

BUSHFIRE RISK

Introduction

16.1 Bushfire Risk Management

INTRODUCTION

This Part guides development on land identified on the Ku-ring-gai Bushfire Prone Land Map and/or to land identified on the Ku-ring-gai Bushfire Risk Evacuation Map. For other areas not identified as bush fire prone land but within 700m proximity of the aforementioned, the controls are recommended to reduce house loss primarily as a result from ember attack and house-to-house ignition. It provides guidance for development in these areas to meet the objectives in the KLEP.

An area that is likely to support a bushfire or be subject to bushfire attack is known as a bush fire prone area. Land that falls within or partially within a bushfire prone area is identified on Ku-ring-gai Council's Bush Fire Prone Land Map which consists of Bush Fire Prone Vegetation Category 1 or Category 2 and a vegetation buffer.

The objectives and controls in this Part, use a risk based approach to minimise direct and indirect risk to life and property, and seek the integration of risk management, urban development, heritage and ecological protection.

16.1 BUSHFIRE RISK MANAGEMENT

Further controls that may apply		
SECTION A PART 3: Land Consolidation and Subdivision	SECTION B PART 17: Riparian Lands PART 18: Biodiversity	

Objectives

- 1 To minimise risk to life, property, heritage and natural values during a bushfire.
- 2 To avoid unsustainable social and economic costs to the community as a consequence of managing bushfire risk, now or under changes projected as a result of climate change.
- 3 To ensure bushfire protection is included early in the design process.
- 4 To ensure safe evacuation and emergency access in the event of bushfire.
- 5 To encourage good design and management of development on bushfire prone land.
- 6 To ensure development adjacent to urban bushland is sympathetic and safe.
- 7 To ensure that bushfire management measures are integrated with the protection of areas of environmental significance.

Controls

Access, location and design

- 1 Any proposed development is to consider safe access for emergency services, and safe evacuation for users of the development.
- 2 Where possible, site access must be designed to enable fire trails, perimeter and access roads to be located between the urban development and the bushfire prone vegetation. These areas provide a defensible space, passive recreation and bushland views. Managed Asset Protection Zones (APZs) are to be located to the bushfire prone vegetation side of these access ways. See Figure 16.1-1.
- 3 Asset Protection Zones (APZs), access and perimeter roads are to be designed to minimise impact on habitat and / or significant vegetation.
- 4 Development is not to be located so as to require measures to manage bushfire risk by other landowners/managers.
- 5 Development is to be located and designed to minimise the need for bushfire hazard reduction, while protecting life and property.
- 6 Asset protection is to incorporate an inner protection area and an outer protection area determined by a bush fire risk assessment. See Figure 16.1-2 and 16.1-3.
- 7 Consideration is to be made to the impact of any bushfire management measures on ecological, riparian and heritage values of the site, and outline conditions proposed to mitigate these.
- 8 Measures such as increased construction standards, building shape and layout, siting in the landscape and improved access and water supplies are to be considered where this would reduce the need for removal of native vegetation or habitat. See Figure 16.1-4.

Note: Development on Bushfire Prone Land is to comply with the requirements of Planning for Bushfire Protection 2019. Protection of life and property from bushfire is to be considered in the early design phase, to allow appropriate construction and design techniques to be incorporated with biodiversity and heritage management on the site.

Note: The Ku-ring-gai Bushfire Prone Land Map and Bushfire Evacuation Risk Map are available on council's website: www.krg.nsw.gov.au.

16.1 BUSHFIRE RISK MANAGEMENT (continued)

Controls

Landscaping

- 9 APZs are not to overlap with Core Riparian Zones in Category 1 or 2 riparian lands. An APZ may be permitted within the Category 3 riparian lands only where there is no practical alternative.
- 10 APZs are to be designed to retain trees, shrubs or ground cover in clumps. Clumped areas are to be designed to create vertical separation between canopy and understorey layers and horizontal separation to reduce the rate of fire spread. See Figure 16.1-2 and 16.1-5.
- 11 To provide a wind/ ember break, vegetation with good barrier forming attributes and low flammability can be used within the APZ on the hazard side, but should not form linkages to any structures (within or adjoining the property) Figure 16.1-6.
- 12 Vegetation clumps are to be separated through the use of appropriate features that are non-combustible or have low combustibility, including natural elements wherever possible (eg. rock, lawn, pathways, swimming pools etc).
- 13 For plantings within an APZ, species with less flammable attributes are to be selected.

Note: Refer to Planning for Bushfire Protection, Appendix 4 (RFS, 2019) and Standards for Asset Protection Zones (www.rfs.nsw.gov.au) for more detail on appropriate landscaping techniques.



Figure 16.1-2:
Managed Asset Protection Zone. Shrubs and trees in clumps.

