

## Gateway Determination

**Planning proposal (Department Ref: PP-2022-81):** to rezone Lot 1 DP 861697, 170 Bushs Lane, Gunnedah land from RU4 Primary Production Small Lots to R5 Large Lot Residential and amend the minimum lot size.

I, the Director, Northern Region at the Department of Planning and Environment, as delegate of the Minister for Planning and Public Spaces, have determined under section 3.34(2) of the *Environmental Planning and Assessment Act 1979* (EP&A Act) that an amendment to the Gunnedah Local Environmental Plan 2012 to rezone Lot 1 DP 861697, 170 Bushs Lane, Gunnedah land from RU4 Primary Production Small Lots to R5 Large Lot Residential and amend the minimum lot size should proceed subject to the following conditions:

The Council as planning proposal authority is authorised to exercise the functions of the local plan-making authority under section 3.36(2) of the EP&A Act subject to the following:

- (a) the planning proposal authority has satisfied all the conditions of the gateway determination;
- (b) the planning proposal is consistent with applicable directions of the Minister under section 9.1 of the EP&A Act or the Secretary has agreed that any inconsistencies are justified; and
- (c) there are no outstanding written objections from public authorities.

The LEP should be completed within nine months from the date of the Gateway determination.

### Gateway Conditions

1. Prior to community consultation:

- (a) the planning proposal is to be updated to:
  - (i) remove references to the New England North West Regional Plan 2036 and address the New England North West Regional Plan 2041;
  - (ii) address the Gunnedah Local Environmental Study (Bridging Report) 2010 which incorporates the Gunnedah Shire Rural Lands Strategy;
  - (iii) remove references to and any mapping related to the concept subdivision;
  - (iv) identify an upgrade to the pumping capacity at Links Road Reservoir is required and execution of a VPA will guarantee the land will be serviced by Council's reticulated water supply;
  - (v) extend the proposed land zoning and minimum lot size to the Bushs Lane and Hunts Road, road reserves adjoining the land;
  - (vi) reduce the proposed minimum lot size to less than 1 hectare;
  - (vii) update the project timeframe table;
  - (viii) address consolidated State Environmental Planning Policies; and
  - (ix) address the recommendations of the reports required by condition 1(b).

(b) prepare reports in relation to:

- (i) contamination; and

- (ii) aboriginal cultural heritage.
2. Public exhibition is required under section 3.34(2)(c) and clause 4 of Schedule 1 to the Act as follows:
- (a) the planning proposal is categorised as standard as described in the *Local Environmental Plan Making Guidelines* (Department of Planning and Environment, 2022) and must be made publicly available for a minimum of 20 working days; and
  - (b) the planning proposal authority must comply with the notice requirements for public exhibition of planning proposals and the specifications for material that must be made publicly available along with planning proposals as identified in *Local Environmental Plan Making Guidelines* (Department of Planning and Environment, 2022).
3. Consultation is required with the following public authorities and government agencies under section 3.34(2)(d) of the Act and/or to comply with the requirements of applicable directions of the Minister under section 9 of the EP&A Act:
- Red Chief Local Aboriginal Land Council
  - Transport for NSW
  - NSW Department of Primary Industries – Agriculture
  - Biodiversity and Conservation Division
  - Mining, Exploration and Geoscience
  - Essential Energy
  - Transgrid
- Each public authority is to be provided with a copy of the planning proposal and any relevant supporting material via the NSW Planning Portal and given 30 days to comment on the proposal.
4. A public hearing is not required to be held into the matter by any person or body under section 3.34(2)(e) of the EP&A Act. This does not discharge Council from any obligation it may otherwise have to conduct a public hearing (for example, in response to a submission or if reclassifying land).

Dated 23 day of June 2023.



**Jeremy Gray**  
**Director, Northern Region**  
**Local and Regional Planning**  
**Department of Planning and Environment**

**Delegate of the Minister for Planning and**  
**Public Spaces**



**Planning Proposal/Gateway Application**  
Made under the Environmental Planning and Assessment Act 1979

LAST UPDATED 21 MAY 2019

Date: 10-1-22

**APPLICANT DETAILS**

Name: Ryan Pryde C/- Stewart Surveys  
Mailing Address: [REDACTED]  
Suburb: Gunnedah State: NSW Postcode: 2380  
Telephone: [REDACTED] Mobile: [REDACTED]  
Email: [REDACTED]

**DETAILS OF THE LAND OWNER**

Name: Ryan Pryde & Nancy Williams  
Mailing Address: [REDACTED]  
Suburb: [REDACTED] State: [REDACTED] Postcode: [REDACTED]  
Telephone: [REDACTED] Mobile: [REDACTED]  
Email: [REDACTED]

**LAND TO BE DEVELOPED**

Address: 170 Bushs Lane, Gunnedah  
Lot No: 1 DP/MPS No: DP861697 Parish: Gunnedah

**FULL DESCRIPTION OF PLANNING PROPOSAL**

To amend the Gunnedah Local Environmental Plan, 2012 to enable the redevelopment of Lot 1 in DP861697, for Large Lot Residential holdings with a minimum lot size of 1.2 hectares.

**APPLICANT'S DECLARATION**

I/We the undersigned hereby apply for development consent and a construction certificate in relation to the development proposal described hereon and in the plans, specifications and documents accompanying the application.

I/We undertake to develop in accordance with the development consent approval granted by Council and conform with the provisions of the relevant Acts, Regulations, Codes and Local Environmental Plan.

Name(s): Ryan Pryde Nancy Williams

Office (e.g. Director): LAND OWNERS

Signature(s): [REDACTED] Date: 10-1-22

### OWNER'S DECLARATION

I/We further undertake to indemnify against all claims arising from negligence (or otherwise) resulting from work carried out in connection with the development within the road reserve.

I/ We the undersigned are the owner(s) of the property described in this application and consent to its lodgement.

I/We hereby permit and duly authorise officers of the Gunnedah Shire Council to enter the land or premises to carry out inspections and surveys or take measurements or photographs as required for the administration of the Act(s), Regulations or Planning Instrument.

Name(s) Ryan Pryde & Nancy Williams

Office (e.g. Director):

LAND OWNERS

Signature:

Date:

10-1-22

### DISCLOSURE OF POLITICAL DONATIONS AND GIFTS

Amendments made to the Local Government Act 1993 and Environmental Planning & Assessment Act 1979 in relation to political donations and gifts will become effective from 1 October 2008.

These introduce obligations on applicants, those making submissions and decision makers in relation to the disclosure of information relating to political donations and gifts during the plan making or development assessment process.

When must an applicant/proponent make a disclosure?

A disclosure must be made by any person who has a financial interest in a planning application and who has made a reportable political donation in the 2 years before a planning application is made and/or determined.

When must a person making a submission make a disclosure?

Any submissions must include disclosure of any reportable political contribution or gift made in the previous two years, and up to the time the application is determined, by you or your associate to anyone including:

- (i) all reportable political donation made to any local councillor of the council
- (ii) all gifts made to any local councillor or employee of that council.

A reportable political donation made to a local councillor of any local council includes any donation made at the time the person was a candidate for election to the council.

You are advised that a person is guilty of an offence under s125 of the Environmental Planning & Assessment Act 1979 if the person fails to make a disclosure of a reportable political donation or gift if it is reasonable for that person to know such a reportable donation or gift should have been disclosed. It is also an offence to make a false statement. Currently, the maximum penalty is \$22,000 or imprisonment for 12 months, or both.

A blank disclosure statement which meets the requirements of the legislation is provided on the backside of this information. If you require any further information as to the definition of terms used, or clarification of your obligations, the Guideline produced by the Department of Planning may be obtained from their web-site – [www.planning.nsw.gov.au](http://www.planning.nsw.gov.au), or a printed copy obtained from Council's Customer Services Centre.



Application No: ..... Date Disclosure Made: .....

## DISCLOSURE STATEMENT OF POLITICAL DONATIONS AND GIFTS

A disclosure statement of a reportable political donation or gift must accompany a planning application or submission if the reportable donation or gift is made within 2 years before the application or submission is made. If the donation or gift is made after the lodgement of the application, a disclosure statement must be sent to the relevant consent or approval authority within 7 days after the donation or gift is made.

Name of the person making donation or gift: ..... **NO DONATIONS MADE**

Residential address or Registered/official office: .....

ABN if not an individual: .....

Name/address of development application or planning matter: .....

Date application lodged: .....

Consent or approval authority: **Gunnedah Shire Council**

Person's interest in application: .....

Applicant: .....

Person with *financial interest* (explain): .....

Person making submission in opposition: .....

Person making submission in support: .....

Name of the person to benefit from the donation	Date donation made	Amount of the donation*
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....

Name of the person to whom gift is made	Date gift made	Amount or value of the gift*
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....

\*Note: A reportable political donation of:

- \$1,000 or more made to or for the benefit of the party, elected member, group or candidate; or
- \$1,000 or more made by a major political donor to or for the benefit of a party, elected member, group or candidate; or
- Less than \$1,000 if the aggregated total of the donation made by the entity or person to the same party, elected member, group, candidate or person within the same financial year (ending 30 June) is \$1,000 or more.

## Applicant details

Title	Mr
First given name	Ryan
Other given name/s	
Family name	Pryde
Contact number	[REDACTED]
Email	[REDACTED]
Address	[REDACTED]
Is the applicant a company?	Yes
Name	STEWART SURVEYS PTY. LTD.
ABN	65002886508
ACN	002886508
Trading Name	

## Subject Land

What land does the planning proposal apply to?	Individual properties (five or less lots) within the LGA
Which LGA does the proposal relate to?	GUNNEDAH

## Type of Planning Proposal

What controls does the planning proposal relate to ?	The planning proposal relates to map based planning provisions
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## Select the site of the development

Site address #	1
Street address	170 BUSHES LANE GUNNEDAH 2380
Local government area	GUNNEDAH
Lot / Section Number / Plan	1 / - / DP861697
Primary address?	Yes
Planning controls affecting property	<p>Land Application LEP</p> <p>Land Zoning</p> <p>Height of Building</p> <p>Floor Space Ratio (n:1)</p> <p>Minimum Lot Size</p> <p>Heritage</p> <p>Land Reservation Acquisition</p> <p>Foreshore Building Line</p> <p>Land near Electrical Infrastructure</p>

### Planning Proposal - subject provisions

Which planning provisions does the planning proposal seek to amend? (select all that apply)	Land use zone Minimum lot size
Please provide a brief description of the effect of the planning proposal	It is proposed to rezone the land from RU4 Primary Production Small Lots, with a minimum lot size of 10ha to R5 Large Lot Residential with a minimum lot size of 1.2ha

### Prelodgement meeting

Has a pre-lodgement meeting occurred?	Yes
Meeting Date	11/01/2022
Planning Officer	Ashleigh Nixon & Blake O'Mullane

### Voluntary Planning Agreement

Is the application accompanied by a voluntary planning agreement (VPA)?	No
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### Pecuniary interest

Is the applicant or owner an employee or councillor of the council assessing the application?	No
Does the applicant or owner have a relationship with any staff or council or of the Councillor assessing the application?	No

### Political Donations

Are you aware of any person who has financial interest in the application who has made a political donation or gift in the last two years?	No
--	----

### Payer details

First name	Ryan
Other given name/s	
Family name	Pryde
Contact number	
Email	
Billing address	

### Application documents

The following documents support the application

Document type	Document file name
Draft Planning Proposal	5608_Rezoning Application_Report 5608_Appendix
Other	5608_Gateway Application Ltr to GSC
Owner's consent	5608_DAsigned

### Declarations

I declare that all the information in my application and accompanying documents is, to the best of my knowledge, true and correct.	Yes
I understand that the application and the accompanying information will be provided to the	

appropriate consent authority and relevant agency(ies) for the purposes of the assessment of this application.	Yes
I understand that if incomplete, the consent authority may request more information, which will result in delays to the application.	Yes
The Planning Proposal authority may use the information and materials provided for notification, advertising purposes, and may be made available to the public for inspection. Information related to the application may also become available via NSW Planning Portal.	Yes
I acknowledge that copies of this application and supporting documentation may be provided to interested persons in accordance with the Government Information (Public Access) 2009 (NSW) (GIPA Act) under which it may be required to release information which you provide to it.	Yes
I have read and agree to the collection and use of my personal information as outlined in the	Yes

EXHIBITION COPY





## GATEWAY APPLICATION

# PLANNING PROPOSAL

**PROPOSED REZONING LOT 1 IN DP861697**

**170 BUSHES LANE, GUNNEDAH**

**DATE: 13 SEPTEMBER 2023 - VERSION 6**

**FROM RU4 TO R5 LARGE LOT RESIDENTIAL WITH A MINIMUM LOT SIZE  
OF 9000M<sup>2</sup>**

**PREPARED FOR:**

**GUNNEDAH GATEWAY DEVELOPMENTS**

**PREPARED BY:**

Stewart Surveys Pty Ltd  
107-109 Conadilly Street,  
PO Box 592  
GUNNEDAH NSW 2380  
office@stewartsurveys.com

Stewart Surveys Reference 5608

## REPORT PREPARATION

---

Name: **Kathryn Stewart**

Qualifications: Bachelor of Landscape Architecture (UNSW)  
Masters of Environmental Management (UNSW)  
Registered Landscape Architect (#001493)

Company: **Stewart Surveys Pty Ltd**  
ABN: 65 002 886 508  
PO Box 592, Gunnedah NSW 2380  
(02) 6742 2966  
[office@stewartsurveys.com](mailto:office@stewartsurveys.com)

This Gateway Application Planning Proposal has been prepared by our office to accompany a council application. To the best of our knowledge, the content of this statement is true in all material particulars and does not, by its presentation or omission of information, materially mislead.

## SITE PARTICULARS

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Lot Particulars: **Lot 1 DP861697**

Address: **170 Bushs Lane, Gunnedah**

Local Government Area: **Gunnedah**

Land Owners: **Ryan Peter Pryde**  
**Nancy Faye Margaret Williams**

Date: **Version 6: 13 September 2023**  
Version 5: 31 August 2023  
Version 4: 22 August 2023  
Version 3: 3<sup>rd</sup> May 2022  
Version 2: 13 January 2021  
Version 1: 10 December 2021

## CONTENTS

INTRODUCTION	3
SUBJECT SITE PARTICULARS	3
PART ONE – OBJECTIVES AND INTENDED OUTCOMES	8
PART TWO – EXPLANATION OF PROVISIONS	8
PART THREE – JUSTIFICATION OF STRATEGIC AND SITE SPECIFIC MERIT	10
SECTION A – NEED FOR PLANNING PROPOSAL	16
SECTION B – RELATIONSHIP TO STRATEGIC PLANNING FRAMEWORK	16
SECTION C – ENVIRONMENTAL SOCIAL AND ECONOMIC IMPACT	28
SECTION D – INFRASTRUCUTRE (LOCAL, STATE AND COMMONWEALTH)	34
SECTION E – STATE AND COMMONWEALTH INTERESTS	34
PART FOUR – MAPS	34
PART FIVE – COMMUNITY CONSULTATION	34
PART SIX – PROJECT TIMELINE	35
CONCLUSION	36
REFERENCES	37

### List of Figures

Figure 1: Deposited Plan 861697 .....	4
Figure 2: Aerial Photograph of the site .....	4
Figure 3: Overview of 170 Bushs Lane, Gunnedah (Source: Realestate.com.au) .....	5
Figure 4: Photo of residence (Source: Realestate.com.au) .....	5
Figure 5: Site Photo from intersection of Bushs Lane and Hunts Road looking across the property .....	6
Figure 6: Photo from Bushs Lane at property entrance .....	6
Figure 7: Current Zoning Map (extract from LZN-005A) .....	7
Figure 8: Current Lot Size Map (extract from LSZ_005A) .....	8
Figure 9: Proposed Land Zoning amendment to Map LZN-005A .....	9
Figure 10: Proposed Lot Size Map Amendment to LSZ_005A .....	10
Figure 11: Residential Development Structure Plan (Insight - Gunnedah Urban Landuse Strategy, Vol. 4, June 2016) ..	11
Figure 12: Recommendations for new residential Development 2023 Gunnedah Shire Local Housing Strategy .....	12
Figure 13: Dial Before you Dig Search (Gunnedah Shire Council) .....	14
Figure 14: Flood Planning under the Gunnedah Local Environmental Plan, 2012 (Eplanning Portal) .....	17
Figure 15: Bushfire Prone Land (Eplanning Portal) .....	17
Figure 16: Mine Subsidence District .....	22
Figure 17: Mining Leases surrounding the site (Min View) .....	23
Figure 18: Topographic Map (Source: Wondoba 8935-4N GeoPDF Topographic Map 2017 Edition) .....	23
Figure 19: Vegetation Mapping (Seed Portal) .....	28
Figure 20: Map showing Koala Sightings .....	30
Figure 21: Map showing Spotted-tailed quoll, Grey headed flying fox and Corben's long-eared Bat sightings .....	30
Figure 22: Map showing Border thick tailed Gecko, Pink-tailed legless lizard, Latham's Snipe, Swift Parrot and Painted Honeyeater sightings .....	31
Figure 23: Biodiversity Offset Scheme Entry Threshold Map .....	32

## List of Tables

Table 1: State Environmental Planning Policy (SEPP) application to this planning proposal.....	18
Table 2: Table of Vulnerable or Critically endangered fauna observed around the site.....	29
Table 3: NSW EPA Record of Notices in the Gunnedah Shire Council LGA .....	33

## INTRODUCTION

This Gateway Application has been prepared for the applicant Mr Ryan Pryde and Ms Nancy Williams by Stewart Surveys Pty Ltd.

The land to which this application applies is Lot 1 in DP861697, located at 170 Bushs Lane, Gunnedah on the corner of Bushs Lane and Hunts Road. Lot 1 in DP 861697 is located within the zone RU4 Primary Production Small Lots with a minimum lot size of 10 hectares under the Gunnedah Local Environment Plan, 2012 (hereby referred to as GLEP, 2012). The land also comes under the provisions of the Gunnedah Development Control Plan 2012 (referred to as the DCP). Planning proposals are prepared under section 3.4 of the Environmental Planning and Assessment Act 1979.

The site contains a single residence and associated outbuildings. It has a history of being utilised as a hobby farm block stocking horses. Aerial and site photographs in this report illustrate the existing character of the subject site.

This gateway application has been prepared in accordance with the document *Local Environmental Plan Making Guideline*, published by the NSW Department of Planning, Industry and Environment in December 2021 hereby referred to as the guideline.

In accordance with section 3.33 (2) of the Environmental Planning and Assessment Act, 1979 and the guideline this application is presented in the following format:

- Part 1 – Objective or intended outcome
- Part 2 – Explanation of the provisions
- Part 3 – Justification of strategic and site-specific merit
- Part 4 – Maps
- Part 5 – Community Consultation
- Part 6 – Project Timeline

## SUBJECT SITE PARTICULARS

The subject site is irregular in shape with an area of 16.99 hectares. It has 677.58 metres frontage to Bushs Lane and 191.06 metres frontage to Hunts Road. The depth of the block varies with a width of 302 metres along the western boundary. The property can be described as a small rural holding with one residence and a number of associated outbuildings. The residence is accessed from Bushs Lane which is of gravel formation. The property is stocked with horses and contains some yards at the rear of the residence. **Figure 1 to Figure 6** show the character of the subject site.

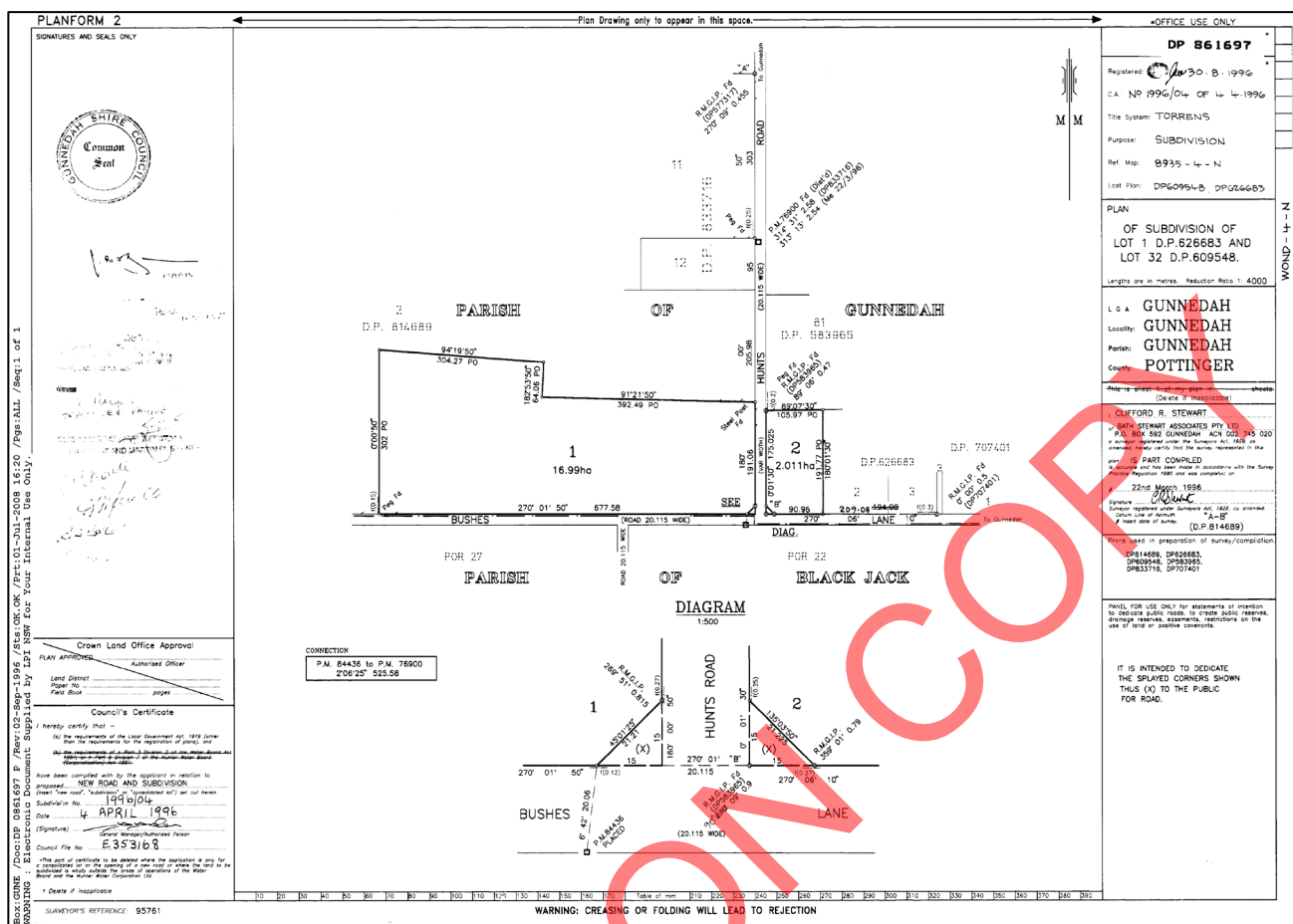


Figure 1: Deposited Plan 861697

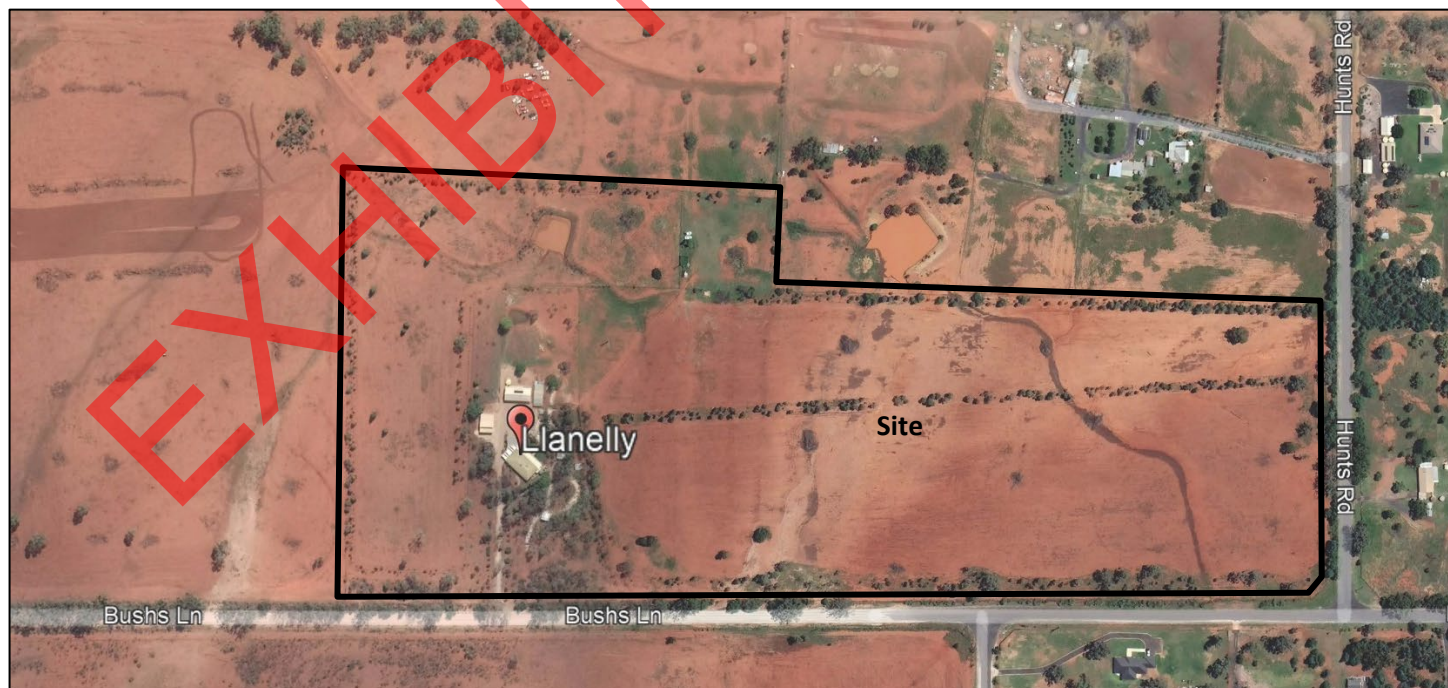


Figure 2: Aerial Photograph of the site





Figure 3: Overview of 170 Bushs Lane, Gunnedah (Source: Realestate.com.au)



Figure 4: Photo of residence (Source: Realestate.com.au)





Figure 5: Site Photo from intersection of Bushs Lane and Hunts Road looking across the property



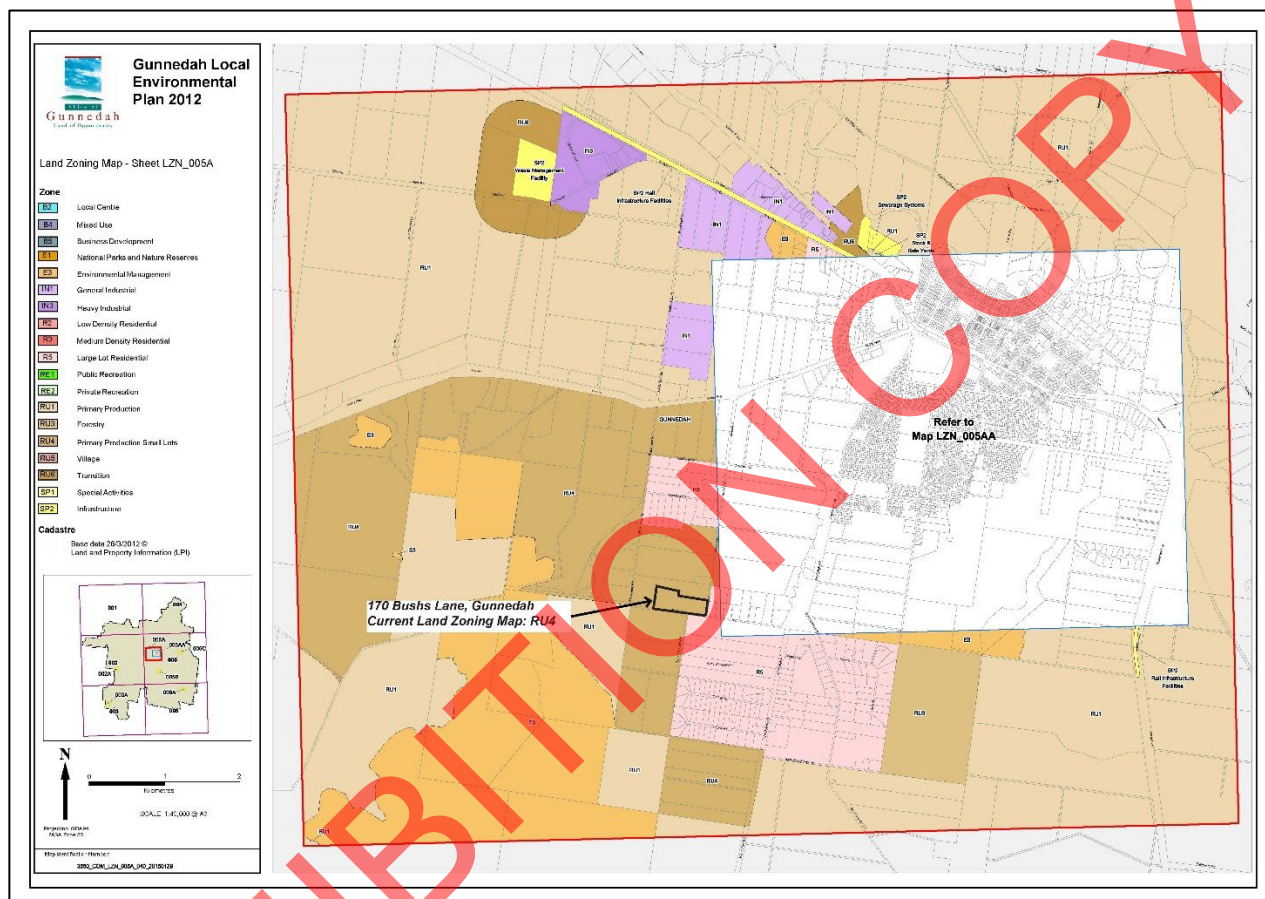
Figure 6: Photo from Bushs Lane at property entrance



This gateway applies to the following lots:

Lot No.	DP	Zoning	Minimum Lot Size
1	861697	RU4	10ha

**Figure 7** illustrates the current zoning of the subject site as illustrated in the Gunnedah Local Environment Plan 2012 Map LZN-005A. **Figure 8** illustrates the current lot size for the subject site as illustrated in the GLEP, 2012 Map LSZ-005A. Full scale map appended to this report.



