



Bush Fire Assessment Report

Proposed three (3) into four (4)
lot subdivision and boundary
adjustment

Lot 3 DP 1203365, Lot 2 DP 1202319 & Lot
11 DP 1180243

330, 64, 694 & 696 Glenroy Road, Good
Hope

REF: W25014

Date: 19 May 2025



WARATAH BUSHFIRE

PLANNING | GIS | ASSESSMENT

Bush Fire Assessment Report

Proposed three (3) into four (4) lot subdivision and
boundary adjustment

Lot 3 DP 1203365, Lot 2 DP 1202319 & Lot 11 DP 1180243

330, 64, 694 & 696 Glenroy Road, Good Hope

Report Author:	Nicole van Dorst B. App. Sc., Grad. Dip., BPAD-L3 23610		
Mapping by:	Peter Tolley (B. Biotech., M. SciTech (Env. Sci), Grad. Dip. (Spatial Info.))		
File:	W25014	Version 1.0 – Final	19th May 2025
BAL rating	BAL 29 or less		

ABN: 52 280 080 023

Phone: 0477 516 455

Email: nicole@waratahbushfire.com.au



Copyright & Disclaimer:

No part of this document (part from any use permitted under the Copyright Act 1968) including wording, images, tables or graphics can be modified, changed or altered in any way without the written permission from Waratah Bushfire Consulting. The report and its attachments should be read as a whole and may only be referenced or distributed to other parties in its original format. The report does not suggest or guarantee that loss of life, injury and/or property damage will not occur during a bush fire event. This report advises on policies and specifications published by the NSW Rural Fire Service e.g., Planning for Bush Fire Protection 2019 which states that limitations of the document include, but are not limited to uncertainties in FDI, fuel loads, existing developments, human behaviour, and maintenance. In addition, the NSW RFS state that homes are not designed or constructed to withstand fire in catastrophic fire danger conditions. This report has been prepared in support of a development application to Council and cannot be relied upon for construction or the commencement of works until it has been included within the conditions of consent issued by the determining authority (i.e. Council). The responsibility is on the applicant to cross reference this document with the conditions of consent issued by Council or the NSW Rural Fire Service. Where an inconsistency between this document and the development consent is found, the conditions of consent will take precedence. The mapping within this report is indicative only and the data has an inherent level of inaccuracy which may prove critical in assessing the feasibility of the proposed works. The location of all mapped features is to be confirmed by a registered surveyor.

EXECUTIVE SUMMARY

This bush fire assessment report has been undertaken for the proposed boundary adjustment and three (3) into four (4) lot subdivision at 330, 64, 694, and 696 Glenroy Road, Good Hope.

The proposal will result in the creation of

- Lot 100. This lot supports an existing dwelling with access provided via an existing right of way (ROW)
- Lot 101. This new allotment is provided with an indicative dwelling footprint within 70m of Glenroy Road
- Lot 102. This lots supports an existing dwelling with access extending directly from Glenroy Road.
- Lot 103. This lot supports two existing dwellings with access extending from Good Hope Road.

The Yass Valley Council identifies the development as bush fire prone which triggers a formal assessment with respect to the NSW Rural Fire Service (RFS) guideline *Planning for Bush Fire Protection (PBP) 2019*.

A bush fire safety authority (BSA) is required from the NSW Rural Fire Service (RFS) for subdivisions on bush fire prone land under 100b of the *Rural Fires Act 1997*.

The proposed residential subdivision must provide minimum building setbacks between the vegetation and the proposed future dwelling to ensure that future building envelopes are not exposed to a radiant heat flux exceeding 29kW/m².

Section 5.1.3 of PBP states that while all new dwellings within a subdivision must comply with PBP, there may be existing dwellings located on the land that would benefit from bush fire protection measures. Conditions may therefore be applied to the subdivision consent requiring the existing structure to be upgraded to provide ember protection and water supplies for fire fighting.

This assessment has found that bush fire can potentially affect the proposed and existing dwellings from the surrounding grassland vegetation. As depicted in Figure 2.1 all lots can provide adequate APZs (equivalent to or less than BAL 29).

Waratah Bushfire Planning proposes the following combination of bush fire measures to address Section 5.3.1 and the aims and objectives of PBP;

- Provision of asset protection zones (APZs) around all existing habitable buildings to achieve BAL Low where achievable (to avoid the requirement for ember upgrades). This is considered adequate based on the surrounding grazed/managed land, which in most cases exceeds 100m.
- Upgrading the dwelling within Lot 102 for ember protection and providing a minimum 25-32m APZ.
- Provision of any new water static supplies following the acceptable solutions outlined in PBP 2019 (as appropriate).

GLOSSARY

AHIMS	Aboriginal Heritage Information System
APZ	Asset Protection Zone
AS1596	Australian Standard – The storage and handling of LP Gas
AS2419	Australian Standard – Fire hydrant installations
AS3745	Australian Standard – Planning for emergencies in facilities
AS3959	Australian Standard – Construction of buildings in bushfire-prone areas 2018
BAL	Bush fire attack level
BCA	Building Code of Australia
BSA	Bush Fire Safety Authority
DA	Development application
DFS	Dry Sclerophyll Forest
EEC	Endangered ecological community
EP&A Act	Environmental Planning & Assessment Act 1979
EP&A Regulation	Environmental Planning and Assessment Regulation 2000
FFDI	Forest fire danger index
IPA	Inner protection area
LEP	Local Environmental Plan
LGA	Local government area
m	metres
NCC	National Construction Code
OPA	Outer protection area
PBP 2019	Planning for Bush Fire Protection 2019
RF Act	Rural Fires Act 1997
RFS	NSW Rural Fire Service

TABLE OF CONTENTS

1. INTRODUCTION.....	1
1.1 Legislation and planning instruments	1
1.2 Aims of the assessment.....	1
1.3 Proposal	2
1.4 Referenced documents & information collation	9
1.5 Site description	9
2. BUSH FIRE THREAT ASSESSMENT	12
2.1 Predominate vegetation.....	12
2.2 Effective slope	12
2.3 Bush fire attack assessment.....	12
3. BUSH FIRE PROTECTION MEASURES	18
3.1 Asset protection zones (APZs)	18
3.2 Building construction	19
3.3 Access for firefighting operations	20
3.4 Water, gas and electricity supply	20
4. CONCLUSION & RECOMMENDATIONS.....	21
4.1 Conclusion.....	21
4.2 Recommendations	21
5. REFERENCES	24

FIGURES

Figure 1-1 – Proposed subdivision (Lot 100)	3
Figure 1-2 – Proposed subdivision (Lot 101)	4
Figure 1-3 – Proposed subdivision (Lot 102)	5
Figure 1-4 – Proposed subdivision (Lot 103)	6
Figure 1-5 – Bush Fire Prone Land Map	7
Figure 1-6 – Land zoning.....	8
Figure 1-7 – Aerial appraisal.....	10
Figure 2-1– Bush fire assessment and mitigation measures	14

1. INTRODUCTION

Waratah Bushfire Planning has been commissioned by Geomatic & Property Services Australia Pty Ltd to undertake a bush fire assessment report for the proposed subdivision at 330, 64, 694, and 696 Glenroy Road, Good Hope.

