

# BUSH FIRE ASSESSMENT REPORT

**Bradhil Pty Ltd  
Proposed residential subdivision  
65 Owlpen Road  
Farley**



**PREPARED BY:**



**JUNE 2022**



## PEAK LAND MANAGEMENT

Land management consulting services:

**-Bush Fire-**

**-Ecological-**

**-Environmental-**

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Cover Photo: View of subject site.

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### Document History

Document Id.	Prep. Date	Version	Submitted to:
Bush Fire Assessment Report	30.6.21	1	Mark Leek, ACM Landmark
Bush Fire Assessment Report	3.6.22	2	Tanya Gurieff, Hunter Land

## AUTHOR DETAILS

Ted Smith is the director of PEAK LAND MANAGEMENT. He is a qualified Land Management Consultant with a Bachelor of Science Honours Degree in Physical Geography. He has over 25 years experience commercially consulting with PEAK LAND MANAGEMENT PTY LTD and working within state government.

Ted has completed a Graduate Diploma in Design for Bush Fire Prone Areas from the University of Western Sydney and is a member of the Fire Protection Association of Australia (FPA of Australia), being a BPAD Accredited Bush Fire Practitioner Level 3.

## CERTIFICATION

Ted Smith of PEAK LAND MANAGEMENT has carried out a Bush Fire Assessment including a site inspection on the subject property. A detailed Bush Fire Assessment Report is attached which includes the submission requirements set out in *Planning for Bush Fire Protection, 2019* together with recommendations as to how the relevant specifications and requirements are to be achieved.

I hereby certify, in accordance with Section 4.14 of the *Environmental Planning and Assessment Act 1979 No 203*:

1. That I am a person recognised by the *NSW Rural Fire Service* as a qualified consultant in Bush Fire Risk Assessment; and
2. That subject to the recommendations contained in the attached Bush Fire Assessment Report the proposed development conforms to the **relevant specifications and requirements** being the document entitled *Planning for Bush Fire Protection* prepared by the NSW Rural Fire Service in co-operation with the Department of Planning and any other document as prescribed by Section 4.14 of the *Environmental Planning and Assessment Act 1979 No 203*.



3<sup>rd</sup>, June, 2022

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Signature

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Date



## 1.0 INTRODUCTION

PEAK LAND MANAGEMENT has been engaged by Hunter Land on behalf of Bradhil Pty Ltd to prepare a Bush Fire Assessment Report for a for a proposed one into sixty nine (69) lot rural subdivision, over land located at Lot 101 DP 1233753/ 65 Owlpen Road, Farley (termed “subject or development site”).

Figures 1-4 show the subject site location, topographic map, and proposed development site plans, and Appendix 1 shows photos of the subject site.

Under the *Environmental Planning and Assessment Act, 1979* (and its regulations), and the *Rural Fires Act 1997* (and its regulations), councils are required to assess and control new developments in Bush Fire prone areas. This land has been assessed as being part of a Bush Fire Prone Area as mapped by Council (Figure 8).

This development is classed as a subdivision under PBP 2019 and falls under Section 100B of the *Rural Fires Act 1997* (and its regulations) and will require integrated development approval/ Bushfire Safety Authority from the Rural Fire Service. PBP 2019 states that a residential subdivision should have required Asset Protection Zones, adequate access, water, and services as stated under the Act.

This report has been prepared in accordance with “*Planning for Bush Fire Protection (PBP) 2019*” guidelines, and makes reference to AS 3959. Clause 46 of the *Rural Fires Regulation 2002* sets out these requirements, which are addressed in this report. A Bush Fire Assessment Report is required showing the current situation and recommending how the risk may be ameliorated, so consideration may be shown by Council to allow development approval for the proposed dwelling, and Rural Fire Service approval for the proposed subdivision.

Note- it is understood this subdivision has been approved previously. Minor adjustments have been made to the subdivision (changes include turning areas at Road 2 and 3). Council have requested that the bushfire report is updated to include current bushfire mapping (2021).

This report has been updated accordingly.

### 1.1 SCOPE OF WORKS

The proposal is for:

- Proposed 1 into 69 lot residential subdivision.



Figure 1: Aerial photo showing subject site and surrounds (imagery from Department of Lands). North to top of all figures unless otherwise shown.