**Figure 7: Current Zoning Map (extract from LZN-005A)**



## Objective

## Intended Outcomes

- The proposed outcome will be achieved by:

- Amending the Gunnedah Local Environmental Plan, 2012 Land Zoning Map LZN-005A on Lot 1 in DP861697, being 170 Bushes Lane, Gunnedah to R5 Large Lot Residential in accordance with the proposed zoning map shown in **Figure 9**; and
- Amending the Lot Size Map LSZ – 005A on Lot 1 in DP861697, being 170 Bushes Lane, Gunnedah to “Y” 9000m<sup>2</sup> in accordance with the proposed lot size map shown in **Figure 10**.

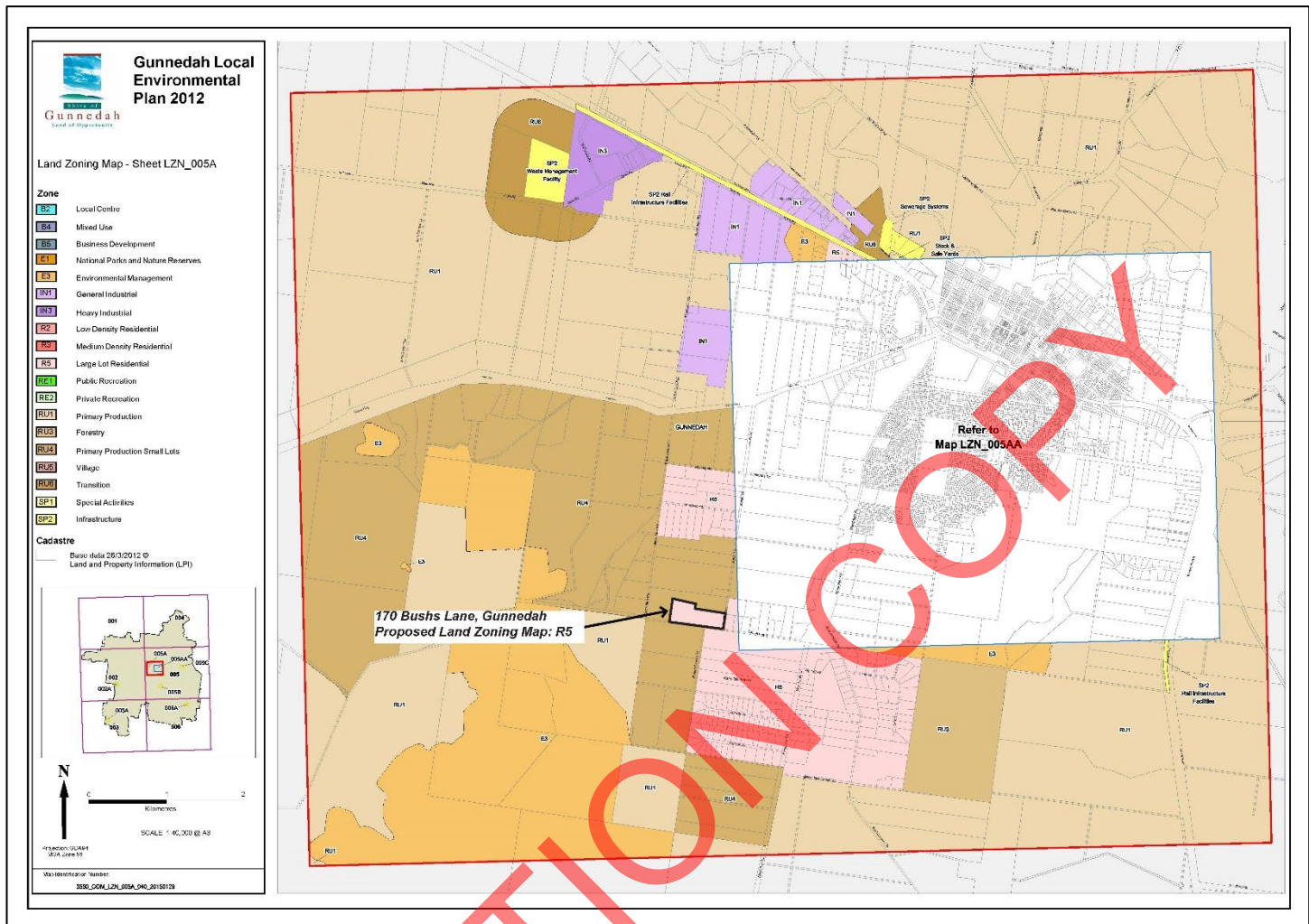


Figure 9: Proposed Land Zoning amendment to Map LZN-005A.

### Proposed zoning

Lot No.	DP	Proposed Zoning
1	861697	R5 – Large Lot Residential



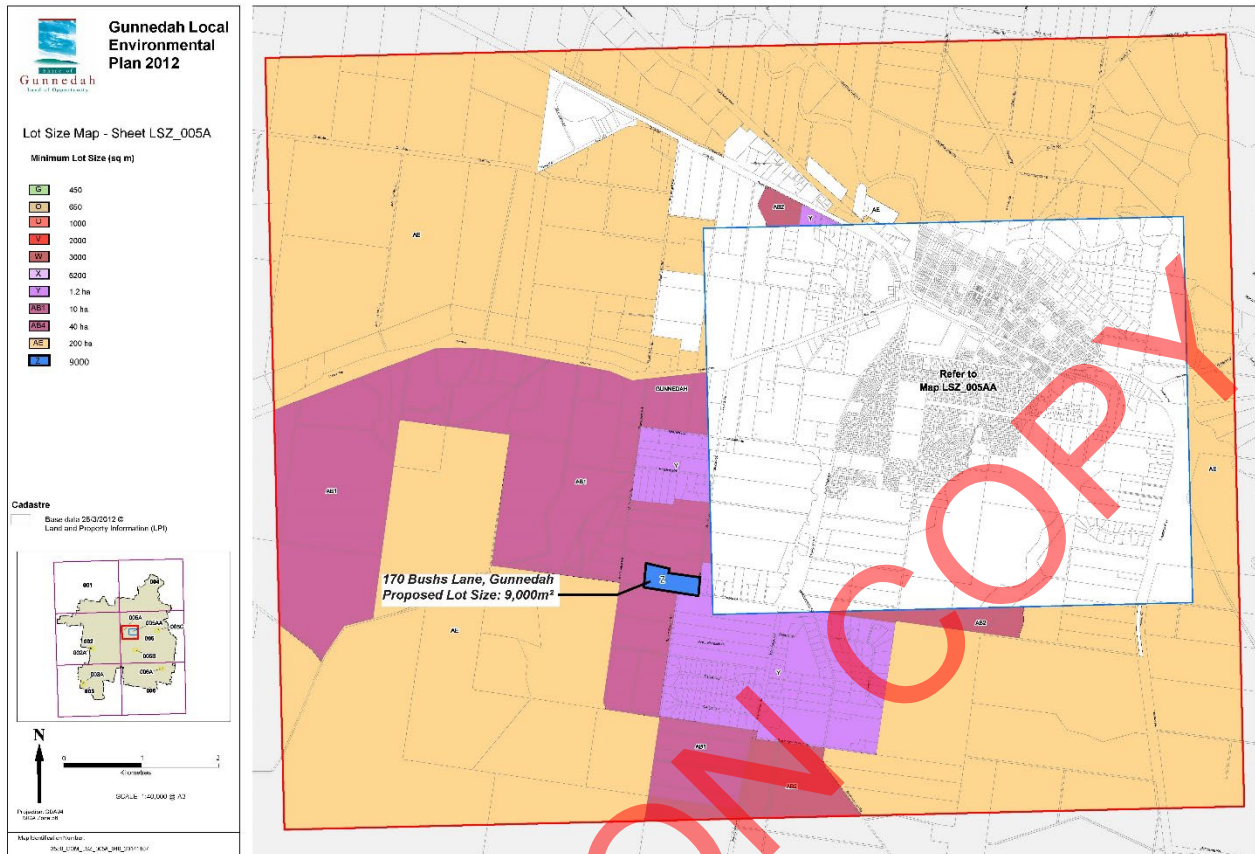


Figure 10: Proposed Lot Size Map Amendment to LSZ\_005A

#### Proposed Minimum Lot Size

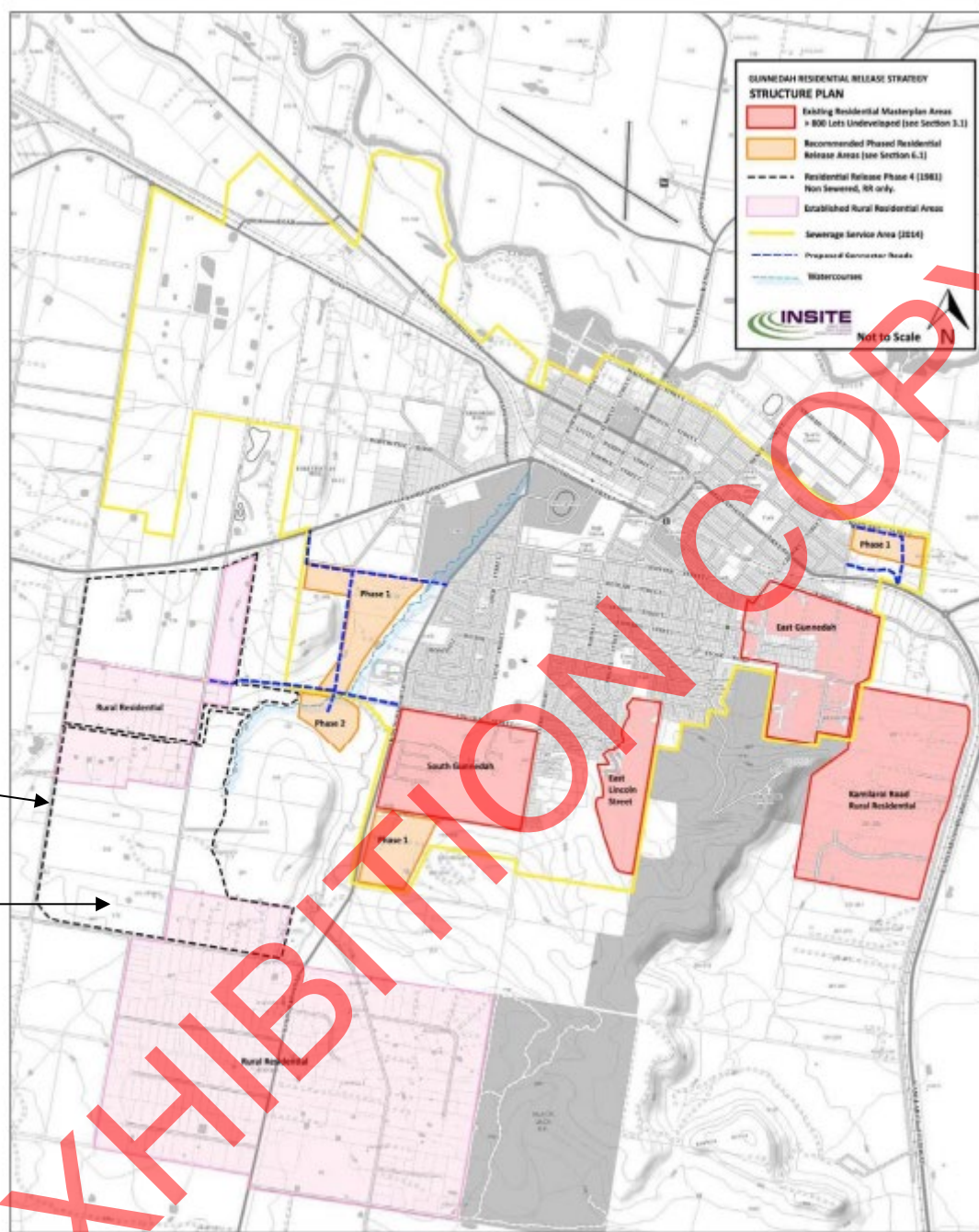
Lot No.	DP	Proposed Zoning
1	861697	Y – 9000m <sup>2</sup>

### PART THREE – JUSTIFICATION OF STRATEGIC AND SITE SPECIFIC MERIT

The subject site is located in a current area of large lot residential development with adjoining land along Bushs Lane, Robert Gordon Drive and Kerry Elizabeth Drive all containing 1.2 hectare large lot residential holdings. Demand for this sized holding has been high and available lots of this size currently on the residential market are very low. The subject site is an ideal extension of the existing landuse pattern in the area of south Gunnedah.

The site has been identified in Landuse Planning strategies since 1981 as a residential release area. The current land use strategy to guide the future residential development of Gunnedah is the Gunnedah Urban Landuse Strategy Volume 4, dated June 2016, prepared by Insite. The subject site is identified in this report as a residential release area. **Figure 11** is an extracted diagram showing the site.

## 10. Residential Development Structure Plan



Residential  
Release Area

Subject  
Site

**Figure 11: Residential Development Structure Plan (Insight - Gunnedah Urban Landuse Strategy, Vol. 4, June 2016)**

The adopted 2023 Gunnedah Shire Local Housing Strategy, prepared by Elton Consulting references to the subject site as an opportunity for additional R5 as per 1981 plan. It is also noted that council should consider reducing the minimum lot size to less than one hectare. **Figure 12** show an extract from this report.



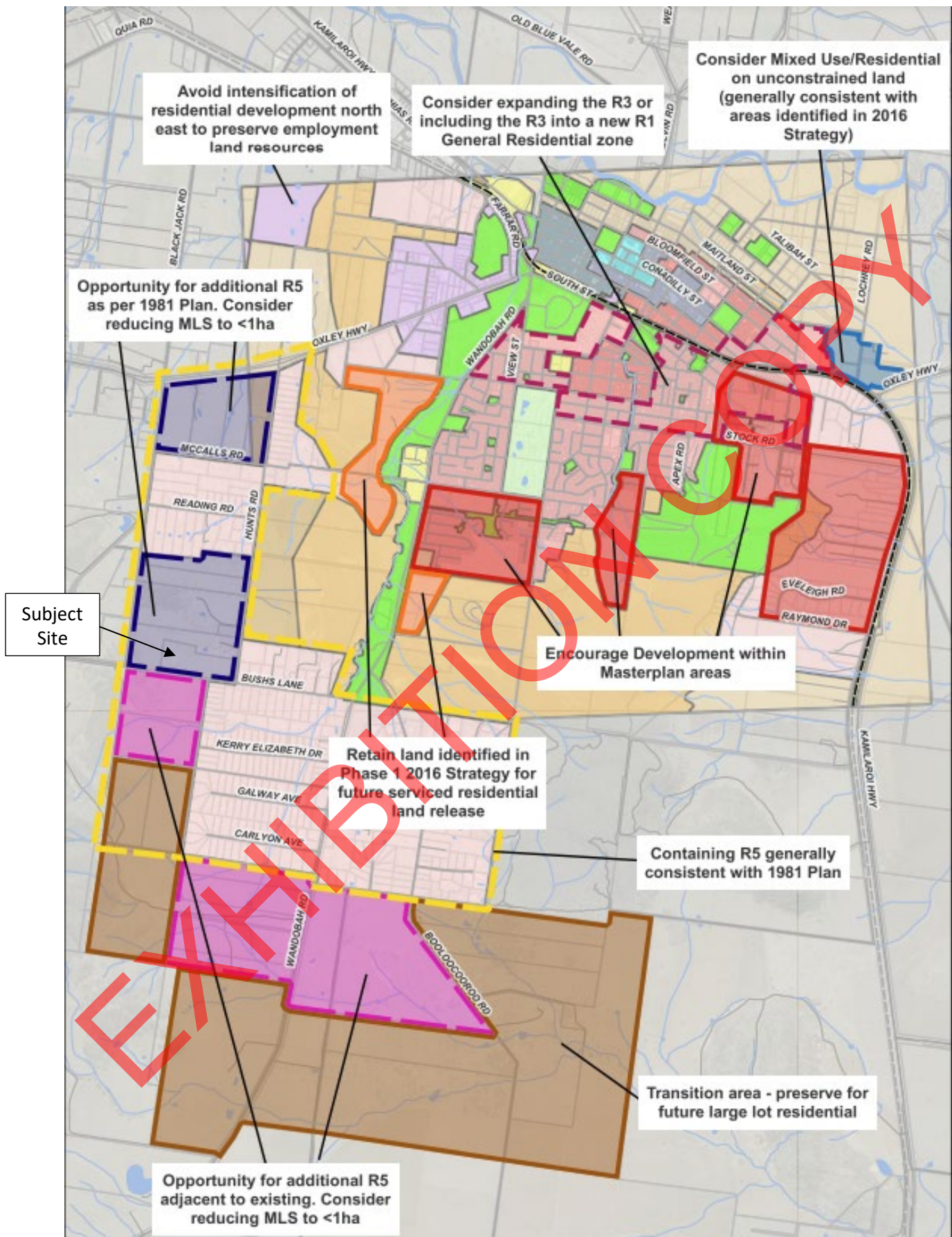


Figure 12: Recommendations for new residential Development 2023 Gunnedah Shire Local Housing Strategy

A review of the current and historical land use planning for Gunnedah shows that the site has been earmarked for large lot residential development since 1981, it is therefore consistent with the planned and logical expansion of Gunnedah's Residential area and has strategic merit.

#### **Gunnedah Local Environmental Study Bridging Report 2010 & Gunnedah Shire Rural Lands Strategy 2007**

These two strategic reports were prepared prior to the rezoning of land in the Gunnedah Local Environmental Plan, 2012. The reports were prepared to guide the rezoning and to aid council to make strategic decisions to promote community and economic growth and facilitate development whilst implementing sound environmental management principals. The bridging report brings together the findings and objectives of a number of past strategies including the Rural Lands Strategy, identified that Gunnedah was in decline, circa 2003, and new residential lot demand was two (2) per year with available supply in 2010 of 175 lots.

As there was low demand for residential lots at the time, the bridging document recommended that no further rural residential land should be release on the fringes, noting there was sufficient supply of residential land to cater for demand. The report further notes the once "future urban" land is taken up rezoning is supported.

The bridging study identified a number of small rural holdings which were not viable or productive due to their size. It recommended that productive rural holdings have an area of 200 hectares and intensive rural uses had an area of 10 hectares. For rural residential land, zoned 1 (c) at the time of the report, now zoned R5 Large Lot Residential, a minimum lot size of 0.6 hectares with an average lot size of 1.2 hectares across a development was recommended.

The subject site was identified in the rural small lot zone with a minimum lot size of 10 hectares. This recommendation was actioned in the Gunnedah Local Environmental Plan, 2012. The holding has an area of 16.99 hectares and could be capable of running 5-7 head of cattle as an agricultural pursuit. The property is not capable of sustaining employment on its own. There has been a shift in demand for rural residential land in Gunnedah and the land identified as "Future Urban" in the 2010 bridging report has been taken up. Therefore, rezoning of land on the fringe of the Gunnedah urban development is consistent with Gunnedah Local Environmental Study Bridging report and given the size of the land we do not believe it is viable for agricultural pursuits due to its size and location.

The strategy outlines to "provide for sustainable rural living whilst recognising economic, social, environmental, rural matters and purposes. The bridging document suggests the following actions: Provide for new rural residential development where appropriate services can be provided and impacts can be minimised. We have reviewed the Gunnedah Local Environmental Study Bridging Report 2010 and Gunnedah Shire Rural Lands Strategy 2007 and believe the proposed rezoning is consistent with these reports.

#### **Gunnedah Local Environmental Plan, 2012 R5 Large Lot Residential Zone**

The objectives of the R5 Large Lot Residential zone under the GLEP, 2012 are:

- To provide residential housing in a rural setting while preserving, and minimising impacts on, environmentally sensitive locations and scenic quality.
- To ensure that large residential lots do not hinder the proper and orderly development of urban areas in the future.
- To ensure that development in the area does not unreasonably increase the demand for public services or public facilities.
- To minimise conflict between land uses within this zone and land uses within adjoining zones.
- To provide a restricted range of opportunities for employment, development and community facilities and services that do not unreasonably or significantly detract from—
  - (a) the primary residential function, character and amenity of the neighbourhood, and
  - (b) the quality of the natural and built environments.

We have provided an explanation on how the proposed development will meet the objectives of the R5 zone below.

To provide residential housing in a rural setting while preserving, and minimising impacts on, environmentally sensitive locations and scenic quality.

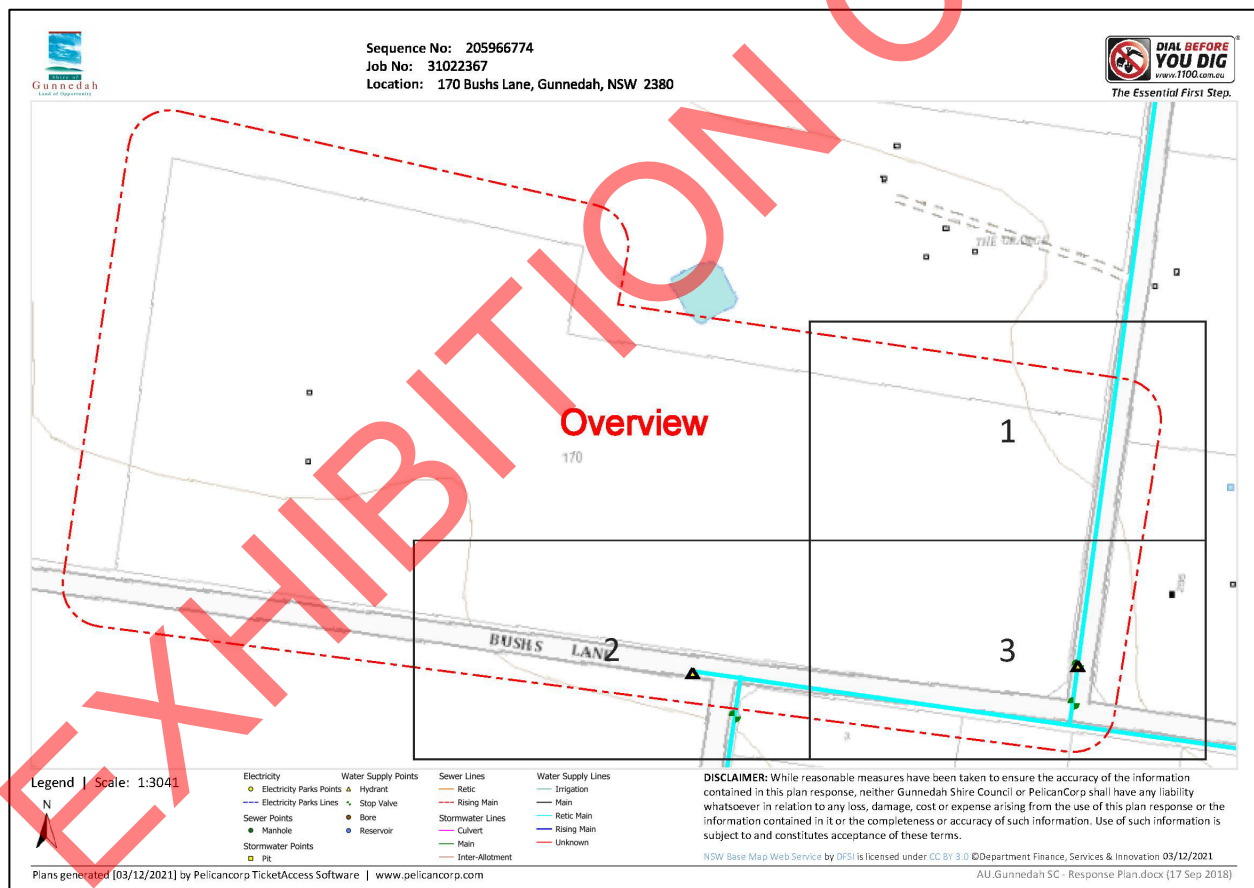
Initial review and searches of the subject site area have not identified any environmentally sensitive areas on the subject site. The site is not located on a hill and therefore, we don't believe the location has high scenic quality with visibility being restricted to Bushs Lane, Hunts Road and the adjoining properties. Therefore, we believe the proposed rezoning of this property will provide additional residential housing in a rural setting with minimal impact on environmentally sensitive locations and scenic quality.

To ensure that large residential lots do not hinder the proper and orderly development of urban areas in the future.

The proposed development site is located adjacent to the existing R5 zone along Bushs Lane. As the subject site has two road frontages it allows for development along these existing frontages in an orderly extension of the existing R5 zone, which is consistent with Gunnedah's residential land use strategic planning.

To ensure that development in the area does not unreasonably increase the demand for public services or public facilities.

The subject site is located in a reticulated water supply area with a main extending from Bushs Lane along Hunts Road to Reading Road. The developer will extend this service within the road reserve along Bushs Lane to service his development. The existing services surrounding the site are shown in the dial before you dig search **Figure 13**.



**Figure 13: Dial Before you Dig Search (Gunnedah Shire Council)**

There are upgrade requirements to the Links Road water reservoir to enable adequate water delivery to this development. The proponent (Mr R. Pryde and Ms N. Williams) have entered a Voluntary Planning Agreement (VPA) with Gunnedah Shire Council. This document is titled:



*Deed 170 and 210 Bush's Lane Planning Agreement Planning Agreement under s7.4 of the Environmental Planning and Assessment Act 1979, Gunnedah Shire Council, 2728 Pty Ltd, Ryan Peter Pryde and Nancy Fay Margaret Williams Date: 10 August 2023*

In essence this VPA outlines that the developer will pay upfront for the required upgrades to the Links Road Reservoir and council will discount the headworks contributions for water to the same monetary value for the development. This VPA will guarantee the land can be serviced by Council's reticulated water supply.

The subject site is not located in a reticulated sewer area and the Gunnedah DCP requires onsite sewerage management systems to be installed at the time of house construction.

The proposed rezoning of this property and subsequent development consent for the subdivision will condition the developer to extent the water services to each new lot at no cost to the public. The upgrade of this section of road by the developer would improve public facilities in this area and meet the increased demand on the road and expectations of surrounding residences.

We believe, based on our past consultation with Gunnedah Shire Council's Infrastructure and Development team, that the proposed development can be serviced by current infrastructure with extensions required under the DCP at no unreasonable cost to the public. The increased demand on infrastructure will be offset by the developer headworks contributions paid at the time of subdivision.

The public road network surrounding the site includes bitumen seal to Hunts Road for the full extent of the development and to part of Bushs Lane extending from the intersection of Hunts Road to the intersection of Robert Gordon Drive. A subsequent development application and consent will require the developer to provide a bitumen sealed road in accordance with Gunnedah Shire Council's engineering and subdivision guidelines to the gravel section of Bushs Lane resulting in bitumen sealed road frontage across this property.

*To minimise conflict between land uses within this zone and land uses within adjoining zones.*

The subject site is currently zoned RU4 Primary Production Small Lots with a minimum lot size of 10 hectares. The land adjoining the subject site is currently zoned R5 Large Lot Residential and RU4 Primary Production Small Lots. Currently there are a number of areas in Gunnedah where the R5 and RU4 zones join with no land use conflicts, therefore, we don't expect the rezoning to result in any land use conflicts on the surrounding RU4 zoned land.

*To provide a restricted range of opportunities for employment, development and community facilities and services that do not unreasonably or significantly detract from—*

- (a) the primary residential function, character and amenity of the neighbourhood, and*
- (b) the quality of the natural and built environments*

The proposed development will enable future development aligned with the R5 permitted uses in accordance with this objective.

We have reviewed this planning proposal against the objectives of the R5 Large Lot Residential zone of the Gunnedah Local Environmental Plan, 2012 and we believe this development is consistent with the objectives of the zone.

## SECTION A – NEED FOR PLANNING PROPOSAL

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Section A of the guideline outlines the need for the planning proposal criteria.

This planning proposal aims to give effect to the long term strategic planning for residential development in Gunnedah. There is a shortage of large lot residential land available in Gunnedah with high demand for this sized holding. This planning proposal will allow the potential for 13 additional residential holdings in an area of Gunnedah which has been planned for residential development in strategic planning since 1981.

It is believed that this proposal is the best means for achieving the intended outcome of redevelopment of Lot 1 in DP861697, for Large Lot Residential holdings with a minimum lot size of 9000m<sup>2</sup>. The planning proposal is the legal method of amending the Gunnedah Local Environment Plan 2012 to enable development of the subject site.

