

BUSH FIRE ASSESSMENT REPORT

**Lots 1 & 2 DP 1215893, Lots 12 & 13 DP 243218 and Lot
449 DP 812102**

Bayshore Drive Byron Bay

Planning Proposal to Amend Zoning (s100B)

Prepared for: Ganra Pty Ltd

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BPAD-L3 ACCREDITED PRACTITIONER

Date: 4 March 2019

Ref: 18/306

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1.0 EXECUTIVE SUMMARY

This report establishes that the Planning Proposal to apply the E4 Environmental Living Zone and SP3 Tourist Zone to the land is capable of complying with Planning for Bushfire Protection 2006.

The public roads, APZs and utilities are capable of complying with Planning for Bushfire Protection 2006 however these items will be required to be specifically assessed in detail with the future subdivision.

It is noted whilst property access roads will also be assessed at development application stage for a dwelling pursuant to s4.14 Environmental Planning and Assessment Act 1979, comment is made on the suitability of crossing the existing water ways on future lots to allow building on the eastern side of the allotments.

2.0 INTRODUCTION

2.1 GENERAL

This report has been prepared to address the bushfire requirements of the Planning Proposal to amend the zones applying to Lots 1 & 2 DP 1215893, Lots 12 & 13 DP 243218 and Lot 449 DP 812102, Bayshore Drive Byron Bay to E4 Environmental Living Zone and SP3 Tourist Zone.

In this regard, this bushfire report is an assessment to provide support to the proposal in regard to bushfire hazard.

2.2 PLANNING PROPOSAL

The applicant is proposing to apply Byron Local Environmental Plan 2014 zone to Lots 1 & 2 DP 1215893, Lots 12 & 13 DP 243218 and Lot 449 DP 812102, Bayshore Drive Byron Bay comprising the E4 Environmental Living Zone and SP3 Tourist Zone.

The development application for future subdivision of the land will involve detailed land survey, further detailed bushfire assessment as the subdivision is 'integrated development', an ecological (fauna and flora) assessment, environmental assessments (acid soils, land contamination), design of allotment layout and engineered infrastructure services (roads, water supply, sewerage network, stormwater drainage, electricity and telecommunications), having regard to the above assessments.

2.3 REPORT DETAILS

Report Reference No.: 18/306

Property Address: Lots 1 & 2 DP 1215893, Lots 12 & 13 DP 243218 and Lot 449 DP 812102, Bayshore Drive Byron Bay

Local Government Area: Byron Shire Council

Proposal: Apply the E4 Environmental Living Zone and SP3 Tourist Zone to the land

Drawings: Myers Ellyett, Dwg. No. TP2.004, dated 22.02.2019

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3.0 PROPOSED DEVELOPMENT

The applicant is proposing to apply BLEP 14 zones to Lots 1 & 2 DP 1215893, Lots 12 & 13 DP 243218 and Lot 449 DP 812102, Bayshore Drive Byron Bay, to E4 Environmental Living Zone and SP3 Tourist Zone as shown on the proposed plan **attached** in Appendix A.

It is noted that the attached plan shows indicative lots to be created as part of a possible future subdivision. These lots will be required to be assessed at the time of development application.

The following description has been provided in regard to the Planning Proposal.

*The Planning Proposal seeks to apply the E4 Environmental Living Zone and SP3 Tourist Zone to that land shown in **Plan 4.1**.*

The Proposal also provides for a Schedule 1 amendment to Bryon Local Environmental Plan 2014 (BLEP14) to specify the maximum number of allotments permitted on the subject land.

The objectives and land use table for the proposed E4 Environmental Living Zone are provided below as follows.

Zone E4 Environmental Living

Direction.

The following must be included as either “Permitted without consent” or “Permitted with consent” for this zone: Environmental protection works; Roads; Home industries may (but need not) be included as permitted with consent.



Figure 1: Location of subject properties

4.0 BUSHFIRE THREAT ASSESSMENT

The bushfire prone mapping identifies the subject allotments as being bushfire prone (Figure 2). Aerial mapping and inspection of the site reveals that the bushfire prone land map is reasonably accurate in respect to the current bushfire hazard with exception to the east dunal vegetation which is remnant rainforest vegetation (category 2).

