

Contents	1	2	3	4	5	6	Appendices
	Introduction	Planning framework overview	Bushfire prone areas	Assessing bushfire risk in the planning context	Applying SPP 3.7	Roles and responsibilities	

APPENDICES



Contents	1 Introduction	2 Policy framework overview	3 Bushfire prone areas	4 Assessing bushfire risk in the planning context	5 Applying SPP 3.7	6 Roles and responsibilities	Appendices
----------	-------------------	--------------------------------------	------------------------------	--	--------------------------	------------------------------------	------------

APPENDIX ONE DEFINITIONS

These definitions apply in the context of SPP 3.7 and these Guidelines.

AS 3959: *Australian Standard 3959 Construction of Buildings in Bushfire-Prone Areas.*

Asset Protection Zone: A low fuel area immediately surrounding a building.

BAL: Bushfire Attack Level (BAL) as set out in the *Australian Standard 3959 Construction of Buildings in Bushfire-Prone Areas (AS 3959)*, as referenced in the Building Code of Australia (as amended).

BAL assessment: An assessment prepared in a manner and form set out in AS 3959 to determine a BAL. It is strongly recommended that BAL assessments are prepared by accredited Level 1 BAL Assessors, unless otherwise exempted in these Guidelines.

BAL Contour Map: A BAL Contour Map is a scale map of the subject lot/s illustrating the potential radiant heat impacts and associated indicative BAL ratings in reference to any classified vegetation remaining within 100 metres of the assessment area after the development is complete. The intent of the BAL Contour Map is to identify land suitable for development based on the indicative BAL rating. It is strongly recommended that BAL Contour Maps are prepared by an accredited Bushfire Planning Practitioner.

Bushfire: An unplanned fire burning in vegetation. A generic term which includes grass fires, forest fires and scrub fires both with and without a suppression objective.

Bushfire hazard: The potential or existing flammability of vegetation that, in association with topography and slope, when ignited may cause harm to people and/or damage property and/or infrastructure.

Bushfire Hazard Level assessment: A Bushfire Hazard Level assessment provides a measure of the likely intensity of a bushfire and the likely level of bushfire attack on a site determined by categorising and mapping land as having a low, moderate or extreme Bushfire Hazard Level in accordance with the methodology set out in these Guidelines. It is strongly recommended that Bushfire Hazard Level assessments are prepared by an accredited Bushfire Planning Practitioner.

Bushfire Management Plan: A document that sets out short, medium and long-term risk management strategies for the life of the development. It is strongly recommended that Bushfire Management Plans are prepared by accredited Bushfire Planning Practitioners in accordance with the requirements set out in these Guidelines on behalf of the landowner/proponent with the assistance of the responsible authority for emergency services where required.

Bushfire Planning Practitioner: A person who holds, Level Two or Level Three accreditation under the Western Australian Bushfire Accreditation Framework.

Bushfire prone area: An area that has been designated by the Fire and Emergency Services Commissioner under s. 18P of the *Fire and Emergency Services Act 1998* as an area that is subject, or likely to be subject, to bushfires. Such areas are identified on the *Map of Bush Fire Prone Areas* and can be found on the Department of Fire and Emergency Services website.

Bushfire protection criteria: A performance-based system of assessing bushfire risk management measures contained in these Guidelines and applied to all strategic planning proposals, subdivisions and development applications.

Bushfire risk: The chance of a bushfire igniting, spreading and causing damage to people, property and infrastructure.

Bushfire risk management: Means the application of the bushfire protection criteria contained in these Guidelines.

Decision-maker: The Minister for Planning, State Administrative Tribunal, Western Australian Planning Commission, Development Assessment Panel, any other State decision-making authorities, and/or the relevant local government and their delegates that make decisions regarding the application these Guidelines.

Development application: An application for approval to carry out development or change a land use under either a local planning scheme or region planning scheme, this includes local development plans but excludes applications for single houses and ancillary dwellings on a lot or lots less than 1,100m².

Guidelines: Refers to the *Guidelines for Planning in Bushfire Prone Areas (WAPC 2015, as amended)*.

Contents	1	2	3	4	5	6	Appendices
	Introduction	Policy framework overview	Bushfire prone areas	Assessing bushfire risk in the planning context	Applying SPP 3.7	Roles and responsibilities	

Hazard Separation Zone: A physical separation from bushfire prone vegetation.

Higher order strategic planning documents: Any higher order strategic planning documents including frameworks, region schemes, sub-regional strategies and sub-regional structure plans.

High-risk land use: A land use which may lead to the potential ignition, prolonged duration and/or increased intensity of a bushfire. Such uses may also expose the community, fire fighters and the surrounding environment to dangerous, uncontrolled substances during a bushfire event. Examples of what constitutes a high-risk land use are provided in the Guidelines.

Level 1 BAL Assessor: A person who holds Level 1 BAL Assessor accreditation under the Western Australian Bushfire Accreditation Framework.

Minor development: Refers to applications in residential built-out areas at a scale which may not require full compliance with the relevant policy measures. Classes of development considered under this definition, with the exclusion of applications for unavoidable development, are:

- a single house on an existing lot 1,100m² or greater;
- an ancillary dwelling on a lot of 1,100m² or greater; and
- change to a vulnerable land use in an existing residential development.

Precautionary principle: The presumption against approving further strategic planning proposals, subdivision and development applications or intensification of land uses, where there is a lack of certainty that the potential for significant adverse impacts can be adequately reduced or managed in the opinion of the decision-maker.

Strategic planning proposal: Any strategic-level planning proposal including: region scheme amendments; district structure plans; local planning strategies; local planning schemes and amendments; and structure plans and master plans - but does not include subdivision and development applications.

Unavoidable development: Development that, in the opinion of the decision-maker, represents exceptional circumstances where full compliance with this policy would be unreasonable; no alternative location exists;

it is not minor development; and it is not contrary to the public interest. Examples of what constitutes unavoidable development are provided in these Guidelines.

Vulnerable land use: A land use where persons may be less able to respond in a bushfire emergency. Examples of what constitutes a vulnerable land use are provided in these Guidelines.

WAPC: Western Australian Planning Commission.

Contents	1 Introduction	2 Policy framework overview	3 Bushfire prone areas	4 Assessing bushfire risk in the planning context	5 Applying SPP 3.7	6 Roles and responsibilities	Appendices
----------	-------------------	--------------------------------------	------------------------------	--	--------------------------	------------------------------------	------------

APPENDIX TWO BUSHFIRE HAZARD LEVEL (BHL) ASSESSMENT METHODOLOGY

What is a BHL assessment

A Bushfire Hazard Level (BHL) assessment provides a 'broad brush' means of determining the potential intensity of a bushfire in a particular area. The BHL assessment is a pre-development decision-making tool used to inform the suitability of strategic planning proposals for future subdivision and development.

When should a BHL assessment be used

A BHL assessment should be undertaken for any area identified for intensification of land use in a strategic planning proposal where lot layout is not yet known.

Who can conduct a BHL assessment

It is recommended landowners/proponents seek the assistance of an accredited Level 2 or Level 3 Bushfire Planning Practitioner to conduct a BHL assessment.

BHL assessment methodology

A BHL assessment should be prepared in accordance with this Appendix with consideration for the predominant classified vegetation for a site as per Australian Standard (AS) 3959.

The assessment methodology categorises the bushfire hazard level as low, moderate or extreme based on the vegetation and slope within 150 metres of a site. This provides an indication of the likely impact of a bushfire event as it interacts with the bushfire hazard on and close to a site. It provides a measure of the likely intensity of a bushfire and the likely level of bushfire attack on a site by categorising the hazard.

Table 3: BHL and classified vegetation (as per AS-3959)

HAZARD LEVEL	CHARACTERISTICS
Extreme	<ul style="list-style-type: none"> Class A: Forest Class B: Woodland (05) Class D: Scrub Any classified vegetation with a greater than 10 degree slope
Moderate	<ul style="list-style-type: none"> Class B: Open woodland (06), Low woodland (07), Low open woodland (08), Open shrubland (09)* Class C: Shrubland Class E: Mallee/Mulga Class G: Grassland, including sown pasture and crops Vegetation that has a low hazard level but is within 100 metres of vegetation classified as a moderate or extreme hazard, is to adopt a moderate hazard level.
Low	<ul style="list-style-type: none"> Low threat vegetation may include areas of maintained lawns, golf courses, public recreation reserves and parklands, vineyards, orchards, cultivated gardens, commercial nurseries, nature strips and windbreaks. Managed grassland in a minimal fuel condition (insufficient fuel is available to significantly increase the severity of the bushfire attack). For example, short-cropped grass to a nominal height of 100 millimetres. Non-vegetated areas including waterways, roads, footpaths, buildings and rock outcrops.

* As per AS-3959 Table 2.3, Note 2 – Overstoreys of open woodland, low open woodland, tall open shrubland and low open shrubland should be classified to the vegetation type on the basis of their understoreys; others to be classified on the basis of their overstoreys.

Contents	1 Introduction	2 Policy framework overview	3 Bushfire prone areas	4 Assessing bushfire risk in the planning context	5 Applying SPP 3.7	6 Roles and responsibilities	Appendices
----------	-------------------	--------------------------------------	------------------------------	--	--------------------------	------------------------------------	------------

Step One: Determine the area to be assessed

- The BHL assessment area is the defined subject site and all land within 150 metres of the external boundary of the subject site.
- Use an appropriate aerial image (where available) to define the area that is the subject of the BHL assessment. The aerial image should be as current as possible and scaled to clearly show the vegetation density and structure.

Step Two: Identify vegetation type(s) and slope

- Classify all vegetation within the BHL assessment area, preferably through a site inspection and in accordance with Table 3 to identify the predominant vegetation type(s) on the site.
- Provide photographic evidence in addition to aerial imagery and/or vegetation mapping data to verify low or moderate BHL areas. Where evidence of the vegetation height is required (i.e. shrubland), a height stick or other appropriate indicator of height should be included in the images.
- Further evidence may be required if the decision-maker is not satisfied with the photographic evidence provided.
- All slopes within the BHL assessment area need to be defined with land contour information.

