

## **E3.0 Landslide Code**

### **E3.1 Purpose**

E3.1.1 The purpose of this provision is to ensure that use and development is appropriately designed, located, serviced, constructed or managed to reduce to within tolerable limits the risk to human life and property and the cost to the community, caused by landslides.

### **E3.2 Application**

E3.2.1 This Code applies to:

- (a) Development for buildings and works or subdivision on land within a Landslide Hazard Area;
- (b) Use of land for vulnerable use or hazardous use within a Landslide Hazard Area.

### **E3.3 Definition of Terms**

E3.3.1 In this Code, unless the contrary intention appears:

acceptable risk	means a risk society is prepared to accept as it is. That is; without management or treatment.
AGS	means the Australian Geomechanics Society.
dangerous substance	means a substance that has the potential to cause harm to persons, property, or the environment, because of one or more of the following: <ul style="list-style-type: none"><li>(a) the chemical properties of the substance;</li><li>(b) the physical properties of the substance;</li></ul>

	<p>(c) the biological properties of the substance.</p> <p>Without limiting this definition includes all dangerous goods, combustible liquids, hazardous substances and agvet chemicals .</p>
group home	means use of land for residential accommodation for people with disabilities.
hazardous chemical of a manifest quantity	means a hazardous chemical, as defined in the <i>Work Health and Safety Regulations 2012</i> , if the amount of hazardous chemical stored exceeds the manifest quantity as specified under the <i>Work Health and Safety Regulations 2012</i> [S2].
hazardous use	<p>E3.3 Landslide Code</p> <p>means a use that:</p> <p>(a) is in the use class Vehicle fuel sales and service; or</p> <p>(b) involves dangerous substances and is in one of the following use classes:</p> <p>(i) Extractive industries, if the use involves the storage of a hazardous chemical of a manifest quantity</p> <p>(ii) Hospital services</p> <p>(iii) Manufacturing and processing</p> <p>(iv) Research and development</p> <p>(v) Storage</p> <p>(vi) Transport and distribution</p> <p>(vii) Utilities</p>
landslide risk management report	means an assessment and report by a suitably qualified person (landslip) prepared in accordance with the Australian Geomechanics Society - Practice Note Guidelines for Landslide Risk Management 2007. It includes a landslide risk assessment.
Landslide Hazard Area	<p>means an area shown on the planning scheme maps as a landslide hazard area including:</p> <p>(a) Low Landslide Hazard Area;</p> <p>(b) Medium Landslide Hazard Area;</p> <p>(c) Medium Active Landslide Hazard Area;</p> <p>(d) High Landslide Hazard Area.</p>

major works	<p>means any of the following:</p> <ul style="list-style-type: none"> <li>(a) excavation of 100 m<sup>3</sup> or more in cut volume;</li> <li>(b) excavation or soil disturbance of an area of 1,000 m<sup>2</sup> or more;</li> <li>(c) clearance of vegetation involving an area of more than 1,000 m<sup>2</sup>;</li> <li>(d) water storages or swimming pools with a volume of 45,000 litres or more.</li> </ul>
major extension	means an extension that is not a minor extension.
minor extension	means an extension of a building by no more than 40 m <sup>2</sup> in gross floor area.
suitably qualified person (landslide)	<p>means a suitably qualified person as follows:</p> <ul style="list-style-type: none"> <li>(a) for any Landslide Hazard Area, a geotechnical engineer or an engineering geologist as specified in the Director of Building Control's determination: "Certificates of Specialists or Other Persons" that can complete a landslide risk assessment; or</li> <li>(b) for a Low Landslide Hazard Area, a civil engineer.</li> </ul>
tolerable risk	<p>means the residual tolerable risk after the hazard has been satisfactorily treated.</p> <p>The residual tolerable risk may be assessed using either qualitative or quantitative methods in the landslide risk assessment either:</p> <ul style="list-style-type: none"> <li>(a) if using the AGS qualitative risk assessment method apply the "As Low As Reasonably Possible (ALARP)" principle with the residual tolerable risk level no higher than a "moderate" risk level under the AGS 2007(c) risk method; or</li> <li>(b) if using the AGS quantitative risk assessment method then the tolerable loss of life for the person most at risk as suggested by the AGS 2007(c) to be: <ul style="list-style-type: none"> <li>(i) if existing slope / existing development: 10<sup>-4</sup> / annum;</li> <li>(ii) if new constructed slope / new development / existing landslide: 10<sup>-5</sup> / annum.</li> </ul> </li> </ul>
vulnerable use	<p>E3.3 Landslide Code means a use that:</p> <ul style="list-style-type: none"> <li>(a) is in the Residential Use Class and is one of the following uses: <ul style="list-style-type: none"> <li>(i) respite centre;</li> <li>(ii) residential aged care facility;</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>(iii) retirement village;</li> <li>(iv) group home; or</li> <li>(b) is in one of the following Use Classes: <ul style="list-style-type: none"> <li>(i) Custodial facility;</li> <li>(ii) Educational and occasional care;</li> <li>(iii) Hospital services;</li> <li>(iv) Visitor accommodation.</li> </ul> </li> </ul>
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### E3.4 Use or Development Exempt from this Code

