
Appendix B - Bushfire Assessment Report

Proposed Development | **New Dwelling**

Property Address | **80 Hillside Parade, Elizabeth Beach NSW 2428**

Property Description | **Lot 4249 DP 1285824**

Property Owner | **K & M Barrow**

29 September 2025

Table of Contents

1.	Summary	3
1.1.	Overview	3
1.2.	Executive Summary	3
1.3.	Site description	4
2.	Proposal	5
3.	Bushfire assessment	6
3.1.	Vegetation type	6
3.2.	Distance to bushfire vegetation	10
3.3.	Effective slope	10
3.4.	Fire Danger Index (FDI)	11
3.5.	Bushfire attack level (BAL)	12
3.6.	Dwelling	13
4.	Conclusion and Recommendations	14
	Appendix A - Plans for New Dwelling	15
	Appendix B – Bush fire protection measures, Table 7.4a from <i>Planning for Bush Fire Protection 2019</i>	16

© It is a breach of copyright for this document to be used to support a development application for any person/entity other than that for whom this document was prepared. Other than for the purpose for which this document has been prepared and subject to conditions prescribed under the Copyright Act no part of this document may in any form nor by any means be reproduced or stored in a retrieval system or transmitted without the prior written permission of the Swift Planning ABN 172 060 762 92.

1. Summary

1.1. Overview

This report contains the assessment of potential bushfire constraints at 80 Hillside Parade, Elizabeth Beach. The lot is identified on MidCoast Council's online mapping as being bushfire prone land. In accordance with Section 4.14 of the *Environmental Planning and Assessment Act 1979*, development consent cannot be granted on bushfire prone land unless the development meets the requirements of the NSW Rural Fire Service's document "*Planning for Bush Fire Protection 2019*" (PBP).

Site observations and measurements were considered against the assessment methodology from the NSW Rural Fire Service document "*Building in bush fire areas: Single dwelling application kit*". This document provides a streamlined approach to meeting the requirements of PBP. A summary of this assessment and BAL rating are contained in Section 1.2 of this report, while a detailed assessment is contained in Section 2 of this report.

1.2. Executive Summary

- An assessment of the bushfire vegetation surrounding the allotment was undertaken on 12 September 2025.
- The site is currently vacant land with an established 20m wide easement for an Asset Protection Zone adjacent to the southern boundary.
- 'Forest vegetation' was identified within 140m of the proposed dwelling site.
- The proposed dwelling is to be constructed to BAL-12.5 on the southern, eastern and western elevations.
- The area around the development, to the lot boundary should be maintained in perpetuity as an Inner Protection Area (IPA) in accordance with Tables A1.12.3 and A1.12.4 of Planning for Bush Fire Protection 2019.
- Bushfire protection measures listed in Part 7.4 of Planning for Bush Fire Protection 2019 should be incorporated into the development. Such measures include asset protection zones, access, water supply, services and construction standards. A hyperlink to Table 7.4a is contained in Appendix B of this document.

1.3. Site description

Property Address:	80 Hillside Parade, Elizabeth Beach
Land Description:	Lot 4249 DP 1285824
Zoning:	R2 – Low Density Residential
Site Area:	1200m ²
Owners:	K & M Barrow
Assessment date:	Friday 12 September 2025

The subject land (the site) comprises vacant land described as Lot 4249 DP 1285824 and is located at 80 Hillside Parade, Elizabeth Beach. The site is located within a recently completed residential subdivision located at the western end Hillside Parade.

The site is a regular shaped lot bound by Hillside Parade along its northern boundary. Adjoining allotments to the east and west comprise residential zoned land, also currently vacant. A large conservation zoned allotment (Lot 4251 DP 1285824) adjoins the land to the south. Lot 4251 comprises dense vegetation comprising a native eucalypt forest.

The allotment is zoned R2 Low Density Residential zone under the provisions of the Great Lakes Local Environmental Plan 2014 and has a site area of approximately 1200m². The landform comprises a significant slope of approximately 26.5% (14.8 degrees) across the site, falling from the southern to northern boundaries.

Vegetation on the site predominantly comprises native grasses with scattered eucalypt trees. A 20m wide easement for an Asset Protection Zone is located adjacent to the southern boundary and registered on the title of the subject land, and adjoining sites.

A locality map depicting the subject land is provided in Figure 1 below. Figure 1 also shows the location of the proposed new dwelling site as denoted by the 'red' rectangle.

