



State Planning Policy

Mitigating the Adverse Impacts of Flood, Bushfire and Landslide



Queensland Government

Department of **Local Government and Planning**
Department of **Emergency Services**

STATE PLANNING POLICY 1/03

Mitigating the Adverse Impacts of Flood, Bushfire and Landslide

Integrated Planning Act 1997

STATE PLANNING POLICY 1/03
Mitigating the Adverse Impacts of Flood, Bushfire and Landslide

The Minister for Local Government and Planning adopted State Planning Policy 1/03 on 19 May 2003.

Making of the State Planning Policy

State Planning Policy 1/03 was made under Schedule 4 of the *Integrated Planning Act 1997*.

Commencement

State Planning Policy 1/03 **took effect on 1 September 2003.**

POSITION STATEMENT

The Queensland Government considers that development should minimise the potential adverse impacts of flood, bushfire and landslide on people, property, economic activity and the environment.

1. PURPOSE OF THE POLICY

- 1.1** This State Planning Policy ('the SPP') sets out the State's interest in ensuring that the natural hazards of flood, bushfire, and landslide¹ are adequately considered when making decisions about development.

2. APPLICATION OF THE POLICY

- 2.1** Under the *Integrated Planning Act 1997* (IPA), the SPP has effect when development applications are assessed, when planning schemes are made or amended and when land is designated for community infrastructure.²

Development to which the Policy applies

- 2.2** The SPP applies to development involving the:
- actions or activities described in paragraph A1.1 of Annex 1; and
 - community infrastructure described in paragraph A1.2 of Annex 1.
- 2.3** In addition, the SPP addresses development that has the potential to increase the extent or severity of natural hazards, but this aspect of the SPP applies only when planning schemes are being made or amended.

Areas to which the Policy applies

- 2.4** The SPP generally applies throughout Queensland. However, the application of the SPP for bushfire and landslide is limited to the local governments listed in Annex 2.

3. USING THE POLICY

- 3.1** The main outcome statements are depicted in bold type (Outcome 1 to Outcome 6) and must be read in conjunction with the rest of the text.
- 3.2** This SPP addresses only development issues associated with minimising the potential adverse impacts of flood, bushfire and landslide. To achieve some of the SPP outcomes, development proposals may include works (e.g. filling, firebreaks or retaining structures) that would have unacceptable impacts on the natural environment, heritage or amenity values. Achieving the outcomes of this SPP is not an automatic justification for a development proposal being inconsistent with policies on amenity, conservation or other matters.

¹ See Section 9, Glossary.

² The SPP 1/03 Guideline: *Mitigating the Adverse Impacts of Flood, Bushfire and Landslide* describes in more detail how the SPP applies.

- 3.3 When a planning scheme appropriately reflects the SPP³, the planning scheme is to be regarded as the local interpretation and expression of the SPP for development assessment purposes.
- 3.4 Technical terms are described in Section 9, Glossary.
- 3.5 The SPP 1/03 Guideline: *Mitigating the Adverse Impacts of Flood, Bushfire and Landslide* ('the SPP Guideline'), as amended from time to time, provides advice about how to implement the SPP, and is declared to be 'extrinsic material' under the *Statutory Instruments Act 1992*.⁴

4. THE NEED TO MITIGATE THE ADVERSE IMPACTS OF NATURAL HAZARDS

- 4.1 A natural hazard is a naturally occurring situation or condition with the potential for loss or harm to the community or environment. Natural hazards do not have to become natural disasters. Effective land use planning is an important means of reducing the community's vulnerability to natural hazards and promoting resilient communities.
- 4.2 In Queensland the main natural hazard threats are cyclones/severe storms, floods, storm tide inundation, bushfires, landslide and earthquake. The risks and consequences from these hazards vary around the State depending on the location, the physical characteristics of land and the type of development. Cyclones are particularly potent natural hazards as the consequences of a cyclone can include a combination of flood, storm tide inundation, strong winds and landslide. For the purposes of this SPP, the consequences of cyclones are regarded as separate hazards.
- 4.3 As the hazards associated with strong winds and earthquakes are not amenable to clear spatial definition, they are difficult to address through land use planning mechanisms. Design and construction standards are the most appropriate mechanisms for mitigating risk from earthquakes and strong winds. The *Standard Building Regulation* specifies construction standards for buildings and most non-building structures. Therefore, strong winds and earthquakes are not addressed by this SPP.
- 4.4 Storm tide inundation hazard is addressed under the *State Coastal Management Plan – Queensland's Coastal Policy 2001* (State Coastal Plan), and is therefore excluded from this SPP except to the extent that cumulative impacts (e.g. flooding can be exacerbated under storm tide conditions) may need to be considered in determining the extent and severity of hazard under this SPP.
- 4.5 Natural disasters are a significant and rising cost to the community. They are estimated to have cost Queensland an average of \$239 million per year (in 1999 prices) in direct and indirect tangible costs between 1967 and 1999.⁵ In addition, there are significant intangible costs associated with loss of life, injury, human suffering, loss of productivity and environmental degradation.