The following use or development is exempt from this Code:

- (a) adjustment of a boundary in accordance with clause 9.3 of this planning scheme
- (b) a subdivision creating no more than two lots within a Low Landslide Hazard Area;
- (c) buildings within a Low Landslide Hazard Area;
- (d) minor extensions within the Medium Landslide Hazard Area;
- (e) major extensions and new buildings with a gross floor area no more than 200 m<sup>2</sup> in the Medium Landslide Hazard Area;
- (f) minor structures or outbuildings; and
- (g) use or development of land for Extractive industry where a mining lease under the *Mineral Resources Development Act 1995* is in force, excluding a hazardous use.

### E3.5 Application Requirements

E3.5.1 In addition to any other application requirements, the planning authority may require the applicant to provide any of the following information if considered necessary to determine compliance with performance criteria:

- (a) A plan, drawn to scale, accurately showing the siting of the proposed use or development relative to landslide hazard areas;
- (b) A landslide risk management report.

E3.5.2 In addition to any other application requirements, the planning authority must require the applicant to provide the following information, which is considered necessary to determine compliance with performance criteria:

- (a) in regard to an application for a hazardous use that is subject consideration under E3.6.1 P1 and P2 or a vulnerable use that is subject consideration under E3.6.2 P1 and P2:

- (i) a submission demonstrating the purported overriding benefit to the community of the use, in terms of significant long term social or economic community benefits.

## E3.6 Use Standards

### E3.6.1 Hazardous Use

Objective:	
To ensure that:	
<ul style="list-style-type: none"> <li>(a) hazardous use is only located in Landslide Hazard Areas in exceptional circumstances;</li> <li>(b) if hazardous use is located in a Landslide Hazard Area, landslide hazard management measures reflect the risk arising from the landslide hazard and take into consideration the characteristics, nature and scale of the use.</li> </ul>	
Acceptable Solutions	Performance Criteria
<p><b>A1</b></p> <p>Hazardous use relates to an alteration or intensification of an approved use.</p>	<p><b>P1</b></p> <p>Hazardous use is of an overriding benefit to the community, in terms of significant long term social or economic community benefits.</p>
<p><b>A2</b></p> <p>No acceptable solution.</p>	<p><b>P2</b></p> <p>Hazardous use must satisfy all of the following:</p> <ul style="list-style-type: none"> <li>(a) No part of the hazardous use is in a High Landslide Hazard Area;</li> <li>(b) Landslide risk to people and the environment associated with the hazardous use is either: <ul style="list-style-type: none"> <li>(i) acceptable risk; or</li> <li>(ii) capable of feasible and effective treatment through hazard management measures, so as to be tolerable risk.</li> </ul> </li> <li>(c) Landslide risk to people and the environment associated with the hazardous use must take into consideration the characteristics, nature and scale of the use to:</li> </ul>