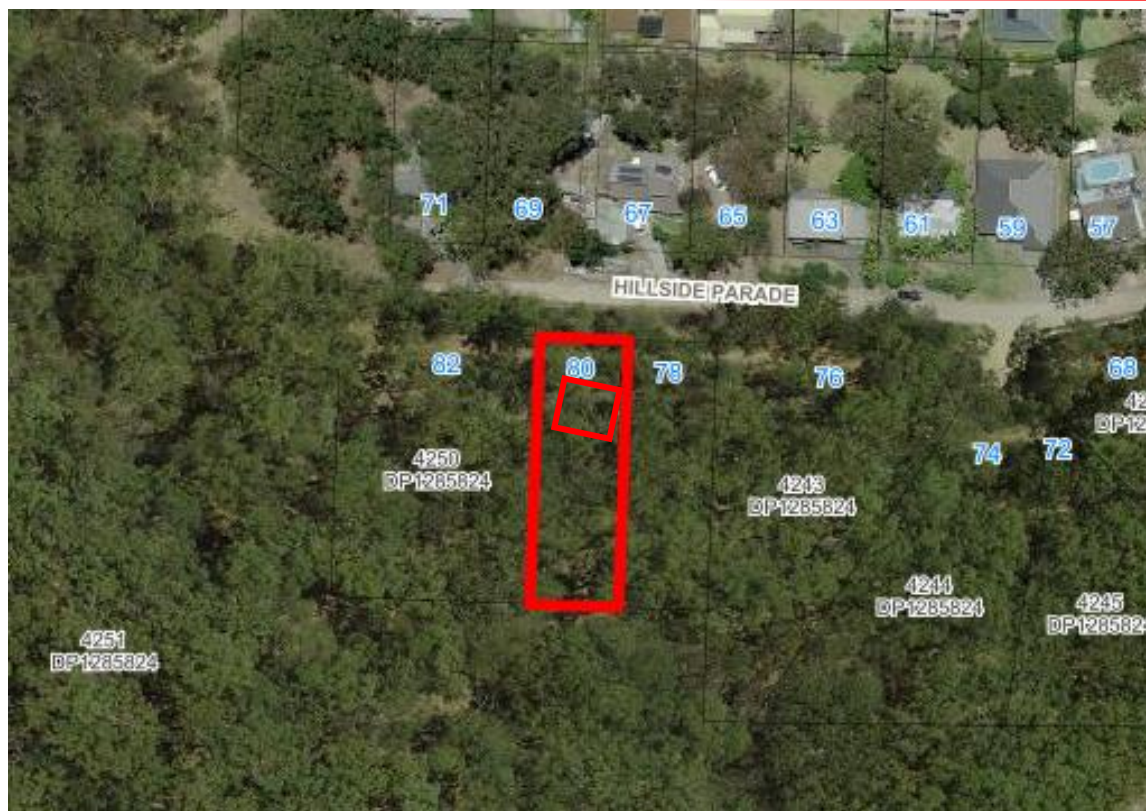


Figure 1 – Locality map, showing the property boundaries and proposed location of the new dwelling (Source: MCC Mapping)

2. Proposal

The proposed development seeks consent to construct a new three (3) storey architecturally designed dwelling on the site.

The proposed dwelling consists of four (4) bedrooms, three (3) bathrooms, open plan living, kitchen and dining areas. The proposed dwelling includes several verandahs extending from the northern and southern elevations of the building. The dwelling includes an attached double garage on the ground level, which will accommodate two (2) vehicles.

The proposed floor plan includes a centrally located lift and stairwell which services all levels of the dwelling. The proposed dwelling has a gross floor area of approximately 294.46m².

The dwelling has been designed using slab on ground and suspended slab construction, and a low-pitched metal roof design. External materials utilise a combination of masonry walls and metal clad walls in dark colouring, with timber accents. Plans for the proposed dwelling are provided in **Appendix A**.

3. Bushfire assessment

3.1. Vegetation type

In accordance with PBP 2019, an assessment of the vegetation over a distance of 140m in all directions from the site was undertaken. Vegetation that may be considered a bushfire hazard was identified in all directions from the development footprint. The vegetation classification is based on Appendix 1 of PBP 2019; per Keith (2004).

The footprint of the proposed new dwelling is shown as the green box in Figure 2 below. The measurements shown in Figure 2 were taken from the proposed dwelling footprint to the nearest forest vegetation using a rangefinder.



Figure 2 – Vegetation within 140m of the dwelling (Source: MCC Intramaps, approximate scale).

A more recent aerial image shown the site and adjoining lands predominately cleared of vegetation is shown in Figure 3 below.



Figure 3 – Aerial image of site and adjoining lands, showing existing vegetation within 140m of the dwelling (Source: Google Earth).