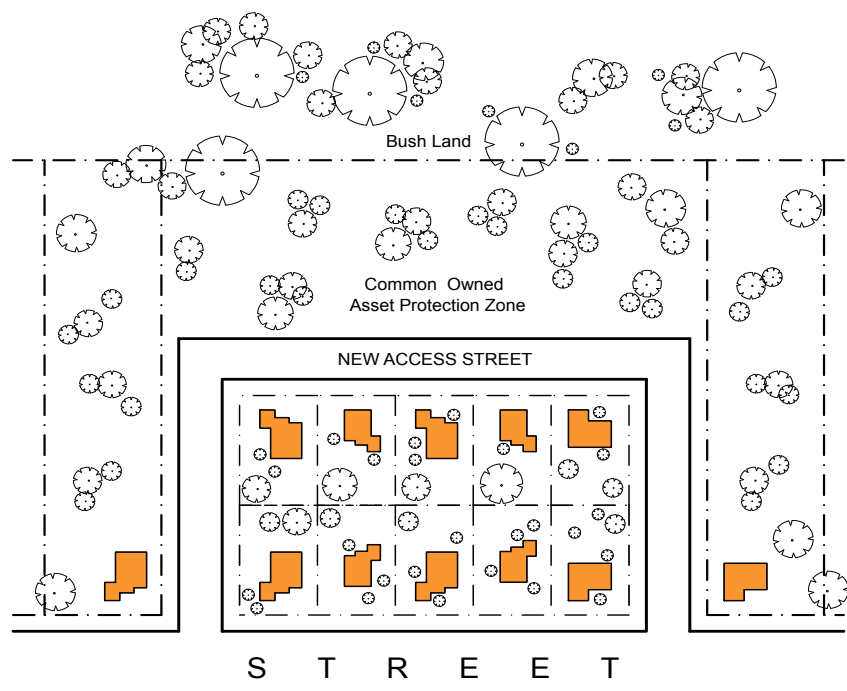


Figure 16.1-1
Subdivision of 10 lots, sharing access road between development and APZ.