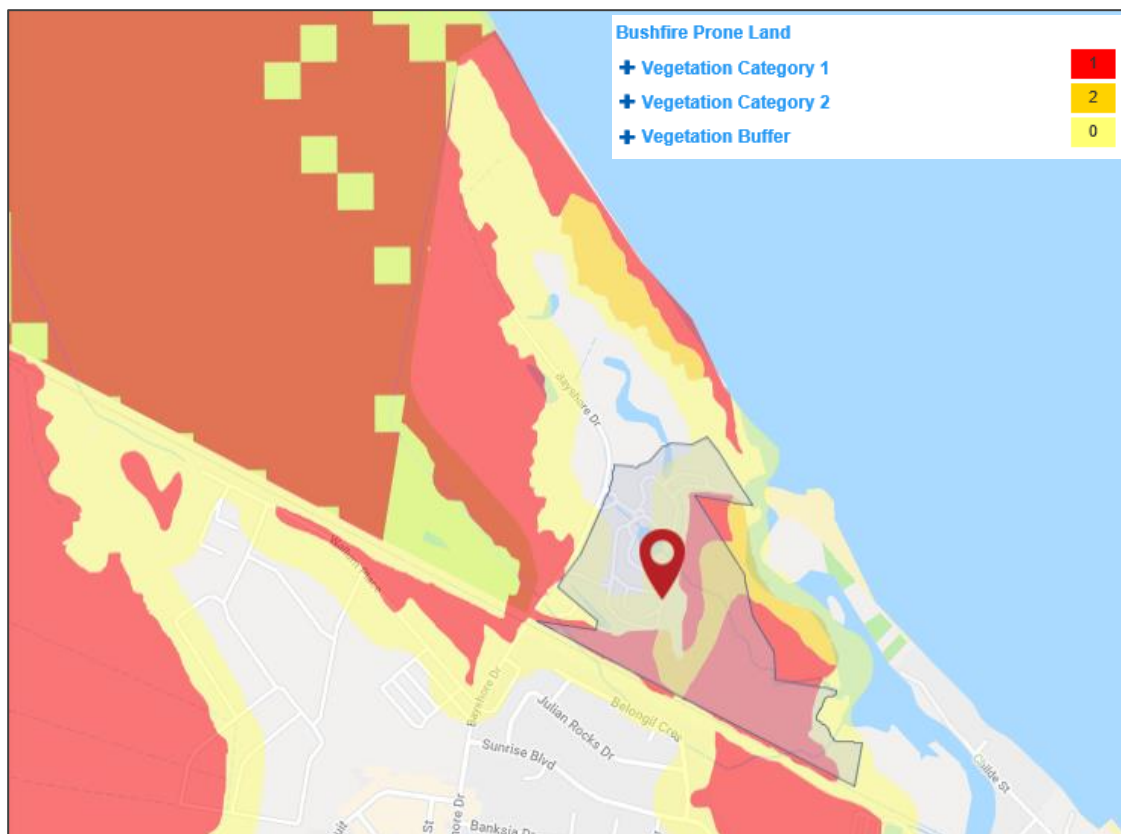


Figure 2: Bushfire prone land map (Lot 1 only shown) *planningportal.nsw.gov.au*

Tables 1 and 2 provide a summary of the vegetation type within 140m of the proposed E4 zoned land, slope and asset protection zone requirements of Appendix 3 of Planning for Bushfire Protection 2006.

Table 1: Bushfire Threat Assessment - Part Lot 1a, 2, 12 and 13				
ASPECT	SLOPE	VEGETATION CLASS (Table A2.1 PBP2006)	TABLE A2.5	APZ
Northwest	Flat	Forest	20m	21m (available off site)
East	Upslope	Rainforest remnant	10m	10m
South	n/a	Managed land	n/a	To boundary
West	Flat	Forest	20m	21m (available off site)

Table 2: Bushfire Threat Assessment - Lot 449				
ASPECT	SLOPE	VEGETATION CLASS (Table A2.1 PBP2006)	TABLE A2.5	APZ
Northwest	Flat	Forest	20m	21m
East	Upslope	Rainforest remnant	10m	10m
South	n/a	Managed land	n/a	To boundary
West	Flat	Forest	20m	21m

Figure 3: Northern section (boundaries approximate)



Figure 4: Southern section (boundaries approximate)

5.0 ASSET PROTECTION ZONES

Asset Protection Zones are areas established and maintained to ensure that bushfire fuels are progressively reduced between the development and the bushfire hazard. The asset protection zone incorporates an Inner Protection Area (IPA) having reduced fuel loadings of approximately 3t/ha.

The assessment shown in Tables 1 and 2 establishes that the future potential subdivision can support building envelopes compliant with Table A2.5 PBP2006 and NSW RFS Fast Fact relating to 29kW/m² threshold requirements. It is noted compliance with Draft PBP2018 will also be achieved. The formalization of asset protection zones will be provided with the development applications and assessment pursuant to s4.14 Environmental Planning and Assessment Act 1979 for future dwellings.

6.0 CONSTRUCTION STANDARDS AND OTHER PLANNING CONTROLS

The land available for the required asset protection zones will allow construction of future dwellings to be undertaken in accordance with BAL 29 AS 3959-2009 or less.

The future subdivision of land will require approval of an 'integrated' development application for subdivision under s.91 of the EP&A Act (requiring the issue of Bush Fire Safety Authority) and development application/s for any dwellings under s.4.14 of the EP&A Act 1979.

Having regard to the area of potentially developable land, estimated number of additional allotments and the level of assessment required for any future subdivision and dwellings, no additional planning controls are considered warranted.

7.0 WATER AND UTILITY SERVICES

7.1 WATER SERVICES

The existing surrounding residential development supports a reticulated water supply and street hydrant system. The development application for future subdivision will investigate and provide details on the existing reticulated water supply and design details for the extension of the supply (fire hydrants) to comply with s4.1.3 of Planning for Bushfire Protection 2006.

7.2 ELECTRICITY SERVICES

The existing electrical supply to the surrounding residential areas is provided as overhead and underground service.

The development application for future subdivision will investigate and provide details on the existing reticulated electrical supply and design details for the extension of the supply to comply with s4.1.3 of Planning for Bushfire Protection 2006.

7.3 GAS SERVICES

No reticulated gas service is known to be provided to the land.

The development applications for future dwellings will provide details of the storage of gas to comply with s4.1.3 of Planning for Bushfire Protection 2006.

8.0 ACCESS

The land is currently accessed by Bayshore Drive. The future subdivision will require Bayshore Drive to have a compliant turning circle complying with the requirements of s4.1.3(1) of Planning for Bushfire Protection 2006 or the regulations enforced at the time of the development application.

