

# **Bushfire Assessment**

In relation to

## **Proposed Subdivision**

**Part Lot 75 DP1300031**

**Myall Drive, Forster**

**Prepared for:**

**Winten (No.18) Pty Ltd**

**July 2024**

**Project: 22053**

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## Report History

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## 1. INTRODUCTION

This Bushfire Assessment has been prepared in relation to a proposed subdivision of land at Part Lot 75 DP1300031, Myall Drive, Forster.

Land within the site is mapped as bushfire prone land for the purposes of Section 10.3 of the *Environmental Planning & Assessment Act 1979* (EP&A Act).

The purpose of this report is to carry out a bushfire assessment having regard to the provisions of the NSW Rural Fire Service guideline entitled *Planning for Bush Fire Protection 2019* (PBP) and the information requirements for obtaining a bushfire safety authority under Clause 45 of the *Rural Fires Regulation 2022*.

## 2. PROPOSED DEVELOPMENT

The proposed development involves the following:

- subdivision of approximately 3.94 hectares of land in the south-eastern part of Part Lot 75 DP1300031 into sixteen (16) residential lots, including construction of a new public road providing connection to Myall Drive as a through-road.
- dedication of 3.8 hectares of land as a drainage reserve. The C2 zoned part of the drainage reserve will be managed for conservation, drainage and Asset Protection Zone (APZ) purposes.
- dedication of Public Reserve (15 metres wide) at the southern boundary with The Lakes Way.
- creation of a 'residue lot' encompassing the northern part of the overall site that is zoned *RE2 Public Recreation* (future sporting fields), *E1 Local Centre* and *SP2 Infrastructure* (Community Purposes).

The proposed development will be serviced by an extension of existing underground electricity, reticulated water, sewer and telecommunications.

The proposed subdivision is shown on plans by LSW Surveyors, *Proposed Subdivision (Stage 5) of Lot 75 DP 1300031 The Lakes Way Forster*. An extract of the plan is at Figure 2.1.

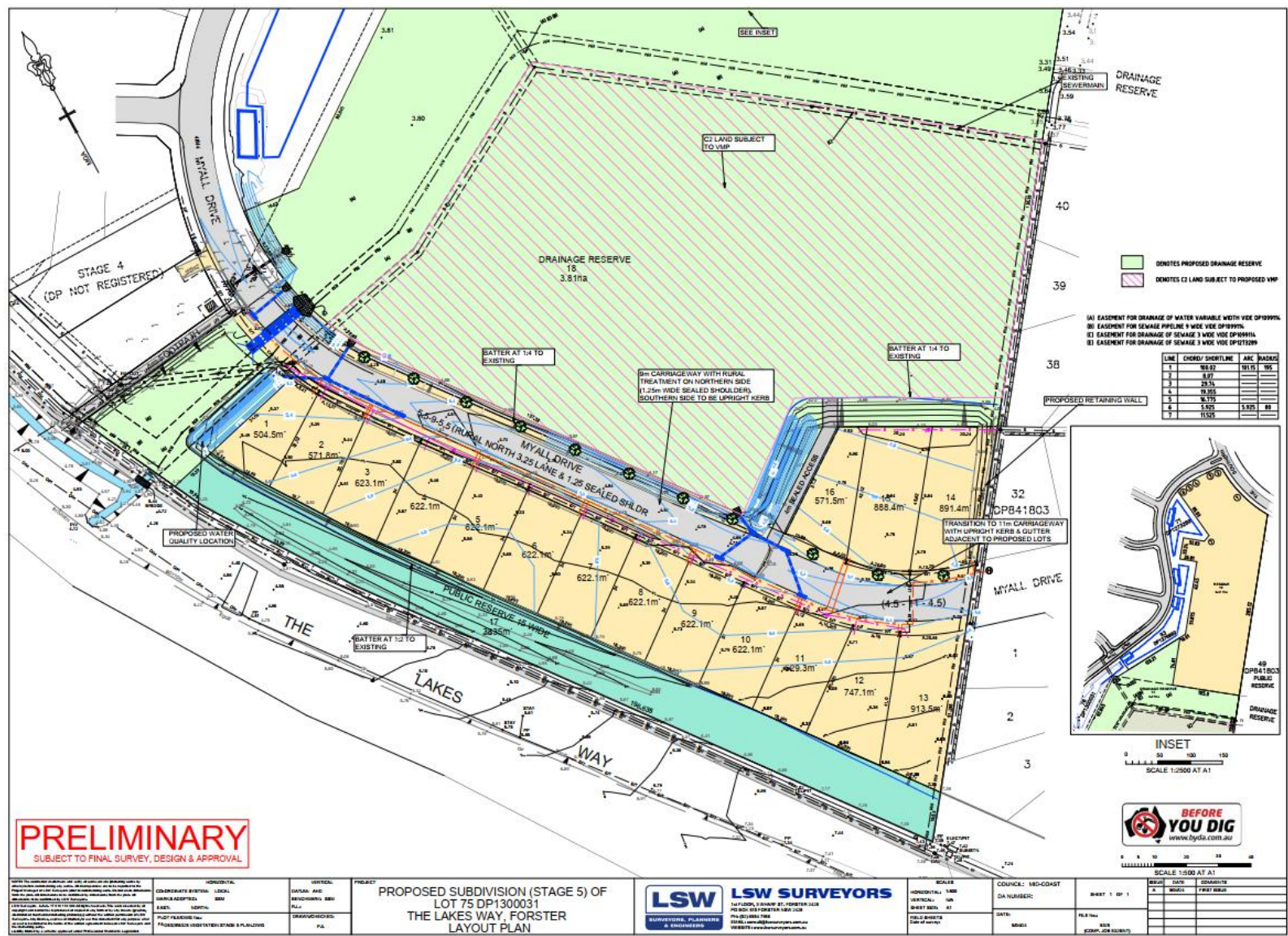


Figure 2.1: Extract of Proposed Subdivision Plan (Source: LSW, 2024)

### 3. SITE DESCRIPTION

The site comprises land described as Part Lot 75 DP1300031, Myall Drive, Forster. The site is in the Mid-Coast local government area and the applicable local Environmental Planning Instrument (EPI) is *Great Lakes Local Environmental Plan 2014 (LEP)*. The land is in the North Coast fire (weather) area and the relevant Fire Danger Index (FDI) is FDI 80.

