BENCHMARKS

Table 8.2.11-2: Landslide hazard overlay code – for assessable development

Performance outcomes	Acceptable outcomes
Site slope constraints	
<p>PO1</p> <p>Development must be certified by an RPEQ as being responsive to the constraints of steeply sloping land.</p> <p>Note: For guidance on how to meet this performance outcome, refer to SC6.109 City Plan policy – Geotechnical stability assessment guideline.</p>	<p>AO1</p> <p>Development is not to be undertaken on any lot partially or completely identified on the Landslide hazard overlay map, unless certification is provided by an RPEQ, confirming that the proposed development is appropriate for the sloping nature of the site, and that the risk of landslide adversely affecting the subject lot, adjoining properties and the proposed development is at a low level.</p>
Stormwater drainage	
<p>PO2</p> <p>Development must ensure that stormwater runoff does not increase the susceptibility of the site to landslide and does not cause any detriment to the natural environment or to any other lots.</p>	<p>AO2.1</p> <p>Stormwater drainage (including roof guttering and rainwater tank overflows) is managed to avoid an increase in on-site groundwater, ponding of water and water concentration into slopes and discharges to a lawful point of discharge.</p>
	<p>AO2.2</p> <p>Stormwater drainage is in accordance with SC6.104 City Plan policy – Land development guidelines, Section 4 – Stormwater drainage and water sensitive urban design.</p>
Cut and fill work	
<p>PO3</p> <p>Cut and fill work must not adversely affect slope stability or create erosion potential.</p>	<p>AO3.1</p> <p>Cuts and fills should be minimised. The height of cut and/or fill, whether retained or not, does not exceed:</p> <ul style="list-style-type: none"> (a) 900mm adjoining a public area (e.g. roads, public open space areas); (b) 1200mm adjoining a residential site; (c) 2500mm adjoining a non-residential site. <p>OR</p> <p>Cuts greater than 900mm height are separated by terraces with a minimum width of 1.2m or equal to the height of the cut, whichever is greater, that incorporates drainage provisions in accordance with Council's SC6.104 City Plan policy – Land development guidelines, Section 3 – Change to ground level standards and Section 4 – Stormwater drainage and water sensitive urban design standards.</p>
	<p>AO3.2</p> <p>No crest of any cut or toe of any fill, or any part of any retaining wall or structure, is located closer than 600mm to any boundary of the lot, unless the prior approval of both landowners and the Council, or its delegate, has been obtained.</p>
	<p>AO3.3</p> <p>Cut and/or fill on slopes steeper than 1V:2H (26°) are retained at the time of earthworks by retaining structures or</p>

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Performance outcomes	Acceptable outcomes
	<p>other stabilisation methods, in accordance with SC6.104 City Plan policy – Land development guidelines, Section 3 – Change to ground level standards.</p> <p>AO3.4 All retaining walls on lots identified on the Landslide hazard overlay map are designed and certified by an RPEQ as not adversely affecting the site's overall stability. Boulder walls must not be used as retaining walls on sites steeper than 20%.</p>
	<p>AO3.5 Non-retained cut and/or fill on slopes are stabilised and protected against scour and erosion by suitable measures, such as grassing, dense landscaping or other protective measures, in accordance with SC6.104 City Plan policy – Land development guidelines, Section 3 – Change to ground level standards.</p>
Wastewater	
<p>PO4 Wastewater disposal must not create or increase the likelihood of instability on the site or neighbouring sites.</p>	<p>AO4 All wastewater is disposed of via connection to sewerage reticulation. OR Where sewerage reticulation is not available on site, effluent disposal areas are located so as to not cause potential instability. Subsurface disposal of effluent is not to be used.</p>
Slope constraints and stability	
<p>PO5 Development on any lot partially or completely mapped as moderate, high or very high landslide hazard, as identified on the Landslide hazard overlay map, is supported by an RPEQ certified geotechnical report, which adequately assesses and documents the site's geotechnical stability and constraints, and incorporates necessary mitigation measures so that the level of landslide risk to property and persons is low. Note: A geotechnical stability assessment report prepared in accordance with SC6.940 City Plan policy – Geotechnical stability assessment guidelines is Council's preferred method for addressing this performance outcome.</p>	<p>AO5 A geotechnical stability assessment report, which is prepared and certified by an RPEQ, includes: (a) the following information:</p> <ul style="list-style-type: none"> (i) boundary dimensions; (ii) location of easements; (iii) existing and proposed services, such as sewer, stormwater, gas, electricity, telephone, and other utility services; (iv) contour lines to AHD (500mm vertical intervals); (v) street front kerb locations, crossovers, side gully pit locations, driveway locations and slope; (vi) off-street parking locations, building locations and setback dimensions; (vii) earthwork details and building pad levels; (viii) retaining wall locations, type, extent, height, and offset from boundaries; (ix) existing and proposed onsite drainage systems; (x) identification of trees to be removed or retained; (xi) fencing extent, location, height and depth; (xii) swimming pool location, level and depth; (xiii) ancillary structures, such as pergolas and sheds; (xiv) landscaping, lawn areas, paved areas, mass planting areas and trees; (xv) slope angles;

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Performance outcomes	Acceptable outcomes
	<ul style="list-style-type: none"> (xvi) slope shape and features; (xvii) parent rock type/soil type; (xviii) engineering properties of sub-surface materials; (xix) concentration of surface water; (xx) concentration of ground water; (xxi) evidence of instability on the site and adjoining areas; (xxii) history of instability on the site and adjoining areas; and (xxiii) geotechnical model of the site. (b) a site-specific landslip susceptibility frequency analysis, including analysis of each proposed lot; (c) if the outcome of the landslip susceptibility frequency analysis is moderate or higher, a risk assessment in accordance with the <i>AGS Landslide Risk Management 2007 Guidelines</i>; (d) an assessment of the suitability of the site for the proposed development having regard to (a) – (c); (e) a foundation investigation report that determines the site classification for the lot/each proposed lot in accordance with <i>AS 2870-2011 Residential slabs and footings</i> and provides recommendations for foundation design; (f) identification of any areas on the lot/within proposed lots where development must not occur; (g) certification from the RPEQ confirming that the site (and for subdivisions, each proposed lot) achieves a landslide risk rating of 'low' or better and the site/lot is suitable for its intended use; and (h) recommendations for any necessary mitigation measures, construction measures and design changes to be implemented to ensure the stability of the site and adjoining areas is not adversely affected and to ensure long-term stability of the site.
Access (for subdivision only)	
<p>PO6 Development on steep slopes must ensure that safe and efficient access by vehicles and pedestrians can be achieved.</p>	<p>AO6 The building envelope within every lot is accessible by a legal road access, in compliance with SC6.104 City Plan policy – Land development guidelines, Section 2 – Transport network standards.</p>
Environmental values	
<p>PO7 Works to mitigate landslide risks avoid adverse impact on other environmental values.</p>	<p>AO7 No acceptable outcome is provided.</p>

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