Internal property access roads will require compliance with PBP2006 s4.1.3(2) it being noted potential bridge crossings over the water ways on lots Part 1a, 2, 12 and 13 can potentially comply by either specific construction or alternatively having the water supply on the west side of the bridge providing coverage is provided to the future dwelling. These considerations can be assessed with a bushfire report prepared at subdivision stage or alternatively when an application is prepared for a dwelling.

9.0 LANDSCAPING

The majority of buildings adversely impacted upon in a bushfire event happen through ember attack and in this regard combustible material surrounding the building e.g. landscaping can play a significant part during the event. Adequate management of landscaping is critical to the survivability of an asset and for occupant safety during a bushfire.

Landscaping will be addressed with an application for a dwelling pursuant to s4.14 of the EP&A Act 1979.

10.0 CONCLUSION

The report establishes that compliant asset protection zones can be achieved for a future subdivision of the land to be rezoned and within the area identified.

Compliance with water supply, utilities and construction standards can be assessed at development application stage for the future subdivision and development application for future dwellings. In this regard, investigations undertaken for the purposes of this assessment shows that there is a potential for full compliance with Planning for Bushfire Protection 2006 to be achieved.

DISCLAIMER

This report was prepared for the purposes and exclusive use of the stated client to accompany an application to Byron Shire Council specifically relating to the proposed development and is not to be used for any other purpose or by any other person or Corporation. BCA Check Pty Ltd accepts no responsibility for any loss or damage suffered howsoever arising to any person or Corporation who may use or rely on this report in contravention of the terms of this clause.

As identified in Planning for Bushfire Protection 2006 and the Building Code of Australia the report is to provide recommendations to reduce the risk of ignition and does not guarantee the complete protection of the building in the event of bush fire or that the building will not be adversely impacted upon.

Reporting has been based on the relevant Council and Rural Fire Service Guidelines however recommendations or suggestions given in this report are based on our site investigation at the time of reporting. In some cases site conditions may change dramatically within a few years due to rapid vegetation re-growth and invading weed species.

REFERENCES

NSW Rural Fire Service and Planning NSW (2006), *Planning for bushfire protection, A guide for councils planners fire authorities developers and homeowners*. Rural Fire Service NSW Australia. Standards Australia, (2009), AS3959 *Construction of buildings in bushfire prone areas*, Australian Standards, Sydney.