The site is the residue lot to be created upon registration of Stage 4 of Summer Green as described in Concept Approval (DA264/2019) and individual DA-213/2018. Construction of Stage 4 has recently been completed with a Subdivision Certificate issued, but not registered. The site will be described as Lot 91 DP 1300230 following registration of the plan of subdivision.

#### 3.1 Location and Surrounding Land Use

The site is located between The Lakes Way and The Southern Parkway, with an area of approximately 9.17 hectares. The site is presently vacant, with native vegetation in the northern part of the land and cleared land (subject to previously approved earthworks) in the southern part of the land (zoned *R2 – Low Density Residential*).

Land to the north/north-west of the site (on the western side of Myall Drive) forms part of the residential development known as Summer Green, including the already subdivided Stages 1 to 3.

Land to the south of the site, on the southern side of The Lakes Way, is occupied by established residential allotments containing dwellings.

Land to the east of the site, in The Lakes Estate subdivision, is occupied by established residential allotments containing dwellings.

The nearest areas of potential bushfire hazard vegetation in relation to development of the site is in the northern part of the site (to be dedicated as drainage reserve). This vegetation is characterised by regenerating coastal swamp forest and swamp oak forest.

A site locality map is at Figure 3.1. An aerial view of the site is at Photo 3.1.



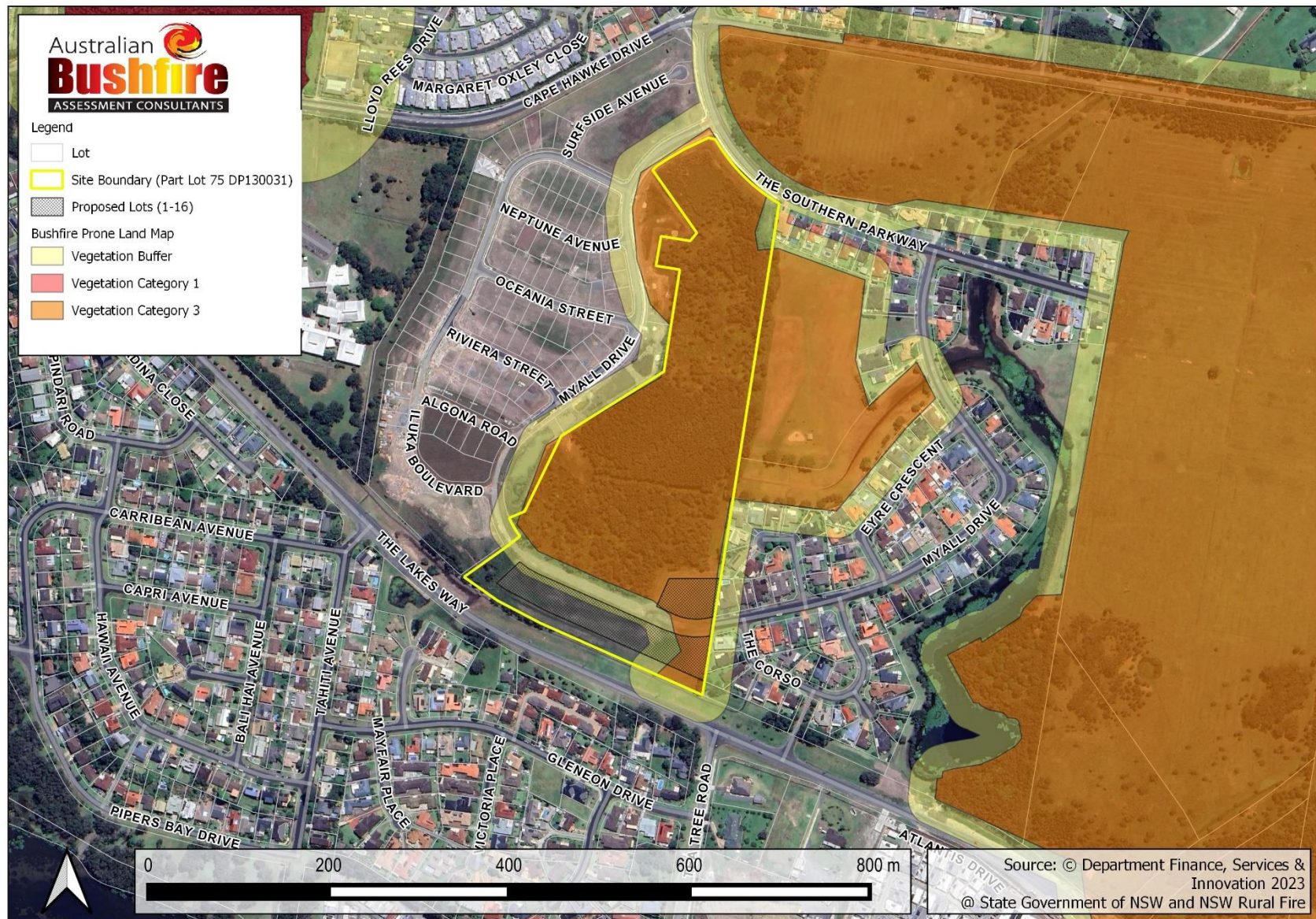


Figure 3.1: Site Locality and Bushfire Prone Land





Photo 3.1: Looking west across the site – approximate residential subdivision boundaries shown yellow with remaining site area shaded blue (approximately).