The proposed development is identified as bush fire prone on the Yass Valley Council bush fire prone land map (refer Figure 1.5). This triggers a formal assessment in respect of the NSW Rural Fire Service (RFS) policy against the provisions of *Planning for Bush Fire Protection (PBP) 2019*.

1.1 Legislation and planning instruments

Proposed development type for the purposes of PBP	Subdivision & boundary adjustment
Existing land use and approvals	696 Good Hope Road - dwelling approved via DA 190058.
Is the development considered integrated for the purposes of Section 100B of the Rural Fires Act 1997?	Yes – the development is to be referred to the NSW RFS for the issue of a bush fire safety authority (BSA)
Zoning under the Yass Valley Local Environmental Plan 2022	RU1 – Primary production
Significant environmental features	Wedgetail Project Consulting has undertaken an ecological assessment, which concluded that the proposed development does not impact areas mapped on the NSW Biodiversity Values Map and does not exceed the Native Vegetation Clearing Threshold. The proposal will have minimal impact on ecological values.
Details of any Aboriginal heritage or cultural constraints	A basic AHIMS web service search shows that there are no Aboriginal sites recorded in or within 50m of the properties.

1.2 Aims of the assessment

The aims of the bush fire assessment report are to:

- undertake a site bush fire attack assessment in accordance with *PBP*.

- provide advice on bush fire protection measures, including the provision of asset protection zones (APZs), landscaping, building construction standards, access design, water supply and utilities.
- review the potential to provide for ongoing management and maintenance of bush fire protection measures.

1.3 Proposal

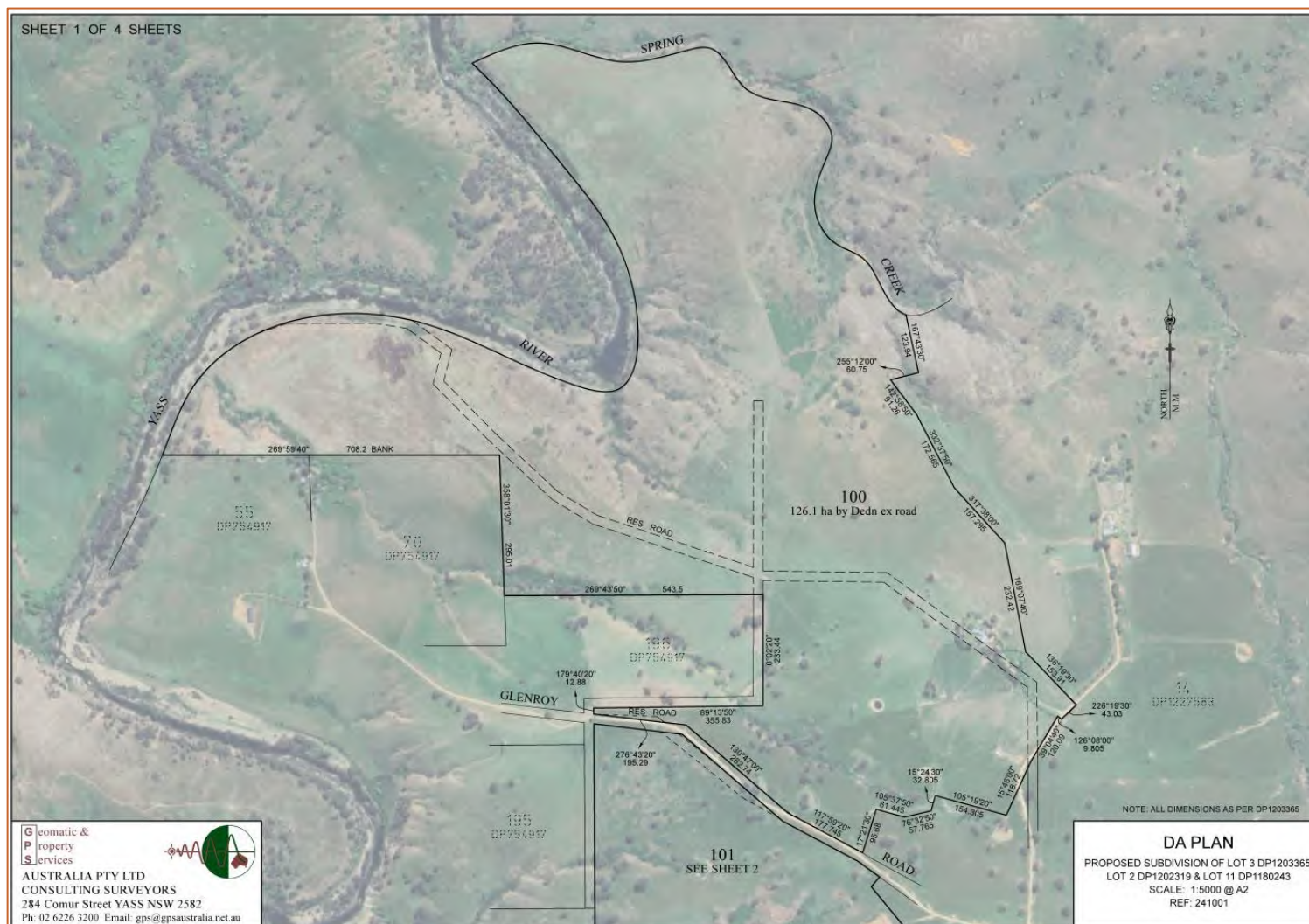
The proposal involves a boundary adjustment and a three (3) into four (4) lot subdivision at 330, 64, 694, and 696 Glenroy Road, Good Hope.

The proposal will result in the creation of the following:

- Existing Lot 2 (No. 64 Glenroy Road) supports an existing dwelling and has a size of 136.9 m². This lot is identified as proposed Lot 102.
- Existing Lot 11 (Nos. 694 and 696 Good Hope Road) will be 129.4 hectares in size. This lot is identified as proposed Lot 103 and supports two existing dwellings.
- Lot 3 (No. 330 Glenroy Road) supports an existing dwelling and will be 126.1 hectares in size. This lot is identified as proposed Lot 100.
- Creation of proposed Lot 101 with an overall size of 206ha. A proposed building envelope has been identified within the lot, and the construction of a dwelling is subject to a future or further Development Application (DA) submission.