Plates 1-4 below were taken from the site of the proposed new dwelling, looking in each direction.

Plate 1 below shows managed lands, comprising existing dwellings on land to the north of the proposed dwelling location.

Plate 2 below shows ground cover comprising grasses and scattered trees to the east of the dwelling footprint and *eucalypt* forest vegetation in the far background.

Plate 3 below shows ground cover comprising grasses to the south of the dwelling footprint, with scattered trees. *Eucalypt* forest vegetation with an understory comprising lantana and regrowth eucalypts located in the background.

Plate 4 below shows ground cover comprising grasses to the west of the dwelling footprint, with scattered trees. *Eucalypt* forest vegetation with an understory comprising regrowth eucalypts located in the background..



Plate 1 –Vegetation looking north (downslope) from the new dwelling site.



Plate 2 –Vegetation looking east from the new dwelling site.



Plate 3 – Vegetation looking south (upslope) from the new dwelling site.



Plate 4 – Vegetation looking west from the new dwelling site.

The land to the north comprises managed lands. As can be seen in the above photos in Plates 2- 4, the predominant vegetation to the east, west and south of the development site comprises grasses with forest vegetation located 44-65m from the dwelling site. Individual trees are located to the east, south-east and south of the dwelling site. The canopy of these individual trees is separated from the main vegetation line to the south.

Table 1 below provides a summary of the vegetation in the vicinity of the development:

Table 1. Vegetation Summary

	North	East	West	South
Dominant Vegetation type	Managed land*	Eucalypt Forest	Eucalypt Forest	Eucalypt Forest
Height (metre)	-	65m	44-60m	48-50m

3.2. Distance to bushfire vegetation

Table 2 depicts the distance from the development to the nearest vegetation:

Table 2: Distance to Vegetation

	North	East	West	South
Distance to vegetation	N/A-	65m	44m	48m

Vegetation shown in Table 2 above will be discussed in Section 2.5 (BAL).

3.3. Effective slope

Effective slope is the slope of the land underneath the vegetation that was identified at the site inspection. This information is used to calculate the most relevant bushfire attack level for the development.



Figure 4 – Effective slope, as opposed to the slope between the vegetation and the building (Source: NW R.F.S. - Building in bush fire areas: Single dwelling application kit).

The slope was measured on site using an inclinometer, and recorded in the table below.

Table 3: Effective Slope

	North	South	East	West
Effective slope under the predominant vegetation type	-	Upslope/Flat	Upslope/Flat	Upslope/Flat

3.4. Fire Danger Index (FDI)

The Midcoast Local Government area has been classified by the NSW Rural Fire Service as having an FDI of 80.

3.5. Bushfire attack level (BAL)

Table A1.12.6 from *Planning for Bush Fire Protection 2019* is used to calculate the BAL for each elevation of the dwelling:

Table A1.12.6

Determination of BAL, FFDI 80 – residential development

KEITH VEGETATION FORMATION		BUSH FIRE ATTACK LEVEL (BAL)				
		BAL-FZ	BAL-40	BAL-29	BAL-19	BAL-12.5
		Distance (m) asset to predominant vegetation class				
ALL UPSLOPE AND FLAT LAND	Rainforest	< 7	7 -< 9	9 -< 14	14 -< 20	20 -< 100
	Forest (wet and dry sclerophyll) including Coastal Swamp Forest, Pine Plantations and Sub-Alpine Woodland	< 15	15 -< 20	20 -< 29	29 -< 40	40 -< 100
	Grassy and Semi-Arid Woodland (including Mallee)	< 8	8 -< 11	11 -< 16	16 -< 22	22 -< 100
	Forested Wetland (excluding Coastal Swamp Forest)	< 6	6 -< 8	8 -< 12	12 -< 18	18 -< 100
	Tall Heath	< 12	12 -< 16	16 -< 23	23 -< 32	32 -< 100
	Short Heath	< 7	7 -< 9	9 -< 14	14 -< 20	20 -< 100
	Arid-Shrublands (acacia and chenopod)	< 5	5 -< 6	6 -< 9	9 -< 14	14 -< 100
	Freshwater Wetlands	< 4	4 -< 5	5 -< 7	7 -< 11	11 -< 100
	Grassland	< 7	7 -< 10	10 -< 14	14 -< 20	20 -< 50
	Rainforest	< 9	9 -< 12	12 -< 17	17 -< 25	25 -< 100
> 0 < 5 DEGREES - DOWNSLOPE	Forest (wet and dry sclerophyll) including Coastal Swamp Forest, Pine Plantations and Sub-Alpine Woodland	< 19	19 -< 25	25 -< 35	35 -< 47	47 -< 100
	Grassy and Semi-Arid Woodland (including Mallee)	< 10	10 -< 13	13 -< 19	19 -< 28	28 -< 100
	Forested Wetland (excluding Coastal Swamp Forest)	< 8	8 -< 10	10 -< 15	15 -< 22	22 -< 100
	Tall Heath	< 13	13 -< 18	18 -< 26	26 -< 36	36 -< 100
	Short Heath	< 8	8 -< 10	10 -< 15	15 -< 22	22 -< 100
	Arid-Shrublands (acacia and chenopod)	< 5	5 -< 7	7 -< 11	11 -< 16	16 -< 100
	Freshwater Wetlands	< 4	4 -< 6	6 -< 8	8 -< 12	12 -< 100
	Grassland	< 8	8 -< 11	11 -< 16	16 -< 23	23 -< 50
	Rainforest	< 11	11 -< 15	15 -< 22	22 -< 32	32 -< 100
	Forest (wet and dry sclerophyll) including Coastal Swamp Forest, Pine Plantations and Sub-Alpine Woodland	< 24	24 -< 31	31 -< 43	43 -< 57	57 -< 100
> 5 < 10 DEGREES - DOWNSLOPE	Grassy and Semi-Arid Woodland (including Mallee)	< 12	12 -< 17	17 -< 24	24 -< 34	34 -< 100
	Forested Wetland (excluding Coastal Swamp Forest)	< 10	10 -< 13	13 -< 20	20 -< 28	28 -< 100
	Tall Heath	< 15	15 -< 20	20 -< 29	29 -< 40	40 -< 100
	Short Heath	< 9	9 -< 12	12 -< 18	18 -< 25	25 -< 100
	Arid-Shrublands (acacia and chenopod)	< 6	6 -< 8	8 -< 12	12 -< 18	18 -< 100
	Freshwater Wetlands	< 5	5 -< 6	6 -< 10	10 -< 14	14 -< 100
	Grassland	< 9	9 -< 12	12 -< 18	18 -< 26	26 -< 50
	Rainforest	< 11	11 -< 15	15 -< 22	22 -< 32	32 -< 100

The site measurements taken at the time of the inspection are included in the summary table below, which is formatted to be consistent with Part C of the NSW Rural Fire Service's document *Guidelines for Single Dwelling Development Applications*.

Using Table A1.12.6 above, a bush fire attack level (BAL) for each elevation can be calculated and is detailed in Table 4 below.

Table 4: Bushfire Attack Level

	North	South	East	West
Dominant veg type	Managed Land	Forest	Forest	Forest
Distance to vegetation	N/A	48m	65m	44m
Effective slope under the predominant vegetation type	Downslope	Upslope/flat	Upslope/flat	Upslope/flat
FDI	N/A	80	80	80
BAL	N/A	12.5	12.5	12.5

As can be seen from the table above, the highest BAL for the development is **BAL-12.5** on the southern, eastern and western elevations.

3.6. Dwelling

Australian Standard *AS 3959-2018: Construction of Buildings in Bushfire Prone areas* contains the bushfire protection measures that will need to be incorporated into the proposed dwelling. **BAL-12.5** is the lower end of the protection scale and focuses on preparing the building to withstand attack from wind-borne embers. Such measures include, but are not limited to:

- Fitting metal fly screens over the openable portion of windows
- Installing draft seals to doors
- Ensuring there are no gaps in the exterior of the building greater than 2mm.

A comprehensive list of the bushfire protection measures is provided in *AS 3959: Construction of buildings in bushfire-prone areas* and will need to be incorporated into any Construction Certificate or Complying Development Certificate application.