## SECTION B – RELATIONSHIP TO STRATEGIC PLANNING FRAMEWORK

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Section B of the guideline requires a review of the proposal to any regional or sub-regional strategies. Gunnedah Shire Council is subject to the regional strategy: *New England North West Regional Plan 2041 (NENW RP, 2041)*. This regional plan sets a 20 year strategic land use planning framework for the region, aiming to protect and enhance the region's assets and plans for a sustainable future.

The vision statement of the strategic plan outlines the rich agricultural base of the region, being one of Australia's most productive agricultural regions, protection of the diverse natural environment, provision of attractive, safe, well connected and prosperous communities and a strong education base.

*"The plan identifies that the region will experience challenges due to climate change, hazards and ageing populations in the next 20 years and the plan aims to respond to these challenges in a constructive and pragmatic way to minimise exposure to hazards, diversify the economy, build community and infrastructure resilience, safeguard water security and plan for a sustainable future."*

Key parts of the strategy, aligned to deliver the vision, in which this planning proposal helps to deliver are:

*Part 1: Growth, change and opportunity.*

*Objective 1: Coordinate land use planning for future growth, community need and regional economic development.*

*Part 4: Housing and Place*

*Objective 13: Provide well located housing options to meet demand.*

*Objective 14: Provide more affordable and low-cost housing.*

*Objective 15: Understand, respect, and integrate Aboriginal culture and heritage.*

### **Part 1 Growth Change and Opportunity**

Part 1 Growth Change and Opportunity is met by identifying growth needs and opportunities and direct land suitable to accommodate planned growth. As outlined in this report, this area of Gunnedah has been identified for rural residential development in the Gunnedah Shire Local Housing Strategy 2023 and the minimum lot size of less than 1 hectare is a recommendation of this report. The land is suitable for large lot residential development as it avoids key constraints. The land is not flood prone as identified in **Figure 14**. The land is not bushfire prone as identified in **Figure 15**. The site is not part of any important farming areas, areas of high environmental value or steep land. The VPA which has been entered for this development demonstrates adequate water infrastructure and the subject site will cater for onsite sewerage management systems in accordance with the Gunnedah Development Control Plan. The services planning has been reviewed with council to establish the land can be feasibly serviced by entering the VPA for water service upgrades. We believe the development aligns with objective 1 of the NENW RP, 2041.

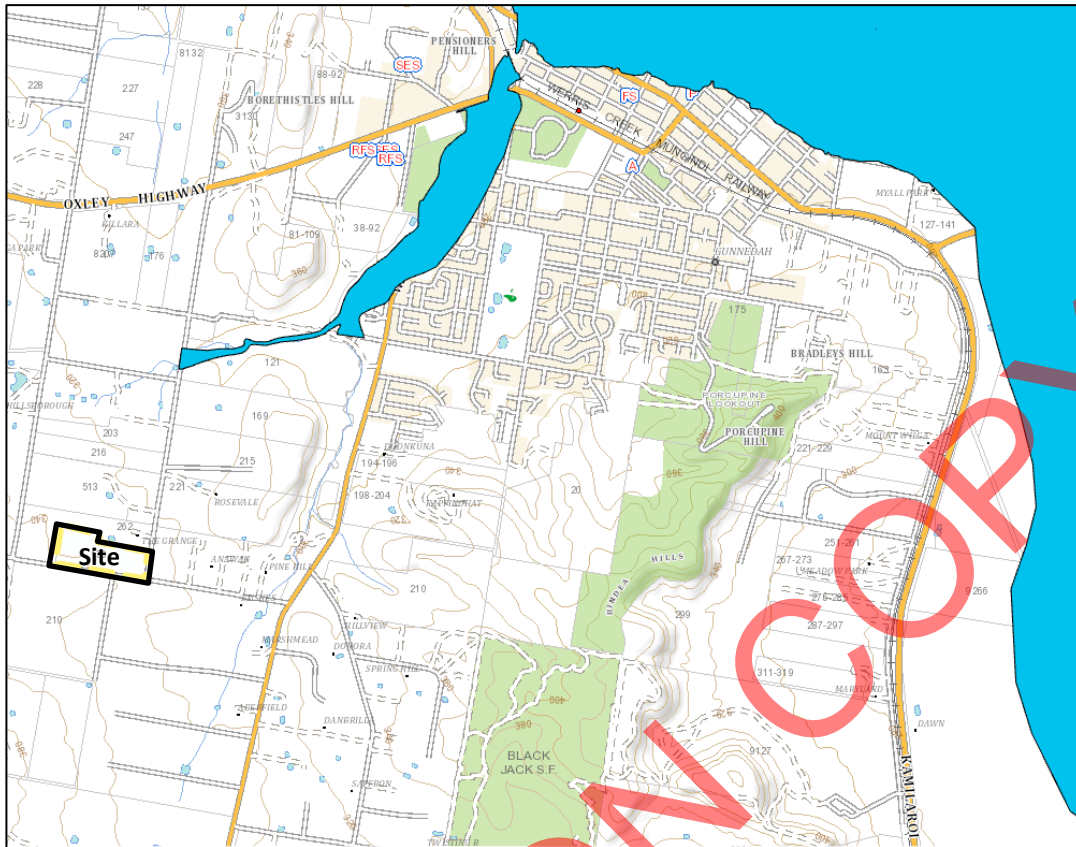


Figure 14: Flood Planning under the Gunnedah Local Environmental Plan, 2012 (Eplanning Portal)

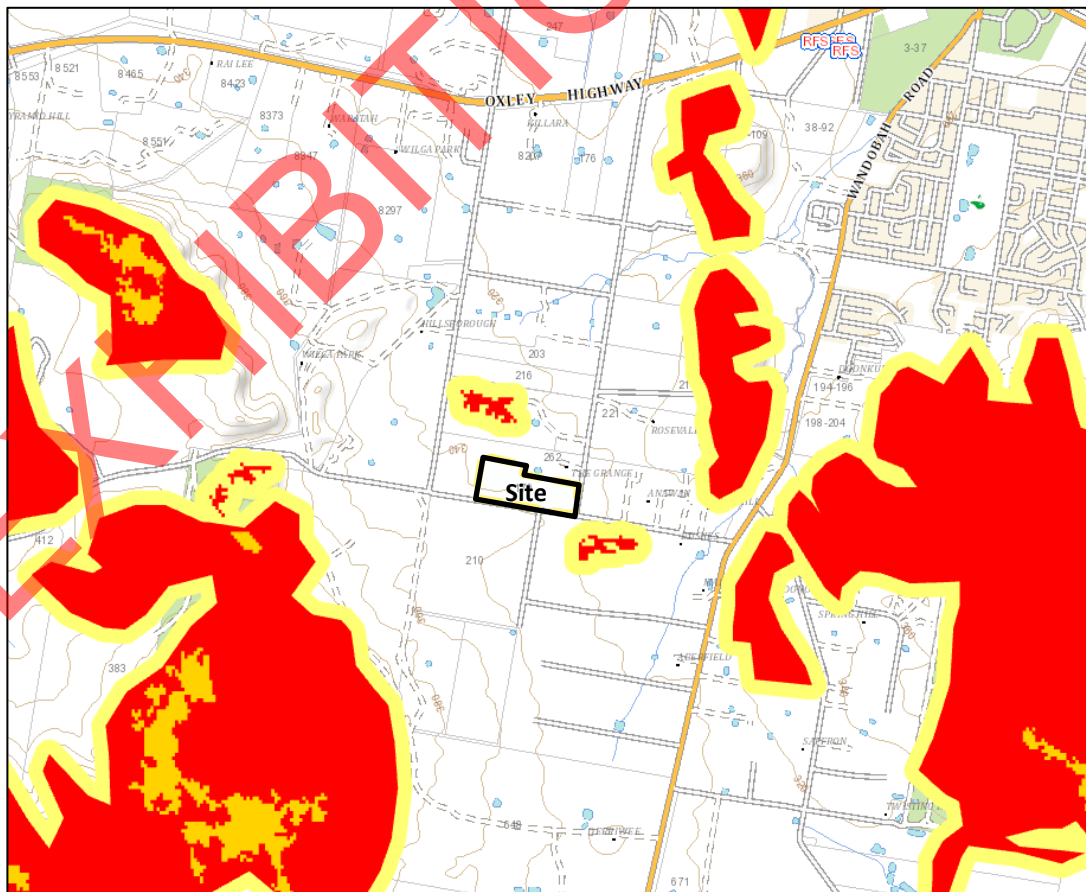


Figure 15: Bushfire Prone Land (Eplanning Portal)



#### Part 4 Housing and Place

Housing in the large lot residential land size is almost exhausted in Gunnedah with strong demand over the past 5 years for this sized development. The subject site is well-located, adjacent to existing large lot rural residential land, to meet the current housing demand, aligning with objective 13 of the NENW RP, 2041. In the plan strategy 13.3 states that new rural residential housing is to be located on land which has been approved in an existing strategy endorsed by the Department of Planning and Environment. This development is consistent with the Gunnedah Shire Local Housing Strategy Open for Growth and Prosperity, adopted 21 June 2023, resolution 11.6/23 as shown in **Figure 12**.

This development is not directly aligned with the affordable or low cost housing models but it does allow young families or local people, to upgrade and build a new house in this development and their existing property can be returned to the market. This brings diversity in housing product and housing prices. Aiding in increasing supply of affordable housing within the more established residential areas of the town.

An Aboriginal Cultural Heritage report has been prepared for the proposed development. This report has not identified any cultural heritage places or items on the subject site.

This rezoning proposal is aligned with the vision and objectives of the NENW RP, 2041. The development will provide additional housing in a suitable location to support the growing population in Gunnedah. As this proposal is consistent with the Gunnedah Housing Strategy the rezoning is a systematic delivery of a component recommended in this strategic plan.

The guideline requires a review of relevant State Environmental Planning Policies (SEPP) for compatibility with the planning proposal. We have conducted an E-Planning property report for the site, which is appended to this report. This property report lists the State Environmental Planning Policies which apply to this property and **Table 1** reviews the compliance of the planning proposal with each SEPP.

**Table 1: State Environmental Planning Policy (SEPP) application to this planning proposal**

State Environmental Planning Policy (SEPP)	Applicable	Consistency	Comment
SEPP (Housing) 2021: Land Application	Yes	Yes	This SEPP is aimed at providing a planning regime for the provision of affordable rental housing. The GLEP, 2012 outlines the permitted land uses in the R5 zone and many of the affordable housing models such as residential flat buildings, boarding houses, secondary dwellings and group homes are prohibited in this zone. The Planning Proposal is not inconsistent with the SEPP.
SEPP Environmental Planning Policy (Building Sustainability Index: BASIX) 2004: Land Application	Yes	Yes	BASIX will apply at the time of residential construction on the subject site.
SEPP (Planning Systems) 2021	Yes	Yes	This planning proposal is not inconsistent with this SEPP.

SEPP (Transport and Infrastructure) 2021	No	N/a	Education Establishments and Childcare facilities are prohibited in the R5 zone of the GLEP, 2012.
SEPP (Exempt and Complying Development Codes) 2008: Land Application	Yes	Compliant	This planning proposal will allow the application of this SEPP to future developments.
SEPP (Transport and Infrastructure) 2021: Land Application	Yes	Compliant	This planning proposal does not impact application of this SEPP to future development.
SEPP (Resources and Energy) 2021	No	N/a	This SEPP relates to mining and petroleum production which is prohibited in the R5 zone. The planning proposal does not inhibit application of this SEPP on other adjoining properties where these activities are permitted.
SEPP (Primary Production) 2021: Land Application	Yes	Compliant	This SEPP is for the orderly and economic use and development of primary production land and gives consent to certain activities. This planning proposal does not impact application of this SEPP.
SEPP (Biodiversity and Conservation) 2021	Yes	Compliant	This SEPP will apply to any future subdivision of this holding. This planning proposal does not impact application of this SEPP.
SEPP (no 65-design Quality of Residential Apartment Development: Land Application.	No	NA	This planning proposal does not apply to residential apartment development.
SEPP (Resilience and Hazards) 2021	Yes	Compliant	A contamination assessment has been carried out for this property and reports a low risk of contamination at the site.

We believe this proposal is compliant with the State Environmental Planning Policies.

We provide the following review of the ministerial directions issued by the Minister of Planning under the Environmental Planning and Assessment Act 1979 section 9.1 (2) for compatibility. The tables below review these directions and their application to this planning proposal.

**Focus Area 1: Planning Systems**

Direction	Applicable	Consistency	Comment
1.1 Implementation of Regional Plans	Yes	Yes	<p>This direction applies to a relevant planning authority when preparing a planning proposal for land to which a Regional Plan has been released by the Minister of Planning. The planning proposal must be consistent with this regional plan.</p> <p>Gunnedah falls under the New England North West 2036 Regional Plan. As outlined above in this section of the report,</p>

			the planning proposal is consistent with the intent of the regional plan, the overall vision, goals, directions and actions.
1.2 Development of Aboriginal Land Council	No	N/a	This direction is listed as being applicable to all land identified on the Land Application Map in chapter 3 of the SEPP (Planning Systems) 2021. We have reviewed the Aboriginal Cultural Significance Map on the Planning Portal and no areas are identified in the Gunnedah Shire
1.3 Approval and referral requirements	Yes	Yes	This direction applies to planning proposals and aims to ensure LEP provisions encourage the efficient and appropriate assessment of development. The direction requires consent authorities to minimise the requirement for concurrence, consultation or referral of development applications to a minister or public authority. The referral requirements at development application stage will be determined by the consent authority, which in this case is Gunnedah Shire Council. The proposed development is not designated development. We believe the proposed development is consistent with this direction.
1.4 Site Specific provisions	Yes	Yes	<p>This planning proposal applies for the whole rezoning of the land to be consistent with zone 56 Large Lot residential under the GLEP, 2012. It will not apply restrictive site specific planning controls to the land.</p> <p>This direction also requires that a planning proposal must not contain or refer to drawings that show details of the proposed development. The drawings shown in this proposal are conceptual only, to give a feel for the proposed character of the development on the site. The purposed of providing these drawings is to demonstrate that large lot residential subdivision is possible on the subject site. These drawings do not form part of the approval sought.</p> <p>We believe this planning proposal is consistent with ministerial direction 1.4.</p>
Focus Area 1 Planning Systems – Place Based	No	N/a	<p>1.5 Parramatta Road Corridor Urban Transformation Strategy</p> <p>1.6 Implementation of North West Priority Growth Area Land Use and Infrastructure Implementation Plan</p> <p>1.7 Implementation of Greater Parramatta Priority Growth Area Interim Land Use and Infrastructure Implementation Plan</p> <p>1.8 Implementation of Wilton Priority Growth Area Interim Land Use and Infrastructure Implementation Plan</p> <p>1.9 Implementation of Glenfield to Macarthur Urban Renewal Corridor</p> <p>1.10 Implementation of the Western Sydney Aerotropolis Plan</p> <p>1.11 Implementation of Bayside West Precincts 2036 Plan</p> <p>1.12 Implementation of Planning Principles for the Cooks Cove Precinct</p> <p>1.13 Implementation of St Leonards and Crows Nest 2036 Plan</p> <p>1.14 Implementation of Greater Macarthur 2040</p> <p>1.15 Implementation of the Pyrmont Peninsula Place Strategy</p>



			1.16 North West Rail Link Corridor Strategy 1.17 Implementation of the Bays West Place Strategy <b>Directions 1.5 to 1.17 are not applicable to Gunnedah Shire Council.</b>
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**Focus Area 2: Design and Place**

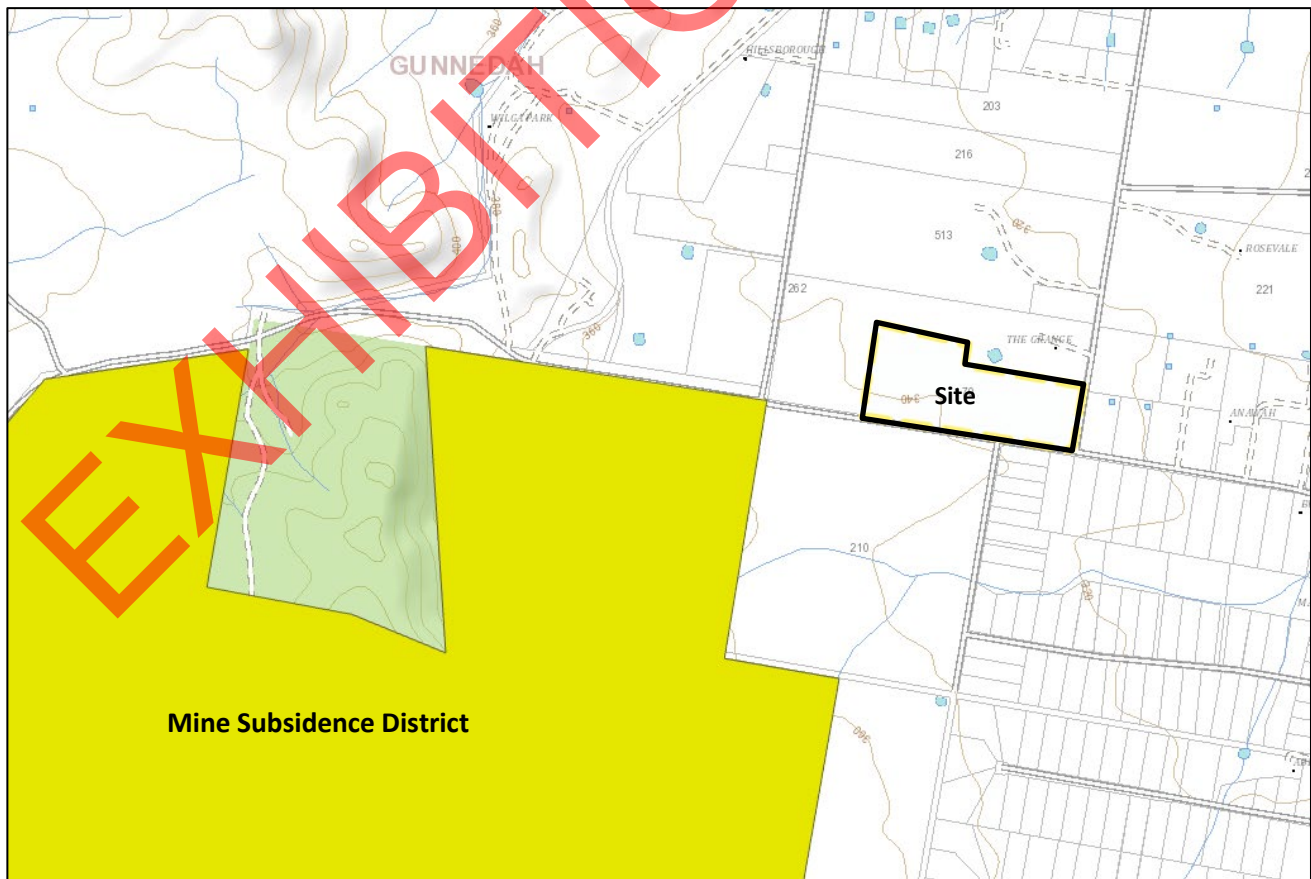
*This focus area was blank when the directions were made.*

**Focus Area 3: Biodiversity and Conservation**

Direction	Applicable	Consistency	Comment
3.1 Conservation Areas	No	N/a	The subject site is not located in an environmentally sensitive area or environmental protection zone and therefore this direction is not applicable to this application
3.2 Heritage Conservation	Yes	Yes	This direction aims to conserve items, areas, objects and places of environmental or indigenous heritage. As outlined in this report there are no items of cultural heritage significance on the subject site or in the vicinity listed under the GLEP, 2012 and there are no objects or places of Aboriginal heritage identified in our AHIMS searches for the subject site. Therefore, we do not believe the proposed development will have any impact on items, areas, objects, or places of environmental, cultural or Indigenous heritage and the development is consistent with this direction.
3.3 Sydney Drinking Water Catchment	No	N/a	This direction is not applicable to Gunnedah Shire
3.4 Application of C2 and C3 Zones in Environmental Overlays in Far North Coast LEPS	No	N/a	The subject site is noted Zoned C2 or C3 and therefore this direction is not applicable.
3.5 Recreational Vehicle Areas	No	N/a	The subject site is not located with a conservation area, near a beach or dune area. This planning proposal is to facility rezoning of the land for residential purposes and no recreational vehicle areas are proposed.

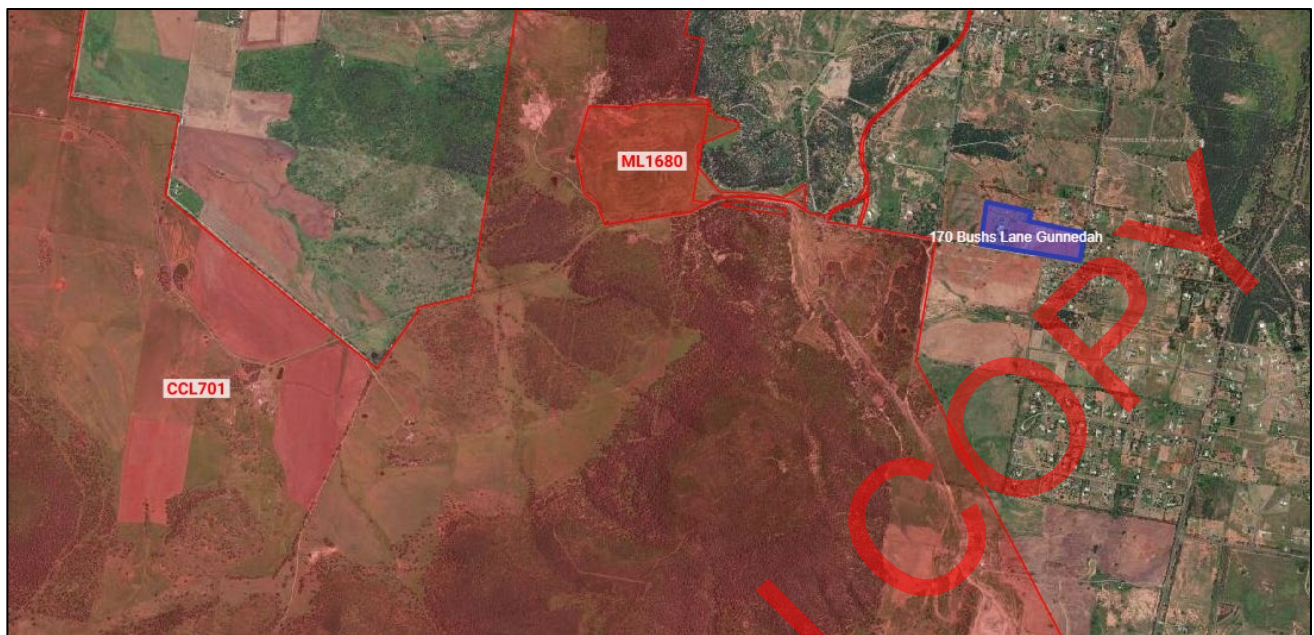
**Focus Area 4: Resilience and Hazards**

Direction	Applicable	Consistency	Comment
4.1 Flooding	No	N/a	The subject site is not mapped as flood prone land as shown in <b>Figure 14</b> .
4.2 Coastal Management	No	N/a	The subject site is not on a coastal zone.
4.3 Planning for bushfire protection	No	N/a	The subject site is not mapped as bushfire prone land in the Gunnedah Shire as shown in <b>Figure 15</b> .
4.4 Remediation of contaminated land	Yes	Yes	As outlined under <i>State Environmental Planning Policy (Resilience and Hazards) 2021</i> , Agricultural activities are listed in table 1 as an activity which may cause contamination. Contamination and the SEPP (formally SEPP 55) has been addressed in section C of this report and it is concluded that as the land has only been used for horse grazing and lifestyle uses and intensive agricultural pursuits have not been carried out at the site. Therefore, there are no known sources or risks of contamination identified on the subject site. We enclose a preliminary site contamination report for the property.
4.5 Acid Sulfate Soils	No	N/a	There are no Acid Sulfate Soils in the Gunnedah Shire
4.6 Mine Subsidence and Unstable Land	No	N/a	The subject site is not located in a mine subsidence area as shown in <b>Figure 16</b> .

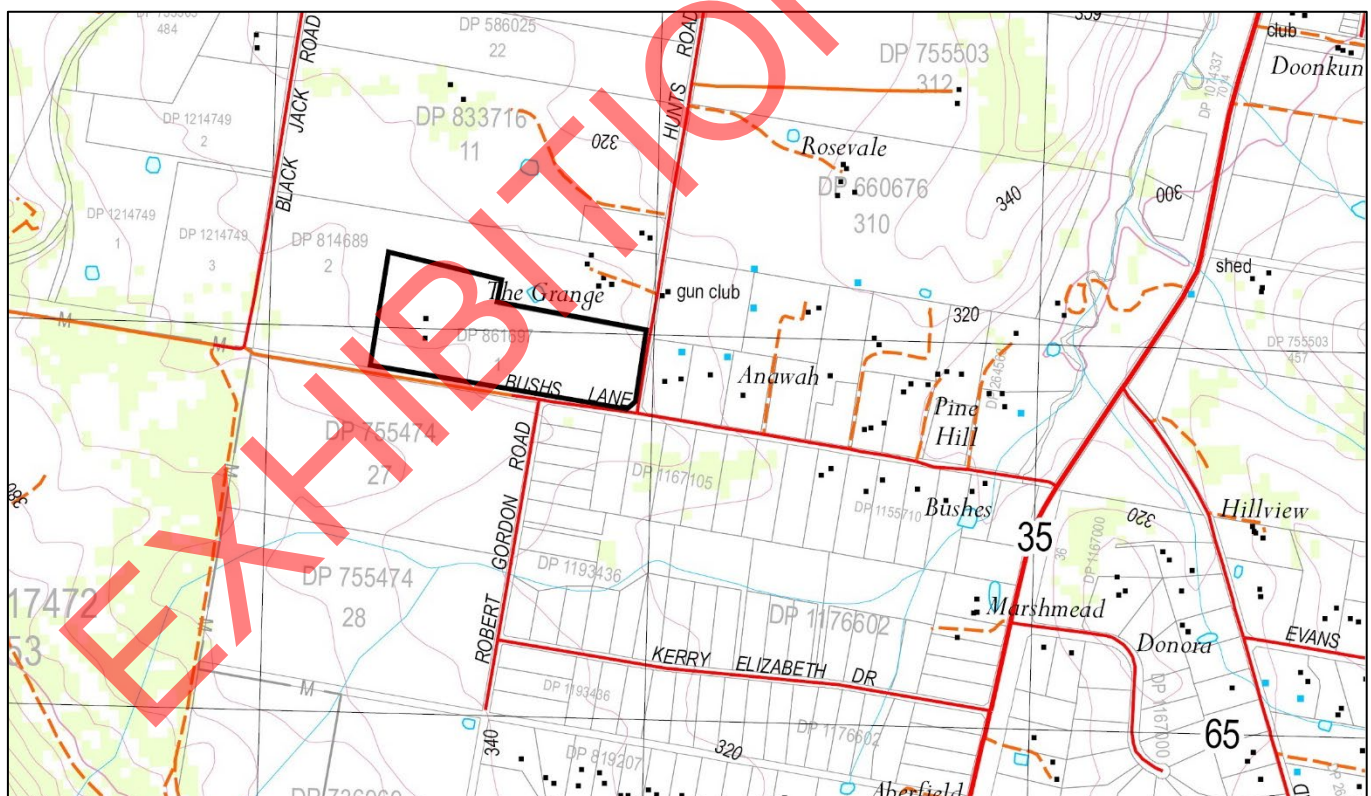


**Figure 16: Mine Subsidence District**

There are no mining leases present on the subject site as shown in **Figure 17**. **Figure 18** shows the topography of subject site and surrounding area.



**Figure 17: Mining Leases surrounding the site (Min View)**



**Figure 18: Topographic Map (Source: Wondoba 8935-4N GeoPDF Topographic Map 2017 Edition)**



**Focus Area 5: Transport and Infrastructure**

Direction	Applicable	Consistency	Comment
5.1 Integrated Land Use and Transport	No	N/a	<p>This direction requires all planning proposals which will create, alter or remove a provision relating to urban land including land Zoned for residential uses.</p> <p>The direction requires a statement of consistency to the aims, objectives and principles of:</p> <ul style="list-style-type: none"> <li>a) Improving transport choices – guidelines for planning and development (DUAP 2001) and</li> <li>b) The Right Place for Business and Services (DUAP 2001).</li> </ul> <p>Our statement of consistency is listed below this table.</p>
5.2 Reserving Land for Public Purpose	No	N/a	There is no public open space identified for the subject site or proposed.
5.3 Development near regulated airports and defence airfields	No	N/a	The subject site is more than 6km from the Gunnedah Airport and not mapped as being in an airport buffer or zone.
5.4 Shooting Ranges	No	N/a	The subject site is not in close proximity to a shooting range and recreational land uses are prohibited in the R5 zone.

**Improving transport choices – guidelines for planning and development (DUAP 2001)**

The guideline embodies the critical objectives of:

- Reducing the growth in vehicle kilometers travelled (VKT);
- Improving air quality and reducing greenhouse gas emissions;
- Building more compact cities; and
- Promoting economic development and creating jobs.

The guidelines set out 10 principles of accessible development, which encourage and support development that is highly accessible by walking, cycling and public transport.