No new dwellings or services are proposed, and each lot will maintain the existing dwellings and driveway access.

The Figures in Section 2 show the proposed boundary adjustment, existing dwellings, proposed building envelope and recommended bush fire protection measures to satisfy the aims and objectives of PBP.



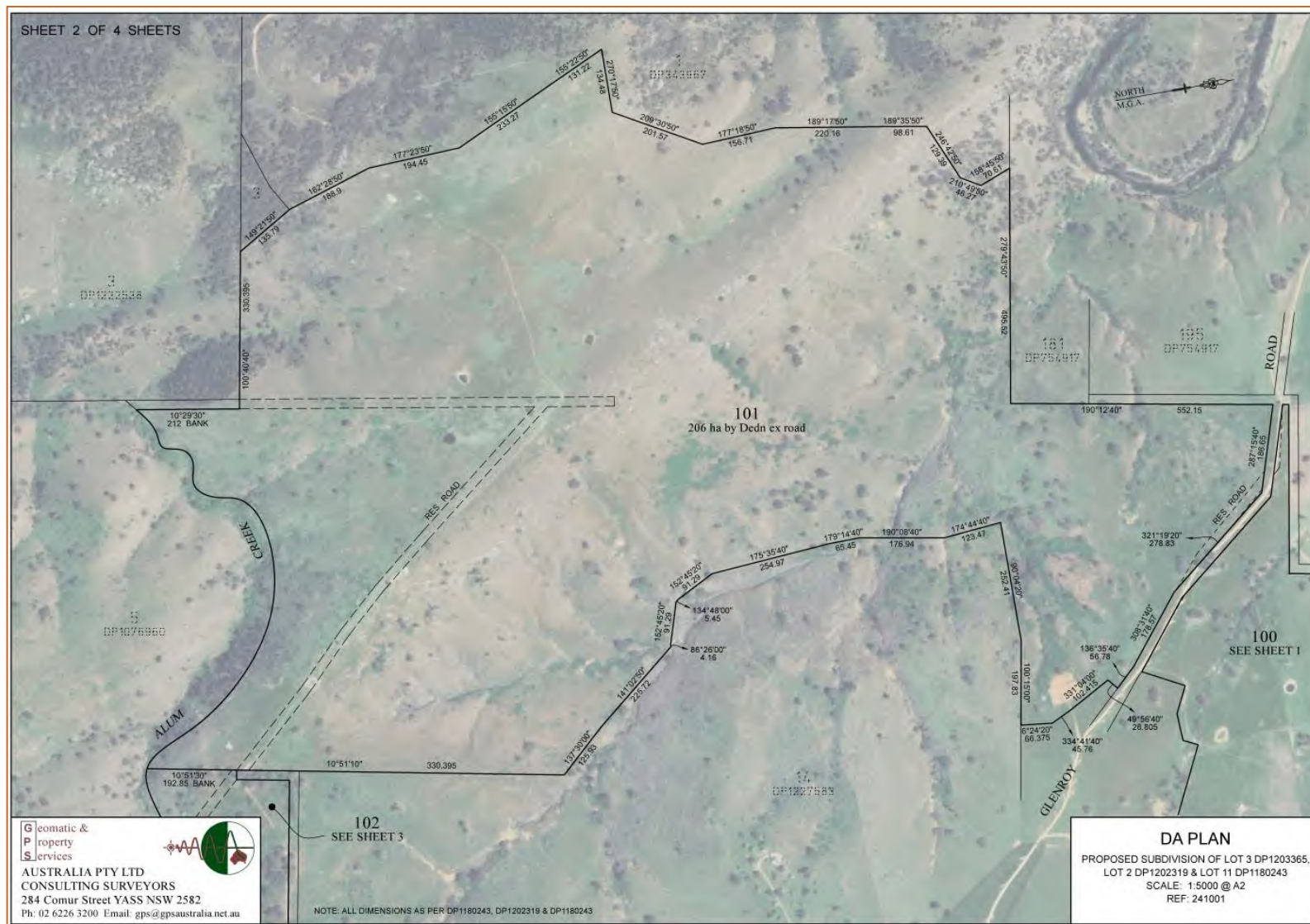


Figure 1-2 – Proposed subdivision (Lot 101)