Step Three: Map the BHL results

Information to include in a Vegetation Classification Map

- An aerial image of the BHL assessment area should form the base map and be overlaid with the following information:
 - areas of classified vegetation and excluded vegetation (if any) in the form of plots
 - land contours for slope calculation
 - areas where vegetation is proposed to be cleared or revegetated (if applicable)

- photo points to indicate where images of vegetation have been taken
- any other features of the assessment area that are relevant bushfire considerations
- canopy crown density information should be provided for vegetation classifications that do not apply the worst case scenario.
- The Vegetation Classification Map should be presented separately to the BHL Assessment Map to ensure the information is legible.
- The 'broad brush' vegetation classification accepted at a BHL level will require further analysis and supporting evidence for the preparation of a BAL Contour Map and/or BAL assessment, particularly in relation to extreme BHL areas.

Information to include in a BHL Assessment Map

- Create a BHL assessment based on an analysis of the results.
- The assessment should be appropriately scaled (maximum 1:25,000).
- An aerial image of the BHL assessment area should form the base map and be overlaid with the following information:
 - boundaries of the subject site and surrounding 150 metre area
 - assigned hazard levels for vegetation in the assessment area based on the vegetation classification and slope.

BHL Assessment Map specifications

The colour code for each hazard level is shown in Table 4.

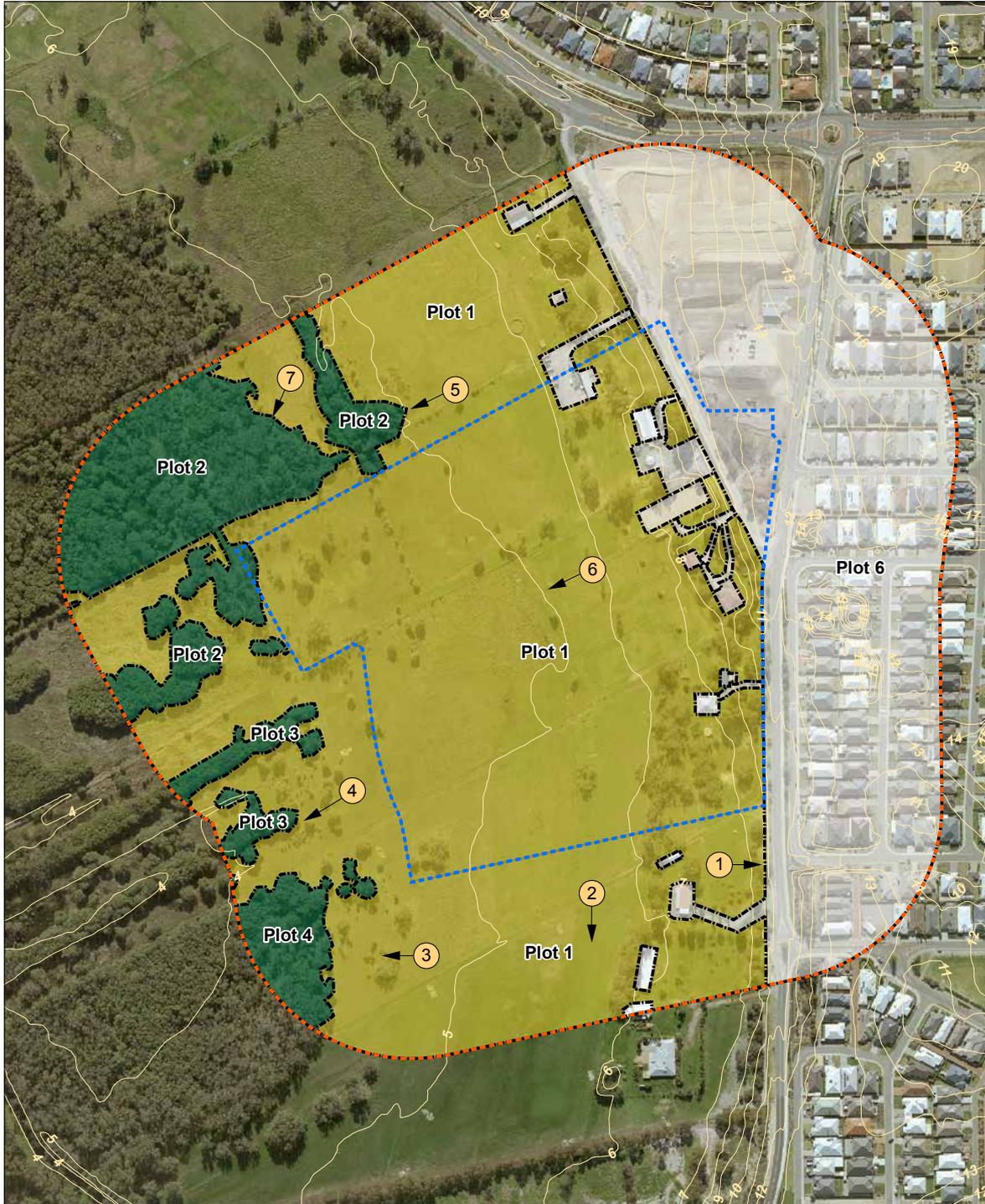
The bushfire hazard level colours should be displayed at a transparency level of 25 per cent and no more than 35 per cent, as the colour boundary differentiation is compromised. This provides for clear distinction between the hazard levels; and for the vegetation on the underlying aerial image to be 'visible', allowing for informed decision making as the vegetation can be 'seen' in its context.

Table 4: BHL Assessment Map colour codes

Hazard level	Colour	RGB Code	Hex Code	Colour Patch
Extreme	Red	R=238, G=50, B=36	EE3224	
Moderate	Yellow	R=255, G=238, B=0	FFEE00	
Low	Light Blue	R=206, G=237, B=255	CEEDFF	

Contents	1 Introduction	2 Policy framework overview	3 Bushfire prone areas	4 Assessing bushfire risk in the planning context	5 Applying SPP 3.7	6 Roles and responsibilities	Appendices
----------	-------------------	--------------------------------------	------------------------------	--	--------------------------	------------------------------------	------------

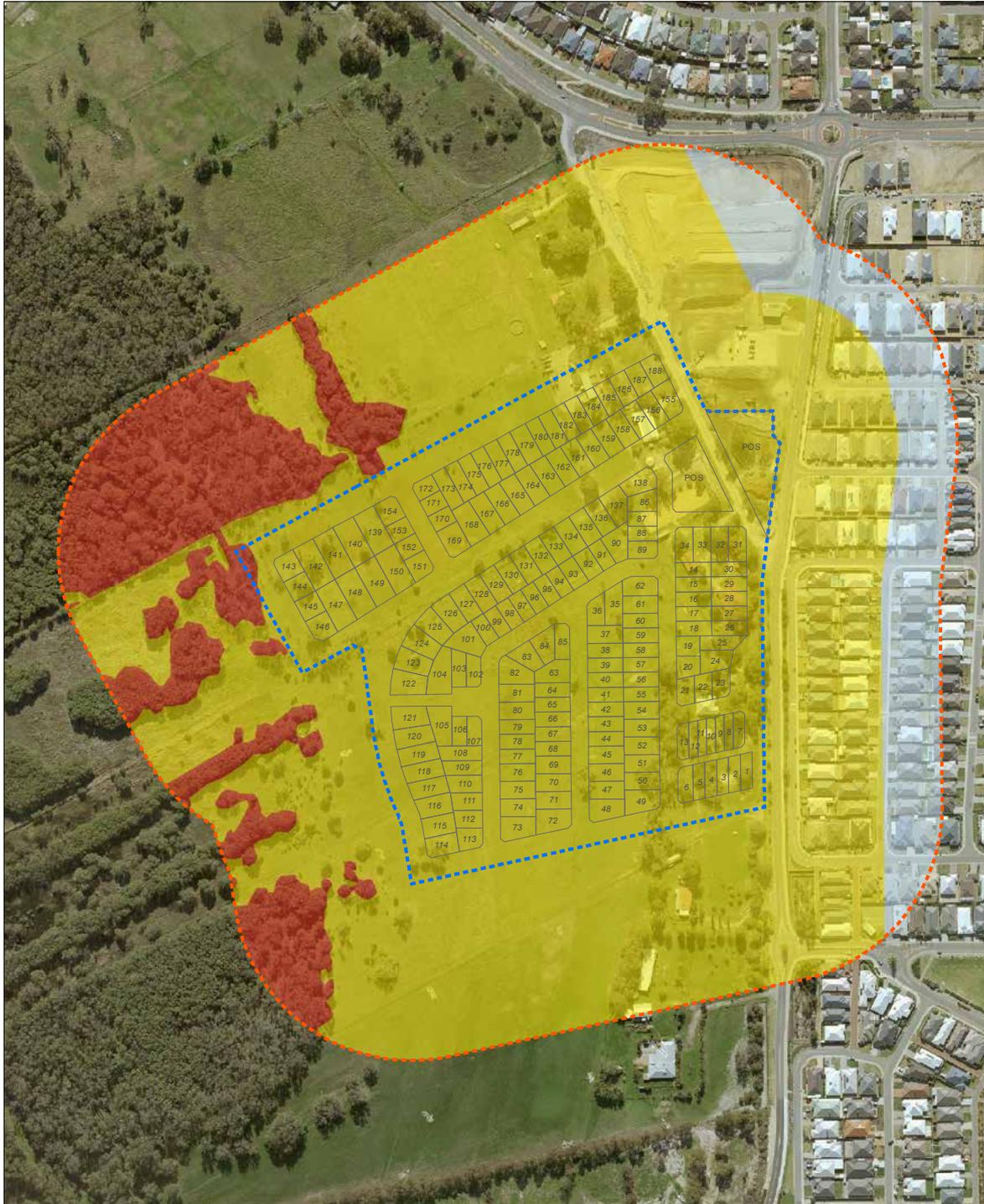
Figure 10: Sample Vegetation Classification Map (BHL assessment)

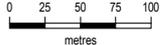


<p>Location details: Assessment date: Prepared by: Accreditation level: Accreditation number: Accreditation expiry date: Date aerial photo: May 2016</p>	<h3>Vegetation Classification Map (BHL assessment)</h3>	<p>Legend</p> <ul style="list-style-type: none"> Assessment area (150m from the external boundary of the subject site) Subject land Proposed cadastre Vegetation/plot boundary 1 Photo point <p>Vegetation Class</p> <ul style="list-style-type: none"> A Forest G Grassland Excluded as per 2.2.3.2 (e)
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Contents	1 Introduction	2 Policy framework overview	3 Bushfire prone areas	4 Assessing bushfire risk in the planning context	5 Applying SPP 3.7	6 Roles and responsibilities	Appendices
----------	-------------------	--------------------------------------	------------------------------	--	--------------------------	------------------------------------	------------

Figure 11: Sample BHL Assessment Map



<p>Location details: Assessment date: Prepared by: Accreditation level: Accreditation number: Accreditation expiry date: Date aerial photo: May 2016</p>	<p style="text-align: center;">Bushfire Hazard Level Assessment Map</p> <div style="text-align: center;">   </div>	<p>Legend</p> <ul style="list-style-type: none">  Assessment area (150m from the external boundary of the subject site)  Subject land  Proposed cadastre <p>Hazard level</p> <ul style="list-style-type: none">  Extreme  Moderate  Low
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Contents	1 Introduction	2 Policy framework overview	3 Bushfire prone areas	4 Assessing bushfire risk in the planning context	5 Applying SPP 3.7	6 Roles and responsibilities	Appendices
----------	-------------------	--------------------------------------	------------------------------	--	--------------------------	------------------------------------	------------

APPENDIX THREE BAL CONTOUR MAP

What is a BAL Contour Map

A Bushfire Attack Level (BAL) Contour Map is a scale map of the subject lot/s showing the potential radiant heat impacts and associated indicative BAL ratings in reference to any classified vegetation remaining within the assessment area.