Figure 2: Aerial photo showing subject site and surrounds (imagery from Department of Lands).



Figure 3: Topographic map showing subject site (imagery from SIX maps, Lands Department)

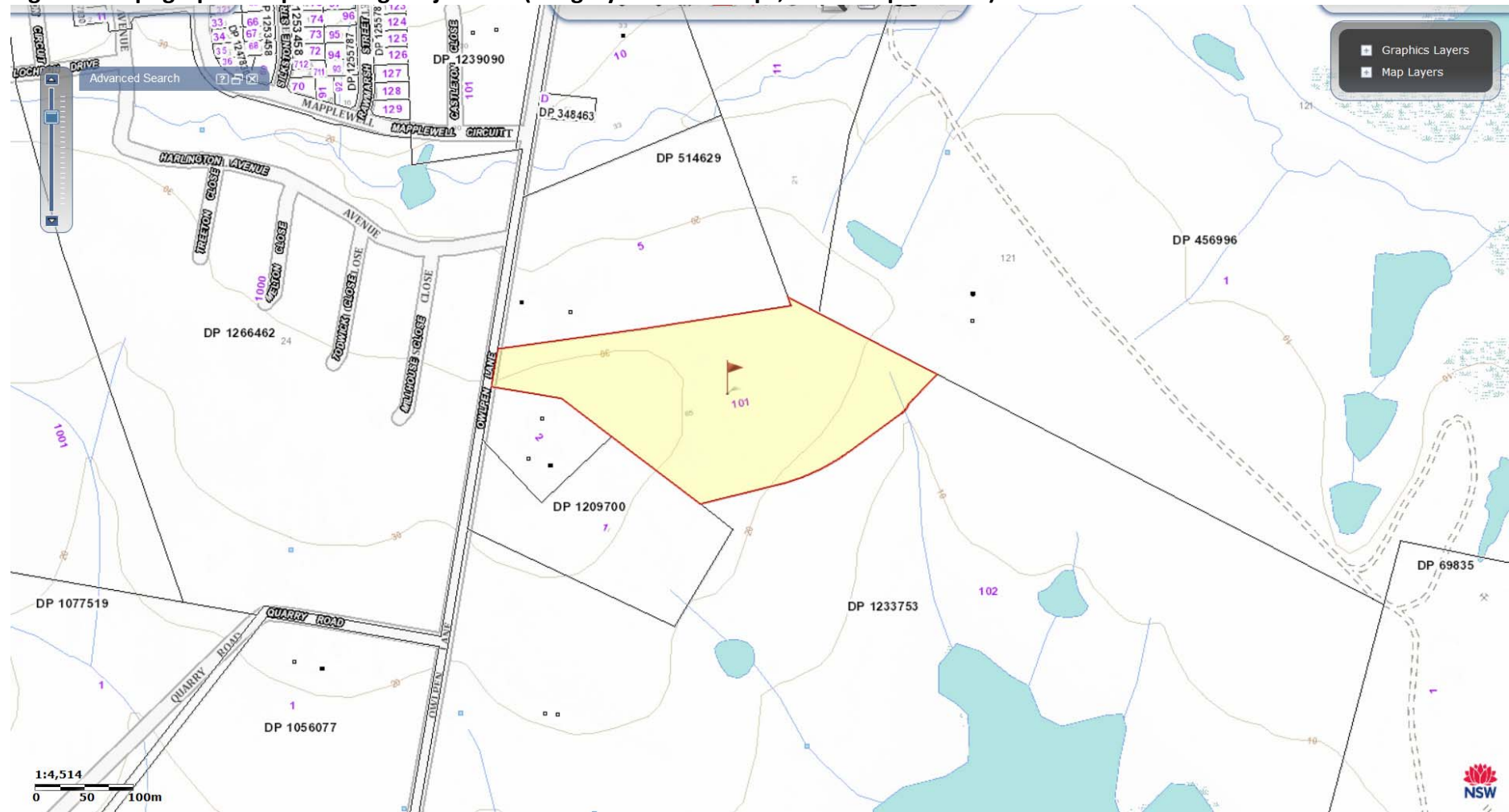




Figure 4a: Subdivision Plan (from High Definition Design, dated 19.5.22)