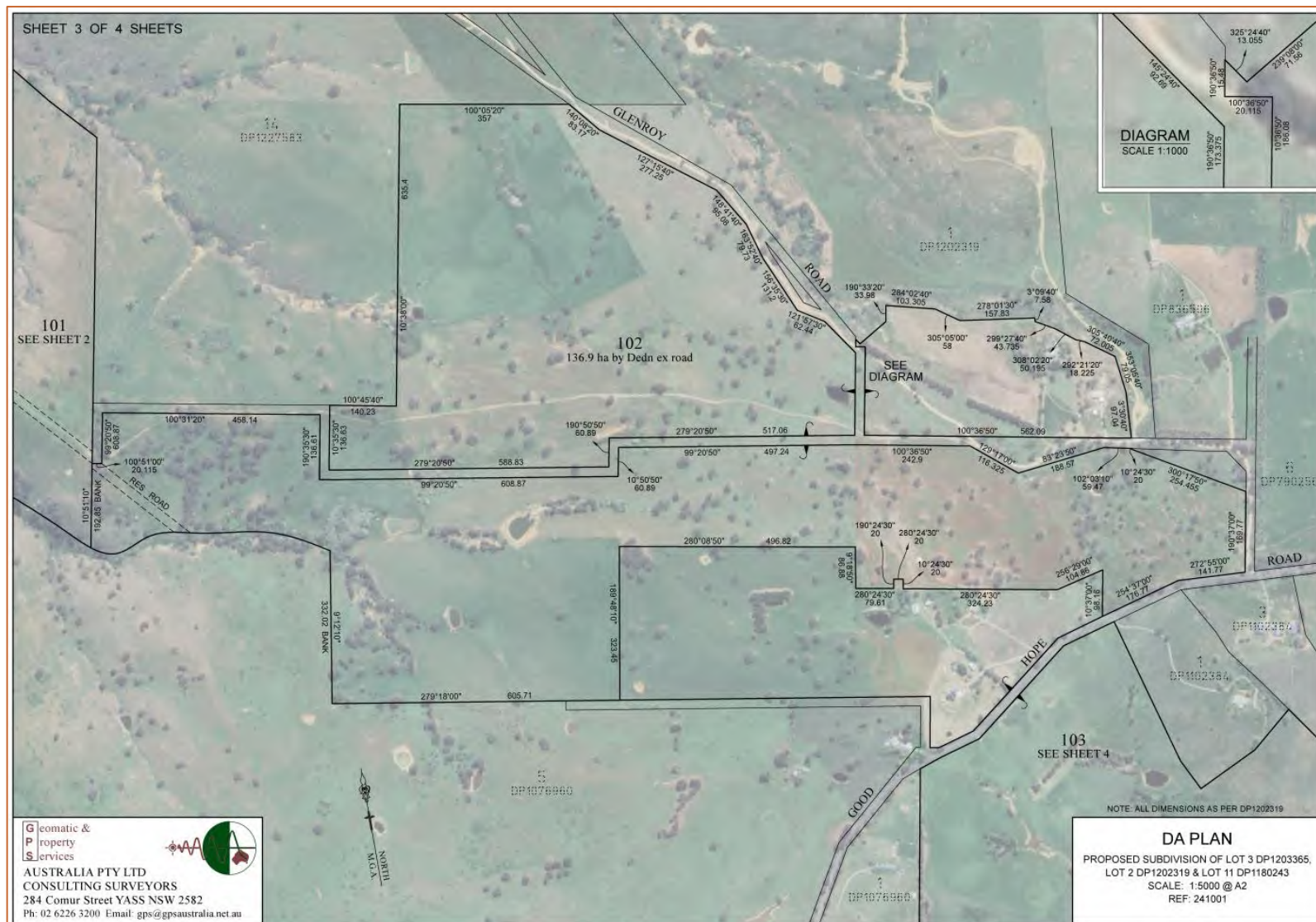
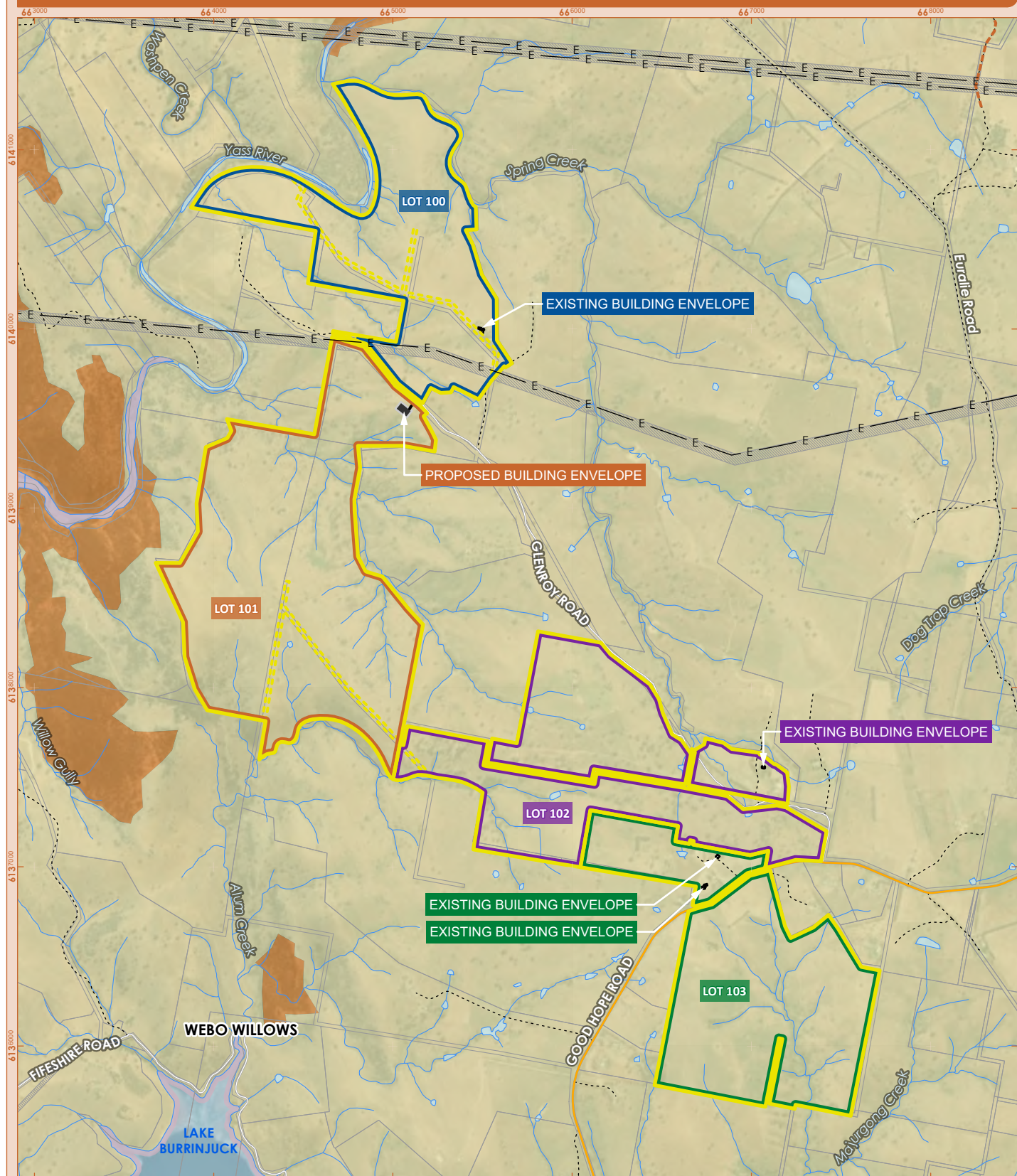


Figure 1-3 – Proposed subdivision (Lot 102)

FIGURE 1.5 – BUSH FIRE PRONE LAND



Data source: WBP (2025); DCSSS (2025); ESRI (2025); ICSM (2013); RFS (2024)

LEGEND

- | | | | |
|----------------------|-------------------------------|---------------------------|----------------------------------|
| Site boundary | Existing track | Vehicular track | Bush fire prone land (RFS, 2024) |
| Easement boundary | Existing building envelope | Classified fire trail | Vegetation Buffer |
| Proposed subdivision | Proposed building envelope | Watercourse/drainage line | Vegetation Category 1 |
| Lot 100 | Existing environment | Waterbody | Vegetation Category 3 |
| Lot 101 | Electricity transmission line | Lot boundary | |
| Lot 102 | Minor road | Easement | |
| Lot 103 | Local road | | |



64 & 330 Glenroy Road, & 694 & 696 Good Hope Road, Good Hope
(Lot 2 DP1202319, Lot 3 DP1203365, Lot 11 DP1180243)

01/05/2025 (v1)