The BAL Contour Map sets a range of indicative BAL ratings that are determined on the intended end state of the subject site once earthworks, clearing and/or landscaping have been completed.

When a BAL Contour Map should be used

A BAL Contour Map should be used for strategic planning proposals where appropriate and at the subdivision stage. The BAL contours will assist by identifying:

- land suitable for development; and
- bushfire risk management measures to reduce the potential bushfire impact to an acceptable level, such as BAL-29 or below.

The BAL Contour Map should be revised for each stage of a subdivision; and where a strategic planning proposal or subdivision design is modified in a way that would affect the indicative BAL ratings.

Who can prepare a BAL Contour Map

A BAL Contour Map should be prepared by an accredited Level 2 or Level 3 Bushfire Planning Practitioner as appropriate in accordance with this Appendix.

BAL Contour Map Assessment Methodology

A BAL Contour Map should be prepared in accordance with this Appendix and the principles of Australian Standard (AS) 3959.

Step One: Identify vegetation type(s) and slope (Output: Vegetation Classification Map)

How to create a Vegetation Classification Map

- Include the subject site and all land within 1.50 metres of the external boundary of the subject site in the vegetation assessment area.

- Use an appropriate aerial photo (where available) to define the vegetation assessment area that is to be the subject of the Vegetation Classification Map. The aerial photo should be as current as possible and at a scale that clearly shows the vegetation density and structure.
- Classify all vegetation within the vegetation assessment area through a site inspection and provide photographic evidence for all relevant locations on the BAL Contour Map area. The vegetation should be classified in accordance with Table 2.3 and figures 2.4 (A) to 2.4 (G) of AS 3959, to identify which vegetation type(s) predominate the site.
- Analyse land contour information and define the slope for each assessment transect.
- Record the inputs for classified vegetation (in the form of plots) and defined slope in a table format.

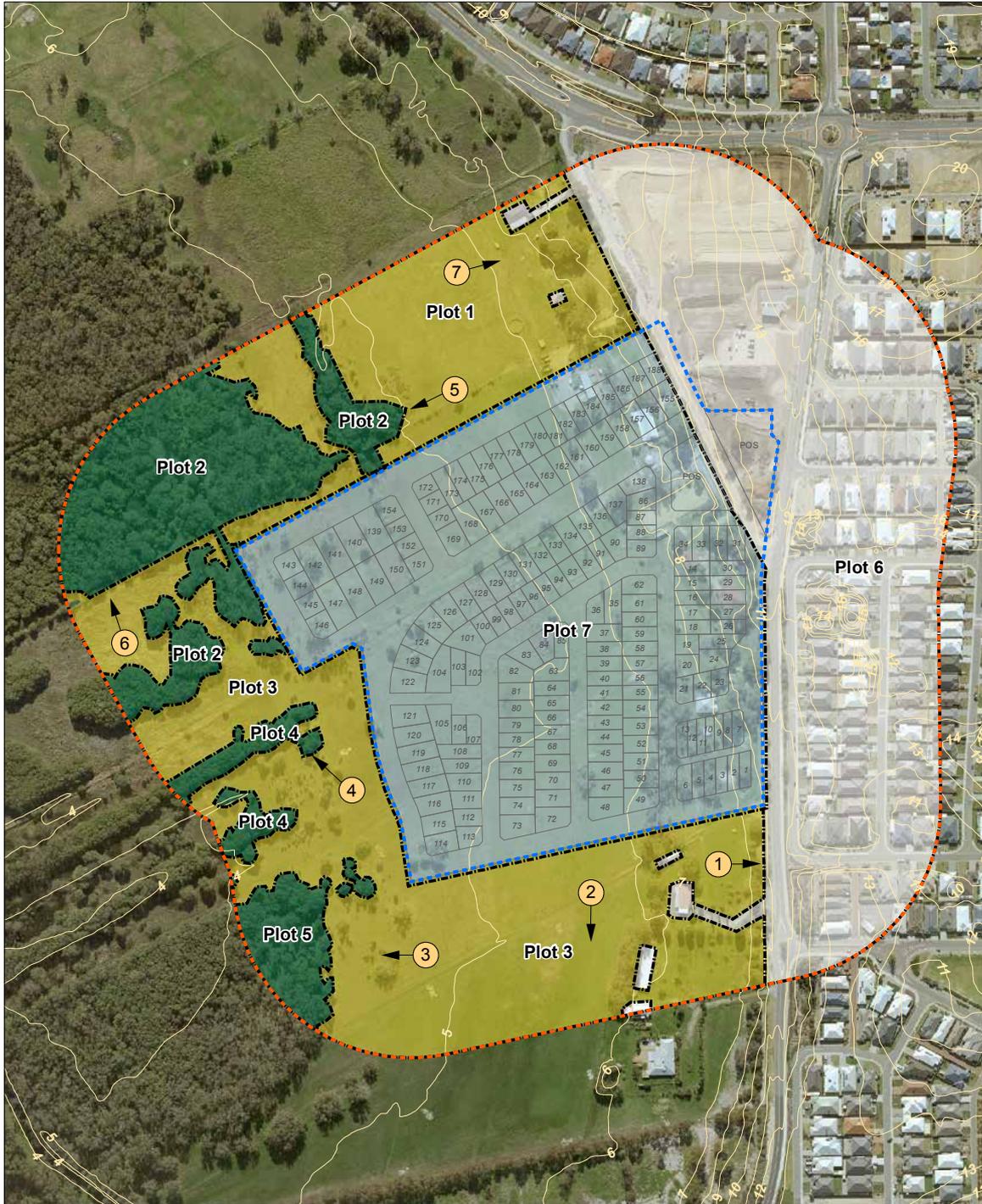
Information to include in a Vegetation Classification Map

- A Vegetation Classification Map should be at a scale where individual lots can be clearly identified.
- An aerial image of the vegetation assessment area should form the base map and be overlaid with the following information:
 - areas of classified vegetation and excluded vegetation (if any) in the form of plots
 - land contours for slope calculation
 - areas where vegetation is proposed to be cleared or revegetated (if applicable)
 - photo points to indicate where images of vegetation have been taken
 - any other features of the subject site that are relevant bushfire considerations
 - canopy crown density information should be provided for vegetation classifications that do not apply the worst case scenario.

The Vegetation Classification Map should be presented separately from the BAL Contour Map to ensure the information is legible.

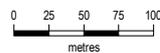
Contents	1 Introduction	2 Policy framework overview	3 Bushfire prone areas	4 Assessing bushfire risk in the planning context	5 Applying SPP 3.7	6 Roles and responsibilities	Appendices
----------	-------------------	--------------------------------------	------------------------------	--	--------------------------	------------------------------------	------------

Figure 12: Sample Vegetation Classification Map (BAL Contour Map)



Location details:
Assessment date:
Prepared by:
Accreditation level:
Accreditation number:
Accreditation expiry date:
Date aerial photo: May 2016

**Vegetation Classification Map
(BAL Contour Map)**



Legend

- Assessment area (150m from the external boundary of the subject site)
 - Subject land
 - Proposed cadastre
 - Photo point
 - Vegetation/plot boundary
- Vegetation Class**
 - A Forest
 - G Grassland
 - Area to be modified to low threat state
 - Excluded as per 2.2.3.2 (e)

Contents	1 Introduction	2 Policy framework overview	3 Bushfire prone areas	4 Assessing bushfire risk in the planning context	5 Applying SPP 3.7	6 Roles and responsibilities	Appendices
----------	-------------------	--------------------------------------	------------------------------	--	--------------------------	------------------------------------	------------

Step Two: Map the BAL contours (Output: BAL Contour Map)

How to create a BAL Contour Map based on analysis of the resultant BAL ratings

- Use an appropriate aerial photo (where available) out to 150 metres from the subject site and indicate this as the vegetation assessment area. The aerial photo should be as current as possible and at a scale that clearly shows the vegetation density and structure.
- Define the BAL Contour assessment area that is to be the subject of the BAL Contour Map by indicating the area within 100 metres of the external boundary of the subject site.
- When determining the BAL rating for each assessment transect, identify the slope of the land under the classified vegetation, predominate vegetation type(s) and apply the worst case combination scenario.
- The contour measurements need to be done at the frequency and locations dictated by site conditions to represent the worst case scenario. This is typically where the slope or vegetation changes.
- Where there are no changes to vegetation or slope, the contour measurements should be at intervals to provide a worst case scenario measurement for each lot, or of no more than 50 metres for large lots.
- The BAL contours will be formed by combining the BAL assessment at each of the assessment transects. An indicative BAL rating should be allocated to all areas

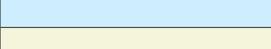
within the BAL Contour Map area, even when these areas fall outside the mapped extent of the BAL contours (i.e. areas of BAL-LOW).

- Where multiple BAL ratings apply to an area, the higher BAL rating should apply.
- Assessment should be on the future state of the site (i.e. when the land has been cleared and subdivision works have been undertaken) including any vegetation that will remain or will be introduced when the works are complete.
- The inputs used to determine the BAL contours (i.e. lot number, vegetation classification, effective slope, actual separation distance, indicative BAL rating-output) should be included in the Bushfire Management Plan (BMP) in a table format with a row matched to each BAL assessment transect along the contour.