	<ul style="list-style-type: none"> <li>(i) prevent the exposure of people and the environment to dangerous substances as a consequence of landslide;</li> <li>(ii) minimise the risk to emergency personnel.</li> </ul>
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E3.6.2 E3.6.2 Vulnerable Use

Objective:	
To ensure that:	
<ul style="list-style-type: none"> <li>(a) vulnerable use, other than visitor accommodation, is only located on land in a Landslide Hazard Area in exceptional circumstances;</li> <li>(b) if a vulnerable use is located in a Landslide Hazard Area, landslide hazard management measures reflect the risk arising from the landslide hazard and the characteristics, nature and scale of the use taking into consideration the specific circumstances of users of the site.</li> </ul>	
Acceptable Solutions	Performance Criteria
<b>A1</b> Vulnerable use is for visitor accommodation.	<b>P1</b> Vulnerable use is of an overriding benefit to the community, in terms of significant long term social or economic community benefits.
<b>A2</b> No acceptable solution.	<b>P2</b> Vulnerable use must satisfy all of the following: <ul style="list-style-type: none"> <li>(a) No part of the vulnerable use is in a High Landslide Hazard Area;</li> <li>(b) Landslide risk to occupants, staff, visitors and emergency personnel associated with the vulnerable use is either: <ul style="list-style-type: none"> <li>(i) acceptable risk; or</li> <li>(ii) capable of feasible and effective treatment through hazard management measures, so as to be tolerable risk.</li> </ul> </li> <li>(c) Landslide risk to occupants, staff and visitors takes into consideration their specific circumstances including their ability to:</li> </ul>

	<ul style="list-style-type: none"> <li>(i) protect themselves and defend property from landslide;</li> <li>(ii) evacuate in an emergency;</li> <li>(iii) understand and respond to instructions in the event of a landslide;</li> </ul> <p>whilst minimising risk to emergency personnel.</p>
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### E3.7 Development Standards for Buildings and Works

#### E3.7.1 Buildings and Works, other than Minor Extensions

Objective:	
To ensure that landslide risk associated with buildings and works for buildings and works, other than minor extensions, in Landslide Hazard Areas, is:	
<ul style="list-style-type: none"> <li>(a) acceptable risk; or</li> <li>(b) tolerable risk, having regard to the feasibility and effectiveness of measures required to manage the landslide hazard.</li> </ul>	
Acceptable Solutions	Performance Criteria
<b>A1</b> No acceptable solution.	<b>P1</b> Buildings and works must satisfy all of the following: <ul style="list-style-type: none"> <li>(a) no part of the buildings and works is in a High Landslide Hazard Area;</li> <li>(b) the landslide risk associated with the buildings and works is either: <ul style="list-style-type: none"> <li>(i) acceptable risk; or</li> <li>(ii) capable of feasible and effective treatment through hazard management measures, so as to be tolerable risk.</li> </ul> </li> </ul>

#### E3.7.2 Minor Extensions

Objective:
To ensure that landslide risk associated with buildings and works for minor extensions in Landslide Hazard Areas is:

<p>(a) acceptable risk; or</p> <p>(b) tolerable risk, having regard to the feasibility and effectiveness of measures required to manage the landslide hazard.</p>	
Acceptable Solutions	Performance Criteria
<p><b>A1</b></p> <p>Buildings and works for minor extensions must comply with the following:</p> <p>(a) be in a Medium Landslide Hazard Area.</p>	<p><b>P1</b></p> <p>Buildings and works for minor extensions must satisfy all of the following:</p> <p>(a) no part of the buildings and works is in a High Landslide Hazard Area;</p> <p>(b) the landslide risk associated with the buildings and works is either:</p> <p>(i) acceptable risk; or</p> <p>(ii) capable of feasible and effective treatment through hazard management measures, so as to be tolerable risk.</p>