Figure 4b: Subdivision Plan (from High Definition Design, dated 19.5.22)





Figure 5: Vegetation assessment within 140m of subject site

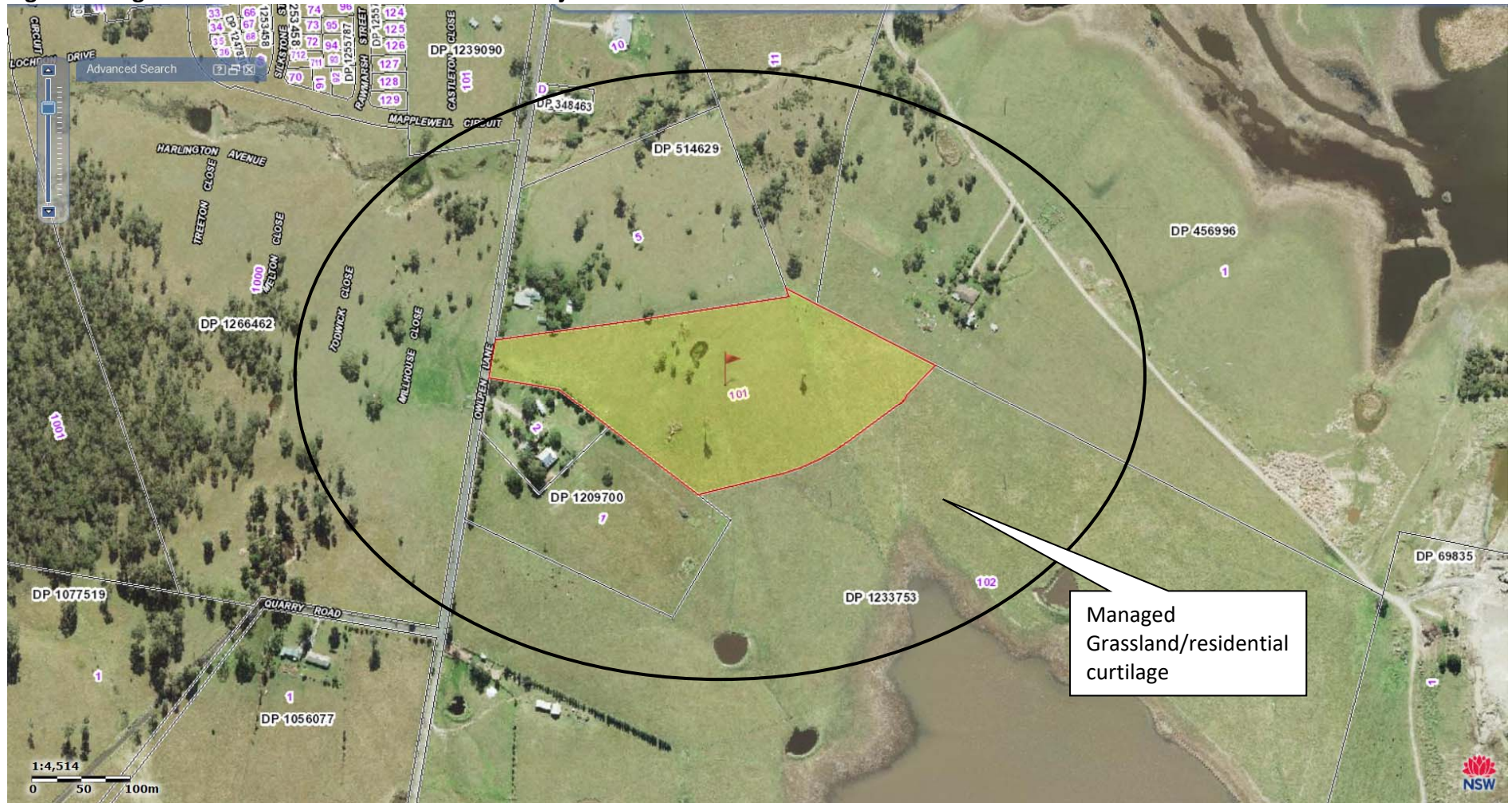