³ The Minister formally identifies in the planning scheme those SPPs that have been appropriately reflected.

⁴ Refer to the SPP Guideline for an explanation of 'extrinsic material'.

⁵ Bureau of Transport Economics Report 103, *Economic Costs of Natural Disasters in Australia*, Commonwealth of Australia 2001.

- 4.6 The *Queensland Greenhouse Policy Framework*⁶ acknowledges the growing scientific consensus that the enhanced greenhouse effect is changing the world's climate, and that Queensland will be vulnerable to the effects of climate change. Predicted changes include reductions in annual rainfall but increases in rainfall intensity, sea level and coastal erosion, bushfire risk, flood risk and damage to transport infrastructure and low-lying human settlements. The nature of these changes will vary across Queensland. These changes will have significant impacts on the nature and extent of natural hazards and, consistent with the precautionary principle⁷, should be considered when undertaking natural hazard assessments or developing natural hazard mitigation strategies. The State Coastal Plan provides general direction for addressing potential impacts of climate change in the coastal zone.
- 4.7 Inappropriate development in areas susceptible to natural hazards significantly increases the risks (and associated costs) to the community. This SPP aims to minimise these risks by ensuring that the potential adverse impacts of natural hazards are adequately considered when development applications are assessed, when planning schemes are made or amended and when land is designated for community infrastructure.

5. THE POLICY APPROACH

- 5.1 The SPP requires the identification of *natural hazard management areas*⁸ within which minimising risks to the community should be a key consideration in development assessment and the preparation of planning schemes. Until natural hazard management areas are identified in planning schemes, the natural hazard management areas outlined in Annex 3 should be used for development assessment.
- 5.2 In relation to certain important types of community infrastructure⁹, the SPP aims to ensure that they are able to maintain operation during and immediately after major natural hazard events wherever practicable. The SPP applies to these types of community infrastructure anywhere in Queensland¹⁰, not only within natural hazard management areas.

6. DEVELOPMENT OUTCOMES AND DEVELOPMENT ASSESSMENT

- 6.1 When development applications are assessed against this SPP or land is designated for community infrastructure, regard must be had to Outcomes 1 to 3 and the remainder of Section 6. However, this SPP is not to be used when assessing development applications for building work assessable only against the *Standard Building Regulation*.
- 6.2 The assessment manager needs certain information when assessing development applications for consistency with Outcomes 1 to 3. If not provided with a development application, such information should be the subject of an information request under the Integrated Development Assessment System (IDAS).¹¹

⁶ Queensland Greenhouse Policy Framework: A Climate of Change, State of Queensland, September 2001.

⁷ The precautionary principle is defined in s1.2.3(2) of the *Integrated Planning Act 1997*.

⁸ See Section 9, Glossary.

⁹ See paragraph A1.2, Annex 1.

¹⁰ Except, in relation to bushfire and landslide, those local government areas not included in Annex 2.

¹¹ See Section 9, Glossary.

Development in natural hazard management areas

- 6.3 When assessing development applications for the development listed in paragraph A1.1 of Annex 1, regard must be had to Outcomes 1 and 2.

Outcome 1: Within natural hazard management areas, development to which this SPP applies is compatible with the nature of the natural hazard¹², except where:

- **the development proposal is a development commitment¹³; or**
- **there is an overriding need for the development in the public interest and no other site is suitable and reasonably available for the proposal.**

Identifying natural hazard management areas and severity of hazard

- 6.4 Annex 3 describes the natural hazard management areas for flood, bushfire and landslide that apply to this outcome. Information on the location of natural hazard management areas and, in some instances, the severity¹⁴ of hazard within those areas may be obtained from State or local government. Information on the severity of natural hazards will not always be available, but where it is available it should be provided with the development application. The SPP Guideline provides further information on how to identify natural hazard management areas and the severity of hazard.
- 6.5 In the case of landslide hazard for which the natural hazard management area may be based on a slope calculation¹⁵, the slope of the development site may need to be determined when preparing a development application.
- 6.6 The natural hazard management area for flood hazard is dependent on a local government adopting a flood event for the management of development in a particular locality¹⁶ and identifying the affected area in the planning scheme. Until this occurs the SPP does not take effect for development assessment in relation to flood hazard in that locality.
- 6.7 When assessing applications for development, the assessment manager will need to confirm whether the proposed development is located within a natural hazard management area. The assessment manager will also need to confirm the severity of hazard where such information is available.