### E3.7.3 Major Works

Objective:	
To ensure that landslide risk associated with major works in Landslide Hazard Areas, is:	
<p>(a) acceptable risk; or</p> <p>(b) tolerable risk, having regard to the feasibility and effectiveness of any measures required to manage the landslide hazard.</p>	
Acceptable Solutions	Performance Criteria
<p><b>A1</b></p> <p>No acceptable solution.</p>	<p><b>P1</b></p> <p>Major works must satisfy all of the following:</p> <p>(a) no part of the works is in a High Landslide Hazard Area;</p> <p>(b) the landslide risk associated with the works is either:</p> <p>(i) acceptable risk; or</p>



	(ii) capable of feasible and effective treatment through hazard management measures, so as to be tolerable risk.
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## E3.8 Development Standards for Subdivision


### E3.8.1 Subdivision

Objective:	
To ensure that landslide risk associated with subdivision in Landslide Hazard Areas, is:	
(a) acceptable risk; or	
(b) tolerable risk, having regard to the feasibility and effectiveness of any measures required to manage the landslide hazard.	
Acceptable Solutions	Performance Criteria
<b>A1</b> No acceptable solution.	<b>P1</b> Subdivision of a lot, all or part of which is within a Landslide Hazard Area must be for the purpose of one of the following:  (a) separation of existing dwellings;  (b) creation of a lot for the purposes of public open space, public reserve or utilities;  (c) creation of a lot in which the building area, access and services are outside the High Landslide Hazard Area and the landslide risk associated with the subdivision is either:  (i) acceptable risk, or  (ii) capable of feasible and effective treatment through hazard management measures, so as to be tolerable risk.
<b>A2</b> Subdivision is not prohibited by the relevant zone standards.	<b>P2</b> No performance criteria.

## Map E3 Landslide Hazard Area (Medium-active) – LISTmap

Open the full map extent (link to [interactive map](#))