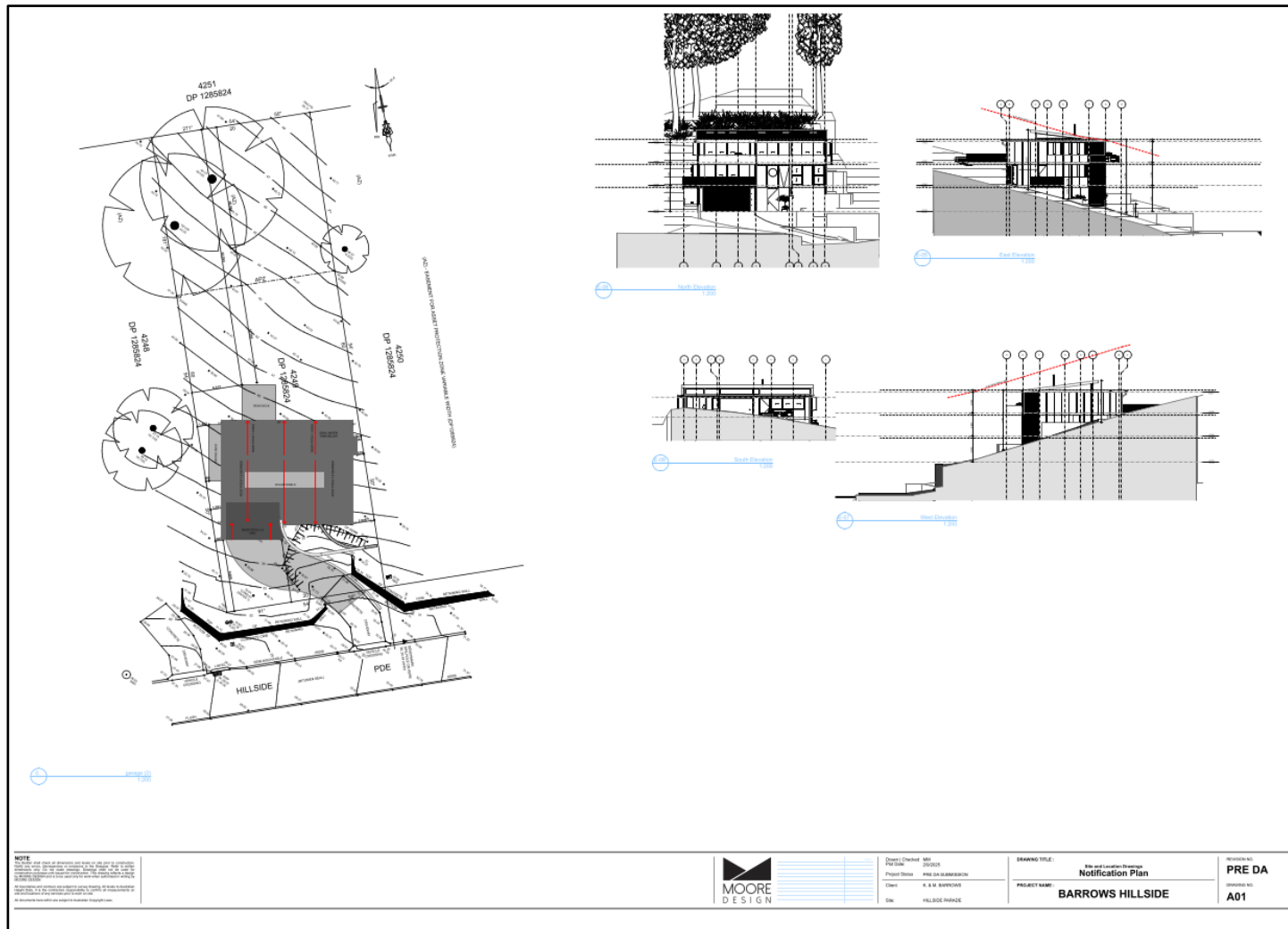
4. Conclusion and Recommendations

An assessment of bushfire prone vegetation in the vicinity of the subject lot was undertaken in accordance with the NSW Rural Fire Service's documents *Planning for Bush Fire Protection 2019* and *Guidelines for Single Dwelling Development Applications*.

The following recommendations are made as a result of this assessment:

- The proposed dwelling is to be constructed to **BAL-12.5** on the southern, eastern and western elevations.
- The area around the development, to the lot boundaries should be maintained in perpetuity as an Inner Protection Area (IPA) in accordance with Tables A1.12.3 and A1.12.4 of *Planning for Bush Fire Protection 2019*.
- Tree canopies within the southern portion of the site, shall be maintained to ensure a minimum of 20m separation between the forest vegetation to the south.
- Bushfire protection measures listed in Part 7.4 of *Planning for Bush Fire Protection 2019* should be incorporated into the development. Such measures include asset protection zones, access, water supply, services and construction standards. A hyperlink to Table 7.4a is contained in Appendix B of this document.

Appendix A - Plans for New Dwelling



Appendix B – Bush fire protection measures, Table 7.4a from *Planning for Bush Fire Protection 2019*

This table is extensive and covers several pages. To aid clarity and understanding, click on the following link to view the table on the Rural Fire Service website. The table commences on page 65 of this document:

https://www.rfs.nsw.gov.au/_data/assets/pdf_file/0005/130667/Planning-for-Bush-Fire-Protection-2019.pdf