Determining development compatibility

- 6.8 In natural hazard management areas, development that achieves the relevant specific outcomes set out in Annex 4 is compatible with the nature of the natural hazard. Development applications should demonstrate such achievement.

¹² See Section 9, Glossary for a definition of 'nature of the natural hazard'.

¹³ See Section 9, Glossary.

¹⁴ Areas are often classified according to the estimated severity of a particular hazard in that location (e.g. High, Medium, Low severity). Classification in this fashion is not always necessary or appropriate. However, where such information is available it should be used to assist development assessment.

¹⁵ Refer to Annex 3.

¹⁶ This is referred to as the Defined Flood Event, see Section 9, Glossary.

Development commitments

- 6.9** A development proposal that is consistent with Outcome 1 because of a development commitment should also achieve Outcome 2.

Overriding need

- 6.10** In some cases, it may be possible to demonstrate that a proposed development that is incompatible with the nature of the natural hazard would meet a particular public need to an extent that would override some aspects of the risk associated with the natural hazard.
- 6.11** Determining an overriding need in the public interest will depend on the circumstances of the particular development proposal. The proposal should result in a significant overall benefit to the whole or a significant part of the community in social, economic or environmental terms that outweighs the adverse impacts arising from the development's exposure to natural hazards. Also, the development application should demonstrate that a similar benefit could not be achieved by developing other suitable and reasonably available sites. Increased risk to people is a significant consideration when determining overriding need.¹⁷
- 6.12** A development proposal that is consistent with Outcome 1 because of an overriding public need should also achieve Outcome 2.

Outcome 2: Development that is not compatible with the nature of the natural hazard but is otherwise consistent with Outcome 1:

- **minimises as far as practicable the adverse impacts from natural hazards; and**
- **does not result in an unacceptable risk¹⁸ to people or property.**

- 6.13** Development achieves Outcome 2 when it is brought as near as practicable to the level required to comply with the specific outcomes in Annex 4, and the development would not result in an unacceptable risk to people or property. Assessment of the latter requirement will require consideration of the on-site and external impacts of the proposed development. Annex 5 specifies the minimum measures required to avoid an unacceptable risk.¹⁹

Community infrastructure anywhere in Queensland

- 6.14** When assessing development applications or designating land for community infrastructure described in paragraph A1.2 of Annex 1, regard must be had to Outcome 3. Community infrastructure development that involves any of the actions or activities in paragraph A1.1 of Annex 1 and is located in a natural hazard management area should also achieve Outcomes 1 and 2.

¹⁷ The SPP Guideline provides advice about interpreting 'overriding need'.

¹⁸ See Section 9, Glossary.

¹⁹ The SPP Guideline provides advice on achieving Outcome 2.

Outcome 3: Wherever practicable, community infrastructure to which this SPP applies is located and designed to function effectively during and immediately after natural hazard events commensurate with a specified level of risk.

- 6.15** Wherever practicable, community infrastructure should be capable of performing its role in maintaining the health, safety and wellbeing of the community in the event of a natural disaster. However, locating and designing community infrastructure to withstand any natural hazard event, no matter how severe, would be unrealistic. Accordingly, the SPP Guideline sets out appropriate levels of risk for differing types of community infrastructure and provides advice on assessing community infrastructure proposals against Outcome 3. Locating and designing community infrastructure to withstand these specified levels of risk also needs to be weighed against the need for that infrastructure to serve the community effectively in normal circumstances when there is no natural hazard event.
- 6.16** Where designing the community infrastructure to function effectively at the specified level of risk in Outcome 3 is not practicable, the development should be designed to function at the highest level of risk that is practicable.²⁰

7. MAKING AND AMENDING A PLANNING SCHEME

- 7.1** Planning schemes should aim to achieve Outcomes 1 to 3 by identifying natural hazard management areas and containing appropriate planning strategies and development assessment measures.

Identifying natural hazard management areas

Outcome 4: Natural hazard management areas are identified in the planning scheme.

- 7.2** Clearly identifying areas potentially affected by flood, bushfire and landslide is necessary to assist in formulating planning strategies and detailed planning measures that minimise risks to people, property, economic activity and the environment. The SPP Guideline provides advice on how to identify natural hazard management areas and severity of hazard (where appropriate). The SPP Guideline also provides advice on including the impacts of climate change when identifying a natural hazard management area.

²⁰ The SPP Guideline provides advice about deciding appropriate levels of risk in this circumstance.