1:30,000 @A4

GDA2020 MGA Zone 55

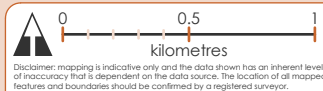
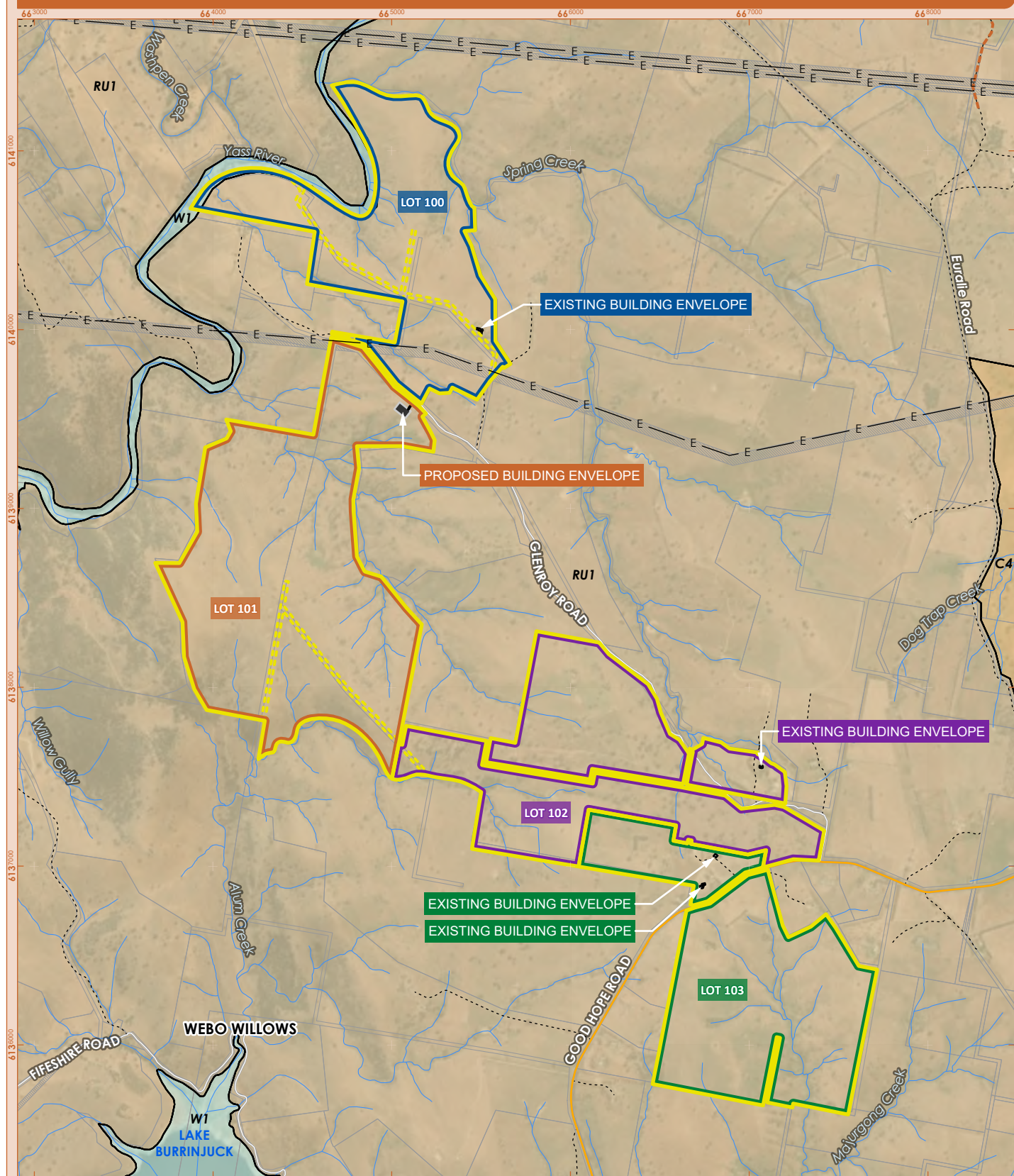


FIGURE 1.6 – LAND ZONING



Data source: WBP (2025); DCSSS (2025); ESRI (2025); ICSM (2013); OEH (2025)

LEGEND

- | | | | |
|----------------------|-------------------------------|---------------------------|---|
| Site boundary | Existing track | Vehicular track | Yass Valley Local Environmental Plan 2013
C4 Environmental Living
RU1 Primary Production
W1 Natural Waterways |
| Easement boundary | Existing building envelope | Classified fire trail | |
| Proposed subdivision | Proposed building envelope | Watercourse/drainage line | |
| Lot 100 | Existing environment | Lot boundary | |
| Lot 101 | Electricity transmission line | Easement | |
| Lot 102 | Minor road | | |
| Lot 103 | Local road | | |

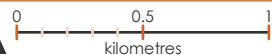


64 & 330 Glenroy Road, & 694 & 696 Good Hope Road, Good Hope
(Lot 2 DP1202319, Lot 3 DP1203365, Lot 11 DP1180243)

01/05/2025 (v1)

1:30,000 @A4

GDA2020 MGA Zone 55



Disclaimer: mapping is indicative only and the data shown has an inherent level of inaccuracy that is dependent on the data source. The location of all mapped features and boundaries should be confirmed by a registered surveyor.

1.4 Referenced documents & information collation

Documents reviewed for the preparation of this report include the following:

- Subdivision plan prepared by Geomatic & Property Services, Reference: 241001.
- Ecological Assessment prepared by Wedgetail Project Consulting, 14 May 2025
- Vegetation mapping by Department of Planning and Environment (STVM_NSW_1750_PCT).
- Google aerial photography.
- Australian Standard 3959 Construction of buildings in bushfire-prone areas (2018).
- Planning for Bush Fire Protection 2019 (PBP).

An inspection of the proposed development site and surrounds was undertaken by Nicole van Dorst to assess the bush fire risk and adjoining land use.

1.5 Site description

The site is located at 330, 64, 694, and 696 Glenroy Road, Good Hope, within the Yass Valley Local Government Area (refer to Figure 1-7).

The existing dwellings within proposed Lot 103 (no. 694 & 696) are accessed via Good Hope Road to the south. The remaining dwellings (and proposed Lot 101) are accessed via Glenroy Road.

The entire site is mapped as vegetation category 3 (grassland).