In the context of this report the proposed rezoning of the subject site to R5 Large Lot Residential is not considered to be urban land. This report focuses on improved modes of transports which do not involve the use of private motor vehicles, but given the Gunnedah population and current walkability and public transport in the R5 large lot residential zone the development site is not considered to be urban land. Therefore, these guidelines will not apply to the proposed development.

**The Right Place for Business and Services (DUAP 2001).**

The aims of this guideline are:

- There are development opportunities in centers for businesses and services;
- Community investment in infrastructure is protected; and
- Investor confidence in centers is maintained.

The proposed development will facilitate residential development outside of the centre of Gunnedah to aid in accommodation needs of the population to support a successful business centre. This guideline aims to reduce the need for trip generating development by grouping services and businesses in the one area and having available public transport.

The proposed development will foster the growth of Gunnedah, by providing large lot residential land, which is in demand in an existing area of residential development. The proposed rezoning will encourage private investment into land and foster growth, competition and investment confidence in the Gunnedah CBD. As part of the development of this land the land owner will contribute to the provision of services to the subject site and payment of headworks charges to maintain community infrastructure

#### **Focus Area 6: Housing**

Direction	Applicable	Consistency	Comment
6.1 Residential Zones	Yes	Yes	The subject site proposed to rezone land to a residential zone, therefore this direction is applicable. We have outlined below in greater detail how the proposed development meets the objectives of this direction.
6.2 Caravan Parks and Manufactured Home Estates	No	N/a	The proposed development is not a caravan park of manufactured home estate. Caravan Parks are prohibited in the R5 zone.

#### **6.1 Residential Zones**

Direction 6.1 Residential zones has the following objectives:

- (a) encourage a variety and choice of housing types to provide for existing and future housing needs,
- (b) make efficient use of existing infrastructure and services and ensure that new housing has appropriate access to infrastructure and services, and
- (c) minimise the impact of residential development on the environment and resource lands

The proposed development will provide large lot residential development, a style of housing which is in high demand in Gunnedah. This development will make efficient use of existing services and infrastructure. The proposed development will include the extension of services to all lots developed at this site. Developer contributions applied to the development will ensure the proposed development does not place any burden on public infrastructure. The subject site is not of high environmental value and given the size of the holding is not considered to be resource lands. We believe this planning proposal is consistent with the objectives of Ministerial Direction 6.1 and therefore consistent with the direction.

#### **Focus Area 7: Industry and Employment**

Direction	Applicable	Consistency	Comment
7.1 Business and Industrial Zones	No	N/a	The subject site is not currently or proposed to be in a Business or Industrial Zone therefore, this direction is not applicable.
7.2 Reduction in non-hosted short term rental accommodation period	No	N/a	This direction only applies to Bryon Shire Council Area.
7.3 Commercial and Retail development along the Pacific Highway, North Coast	No	N/a	This direction does not apply to Gunnedah Shire Council.

### **Focus Area 8: Resources and Energy**

Direction	Applicable	Consistency	Comment
8.1 Mining Petroleum and Extractive Industries	No	N/a	Mining, Petroleum and Extractive Industries are prohibited in the R5 zone of the GLEP, 2012

### **Focus Area 9: Primary Production**

Direction	Applicable	Consistency	Comment
9.1 Rural Zones	No	N/a	This direction does not apply to Gunnedah Shire Council.
9.2 Rural Lands	Yes	Yes	The subject site is currently zoned RU4 Primary Production small lots. This direction is applicable to the development and addressed in greater detail below.
9.3 Oyster Aquaculture	No	N/a	An Oyster Aquaculture land use is not permitted in the R5 zone of the GLEP, 2012
9.4 Farmland of State and Regional Significance on the NSW Far North Coast.	No	N/a	This direction does not apply to Gunnedah Shire Council.

### **9.2 Rural Lands**

Direction 9.2 Rural Lands has the following objectives:

- Protect the agricultural production value of rural land;
- Facilitate orderly and economic use and development of rural lands for rural and related purposes;
- Assist in the proper management, development and protection of rural lands to promote the social, economic, and environmental welfare of the state;
- Minimise the potential for land fragmentation and land use conflicts in rural areas, particularly between residential and other rural land uses;
- Encourage sustainable land use practices and encourage the ongoing viability of agriculture on rural land; and
- Support the delivery of the actions outlined in the NSW right to farm policy.

The proposed development is considered to be on marginal rural land. The size of the holding does not make agricultural pursuits viable. The soil profile on the subject site is mapped as the Fulwood's Road transferal group by the NSW Office of Environment and Heritage. The land and soil capacity mapping shows the subject site to be in an area of severe limitation due to high susceptibility of land for erosion. Therefore, we do not believe that the subject site is considered to be of high agricultural value. The subject site adjoins existing R5 Large Lot residential land and therefore this planning proposal represents the orderly development of residential land in Gunnedah. It also meets the long term strategic planning for the town's residential land and will not result in any fragmentation of rural land. This planning proposal is not expected to impact agricultural land in the area, or the farmers right to farm their property. Biodiversity will be considered through the development application process with the preparation of a BDAR report. No areas of high biodiversity or ecological value have been identified on the subject site.

There are few existing rural land uses surrounding the subject site due to residential development to the east and steep topography and heavily timbered country to the west. This planning proposed is not expected to adversely affect any surrounding agricultural land uses or supporting infrastructure.



The subject site is appropriately located at the edge of the existing R5 Rural Residential land in Gunnedah. There is good service availability in the area, which will be extended to cover the development site. In Gunnedah there is high demand for rural residential land and this planning proposal is addressing this demand through the provision of additional residential land. We believe this planning proposal is consistent with the objectives of the Rural Lands ministerial direction.

We believe this planning proposal is consistent with all of the ministerial directions. Created under section 9.1 (2) of the Environmental Planning and Assessment Act, 1979.

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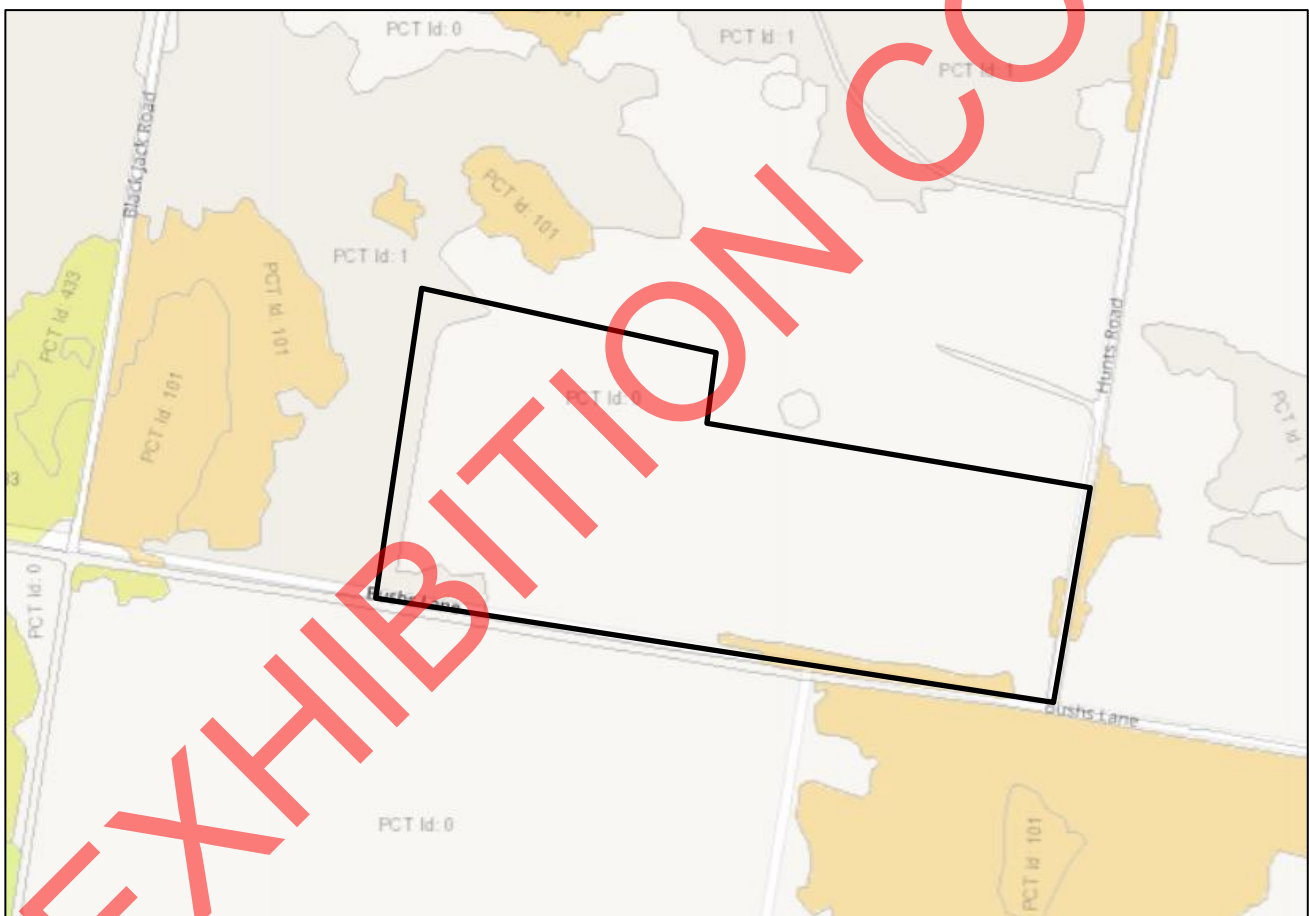
## SECTION C – ENVIRONMENTAL SOCIAL AND ECONOMIC IMPACT

Section C of the guideline requires a review of any environmental, social and economic impacts of the planning proposal. This section reviews applicable impacts of the proposed development.

### **Impact on critical habitat or threatened species, populations or ecological communities or their habitats**

The subject site has a long agricultural history, with recent uses including cultivation for pasture/hay crop and horse grazing. There are a number of native trees on the subject site, which were planted in the 1980's.

We have conducted a search of the NSW SEED portal vegetation communities on the subject site. **Figure 19** shows the extract from this database of the site. The majority of the site is mapped as PCT 0 which is non-native vegetation. There is a small area of PCT 101 *Poplar Box - Yellow Box - Western Grey Box grassy woodland on cracking clay soils mainly in the Liverpool Plains, Brigalow Belt South Bioregion along Bushes Lane and a small area of PCT 1 Native Grasslands along bushes lane at the western boundary of the site.*



**Figure 19: Vegetation Mapping (Seed Portal)**

PCT 101 is associated with threatened ecological community as listed below:

- Brigalow within the Brigalow Belt South, Nandewar and Darling Riverine Plains Bioregions (Part) Listed BC Act,E:
- Inland Grey Box Woodland in the Riverina, NSW South Western Slopes, Cobar Penepplain, Nandewar and Brigalow Belt South Bioregions (Part) Listed BC Act,E: and
- White Box Yellow Box Blakely's Red Gum Woodland (Part) Listed BC Act, E.

As this remnant vegetation in PCT 101 is limited to the very front section of the holdings along Bushs Lane on the fringe of this patch of vegetation, separated by the bitumen road, this vegetation patch is not expected to be of high quality. Future subdivision and residential development on this holding will have a limited impact on this vegetation as dwelling

setback in the R5 Large Lot Residential Zone is twenty-five (25) metres, which is beyond this vegetation. Access driveway will pass through this vegetation and should be carefully positioned to retain the vegetation.

We have conducted a NSW Bionet Database search for threatened fauna on or around the subject site. The search parameters for this search were [North: -30.96 West: 150.16 East: 150.26 South: -31.06]. These search results returned a total of 1473 records of 215 species. We have listed below the species which are listed as being vulnerable or critically endangered under the Commonwealth Status. There were no sightings of any of these species recorded on the subject site. Table 2 outlines the records and **Figure 20** to **Figure 22** shows the sightings on plan. A full list of the sightings are appended to this report.

**Table 2: Table of Vulnerable or Critically endangered fauna observed around the site**

Species	Easting	Northing	Date of Record	Location
Koala	233458	6567512	24.08.2014	Approx. 1.4km from site (Lot 2 DP1228419)
	233850	6567157	30.06.2006	Approx. 1.1km from site (Lot 18 DP263040)
	233732	6567097	08.11.2014	Approx. 1km from site (Lot 17 DP263040)
	233723	6567088	11.12.2013	Approx. 1.1km from site (Lot 17 DP263040)
	233898	6567053	30.06.2006	Approx. 1.1km from site (Lot 2 DP857643)
	233967	6567028	30.06.2004	Approx. 1km from site (Lot 1 DP857643)
	233415	6566354	30.06.2006	Approx. 300m from site (Lot 11 DP833716)
	234163	6567265	01.11.2013	Approx. 1.4km from site on Hunts Road
	234146	6567195	08.11.2014	Approx. 1.3km from site on Hunts Road
	234645	6567177	30.06.2006	Approx. 1.5km from site (Lot 314 DP755503)
	234505	6566389	31.12.1986	Approx. 778m from site (Lot 310 DP660676)
Swift Parrot (critically endangered)	231690	6567008	25.02.1996	Approx. 2km from site (Lot 182 DP755503)
	236410	6569345	17.09.2018	Approx. 4.3km from site (Lot 4 DP1222187)
	237421	6567151	04.08.2016	Approx. 4km from site (Lot 118 DP1176830)
	236548	6563801	30.07.2016	Approx. 3.4km from site (Lot 75 DP1207553)
Latham's Snipe	236505	6566689	28.09.2006	Approx. 2.9km from site (Lot 2 DP740218)
Pink-Tailed Legless Lizard	236932	6566059	28.09.2006	Approx. 3.1km from site (Lot 118 DP1176830)
Painted Honeyeater	232106	6566689	25.02.1996	Approx. 1.5km from site (Lot 2 DP1183502)
Border Thick-tailed Gecko	232106	6566689	25.02.1996	Approx. 1.5km from site (Lot 2 DP1183502)
Grey-headed Flying Fox	233458	6567512	26.10.2018	Approx. 1.5km from site (Lot 3 DP1228419)
	236501	6569261	22.10.2012	Approx. 4.3km from site (Lot 4 DP1222187)
	235470	6564442	03.11.2015	Approx. 2.2km from site (Lot 7 DP262888)
Spotted-tailed Quoll	235236	6566268	30.06.2006	Approx. 1.4km from site (Lot 7014 DP1074337)
	236105	6565189	10.06.1997	Approx. 2.3km from site (Lot 4 DP731871)
	237341	6566723	31.12.1999	Approx. 3.6km from site (Lot 118 DP1176830)
	237105	6569189	30.06.1977	Approx. 4.7km from site (Lot 7035 DP1029310)
Corben's Long-eared Bat	237505	6566689	29.09.2006	Approx. 3.7km from site (Lot 118 DP1176830)



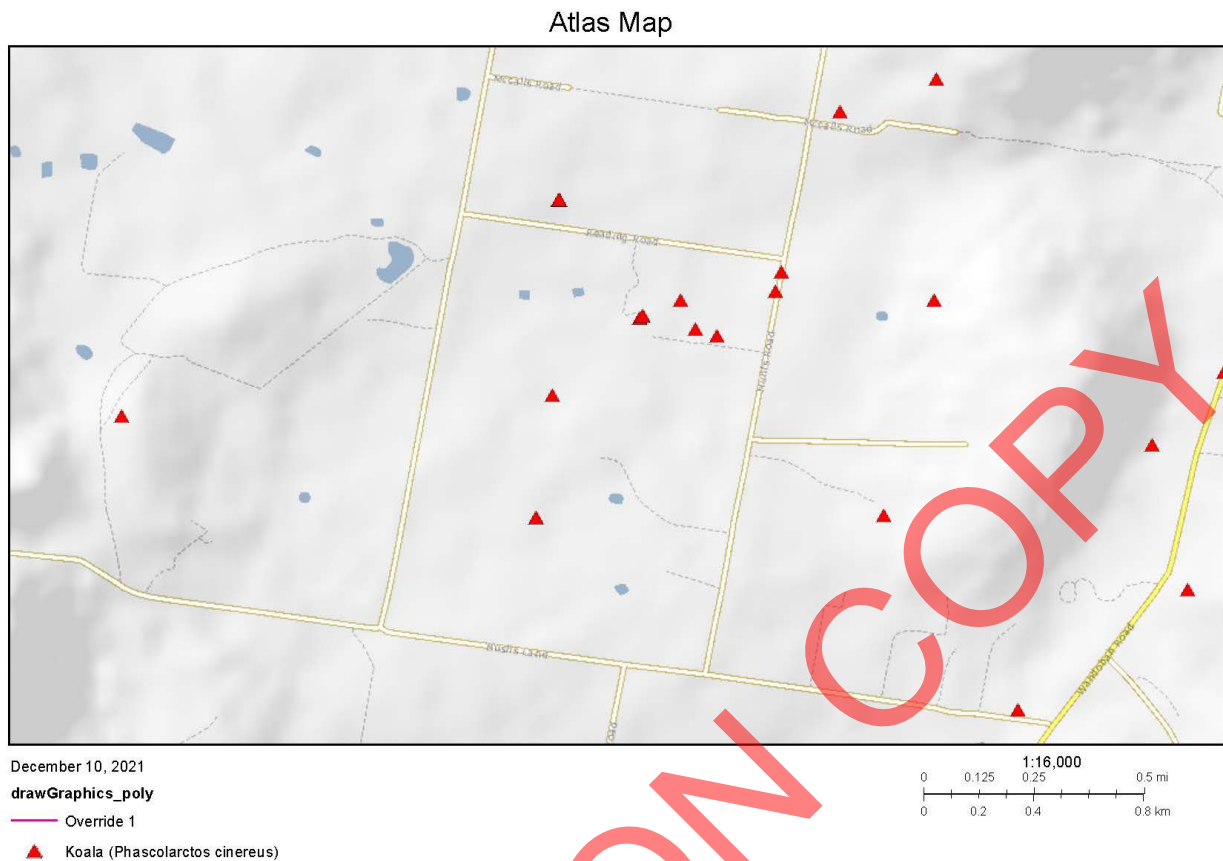


Figure 20: Map showing Koala Sightings

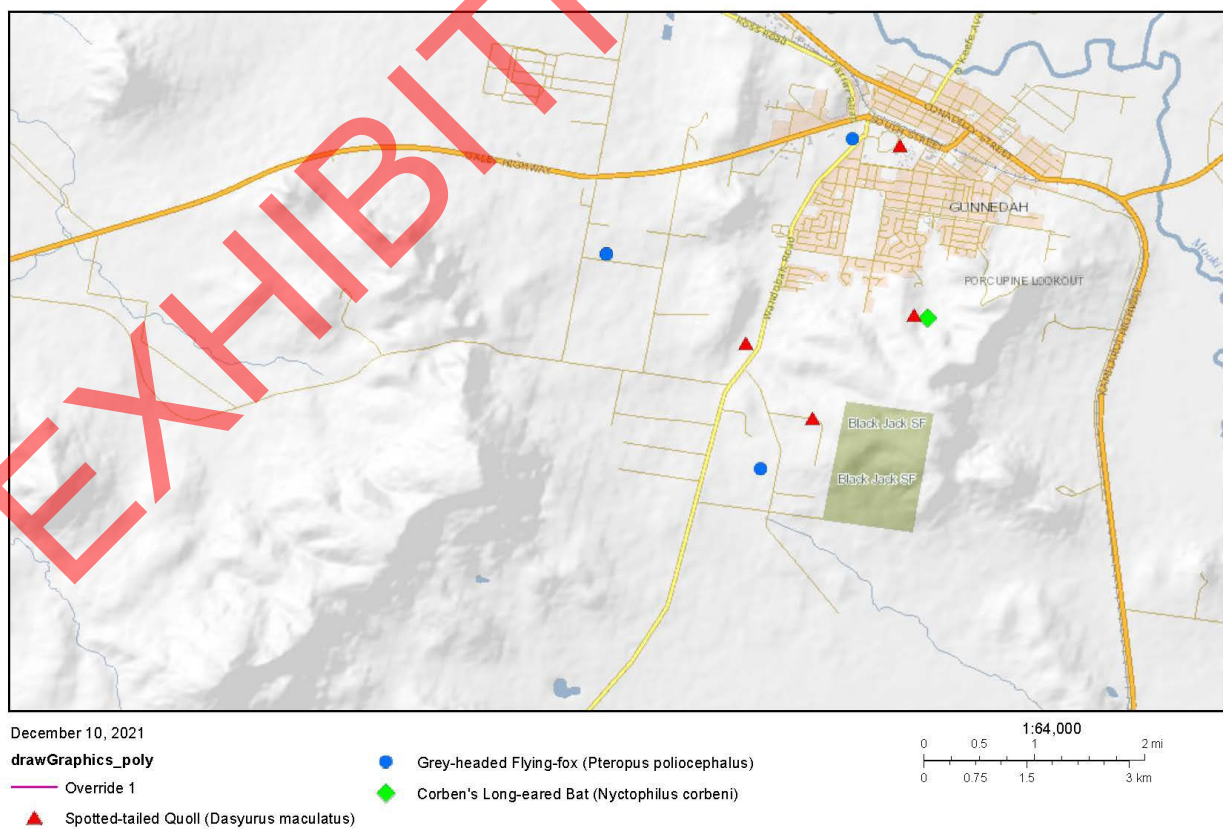
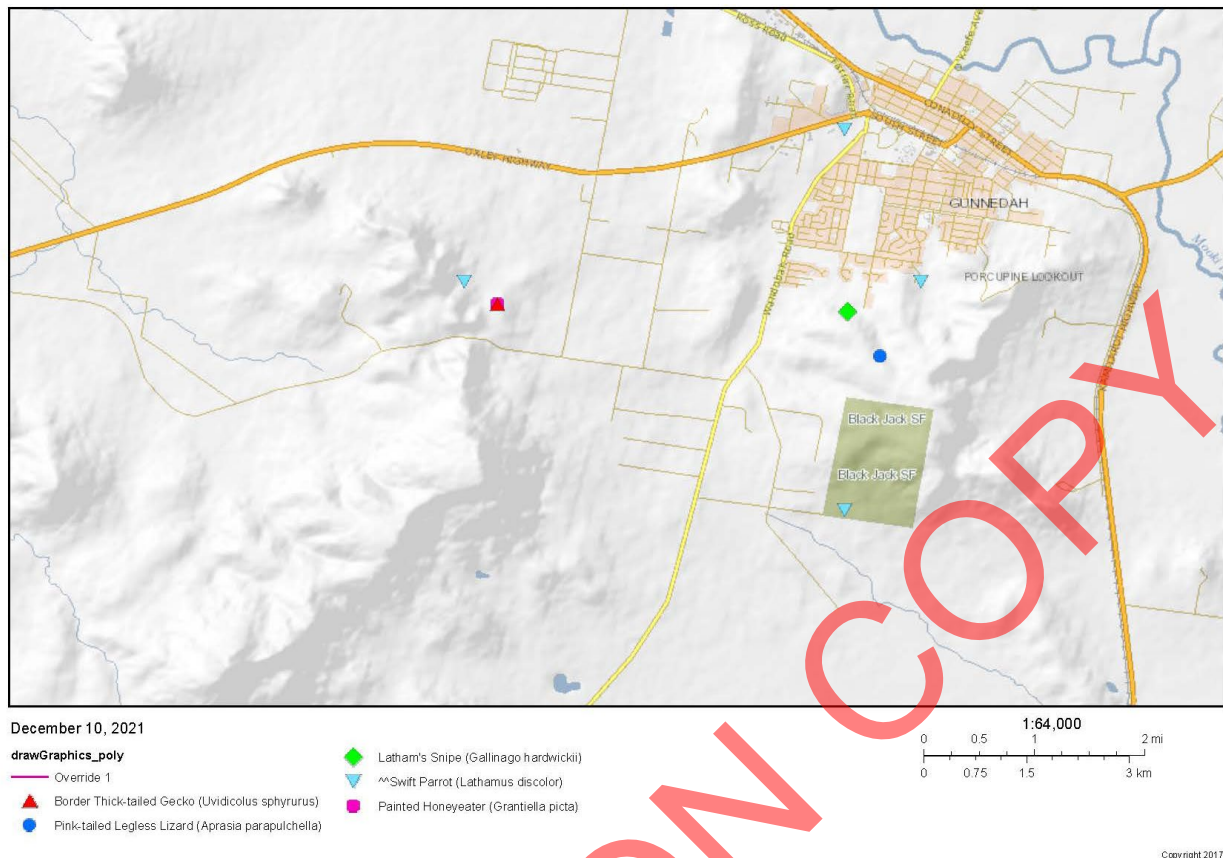


Figure 21: Map showing Spotted-tailed quoll, Grey headed flying fox and Corben's long-eared Bat sightings



**Figure 22: Map showing Border thick tailed Gecko, Pink-tailed legless lizard, Latham's Snipe, Swift Parrot and Painted Honeyeater sightings**

Based on these searches the site is not considered to have a significant impact on any critical habitat or threatened species, populations or ecological communities. Further detailed investigations will be undertaken during a development application to ensure the development would not adversely impact and critical habitat or threatened species, populations or ecological communities.

### **Biodiversity Offset Scheme**

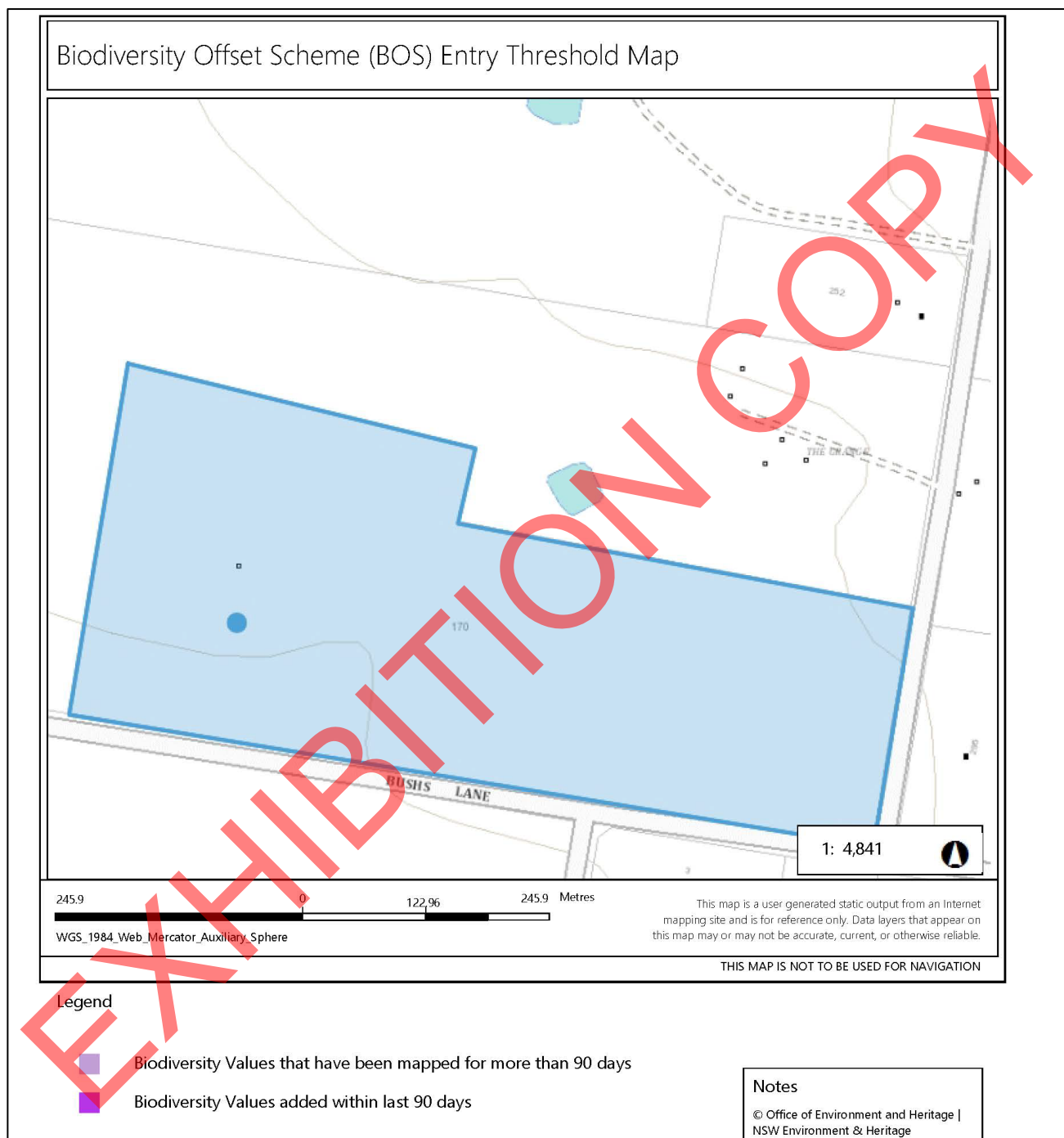
The Biodiversity Conservation Act 2016 is legislation which applies to the whole of NSW. The purpose of the act is to protect the following biodiversity values:

- (a) vegetation integrity—being the degree to which the composition, structure and function of vegetation at a particular site and the surrounding landscape has been altered from a near natural state,
- (b) habitat suitability—being the degree to which the habitat needs of threatened species is present at a particular site,
- (c) biodiversity values, or biodiversity-related values, prescribed by the regulations.