Reflecting the SPP in planning strategies

Outcome 5: The planning scheme contains planning strategies that aim to:

- ensure that development in natural hazard management areas is compatible with the nature of the natural hazard;
- minimise the impacts from natural hazards on existing developed areas; and
- prevent development from materially increasing the extent or the severity of natural hazards.

- 7.3** Allocated land uses and associated development within natural hazard management areas should be consistent with Outcomes 1 to 3.
- 7.4** The planning scheme should include strategies aimed at minimising the impacts of natural hazards on areas of existing development. In particular, new development in existing developed areas should provide the optimum level of protection from natural hazards that is achievable under the circumstances of the particular locality. The SPP Guideline contains advice on how this can be achieved.
- 7.5** The planning scheme should also include strategies that prevent material increases in the extent or the severity of natural hazards. In relation to flooding, the planning scheme should aim to maintain the flood carrying capacity of rivers, streams and floodways, and the flood storage function of floodplains and waterways. For bushfire hazard, the planning scheme should include strategies that would prevent development (such as plantation forestry) from increasing bushfire risk for existing and planned communities and facilities. The SPP Guideline contains advice on devising these strategies.

Reflecting the SPP in detailed planning scheme measures

Outcome 6: The planning scheme measures:

- a) include a code(s) designed to achieve development outcomes consistent with Section 6; and
- b) ensure that development to which this SPP applies is assessable or self-assessable against that planning scheme code(s).

The planning scheme, or planning scheme policy(s), specifies the information expected to be submitted with development applications subject to the code(s).

- 7.6** The combination of development assessment tables, code(s) and other assessment measures in the planning scheme needs to ensure that all relevant development is assessed against specific development standards that are consistent with Section 6. The SPP Guideline provides further advice on how this can be achieved.
- 7.7** Section 6 and the SPP Guideline describe the information that should be submitted with development applications. The planning scheme or supporting planning scheme policy(s) should make it clear that where such information is not provided with a development application, that information will be subject to an information request under IDAS.

8. INFORMATION AND ADVICE ON THE POLICY

- 8.1** Queensland Department of Emergency Services (DES) can provide information and advice on interpreting and implementing the SPP, the relevant contacts in appropriate agencies for specific natural hazard mitigation issues, planning for and managing disaster risks, sources of financial assistance for undertaking disaster risk management studies, hazard studies, developing disaster mitigation plans and the interpretation and use of the Bushfire Risk Analysis maps.
- 8.2** Queensland Department of Local Government and Planning (DLGP) can provide advice about reflecting the SPP in planning schemes and the operation of IDAS.
- 8.3** Queensland Department of Natural Resources and Mines (NR&M) can provide advice on landslide and floodplain management issues and the latest climate change science advances.
- 8.4** Queensland Environmental Protection Agency (EPA) can provide advice and information on storm tide and climate change issues.

9. GLOSSARY

- 9.1** The following terms are used in the SPP as defined below.

Annual exceedance probability (AEP): the likelihood of occurrence of a flood of a given size or larger in any one year; usually expressed as a percentage. For example, if a peak flood discharge of 500 cubic metres per second has an AEP of 5%, it means that there is a 5% risk (i.e. probability of 0.05 or a likelihood of 1 in 20) of a peak flood discharge of 500 metre³/second or larger occurring in any one year. The AEP of a flood event gives no indication of when a flood of that size will occur next.

Bushfire: an uncontrolled fire burning in forest, scrub or grassland vegetation, also referred to as wildfire.

Climate change: a change of climate that is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods.

Defined flood event (DFE): the flood event adopted by a local government for the management of development in a particular locality. The DFE is generally not the full extent of flood-prone land.

Development commitment: includes any of the following²¹:

- development with a valid preliminary approval;
- a material change of use that is code assessable or otherwise consistent with the requirements of the relevant planning scheme;
- a reconfiguration of a lot and/or work that is consistent with the requirements (including any applicable codes) of the relevant planning scheme; or
- development consistent with a designation for community infrastructure.

²¹ Note that a designation in a forward planning document such as a strategic plan or development control plan under a transitional planning scheme is not a development commitment for the purposes of this SPP. Also the SPP does not apply to development assessable only against the *Standard Building Regulation*.

Flood: the temporary inundation of land by expanses of water that overtop the natural or artificial banks of a watercourse i.e. a stream, creek, river, estuary, lake or dam.

Floodplain: an area of land adjacent to a creek, river, estuary, lake, dam or artificial channel, which is subject to inundation by the Probable Maximum Flood (PMF).