### 3.2 Services and Infrastructure

Table 3.1 summarises services and infrastructure available to the site.

**Table 3.1: Summary of Services**

Service	Availability
<b>Access</b>	Access to the site is available via Myall Drive, which currently terminates at the eastern and western site boundaries. Myall Drive is a bitumen-sealed, two-way public road which intersects with The Southern Parkway north of the site. Following subdivision, vehicular access to any future residential development will be provided via an extension of Myall Drive to provide a through road connection to the south.
<b>Water</b>	Reticulated water supplies and hydrants are in Myall Drive and will be extended to the proposed subdivision.
<b>Electricity</b>	Underground electricity and underground telecommunications are available in Myall Drive.

### 3.3 Environmental Features or Aboriginal Relics

A Biodiversity Impact Assessment (BIA) (Accuplan, 2024) has been prepared in relation to the proposed subdivision and accompanies the development application. The BIA considers the potential impacts associated with maintenance of APZs within the proposed drainage reserve.

An Aboriginal Cultural Heritage Assessment (Environmental Resources Management, 2006) has been previously prepared in relation to the subject site. The assessment did not identify any sites or constraints to development over the site (GLC, 2022).

### 3.4 Vegetation Classification

The proposal involves the creation of sixteen (16) residential lots in the southern part of the site. As shown in Figure 2.1, land in the northern part of the land is to be dedicated as public land (drainage reserve).

The proposed residential allotments and nearest potential bushfire hazard vegetation is shown in Figure 3.2.

As shown in Figure 3.2, land which will comprise the proposed residential Lots 1-16 will be maintained as low threat vegetation in conjunction with the future residential use of that land.

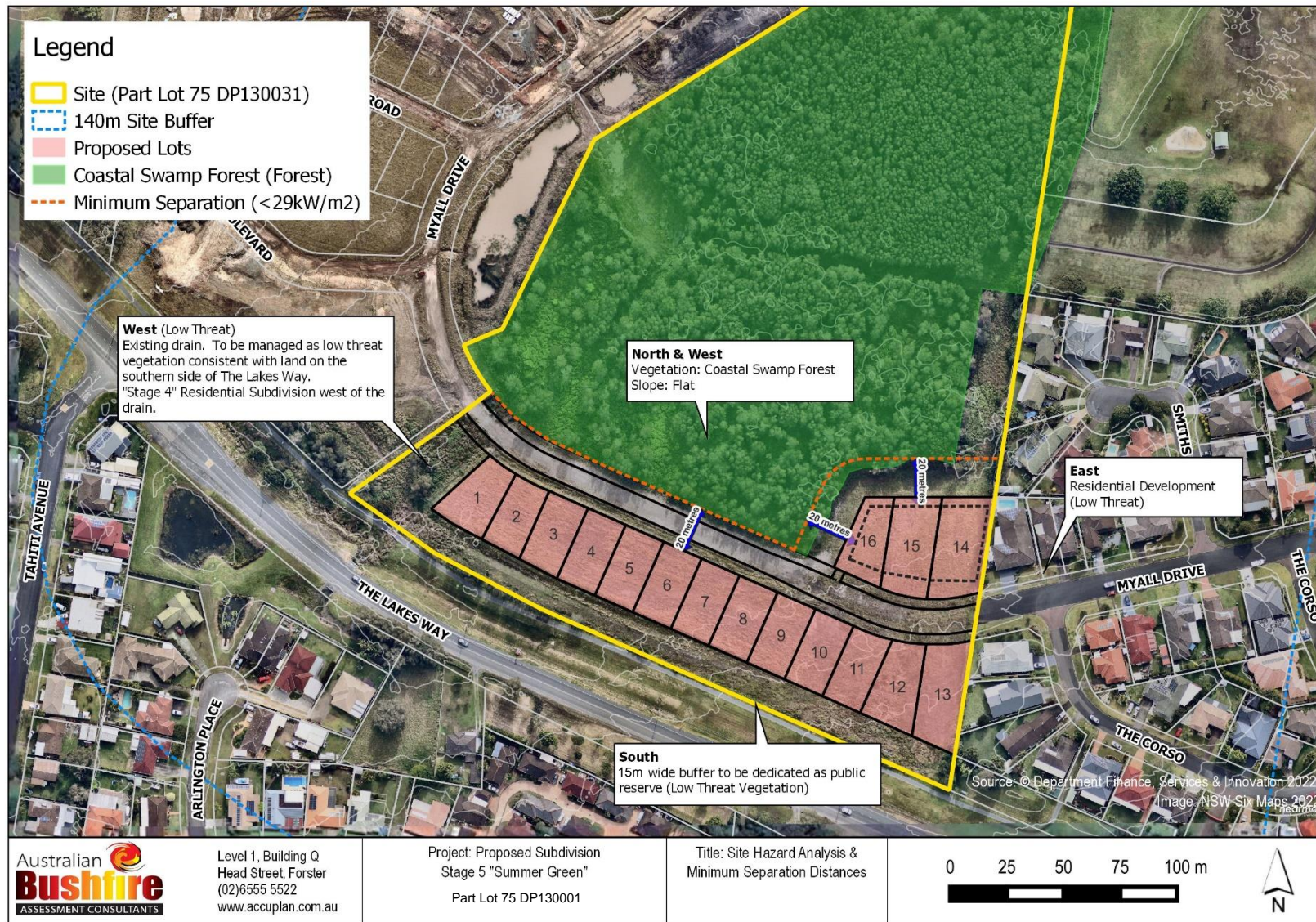




Figure 3.2: Slope and Vegetation Analysis with minimum separation distances for proposed residential lots (PBP. Table A 1.12.3)




Table 3.2 considers the predominant vegetation types in relation to proposed residential Lots 1-16.