Figure 6: Vegetation assessment in detail within 100m of subject site

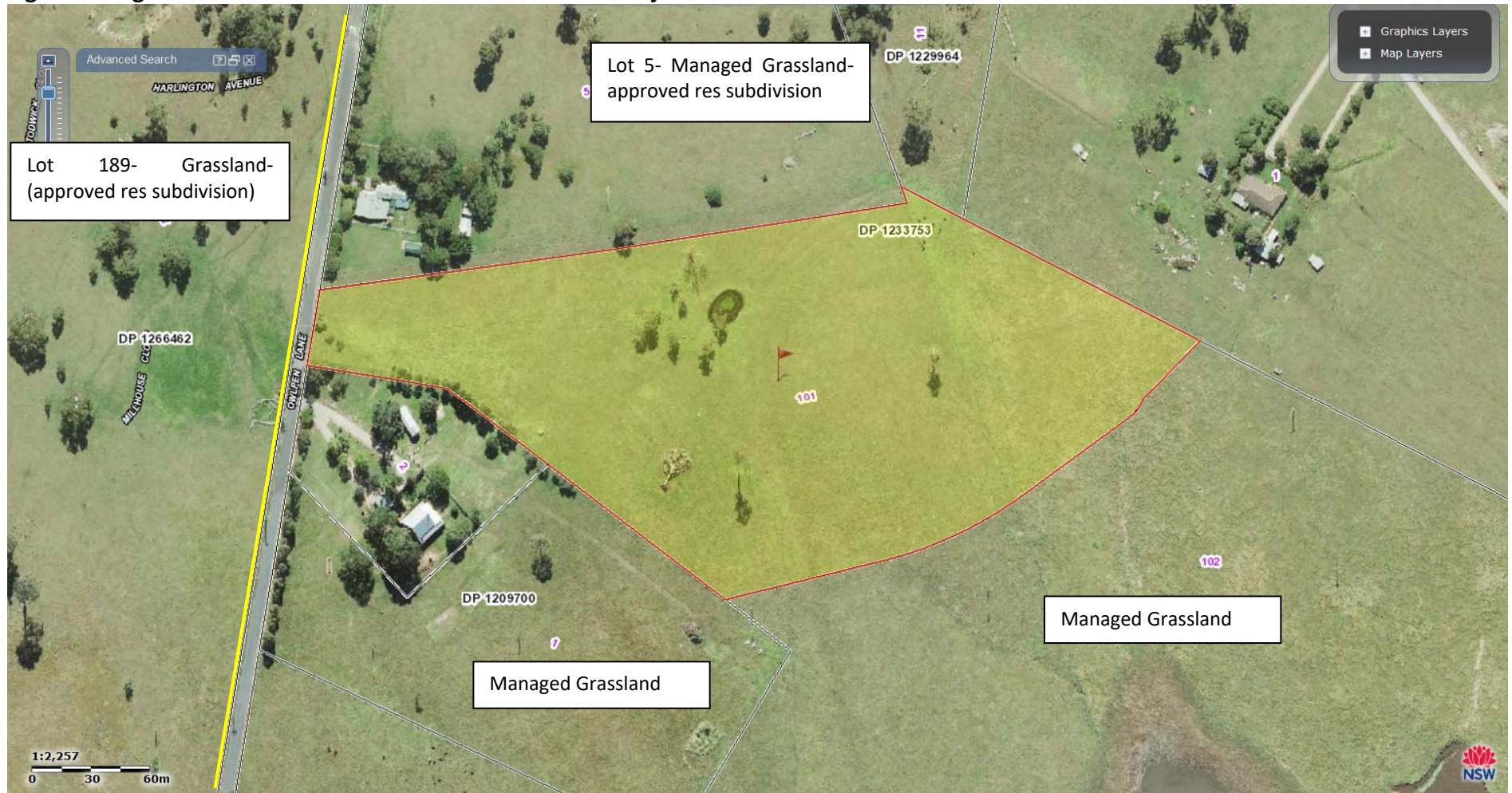




Figure 7: Recent aerial photograph showing managed land surrounds (from nearmap dated 13<sup>th</sup> June, 2021)