Information to include in a BAL Contour Map

- A BAL Contour Map should be at a scale where individual lots can be clearly identified.
- An aerial image of the subject site and surrounding area should form the base map and be overlaid with the following information:
 - boundaries of the subject site, the surrounding 150 metre vegetation assessment area and 100 metre BAL Contour assessment area
 - the proposed lot layout, including proposed lot numbers, building envelope and building footprint (if appropriate)
 - BAL contours and proposed BAL ratings.

Table 5: BAL Contour Map colour codes

Hazard level	Colour	RGB Code	Hex Code	Colour Patch
BAL-FZ	Red	R=238, G=50, B=36	EE3224	
BAL-40	Orange	R=248, G=152, B=40	F89828	
BAL-29	Yellow	R=255, G=238, B=0	FFEE00	
BAL-19	Blue	R=0, G=174, B=239	00AEEF	
BAL-12.5	Light Blue	R=206, G=237, B=255	CEEDFF	
BAL-LOW	Beige	R=245, G=245, B=220	F5F5DC	

The colour code for each BAL is shown in Table 5. The BAL Contour Map colours should be displayed at a transparency level of 25 per cent and no more than 35 per cent, as the colour boundary differentiation is compromised. This provides for clearer distinction between the BAL contours; and for the vegetation on the underlying aerial image to be 'visible', providing for informed decision making as the vegetation can be 'seen' in its context.

Contents	1 Introduction	2 Policy framework overview	3 Bushfire prone areas	4 Assessing bushfire risk in the planning context	5 Applying SPP 3.7	6 Roles and responsibilities	Appendices
----------	-------------------	--------------------------------------	------------------------------	--	--------------------------	------------------------------------	------------

Figure 13: Sample BAL Contour Map



<p>Location details: Assessment date: Prepared by: Accreditation level: Accreditation number: Accreditation expiry date: Date aerial photo: May 2016</p>	<h2>BAL Contour Map</h2>	<p>Legend</p> <ul style="list-style-type: none"> BAL Contour Assessment area (100m from the external boundary of the subject site) Vegetation Assessment Area (150m from the external boundary of the subject site) Subject land Proposed cadastre Vegetation/plot boundary 	<p>Indicative bushfire attack levels:</p> <ul style="list-style-type: none"> BAL-LOW BAL-12.5 BAL-19 BAL-29 BAL-40 BAL-FZ
<p>0 25 50 75 100 metres</p>		<p></p>	

Contents	1 Introduction	2 Policy framework overview	3 Bushfire prone areas	4 Assessing bushfire risk in the planning context	5 Applying SPP 3.7	6 Roles and responsibilities	Appendices
----------	-------------------	--------------------------------------	------------------------------	--	--------------------------	------------------------------------	------------

Compliance certification

Where a BAL Contour Map has been prepared to support a subdivision application, certification that the indicative BAL ratings are still accurate should be provided after the subdivision works or stage of works have been completed.

An 'implementation table' should form part of the statement addressing the bushfire protection criteria (Statement) or BMP (refer to Appendix 5 of these Guidelines). The 'implementation table' should list the bushfire measures to be undertaken at each stage of the development including at the subdivision stage. The local government should request a condition of subdivision approval be the implementation of the endorsed Statement or BMP. The compliance certification will essentially be a tick box check that these measures have been completed. The relevant local government will be responsible for the 'clearance' of the condition.

The compliance certification should be undertaken by the Bushfire Planning Practitioner who prepared the original BAL Contour Map. Alternatively, an accredited Level 2 or Level 3 Bushfire Planning Practitioner or the relevant local government is able to undertake this compliance check.

Certification will ensure prospective purchasers are aware of the identified BAL rating at which the lot can be developed.

At the development application or building permit stage

Where a BAL Contour Map has been prepared at a preceding planning stage, it may be used in place of a site-specific BAL assessment at the development application stage and/or building permit stage.

Where the indicative BAL ratings identified as part of a BAL Contour Map have not been certified subsequent to the subdivision having been completed, this should be undertaken prior to issue of the building permit or development application.

The compliance certification should be undertaken by the Bushfire Planning Practitioner who prepared the original BAL Contour Map. Alternatively, an accredited Level 2 or Level 3 Bushfire Planning Practitioner or the local government is able to undertake this compliance check.

The decision-maker retains the discretion to request a site-specific BAL assessment.

Contents	1 Introduction	2 Policy framework overview	3 Bushfire prone areas	4 Assessing bushfire risk in the planning context	5 Applying SPP 3.7	6 Roles and responsibilities	Appendices
----------	-------------------	--------------------------------------	------------------------------	--	--------------------------	------------------------------------	------------

APPENDIX FOUR BUSHFIRE PROTECTION CRITERIA

The bushfire protection criteria have been provided to assist in the assessment of proposed bushfire risk management measures required for strategic planning proposals, subdivision or development applications in bushfire prone areas. The depth of information required to demonstrate compliance with the bushfire protection criteria should be commensurate with the applicable stage in the planning process. For example, a strategic planning proposal will only need to demonstrate that compliance with the criteria can be achieved in subsequent stages in the planning process.

The criteria are divided into four elements - location, siting and design, vehicular access and water. Each element has an intent outlining the overall aim. The acceptable solutions provide examples of how that intent may be met. The performance principle allows for 'alternative solutions' to be developed where the acceptable solutions cannot be achieved.

ELEMENT 1: LOCATION

Intent: To ensure that strategic planning proposals, subdivision and development applications are located in areas with the least possible risk of bushfire to facilitate the protection of people, property and infrastructure.

PERFORMANCE PRINCIPLE

The intent may be achieved where:

P1

The strategic planning proposal, subdivision and development application is located in an area where the bushfire hazard assessment is or will, on completion, be moderate or low, or a BAL-29 or below, and the risk can be managed. For unavoidable development in areas where BAL-40 or BAL-FZ applies, demonstrating that the risk can be managed to the satisfaction of the Department of Fire and Emergency Services and the decision-maker.

ACCEPTABLE SOLUTIONS

To achieve compliance with this Element using an acceptable solution, the following acceptable solution (A1.1) must be met

A1.1 Development location

The strategic planning proposal, subdivision and development application is located in an area that is or will, on completion, be subject to either a moderate or low bushfire hazard level, or BAL-29 or below.

EXPLANATORY NOTES

Land is most suitable for land use intensification where hazard levels are low. Where there is an extreme bushfire hazard or requirement for use of BAL-40 or BAL-FZ construction standards, the land is not considered suitable for development unless it meets the definition of minor or unavoidable development.

Contents	1 Introduction	2 Policy framework overview	3 Bushfire prone areas	4 Assessing bushfire risk in the planning context	5 Applying SPP 3.7	6 Roles and responsibilities	Appendices
----------	-------------------	--------------------------------------	------------------------------	--	--------------------------	------------------------------------	------------

ELEMENT 2: SITING AND DESIGN OF DEVELOPMENT

Intent: To ensure that the siting and design of development minimises the level of bushfire impact.

PERFORMANCE PRINCIPLE

The intent may be achieved where:

P2

The siting and design of the strategic planning proposal, subdivision or development application, including roads, paths and landscaping, is appropriate to the level of bushfire threat that applies to the site. That it incorporates a defensible space and significantly reduces the heat intensities at the building surface thereby minimising the bushfire risk to people, property and infrastructure, including compliance with AS 3959 if appropriate.

ACCEPTABLE SOLUTIONS

To achieve compliance with this Element the following acceptable solution must be met.

A2.1 Asset Protection Zone (APZ)

Every habitable building is surrounded by, and every proposed lot can achieve, an APZ depicted on submitted plans, which meets the following requirements:

- **Width:** Measured from any external wall or supporting post or column of the proposed building, and of sufficient size to ensure the potential radiant heat impact of a bushfire does not exceed 29kW/m² (BAL-29) in all circumstances.
- **Location:** the APZ should be contained solely within the boundaries of the lot on which the building is situated, except in instances where the neighbouring lot or lots will be managed in a low-fuel state on an ongoing basis, in perpetuity (see explanatory notes).
- **Management:** the APZ is managed in accordance with the requirements of 'Standards for Asset Protection Zones'. (see Schedule 1).

Contents	1 Introduction	2 Policy framework overview	3 Bushfire prone areas	4 Assessing bushfire risk in the planning context	5 Applying SPP 3.7	6 Roles and responsibilities	Appendices
----------	-------------------	--------------------------------------	------------------------------	--	--------------------------	------------------------------------	------------

ELEMENT 2: SITING AND DESIGN OF DEVELOPMENT

EXPLANATORY NOTES

E2 Subdivision and development design

Identification and consideration of bushfire risks in decision-making should occur at all stages of the planning and development process and should influence siting and design of subdivision and development. Once a subdivision and related development has been designed or established, experience has shown that incorporating bushfire protection measures is generally harder to achieve.