The subject site is not mapped as being in an area of high biodiversity value under the Biodiversity Offset Scheme as shown in **Figure 23**. We have appended the search results.

This planning proposal is seeking a minimum lot size of 9000 square metres. Under Clause 7.2 of the Biodiversity Conservation Regulation 2017, the allowable clearing threshold for a lot less than 1 hectare in size is 0.25 hectare, or 2,500 square metres.

The proposed development will exceed the clearing threshold with the construction of the proposed cul-de-sac road and will therefore trigger a Biodiversity Development Application Report to be prepared under the Biodiversity Conservation Act. Given that the native vegetation on the holding only covers a very small area, we do not expect the development to have a significant impact on Biodiversity, or that the development will be rendered unviable due to required offsets.



**Figure 23: Biodiversity Offset Scheme Entry Threshold Map**

### Soil Landscape

The soil landscapes on the site have been mapped as the Fulwoods Road soil profile by the Office of Environment and Heritage on the EScape portal. This soil landscape is described as a transferral soil with extremely long pediment footslopes comprising of coalescing alluvium fans below sandstone hills. Soils are mostly degraded very deep to giant, moderately well-drained red and brown earths with deep well drained red earths common on upper footslopes.



The soil landscape is described as having the limitations and qualities including moderate soil fertility, localised foundation hazard, widespread recharge zone, localised salinity hazard and localised gully and sheet erosion hazard.

The fullwoods road soil landscape is widespread around Gunnedah's residential areas and does not pose a limitation to development of houses.

### **Flooding**

The site is not mapped as flood prone land in the Gunnedah LEP as illustrated in **Figure 14**.

### **Land Contamination**

A search of the List of NSW Contaminated Sites Notified to the NSW OEH as at 10 December 2021 in the Gunnedah Shire did not uncover any listings on or in close proximity to the site. The search results are shown in **Table 3**:

**Table 3: NSW EPA Record of Notices in the Gunnedah Shire Council LGA**

Suburb	Address	Site Name	Notices related to this site
GUNNEDAH	Intersection of Henry Street and Conadilly STREET	<a href="#">Adjacent to Service Station</a>	6 former
GUNNEDAH	103 Mathias ROAD	<a href="#">BP Depot Gunnedah</a>	2 current
GUNNEDAH	Corner Conadilly Street & Henry STREET	<a href="#">BP Service Station</a>	5 former
GUNNEDAH	61 Railway AVENUE	<a href="#">Former Caltex Depot</a>	3 former
GUNNEDAH	341 Conadilly STREET	<a href="#">Mobil Service Station</a>	5 former

We have appended a preliminary site contamination report which concludes that the site has a low risk of contamination and is suitable for residential development.

### **Bushfire Prone Land**

We have conducted a search of the NSW Rural Fire Service bushfire prone land and the subject site, Lot 1 in DP861697, is not mapped as bushfire prone land. Therefore, the development would not be subject to the Rural Fires Act, 1997. There is bushfire prone land in the vicinity of the subject site as shown in **Figure 15**. We do not believe this surrounding threat of bushfire prevents the site being subdivided for rural residential purposes.

### **Aboriginal Cultural Heritage**

There are no known items of heritage significance on the site.

The Gunnedah Local Environment Plan 2012 Heritage Map does not record any items of heritage significance on the site or in the vicinity of the subject site.

A search of the Office of Heritage and Environment Aboriginal Heritage Information Management System (AHIMS) for a 50 metre buffer around Lot 1 in DP 861697 has shown that there are no aboriginal sites recorded in or near the subject site. It is therefore concluded that the proposed development of the site will not impact on any items of Aboriginal cultural heritage. The search results of this enquiry are attached to this report.

We have appended an Aboriginal Due Diligence report prepared for the subject site. There are no Aboriginal Heritage sites identified on the subject site.

### **Economic Impacts**

The proposed development is aligned with the Gunnedah Economic development strategy as described in section B of this report and will provide additional land suitable for housing in a land size which has short supply currently in Gunnedah. Future development of the site will require developer contributions to offset any impacts on community infrastructure. We believe this planning proposal will have a positive economic outcome for Gunnedah.

### **Social Impacts**

Increasing housing availability has a range of positive social impacts. It allows residences increased choice in land size, location and dwelling types available in the town. This can also open up more affordable housing with people building new houses and opening up existing dwellings within the town limits. Increase in population allows public authorities to deliver a higher level of service to its residence. Therefore, the proposed development has the potential to attract new residences to Gunnedah. It also has the potential to improve services within this immediate location, with public transports more viable with increased population. Developer contributions required at the time of subdivision ensure any development does not negatively impact the wider community.

We have reviewed the likely environmental effects, as a result of the planning proposal and believe the proposed development, with appropriate mitigation measures nominated during the development application stage will not have a significant environmental, social or economic impact which would prevent support for this planning proposal.

## **SECTION D – INFRASTRUCUTRE (LOCAL, STATE AND COMMONWEALTH)**

### **Is there adequate public infrastructure for the planning proposal?**

The guideline states that this question typically applies to planning proposals which will result in 150 or more additional residential lots, substantial urban renewal, infill development or development that will result in additional demand of infrastructure.

The site servicing has been reviewed in section B principle 1 of the Interim Settlement Planning Principles, as having adequate existing infrastructure to support the planned residential development. There is not considered to be any shortfalls in infrastructure nor significant demands on public utilities associated with this rezoning proposal.

## **SECTION E – STATE AND COMMONWEALTH INTERESTS**

There has not been any State or Commonwealth Government authority consultation as part of this gateway application and given the nature of the development, none is deemed necessary.

## **PART FOUR – MAPS**

The following Gateway Application Maps have been prepared and appended to this report.

### **Gateway Application Maps**

1. Map showing site on the existing Land Zoning Map LZN-005A in the Gunnedah Local Environment Plan 2012
2. Map showing proposed change to Land Zoning Map LZN-005A in the Gunnedah Local Environment Plan 2012
3. Map showing existing Land Size Map LSZ\_005A in the Gunnedah Local Environment Plan 2012
4. Map showing proposed Land Size Map LSZ\_005A in the Gunnedah Local Environment Plan 2012

## **PART FIVE – COMMUNITY CONSULTATION**

The guideline states that the gateway determination (stage 5 of the rezoning proposal) will specify the required public exhibition period. Timeframes are based on the complexity of the planning proposal and vary between 10 and 30 working days.

The LEP guide defines a low impact proposal as a planning proposal that in the opinion of the person making the gateway determination is:

- Consistent with the patterns of surrounding land use zones and/or land uses
- Consistent with the strategic planning framework
- Presents no issues with regard to infrastructure servicing
- Not a principal LEP
- Does not reclassify land.

It is the opinion of the author of this application that this gateway application meets these requirements and should be considered a low impact proposal.

Community consultation for low impact proposals is undertaken for 14 days in the following manner as outlined in the LEP guide.

- Notification on the Planning Portal;
- Notification in the local newspaper;
- Notification on the website of the Gunnedah Shire Council; and
- Notification in writing to affected and adjoining landholders.

The guideline states that the notice must describe and identify the following:

- The objective or intended outcomes of the planning proposal;
- The land affected by the planning proposal;
- Where people can view the proposal;
- Contact details for submissions; and
- Whether council is the designated LPMA

The guideline states the following information must be made available during the exhibition period

- The planning proposal in the form approved for public exhibition by the Gateway Determination;
- The Gateway determination; and
- All relevant additional information relied upon by the planning proposal.

## PART SIX – PROJECT TIMELINE

The project timeframe will be based on the date of gateway determination by the department and time frame for Gunnedah Shire Council to make the amendments to the Gunnedah Local Environment Plan. As these processes are removed from our control it is not possible for us to determine a project timeline.

Our client wishes to finalise this process as quickly as possible to enable lodged of the development application for the proposed subdivision. We have suggested a preliminary timeframe which would be suitable for Council's review

Stage	Timeframe/date	Working Days
Consideration by Council	7/02/22 to 25/02/22	
Council decision	16/03/22	
Gateway determination	28/6/2023	
Update of reports to meet conditions of approval	25/8/23	
Pre-exhibition	28/8/23 to 11/9/23	10 Working Days
Commencement and completion of public exhibition period	12/9/23 to 3/10/23	20 Working Days



Consideration of submissions	4/10/23 to 16/10/23	10 Working Days
Post-exhibition review and additional studies	17/10/23 to 14/11/23	20 Working Days
Submission to the Department for finalisation (where applicable)	15/11/23	30 Working Day
Gazettal of LEP amendment	28/12/2023 (6 months post Gateway Determination)	

## CONCLUSION

This gateway proposal will enable 170 Bushs Lane, Gunnedah to be subdivided into thirteen (13) rural residential lots with an area exceeding 9000m<sup>2</sup>, for residential occupation. The subject site has been identified since 1981 in strategic planning for residential expansion within Gunnedah Shire. It is located adjacent to the current R5 Large Lot Residential zone and well serviced along part of the site with efficient extension of services available. The proposed development meets the requirements of the ministerial directions and both local and regional planning provisions and will allow the site to be developed into rural residential holdings. This will meet a shortcoming in residential supply in Gunnedah and assist in making Gunnedah a vibrant place to live.

## REFERENCES

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Central Mapping Authority, Geo PDF Topographic Map, 2017 Edition, *Wondoba 8935-4N*, CMA.

Department of Lands, *Spatial Information Exchange*, Available at [<https://six.maps.nsw.gov.au/wps/portal/>].  
Abbreviated as DL SIX

Department of Mining, Exploration and Geoscience, MinView Available at [<https://minview.geoscience.nsw.gov.au/>]

Department of Urban Affairs and Planning, August 1998, *Managing Land Contamination: Planning Guideline SEPP 55 Remediation of Land*, Environmental Protection Agency (EPA)

Elton Consulting, 21 June 2023, Gunnedah Shire Local Housing Strategy, Exhibition Copy, Available at:  
[<https://www.gunnedah.nsw.gov.au/index.php/development/landuse-planning/land-use-strategies>]

Espade, NSW Office of Environment and Heritage, 2011, *Soil and Land Resources of the Liverpool Plains Catchment Interactive DVD*, Fullwoods Road Soil Landscape Available at:  
[<https://www.environment.nsw.gov.au/eSpade2Webapp>]

Gunnedah Shire Council, 2012, *Gunnedah Development Control Plan 2012*, Gunnedah Shire Council 20.12.12.

Insite, June 2016, Gunnedah Urban Landuse Strategy Volume 4, Available at:  
[<https://www.gunnedah.nsw.gov.au/index.php/component/rsfiles/files?folder=GunnedahShireCouncil%252FDEVELOPMENT-PLANNING-AND-BUILDING%252FLANDUSE-PLANNING%252FLand-Use-Strategies&Itemid=2255>]

New South Wales Government, *Gunnedah Local Environmental Plan 2012*, Available at  
[<http://www.legislation.nsw.gov.au>]

NSW Department of Planning and Infrastructure, August 2016, *A guide to preparing Local Environment Plans*, Available at [<http://www.planning.nsw.gov.au/~media/Files/DPE/Guidelines/guide-to-preparing-planning-proposals-2016-08.ashx>]

NSW Department of Planning and Environment, August 2017, *New England North West Regional Plan 2036*, NSW Government.

NSW Department of Planning, Industry and Environment, May 2017, *Directions issued under section 9.1 (2) Environmental Planning and Assessment Act, 1979*, Available at: [<https://www.planning.nsw.gov.au/Plans-for-Your-Area/Local-Planning-and-Zoning/Policy-Directions-for-Plan-Making>]

NSW EPA, *Contaminated Land – Records of notices*, Available at  
[<http://www.epa.nsw.gov.au/prclmapp/aboutregister.aspx>]

NSW Environmental and Heritage, *Aboriginal Heritage Information Management System (AHIMS)*, Available at:  
[<http://www.environment.nsw.gov.au/awssapp/Login.aspx?ReturnUrl=%2fAWSSAPP%2f>]

SC Lennon & Associates, August 2021, *Draft Gunnedah Shire Economic Development Strategy 2022-2026*, Gunnedah Shire Council.

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Ph. (02) 6742 2966

[office@stewartsurveys.com](mailto:office@stewartsurveys.com)

<http://www.stewartsurveys.com>



# GUNNEDAH LOCAL ENVIRONMENTAL PLAN, 2012 - LAND ZONING MAPS LNZ\_005A

EXISTING LAND ZONING MAP LNZ\_005A  
PROPOSED REZONING TO R5 LARGE LOT RESIDENTIAL MAP LZN\_005  
GUNNEDAH LOCAL GOVERNMENT AREA

DATE: 13 SEPTEMBER 2023

PREPARED FOR:  
Ryan Pryde & Nancy Williams

PREPARED BY:  
Stewart Surveys Pty Ltd  
107-109 Conadilly Street,  
PO Box 592  
GUNNEDAH NSW 2380  
office@stewartsurveys.com



# Gunnedah Local Environmental Plan 2012

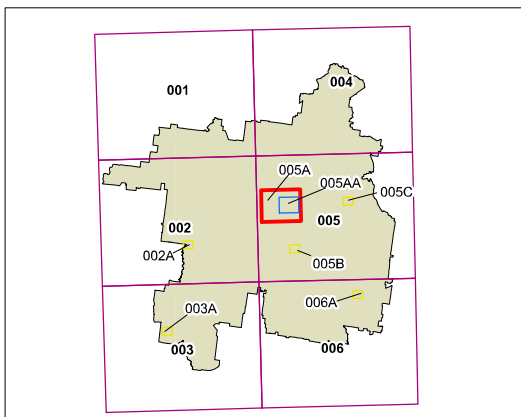
## Land Zoning Map - Sheet LZN\_005A

### Zone

- B2** Local Centre
- B4** Mixed Use
- B5** Business Development
- E1** National Parks and Nature Reserves
- E3** Environmental Management
- IN1** General Industrial
- IN3** Heavy Industrial
- R2** Low Density Residential
- R3** Medium Density Residential
- R5** Large Lot Residential
- RE1** Public Recreation
- RE2** Private Recreation
- RU1** Primary Production
- RU3** Forestry
- RU4** Primary Production Small Lots
- RU5** Village
- RU6** Transition
- SP1** Special Activities
- SP2** Infrastructure

### Cadastre

- Base data 26/3/2012 ©
- Land and Property Information (LPI)



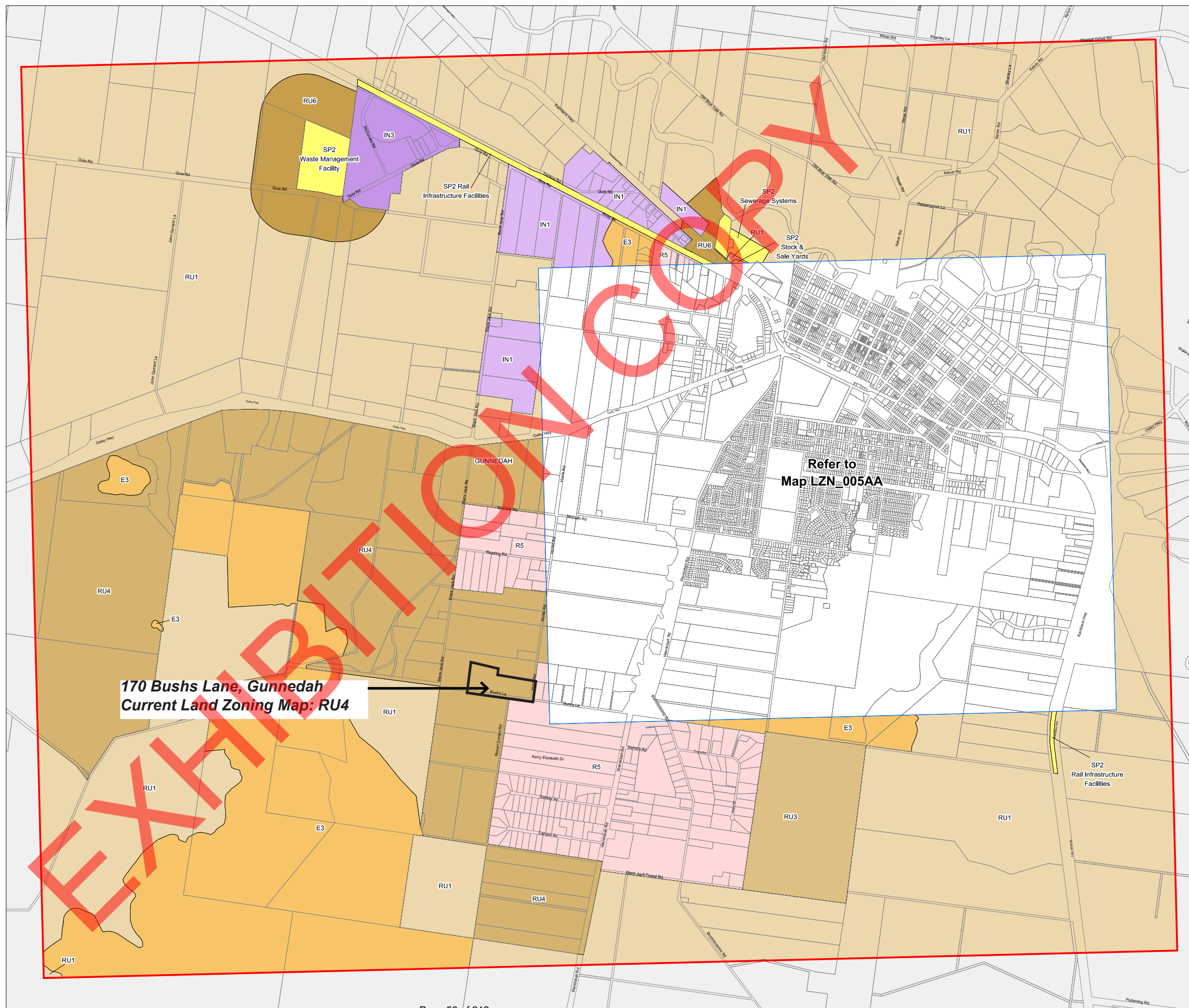
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Projection: GDA94  
MGA Zone 56

Map Identification Number:

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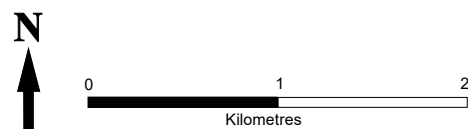
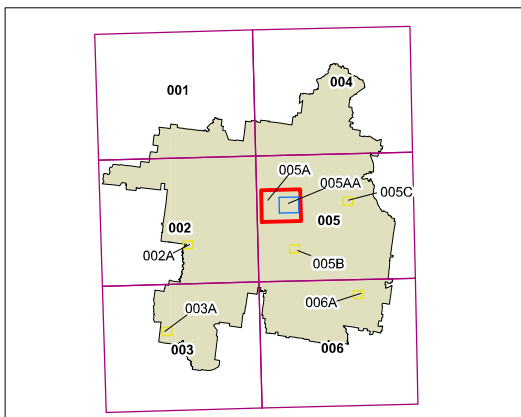
# Gunnedah Local Environmental Plan 2012

## Land Zoning Map - Sheet LZN\_005A

- Zone**
- B2 Local Centre
  - B4 Mixed Use
  - B5 Business Development
  - E1 National Parks and Nature Reserves
  - E3 Environmental Management
  - IN1 General Industrial
  - IN3 Heavy Industrial
  - R2 Low Density Residential
  - R3 Medium Density Residential
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  - RE1 Public Recreation
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  - RU1 Primary Production
  - RU3 Forestry
  - RU4 Primary Production Small Lots
  - RU5 Village
  - RU6 Transition
  - SP1 Special Activities
  - SP2 Infrastructure

**Cadastre**

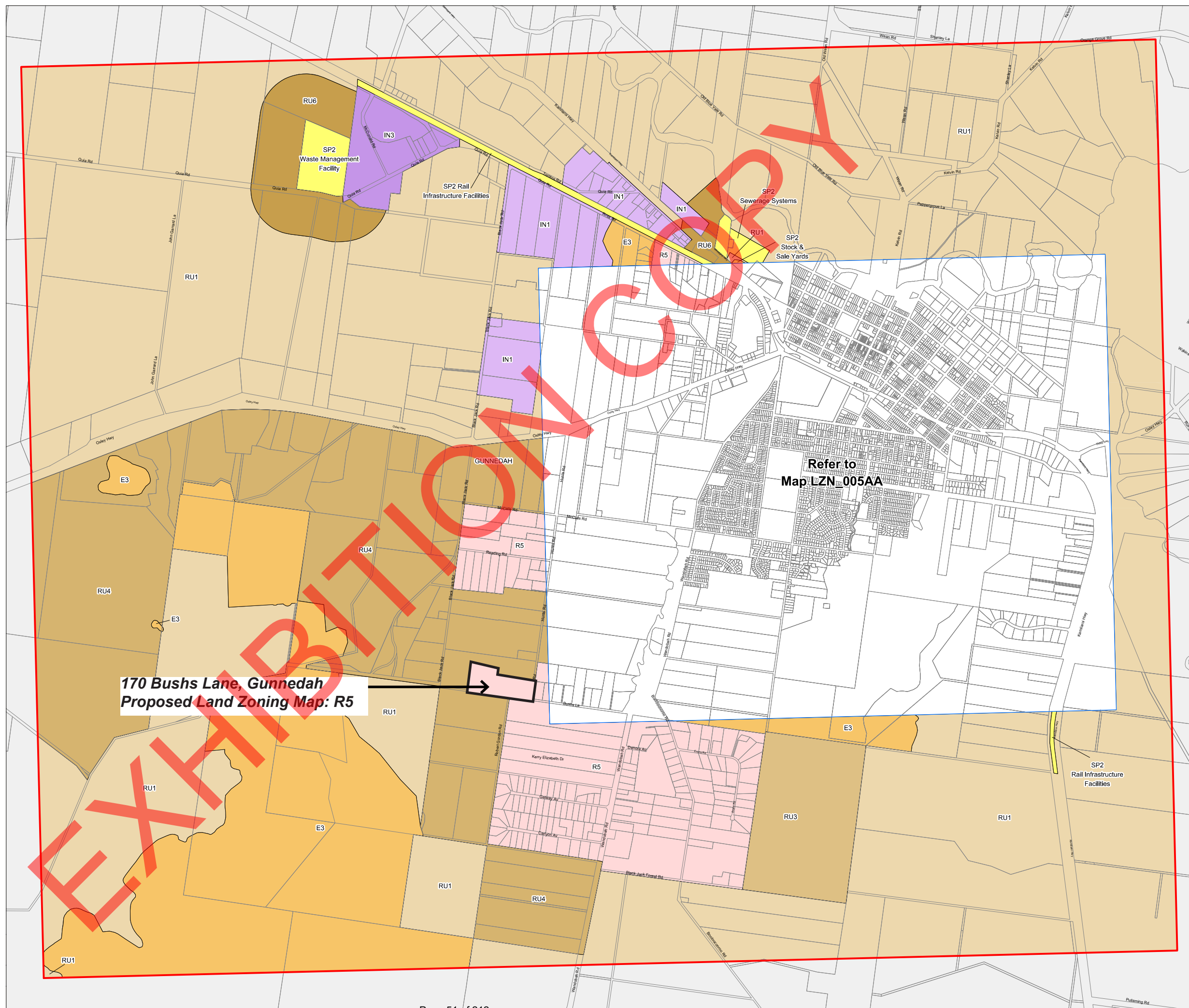
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Land and Property Information (LPI)



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Projection: GDA94  
MGA Zone 56

Map Identification Number:  
3550\_COM\_LZN\_005A\_040\_20150129





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# GUNNEDAH LOCAL ENVIRONMENTAL PLAN, 2012 - LOT SIZE MAPS LSZ\_005A

---

EXISTING LOT SIZE MAP LSZ\_005A  
PROPOSED REZONING TO 1.2 HA MINIMUM LOT SIZE MAP LSZ005  
GUNNEDAH LOCAL GOVERNMENT AREA

DATE: 13 SEPTEMBER 2023

PREPARED FOR:  
Ryan Pryde & Nancy Williams

PREPARED BY:  
Stewart Surveys Pty Ltd  
107-109 Conadilly Street,  
PO Box 592  
GUNNEDAH NSW 2380  
office@stewartsurveys.com

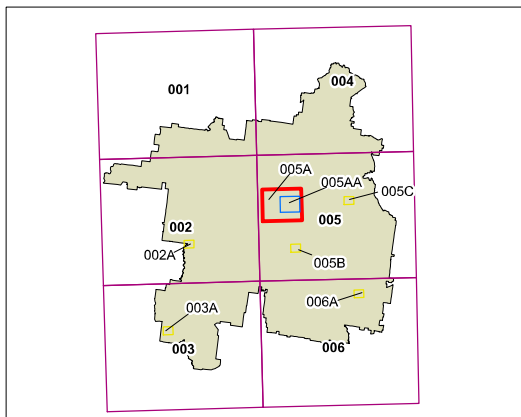
## Lot Size Map - Sheet LSZ\_005A

### Minimum Lot Size (sq m)

G	450
O	650
U	1000
V	2000
W	3000
X	6200
Y	1.2 ha
AB1	10 ha
AB4	40 ha
AE	200 ha

### Cadastre

Base data 26/3/2012 ©  
Land and Property Information (LPI)

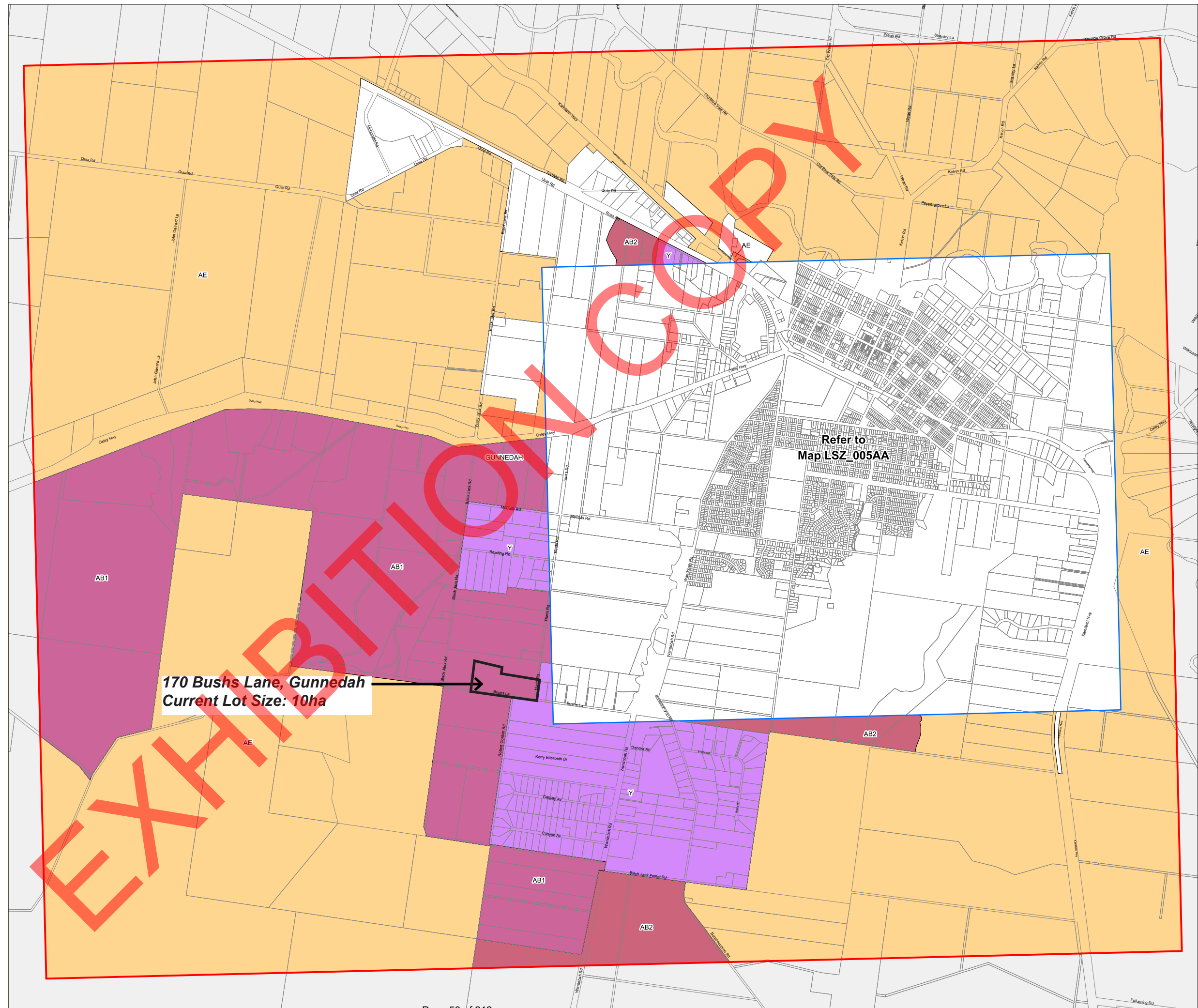


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Projection: GDA94  
MGA Zone 56