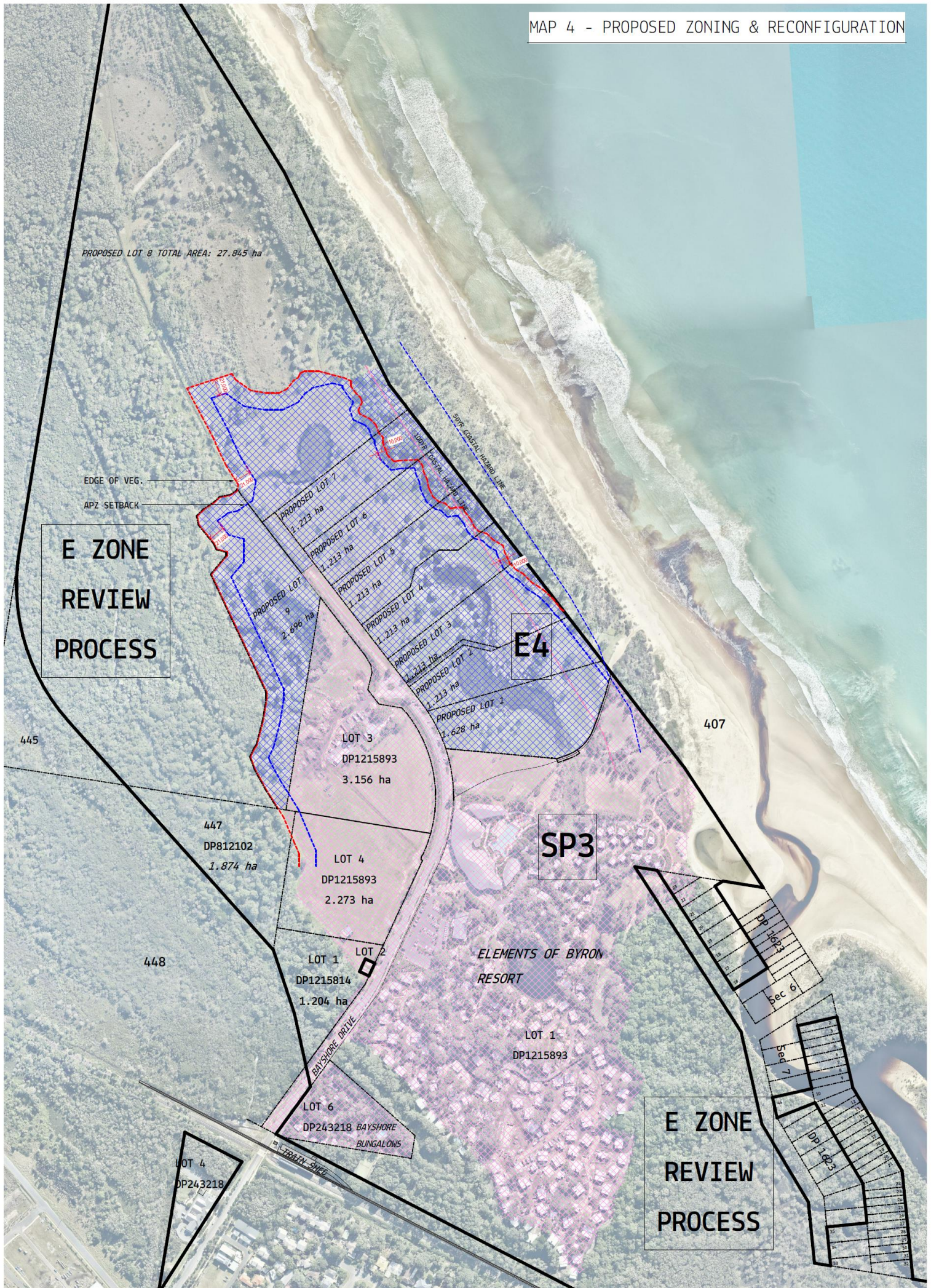
LEGISLATION

Environmental Planning and Assessment Act 1979 and Regulations 2000. *New South Wales*. Parliamentary Counsel's Office, NSW Government Information Service.

Rural Fires Act 1997. *New South Wales*. Parliamentary Counsel's Office, NSW Government Information Service.

Rural Fires Regulation. *New South Wales*. Parliamentary Counsel's Office, NSW Government Information Service.

APPENDIX A: Proposed Plan



APPENDIX B: Standards for Asset Protection Zones (RFS 2005)

standards

for asset protection zones

protection

NSW RURAL FIRE SERVICE



STANDARDS FOR ASSET PROTECTION ZONES

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INTRODUCTION

For thousands of years bush fires have been a natural part of the Australian landscape. They are inevitable and essential, as many Australian plants and animals have adapted to fire as part of their life cycle.

In recent years developments in bushland areas have increased the risk of bush fires harming people and their homes and property. But landowners can significantly reduce the impact of bush fires on their property by identifying and minimising bush fire hazards. There are a number of ways to reduce the level of hazard to your property, but one of the most important is the creation and maintenance of an Asset Protection Zone (APZ).

A well located and maintained APZ should be used in conjunction with other preparations such as good property maintenance, appropriate building materials and developing a family action plan.

WHAT IS AN ASSET PROTECTION ZONE?

An Asset Protection Zone (APZ) is a fuel reduced area surrounding a built asset or structure. This can include any residential building or major building such as farm and machinery sheds, or industrial, commercial or heritage buildings.

An APZ provides:

- a buffer zone between a bush fire hazard and an asset;
- an area of reduced bush fire fuel that allows suppression of fire;
- an area from which backburning may be conducted; and
- an area which allows emergency services access and provides a relatively safe area for firefighters and home owners to defend their property.

Potential bush fire fuels should be minimised within an APZ. This is so that the vegetation within the planned zone does not provide a path for the transfer of fire to the asset either from the ground level or through the tree canopy.

WHAT WILL THE APZ DO?

An APZ, if designed correctly and maintained regularly, will reduce the risk of:

- direct flame contact on the asset;
- damage to the built asset from intense radiant heat; and
- ember attack on the asset.

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WHERE SHOULD I PUT AN APZ?

An APZ is located between an asset and a bush fire hazard.

The APZ should be located wholly within your land. You cannot undertake any clearing of vegetation on a neighbour's property, including National Park estate, Crown land or land under the management of your local council, unless you have written approval.

If you believe that the land adjacent to your property is a bush fire hazard and should be part of an APZ, you can have the matter investigated by contacting the NSW Rural Fire Service (RFS).

There are six steps to creating and maintaining an APZ. These are:

1. Determine if an APZ is required;
2. Determine what approvals are required for constructing your APZ;
3. Determine the APZ width required;
4. Determine what hazard reduction method is required to reduce bush fire fuel in your APZ;
5. Take measures to prevent soil erosion in your APZ; and
6. Landscape and regularly monitor in your APZ for fuel regrowth.

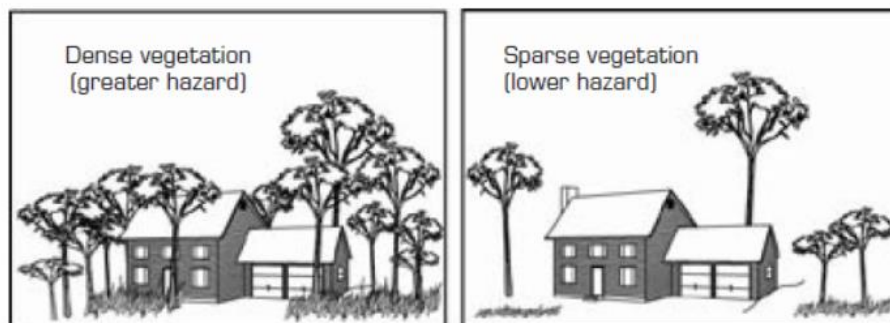
STEP 1. DETERMINE IF AN APZ IS REQUIRED

Recognising that a bush fire hazard exists is the first step in developing an APZ for your property.

If you have vegetation close to your asset and you live in a bush fire prone or high risk area, you should consider creating and maintaining an APZ.

Generally, the more flammable and dense the vegetation, the greater the hazard will be. However, the hazard potential is also influenced by factors such as slope.

- A large area of continuous vegetation on sloping land may increase the potential bush fire hazard.
- The amount of vegetation around a house will influence the intensity and severity of a bush fire.
- The higher the available fuel the more intense a fire will be.



Isolated areas of vegetation are generally not a bush fire hazard, as they are not large enough to produce fire of an intensity that will threaten dwellings.

This includes:

- bushland areas of less than one hectare that are isolated from large bushland areas; and
- narrow strips of vegetation along road and river corridors.