Floodway²²: those areas of the floodplain where a significant discharge of water occurs during the DFE. Floodways are often aligned with naturally defined channels and even if partially blocked would cause a significant redistribution of flood flow, or a significant increase in flood levels. What constitutes a floodway may vary from one floodplain or part of a floodplain to another. Floodways will normally be identified as part of a floodplain management study or flood study where their importance in the overall behaviour of flood flows can be properly taken into account. Where a study to determine floodways using local criteria has not been undertaken, a floodway (for the purposes of this SPP) shall be an area where, at the DFE, the floodwater has:

- a velocity–depth product of 0.3 square metres per second or greater; **or**
- a velocity of 1 metre per second or greater.

Hazardous materials in bulk: hazardous materials as defined in the *Dangerous Goods Safety Management Act 2001* (except that radioactive substances and infectious substances²³ are excluded for the purposes of this SPP) in quantities that:

- would be equivalent to or exceed the minimum quantities set out to determine a Large Dangerous Goods Location in the *Dangerous Goods Safety Management Regulation*; or
- would require a licence for a magazine for the storage of an explosive under the *Explosives Regulation 1955*.

IDAS: Integrated Development Assessment System (IDAS) is a framework that establishes a common statutory system under the *Integrated Planning Act 1997* for making, assessing and deciding development applications, regardless of the nature of development, its location in Queensland or the authority administering the regulatory control.

Landslide: a movement of material downslope in a mass as a result of shear failure at the boundaries of the mass.

Mitigation: any measure intended to reduce the severity of a natural hazard.

Natural disaster: a natural hazard event that severely disrupts the fabric of a community and requires the intervention of the various levels of government to return the community to normality.

Natural hazard: a naturally occurring situation or condition with the potential for loss or harm to the community, property or environment. The natural hazards addressed in this SPP are flood, bushfire and landslide.

²² Local governments may adopt an alternative definition of floodway in their planning scheme to provide a more accurate reflection of the flood characteristics in a particular locality. Refer to Appendix 2 for additional information on floodways and their identification.

²³ Radioactive substances are appropriately managed under the *Radiation Safety Act 1999*, and facilities dealing with infectious substances are subject to Australian Standards and the Office of Gene Technology.

Natural hazard management area: an area that has been defined²⁴ for the management of a natural hazard (flood, bushfire or landslide), but may not reflect the full extent of the area that may be affected by the hazard (e.g. land above the 1% AEP floodline may flood during a larger flood event). Natural hazard management areas for flood, bushfire or landslide are described in Annex 3.

Nature of the natural hazard: the important characteristics of the hazard including the type of hazard and its severity.

Probable maximum flood (PMF): the largest flood that could reasonably occur at a particular location, resulting from the probable maximum precipitation. The PMF defines the extent of flood-prone land. Generally, it is not physically or financially possible to provide general protection against this event.

Risk: a concept used to describe the likelihood of harmful consequences arising from the interaction of hazards, community and the environment.

Unacceptable risk: a situation where people or property are exposed to a predictable hazard event that may result in serious injury, loss of life, failure of community infrastructure, or property damage that would make a dwelling unfit for habitation.

Vegetation clearing²⁵: removing or cutting down, ringbarking, pushing over, poisoning or in any way destroying a tree, shrub or other plant (other than grass), but does **not** include:

- lopping, pruning or mowing for maintenance purposes;
- work associated with management practices for the conduct of an agricultural or forestry use²⁶;
- clearing vegetation for essential management including:
 - for establishing or maintaining a firebreak to protect a building, property boundary or paddock;
 - vegetation that is likely to endanger the safety of a person or property on the land because the vegetation is likely to fall;
 - for maintaining an existing fence, stock yard, shed, road or other built infrastructure; or
 - for maintaining a garden or orchard.

²⁴ A natural hazard management area may be defined using a different term (e.g. bushfire prone area; flood affected area).

²⁵ Proposals that involve vegetation clearing may also be required to address relevant requirements of the *Vegetation Management Act 1999*, as well as local laws and the planning scheme. Information and advice on these matters should be sought from NR&M and the local government.

²⁶ Work associated with forestry and management practices for the conduct of an agricultural use (other than the clearing of native vegetation on freehold land) is exempt development that may not be made assessable or self-assessable under the IPA.