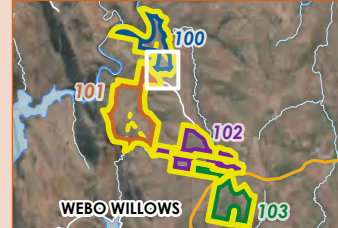
FIGURE 1.7 – AERIAL APPRAISAL (MAP 1)



Data source: WBP (2025); DCSS (2025); ESRI (2025); Google Earth (2023); ICSM (2013)

LEGEND

- | | | |
|--|---|--|
| Site boundary | Existing track | Local road |
| Easement boundary | Existing building envelope | Vehicular track |
| Proposed subdivision | Proposed building envelope | Watercourse/drainage line |
| Lot 100 | Indicative dwelling footprint | Waterbody |
| Lot 101 | Existing environment | Easement |
| Lot 102 | Electricity transmission line | |
| Lot 103 | Good Hope Road (refer to inset) | |



64 & 330 Glenroy Road, & 694 & 696 Good Hope Road, Good Hope
(Lot 2 DP1202319, Lot 3 DP1203365, Lot 11 DP1180243)

01/05/2025 (v1)

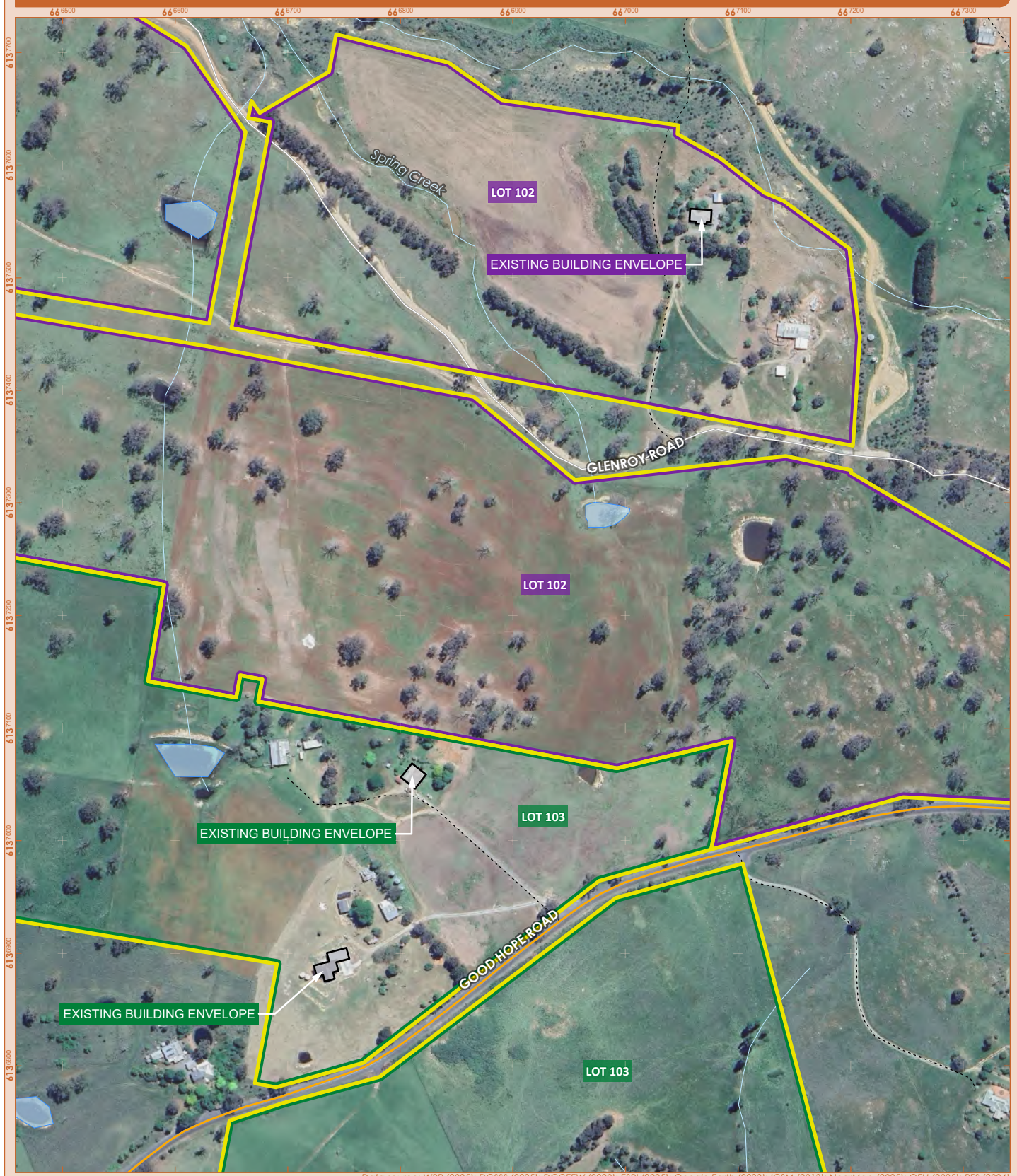
1:4,500 @A4

GDA2020 MGA Zone 55



Disclaimer: mapping is indicative only and the data shown has an inherent level of inaccuracy that is dependent on the data source. The location of all mapped features and boundaries should be confirmed by a registered surveyor.

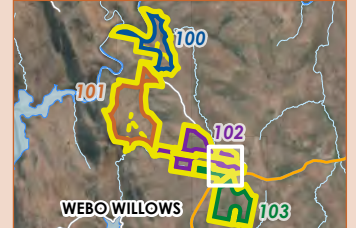
FIGURE 1.7 – AERIAL APPRAISAL (MAP 2)



Data source: WBP (2025); DCSSS (2025); DCCCEW (2020); ESRI (2025); Google Earth (2023); ICSM (2013); NearMap (2025); OEH (2025); RFS (2024)

LEGEND

- | | |
|----------------------|---------------------------------|
| Site boundary | Existing building envelope |
| Easement boundary | Existing environment |
| Proposed subdivision | Good Hope Road (refer to inset) |
| Lot 100 | Local road |
| Lot 101 | Vehicular track |
| Lot 102 | Watercourse/drainage line |
| Lot 103 | Waterbody |



64 & 330 Glenroy Road, & 694 & 696 Good Hope Road, Good Hope
(Lot 2 DP1202319, Lot 3 DP1203365, Lot 11 DP1180243)

01/05/2025 (v1)

1:4,750 @A4

GDA2020 MGA Zone 55



Disclaimer: mapping is indicative only and the data shown has an inherent level of inaccuracy that is dependent on the data source. The location of all mapped features and boundaries should be confirmed by a registered surveyor.

2. BUSH FIRE THREAT ASSESSMENT

To determine the required width of an APZ for development, an assessment of the potential hazardous vegetation and the effective slope within the vegetation is required.

2.1 Predominate vegetation

PBP requires the identification of the predominant vegetation formation in accordance with David Keith (2004) if using the simplified acceptable solutions in *PBP* 2019

The hazardous vegetation is calculated for a distance of at least 140m from a proposed building envelope. The vegetation posing a bush fire threat to the existing dwellings and proposed building footprint has been identified as predominately grassland, remnant forest or woodland.

2.2 Effective slope

The effective slope has been assessed for up to 100m from the development site and is described in detail in Table 2-1 below.