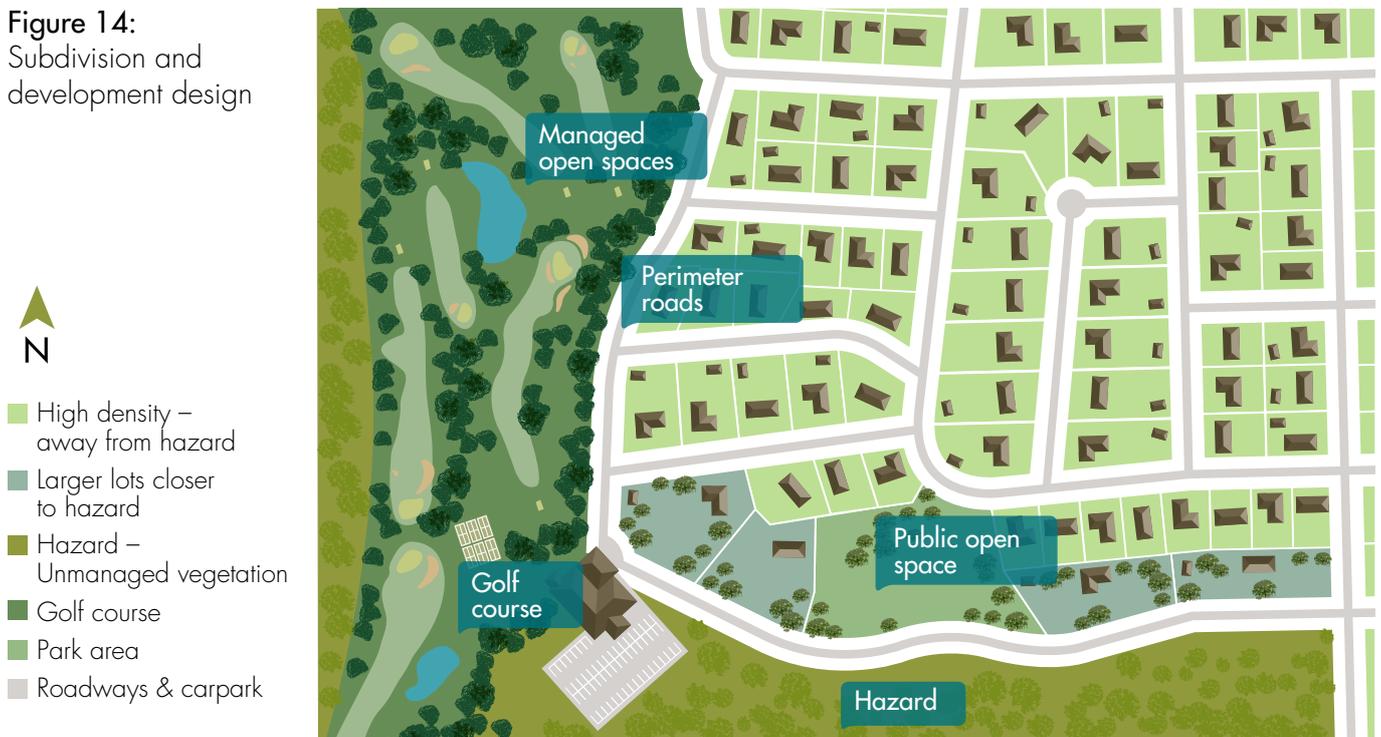
Land is most suitable for new subdivisions and related development where hazard levels are low. Where residents and buildings cannot be protected from a bushfire hazard the land may not be suitable for development.

The design and layout of subdivision and development can reduce the vulnerability of dwellings and residents from the impact of a bushfire. Appropriate design will greatly assist with bushfire prevention and suppression operations. Hazard separation should be considered and integrated during initial planning stages. Public roads, including footpaths and verges, can be combined to increase separation between buildings and bushfire prone vegetation.

Separation may also be needed where a bushfire hazard exists within a subdivision area. The hazard may be a wetland and the wetland buffer, gullies, waterways and their foreshore areas, public open space with remnant vegetation or where revegetation is proposed.

Undeveloped future stages of the subdivision, containing bushfire prone vegetation, will also need to be taken into consideration. Even if the hazard will be cleared at a subsequent stage, until this occurs, subdivision of adjoining lots must address this risk in its current state.

Figure 14:
Subdivision and
development design



Design components and areas of minimal fuel within a subdivision can be used to help reduce the intensity of a bushfire

Contents	1 Introduction	2 Policy framework overview	3 Bushfire prone areas	4 Assessing bushfire risk in the planning context	5 Applying SPP 3.7	6 Roles and responsibilities	Appendices
----------	-------------------	--------------------------------------	------------------------------	--	--------------------------	------------------------------------	------------

ELEMENT 2: SITING AND DESIGN OF DEVELOPMENT

EXPLANATORY NOTES

Figure 15: Separation distance required where no additional construction standards are proposed

In the absence of additional construction standards a minimum separation distance of 100 metres between buildings and the hazard must be provided in order to protect them from burning debris, radiant heat and direct flame contact



Figure 16: A reduced separation distance may necessitate increased construction standards

It may be possible to reduce the minimum distances, for example by increasing the construction standard of the building – in this example the building would need to be constructed to BAL-29



Contents	1	2	3	4	5	6	Appendices
	Introduction	Policy framework overview	Bushfire prone areas	Assessing bushfire risk in the planning context	Applying SPP 3.7	Roles and responsibilities	

ELEMENT 2: SITING AND DESIGN OF DEVELOPMENT

EXPLANATORY NOTES

E2.1 Asset Protection Zones (APZ)

An APZ is an area surrounding a building that is managed to reduce the bushfire hazard to an acceptable level. The width of the required APZ varies with slope and vegetation. The APZ should at a minimum be of sufficient size to ensure the potential radiant heat impact of a fire does not exceed $29\text{kW}/\text{m}^2$ (BAL-29). It should be lot specific. Hazard separation in the form of using subdivision design elements (refer to E2) or excluded and low threat vegetation adjacent to the lot may be used to reduce the dimensions of the APZ within the lot.

The APZ includes a defensible space which is an area adjoining the asset within which firefighting operations can be undertaken to defend the structure. Vegetation within the defensible space should be kept at an absolute minimum and the area should be free from combustible items and obstructions. The width of the defensible space is dependent on the space which is available on the property, but as a minimum should be 3 metres.

The APZ should be contained solely within the boundaries of the lot on which the building is situated, except in instances where the neighbouring lot or lots will be managed in a low-fuel state on an ongoing basis, in perpetuity. The APZ may include public roads, waterways, footpaths, buildings, rocky outcrops, golf courses, maintained parkland as well as cultivated gardens in an urban context, but does not include grassland or vegetation on a neighbouring rural lot, farmland, wetland reserves and unmanaged public reserves.

APZs can adversely affect the retention of native vegetation. Where the loss of vegetation is not acceptable or causes conflict with landscape or environmental objectives, such as waterway foreshore areas and wetland buffers, reducing lot yield may be necessary in order to minimise the removal and modification of remnant vegetation.

It is the responsibility of the landowner/proponent to maintain their APZ in accordance with Schedule 1 'Standards for Asset Protection Zones'. It is further recommended that maintenance of APZs is addressed through the local government firebreak notice, issued under s33 of the *Bushfires Act 1954*, and preferably included in a Bushfire Management Plan specifically as a how-to guide for the landowner.

Regardless of whether an Asset Protection Zone exists in accordance with the acceptable solutions and is appropriately maintained, it should be noted that fire fighters are not obliged to protect an asset if they think the separation distance between the dwelling and vegetation is unsafe.

Contents	1 Introduction	2 Policy framework overview	3 Bushfire prone areas	4 Assessing bushfire risk in the planning context	5 Applying SPP 3.7	6 Roles and responsibilities	Appendices
----------	-------------------	--------------------------------------	------------------------------	--	--------------------------	------------------------------------	------------

ELEMENT 2: SITING AND DESIGN OF DEVELOPMENT

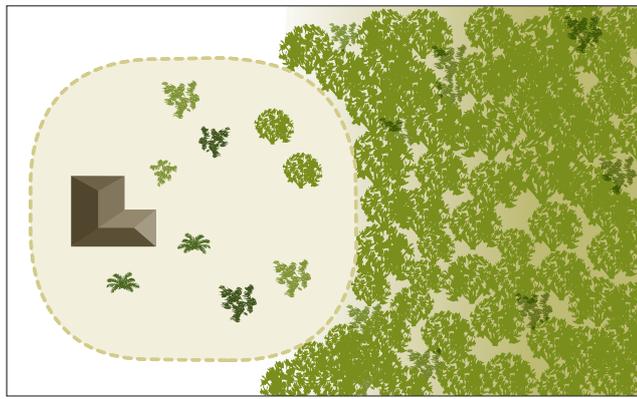
EXPLANATORY NOTES

Figure 17: Design of Asset Protection Zone

The proportion of the APZ reflect the distance from the hazard to ensure adequate separation is achieved.

Hazard on one side

 APZ



Hazard on three sides

 APZ



Refer to Schedule 1: Standards for Asset Protection Zones.

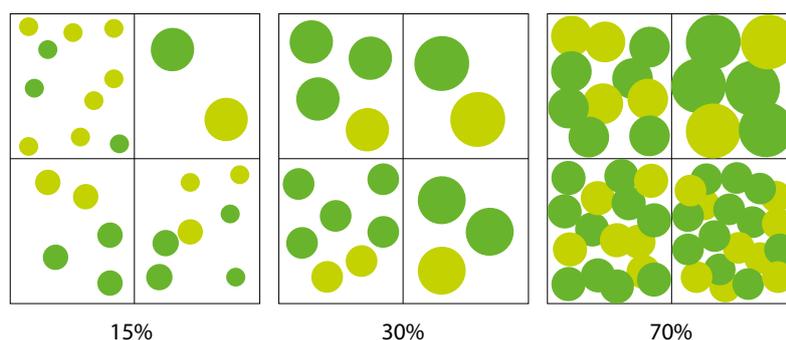
Contents	1 Introduction	2 Policy framework overview	3 Bushfire prone areas	4 Assessing bushfire risk in the planning context	5 Applying SPP 3.7	6 Roles and responsibilities	Appendices
----------	-------------------	--------------------------------------	------------------------------	--	--------------------------	------------------------------------	------------

ELEMENT 2: SITING AND DESIGN OF DEVELOPMENT

SCHEDULE 1: STANDARDS FOR ASSET PROTECTION ZONES

- **Fences:** within the APZ are constructed from non-combustible materials (e.g. iron, brick, limestone, metal post and wire). It is recommended that solid or slatted non-combustible perimeter fences are used.
- **Objects:** within 10 metres of a building, combustible objects must not be located close to the vulnerable parts of the building i.e. windows and doors.
- **Fine Fuel load:** combustible dead vegetation matter less than 6 millimetres in thickness reduced to and maintained at an average of two tonnes per hectare.
- **Trees (> 5 metres in height):** trunks at maturity should be a minimum distance of 6 metres from all elevations of the building, branches at maturity should not touch or overhang the building, lower branches should be removed to a height of 2 metres above the ground and or surface vegetation, canopy cover should be less than 15% with tree canopies at maturity well spread to at least 5 metres apart as to not form a continuous canopy.