**Table 3.2: Summary of vegetation classification surrounding proposed Lots 1-16**

Direction	Description	Classification
North Drainage Reserve	<p>Land to the north of residential lots 1-16 is to be dedicated as drainage reserve. That land contains regenerating coastal swamp forest vegetation (see Photo 3.1), classified as <i>forest</i> for the purposes of Appendix 1 of PBP.</p> <p>Part of the land to be dedicated as drainage reserve is to be managed as an APZ for the protection of existing residential properties in the Lakes Estate residential subdivision adjoining the eastern boundary of the site (Photo 3.2).</p>  <p>Photo 3.2: Looking north along the eastern boundary showing existing hazard reduction zone (to be maintained as an APZ) and edge of Coastal Swamp Forest</p> <p>An APZ is to be established and maintained around proposed residential Lots 14-16 to provide separation between vegetation in the drainage reserve and building envelopes on those lots (Photo 3.3).</p>  <p>Photo 3.3: Looking west across part of previously cleared land to be contained within proposed Lots 14-16 and adjacent APZ.</p>	<p><i>Forest</i></p> <p>(Coastal Swamp Forest)</p>



Direction	Description	Classification
<b>South</b> <b>Public Reserve</b> <b>(15 metres wide)</b>	<p>The proposal involves the dedication of land between The Lakes Way and the proposed residential as public reserve. This assessment assumes that land in the reserve will be maintained in a similar condition to that shown in Photo 3.4. On this basis, the land to the south of the proposed residential allotments has been excluded from classification for the purposes of Appendix 1 of PBP. Residential land extends for at least 140 metres from the southern side of The Lakes Way.</p>  <p><b>Photo 3.4: Looking south showing management of the drain within existing public reserve adjacent to the site. This vegetation management regime is expected to continue adjacent to proposed Lots 1-13.</b></p>	Low Threat
<b>West</b> <b>Drainage reserve</b> <b>(Bioretention Basins)</b>	<p>Bioretention basins are located adjacent to the western boundary of proposed residential Lot 1.</p> <p>The adjacent bioretention basins are in part of the drainage reserve (&lt;2500m<sup>2</sup> and &lt;20 metres wide) and separated from any other classified vegetation (to the north) by Myall Drive. Vegetation in the bioretention basins west of Lot 1 is predominantly macrophytes (reeds), consistent with freshwater wetlands. Vegetation in the reserve is excluded from classification due to the limited area and width of the reserve, and limited connectivity of vegetation in the reserve to any classified vegetation.</p> <p>This assessment assumes that land within the drainage reserve will be maintained in the same manner as the corresponding reserve on the southern side of The Lakes Way (mown grass and ponds, to be confirmed by Council).</p>	Low Threat (subject to confirmation by Council)
<b>East</b>	<p>Land to the east of the site is the existing Lakes Estate residential subdivision. Land is maintained as low threat vegetation in association with existing residential development.</p>	Low Threat Vegetation

### **3.5 Slope Assessment**

The assessment of slope has been undertaken in accordance with the methodology in Section A1.5 of PBP.

The assessment of slope was undertaken via analysis of 1 metre resolution Digital Elevation Model and through field analysis using a hand-held inclinometer and range finder.

For the purposes of this assessment, the slope of land most likely to influence bushfire behaviour has been assessed as relatively flat under classified vegetation.

## 4. BUSHFIRE ASSESSMENT

### 4.1 Submission Requirements for BFSA

The following is a summary of the submission requirements for a BFSA in relation to subdivision on BFPL, as per Clause 45 of the *Rural Fires Regulation 2022*.

#### 4.1.1 The extent to which the development is to provide for setbacks, including asset protection zones

Appendix 1 of PBP provides the methods for determining the minimum APZs for residential subdivision. The site is in the North Coast fire (weather) area and the relevant Fire Danger Index (FDI) is FDI 80. Table A1.12.3 of PBP provides the minimum APZs for residential subdivision for FDI 80 areas.

The far northern part of the site contains land zoned *E1 Local Centre* as well as land zoned *RE1 Public Recreation* (identified for acquisition by Mid-Coast Council). That land is not affected by the proposed subdivision and is not considered further in relation to minimum setbacks and APZs.

In relation to the slope and vegetation classification in Sections 3.3 and 3.4 of this assessment, and as per Table A1.12.3 of PBP, APZs/separation distances as set out in Table 4.1 are to be provided for any building envelope on proposed Lots 1-16.

**Table 4.1: Analysis of minimum APZs**

Direction	Vegetation	Slope	Minimum APZ (metres)	Available Separation (metres)
North	Forest	Flat	20	20*
West	Lot 1: Low Threat**	Flat	Nil	Nil
	Lot 16: Forest	Flat	20	20*
South	Low Threat**	N/A	N/A	N/A (>100m)
East	Low Threat	N/A	N/A	N/A (>100m)

(\*) subject to management of the APZ north and west of Lots 14-16 in perpetuity

(\*\*) subject to Council agreement that land will be managed as low threat vegetation in the same manner as the reserve located south of The Lakes Way

In relation to proposed Lots 14-16, these lots will occupy land on the northern side of Myall Drive (proposed road) and will share a boundary with the land to be dedicated as drainage reserve to the north and west. As the land was not mapped as bushfire prone land (or in proximity to bushfire prone land) at the time of preparing the Planning Proposal which resulted in the residential zoning for part of



the site, the current zone boundaries do not facilitate the provision of APZs outside the proposed residential allotments.