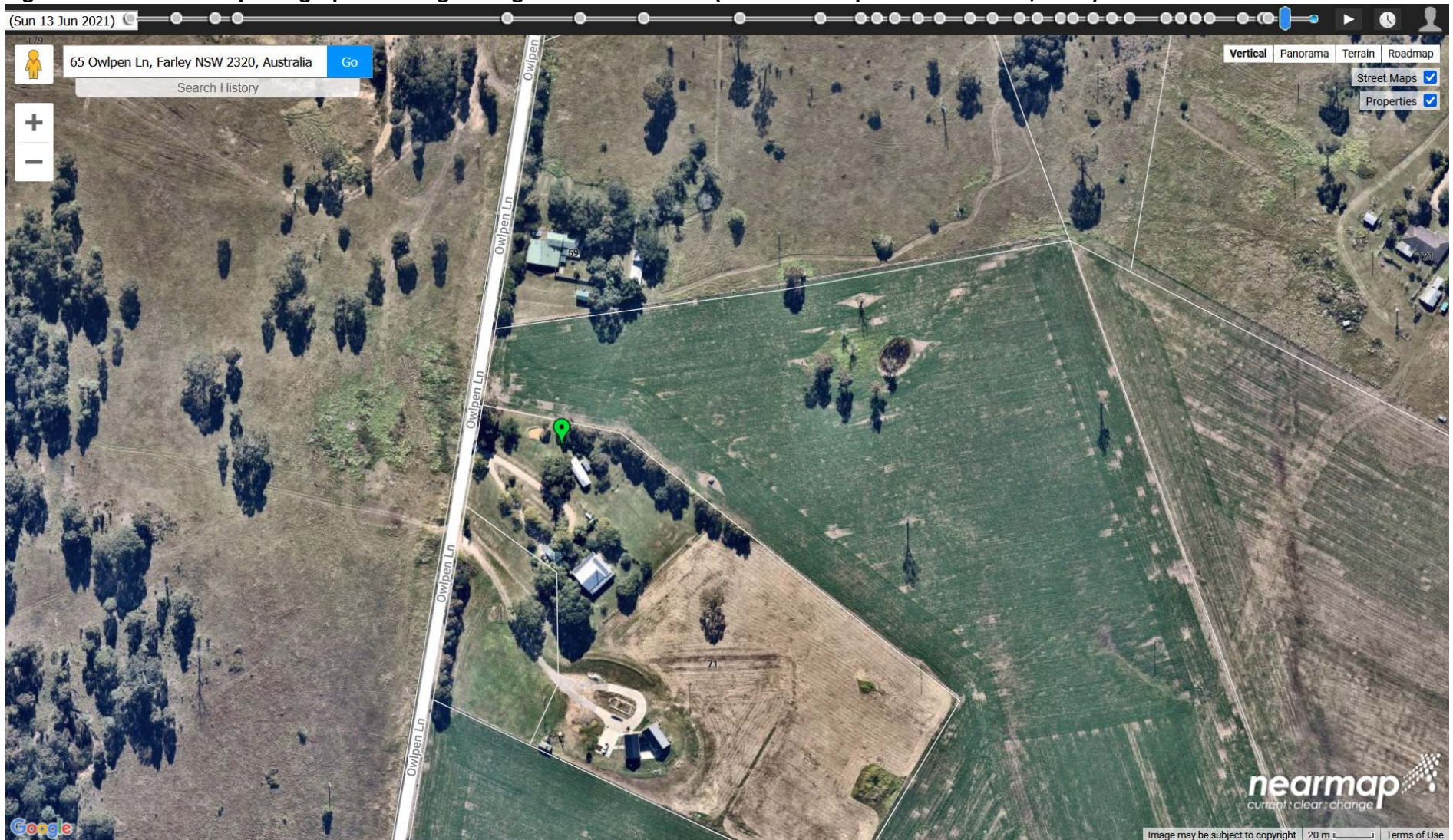




Figure 8: Bush Fire Prone Land Map (from ePlanning, NSW Government)





## 2.0 SITE DESCRIPTION AND SURROUNDING LANDUSE

The subject site and surrounding vegetation and landuse/topography are shown in Figures 1-8. The subject site is a rural lot, being predominantly cleared and is regularly slashed.

Lot 5 to the north, and Lot 189 to the west have approved residential subdivisions over them (DA 19/707) and will be cleared. They are currently grazed and/or regularly slashed, except for Lot 189.