Figure 18: Tree canopy cover – ranging from 15 to 70 per cent at maturity



- **Shrubs (0.5 metres to 5 metres in height):** should not be located under trees or within 3 metres of buildings, should not be planted in clumps greater than 5m² in area, clumps of shrubs should be separated from each other and any exposed window or door by at least 10 metres. Shrubs greater than 5 metres in height are to be treated as trees.
- **Ground covers (<0.5 metres in height):** can be planted under trees but must be properly maintained to remove dead plant material and any parts within 2 metres of a structure, but 3 metres from windows or doors if greater than 100 millimetres in height. Ground covers greater than 0.5 metres in height are to be treated as shrubs.
- **Grass:** should be managed to maintain a height of 100 millimetres or less.

Contents	1 Introduction	2 Policy framework overview	3 Bushfire prone areas	4 Assessing bushfire risk in the planning context	5 Applying SPP 3.7	6 Roles and responsibilities	Appendices
----------	-------------------	--------------------------------------	------------------------------	--	--------------------------	------------------------------------	------------

ELEMENT 3: VEHICULAR ACCESS

Intent: To ensure that the vehicular access serving a subdivision/development is available and safe during a bushfire event.

PERFORMANCE PRINCIPLE

The intent may be achieved where:

P3

The internal layout, design and construction of public and private vehicular access and egress in the subdivision/development allow emergency and other vehicles to move through it easily and safely at all times.

ACCEPTABLE SOLUTIONS

To achieve the intent, all applicable 'acceptable solutions' must be addressed.

A3.1 Two access routes

Two different vehicular access routes are provided, both of which connect to the public road network, provide safe access and egress to two different destinations and are available to all residents/the public at all times and under all weather conditions.

A3.2 Public road

A public road is to meet the requirements in Table 6, Column 1.

A3.3 Cul-de-sac (including a dead-end road)

A cul-de-sac and/or a dead end road should be avoided in bushfire prone areas. Where no alternative exists (i.e. the lot layout already exists and/or will need to be demonstrated by the proponent), the following requirements are to be achieved:

- Requirements in Table 6, Column 2;
- Maximum length: 200 metres (if public emergency access is provided between cul-de-sac heads maximum length can be increased to 600 metres provided no more than eight lots are serviced and the emergency access way is no more than 600 metres); and
- Turn-around area requirements, including a minimum 17.5 metre diameter head.

A3.4 Battle-axe

Battle-axe access leg should be avoided in bushfire prone areas. Where no alternative exists, (this will need to be demonstrated by the proponent) all of the following requirements are to be achieved:

- Requirements in Table 6, Column 3;
- Maximum length: 600 metres; and
- Minimum width: six metres.

Contents	1 Introduction	2 Policy framework overview	3 Bushfire prone areas	4 Assessing bushfire risk in the planning context	5 Applying SPP 3.7	6 Roles and responsibilities	Appendices
----------	-------------------	--------------------------------------	------------------------------	--	--------------------------	------------------------------------	------------

ELEMENT 3: VEHICULAR ACCESS

PERFORMANCE PRINCIPLE

ACCEPTABLE SOLUTIONS

A3.5 Private driveway longer than 50 metres

A private driveway is to meet all of the following requirements:

- Requirements in Table 6, Column 3;
- Required where a house site is more than 50 metres from a public road;
- Passing bays: every 200 metres with a minimum length of 20 metres and a minimum width of two metres (i.e. the combined width of the passing bay and constructed private driveway to be a minimum six metres);
- Turn-around areas designed to accommodate type 3.4 fire appliances and to enable them to turn around safely every 500 metres (i.e. kerb to kerb 17.5 metres) and within 50 metres of a house; and
- Any bridges or culverts are able to support a minimum weight capacity of 15 tonnes.
- All-weather surface (i.e. compacted gravel, limestone or sealed).

A3.6 Emergency access way

An access way that does not provide through access to a public road is to be avoided in bushfire prone areas. Where no alternative exists (this will need to be demonstrated by the proponent), an emergency access way is to be provided as an alternative link to a public road during emergencies. An emergency access way is to meet all of the following requirements:

- Requirements in Table 6, Column 4;
- No further than 600 metres from a public road;
- Provided as right of way or public access easement in gross to ensure accessibility to the public and fire services during an emergency; and
- Must be signposted.

A3.7 Fire service access routes (perimeter roads)

Fire service access routes are to be established to provide access within and around the edge of the subdivision and related development to provide direct access to bushfire prone areas for fire fighters and link between public road networks for fire-fighting purposes. Fire service access routes are to meet the following requirements:

- Requirements Table 6, Column 5;
- Provided as right of ways or public access easements in gross to ensure accessibility to the public and fire services during an emergency;
- Surface: all-weather (i.e. compacted gravel, limestone or sealed)
- Dead end roads are not permitted;
- Turn-around areas designed to accommodate type 3.4 appliances and to enable them to turn around safely every 500 metres (i.e. kerb to kerb 17.5 metres);
- No further than 600 metres from a public road;
- Allow for two-way traffic and;
- Must be signposted.

Contents	1 Introduction	2 Policy framework overview	3 Bushfire prone areas	4 Assessing bushfire risk in the planning context	5 Applying SPP 3.7	6 Roles and responsibilities	Appendices
----------	-------------------	--------------------------------------	------------------------------	--	--------------------------	------------------------------------	------------

ELEMENT 3: VEHICULAR ACCESS

PERFORMANCE PRINCIPLE

ACCEPTABLE SOLUTIONS

A3.8 Firebreak width

Lots greater than 0.5 hectares must have an internal perimeter firebreak of a minimum width of three metres or to the level as prescribed in the local firebreak notice issued by the local government.

Table 6: Vehicular access technical requirements

TECHNICAL REQUIREMENTS	1 Public road	2 Cul-de-sac	3 Private driveway	4 Emergency access way	5 Fire service access routes
Minimum trafficable surface (m)	6*	6	4	6*	6*
Horizontal clearance (m)	6	6	6	6	6
Vertical clearance (m)	4.5	N/A	4.5	4.5	4.5
Maximum grade <50 metres	1 in 10	1 in 10	1 in 10	1 in 10	1 in 10
Minimum weight capacity (t)	15	15	15	15	15
Maximum crossfall	1 in 33	1 in 33	1 in 33	1 in 33	1 in 33
Curves minimum inner radius (m)	8.5	8.5	8.5	8.5	8.5

*Refer to E3.2 Public roads: Trafficable surface

EXPLANATORY NOTES

E3.1 Two access routes

It is essential that residents and the community, as well as emergency services, have safe access and egress from both the subdivision and individual houses/development. It is the developer's responsibility, as part of the Bushfire Hazard Level assessment, to ensure that subdivision and development design allow for bushfire protection criteria to be met regarding driveways and turnaround areas at house sites.

It is also necessary that the public have two safe access options leading to two different destinations that can withstand all weather conditions. This applies to access routes leading into a subdivision, as well as those within a subdivision. This acceptable solution allows for the situation if a vehicular access/egress route to a subdivision or lot becomes blocked during a fire then there is an alternative vehicular access/egress route which provides access to a different destination. Accordingly, road widening in lieu of providing two different access routes should not be supported. All access should be suitable to accommodate type 3.4 fire appliances (i.e. fire trucks with a four-wheel-drive 7-tonne chassis).

Two-way access should be provided as a public road; however, where a public road cannot be provided, (this will need to be demonstrated by the proponent providing justification for why this cannot be achieved) an emergency access way may be considered.

Contents	1	2	3	4	5	6	Appendices
	Introduction	Policy framework overview	Bushfire prone areas	Assessing bushfire risk in the planning context	Applying SPP 3.7	Roles and responsibilities	

ELEMENT 3: VEHICULAR ACCESS

EXPLANATORY NOTES

E3.2 Public road

Trafficable surface

Widths quoted for access routes refer to the width of the trafficable surface. A six metre trafficable surface does not necessarily mean paving width. It could, for example, include four metre wide paving one metre wide constructed road shoulders.

In special circumstances, where eight lots or less are being serviced, a public road with a minimum trafficable surface of four metres for a maximum distance of 90 metres may be provided subject to the approval of both the local government and Department of Fire and Emergency Services.

Public road design

All roads should allow for two-way traffic to allow conventional two-wheel drive vehicles and fire appliances to travel safely on them.

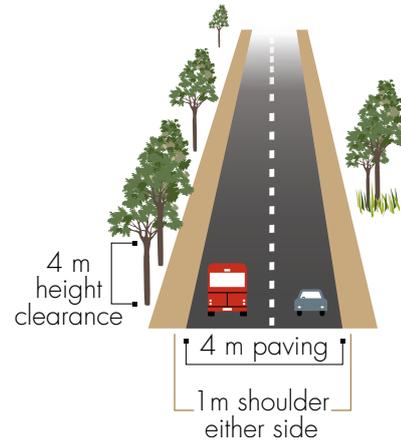


Figure 19: Minimum design requirements for a public road

E3.3 Cul-de-sac

In bushfire prone areas, a cul-de-sac subdivision layout is not favoured because they do not provide access in different directions for residents. In some instances it may be possible to provide an emergency access way between cul-de-sac heads to a maximum distance of 600 metres, so as to achieve two-way access. Such links must be provided as right of ways or public access easements in gross to ensure accessibility to the public and fire services during an emergency. A cul-de-sac in a bushfire prone area is to connect to a public road that allows for travel in two directions in order to address Acceptable Solution A3.1.

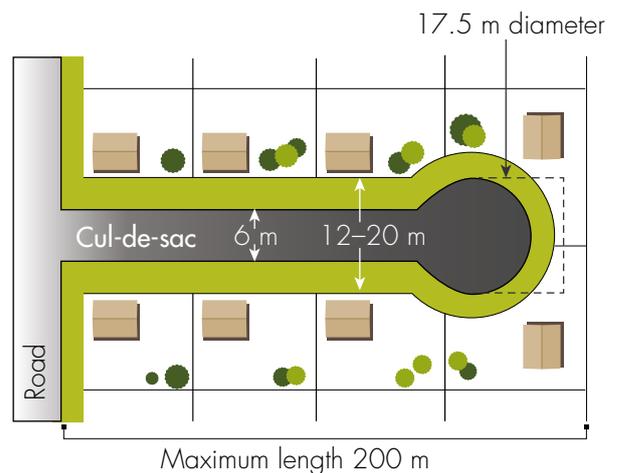


Figure 20: Minimum design requirements for a cul-de-sac

Contents	1	2	3	4	5	6	Appendices
	Introduction	Policy framework overview	Bushfire prone areas	Assessing bushfire risk in the planning context	Applying SPP 3.7	Roles and responsibilities	

ELEMENT 3: VEHICULAR ACCESS

EXPLANATORY NOTES

E3.4 Battle-axe

In bushfire prone areas, lots with battle-axe access legs should be avoided because they often do not provide two-way access and egress for residents and may be easily blocked by falling trees or debris. In some instances, however; it may be appropriate for battle-axe access to be used to overcome specific site constraints. Where used, they should comply with the minimum standards for private driveways.