Given the above, the proposal involves establishment of an APZ on part of the land to be dedicated as drainage reserve to the north and west of proposed Lots 14-16, to the benefit of those residential allotments. The proposed APZ will involve an extension of the existing 20 metre wide hazard reduction zone (the subject of a Hazard Reduction Certificate) that is maintained adjacent to the eastern boundary of the site for the benefit of dwellings at Nos. 7, 9 and 16 Smiths Close.

The proposed APZ would be managed through either of the following mechanisms:

- a) an easement/positive covenant on part of the land to be dedicated as drainage reserve (benefitting proposed Lots 14-16) requiring maintenance of part of that land as an APZ; or
- b) inclusion as a formal APZ in the Forster Fire Mitigation Plan.

In relation to (a) above, Table 4.2 summarises the extent of easements for APZs and relevant APZ distances.

**Table 4.2: Summary of Proposed Lots requiring APZs**

Lot Benefitted	Direction	APZ Width (Total)	APZ easement on adjacent land (to be dedicated as drainage reserve)	APZ within the residential lot
Lots 14-16	North	20 metres	17 metres	3 metre minimum setback perpendicular to rear (northern) boundary.
Lot 16	West		19 metres	1 metre minimum setback perpendicular to western (side) boundary.

Figure 4.1 shows the APZs to be provided to proposed residential lots 1-16 in the subdivision. The APZs shown indicate the separation distances for building envelopes on the proposed lots, consistent with the minimum requirements for APZs in Table A1.12.3 of PBP.

Subject to the incorporation of APZs/separation distances as per Figure 4.1 (and creation of easements or similar mechanism as per Table 4.2), the highest BAL that any future residential buildings on the proposed residential allotments are likely to be subject to is BAL-29.

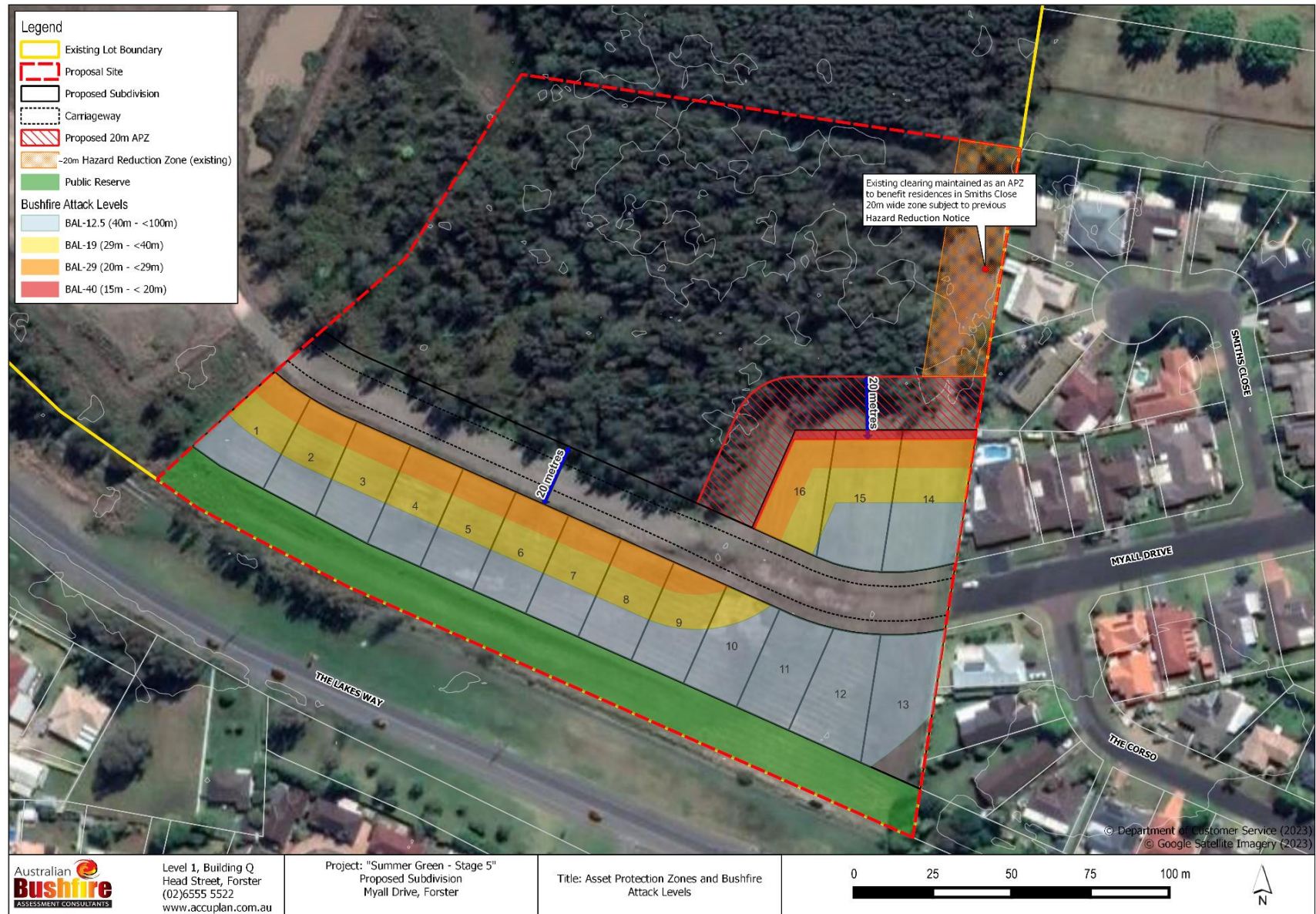


Figure 4.1: Minimum separation distances and BALs

4.1.2 The siting and adequacy of water supplies for fire fighting

The proposed subdivision will be serviced by reticulated water. The siting and adequacy of water supplies is considered in relation to the performance criteria of PBP in Section 4.2 of this assessment.