Map Identification Number:  
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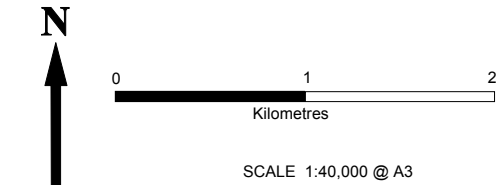
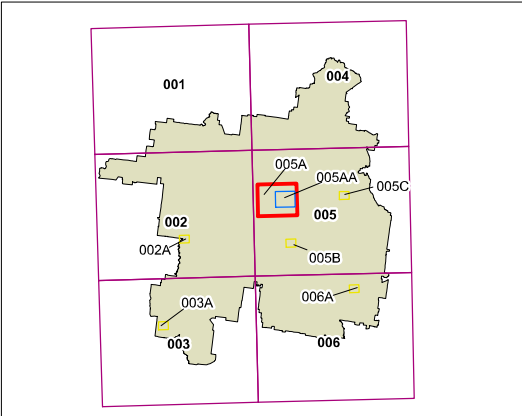
**Gunnedah Local  
Environmental  
Plan 2012**

**Lot Size Map - Sheet LSZ\_005A**

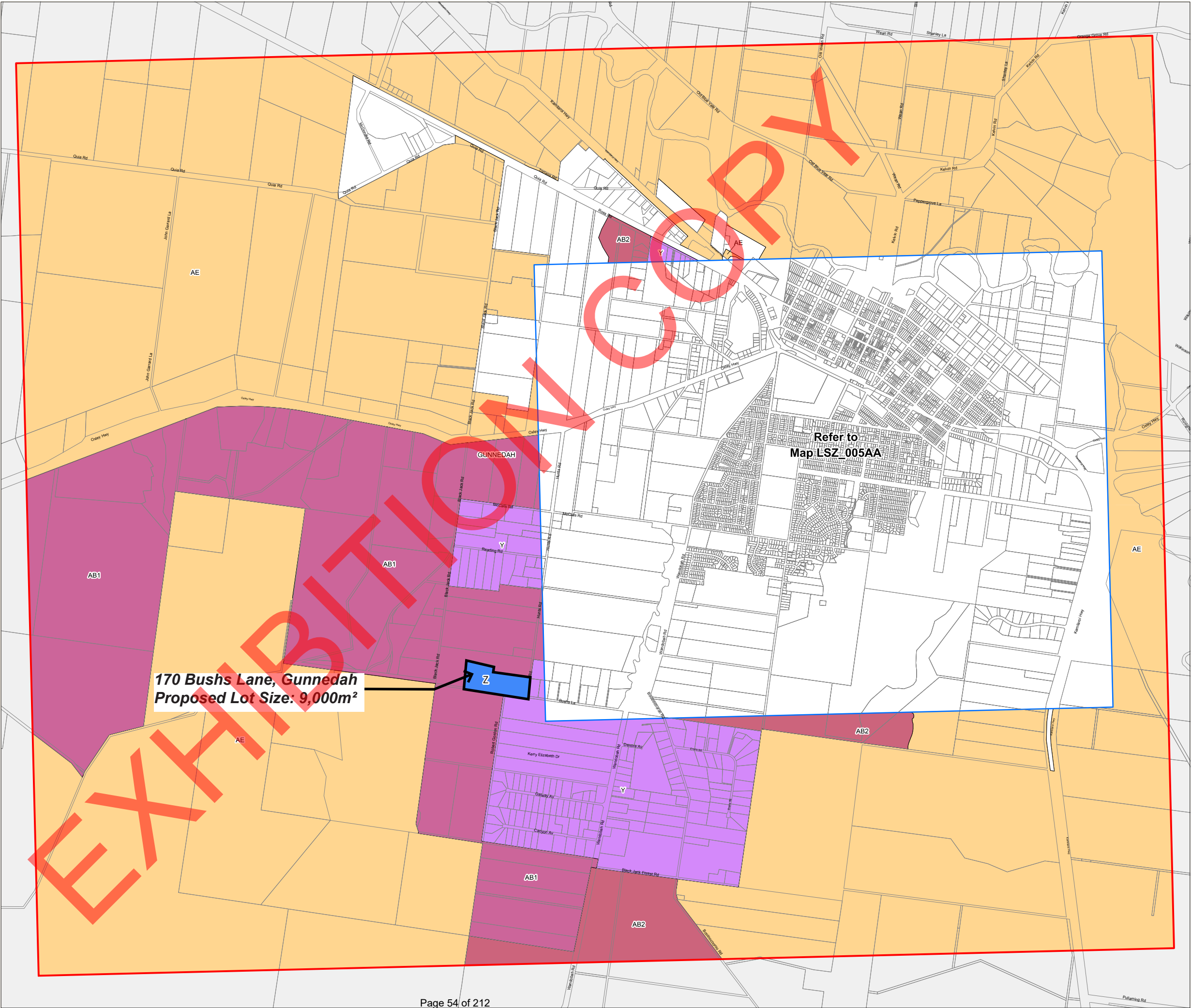
**Minimum Lot Size (sq m)**

G	450
O	650
U	1000
V	2000
W	3000
X	6200
Y	1.2 ha
AB1	10 ha
AB4	40 ha
AE	200 ha
Z	9000

**Cadastre**  
Base data 26/3/2012 ©  
Land and Property Information (LPI)



Projection: GDA94  
MGA Zone 56  
Map Identification Number:  
3550\_COM\_LSZ\_005A\_040\_20141107





## APPENDIX A

---

### TITLE DOCUMENTS

- Certificate of Title – Lot 1 in DP861697
- Deposited Plan 861697

EXHIBITION COPY





LAND  
REGISTRY  
SERVICES

NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: 1/861697

SEARCH DATE	TIME	EDITION NO	DATE
27/10/2021	10:17 AM	5	11/10/2019

LAND

LOT 1 IN DEPOSITED PLAN 861697  
AT GUNNEDAH  
LOCAL GOVERNMENT AREA GUNNEDAH  
PARISH OF GUNNEDAH COUNTY OF POTTINGER  
TITLE DIAGRAM DP861697

FIRST SCHEDULE

RYAN PETER PRYDE  
NANCY FAYE MARGARET WILLIAMS  
AS JOINT TENANTS

(T AP599472)

SECOND SCHEDULE (2 NOTIFICATIONS)

- 1 LAND EXCLUDES MINERALS AND IS SUBJECT TO RESERVATIONS AND CONDITIONS IN FAVOUR OF THE CROWN - SEE CROWN GRANT(S)
- 2 AP599473 MORTGAGE TO COMMONWEALTH BANK OF AUSTRALIA

NOTATIONS

UNREGISTERED DEALINGS: NIL

\*\*\* END OF SEARCH \*\*\*

Stewart Surveys Pty Ltd

PRINTED ON 27/10/2021

\* Any entries preceded by an asterisk do not appear on the current edition of the Certificate of Title.  
Warning: the information appearing under notations has not been formally recorded in the Register.

GLOBALX TERRAIN PTY LTD - hereby certifies that the information contained in this document has been provided electronically by the Registrar General in accordance with section 96B(2) of the Real Property Act 1900.

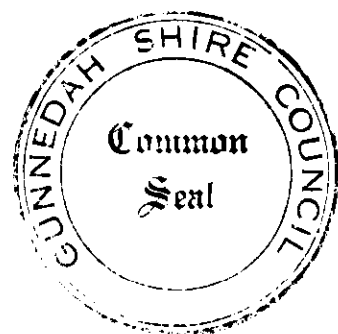
Note: Information contained in this document is provided by GLOBALX TERRAIN PTY LTD (ABN 35 164 894 517), <http://www.globalxterrain.com/> an approved NSW Information Broker

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WARNING : Electronic Document Supplied by LPI NSW for Your Internal Use Only.

PLANFORM 2

SIGNATURES AND SEALS ONLY



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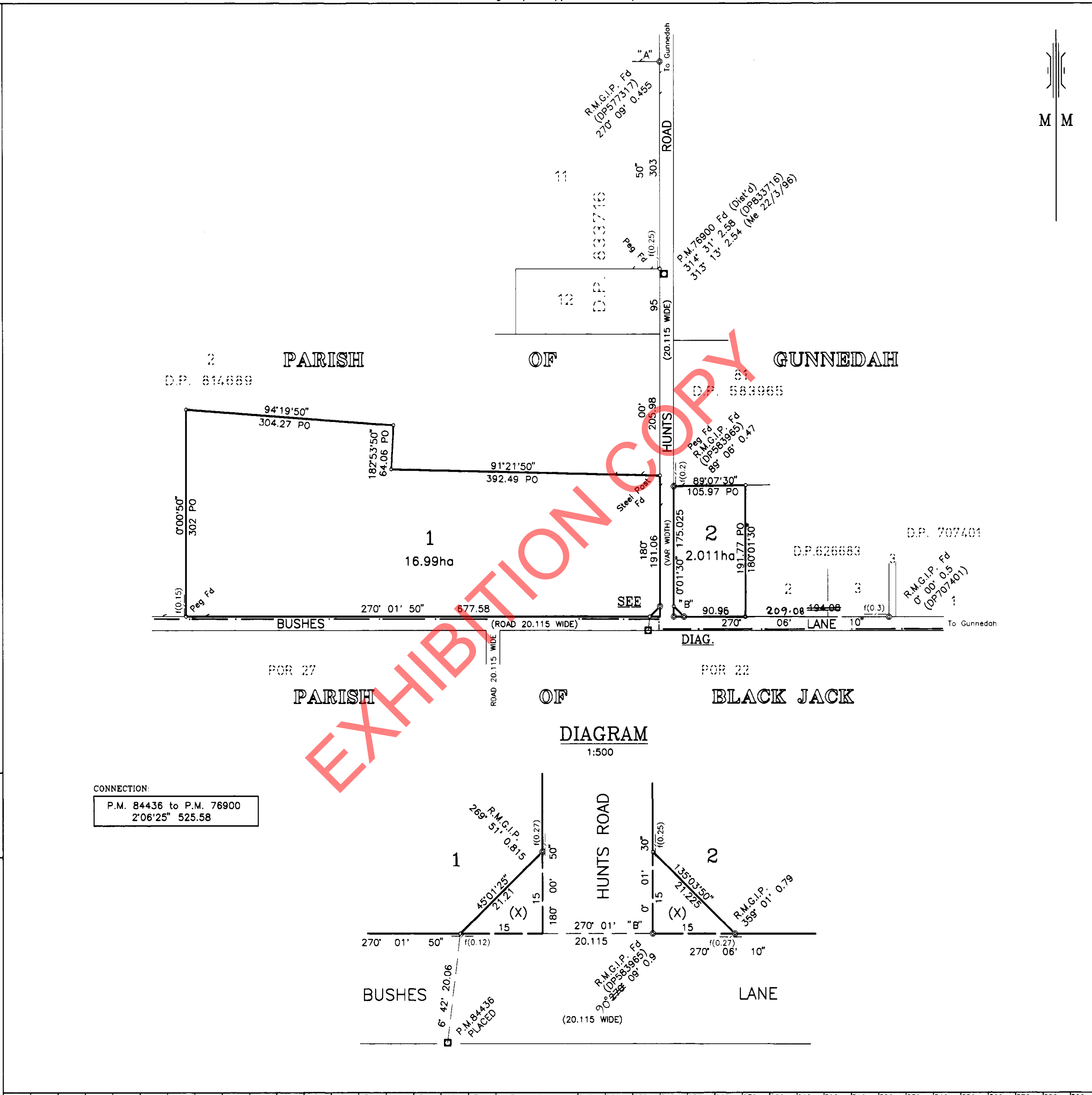
Crown Land Office Approval  
PLAN APPROVED .....  
Authorized Officer .....

Land District .....  
Paper No .....  
Field Book ..... pages .....

Council's Certificate  
I hereby certify that -  
(a) the requirements of the Local Government Act, 1919 (other than the requirements for the registration of plans), and  
(b) the requirements of Part 3 Division 2 of the Water Board Act 1997, or Part 6 Division 7 of the Hunter Water Board (Corporation) Act 1994,  
have been complied with by the applicant in relation to proposed NEW ROAD AND SUBDIVISION  
(insert "new road", "subdivision" or "consolidated lot" set out herein)  
Subdivision No. 1996/04  
Date 4 APRIL 1996  
(Signature) .....  
General Manager/Authorised Person  
Council File No. E353168

\*This part of certificate to be deleted where the application is only for a consolidated lot or the opening of a new road or where the land to be subdivided is wholly outside the areas of operations of the Water Board and the Hunter Water Corporation Ltd.

\* Delete if inapplicable



DP 861697

Registered: 30.8.1996  
C.A.: NO 1996/04 OF 4 4.1996  
Title System: TORRENS  
Purpose: SUBDIVISION  
Ref. Map: 8935 - 4 - N  
Last Plan: DPG09548, DPG26683

PLAN  
OF SUBDIVISION OF  
LOT 1 D.P.626683 AND  
LOT 32 D.P.609548.  
Lengths are in metres. Reduction Ratio 1: 4000

L G A GUNNEDAH  
Locality: GUNNEDAH  
Parish: GUNNEDAH  
County: POTTINGER

This is sheet 1 of my plan in ..... sheets.  
(Delete if inapplicable)

CLIFFORD R. STEWART  
of BATH STEWART ASSOCIATES PTY LTD  
P.O. BOX 592 GUNNEDAH ACN 002 745 020  
a surveyor registered under the Surveyors Act, 1929, as amended, hereby certify that the survey represented in this plan IS PART COMPILED  
is accurate and has been made in accordance with the Survey Practice Regulation 1990 and was completed on  
22nd March 1996  
Signature: [Signature]  
Surveyor registered under Surveyors Act, 1929, as amended.  
Datum Line of Azimuth: "A-B"  
# Insert date of survey: (D.P.814689)

Plans used in preparation of survey/compilation:  
DP814689, DP626683,  
DP609548, DP583965,  
DP833716, DP707401

PANEL FOR USE ONLY for statements of intention to dedicate public roads, to create public reserves, drainage reserves, easements, restrictions on the use of land or positive covenants.

IT IS INTENDED TO DEDICATE  
THE SPLAYED CORNERS SHOWN  
THUS (X) TO THE PUBLIC  
FOR ROAD.

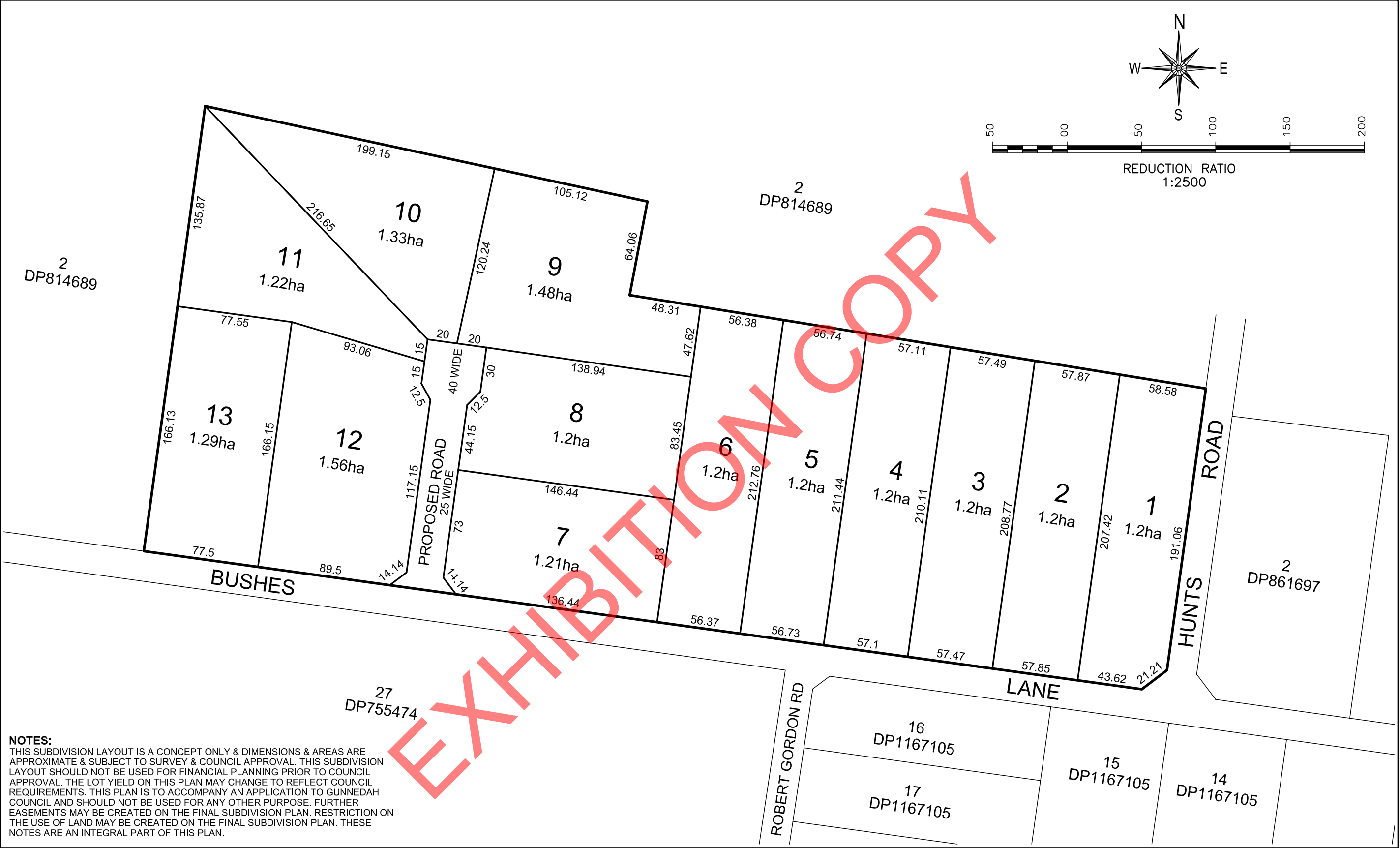
## APPENDIX B

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### CONCEPTUAL PLAN OF SUBDIVISION

- Concept plan for Proposed Subdivision of Lot 1 DP 861697, prepared by Stewart Surveys, Dated 28 October 2021

EXHIBITION COPY



**NOTES:**  
THIS SUBDIVISION LAYOUT IS A CONCEPT ONLY & DIMENSIONS & AREAS ARE APPROXIMATE & SUBJECT TO SURVEY & COUNCIL APPROVAL. THIS SUBDIVISION LAYOUT SHOULD NOT BE USED FOR FINANCIAL PLANNING PRIOR TO COUNCIL APPROVAL. THE LOT YIELD ON THIS PLAN MAY CHANGE TO REFLECT COUNCIL REQUIREMENTS. THIS PLAN IS TO ACCOMPANY AN APPLICATION TO GUNNEDAH COUNCIL AND SHOULD NOT BE USED FOR ANY OTHER PURPOSE. FURTHER EASEMENTS MAY BE CREATED ON THE FINAL SUBDIVISION PLAN. RESTRICTION ON THE USE OF LAND MAY BE CREATED ON THE FINAL SUBDIVISION PLAN. THESE NOTES ARE AN INTEGRAL PART OF THIS PLAN.

 <p><b>STEWART SURVEYS</b> Pty Ltd Inc in NSW ABN 65 002 886 508 109 Conadilly Street P.O. Box 592 GUNNEDAH NSW 2380 T 02 67422966 F 02 67420684 E office@stewartsurveys.com</p> <p>Local people Local knowledge</p> <p>Surveying, Environmental &amp; Landscape Architecture</p>	CLIENT:  RYAN PRYDE		DESCRIPTION:  CONCEPT PLAN FOR PROPOSED SUBDIVISION OF LOT 1 DP861697		
	PROJECT:  No 170 BUSHES LANE. GUNNEDAH				
	Date: 28TH OCTOBER 2021	File Ref: 5608	Drawn: CRS	Scale: 1:2500 @ A3	Sheet:



## APPENDIX C

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### EPLANNING REPORT

EXHIBITION COPY

*Development Consultants – Surveying, Environmental & Landscape Architecture Services*

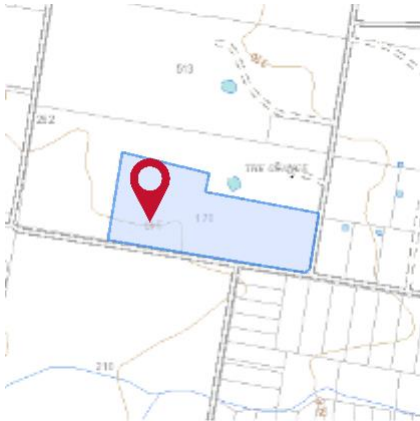
**Stewart Surveys Pty Ltd**  
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Gunnedah NSW 2380

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F 02 6742 0684  
cstewart@stewartsurveys.com

# Property Report

170 BUSHES LANE GUNNEDAH 2380



## Property Details

Address: 170 BUSHES LANE GUNNEDAH 2380  
Lot/Section 1/-/DP861697  
/Plan No:  
Council: GUNNEDAH SHIRE COUNCIL

## Summary of planning controls

Planning controls held within the Planning Database are summarised below. The property may be affected by additional planning controls not outlined in this report. Please contact your council for more information.

Local Environmental Plans	Gunnedah Local Environmental Plan 2012 (pub. 29-6-2012)
Land Zoning	RU4 - Primary Production Small Lots: (pub. 29-6-2012)
Height Of Building	NA
Floor Space Ratio	NA
Minimum Lot Size	10 ha
Heritage	NA
Land Reservation Acquisition	NA
Foreshore Building Line	NA

## Detailed planning information

### State Environmental Planning Policies which apply to this property

State Environmental Planning Policies can specify planning controls for certain areas and/or types of development. They can also identify the development assessment system that applies and the type of environmental assessment that is required.

This report provides general information only and does not replace a Section 10.7 Certificate (formerly Section 149)

- State Environmental Planning Policy (Affordable Rental Housing) 2009: Land Application (pub. 31-7-2009)
- State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004: Land Application (pub. 25-6-2004)
- State Environmental Planning Policy (Concurrences and Consents) 2018: Land Application (pub. 21-12-2018)
- State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017: Land Application (pub. 1-9-2017)
- State Environmental Planning Policy (Exempt and Complying Development Codes) 2008: Land Application (pub. 12-12-2008)
- State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004: Land Application (pub. 31-3-2004)
- State Environmental Planning Policy (Infrastructure) 2007: Land Application (pub. 21-12-2007)
- State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007: Land Application (pub. 16-2-2007)
- State Environmental Planning Policy (Primary Production and Rural Development) 2019: Land Application (pub. 28-2-2019)
- State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017: Excluded (pub. 17-9-2021)
- State Environmental Planning Policy No 21—Caravan Parks: Land Application (pub. 24-4-1992)
- State Environmental Planning Policy No 33—Hazardous and Offensive Development: Land Application (pub. 13-3-1992)
- State Environmental Planning Policy No 36—Manufactured Home Estates: Land Application (pub. 16-7-1993)
- State Environmental Planning Policy No 50—Canal Estate Development: Land Application (pub. 10-11-1997)
- State Environmental Planning Policy No 55—Remediation of Land: Land Application (pub. 28-8-1998)
- State Environmental Planning Policy No 64—Advertising and Signage: Land Application (pub. 16-3-2001)
- State Environmental Planning Policy No 65—Design Quality of Residential Apartment Development: Land Application (pub. 26-7-2002)

This report provides general information only and does not replace a Section 10.7 Certificate (formerly Section 149)



# Property Report

170 BUSHES LANE GUNNEDAH 2380

## Other matters affecting the property

Information held in the Planning Database about other matters affecting the property appears below. The property may also be affected by additional planning controls not outlined in this report. Please speak to your council for more information

Land near Electrical Infrastructure	This property may be located near electrical infrastructure and could be subject to requirements listed under ISEPP Clause 45. Please contact Essential Energy for more information.
Local Aboriginal Land Council	RED CHIEF
Regional Plan Boundary	New England North West

EXHIBITION COPY

This report provides general information only and does not replace a Section 10.7 Certificate (formerly Section 149)



## APPENDIX D

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### BIODIVERSITY OFFSET SCHEME (BOS) ENTRY THRESHOLD MAP

EXHIBITION COPY

*Development Consultants – Surveying, Environmental & Landscape Architecture Services*

**Stewart Surveys Pty Ltd**  
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Gunnedah NSW 2380

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cstewart@stewartsurveys.com

## Biodiversity Offset Scheme (BOS) Entry Threshold Map



245.9 0 122.96 245.9 Metres

WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

THIS MAP IS NOT TO BE USED FOR NAVIGATION

### Legend

- Biodiversity Values that have been mapped for more than 90 days
- Biodiversity Values added within last 90 days

### Notes

© Office of Environment and Heritage |  
NSW Environment & Heritage

## Biodiversity Values Map and Threshold Report

### Results Summary

<b>Date of Calculation</b>	03/12/2021 3:08 PM	<b>BDAR Required*</b>
<b>Total Digitised Area</b>	16.96 ha	
<b>Minimum Lot Size Method</b>	LEP	
<b>Minimum Lot Size</b>	10 ha	
<b>Area Clearing Threshold</b>	0.5 ha	
<b>Area clearing trigger</b> Area of native vegetation cleared	Unknown #	Unknown #
<b>Biodiversity values map trigger</b> Impact on biodiversity values map(not including values added within the last 90 days)?	no	no
<b>Date of the 90 day Expiry</b>	N/A	

\*If BDAR required has:

- at least one 'Yes': you have exceeded the BOS threshold. You are now required to submit a Biodiversity Development Assessment Report with your development application. Go to <https://customer.lmbc.nsw.gov.au/assessment/AccreditedAssessor> to access a list of assessors who are accredited to apply the Biodiversity Assessment Method and write a Biodiversity Development Assessment Report
- 'No': you have not exceeded the BOS threshold. You may still require a permit from local council. Review the development control plan and consult with council. You may still be required to assess whether the development is "likely to significantly affect threatened species" as determined under the test in s. 7.3 of the Biodiversity Conservation Act 2016. You may still be required to review the area where no vegetation mapping is available.

# Where the area of impact occurs on land with no vegetation mapping available, the tool cannot determine the area of native vegetation cleared and if this exceeds the Area Threshold. You will need to work out the area of native vegetation cleared - refer to the BOSET user guide for how to do this.

On and after the 90 day expiry date a BDAR will be required.

## Disclaimer

This results summary and map can be used as guidance material only. This results summary and map is not guaranteed to be free from error or omission. The State of NSW and Office of Environment and Heritage and its employees disclaim liability for any act done on the information in the results summary or map and any consequences of such acts or omissions. It remains the responsibility of the proponent to ensure that their development application complies with all aspects of the *Biodiversity Conservation Act 2016*.

The mapping provided in this tool has been done with the best available mapping and knowledge of species habitat requirements. This map is valid for a period of 30 days from the date of calculation (above).

## Acknowledgement

I as the applicant for this development, submit that I have correctly depicted the area that will be impacted or likely to be impacted as a result of the proposed development.

Signature \_\_\_\_\_ Date: 03/12/2021 03:08 PM

## APPENDIX E

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### ABORIGINAL HERITAGE INFORMATION MANAGEMENT SYSTEMS SEARCH RESULTS

EXHIBITION COPY



Stewart Surveys

PO Box 592

Gunnedah New South Wales 2380

Attention: Kathryn Yigman

Email: kathryn@stewartsurveys.com

Date: 07 October 2021

Dear Sir or Madam:

**AHIMS Web Service search for the following area at Lot : 1, DP:DP861697, Section : - with a Buffer of 50 meters, conducted by Kathryn Yigman on 07 October 2021.**

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



A search of Heritage NSW AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

0	Aboriginal sites are recorded in or near the above location.
0	Aboriginal places have been declared in or near the above location. *

### **If your search shows Aboriginal sites or places what should you do?**

- You must do an extensive search if AHIMS has shown that there are Aboriginal sites or places recorded in the search area.
- If you are checking AHIMS as a part of your due diligence, refer to the next steps of the Due Diligence Code of practice.
- You can get further information about Aboriginal places by looking at the gazettal notice that declared it. Aboriginal places gazetted after 2001 are available on the [NSW Government Gazette \(https://www.legislation.nsw.gov.au/gazette\)](https://www.legislation.nsw.gov.au/gazette) website. Gazettal notices published prior to 2001 can be obtained from Heritage NSW upon request

### **Important information about your AHIMS search**

- The information derived from the AHIMS search is only to be used for the purpose for which it was requested. It is not be made available to the public.
- AHIMS records information about Aboriginal sites that have been provided to Heritage NSW and Aboriginal places that have been declared by the Minister;
- Information recorded on AHIMS may vary in its accuracy and may not be up to date. Location details are recorded as grid references and it is important to note that there may be errors or omissions in these recordings,
- Some parts of New South Wales have not been investigated in detail and there may be fewer records of Aboriginal sites in those areas. These areas may contain Aboriginal sites which are not recorded on AHIMS.
- Aboriginal objects are protected under the National Parks and Wildlife Act 1974 even if they are not recorded as a site on AHIMS.
- This search can form part of your due diligence and remains valid for 12 months.

## APPENDIX F

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### STATE ENVIRONMENTAL PLANNING POLICY 55 – REMEDIATION OF LAND

EXHIBITION COPY

*Development Consultants – Surveying, Environmental & Landscape Architecture Services*

**Stewart Surveys Pty Ltd**  
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Gunnedah NSW 2380

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cstewart@stewartsurveys.com

# STATE ENVIRONMENTAL PLANNING POLICY (SEPP) NO. 55 - REMEDiation OF LAND

## Preliminary Investigation of Site Contamination

Under the provisions of the *Environmental Planning and Assessment (Amendment) Act 1979*

The purpose of this form is to determine whether the issue of land contamination is relevant to the subject site, and whether further investigation s of land contamination are required.