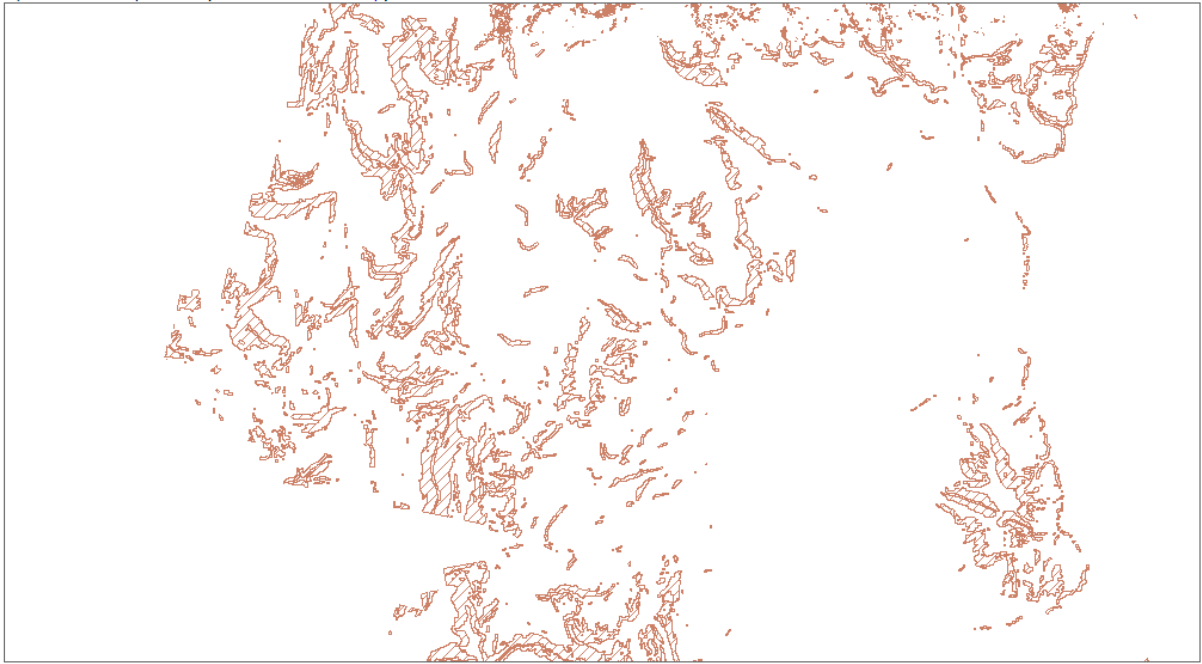
**Legend**  
Landslide Hazard Area 

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Note: This overlay map has been filtered to show the selected overlay feature only for the Planning Scheme currently being viewed.

## Map E3 Landslide Hazard Area (Medium) – LISTmap

Open the full map extent (link to [interactive map](#))



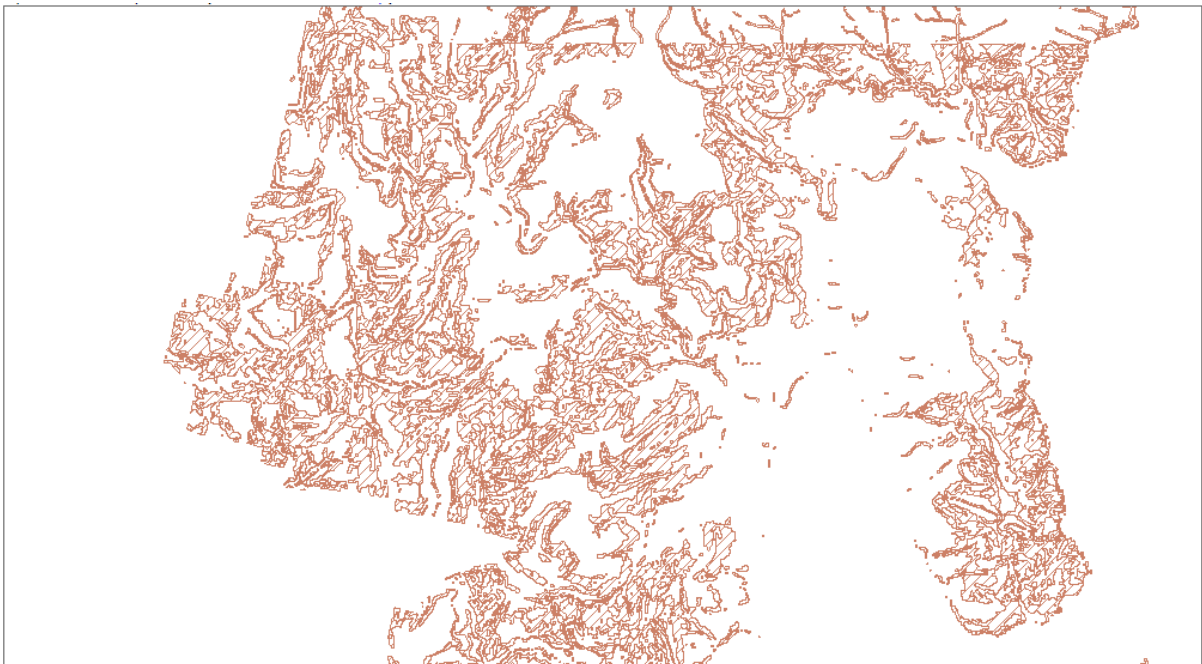
**Legend**  
Landslide Hazard Area 


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Note: This overlay map has been filtered to show the selected overlay feature only for the Planning Scheme currently being viewed.

### Map E3 Landslide Hazard Area (Low) – LISTmap

Open the full map extent (link to [interactive map](#))



**Legend**  
Landslide Hazard Area 

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Note: This overlay map has been filtered to show the selected overlay feature only for the Planning Scheme currently being viewed.