4.1.3 The capacity of nearby public roads to handle increased volumes of traffic when a bush fire emergency occurs

The proposed development involves the construction of a new road connecting the existing eastern and western parts of Myall Drive (connecting through to The Southern Parkway at each end). The capacity of public roads is considered in relation to the performance criteria of PBP (Section 5) in Section 4.2 of this assessment.

4.1.4 Whether or not nearby public roads that link with the fire trail network have two-way access

There is no fire trail network within the site. The adjacent road network has two-way access.

4.1.5 The adequacy of arrangements for access to and egress from the development site for the purposes of an emergency response

Access and egress from the site will be available via connection of the eastern and western parts of Myall Drive as discussed in 4.1.3 above. The adequacy of arrangements for access to and egress from the development site are considered in relation to the performance criteria of PBP (Section 5) in Section 4.2 of this assessment.

4.1.6 The adequacy of bushfire maintenance plans and fire emergency procedures for the development site

The proposal includes the dedication of land as a drainage reserve containing APZs adjacent to proposed Lots 14-16. The drainage reserve will be subject to a Vegetation Management Plan (VMP) that provides the framework for management of land as an APZ to the standard of an Inner Protection Area (IPA) around proposed Lots 14-16 and to the easternmost residential properties in the existing Lakes Estate residential subdivision. These areas include parts of the drainage reserve that are presently managed under a Hazard Reduction Certificate.



4.1.7 The construction standards to be used for building elements in the development

There are no buildings proposed via the subdivision. Any future dwellings are capable of being sited to be ≤BAL-29. The Bushfire Attack Level Plan at Figure 4.1 to this assessment shows the BALs that will apply to the residential lots in the subdivision, subject to provision of the identified APZs and/or easements.

4.1.8 The adequacy of sprinkler systems and other fire protection measures to be incorporated into the development

Not applicable.

4.1.9 Registered fire trails on the property

No registered fire trails exist on the property, and none are proposed.

4.1.10 An assessment of the extent to which the proposed development conforms with or deviates from Planning for Bush Fire Protection

Performance criteria in Chapter 5 (Residential and Rural Residential Subdivisions) of PBP is relevant to the proposal. Section 4.2 of this assessment provides an analysis of the development in relation to the performance criteria in Chapter 5 of PBP.

## 4.2 Performance Criteria

Development for the purposes of subdivision is subject to the specific considerations in Chapter 5 (Residential and Rural Residential Subdivisions) of PBP 2019.

The relevant performance criteria are considered in Table 4.3 to Table 4.5.

Table 4.3: Asset Protection Zones (Re: Table 5.3a PBP)

PERFORMANCE CRITERIA		RELATIONSHIP OF PROPOSAL TO ACCEPTABLE SOLUTIONS
The intent may be achieved where:		
ASSET PROTECTION ZONES	<i>Potential building footprints must not be exposed to radiant heat levels exceeding 29kW/m<sup>2</sup> on each proposed lot.</i>	<p>The extent of APZs and corresponding BALs is shown in Figure 4.1. Subject to provision of the identified APZs, the highest BAL for any future residential building(s) on proposed Lots 1-16 will be BAL-29.</p> <p>Proposed Lots 14-16 will share a boundary to the residue lot that is to be dedicated as public drainage reserve. Easements for APZ purposes are recommended within part of the residue lot to maintain at least 20 metres of separation between any building envelope on the residential allotments and unmanaged vegetation within the future drainage reserve. This is outlined in Table 4.2 and shown in Figure 4.1.</p>
	<i>APZs are managed and maintained to prevent the spread of fire towards the building.</i>	APZs are to be managed and maintained to the standard of an Inner Protection Area (IPA).

PERFORMANCE CRITERIA	RELATIONSHIP OF PROPOSAL TO ACCEPTABLE SOLUTIONS
The intent may be achieved where:	
<div> <p>LANDSCAPING</p> </div> <div> <p><i>The APZ is provided in perpetuity.</i></p> <p><i>APZ maintenance is practical, soil stability is not compromised and the potential for crown fires is minimised.</i></p> </div>	<p>Proposed Lots 14-16 will share a boundary to the residue lot that is to be dedicated as public drainage reserve. Easements for APZ purposes are recommended within part of the residue lot to maintain at least 20 metres of separation between any building envelope on the residential allotments and unmanaged vegetation within the future drainage reserve. This is outlined in Table 4.2 and shown in Figure 4.1.</p> <p>Management of the APZ would be the responsibility of the landowner (Mid-Coast Council) following dedication of the land (to the north and west of proposed Lots 14-16) as drainage reserve.</p> <p>While part of the APZs are contained within the drainage reserve (zoned part C2), it is noted that there is an existing hazard reduction obligation relating to land adjacent to the eastern boundary of the overall site. The existing hazard reduction area has been subject to a Hazard Reduction Notice from RFS and subsequent Bush Fire Hazard Reduction Certificate. The existing hazard reduced area has a length of approximately 240 metres adjacent to the eastern boundary (benefitting residential properties/dwellings in The Corso and Smiths Close).</p> <p>The proposed APZ (to benefit Lots 14-16) will be a continuation of the existing hazard reduction zone with minimal (if any) additional burden on the landowner (or future landowners) compared to the existing situation. The development application is accompanied by a VMP that includes the APZ requirements and treatment details for that land.</p> <p>In relation to the drainage reserve to the west of proposed Lot 1, it is assumed that this land will be maintained in minimal fuel condition, the same as the drainage reserve on the southern side of The Lakes Way (and as a continuation of the managed public reserve located adjacent to the northern side of The Lakes Way).</p> <p>APZ maintenance is practical with the land being relatively flat. The APZ management also requires specific consideration of threatened species impacts which are considered in the accompanying BIA and VMP (Accuplan, 2024).</p>
<div> <p>LANDSCAPING</p> </div> <div> <p><i>Landscaping is designed and managed to minimise flame contact and radiant heat to buildings, and the potential for wind-driven embers to cause ignitions.</i></p> </div>	<p>Recommendations are made in relation to maintenance of each residential lot to the specifications of an APZ in accordance with requirements in Appendix 4 of PBP.</p> <p>Each lot can be managed and maintained to the standard of an Inner Protection Area (IPA) to minimise potential for flame contact and radiant heat to any residential buildings.</p>