### LAND IDENTIFICATION

**Lot Particulars:** Lot 1 DP861697

**Owners:** Ryan Pryde & Nancy Williams

Have any contamination investigations been carried out on the subject site? Yes ☐ No ☒  
NB: If yes, please attach results (including any previous initial evaluations).

Have any of the following activities ever been carried out on the subject site? (please tick)

acid/alkali plant and formulation	<input type="checkbox"/>	metal treatment	<input type="checkbox"/>
agricultural/horticultural activities	<input type="checkbox"/>	mining and extractive industries	<input type="checkbox"/>
airport	<input type="checkbox"/>	oil production and storage	<input type="checkbox"/>
asbestos production and disposal	<input type="checkbox"/>	paint formulation and manufacturing	<input type="checkbox"/>
chemicals manufacture and formulation	<input type="checkbox"/>	pesticide manufacture and formulation	<input type="checkbox"/>
defence works	<input type="checkbox"/>	power station	<input type="checkbox"/>
drum re-conditioning works	<input type="checkbox"/>	railway yards	<input type="checkbox"/>
dry cleaning establishments	<input type="checkbox"/>	scrap yards	<input type="checkbox"/>
electrical manufacturing (transformers)	<input type="checkbox"/>	service stations	<input type="checkbox"/>
electroplating and heat treatment premises	<input type="checkbox"/>	sheep and cattle dips	<input type="checkbox"/>
engine works	<input type="checkbox"/>	smelting and refining	<input type="checkbox"/>
explosive industry	<input type="checkbox"/>	tanning and associated trades	<input type="checkbox"/>
gas works	<input type="checkbox"/>	waste storage and treatment	<input type="checkbox"/>
iron and steel works	<input type="checkbox"/>	wood preservation	<input type="checkbox"/>
landfill sites	<input type="checkbox"/>		

Are there any contamination impacts on land immediately adjacent to the subject site which may affect the subject land? Yes ☐ No ☒  
NB: If yes, please attach details of contamination impacts

### DECLARATION

☒ I declare that to the best of my knowledge, the issue of land contamination is not relevant to the subject site.

Signed: 

Date: 10-1-22

☒ I declare that the subject site may be affected by land contamination and that further contamination investigation is warranted.

Signed: 

Date: 10-1-22



## APPENDIX G

---

### BIONET VEGETATION CLASSIFICATION – COMMUNITY PROFILE REPORT

- PCT 101

EXHIBITION COPY

# ***BioNet Vegetation Classification - Community Profile Report***

**Sunday, 29 November 2020**

**Community Profile Report**

**Page 1 of 3**

Page 73 of 212

**PCT Name:** Poplar Box - Yellow Box - Western Grey Box grassy woodland on cracking clay soils mainly in the Liverpool Plains, Brigalow Belt South Bioregion

**Classification Confidence Level:** 2-High

**Vegetation Description:** Tall woodland or open woodland dominated by Poplar Box (*Eucalyptus populnea* subsp. *bimil*) sometimes with Yellow Box (*Eucalyptus melliodora*), White Cypress Pine (*Callitris glaucophylla*), Silver-leaved Ironbark (*Eucalyptus melanophloia*) or rarely with Western Grey Box (*Eucalyptus microcarpa*). A very sparse shrub layer may be present or it is absent. Shrub species include Wilga (*Geijera parviflora*), Mock Olive (*Notalea microcarpa*), the bluebush *Maireana microphylla*, Wild Orange (*Capparis mitchellii*) and Western Rosewood (*Alectryon oleifolius*). The ground cover is usually dense and is dominated by a rich array of grass and forb species. Grass species include *Austrostipa verticillata*, Queensland Bluegrass (*Dichanthium sericeum* subsp. *sericeum*), *Bothriochloa decipiens*, *Austrodanthonia bipartita*, *Enteropogon acicularis*, *Aristida personata*, *Aristida ramosa*, *Austrostipa aristiglumis*, *Austrostipa scabra* subsp. *scabra*, *Themeda australis*, *Eulalia aurea*, *Paspalidium jubiflorum*, *Chloris truncata* and *Chloris ventricosa*. The more palatable grasses such as *Themeda australis* and *Eulalia fulva* have often been grazed out. Forb species include *Rumex brownii*, *Einadia nutans*, *Cotula australis*, *Maireana enchylaenoides*, *Erodium crinitum*, *Calotis lappulacea*, *Rostellularia adscendens* subsp. *adscendens*, *Sida corrugata*, *Oxalis exilis*, *Einadia hastata*, *Vittadinia dissecta* var. *hirta*, *Vittadinia muelleri*, *Vittadinia sulcata*, *Chrysocephalum apiculatum*, *Solanum cinereum*, *Abutilon oxycarpum*, *Dichondra* sp. A, *Wahlenbergia stricta* subsp. *stricta*, *Pycnosorus globosus*, *Goodenia fascicularis* and *Brunoniella australis*. Occurs on alluvial cracking clay soils derived from volcanic or sedimentary substrates on alluvial plains or gently undulating slopes in the Brigalow Belt South Bioregion particularly in the Liverpool Plains sub-region with areas also occurring in the Northern Basalts sub-region. Mostly cleared for grazing and cropping. Weed species may be abundant and include *Rapistrum rugosum*, *Medicago polymorpha*, *Lepidium africanum*, *Avena ludoviciana*, *Malva parviflora*, *Hedypnois rhagadioloides* and *Sisymbrium irio*. Grades into grasslands on black earth soils (IDs 52 & 102) and upslope on hillsides into grassy White Box (*Eucalyptus albens*) - White Cypress Pine woodland (ID433, ID434, ID435). Mostly cleared, with few large remnants remaining and small remnants occurring on roadsides or on private land. Part of the extent listed as an endangered ecological community under the TSC Act covering vegetation on cracking clays in the Liverpool Plains sub-region. Very poorly protected.

**Variation and Natural Disturbance:** The understorey grass species vary with soil types grading into grassland on heavier soils.

**Vegetation Formation:** Semi-arid Woodlands (Grassy sub-formation);

**Vegetation Class:** Brigalow Clay Plain Woodlands;

**IBRA Bioregion(s):** Brigalow Belt South; Nandewar;

**IBRA Sub-region(s):** Liverpool Plains; Northern Basalts; Northern Outwash; Pilliga; Kaputar; Peel;

**LGA:** LIVERPOOL PLAINS; GUNNDAH; GWYDIR; WARRUMBUNGLE;

**Lithology:** Alluvial loams and clays, Clay, Sedimentary rock (unidentified)

**Landform Pattern:** Alluvial plain, Low hills, Plain

**Landform Element:** Footslope, Plain, Valley flat

**Emergent species:** None

**Upper Stratum Species:** *Eucalyptus populnea* subsp. *bimil*; *Callitris glaucophylla*; *Eucalyptus melliodora*; *Eucalyptus microcarpa*; *Eucalyptus melanophloia*; *Eucalyptus pilligaensis*; *Callitris glaucophylla*; *Casuarina cristata*;

**Mid Stratum Species:** *Geijera parviflora*; *Maireana microphylla*; *Eremophila debilis*; *Alectryon oleifolius* subsp. *elongatus*; *Capparis mitchellii*; *Notalea microcarpa*; *Sclerolaena muricata*; *Myoporum montanum*; *Pimelea neo-anglica*; *Sclerolaena birchii*; *Templetonia stenophylla*;

**Ground Stratum Species:** *Aristida personata*; *Oxalis perennans*; *Einadia nutans* subsp. *nutans*; *Brunoniella australis*; *Austrodanthonia bipartita*; *Austrostipa aristiglumis*; *Austrostipa verticillata*; *Aristida ramosa*; *Dichanthium sericeum* subsp. *sericeum*; *Bothriochloa decipiens*; *Chloris truncata*; *Austrodanthonia caespitosa*; *Austrostipa scabra* subsp. *scabra*; *Themeda australis*; *Eulalia aurea*; *Chloris ventricosa*; *Enteropogon acicularis*; *Eriochloa pseudoacrotricha*; *Austrostipa setacea*; *Digitaria divaricatissima*; *Enneapogon gracilis*; *Leptochloa decipiens* subsp. *asthenes*; *Sporobolus caroli*; *Sporobolus creber*; *Cymbopogon refractus*; *Austrodanthonia fulva*; *Rumex brownii*; *Vittadinia cuneata*; *Sida trichopoda*; *Solanum parvifolium*; *Wahlenbergia stricta* subsp. *stricta*; *Pycnosorus globosus*; *Goodenia fascicularis*; *Leiocarpa tomentosa*; *Cyperus gracilis*; *Carex inversa*; *Boerhavia dominii*; *Dichondra* sp. A; *Cotula australis*; *Maireana enchylaenoides*; *Erodium crinitum*; *Calotis lappulacea*; *Oxalis exilis*; *Einadia trigonos* subsp. *trigonos*; *Vittadinia dissecta* var. *hirta*; *Vittadinia muelleri*; *Vittadinia sulcata*; *Atriplex semibaccata*; *Plantago debilis*; *Goodenia heteromera*; *Sida spinosa*; *Chrysocephalum apiculatum*; *Desmodium varians*; *Goodenia bellidifolia* subsp. *bellidifolia*; *Calotis scabiosifolia* var. *scabiosifolia*; *Rostellularia adscendens* var. *adscendens*; *Sida corrugata*; *Paspalidium jubiflorum*; *Einadia hastata*;

**Diagnostic Species:** Not Assessed

**Fire Regime:** Fire is now rare due to fragmentation. May have been patch burnt by Aboriginal people before European settlement.

**TEC Assessed:** Has associated TEC

**TEC List:** Listed BC Act,E: Brigalow within the Brigalow Belt South, Nandewar and Darling Riverine Plains Bioregions (Part); Listed BC Act,E: Inland Grey Box Woodland in the Riverina, NSW South Western Slopes, Cobar Peneplain, Nandewar and Brigalow Belt South Bioregions (Part); Listed EPBC Act,CE: White Box Yellow Box Blakely's Red Gum Woodland (Part);

**Associated TEC Comments:**

**PCT Percent Cleared:** 75.00

Sunday, 29 November 2020

EXHIBITION COPY



## APPENDIX H

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### SOIL LANDSCAPE PROFILE

- Frw (Fullwoods Road)

EXHIBITION COPY



**Landscape**— Extremely long (400 - 2,500 m) pediment footslopes comprised of coalescing alluvial fans below Permian and Triassic lithic sandstone hills. Slopes 2 - 8%, local relief <80 m, elevation 290 - 400 m. Mostly cleared open woodland.

**Soils**— Mostly degraded very deep to giant, moderately well-drained Red and Brown Chromosols (Red-brown Earths) with deep to very deep, well-drained Red Kandosols (Red Earths) common on upper footslopes.

**Qualities and limitations**— moderate soil fertility, localised foundation hazard, localised dieback, widespread recharge zone, localised discharge zone, localised salinity hazard, localised gully erosion hazard, localised sheet erosion hazard, widespread high run-on, localised permanently high watertables.

## LOCATION AND SIGNIFICANCE

Long pediment footslopes and alluvial fans derived from Permian and Triassic sandstone hills in the Curlewis Hills. Type location is E end of Fullwoods Rd, 8 km SE of Curlewis and 17 km NW of Breeza (MGA grid reference 242500E, 6548900N, grid zone 56).

### Variants

None.

### Included landscapes

None.

## LANDSCAPE

### Landform

Coalescing alluvial fan systems on long (400 - 2,500 m) pediment footslopes below Permian and Triassic sandstone hills, with slopes between 2 - 8%, local relief <80 m and elevation ranging from 290 - 400 m. Upper slopes are steeper with gradients up to 8% and incised drainage lines, whilst lower slopes are dominated by sheetflow with a few gullies.

Localised saline outbreaks are found in the floors of deep gullies and along lower footslopes, particularly where subsurface drainage may be impeded, e.g., by roads.

## Geology

Quaternary alluvial/colluvial complex derived from Permian and Triassic sandstones and conglomerates deposited as a complex of interlocking fans. Depth to bedrock is generally >6 m. Most of the fan material overlies Permian sandstones and conglomerates.

## Vegetation

Open woodland mostly cleared originally for agriculture. Dominant species which occur in remnant patches of vegetation and in regrowth areas include *Eucalyptus albens* (white box), *E. melliodora* (yellow box), *E. populnea* (bimble box), *E. pilligaensis* (pilliga box), *Casuarina cristata* (belah), *Brachychiton populneus* (kurrajong), *Geijera parviflora* (wilga), *Heterodendron oleifolium* (rosewood), *Eremophila mitchellii* (budda), *Acacia deanei* ssp. *deanei* (Deane's wattle), *A. aneura* (mulga), and *A. harpophylla* (brigalow).

Ground cover species include *Stipa* spp. (spear grasses), *Aristida* spp. (wire grasses), *Bothriochloa ambigua* (red grass), *Dicanthium sericeum* (blue grass), *Eragrostis* spp. (love grasses) and *Panicum* spp. (panics).

## Climate

Estimated average annual rainfall ranges from 560 - 640 mm/year.

## Hydrology

Not recorded.

## Land use

Most of this soil landscape was originally cleared for cultivation, though grazing of cattle and sheep on improved pastures is now the dominant land use. Cropping is generally carried out in rotation with pasture phases, although some continuous cropping may still be found.

## Land degradation

Severe gully erosion is associated with previously intensive cropping, and most gullies are relatively stable. Severe sheet and rill erosion is common in some areas. Structural decline from previous continuous cropping systems is evident in the form of plough pans, and where continuous cultivation is still carried out the remaining topsoil has become a dense compacted mass. Saline outbreaks are found on lower footslopes and fans and in association with structural controls such as roads.

## Erosion hazard

Land use	Non-concentrated flows	Concentrated flows	Wind
cultivation	moderate	high	moderate
grazing	low	moderate	low

## SOILS

### Soil Variation and Distribution

Upper footslopes are dominated by deep to very deep, well-drained Red Kandosols (Red Earths), with total soil depth <2 m. Mid to lower footslopes are generally dominated by very deep to giant, moderately well-drained Red and Brown Chromosols (Red-brown Earths), with total soil depth often >5 m.

## QUALITIES AND LIMITATIONS

### Capabilities

Land and Soil Capability	5	Urban Capability	A
Soil Regolith Class	R4 (R3)		

### Limitations to Land Use

Grazing	low	Cultivation	moderate to high
Urban	low to moderate		

### Landscape

Steep slopes	not observed	Mass movement hazard	not observed
Rock outcrop	not observed	Rockfall hazard	not observed

<b>Foundation hazard</b>	localised	<b>Woody weeds</b>	not observed
<b>Complex terrain</b>	not observed	<b>Productive arable land</b>	not observed
<b>Soils</b>			
<b>Shallow soils</b>	not observed	<b>Poor moisture availability</b>	not observed
<b>Non-cohesive soils</b>	not observed	<b>Soil fertility</b>	moderate
<b>Hydrology</b>			
<b>High run-on</b>	widespread	<b>Poor drainage</b>	not observed
<b>Permanently high watertables</b>	localised	<b>Permanent waterlogging</b>	not observed
<b>Seasonal waterlogging</b>	not observed	<b>Flood hazard</b>	not observed
<b>Erosion</b>			
<b>Wind erosion hazard</b>	not observed	<b>Wave erosion hazard</b>	not observed
<b>Gully erosion hazard</b>	localised	<b>Sheet erosion hazard</b>	localised
<b>Streambank erosion hazard</b>	not observed		
<b>Salinity</b>			
<b>Recharge zone</b>	widespread	<b>Discharge zone</b>	localised
<b>Salinity hazard</b>	localised	<b>Seepage scalds</b>	localised

## FACETS

### frw(1)— Upper footslopes

<b>Soils</b>	Deep to very deep, well-drained Red Kandosols (Red Earths).
<b>Type Profile</b>	Soil Landscapes of the Curlewis 1:100 000 Sheet (1000212), profile 27.

### frw(2)— Mid to lower footslopes

<b>Soils</b>	Very deep to giant, moderately well-drained Red Chromosols and Sodosols (Red-brown Earths and Solodic soils).
<b>Type Profile</b>	Soil Landscapes of the Curlewis 1:100 000 Sheet (1000212), profile 53.

## LAND MANAGEMENT RECOMMENDATIONS

Contour banks and strip cropping is necessary to control sheetflow, especially in cropping systems but also beneficial on steeper upper footslopes in grazing systems. Cropping should be in rotation with pasture, with a maximum of 3 years under crop and a minimum of 3 years in continuous pasture. Tree cover of >10% in stands should be retained or promoted by planting or regeneration.

A buffer strip of native vegetation (planted or regenerated trees or pasture) should be maintained along the plain-footslope/fan boundary to lower locally high watertables and thereby reduce dryland salinity hazard.

Subsoil materials are generally unsuitable for earthworks, as some are susceptible to tunnelling or piping whilst others are highly expansive. Likewise some subsoils may provide difficulties in designing and constructing buildings, footings and drainage systems.

## NOTES

(1) This report describes soil landscape information mapped at 1:100,000 scale and does not negate the need for site assessment at a scale suitable to the land use or development under consideration.

(2) 'Not observed' means unlikely to be found. 'Localised' means observed to a level considered significant for land management. 'Widespread' means prevalent and significant over most of the landscape. 'None recorded' means no



occurrence has been recorded. 'Not assessed' means no result has been recorded for this attribute and it may or may not be present in the soil landscape.

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SLAM Soil Landscape Report for Liverpool Plains v 1.0.0, Mon Oct 31 09:13:49 2011

EXHIBITION COPY

## APPENDIX I

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### BUSHFIRE PRONE LAND SEARCH RESULTS

EXHIBITION COPY

*Development Consultants – Surveying, Environmental & Landscape Architecture Services*

**Stewart Surveys Pty Ltd**  
ABN 65 002 886 508

109 Conadilly Street  
PO Box 592  
Gunnedah NSW 2380

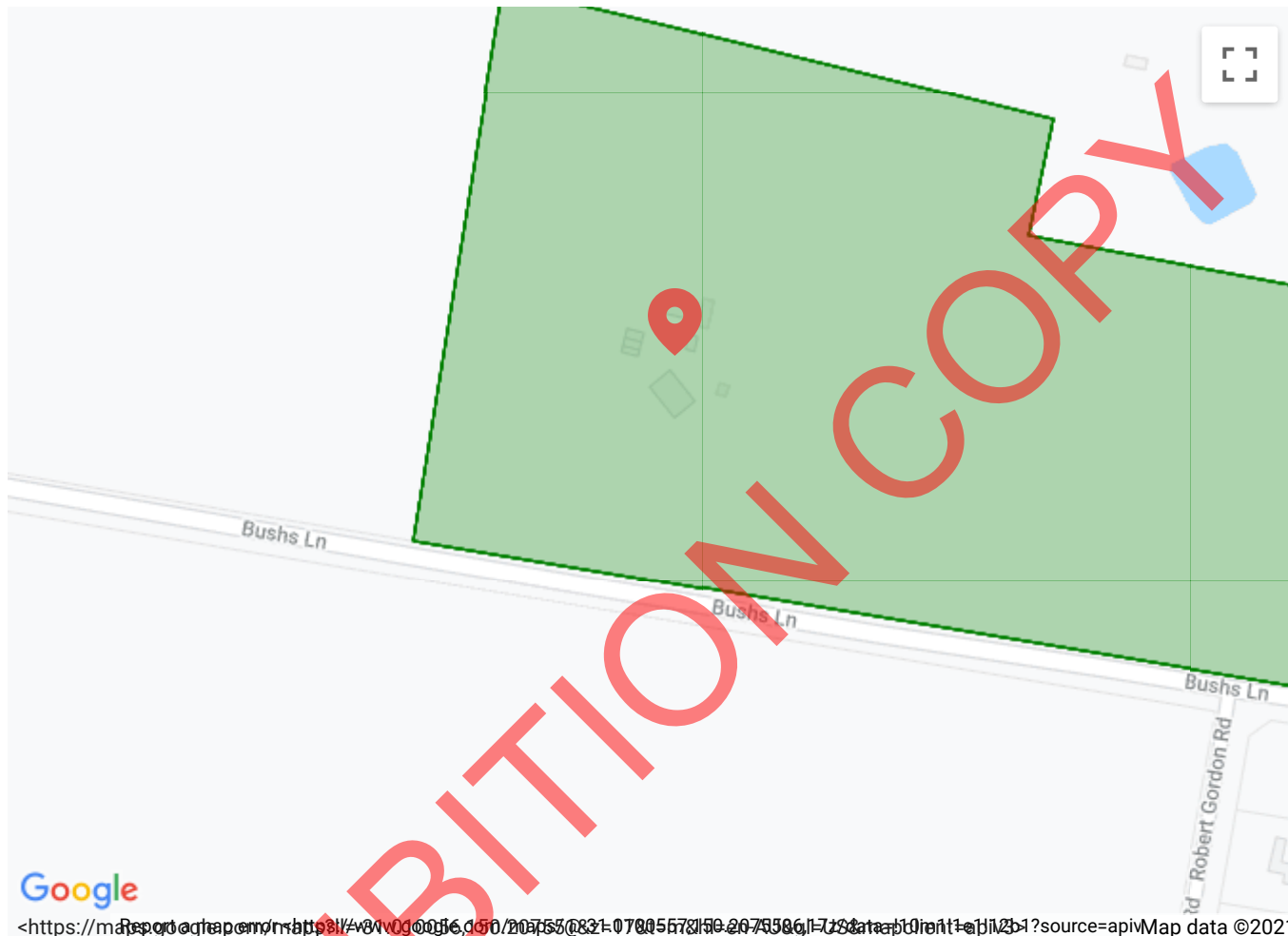
T 02 6742 2966  
F 02 6742 0684  
cstewart@stewartsurveys.com



## NSW RURAL FIRE SERVICE

### Check if you're in bush fire prone land

#### Your Property



#### Your search result

You have conducted a search of the online bush fire prone land tool for the land in the map above. This search result is valid for the date the search was conducted. If you have any questions about the Bush Fire Prone Land Tool please contact

[bushfireprone.mapping@rfs.nsw.gov.au](mailto:bushfireprone.mapping@rfs.nsw.gov.au)

The parcel of land selected is not identified as bush fire prone however you could still be affected by a bush fire.

Think about where you work, travel or holiday. These areas may be at risk of a bush fire.

Remember, discuss with your family about what to do if a bush fire were to happen near you. It may save your life, your community and your family.

For more information on making a plan for bush fire check out our [guide to making your bush fire survival plan](https://www.rfs.nsw.gov.au/plan-and-prepare/bush-fire-survival-plan)

<https://www.rfs.nsw.gov.au/plan-and-prepare/bush-fire-survival-plan>

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The NSW RFS provides extensive information and resources to assist people interested in preparing their homes and families against the risk of bush fires. Try some of the useful links below for more information:

- Download a [guide to making your bush fire survival plan](#)
- Download the [Bush Fire and Your Home fact sheet](#)
- Download the [Prepare. Act. Survive fact sheet](#)
- Visit our [Farm Fire Safety page](#)

New Search

Print

EXHIBITION COPY



## APPENDIX J

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### BIONET ATLAS SEARCH RESULTS – THREATENED FAUNA SPECIES LIST

EXHIBITION COPY

*Development Consultants – Surveying, Environmental & Landscape Architecture Services*

**Stewart Surveys Pty Ltd**  
ABN 65 002 886 508

109 Conadilly Street  
PO Box 592  
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cstewart@stewartsurveys.com



Data from the BioNet Atlas website, which holds records from a number of custodians. The data are only indicative and cannot be considered a comprehensive inventory, and may contain errors and omissions. Species listed under the Sensitive Species Data Policy may have their locations denatured (^ rounded to 0.1°C; ^^ rounded to 0.01°C. Copyright the State of NSW through the Department of Planning, Industry and Environment. Search criteria : Public Report of all Valid Records of Animals in selected area [North: -30.96 West: 150.16 East: 150.26 South: -31.06] returned a total of 1,473 records of 215 species.

Report generated on 10/12/2021 10:24 AM

Kingdom	Class	Family	Species Code	Scientific Name	Exotic	Common Name	NSW status	Comm. status	Records	Info
Animalia	Amphibia	Hylidae	3171	<i>Litoria caerulea</i>		Green Tree Frog	P		6	
Animalia	Amphibia	Hylidae	3210	<i>Litoria rubella</i>		Desert Tree Frog	P		3	
Animalia	Amphibia	Limnodynastidae	3098	<i>Notaden bennettii</i>		Crucifix Frog	P		1	
Animalia	Reptilia	Chelidae	5259	<i>Chelodina expansa</i>		Broad-shelled Turtle	P		2	
Animalia	Reptilia	Chelidae	2017	<i>Chelodina longicollis</i>		Eastern Snake-necked Turtle	P		9	
Animalia	Reptilia	Chelidae	2034	<i>Emydura macquarii</i>		Macquarie Turtle	P		2	
Animalia	Reptilia	Carphodactylidae	2139	<i>Uvidicolus sphyrurus</i>		Border Thick-tailed Gecko	V,P	V	1	
Animalia	Reptilia	Diplodactylidae	2123	<i>Nebulifera robusta</i>		Robust Velvet Gecko	P		1	
Animalia	Reptilia	Pygopodidae	2144	<i>Aprasia parapulchella</i>		Pink-tailed Legless Lizard	V,P	V	1	
Animalia	Reptilia	Pygopodidae	2170	<i>Lialis burtonis</i>		Burton's Snake-lizard	P		1	
Animalia	Reptilia	Pygopodidae	2911	<i>Pygopus schraderi</i>		Eastern Hooded Scaly-foot	P		1	
Animalia	Reptilia	Scincidae	2331	<i>Cryptoblepharus virgatus</i>		Cream-striped Shinning-skink	P		1	
Animalia	Reptilia	Scincidae	2375	<i>Ctenotus robustus</i>		Robust Ctenotus	P		2	
Animalia	Reptilia	Scincidae	2386	<i>Ctenotus taeniolatus</i>		Copper-tailed Skink	P		1	
Animalia	Reptilia	Scincidae	2429	<i>Egernia striolata</i>		Tree Skink	P		2	
Animalia	Reptilia	Scincidae	2450	<i>Lampropholis delicata</i>		Dark-flecked Garden Sunskink	P		2	
Animalia	Reptilia	Scincidae	2499	<i>Lerista punctatovittata</i>		Eastern Robust Slider	P		1	
Animalia	Reptilia	Scincidae	2419	<i>Liopholis modesta</i>		Eastern Ranges Rock-skink	P		1	
Animalia	Reptilia	Scincidae	2519	<i>Menetia greyii</i>		Common Dwarf Skink	P		1	
Animalia	Reptilia	Scincidae	2580	<i>Tiliqua scincoides</i>		Eastern Blue-tongue	P		1	
Animalia	Reptilia	Agamidae	2194	<i>Amphibolurus muricatus</i>		Jacky Lizard	P		1	
Animalia	Reptilia	Agamidae	2177	<i>Pogona barbata</i>		Bearded Dragon	P		5	
Animalia	Reptilia	Varanidae	2283	<i>Varanus varius</i>		Lace Monitor	P		5	
Animalia	Reptilia	Typhlopidae	2603	<i>Anilius proximus</i>		Proximus Blind Snake	P		1	
Animalia	Reptilia	Typhlopidae	2606	<i>Anilius wiedii</i>		Brown-snouted Blind Snake	P		1	
Animalia	Reptilia	Elapidae	2711	<i>Brachyurophis australis</i>		Coral Snake	P		2	
Animalia	Reptilia	Elapidae	2669	<i>Furina diadema</i>		Red-naped Snake	P		2	
Animalia	Reptilia	Elapidae	2675	<i>Hoplocephalus bitorquatus</i>		Pale-headed Snake	V,P		1	
Animalia	Reptilia	Elapidae	2692	<i>Pseudechis guttatus</i>		Spotted Black Snake	P		2	
Animalia	Reptilia	Elapidae	2693	<i>Pseudechis porphyriacus</i>		Red-bellied Black Snake	P		1	
Animalia	Reptilia	Elapidae	9075	<i>Pseudechis sp.</i>		Unidentified Black Snake	P		1	
Animalia	Reptilia	Elapidae	2699	<i>Pseudonaja textilis</i>		Eastern Brown Snake	P		6	
Animalia	Aves	Phasianidae	0009	<i>Coturnix pectoralis</i>		Stubble Quail	P		2	
Animalia	Aves	Anatidae	0211	<i>Anas gracilis</i>		Grey Teal	P		1	
Animalia	Aves	Anatidae	0208	<i>Anas superciliosa</i>		Pacific Black Duck	P		8	
Animalia	Aves	Anatidae	0217	<i>Biziura lobata</i>		Musk Duck	P		1	
Animalia	Aves	Anatidae	0202	<i>Chenonetta jubata</i>		Australian Wood Duck	P		7	
Animalia	Aves	Anatidae	0203	<i>Cygnus atratus</i>		Black Swan	P		1	
Animalia	Aves	Anatidae	0213	<i>Malacorhynchus membranaceus</i>		Pink-eared Duck	P		1	
Animalia	Aves	Anatidae	0216	<i>Oxyura australis</i>		Blue-billed Duck	V,P		1	
Animalia	Aves	Podicipedidae	0062	<i>Poliiocephalus poliocephalus</i>		Hoary-headed Grebe	P		1	
Animalia	Aves	Podicipedidae	0061	<i>Tachybaptus novaehollandiae</i>		Australasian Grebe	P		1	
Animalia	Aves	Columbidae	0957	<i>Columba livia</i>	*	Rock Dove			4	
Animalia	Aves	Columbidae	0031	<i>Geopelia cuneata</i>		Diamond Dove	P		1	
Animalia	Aves	Columbidae	0032	<i>Geopelia humeralis</i>		Bar-shouldered Dove	P		5	
Animalia	Aves	Columbidae	9931	<i>Geopelia striata</i>		Peaceful Dove	P		5	
Animalia	Aves	Columbidae	0043	<i>Ocyphaps lophotes</i>		Crested Pigeon	P		17	
Animalia	Aves	Columbidae	0034	<i>Phaps chalcoptera</i>		Common Bronzewing	P		3	
Animalia	Aves	Podargidae	0313	<i>Podargus strigoides</i>		Tawny Frogmouth	P		18	
Animalia	Aves	Aegothelidae	0317	<i>Aegothales cristatus</i>		Australian Owlet-nightjar	P		2	
Animalia	Aves	Phalacrocoracidae	0097	<i>Phalacrocorax sulcirostris</i>		Little Black Cormorant	P		1	
Animalia	Aves	Ardeidae	0189	<i>Ardea pacifica</i>		White-necked Heron	P		1	
Animalia	Aves	Ardeidae	0188	<i>Egretta novaehollandiae</i>		White-faced Heron	P		5	