Passing bays should be provided at 200 metre intervals along battle-axe access legs to allow two-way traffic. The passing bays should be a minimum length of 20 metres, with the combined width of the passing bay and the access being a minimum of six metres.

Turn-around areas should allow type 3.4 fire appliances to turn around safely (i.e. kerb to kerb 17.5 metres) and should be available at house sites and at 500 metre intervals along the access leg.

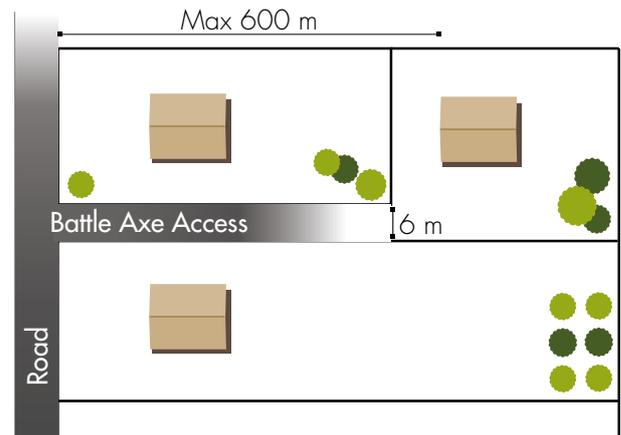


Figure 21: Minimum design requirements for a battle-axe

Unless no alternative exists, battle-axe access legs should be avoided in bushfire prone areas. Where deemed appropriate, the minimum design standards are shown.

E3.5 Private driveway longer than 50 metres

For a driveway shorter than 50 metres, fire appliances typically operate from the street frontage however where the distance exceeds 50 metres, then fire appliances will need to gain access along the driveway in order to defend the property during a bushfire. Where house sites are more than 50 metres from a public road, access to individual houses and turn-around areas should be available for both conventional two-wheel drive vehicles of residents and type 3.4 fire appliances.

Turn-around areas should be located within 50 metres of a house. Passing bays should be available where driveways are longer than 200 metres and turn-around areas in driveways that are longer than 500 metres. Circular and loop driveway designs may also be considered. These criteria should be addressed through subdivision design.

Passing bays should be provided at 200 metre intervals along private driveways to allow two-way traffic. The passing bays should be a minimum length of 20 metres, with the combined width of the passing bay and the access being a minimum of six metres.

Turn-around areas should allow type 3.4 fire appliances to turn around safely (i.e. kerb to kerb 17.5 metres) and should be available at the house sites and at 500 metre intervals along the driveway.

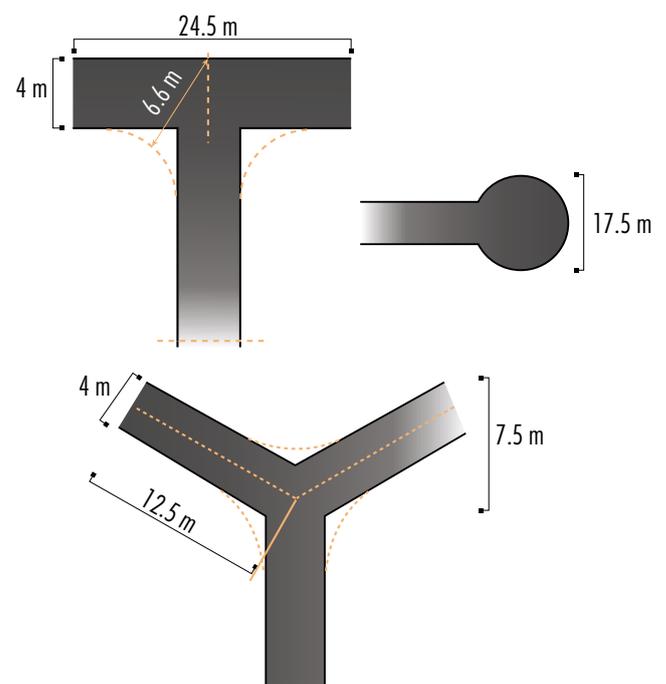


Figure 22: Design requirements for a private driveway longer than 50 metres

Turning areas should allow type 3.4 fire appliances to turn safely

Contents	1	2	3	4	5	6	Appendices
	Introduction	Policy framework overview	Bushfire prone areas	Assessing bushfire risk in the planning context	Applying SPP 3.7	Roles and responsibilities	

ELEMENT 3: VEHICULAR ACCESS

EXPLANATORY NOTES

E3.6 Emergency access way

An emergency access way is not a preferred option however may be used to link up with roads to allow alternative access and egress during emergencies where traffic flow designs do not allow for two-way access. Such access should be provided as a right-of-way or easement in gross to ensure accessibility to the public and fire emergency services during an emergency.

The access should comply with minimum standards for a public road and should be signposted. Where gates are used to control traffic flow during non-emergency periods, these must not be locked. Emergency access ways are to be no longer than 600 metres and must be adequately signposted where they adjoin public roads.

Where an emergency access way is constructed on private land, a right of way or easement in gross is to be established.

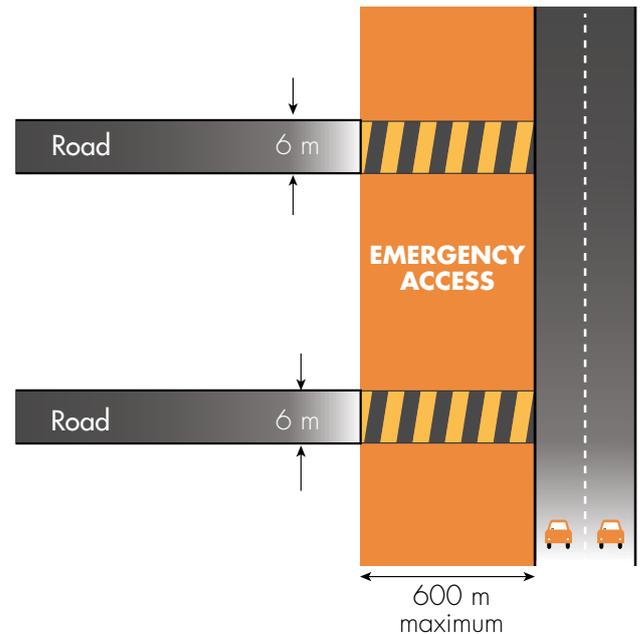


Figure 23: Minimum design requirements for an emergency access way

Two different vehicular access routes, both of which connect to the public road network, should be available to all residents at all times



Figure 24: Emergency access ways may be used to link up with roads to allow alternative access during emergencies

Contents	1	2	3	4	5	6	Appendices
	Introduction	Policy framework overview	Bushfire prone areas	Assessing bushfire risk in the planning context	Applying SPP 3.7	Roles and responsibilities	

ELEMENT 3: VEHICULAR ACCESS

EXPLANATORY NOTES

E3.7 Fire service access routes (perimeter roads)

Fire service access routes should be established to separate bushfire prone areas from developed areas, and to provide access within and around the edge of subdivisions and related development. Fire service access is used during bushfire suppression operations but can also be used for fire prevention work.

Fire service access routes should:

- Link up with the road network at regular intervals – the development and road network forms part of the fire service access system;
- Be adequately signposted;
- Allow for two-way traffic – that is, two fire appliances must be able to safely pass each other;
- Have an all-weather surface (i.e. compacted gravel, limestone or sealed); and
- Have erosion control measures in place.

Driveways may be used as part of the designated fire service access system, provided they meet the minimum standard for fire service access routes. It is beneficial to link the fire service access routes with individual driveways to allow quick access to properties and houses during fire emergencies.

Where gates are used, these should be wide enough to accommodate type 3.4 fire appliances (minimum width of 3.6m) with the design and construction to be approved by the relevant local government. Gates on fire service access routes may be locked to restrict access provided that a common key system is used and such keys are made available for fire appliances and designated fire officers within the local government area and/or surrounding district. Gates should be installed where fences cross fire service access routes.

Management and access arrangements should be in place to ensure that the maintenance of fire service access routes will occur in the long term after an area has been subdivided. A number of options can be used to achieve this, including but not limited to:

- Individual property owners being responsible for maintaining fire service access routes where these fall on their property;
- Providing such access as a right-of-way or easement in gross to ensure accessibility to fire services during an emergency; and/or
- A levy system administered by local government to cover the cost of maintaining fire service access routes.

Such arrangements should be documented in the relevant planning application (such as a structure plan, subdivision plan or development plan) and should be agreed to by local government.

Contents	1 Introduction	2 Policy framework overview	3 Bushfire prone areas	4 Assessing bushfire risk in the planning context	5 Applying SPP 3.7	6 Roles and responsibilities	Appendices
----------	-------------------	--------------------------------------	------------------------------	--	--------------------------	------------------------------------	------------

ELEMENT 4: WATER

Intent: To ensure that water is available to the subdivision, development or land use to enable people, property and infrastructure to be defended from bushfire.

PERFORMANCE PRINCIPLE

The intent may be achieved where:

P4

The subdivision, development or land use is provided with a permanent and secure water supply that is sufficient for fire fighting purposes.

ACCEPTABLE SOLUTIONS

To achieve the intent, all applicable 'acceptable solutions' must be addressed.

A4.1 Reticulated areas

The subdivision, development or land use is provided with a reticulated water supply in accordance with the specifications of the relevant water supply authority and Department of Fire and Emergency Services.

A4.2 Non-reticulated areas

Water tanks for fire fighting purposes with a hydrant or standpipe are provided and meet the following requirements:

- Volume: minimum 50,000 litres per tank;
- Ratio of tanks to lots: minimum one tank per 25 lots (or part thereof);
- Tank location: no more than two kilometres to the further most house site within the residential development to allow a 2.4 fire appliance to achieve a 20 minute turn-around time at legal road speeds;
- Hardstand and turn-around areas suitable for a type 3.4 fire appliance (i.e. kerb 17.5 metres) are provided within three metres of each water tank; and
- Water tanks and associated facilities are vested in the relevant local government.