2.3 Bush fire attack assessment

The following assessment has determined the APZ and BAL levels via the following methodology;

- Table A1.12.2 & A1.12.5 of *PBP* 2019.

A fire danger index (FDI) of 100 has been used to calculate bush fire behaviour on the site based on its location within the Southern Ranges region.

Table 2-1 – Bush fire attack assessment

Aspect	Vegetation Formation	Effective Slope	Minimum APZ required	APZ & BAL recommended
Existing dwelling at 330 Glenroy Road (Lot 100) – Refer to Figure 2.1 (Map 1)				
North & east	Grassland	10-15 ^o downslope	15m	50m APZ (BAL Low – no ember upgrades required)
South & west	Grassland	5-10 ^o downslope	13m	
New Lot 101 – Refer to Figure 2.1 (Map 2)				
Southwest	Grassland & remnant forest	10-15 ^o downslope	23m	Minimum APZs recommended to support BAL 29
Northwest & southeast	Grassland	5-10 ^o downslope	13m	
Northeast	Grassland	Level and upslope	10m	
Existing dwelling at 64 Glenroy Road (Lot 102) – Refer to Figure 2.1 (Map 3)				
North & east	Woodland	0-5 ^o downslope	16m	25-32m APZ Upgrade the building for ember protection
South & west	Managed land	N/A	N/A	
Existing dwelling at 694 Good Hope Road (Lot 103) – Refer to Figure 2.1 (Map 4)				
North	Grassland	5-10 ^o downslope	13m	50m APZ (BAL Low – no ember upgrades required)
South, east and west	Managed land	N/A	N/A	
Existing dwelling at 696 Good Hope Road (Lot 103) was approved via DA190058 – Refer to Figure 2.1 (Map 4)				
North, south, east and west	Grassland	0-5 ^o downslope	12m	50m (BAL Low – no ember upgrades required). Noting that the dwelling has been recently approved and constructed.

FIGURE 2.1 – BUSH FIRE ASSESSMENT AND MITIGATION MEASURES (MAP 1)



VEGETATION AND SLOPE ASSESSMENT



ASSET PROTECTION ZONE (APZ) & BUSH FIRE ATTACK LEVEL (BAL)

Data source: WBP (2025); DCSSS (2025); DCCCEW (2020); ESRI (2025); Google Earth (2023); ICSM (2013)

LEGEND

- | | | |
|----------------------|-------------------------------|--|
| Site boundary | Static water supply | Watercourse/drainage line |
| Easement boundary | Existing building envelope | Waterbody |
| Proposed subdivision | Asset protection zone | Easement |
| Lot 100 | Existing environment | Slope buffer (100 m) |
| Lot 101 | Electricity transmission line | Vegetation buffer (140 m) |
| Lot 102 | Vehicular track | Bush fire land category/vegetation class |
| Lot 103 | Topographic contour (1 m) | Managed land |
| | Topographic contour (10 m) | Grassland |



64 & 330 Glenroy Road, & 694 & 696 Good Hope Road, Good Hope
(Lot 2 DP1202319, Lot 3 DP1203365, Lot 11 DP1180243)

20/05/2025 (v2)

1:3,250 @A4

GDA2020 MGA Zone 55



FIGURE 2.1 – BUSH FIRE ASSESSMENT AND MITIGATION MEASURES (MAP 2)



Data source: WBP (2025); DCSS (2025); DCCSW (2020); ESRI (2025); Google Earth (2023); ICSM (2013)



64 & 330 Glenroy Road, & 694 & 696 Good Hope Road, Good Hope
(Lot 2 DP1202319, Lot 3 DP1203365, Lot 11 DP1180243)

20/05/2025 (v2)

1:3,750 @A4

GDA2020 MGA Zone 55



Disclaimer: Mapping is indicative only and the data shown has an inherent level of inaccuracy that is dependent on the data source. The location of all mapped features and boundaries should be confirmed by a registered surveyor.

FIGURE 2.1 – BUSH FIRE ASSESSMENT AND MITIGATION MEASURES (MAP 3)



64 & 330 Glenroy Road, & 694 & 696 Good Hope Road, Good Hope
(Lot 2 DP1202319, Lot 3 DP1203365, Lot 11 DP1180243)

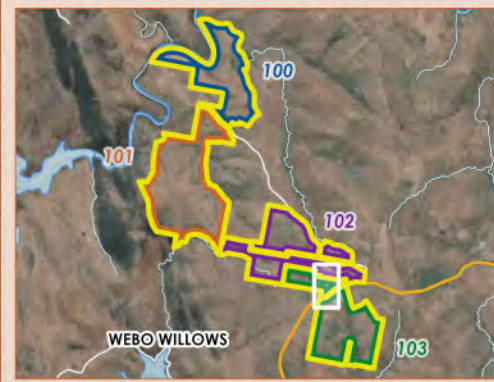
20/05/2025 (v2)

1:3,000 @A4

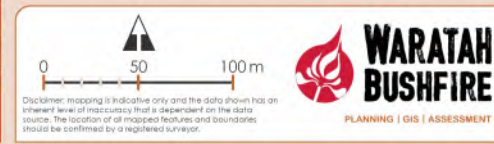
GDA2020 MGA Zone 55



FIGURE 2.1 – BUSH FIRE ASSESSMENT AND MITIGATION MEASURES (MAP 4)



64 & 330 Glenroy Road, & 694 & 696 Good Hope Road, Good Hope (Lot 2 DP120319, Lot 3 DP1203365, Lot 11 DP1180243)
20/05/2025 (v2) 1:4,000 @A4 GDA2020 MGA Zone 55



3. BUSH FIRE PROTECTION MEASURES

3.1 Asset protection zones (APZs)

Table 3.1 outlines the proposal's compliance with the performance criteria for APZs.

Table 3-1 – Performance criteria for asset protection zones (PBP 2019)

Performance criteria	Acceptable solutions	Compliance with acceptable solutions	Comment
Potential building footprints will not be exposed to radiant heat levels exceeding 29kW/m ² on each proposed lot	APZs are provided in accordance with Tables A1.12.2 and A1.12.4 based on the FFDI	☑	Each of the lots is capable of providing building footprints which will not exceed a radiant heat level of >29kW/m ² .
APZs are managed and maintained to prevent the spread of a fire towards the building	APZs are managed in accordance with the requirements of Appendix 4	☑	APZ's have been identified to show that each lot is capable of supporting 29kW/m ² or less. The 50m APZ for the dwelling in Lot 103 extends into Lot 102 in the north. The landowner has agreed to the APZ. Ongoing management will be assured via an 88b easement.
The APZ is provided in perpetuity	APZs are wholly within the boundaries of the development site	☑	
APZ maintenance is practical, soil stability is not compromised and the potential for crown fires is minimised	The APZ is located on lands with a slope of less than 18°	☑	Complies. All slopes are less than 18 degrees.