16.1 BUSHFIRE RISK MANAGEMENT (continued)

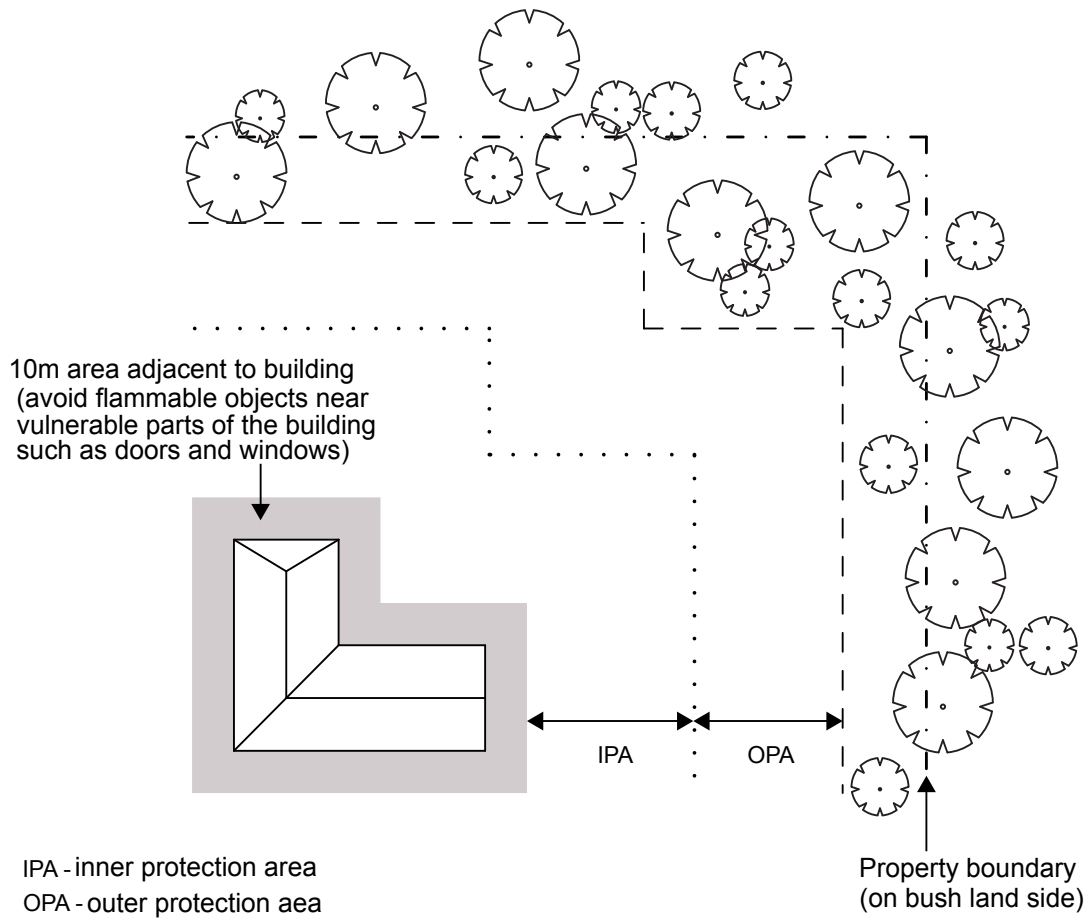


Figure 16.1-3: Asset Protection Zones should incorporate an Inner Protection Area (defendable space closest to the building) and an Outer Protection Area (reduced fuel to slow rate of spread and filter embers). The actual APZ width is to be determined through a bushfire risk assessment prior to lodging a DA.

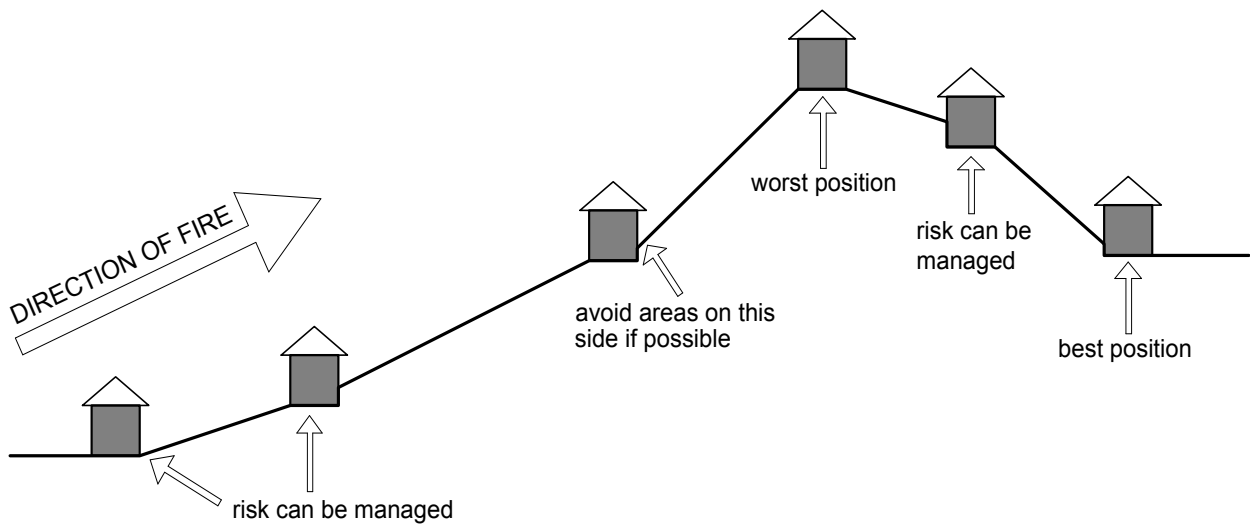


Figure 16.1-4: Example of building siting to reduce exposure risk to bushfire.