ANNEX 1

Development to which this Policy applies

A1.1 In natural hazard management areas this Policy applies as follows:

- a) in natural hazard management areas for **flood, bushfire** or **landslide** to **material changes of use** and associated **reconfigurations of a lot** that:
 - increase the number of people living or working in the natural hazard management area (e.g. residential development, shopping centres, tourist facilities, industrial or commercial uses) except where the premises are only occupied on a short-term or intermittent basis (e.g. by construction/maintenance workers, certain agricultural and forestry workers); or
 - involve institutional uses where evacuating people may be particularly difficult (e.g. hospitals, education establishments, child care, aged care, nursing homes and high security correctional centres); or
 - involve the manufacture or storage of hazardous materials in bulk²⁷; or
 - would involve the building or other work described in (b) and (c) below as an intrinsic element of the development proposal; and
- b) in natural hazard management areas for **flood**, to **building**²⁸ or other **work** that involves any physical alteration to a watercourse or floodway including vegetation clearing²⁹, or involves net filling exceeding 50 cubic metres³⁰; and
- c) in natural hazard management areas for **landslide**, to **building**²⁸ or other **work** on potentially unstable slopes that involves:
 - earthworks exceeding 50 cubic metres³⁰ (other than the placement of topsoil); or
 - vegetation clearing²⁹; or
 - redirecting the existing flow of surface or groundwater.

AND

A1.2 Throughout **Queensland**³¹ to the following types of **community infrastructure** that provide services vital to the wellbeing of the community:

- police and emergency services facilities including emergency shelters;
- hospitals and associated institutions;
- facilities for the storage of valuable records or items of cultural or historic significance³²;
- State-controlled roads;
- railway lines, stations and associated facilities;
- aeronautical facilities;
- communication network facilities;
- works of an electricity entity under the *Electrical Safety Act 2002*; and
- water cycle management infrastructure.

²⁷ See Section 9, Glossary for a definition of hazardous materials in bulk.

²⁸ Except where the building work is accessible only against the *Standard Building Regulation*.

²⁹ See Section 9, Glossary.

³⁰ This is the threshold for defining earthworks of State interest to which the SPP applies. Local governments may adopt lower thresholds to reflect the particular flooding or landslide hazard characteristics of different localities.

³¹ Except in relation to bushfire and landslide, those local government areas not included in Annex 2.

³² Including facilities for the storage of public records under the *Public Records Act 2002*.

ANNEX 2

Areas within which the SPP applies for Bushfire and Landslide

A2.1 For **bushfire** the SPP applies in the following local government areas as they were defined on 1 September 2002.

Atherton Shire Council	Hinchinbrook Shire Council	Tiaro Shire Council
Banana Shire Council	Inglewood Shire Council	Toowoomba City Council
Bauhinia Shire Council	Ipswich City Council	Townsville City Council
Beaudesert Shire Council	Isis Shire Council	Waggamba Shire Council
Bendemere Shire Council	Jericho Shire Council	Wambo Shire Council
Biggenden Shire Council	Johnstone Shire Council	Warwick Shire Council
Boonah Shire Council	Jondaryan Shire Council	Whitsunday Shire Council
Booringa Shire Council	Kilcoy Shire Council	Wondai Shire Council
Bowen Shire Council	Kilkivan Shire Council	Woocoo Shire Council
Brisbane City Council	Kingaroy Shire Council	
Broadsound Shire Council	Kolan Shire Council	Cherbourg Aboriginal Council
Bungil Shire Council	Laidley Shire Council	Hope Vale Aboriginal Council
Burdekin Shire Council	Livingstone Shire Council	Lockhart River Aboriginal Council
Burnett Shire Council	Logan City Council	Napranum Aboriginal Council
Caboolture Shire Council	Mackay City Council	Palm Island Aboriginal Council
Cairns City Council	Mareeba Shire Council	Woorabinda Aboriginal Council
Calliope Shire Council	Maroochy Shire Council	Wujal Wujal Aboriginal Council
Caloundra City Council	Maryborough City Council	Yarrabah Aboriginal Council
Cambooya Shire Council	Millmerran Shire Council	
Cardwell Shire Council	Mirani Shire Council	
Chinchilla Shire Council	Miriam Vale Shire Council	
Clifton Shire Council	Monto Shire Council	
Cook Shire Council	Mount Morgan Shire Council	
Cooloola Shire Council	Mundubbera Shire Council	
Crows Nest Shire Council	Murgon Shire Council	
Dalrymple Shire Council	Murilla Shire Council	
Douglas Shire Council	Nanango Shire Council	
Duaringa Shire Council	Nebo Shire Council	
Eacham Shire Council	Noosa Shire Council	
Eidsvold Shire Council	Perry Shire Council	
Emerald Shire Council	Pine Rivers Shire Council	
Esk Shire Council	Pittsworth Shire Council	
Etheridge Shire Council	Redcliffe City Council	
Fitzroy Shire Council	Redland Shire Council	
Flinders Shire Council	Rockhampton City Council	
Gatton Shire Council	Rosalie Shire Council	
Gayndah Shire Council	Sarina Shire Council	
Gladstone City Council	Stanthorpe Shire Council	
Gold Coast City Council	Tara Shire Council	
Herberton Shire Council	Taroom Shire Council	
Hervey Bay City Council	Thuringowa City Council	

A2.2 The areas subject to this SPP are not altered by administrative changes to local government boundaries or names.