If you are not sure if there is a bush fire hazard in or around your property, contact your local NSW Rural Fire Service Fire Control Centre or your local council for advice.

STEP 2. DETERMINE WHAT APPROVALS ARE REQUIRED FOR CONSTRUCTING YOUR APZ

If you intend to undertake bush fire hazard reduction works to create or maintain an APZ you must gain the written consent of the landowner.

Subdivided land or construction of a new dwelling

If you are constructing an APZ for a new dwelling you will need to comply with the requirements in *Planning for Bushfire Protection*. Any approvals required will have to be obtained as part of the Development Application process.

Existing asset

If you wish to create or maintain an APZ for an existing structure you may need to obtain an environmental approval. The RFS offers a free environmental assessment and certificate issuing service for essential hazard reduction works. For more information see the RFS document *Application Instructions for a Bush Fire Hazard Reduction Certificate* or contact your local RFS Fire Control Centre to determine if you can use this approval process.

Bear in mind that all work undertaken must be consistent with any existing land management agreements (e.g. a conservation agreement, or property vegetation plan) entered into by the property owner.

If your current development consent provides for an APZ, you do not need further approvals for works that are consistent with this consent.

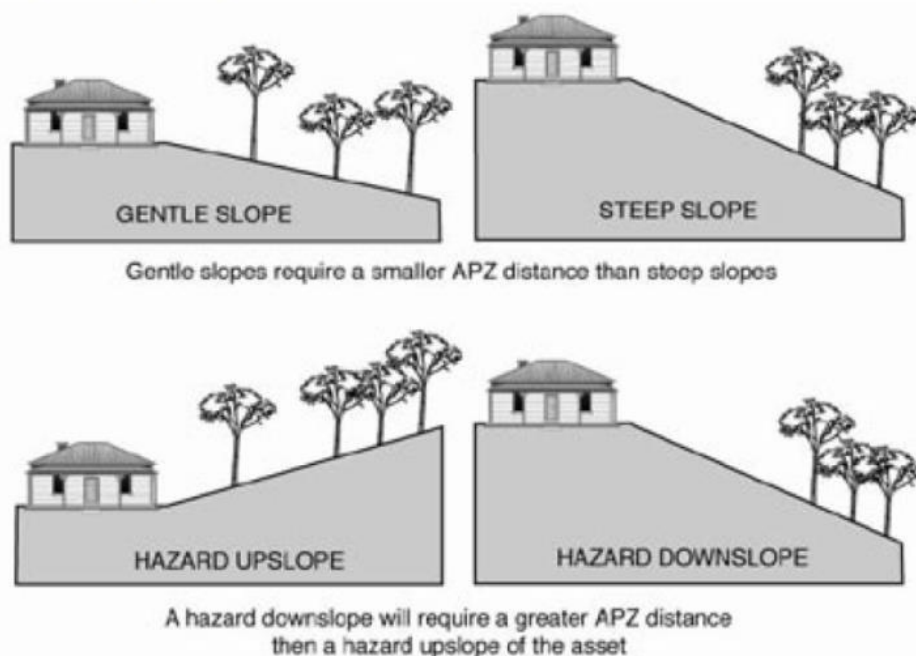
If you intend to burn off to reduce fuel levels on your property you may also need to obtain a Fire Permit through the RFS or NSW Fire Brigades. See the RFS document *Before You Light That Fire* for an explanation of when a permit is required.

STEP 3. DETERMINE THE APZ WIDTH

The size of the APZ required around your asset depends on the nature of the asset, the slope of the area, the type and structure of nearby vegetation and whether the vegetation is managed.

Fires burn faster uphill than downhill, so the APZ will need to be larger if the hazard is downslope of the asset.

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Different types of vegetation (for example, forests, rainforests, woodlands, grasslands) behave differently during a bush fire. For example, a forest with shrubby understorey is likely to result in a higher intensity fire than a woodland with a grassy understorey and would therefore require a greater APZ width.

A key benefit of an APZ is that it reduces radiant heat and the potential for direct flame contact on homes and other buildings. Residential dwellings require a wider APZ than sheds or stockyards because the dwelling is more likely to be used as a refuge during bush fire.

Subdivided land or construction of a new dwelling

If you are constructing a new asset, the principles of *Planning for Bushfire Protection* should be applied. Your Development Application approval will detail the exact APZ distance required.

Existing asset

If you wish to create an APZ around an existing asset and you require environmental approval, the Bush Fire Environmental Assessment Code provides a streamlined assessment process. Your Bush Fire Hazard Reduction Certificate (or alternate environmental approval) will specify the maximum APZ width allowed.

For further information on APZ widths see *Planning for Bushfire Protection* or the *Bush Fire Environmental Assessment Code* (available on the RFS website), or contact your local RFS Fire Control Centre.

STEP 4. DETERMINE WHAT HAZARD REDUCTION METHOD IS REQUIRED TO REDUCE BUSH FIRE FUEL IN YOUR APZ

The intensity of bush fires can be greatly reduced where there is little to no available fuel for burning. In order to control bush fire fuels you can reduce, remove or change the state of the fuel through several means.

Reduction of fuel does not require removal of all vegetation, which would cause environmental damage. Also, trees and plants can provide you with some bush fire protection from strong winds, intense heat and flying embers (by filtering embers) and changing wind patterns. Some ground cover is also needed to prevent soil erosion.