Table 4.4: Access (Re: Table 5.3b PBP)

PERFORMANCE CRITERIA		RELATIONSHIP OF PROPOSAL TO PERFORMANCE CRITERIA
The intent may be achieved where:		
ACCESS	<i>Firefighting vehicles are provided with safe, all-weather access to structures.</i>	<p>All vehicular access roads to and within the proposed development will be two-wheel drive, all-weather roads.</p> <p>Part of the proposed road to be constructed as the connecting part of Myall Drive will function as a perimeter road which will separate the southern lots (Lots 1-13) from the interface of vegetation in the land to be dedicated as drainage reserve (on the northern side of the new road).</p> <p>The current zone configuration and existing alignment of Myall Drive does not facilitate the construction of a perimeter road around the northern side of Lots 14-16. As such, those lots will rely on an easement for APZ to provide separation between those lots and vegetation retained in the drainage reserve (discussed previously and shown in Figure 4.1).</p> <p>Recommendations are made for the design and construction of the public road in accordance with the acceptable solutions of PBP. It is noted that the proposed road design includes a rural treatment (no kerb) on the northern/hazard side.</p>
	<i>The capacity of access roads is adequate for firefighting vehicles.</i>	<p>Access to the proposed lots is to be via public roads within the proposed subdivision, connecting the existing eastern and western parts of Myall Drive.</p> <p>Any proposed roads within the subdivision are to be designed and constructed with road surfaces sufficient to carry fully loaded firefighting vehicles (up to 23 tonnes).</p>
	<i>There is appropriate access to water supply.</i>	<p>Appropriate access to water supply for firefighting purposes will be provided via installation of hydrants within the proposed road reserve.</p> <p>Recommendations are made for design and installation of hydrants to be in accordance with relevant clauses of AS 2419.1:2021 - <i>Fire hydrant installations System design, installation and commissioning</i>.</p> <p>The design is to ensure installation of hydrants at locations outside of parking reserves and road carriageways to ensure access to reticulated water for fire suppression.</p>

PERFORMANCE CRITERIA		RELATIONSHIP OF PROPOSAL TO PERFORMANCE CRITERIA
The intent may be achieved where:		
PERIMETER ROADS	<i>Access roads are designed to allow safe access and egress for firefighting vehicles while residents are evacuating as well as providing a safe operational environment for emergency service personnel during firefighting and emergency management on the interface.</i>	<p>Part of the proposed road to be constructed as the connecting part of Myall Drive will function as a perimeter road which will separate the southern lots (Lots 1-13) from the interface of vegetation in the land to be dedicated as drainage reserve (on the northern side of the new road).</p> <p>Following construction of the connecting part of Myall Drive via the proposal, the roads servicing proposed Lots 1-16 will be through roads. The proposed road (Myall Drive) is to have a carriageway width of at least 9 metres and recommendations are made to meet the acceptable solutions of PBP.</p>
NON-PERIMETER ROADS	<i>Access roads are designed to allow safe access and egress for firefighting vehicles while residents are evacuating</i>	Refer to comments above in relation to perimeter roads and access (general).
PROPERTY ACCESS	<i>Firefighting vehicles can access the dwelling and exit the property safely.</i>	Following completion of the subdivision, the proposed lots will be in an urban area with an unobstructed path (no greater than 70 metres) between the most distant external part of any future dwelling and the nearest part of the proposed public road.

Table 4.5: Services (Re: Table 5.3c PBP)

PERFORMANCE CRITERIA		RELATIONSHIP OF PROPOSAL TO PERFORMANCE CRITERIA
The intent may be achieved where:		
WATER SUPPLIES	<i>Adequate water supplies are provided for firefighting purposes.</i>	Reticulated water will be available to the site and will be provided to each lot in the development.
	<i>Water supplies are located at regular intervals; and The water supply is accessible and reliable for firefighting operations.</i>	The proposal can achieve acceptable solutions subject to recommendations relating to: <ul style="list-style-type: none"> <li>• fire hydrant spacing, design and sizing to comply with the relevant clauses of Australian Standard AS 2419.1:2021; and</li> <li>• hydrants not being installed/located within any road carriageway or parking bay.</li> </ul>
	<i>Flows and pressure are appropriate.</i>	This is subject to fire hydrant spacing, design and sizing complying with the relevant clauses of Australian Standard AS 2419.1:2021 and required flow rates and pressures being achieved via the design of the system as per AS2419.
	<i>The integrity of the water supply is maintained.</i>	Subject to above.
ELECTRICITY SERVICES	<i>Location of electricity services limits the possibility of ignition of surrounding bush land or fabric of buildings.</i>	It is proposed to service each lot by underground electricity supply.
GAS	<i>Location and design of gas services will not lead to ignition of surrounding bushland or the fabric of buildings.</i>	No reticulated gas is available to the area. Any future gas bottle installation(s) are to be consistent with the relevant acceptable solutions of PBP.



## 5. CONCLUSION

This Bushfire Assessment has been prepared in relation to a proposed subdivision of land at Part Lot 75 DP1300031, Myall Drive, Forster.

The proposed subdivision has been assessed in relation to the performance criteria for a residential subdivision as per Chapter 5 (Residential and Rural Residential Subdivisions) of *Planning for Bush Fire Protection 2019*.

APZs for the subdivision have been recommended commensurate with the minimum separation distances for residential subdivision (see Figure 4.1).