A2.3 For **landslide** the SPP applies in the following local government areas as they were defined on 1 September 2002:

Atherton Shire Council	Jondaryan Shire Council	Bamaga Island Council
Banana Shire Council	Kilcoy Shire Council	Cherbourg Aboriginal Council
Bauhinia Shire Council	Kilkivan Shire Council	Hope Vale Aboriginal Council
Beaudesert Shire Council	Kingaroy Shire Council	Injinoo Aboriginal Council
Biggenden Shire Council	Kolan Shire Council	Lockhart River Aboriginal Council
Boonah Shire Council	Laidley Shire Council	Mapoon Aboriginal Council
Bowen Shire Council	Livingstone Shire Council	Napranum Aboriginal Council
Brisbane City Council	Logan City Council	New Mapoon Aboriginal Council
Broadsound Shire Council	Mackay City Council	Palm Island Aboriginal Council
Burdekin Shire Council	Mareeba Shire Council	Umagico Aboriginal Council
Burnett Shire Council	Maroochy Shire Council	Woorabinda Aboriginal Council
Caboolture Shire Council	Maryborough City Council	Wujal Wujal Aboriginal Council
Cairns City Council	Mirani Shire Council	Yarrabah Aboriginal Council
Calliope Shire Council	Miriam Vale Shire Council	
Caloundra City Council	Monto Shire Council	
Cambooya Shire Council	Mt Morgan Shire Council	
Cardwell Shire Council	Nanango Shire Council	
Clifton Shire Council	Nebo Shire Council	
Cooloola Shire Council	Noosa Shire Council	
Cook Shire Council	Peak Downs Shire Council	
Crows Nest Shire Council	Perry Shire Council	
Dalrymple Shire Council	Pine Rivers Shire Council	
Douglas Shire Council	Redland Shire Council	
Duaranga Shire Council	Rockhampton City Council	
Eacham Shire Council	Rosalie Shire Council	
Emerald Shire Council	Sarina Shire Council	
Esk Shire Council	Stanthorpe Shire Council	
Fitzroy Shire Council	Taroom Shire Council	
Gatton Shire Council	Thuringowa City Council	
Gayndah Shire Council	Tiaro Shire Council	
Gladstone City Council	Toowoomba City Council	
Gold Coast City Council	Torres Shire Council	
Herberton Shire Council	Townsville City Council	
Hervey Bay City Council	Wambo Shire Council	
Hinchinbrook Shire Council	Warwick Shire Council	
Ipswich City Council	Whitsunday Shire Council	
Isis Shire Council	Woocoo Shire Council	
Johnstone Shire Council		

A2.4 The areas subject to this SPP are not altered by administrative changes to local government boundaries or names.

ANNEX 3

Natural hazard management areas

Flood

- A3.1** A natural hazard management area (flood) is land inundated by a Defined Flood Event (DFE)³³ and identified in a planning scheme.
- A3.2** The Queensland Government's position is that, generally, the appropriate flood event for determining a natural hazard management area (flood) is the 1% Annual Exceedance Probability (AEP) flood. However, it may be appropriate to adopt a different DFE depending on the circumstances of individual localities. This is a matter that should be reviewed when preparing or undertaking relevant amendments to a planning scheme. Local governments proposing to adopt a lower DFE in their planning scheme to determine a natural hazard management area (flood) for a particular locality will be expected to demonstrate to the satisfaction of the Department of Emergency Services (DES) and the Department of Natural Resources and Mines (NR&M) that the proposed DFE is appropriate to the circumstances of the locality³⁴.

Bushfire

- A3.3** A natural hazard management area (bushfire) is:
- an area identified by a local government in its planning scheme consistent with the conclusions of a bushfire hazard assessment prepared in accordance with Appendix 3 of the SPP Guideline or other methodology approved by the Queensland Fire and Rescue Service (QFRS); or
 - where such a study has not been undertaken, an area identified by a local government in its planning scheme, reflecting the Medium and High hazard area of the Bushfire Risk Analysis maps produced by the QFRS, suitably modified following a visual assessment of the accuracy of the maps by the local government; or
 - where an area has not been identified by a local government, the Medium and High hazard areas on the Bushfire Risk Analysis maps produced by the QFRS.