Fuels can be controlled by:

1. raking or manual removal of fine fuels

Ground fuels such as fallen leaves, twigs (less than 6 mm in diameter) and bark should be removed on a regular basis. This is fuel that burns quickly and increases the intensity of a fire.

Fine fuels can be removed by hand or with tools such as rakes, hoes and shovels.

2. mowing or grazing of grass

Grass needs to be kept short and, where possible, green.

3. removal or pruning of trees, shrubs and understorey

The control of existing vegetation involves both selective fuel reduction (removal, thinning and pruning) and the retention of vegetation.

Prune or remove trees so that you do not have a continuous tree canopy leading from the hazard to the asset. Separate tree crowns by two to five metres. A canopy should not overhang within two to five metres of a dwelling.

Native trees and shrubs should be retained as clumps or islands and should maintain a covering of no more than 20% of the area.

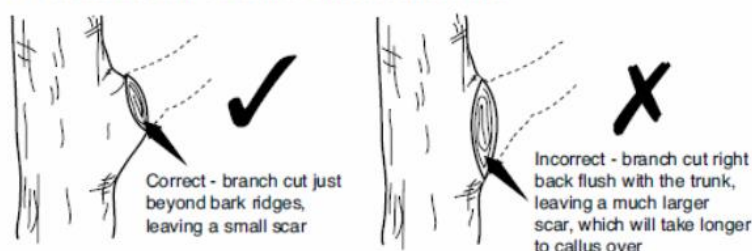
When choosing plants for removal, the following basic rules should be followed:

1. Remove noxious and environmental weeds first. Your local council can provide you with a list of environmental weeds or 'undesirable species'. Alternatively, a list of noxious weeds can be obtained at www.agric.nsw.gov.au/noxweed/;
2. Remove more flammable species such as those with rough, flaky or stringy bark; and
3. Remove or thin understorey plants, trees and shrubs less than three metres in height

The removal of significant native species should be avoided.

Prune in accordance with the following standards:

- Use sharp tools. These will enable clean cuts and will minimise damage to the tree.
- Decide which branches are to be removed before commencing work. Ensure that you maintain a balanced, natural distribution of foliage and branches.
- Remove only what is necessary.
- Cut branches just beyond bark ridges, leaving a small scar.
- Remove smaller branches and deadwood first.



There are three primary methods of pruning trees in APZs:

1. Crown lifting (skirting)

Remove the lowest branches (up to two metres from the ground). Crown lifting may inhibit the transfer of fire between the ground fuel and the tree canopy.

2. Thinning

Remove smaller secondary branches whilst retaining the main structural branches of the tree. Thinning may minimise the intensity of a fire.

3. Selective pruning

Remove branches that are specifically identified as creating a bush fire hazard (such as those overhanging assets or those which create a continuous tree canopy). Selective pruning can be used to prevent direct flame contact between trees and assets.

Your Bush Fire Hazard Reduction Certificate or local council may restrict the amount or method of pruning allowed in your APZ.

See the *Australian Standard 4373 (Pruning of Amenity Trees)* for more information on tree pruning.

4. Slashing and trittering

Slashing and trittering are economical methods of fuel reduction for large APZs that have good access. However, these methods may leave large amounts of slashed fuels (grass clippings etc) which, when dry, may become a fire hazard. For slashing or trittering to be effective, the cut material must be removed or allowed to decompose well before summer starts.

If clippings are removed, dispose of them in a green waste bin if available or compost on site (dumping clippings in the bush is illegal and it increases the bush fire hazard on your or your neighbour's property).

Although slashing and trittering are effective in inhibiting the growth of weeds, it is preferable that weeds are completely removed.

Care must be taken not to leave sharp stakes and stumps that may be a safety hazard.

5. Ploughing and grading

Ploughing and grading can produce effective firebreaks. However, in areas where this method is applied, frequent maintenance may be required to minimise the potential for erosion. Loose soil from ploughed or graded ground may erode in steep areas, particularly where there is high rainfall and strong winds.

6. Burning (hazard reduction burning)

Hazard reduction burning is a method of removing ground litter and fine fuels by fire. Hazard reduction burning of vegetation is often used by land management agencies for broad area bush fire control, or to provide a fuel reduced buffer around urban areas.

Any hazard reduction burning, including pile burns, must be planned carefully and carried out with extreme caution under correct weather conditions. Otherwise there is a real danger that the fire will become out of control. More bush fires result from escaped burning off work than from any other single cause.

It is YOUR responsibility to contain any fire lit on your property. If the fire escapes your property boundaries you may be liable for the damage it causes.

Hazard reduction burns must therefore be carefully planned to ensure that they are safe, controlled, effective and environmentally sound. There are many factors that need to be considered in a burn plan. These include smoke control, scorch height, frequency of burning and cut off points (or control lines) for the fire. For further information see the RFS document *Standards for Low Intensity Bush Fire Hazard Reduction Burning*, or contact your local RFS for advice.

7. Burning (pile burning)

In some cases, where fuel removal is impractical due to the terrain, or where material cannot be disposed of by the normal garbage collection or composted on site, you may use pile burning to dispose of material that has been removed in creating or maintaining an APZ.

For further information on pile burning, see the RFS document *Standards for Pile Burning*.

In areas where smoke regulations control burning in the open, you will need to obtain a Bush Fire Hazard Reduction Certificate or written approval from Council for burning. During the bush fire danger period a Fire Permit will also be required. See the RFS document *Before You Light that Fire* for further details.