The current zone configuration and existing alignment of Myall Drive does not facilitate the construction of a perimeter road around proposed Lots 14-16. As such, those lots will rely on an easement for APZ to provide separation between those lots and vegetation retained in the drainage reserve. Recommendations are made for that APZ to be maintained in perpetuity through application of positive covenants over part of the future drainage reserve, or inclusion of the APZ in the Forster Fire Mitigation Plan.

While APZs will overlap into part of the future drainage reserve, there is an existing hazard reduction obligation relating to land along the eastern site boundary. The existing hazard reduction area is subject to a Hazard Reduction Notice and a Bush Fire Hazard Reduction Certificate issued under Section 100G of the Rural Fire Act 1997. The hazard reduction certificate covers a length of approximately 240 metres adjacent to the eastern boundary (protecting dwellings at The Corso and Smiths Close in the existing Lakes Estate residential subdivision) and is presently maintained to a width of approximately 20m (variable).

The proposed APZ (benefiting Lots 14-16) will be a continuation of the existing hazard reduction zone with minimal (if any) additional burden on future landowners compared to the existing situation.

The provision of APZs as recommended within the site boundaries and adjacent drainage reserve will ensure that any part of a future residential building on the proposed residential allotments would be exposed to radiant heat levels  $\leq 29\text{kW/m}^2$ .

Subject to the following recommendations, the assessment has noted that the proposed subdivision will be consistent with the relevant performance criteria of *Planning for Bush Fire Protection 2019*.

## 6. RECOMMENDATIONS

The following recommendations are made in relation to the proposed subdivision of land at Part Lot 75 DP1300031, Myall Drive, Forster pursuant to the relevant provisions of *Planning for Bush Fire Protection 2019* (PBP).

### Asset Protection Zones

- A. Each proposed lot is to be managed as an Asset Protection Zone (APZ) as described in Appendix 4 of PBP. The APZ is to be maintained to the standard of an Inner Protection Area (IPA).
- B. The following APZs are to be created via s88B/E of the Conveyancing Act 1919 and registered over the lots identified in the table below.

Lots	Specification
Each proposed lot (1-16)	Restriction as to User (RATU) requiring the land to be maintained to the standard of an Inner Protection Area (IPA) as described in Appendix 4 of Planning for Bush Fire Protection 2019.
Lots 14-16	RATU restricting the erection of habitable buildings within 3 metres from any part of the northern boundary.
Lot 16	RATU restricting the erection of habitable buildings within 1 metre from any part of the western boundary.
Drainage Reserve	Easement for Asset Protection Zone at least 17 metres wide, measured perpendicular from the northern boundaries of Lots 14-16, and at least 19 metres wide, measured perpendicular from the western boundary of Lot 16 (providing a minimum 20 metre separation to any hazards in the drainage reserve).

- C. The drainage reserve located west of proposed Lot 1 is to be maintained in minimal fuel condition outside of the drainage channel (the same condition as the existing drainage reserve in The Lakes Way).
- D. A Vegetation Management Plan is to be prepared in relation to *C2 Environmental Conservation* zoned land to ensure the APZ to proposed Lots 14-16 is managed in perpetuity. The content of the VMP should include the prescribed APZ requirements and its treatment details (e.g., IPA and OPA widths and fuel loads), permanent delineation of management areas (i.e., bollards and signage) and the predicted timing intervals of the management options.

*Note: Consideration should be given to the inclusion of the above APZs into the Forster Fire Mitigation Plan to ensure maintenance in perpetuity.*

### **Access**

E. Road design and construction is to comply with acceptable solutions of Table 5.3b of PBP relating to perimeter roads, including the following:

- Minimum 8 metre carriageway width (kerb to kerb);
- Where kerbs are proposed, roll top kerbing should be used to the hazard side of the road;
- The capacity of road surfaces and any bridges/causeways is sufficient to carry fully loaded firefighting vehicles (up to 23 tonnes); bridges/ causeways are to clearly indicate load rating.

### **Services and Water Supplies**

F. Proposed fire hydrant spacing, design, sizing and installation for the proposed subdivision is to comply with the relevant clauses of *AS 2419.1:2021 - Fire hydrant installations System design, installation and commissioning*.

G. Hydrants are not to be located within any road carriageway or parking bays.

H. Hydrants are to be located on the residential lot side of the road, away from the bushfire threat where possible.

I. Any electricity supply required to service the development should be provided underground.

### **Landscaping**

J. Road reserves and the public reserves (15 metres wide, adjacent to The Lakes Way) are to be landscaped and maintained in a minimal fuel condition. This includes the strip of drainage reserve to the west of proposed Lot 1 (refer to recommendation (C) above).



**NOTES & DISCLAIMER:**

- (i) *This assessment relates to a proposed subdivision of the land only.*
- (ii) *This assessment has been based on bushfire protection guidelines as outlined in the document entitled Planning for Bush Fire Protection 2019 (PBP).*
- (iii) *Notwithstanding the precautions recommended, it should always be remembered that bushfires burn under a range of conditions and an element of risk, no matter how small, always remains.*
- (iv) *This assessment does not imply or infer any approval for the removal and/or thinning of vegetation for Asset Protection or other purposes. It is the responsibility of the client/landowner to obtain all necessary approvals in this regard.*

**7. REFERENCES**

Accuplan (2023)

*Proposed Subdivision, Lot 75 DP 1300031, Myall Drive, Forster "Summer Green - Stage 5" - Biodiversity Impact Assessment*

NSW Rural Fire Service (2019)

*Planning for Bush Fire Protection 2019*

Environmental Resources Management (2006)

*South Forster Proposed Residential Development – Aboriginal Cultural Heritage Assessment*

Standards Australia (2018)

*AS 3959-2018 Construction of buildings in bushfire-prone area*