A4.3 Individual lots within non-reticulated areas (Only for use if creating 1 additional lot and cannot be applied cumulatively)

- Single lots above 500 square metres need a dedicated static water supply on the lot that has the effective capacity of 10,000 litres.

EXPLANATORY NOTES

E4.1 Reticulated areas

Water supply authorities in Western Australia include the Water Corporation, Aqwest and the Busselton Water Board.

The Water Corporation's 'No. 63 Water Reticulation Standard' is deemed to be the baseline criterion for developments and should be applied unless local water supply authorities' conditions apply.

E4.2 Non-reticulated areas

A procedure must be in place to ensure that water tanks are maintained at or above the designated capacity, including home tanks on single lots, at all times. This could be in the form of an agreement with the local government and the fire service.

Contents	1 Introduction	2 Policy framework overview	3 Bushfire prone areas	4 Assessing bushfire risk in the planning context	5 Applying SPP 3.7	6 Roles and responsibilities	Appendices
----------	-------------------	--------------------------------------	------------------------------	--	--------------------------	------------------------------------	------------

APPENDIX FIVE BUSHFIRE MANAGEMENT PLANS

Purpose

A Bushfire Management Plan (BMP) is required to accompany strategic planning proposals, subdivision and development applications⁸ in areas above BAL – Low or areas with a bushfire hazard level above low. In accordance with SPP 3.7: Planning in bushfire prone areas, a BMP should include the bushfire assessment; identification of the bushfire hazard issues arising from the relevant assessment; and demonstration that compliance with the bushfire protection criteria contained within Appendix 4 of these Guidelines can be achieved. Further guidance is included in section 4.6 of these Guidelines.

Level of detail

The level of detail provided within a BMP should be commensurate with the applicable planning stage and scale of the proposal or application.

The primary sections 1-6 included in the BMP templates should always retain the stated section numbering. If a primary section is not relevant to an application then state N/A (and a reason, if applicable) but leave the section in the plan. The sub-sections can be modified as required, with best practice being to adhere to them as closely as possible, and add further detail if required.

Table 7 provides a checklist to outline the requirements for land use planning proposals and development applications in bushfire prone areas.

Table 7: Bushfire Management Plan Section Checklist

SECTIONS		Local planning strategies	Schemes and amendments	Structure plans	Subdivision	Development approval
Coversheet		✓	✓	✓	✓	✓
Executive summary		optional	optional	optional	optional	optional
1.	Proposal details	✓	✓	✓	✓	✓
2.	Environmental considerations	✓	✓	✓	✓	✓
3.	Bushfire assessment results					
3.1	Assessment inputs	✓	✓	✓	✓	✓
3.2	Assessment outputs					
	BHL assessment	✓	✓	✓		
			or	or		
	BAL contour map		✓	✓	✓	
					or	
	BAL assessment				✓	✓
4.	Bushfire hazard issues	✓	✓	✓	✓	✓
5.	Assessment against the bushfire protection criteria	✓	✓	✓	✓	✓
6.	Implementation	✓	✓	✓	✓	✓

If future lot layout has been determined, a BAL contour map showing the BAL ratings for each lot should be prepared instead of a BHL assessment.

⁸ Excluding development applications for single houses and ancillary dwellings on a lot or lots less than 1,100m²

Contents	1 Introduction	2 Policy framework overview	3 Bushfire prone areas	4 Assessing bushfire risk in the planning context	5 Applying SPP 3.7	6 Roles and responsibilities	Appendices
----------	-------------------	--------------------------------------	------------------------------	--	--------------------------	------------------------------------	------------

Bushfire Management Plan sections

Section 1: Proposal details

Include a brief explanation of the planning proposal and resulting intensification of land use.

Section 2: Environmental considerations

SPP 3.7 policy objective 5.4 recognises the need to consider bushfire risk management measures alongside environmental, biodiversity and conservation values.

The BMP should identify whether onsite clearing or modification of native vegetation will be required; and whether areas are proposed to be revegetated as part of the planning proposal.

The BMP should provide evidence (from relevant agencies, the environmental or planning consultant and/or the local government) that the vegetation clearing and/or modification can be achieved. If evidence is unavailable, it may be satisfactory to identify the need to seek these approvals at a subsequent stage of the planning process and to acknowledge that if approval is not forthcoming there may be a need to revise the BMP.

Where revegetation is proposed, written evidence and / or an approved landscape plan should be provided to demonstrate that the agency responsible for the ongoing management (i.e. local government and / or Department of Biodiversity, Conservation and Attractions), understands and supports the vegetation classification assigned to the subject area.

Section 3: Bushfire assessment results

The assessment inputs and outputs will be dependent on the type of planning proposal. Assessments should be undertaken in accordance with the relevant methodology contained within these Guidelines.

Section 4: Identification of bushfire hazard issues

Identify any bushfire hazard issues identified through examination of the environmental considerations and the bushfire risk assessment. This may include access constraints both within and outside of the site, the location of significant and remaining bushfire hazards (e.g. Regional reserves, National Parks, etc.) and other relevant bushfire hazards. This will assist in the understanding of whether the proposal is likely to be able to comply with the bushfire protection criteria.

This is particularly relevant to support strategic planning proposals where consideration of issues may assist in determining the suitability of areas for development; and issues that need to be considered at subsequent stages of the planning process.

Section 5: Assessment against the bushfire protection criteria

For each of the elements listed in Appendix 4 of these Guidelines, the 'intent' must be demonstrated by either addressing the relevant acceptable solutions; or where these acceptable solutions cannot be fully met, performance-based solutions can be developed to achieve the 'intent'.

Acceptable solutions should be provided within a table and not duplicated in the body of the BMP.

Section 6: Responsibilities for implementation and management of the bushfire measures

This section should be set out in a table and list separately the responsibilities of the developer/s, landowner/s and local government for the initial implementation and ongoing maintenance of the required bushfire risk mitigation measures.

Best practice examples

Best practice examples have been prepared for:

1. Local planning strategies – using a BHL assessment
2. Strategic planning proposals – using a BHL assessment
3. Structure plan / subdivision where lot layout is known – using a BAL contour map
4. Development application (complex) – using a BAL assessment
5. Development application (simple) – using a BAL assessment

The BMP templates can be found at www.dplh.wa.gov.au under bushfire planning publications. The standardisation of BMPs improves efficiencies in decision-making at both local and State government level. The BMP templates promote the clear and succinct presentation of information required under SPP 3.7 and within these Guidelines. It is strongly recommended that these BMP templates are used.

Contents	1 Introduction	2 Policy framework overview	3 Bushfire prone areas	4 Assessing bushfire risk in the planning context	5 Applying SPP 3.7	6 Roles and responsibilities	Appendices
----------	-------------------	--------------------------------------	------------------------------	--	--------------------------	------------------------------------	------------

APPENDIX SIX RELATED PUBLICATIONS AND FURTHER READING

The following list of publications may be helpful to read in conjunction with SPP 3.7 and these Guidelines. The designation of bushfire prone areas, compliance with the objectives and policy measures of SPP 3.7, and the application of bushfire construction requirements are complemented by bushfire risk management measures that fall outside the planning process. This includes, but is not limited to, maintaining reduced fuel loads, public education and consultation, provision and maintenance of firefighting services and infrastructure, and up-to-date evacuation plans.

Planning policies and publications

- State Planning Policy 2: Environment and Natural Resources Policy* (WAPC, 2003)
- State Planning Policy 2.5: Agricultural and Rural Land Use Planning* (WAPC, 2014)
- State Planning Policy 2.6: State Coastal Planning Policy* (WAPC, 2013)
- State Planning Policy 2.8: Bushland Policy for the Perth Metropolitan Region* (WAPC, 2010)
- State Planning Policy 2.9: Water Resources* (WAPC, 2006)
- State Planning Policy 3: Urban Growth and Settlement* (WAPC, 2006)
- State Planning Policy 3.7: Planning in Bushfire Prone Areas (SPP 3.7)* (WAPC, 2015)
- Introduction to the Western Australian Planning System* (WAPC, 2014)
- Liveable Neighbourhoods* (WAPC 2009, as amended)
- Local Planning Manual* (WAPC, 2010)
- Structure Plan Preparation Guidelines* (WAPC, 2012)
- Visual Landscape Planning in Western Australia* (WAPC, 2007)

Legislation

- Building Act 2011*
- Building Regulations 2012*
- Environmental Protection Act 1986*
- Environmental Protection and Biodiversity Conservation Act 1999* (Cwth)

Environmental Protection (Clearing of Native Vegetation) Regulations 2004

Planning and Development Act 2005

Planning and Development (Local Planning Schemes) Regulations 2015

Building approval publications

- Building Code of Australia (Australian Building Codes Board, as amended)
- Australian Standard 3959 Construction of Buildings in Bushfire-Prone Areas* (Standards Australia 2009, as referenced by the Building Code of Australia) (Published by SAI Global)
- Performance Standards for Private Bushfire Shelters (Australian Building Codes Board, 2010)

Fire protection publications

- Standards for building protection zones for buildings and critical infrastructure in bushfire prone areas* (DFES, 2013)
- Prepare. Act. Survive* (DFES, 2012)
- Guidelines for Plantation Fire Protection* (Fire and Emergency Services Authority, 2011)
- The Homeowner's Bushfire Survival Manual – 6th edition* (Department of Fire and Emergency Services, 2015)
- Mapping Standard for Bush Fire Prone Areas* (OBRM, 2015)

Other related publications

- Adapting to our Changing Climate* (Department of Environment and Conservation, 2012)
- Building for Better Protection in Bushfire Areas: A Homeowner's Guide* (Department of Commerce, 2014)
- Design Standard 63 (Water Corporation, 2012)
- Evacuation Planning' Handbook 4, 3rd Edition (2013), produced by the Australian Emergency Management Institute of the Commonwealth Attorney Generals Department.
- Guidelines for Organisations Seeking to Become Accrediting Bodies in Western Australia: Level 1 Bushfire Attack Level Assessor, Level 2 Bushfire Planning Practitioner – Prescriptive and Level 3 Bushfire Planning Practitioner – Performance* (Department of Planning, 2015)
- Regional and Local Fire Prevention and Response Plans and Fire Equipment Strategies, Where They Exist (refer relevant local government)