STEP 5. TAKE MEASURES TO PREVENT SOIL EROSION

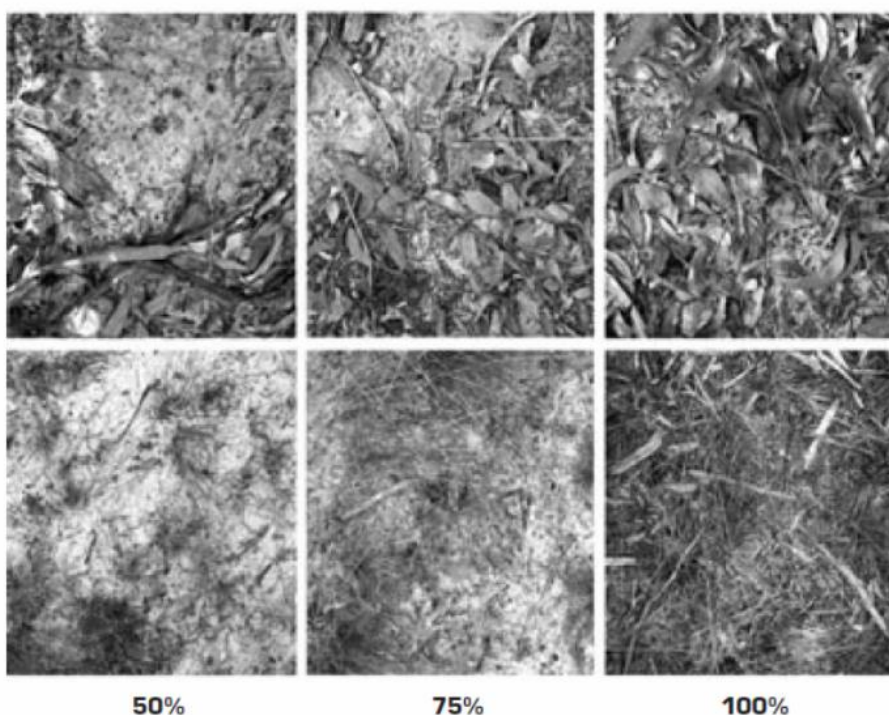
While the removal of fuel is necessary to reduce a bush fire hazard, you also need to consider soil stability, particularly on sloping areas.

Soil erosion can greatly reduce the quality of your land through:

- loss of top soil, nutrients, vegetation and seeds
- reduced soil structure, stability and quality
- blocking and polluting water courses and drainage lines

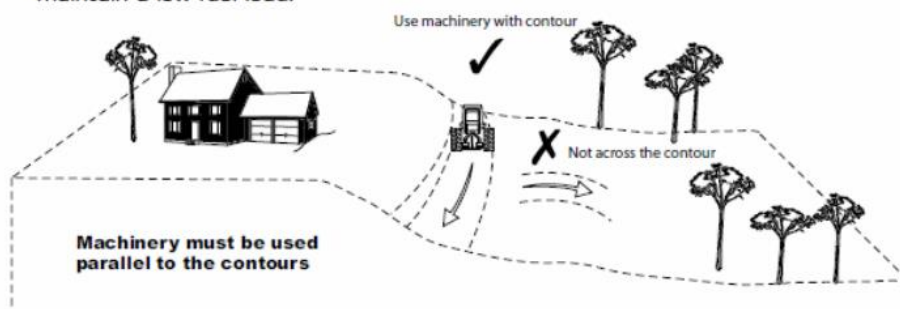
A small amount of ground cover can greatly improve soil stability and does not constitute a significant bush fire hazard. Ground cover includes any material which directly covers the soil surface such as vegetation, twigs, leaf litter, clippings or rocks. A permanent ground cover should be established (for example, short grass). This will provide an area that is easy to maintain and prevent soil erosion.

When using mechanical hazard reduction methods, you should retain a ground cover of at least 75% to prevent soil erosion. However, if your area is particularly susceptible to soil erosion, your Hazard Reduction Certificate may require that 90% ground cover be retained.



Ground Cover

To reduce the incidence of soil erosion caused by the use of heavy machinery such as ploughs, dozers and graders, machinery must be used parallel to the contours. Vegetation should be allowed to regenerate, but be managed to maintain a low fuel load.



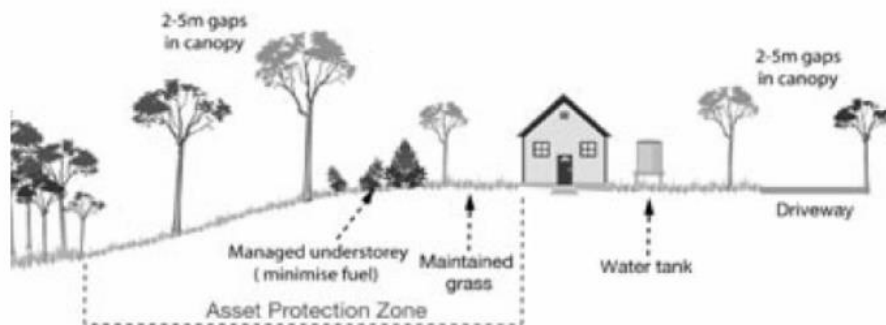
STEP 6. ONGOING MANAGEMENT AND LANDSCAPING

Your home and garden can blend with the natural environment and be landscaped to minimise the impact of fire at the same time. To provide an effective APZ, you need to plan the layout of your garden to include features such as fire resistant plants, radiant heat barriers and windbreaks.