Lots 102 to the east, and Lots 2 and 1 to the south are all managed rural properties. They are currently grazed and/or regularly slashed.

## 3.0 VEGETATION

**The predominant vegetation type within 140m is Grassland and Managed Land assessed as per PBP, 2019 (Figure 5 & 6, Appendix 1 - photos).**

Grassland occurs to the west of the site/west of Owlpen Lane (Lot 189). It is currently >100mm in height, and appears unmanaged.

Grassland elsewhere within 100m of the site is considered managed, being currently grazed and/or regularly slashed, being <100mm height at time of inspection and considered managed land as per NSW Rural Fire Service [policy/PBP, 2019]. Figure 7 shows the latest aerial photo which clearly shows the ongoing land management (slashing etc) over surrounding lots.

## 4.0 SLOPE

Slope assessment has been carried out around the subject site under hazardous vegetation out to 100 metres as specified under the Guidelines Assessment Procedure. The angles have been measured in the field by an inclinometer. Table 1 shows the results.

PBP, 2019 states: - *“The effective slope is considered to be the slope under the vegetation which will most significantly influence the bush fire behaviour for each aspect. This is usually the steepest slope. In situations where this is not the case, the proposed approach must be fully justified. Vegetation located closest to an asset may not necessarily be located on the effective slope”*.

## 5.0 ENVIRONMENTAL FEATURES

The subject site is predominantly cleared, is a former rural cattle grazing property with exotic grassland present, and some limited remnant hollow bearing habitat trees present. A Biodiversity Assessment Report will be prepared. Results unknown at time of writing.

## 6.0 ABORIGINAL FEATURES

An Aboriginal archeological survey/or AHIMS search will be undertaken. Results unknown at time of writing.

## 7.0 BUSH FIRE ASSESSMENT

The legislation as it relates to this site calls for asset protection zones (APZ) to be established around the proposed development, provision of adequate access, design staging and citing of the development and provision of appropriate water supply for bush fire fighting purposes.

### 7.1 SETBACKS INCLUDING ASSET PROTECTION ZONES

Table 1 shows the bush fire risk assessment for the subject site. An Asset Protection Zone is not required in this instance as surrounding lands are managed.

**Table 1: Bush Fire Site Assessment –FDI 100**

Direction to bush hazard	to fire	Effective slope	Predominant vegetation type within 140m as per PBP 2019	Distance to hazard (from proposed development)	Required minimum asset protection zone (from Table A1.12.1 PBP, 2019)	Conforms
West		0-5° upslope	Grassland	10m	10m	√
South, east boundary of proposed lots	north, north, from boundary of proposed lots	N/A	Managed land	N/A	0m	√

Note: BAL refers to the maximum Bush Fire attack level expressed in kW/m<sup>2</sup> radiant heat flux exposure for the given slope, distance to hazard, and type of hazard (ie vegetation type and fuel load).

### 7.2 WATER SUPPLIES AND UTILITIES

The proposed dwellings over the building envelopes will be serviced by reticulated water supply, and fire hydrants in accordance with Government and Australian standards.

### 7.3 ACCESS

The site is accessed from Owlpen Road, a sealed public road.

All internal roads will be sealed, and conform to Government and Council road standards. Turning heads have been provided at road dead ends as per PBP, 2019, until further stages progress.

### 7.4 CONSTRUCTION STANDARDS

The proposed dwellings would be constructed to the relevant BAL's dependant on their location and setback to hazard. In this case as Grassland hazard present within 50m of proposed Lots 501 & 540 these dwellings only are BAL 29 or lower construction (dependant on dwelling location). All other lots are considered to be BAL LOW, with no bush fire requirements applicable.

## 7.5 OTHER FIRE PROTECTION MEASURES

Recommendations are made below to address further non-compulsory bush fire protection measures.

## 8.0 BUSH FIRE RECOMMENDATIONS

The development complies with PBP, 2019:

- ❑ Serviced by reticulated water & fire hydrants- complies with PBP, 2019.
- ❑ Serviced by overhead/underground electricity power- complies with PBP, 2019.
- ❑ Serviced by a public road –complies with, PBP, 2019.
- ❑ Asset Protection Zone – will comply with Table A1.12.2, PBP, 2019.
- ❑ All dwellings to be constructed in conformance with PBP, 2019, and all construction in accordance with AS 3959.
- ❑ Landscaping- to comply with PBP 2019 & recommendations below.