16.1 BUSHFIRE RISK MANAGEMENT (continued)

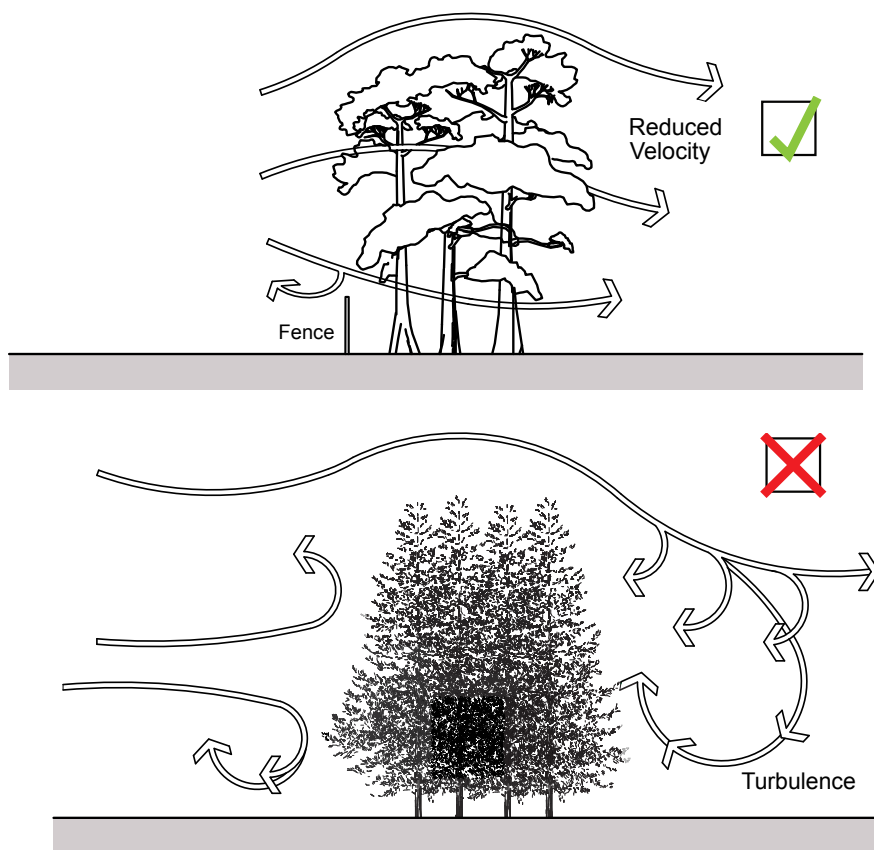
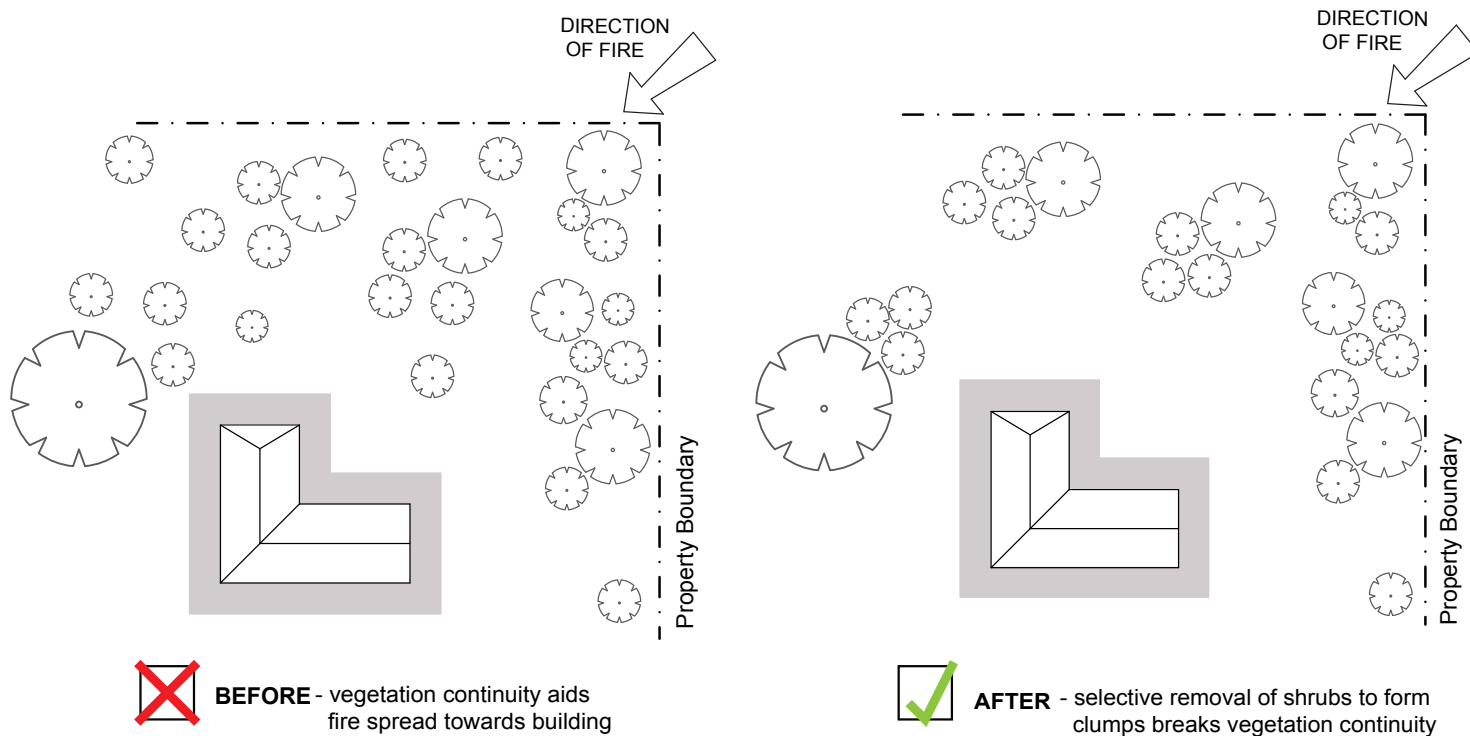


Figure 16.1-5: Appropriate windbreaks should reduce wind velocity and trap embers but not create turbulence.



BEFORE - vegetation continuity aids fire spread towards building

AFTER - selective removal of shrubs to form clumps breaks vegetation continuity

Figure 16.1-6: Managed APZ showing spacing of trees and shrubs in clumps.