Layout of gardens in an APZ

When creating and maintaining a garden that is part of an APZ you should:

- ensure that vegetation does not provide a continuous path to the house;
- remove all noxious and environmental weeds;
- plant or clear vegetation into clumps rather than continuous rows;
- prune low branches two metres from the ground to prevent a ground fire from spreading into trees;
- locate vegetation far enough away from the asset so that plants will not ignite the asset by direct flame contact or radiant heat emission;
- plant and maintain short green grass around the house as this will slow the fire and reduce fire intensity. Alternatively, provide non-flammable pathways directly around the dwelling;
- ensure that shrubs and other plants do not directly abut the dwelling. Where this does occur, gardens should contain low-flammability plants and non flammable ground cover such as pebbles and crush tile; and
- avoid erecting brush type fencing and planting "pencil pine" type trees next to buildings, as these are highly flammable.



Removal of other materials

Woodpiles, wooden sheds, combustible material, storage areas, large quantities of garden mulch, stacked flammable building materials etc. should be located away from the house. These items should preferably be located in a designated cleared location with no direct contact with bush fire hazard vegetation.

Other protective features

You can also take advantage of existing or proposed protective features such as fire trails, gravel paths, rows of trees, dams, creeks, swimming pools, tennis courts and vegetable gardens as part of the property's APZ.

PLANTS FOR BUSH FIRE PRONE GARDENS

When designing your garden it is important to consider the type of plant species and their flammability as well as their placement and arrangement.

Given the right conditions, all plants will burn. However, some plants are less flammable than others.

Trees with loose, fibrous or stringy bark should be avoided. These trees can easily ignite and encourage the ground fire to spread up to, and then through, the crown of the trees.

Plants that are less flammable, have the following features:

- high moisture content
- high levels of salt
- low volatile oil content of leaves
- smooth barks without "ribbons" hanging from branches or trunks; and
- dense crown and elevated branches.

When choosing less flammable plants, be sure not to introduce noxious or environmental weed species into your garden that can cause greater long-term environmental damage.

For further information on appropriate plant species for your locality, contact your local council, plant nurseries or plant society.

If you require information on how to care for fire damaged trees, refer to the Firewise brochure *Trees and Fire Resistance; Regeneration and care of fire damaged trees*.

WIND BREAKS

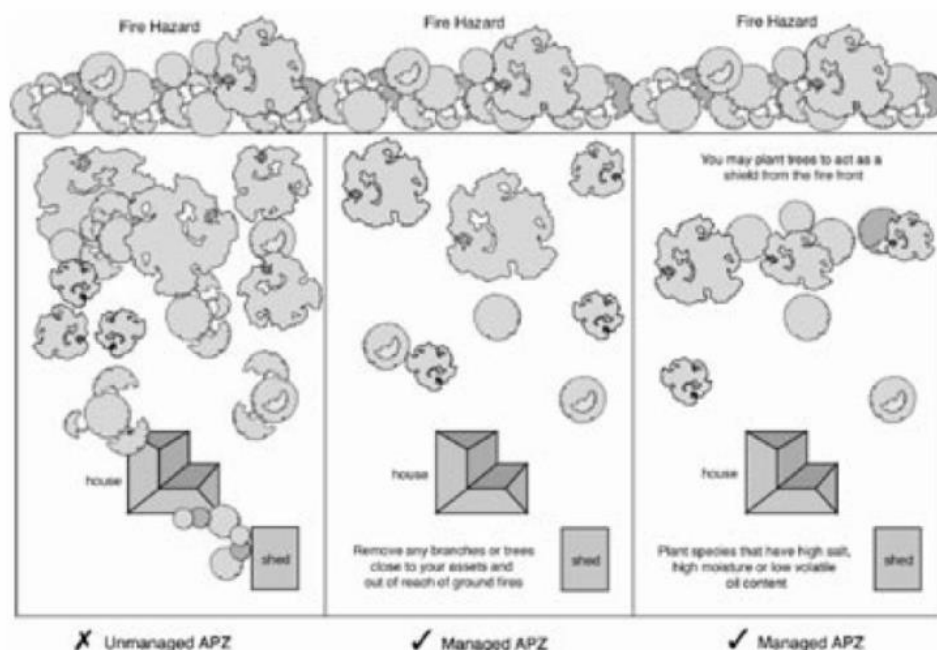
Rows of trees can provide a wind break to trap embers and flying debris that could otherwise reach the house or asset.

You need to be aware of local wind conditions associated with bush fires and position the wind break accordingly. Your local RFS Fire Control Centre can provide you with further advice.

When choosing trees and shrubs, make sure you seek advice as to their maximum height. Their height may vary depending on location of planting and local conditions. As a general rule, plant trees at the same distance away from the asset as their maximum height.

When creating a wind break, remember that the object is to slow the wind and to catch embers rather than trying to block the wind. In trying to block the wind, turbulence is created on both sides of the wind break making fire behaviour erratic.

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HOW CAN I FIND OUT MORE?

The following documents are available from your local Fire Control Centre and from the NSW RFS website at www.rfs.nsw.gov.au.

- Before You Light That Fire
- Standards for Low Intensity Bush Fire Hazard Reduction Burning
- Standards for Pile Burning
- Application Instructions for a Bush Fire Hazard Reduction Certificate

If you require any further information please contact:

- your local NSW Rural Fire Service Fire Control Centre.
Location details are available on the RFS website or
- call the NSW RFS Enquiry Line 1800 679 737
(Monday to Friday, 9am to 5pm), or
- the NSW RFS website at www.rfs.nsw.gov.au.

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