**The following non-compulsory recommendations are made:**

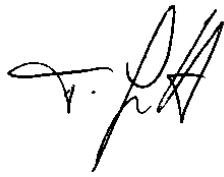
- ❑ **Design and Construction:** - The intent of measures is that buildings are designed and constructed to withstand the potential impacts of bush fire attack. To achieve this, the following conditions are recommended:
  - All proposed dwellings shall be BAL LOW, except over Lots 501 & 540. These lots are BAL 29 or lower, and should be assessed at individual dwelling DA assessment/submission when dwelling location known.
- ❑ **Asset Protection Zone:** - The intent of measures for Asset Protection Zones is to provide suitable building design, construction and sufficient space to ensure that radiant heat levels do not exceed critical limits for firefighters and other emergency services personnel undertaking operations, including supporting or evacuating occupants.
  - At the commencement of building works and in perpetuity the nominated Asset Protection Zone being Owlpen Lane (which is a public Road & already managed) shall be managed to an Asset Protection Zone standard as outlined within Appendix 4 of Planning for Bush fire 2019.
- ❑ **Access:** - The intent of measures for access roads is to provide safe operational access for emergency services personnel in suppressing a bush fire, while residents are accessing or egressing an area. To achieve this, the following conditions shall apply:
  - ❑ Internal property access road shall comply with Tables 5.3a & 5.3b & Appendix 3 Property Access Roads of 'Planning for Bush Fire Protection 2019'.
- ❑ **Water and Utilities:** - The intent of measures is to provide adequate services of water for the protection of buildings during and after the passage of a bush fire, and to locate gas and electricity so as not to contribute to the risk of fire to a building. To achieve this, the following conditions should apply:
  - Water, electricity and gas shall comply with Table 5.3c of '*Planning for Bush Fire Protection 2019*'.



- **Landscaping** - The intent of measures is landscaping is designed and managed to minimise flame contact and radiant heat to buildings, and the potential for wind-driven embers to cause ignitions. To achieve this, the following conditions should apply:
  - Landscaping to the Asset Protection Zone is to comply with the principles of Asset protection zone standards - Appendix 4 of 'Planning for Bush Fire Protection 2019'.

The bush fire risk is considered to be adequately managed through the recommendations made above, and in conjunction with recommendations/approval conditions from the NSW Rural Fire Service and Council.

Report prepared by:



Ted Smith BSc (Hons), Grad Dip, BPAD-A Certified Bush Fire Practitioner -17671  
PEAK LAND MANAGEMENT PTY LTD

**DISCLAIMER:** Whilst every effort is made to present clear and factual information based on fieldwork and current legislation no guarantee is made that the development or its occupants are safe from bush fire, or development will be approved, or to stated BAL, as this is in the hands of the approving statutory authorities/certifier. No warranty or guarantee, whether expressed or implied, is made with respect to the observations, information, findings and inclusions expressed within this report. No liability is accepted for losses, expenses or damages occurring as a result of information presented in this document.

## 9.0 REFERENCES

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Robinson, L. 2003 (3<sup>rd</sup> ed). *Field guide to the Plants of Sydney*. Kangaroo Press.

Standards Australia AS 3959-2018. *Construction of buildings in Bush Fire prone area*.

### Websites

[www.rfs.nsw.gov.au](http://www.rfs.nsw.gov.au)  
Lands Department- SIX Maps  
ePlanning  
Maitland City Council

**APPENDIX 1: PHOTOS OF SITE AND SURROUNDS**

Subject site proposed entrance access road from Owlpen Road



Owlpen Road





Reticulated water and Fire Hydrant nearby



Subject site looking south





Subject site looking north over adjoining managed lot 5



Subject site looking north –east over adjoining managed lot 5





Subject site looking north over adjoining managed lot 5



Subject site looking –east over adjoining managed lot 102





Subject site looking south over adjoining managed lot 1



Subject site looking south over adjoining managed lot 2





Looking west over Grassland over lot 189 from subject site