Landslide

- A3.4** A natural hazard management area (landslide) is:
- an area identified by a local government in its planning scheme consistent with the conclusions of a landslide hazard assessment prepared in accordance with Appendix 4 of the SPP Guideline; or
 - where such a study has not been undertaken, an area identified by a local government in its planning scheme and including all land of 15% and greater slope and other land known or suspected by the local government as being geologically unstable, together with other areas that the local government considers may be adversely affected by a landslide event;³⁵ or

³³ See Section 9, Glossary.

³⁴ Local Governments are encouraged to adopt a DFE and identify natural hazard management areas (flood) in a planning scheme as soon as possible to enable the application of the SPP to development in flood prone areas. Appendix 2 in the SPP Guideline gives examples of simple flood study alternatives that may be appropriate for interim use until comprehensive flood studies are completed, or for longer-term use by low-growth local governments with capacity and resource constraints. Appendix 2 also provides guidance on the key issues to be considered when determining an appropriate DFE.

³⁵ For example, land below an area known or suspected as being geologically unstable that may be affected by debris flows.

- c) where an area has not been identified by a local government, all land with a slope of 15% or greater.³⁶

A3.5 The SPP Guideline provides information on methodologies for identifying natural hazard management areas in planning schemes and advice on sources of financial assistance available for such studies.

³⁶ Refer to the SPP Guideline for a suitable methodology to calculate slope.

ANNEX 4

Compatibility of development in natural hazard management areas with the nature of the hazard

A4.1 This Annex sets out the specific outcomes that should be achieved for development to be compatible with the nature of hazard as required under Outcome 1 of the SPP. Development proposals that demonstrate compliance with each of the specific outcomes that are applicable to the particular development achieve Outcome 1 of the SPP.

A4.2 The SPP Guideline provides advice on how to achieve these specific outcomes.

Natural hazard	Specific outcomes
FLOOD	<ol style="list-style-type: none"> 1. Development maintains the safety of people on the development site from all floods up to and including the DFE. 2. Development does not result in adverse impacts on people's safety or the capacity to use land within the floodplain. 3. Development minimises the potential damage from flooding to property on the development site. 4. Public safety and the environment are not adversely affected by the detrimental impacts of floodwater on hazardous materials manufactured or stored in bulk. 5. Essential services infrastructure (e.g. on-site electricity, gas, water supply, sewerage and telecommunications) maintains its function during a DFE.
BUSHFIRE	<ol style="list-style-type: none"> 6. Development maintains the safety of people and property by: <ol style="list-style-type: none"> a) avoiding areas of High or Medium bushfire hazard; or b) mitigating the risk through: <ul style="list-style-type: none"> • allotment design and the siting of buildings; and • including firebreaks that provide adequate: <ul style="list-style-type: none"> – setbacks between buildings/structures and hazardous vegetation, and – access for fire-fighting/other emergency vehicles; • providing adequate road access for fire-fighting/other emergency vehicles and safe evacuation; and • providing an adequate and accessible water supply for fire-fighting purposes. 7. Public safety and the environment are not adversely affected by the detrimental impacts of bushfire on hazardous materials manufactured or stored in bulk.
LANDSLIDE	<ol style="list-style-type: none"> 8. Development maintains the safety of people, property and hazardous materials manufactured or stored in bulk from the risk of landslide.

ANNEX 5

Determining unacceptable risk in accordance with Outcome 2

A5.1 Outcome 1 does not require development proposals that are either a development commitment³⁷, or satisfy an overriding need in the public interest to be compatible with the nature of the natural hazard. However, Outcome 2 requires such development proposals to achieve the specific outcomes for compliance with Outcome 1 as far as practicable, and not to result in an unacceptable risk to people and property.

A5.2 The following table sets out the minimum outcomes a development should achieve to avoid unacceptable risk. Appendix 5 of the SPP Guideline provides more information (including associated Probable Solutions) on how to achieve these outcomes.

Minimum requirements to satisfy the ‘unacceptable risk’ test:

Natural hazard	Minimum requirements
FLOOD	Achievement of specific outcomes 1, 2 and 4 in Annex 4.
BUSHFIRE	Achievement of the following elements from specific outcome 6 in Annex 4: <ul style="list-style-type: none">• providing adequate road access for fire-fighting and other emergency vehicles and safe evacuation; and• providing an adequate and accessible water supply for fire-fighting purposes.
LANDSLIDE	Achievement of specific outcome 8 in Annex 4.

³⁷ See Section 9, Glossary.

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Copies of the State Planning Policy 1/03: *Mitigating the Adverse Impacts of Flood, Bushfire and Landslide* are available on the Department of Local Government and Planning's website at www.dlgp.qld.gov.au as well as Department of Emergency Services website at www.emergency.qld.gov.au

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