<i>Performance criteria</i>	<i>Acceptable solutions</i>	<i>Compliance with acceptable solutions</i>	<i>Comment</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	Landscaping is in accordance with Appendix 4	☑	Complies
	Fencing is constructed in accordance with section 7.6	☑	N/A. Any new fences will be well over 6m from any existing dwelling.
Note 1: All fences in bush fire prone areas should be made of either hardwood or non-combustible material. In circumstances where a fence is within 6m of a building or in areas of BAL 29 or greater, they should be made of non-combustible material only.			

3.2 Building construction

No new buildings are proposed with BAL Low achievable for the;

- Existing dwelling at 330 Glenroy Road (Lot 100); and the
- Existing dwellings at 696 Good Hope Road (Lot 103), one of which was approved via DA190058

This report proposes that these buildings are not required to be upgraded for ember protection based on the surrounding grazed/managed land, which in most cases exceeds 100m.

Section 5.1.3 of PBP states that while all new dwellings within a subdivision must comply with PBP, there may be existing dwellings located on the land that would benefit from bush fire protection measures. Conditions may therefore be applied to the subdivision consent requiring the existing structure to be upgraded to provide ember protection.

It is recommended that the existing dwelling within 64 Glenroy Road (Lot 102) are upgraded for ember protection by enclosing all openings (excluding roof tile spaces) or covering openings with a non-corrosive metal screen mesh with a maximum aperture of 2mm. Where applicable, this includes any subfloor areas, openable

windows, vents, weep holes and eaves. External doors are to be fitted with draft excluders.

3.3 Access for firefighting operations

There are no proposed changes to the existing approved private access driveways. The proposed subdivision will not impact the existing situation, and all buildings are provided with private access to the existing public road network capable of supporting fire-fighting appliances. No additional requirements are necessary.

3.4 Water, gas and electricity supply

The properties have access to an existing static water supply only. There are no proposed changes to the existing gas and electricity supply.

The intent of measures for water supplies is to provide adequate water services for the protection of buildings during and after the passage of bushfire.

All dwellings have access to an existing static water supply. As per Table 5.3c of PBP, static water supplies shall comply with Table 5.3d of PBP as follows:

- a minimum 20,000L per lot.
- All above-ground water service pipes are metal, including and up to any taps and
- Above -ground water storage tanks shall be of concrete or metal.

4. CONCLUSION & RECOMMENDATIONS

4.1 Conclusion

This bush fire assessment report has been undertaken for the proposed boundary adjustment and three (3) into four (4) lot subdivision at 330, 64, 694, and 696 Glenroy Road, Good Hope.

This assessment has found that bush fire can potentially affect the existing dwellings from the surrounding grassland, woodland and remnant vegetation.

The following recommendations are provided to ensure that the development is in accordance with the requirements of *PBP*.

4.2 Recommendations

The following recommendations are based on following documents/plans supplied by the client.

- Subdivision plan prepared by Geomatic & Property Services, Reference: 241001.

Recommendation 1 - At the issue of a subdivision certificate and in perpetuity, the property around the existing dwellings within Lots 100, 102 & 103 must be maintained as an asset protection zone as depicted in Figure 2.1 in accordance with the following requirements of Appendix 4 of *Planning for Bush Fire Protection 2019*:

- tree canopy cover should be less than 15% at maturity;
- trees at maturity should not touch or overhang the building;
- lower limbs should be removed up to a height of 2 m above the ground;
- tree canopies should be separated by 2 to 5 m;
- preference should be given to smooth-barked and evergreen trees;
- large discontinuities or gaps in the shrubs layer should be provided to slow down or break the progress of fire towards buildings;
- shrubs should not be located under trees;

- shrubs should not form more than 10% ground cover;
- clumps of shrubs should be separated from exposed windows and doors by a distance of at least twice the height of the vegetation;
- grass should be kept mown (as a guide, grass should be kept to no more than 100mm in height); and
- leaves and vegetation debris should be removed regularly.

Recommendation 2 - At the issue of a subdivision certificate, and in perpetuity to ensure ongoing protection from the impact of bush fires, a suitable mechanism, such as an instrument pursuant to section 88 of the *Conveyancing Act 1919*, must be in place over Lot 102 (for the benefit of Lot 103) to ensure its ongoing management of the 50m inner protection area as depicted in Figure 2.1 in accordance with Appendix 4 of *Planning for Bush Fire Protection 2019*.

Recommendation 3 – New landscaping within the required asset protection zone must comply with Appendix 4 of *Planning for Bush Fire Protection 2019*. In this regard, the following principles are to be incorporated:

- A minimum 1 metre wide area (or to the property boundary where the setbacks are less than 1 metre), suitable for pedestrian traffic, must be provided around the immediate curtilage of the building;
- Planting is limited in the immediate vicinity of the building;
- Planting does not provide a continuous canopy to the building (i.e. trees or shrubs are isolated or located in small clusters);
- Landscape species are chosen to ensure tree canopy cover is less than 15% (IPA);
- Avoid species with rough fibrous bark, or which retain/shed bark in long strips or retain dead material in their canopies;
- Use smooth bark species of trees species which generally do not carry a fire up the bark into the crown;
- Avoid planting of deciduous species that may increase fuel at surface/ ground level (i.e. leaf litter);
- Avoid climbing species to walls and pergolas;

- Locate combustible materials such as woodchips/mulch, flammable fuel stores away from the building;
- Locate combustible structures such as garden sheds, pergolas and materials such as timber garden furniture away from the building; and
- Low flammability vegetation species are used.

Recommendation 4 - The existing dwelling within Lot 102 (located within 100m of woodland) is to be upgraded for ember protection by enclosing all openings (excluding roof tile spaces) or covering openings with a non-corrosive metal screen mesh with a maximum aperture of 2mm. Where applicable, this includes any subfloor areas, openable windows, vents, weep holes and eaves. External doors are to be fitted with draft excluders.

Recommendation 5 - The provision of new water, electricity and gas must comply with Table 5.3c of *Planning for Bush Fire Protection 2019*.

5. REFERENCES

- Councils of Standards Australia AS3959 (2018) – *Australian Standard Construction of buildings in bush fire-prone areas.*
- Keith, David (2004) – *Ocean Shores to Desert Dunes – The Native Vegetation of New South Wales and the ACT.* The Department of Environment and Climate Change.
- Rural Fire Service (2019) - *Planning for Bush Fire Protection – a guide for councils, planners, fire authorities and developers.* NSW Rural Fire Service.
- Tan, B., Midgley, S., Douglas, G. and Short (2004) - *A methodology for assessing bushfire attack.* RFS Development Control Service