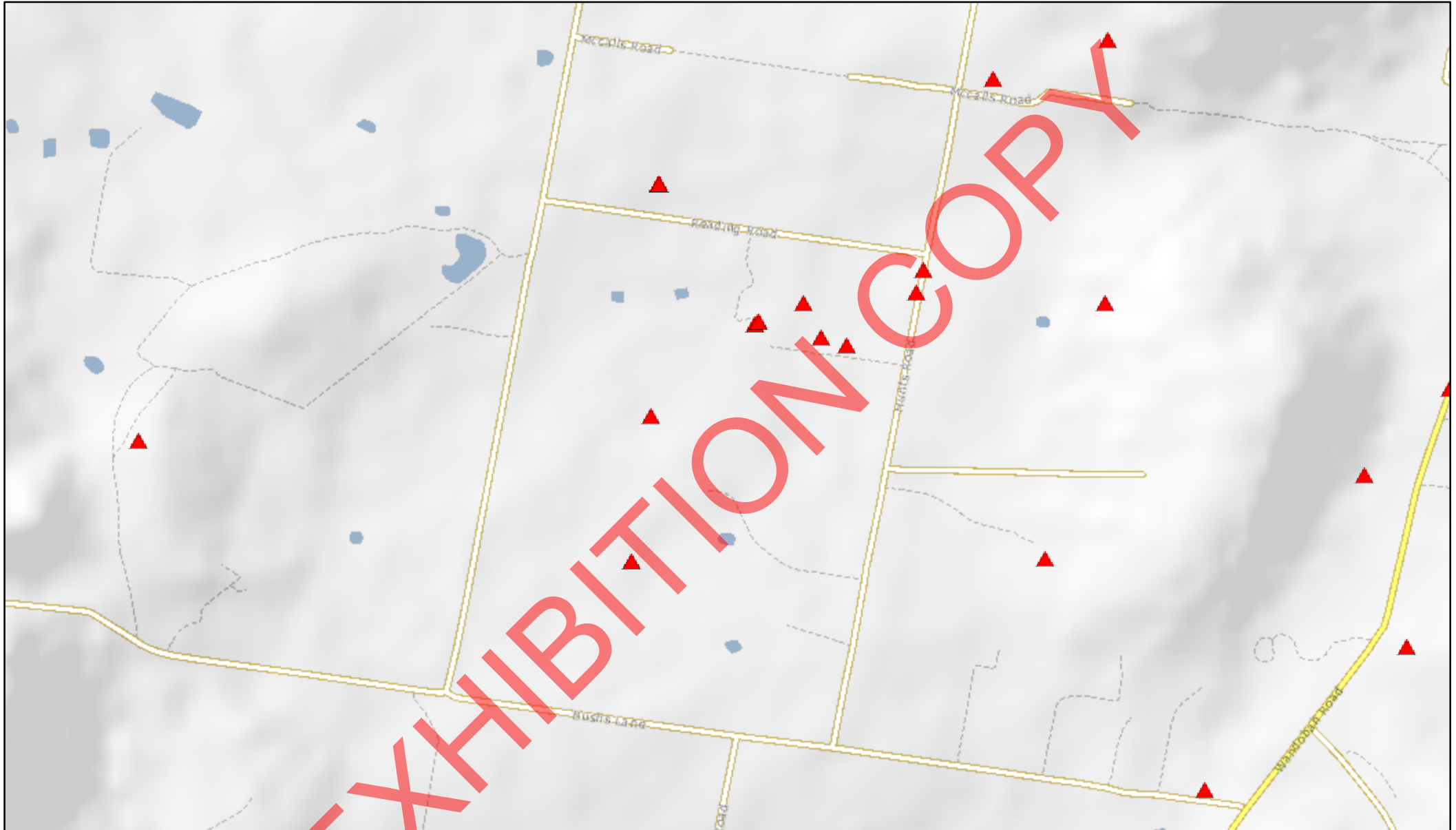
Animalia	Aves	Threskiornithidae	0182	<i>Platalea flavipes</i>	Yellow-billed Spoonbill	P		1	
Animalia	Aves	Threskiornithidae	0179	<i>Threskiornis moluccus</i>	Australian White Ibis	P		2	
Animalia	Aves	Threskiornithidae	0180	<i>Threskiornis spinicollis</i>	Straw-necked Ibis	P		4	
Animalia	Aves	Accipitridae	0221	<i>Accipiter fasciatus</i>	Brown Goshawk	P		3	
Animalia	Aves	Accipitridae	0224	<i>Aquila audax</i>	Wedge-tailed Eagle	P		6	
Animalia	Aves	Accipitridae	0218	<i>Circus assimilis</i>	Spotted Harrier	V,P		1	
Animalia	Aves	Accipitridae	0232	<i>Elanus axillaris</i>	Black-shouldered Kite	P		3	
Animalia	Aves	Accipitridae	0228	<i>Haliastur spheurnus</i>	Whistling Kite	P		3	
Animalia	Aves	Accipitridae	0231	<i>Hamirostra melanosternon</i>	Black-breasted Buzzard	V,P,3		1	
Animalia	Aves	Accipitridae	0225	<i>Hieraaetus morphnoides</i>	Little Eagle	V,P		5	
Animalia	Aves	Accipitridae	0230	<i>Lophoictinia isura</i>	Square-tailed Kite	V,P,3		1	
Animalia	Aves	Accipitridae	0229	<i>Milvus migrans</i>	Black Kite	P		2	
Animalia	Aves	Falconidae	0239	<i>Falco berigora</i>	Brown Falcon	P		1	
Animalia	Aves	Falconidae	0240	<i>Falco cenchroides</i>	Nankeen Kestrel	P		11	
Animalia	Aves	Falconidae	0235	<i>Falco longipennis</i>	Australian Hobby	P		5	
Animalia	Aves	Recurvirostridae	0146	<i>Himantopus himantopus</i>	Black-winged Stilt	P		1	
Animalia	Aves	Charadriidae	0144	<i>Elseya melanops</i>	Black-fronted Dotterel	P		1	
Animalia	Aves	Charadriidae	0133	<i>Vanellus miles</i>	Masked Lapwing	P		6	
Animalia	Aves	Scolopacidae	0168	<i>Gallinago hardwickii</i>	Latham's Snipe	P	J,K	1	
Animalia	Aves	Turnicidae	0014	<i>Turnix varius</i>	Painted Button-quail	P		2	
Animalia	Aves	Cacatuidae	0269	<i>Cacatua galerita</i>	Sulphur-crested Cockatoo	P		31	
Animalia	Aves	Cacatuidae	0271	<i>Cacatua sanguinea</i>	Little Corella	P		3	
Animalia	Aves	Cacatuidae	0273	<i>Eolophus roseicapilla</i>	Galah	P		39	
Animalia	Aves	Cacatuidae	0274	<i>Nymphicus hollandicus</i>	Cockatiel	P		1	
Animalia	Aves	Psittacidae	0281	<i>Alisterus scapularis</i>	Australian King-Parrot	P		6	
Animalia	Aves	Psittacidae	0294	<i>Barnardius zonarius</i>	Australian Ringneck	P		2	
Animalia	Aves	Psittacidae	0258	<i>Glossopsitta concinna</i>	Musk Lorikeet	P		4	
Animalia	Aves	Psittacidae	0260	<i>Glossopsitta pusilla</i>	Little Lorikeet	V,P		5	
Animalia	Aves	Psittacidae	0309	<i>Lathamus discolor</i>	Swift Parrot	E1,P,3	CE	4	
Animalia	Aves	Psittacidae	0302	<i>Neophema pulchella</i>	Turquoise Parrot	V,P,3		4	
Animalia	Aves	Psittacidae	0282	<i>Platycercus elegans</i>	Crimson Rosella	P		1	
Animalia	Aves	Psittacidae	0288	<i>Platycercus eximius</i>	Eastern Rosella	P		15	
Animalia	Aves	Psittacidae	T039	<i>Platycercus sp.</i>	Unidentified Rosella	P		5	
Animalia	Aves	Psittacidae	0295	<i>Psephotus haematonotus</i>	Red-rumped Parrot	P		9	
Animalia	Aves	Psittacidae	9947	<i>Trichoglossus haematodus</i>	Rainbow Lorikeet	P		6	
Animalia	Aves	Cuculidae	0338	<i>Cacomantis flabelliformis</i>	Fan-tailed Cuckoo	P		1	
Animalia	Aves	Cuculidae	0342	<i>Chalcites basalis</i>	Horsfield's Bronze-Cuckoo	P		1	
Animalia	Aves	Cuculidae	0347	<i>Eudynamis orientalis</i>	Eastern Koel	P		1	
Animalia	Aves	Cuculidae	0348	<i>Scythrops novaehollandiae</i>	Channel-billed Cuckoo	P		2	
Animalia	Aves	Strigidae	9922	<i>Ninox novaeseelandiae</i>	Southern Boobook	P		6	
Animalia	Aves	Tytonidae	9923	<i>Tyto javanica</i>	Eastern Barn Owl	P		2	
Animalia	Aves	Tytonidae	0250	<i>Tyto novaehollandiae</i>	Masked Owl	V,P,3		1	
Animalia	Aves	Alcedinidae	0322	<i>Dacelo novaeguineae</i>	Laughing Kookaburra	P		14	
Animalia	Aves	Alcedinidae	0326	<i>Todiramphus sanctus</i>	Sacred Kingfisher	P		5	
Animalia	Aves	Meropidae	0329	<i>Merops ornatus</i>	Rainbow Bee-eater	P		1	
Animalia	Aves	Coraciidae	0318	<i>Eurystomus orientalis</i>	Dollarbird	P		2	
Animalia	Aves	Climacteridae	8127	<i>Climacteris picumnus victoriae</i>	Brown Treecreeper (eastern subspecies)	V,P		3	
Animalia	Aves	Climacteridae	0558	<i>Cormobates leucophaea</i>	White-throated Treecreeper	P		3	
Animalia	Aves	Maluridae	0529	<i>Malurus cyaneus</i>	Superb Fairy-wren	P		7	
Animalia	Aves	Maluridae	0536	<i>Malurus lamberti</i>	Variegated Fairy-wren	P		3	
Animalia	Aves	Maluridae	0535	<i>Malurus leucopterus</i>	White-winged Fairy-wren	P		1	
Animalia	Aves	Acanthizidae	0476	<i>Acanthiza apicalis</i>	Inland Thornbill	P		1	
Animalia	Aves	Acanthizidae	0486	<i>Acanthiza chrysorrhoa</i>	Yellow-rumped Thornbill	P		7	
Animalia	Aves	Acanthizidae	0470	<i>Acanthiza lineata</i>	Striated Thornbill	P		2	
Animalia	Aves	Acanthizidae	0471	<i>Acanthiza nana</i>	Yellow Thornbill	P		4	
Animalia	Aves	Acanthizidae	0475	<i>Acanthiza pusilla</i>	Brown Thornbill	P		2	
Animalia	Aves	Acanthizidae	0484	<i>Acanthiza reguloides</i>	Buff-rumped Thornbill	P		1	
Animalia	Aves	Acanthizidae	0481	<i>Acanthiza uropygialis</i>	Chestnut-rumped Thornbill	P		2	
Animalia	Aves	Acanthizidae	0504	<i>Chthonicola sagittata</i>	Speckled Warbler	V,P		8	
Animalia	Aves	Acanthizidae	0463	<i>Gerygone fusca</i>	Western Gerygone	P		2	
Animalia	Aves	Acanthizidae	0465	<i>Smicronis brevirostris</i>	Weebill	P		5	

Animalia	Aves	Pardalotidae	0565	<i>Pardalotus punctatus</i>	Spotted Pardalote	P		2	
Animalia	Aves	Pardalotidae	0976	<i>Pardalotus striatus</i>	Striated Pardalote	P		5	
Animalia	Aves	Meliphagidae	0640	<i>Acanthagenys rufogularis</i>	Spiny-cheeked Honeyeater	P		8	
Animalia	Aves	Meliphagidae	0638	<i>Anthochaera carunculata</i>	Red Wattlebird	P		1	
Animalia	Aves	Meliphagidae	T210	<i>Anthochaera sp.</i>	Unidentified Wattlebird	P		1	
Animalia	Aves	Meliphagidae	0614	<i>Caligavis chrysops</i>	Yellow-faced Honeyeater	P		1	
Animalia	Aves	Meliphagidae	0598	<i>Grantiella picta</i>	Painted Honeyeater	V,P	V	1	
Animalia	Aves	Meliphagidae	0635	<i>Manorina flavigula</i>	Yellow-throated Miner	P		1	
Animalia	Aves	Meliphagidae	0634	<i>Manorina melanocephala</i>	Noisy Miner	P		8	
Animalia	Aves	Meliphagidae	0583	<i>Melithreptus brevirostris</i>	Brown-headed Honeyeater	P		1	
Animalia	Aves	Meliphagidae	0617	<i>Nesoptilotis leucotis</i>	White-eared Honeyeater	P		2	
Animalia	Aves	Meliphagidae	0646	<i>Philemon citreogularis</i>	Little Friarbird	P		5	
Animalia	Aves	Meliphagidae	0645	<i>Philemon corniculatus</i>	Noisy Friarbird	P		7	
Animalia	Aves	Meliphagidae	0585	<i>Plectorhyncha lanceolata</i>	Striped Honeyeater	P		4	
Animalia	Aves	Meliphagidae	0613	<i>Ptilotula fusca</i>	Fuscou Honeyeater	P		2	
Animalia	Aves	Meliphagidae	0625	<i>Ptilotula penicillata</i>	White-plumed Honeyeater	P		6	
Animalia	Aves	Neosittidae	0549	<i>Daphoenositta chrysoptera</i>	Varied Sittella	V,P		1	
Animalia	Aves	Campephagidae	0424	<i>Coracina novaehollandiae</i>	Black-faced Cuckoo-shrike	P		10	
Animalia	Aves	Campephagidae	0430	<i>Lalage sueurii</i>	White-winged Triller	P		3	
Animalia	Aves	Pachycephalidae	0408	<i>Colluricincla harmonica</i>	Grey Shrike-thrush	P		5	
Animalia	Aves	Pachycephalidae	0401	<i>Pachycephala rufiventris</i>	Rufous Whistler	P		7	
Animalia	Aves	Artamidae	8519	<i>Artamus cyanopterus</i>	Dusky Woodswallow	V,P		4	
Animalia	Aves	Artamidae	0700	<i>Cracticus nigrogularis</i>	Pied Butcherbird	P		5	
Animalia	Aves	Artamidae	T022	<i>Cracticus sp.</i>	Unidentified Butcherbird	P		2	
Animalia	Aves	Artamidae	0702	<i>Cracticus torquatus</i>	Grey Butcherbird	P		5	
Animalia	Aves	Artamidae	0705	<i>Gymnorhina tibicen</i>	Australian Magpie	P		35	
Animalia	Aves	Artamidae	0694	<i>Strepera graculina</i>	Pied Currawong	P		10	
Animalia	Aves	Rhipiduridae	0361	<i>Rhipidura albiscapa</i>	Grey Fantail	P		4	
Animalia	Aves	Rhipiduridae	0364	<i>Rhipidura leucophrys</i>	Willie Wagtail	P		11	
Animalia	Aves	Corvidae	0691	<i>Corvus bennetti</i>	Little Crow	P		1	
Animalia	Aves	Corvidae	0930	<i>Corvus coronoides</i>	Australian Raven	P		8	
Animalia	Aves	Corvidae	9902	<i>Corvus orru</i>	Torresian Crow	P		2	
Animalia	Aves	Monarchidae	0415	<i>Grallina cyanoleuca</i>	Magpie-lark	P		11	
Animalia	Aves	Monarchidae	9955	<i>Myiagra iniqueta</i>	Restless Flycatcher	P		2	
Animalia	Aves	Corcoracidae	0693	<i>Corcorax melanorhamphos</i>	White-winged Chough	P		3	
Animalia	Aves	Corcoracidae	0675	<i>Struthidea cinerea</i>	Apostlebird	P		1	
Animalia	Aves	Petroicidae	0392	<i>Eopsaltria australis</i>	Eastern Yellow Robin	P		5	
Animalia	Aves	Petroicidae	0377	<i>Microeca fascinans</i>	Jacky Winter	P		3	
Animalia	Aves	Petroicidae	0381	<i>Petroica goodenovii</i>	Red-capped Robin	P		1	
Animalia	Aves	Cisticolidae	0525	<i>Cisticola exilis</i>	Golden-headed Cisticola	P		1	
Animalia	Aves	Hirundinidae	0358	<i>Cheramoeca leucosterna</i>	White-backed Swallow	P		2	
Animalia	Aves	Hirundinidae	0357	<i>Hirundo neoxena</i>	Welcome Swallow	P		5	
Animalia	Aves	Hirundinidae	0360	<i>Petrochelidon ariel</i>	Fairy Martin	P		2	
Animalia	Aves	Turdidae	0991	<i>Turdus merula</i>	Eurasian Blackbird	*		1	
Animalia	Aves	Sturnidae	0998	<i>Acridotheres tristis</i>	Common Myna	*		1	
Animalia	Aves	Sturnidae	0999	<i>Sturnus vulgaris</i>	Common Starling	*		13	
Animalia	Aves	Zosteropidae	0574	<i>Zosterops lateralis</i>	Silvereye	P		7	
Animalia	Aves	Dicaeidae	0564	<i>Dicaeum hirundinaceum</i>	Mistletoebird	P		5	
Animalia	Aves	Estrildidae	0655	<i>Stizoptera bichenovii</i>	Double-barred Finch	P		9	
Animalia	Aves	Estrildidae	0653	<i>Taeniopygia guttata</i>	Zebra Finch	P		1	
Animalia	Aves	Passeridae	0995	<i>Passer domesticus</i>	House Sparrow	*		3	
Animalia	Aves	Motacillidae	0647	<i>Anthus novaeseelandiae</i>	Australian Pipit	P		5	
Animalia	Mammalia	Ornithorhynchidae	1001	<i>Ornithorhynchus anatinus</i>	Platypus	P		5	
Animalia	Mammalia	Tachyglossidae	1003	<i>Tachyglossus aculeatus</i>	Short-beaked Echidna	P		67	
Animalia	Mammalia	Dasyuridae	T093	<i>Antechinus sp.</i>	Unidentified Antechinus	P		1	
Animalia	Mammalia	Dasyuridae	1008	<i>Dasyurus maculatus</i>	Spotted-tailed Quoll	V,P	E	5	
Animalia	Mammalia	Phascolarctidae	1162	<i>Phascolarctos cinereus</i>	Koala	V,P	V	337	
Animalia	Mammalia	Vombatidae	1165	<i>Vombatus ursinus</i>	Bare-nosed Wombat	P		4	
Animalia	Mammalia	Petauridae	1138	<i>Petaurus breviceps</i>	Sugar Glider	P		2	
Animalia	Mammalia	Petauridae	1137	<i>Petaurus norfolcensis</i>	Squirrel Glider	V,P		1	

Animalia	Mammalia	Pseudocheiridae	1129	<i>Pseudocheirus peregrinus</i>	Common Ringtail Possum	P		4	
Animalia	Mammalia	Phalangeridae	T082	<i>Trichosurus sp.</i>	brushtail possum	P		46	
Animalia	Mammalia	Phalangeridae	1113	<i>Trichosurus vulpecula</i>	Common Brushtail Possum	P		23	
Animalia	Mammalia	Macropodidae	1265	<i>Macropus giganteus</i>	Eastern Grey Kangaroo	P		35	
Animalia	Mammalia	Macropodidae	T085	<i>Macropus sp.</i>	kangaroo / wallaby	P		70	
Animalia	Mammalia	Macropodidae	1261	<i>Notamacropus rufogriseus</i>	Red-necked Wallaby	P		1	
Animalia	Mammalia	Macropodidae	1266	<i>Osphranter robustus</i>	Common Wallaroo	P		6	
Animalia	Mammalia	Macropodidae	1242	<i>Wallabia bicolor</i>	Swamp Wallaby	P		1	
Animalia	Mammalia	Pteropodidae	1280	<i>Pteropus poliocephalus</i>	Grey-headed Flying-fox	V,P	V	4	
Animalia	Mammalia	Pteropodidae	1281	<i>Pteropus scapulatus</i>	Little Red Flying-fox	P		2	
Animalia	Mammalia	Pteropodidae	T087	<i>Pteropus sp.</i>	Flying-fox	P		6	
Animalia	Mammalia	Emballonuridae	1321	<i>Saccolaimus flaviventris</i>	Yellow-bellied Sheath-tail-bat	V,P		3	
Animalia	Mammalia	Molossidae	1324	<i>Austronomus australis</i>	White-striped Freetail-bat	P		2	
Animalia	Mammalia	Molossidae	T454	<i>Molossidae sp.</i>	unidentified mastiff bat	P		1	
Animalia	Mammalia	Molossidae	1946	<i>Ozimops petersi</i>		P		1	
Animalia	Mammalia	Molossidae	1940	<i>Ozimops planiceps</i>	South-eastern Free-tailed Bat			3	
Animalia	Mammalia	Molossidae	1938	<i>Ozimops ridei</i>	Eastern Free-tailed Bat	P		2	
Animalia	Mammalia	Vespertilionidae	1349	<i>Chalinolobus gouldii</i>	Gould's Wattled Bat	P		6	
Animalia	Mammalia	Vespertilionidae	1351	<i>Chalinolobus morio</i>	Chocolate Wattled Bat	P		4	
Animalia	Mammalia	Vespertilionidae	1354	<i>Chalinolobus nigrogriseus</i>	Hoary Wattled Bat	V,P		1	
Animalia	Mammalia	Vespertilionidae	T315	<i>Nyctophilus corbeni</i>	Corben's Long-eared Bat	V,P	V	1	
Animalia	Mammalia	Vespertilionidae	1335	<i>Nyctophilus geoffroyi</i>	Lesser Long-eared Bat	P		2	
Animalia	Mammalia	Vespertilionidae	1334	<i>Nyctophilus gouldi</i>	Gould's Long-eared Bat	P		1	
Animalia	Mammalia	Vespertilionidae	1364	<i>Scotorepens balstoni</i>	Inland Broad-nosed Bat	P		3	
Animalia	Mammalia	Vespertilionidae	1365	<i>Scotorepens orion</i>	Eastern Broad-nosed Bat	P		2	
Animalia	Mammalia	Vespertilionidae	1022	<i>Vespadelus darlingtoni</i>	Large Forest Bat	P		3	
Animalia	Mammalia	Vespertilionidae	1025	<i>Vespadelus troughtoni</i>	Eastern Cave Bat	V,P		29	
Animalia	Mammalia	Vespertilionidae	1379	<i>Vespadelus vulturnus</i>	Little Forest Bat	P		2	
Animalia	Mammalia	Muridae	1412	<i>Mus musculus</i>	House Mouse			2	
Animalia	Mammalia	Muridae	1395	<i>Rattus fuscipes</i>	Bush Rat	P		1	
Animalia	Mammalia	Muridae	1408	<i>Rattus rattus</i>	Black Rat			1	
Animalia	Mammalia	Canidae	1531	<i>Canis lupus</i>	Dingo, domestic dog			6	
Animalia	Mammalia	Canidae	1532	<i>Vulpes vulpes</i>	Fox			62	
Animalia	Mammalia	Felidae	1536	<i>Felis catus</i>	Cat			4	
Animalia	Mammalia	Leporidae	1929	<i>Lepus capensis occidentalis</i>		P		4	
Animalia	Mammalia	Leporidae	1510	<i>Oryctolagus cuniculus</i>	Rabbit			6	
Animalia	Mammalia	Equidae	1512	<i>Equus caballus</i>	Horse			1	
Animalia	Mammalia	Bovidae	1518	<i>Bos taurus</i>	European cattle			4	
Animalia	Mammalia	Bovidae	1521	<i>Capra hircus</i>	Goat			1	
Animalia	Mammalia	Cervidae	9112	<i>Cervus sp.</i>	Unidentified Deer			5	
Animalia	Unknown	Unknown Fauna	T202	<i>Microchiroptera suborder</i>	Unidentified Microbat			5	



# Atlas Map

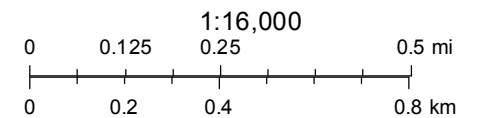


December 10, 2021

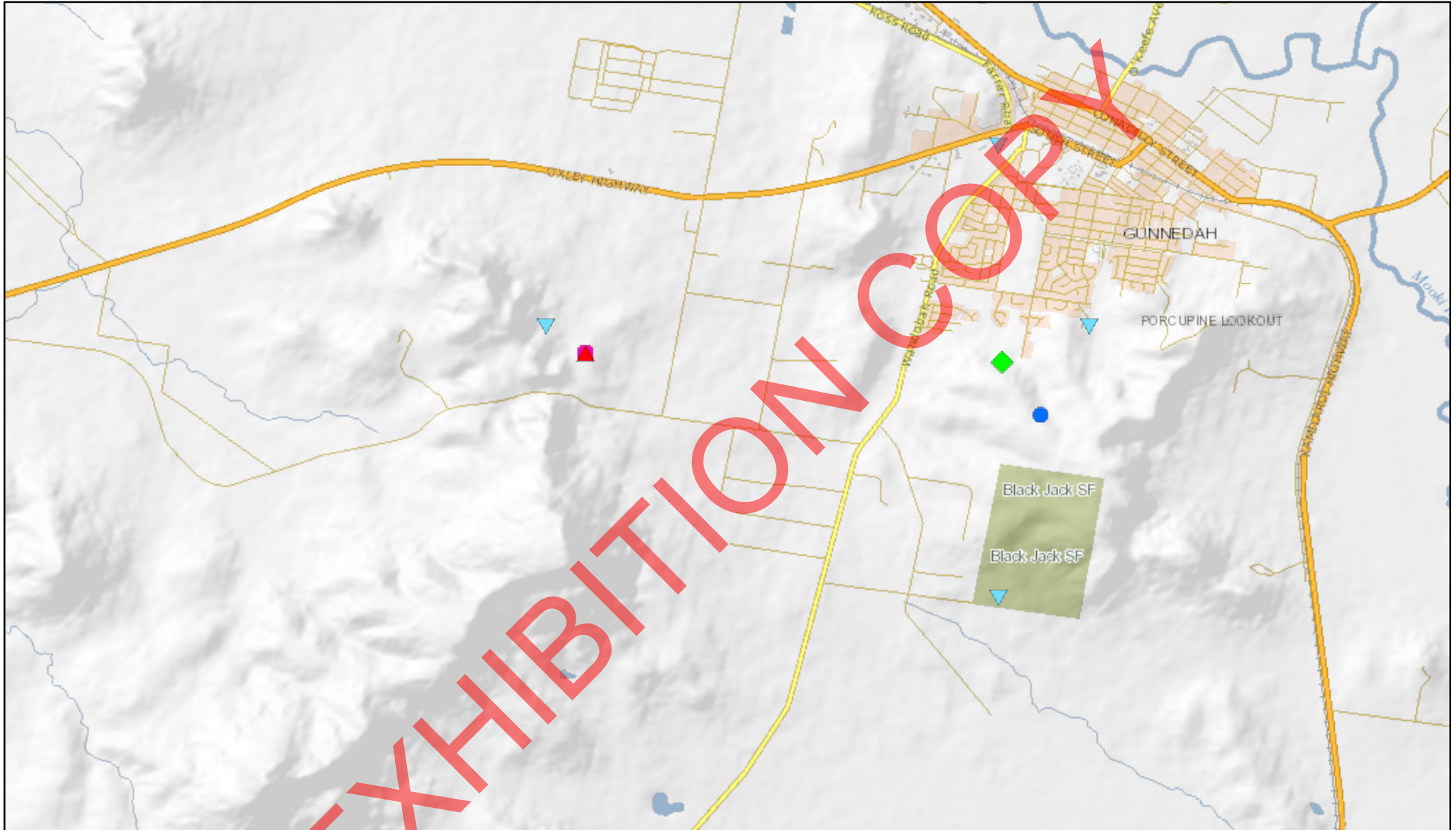
**drawGraphics\_poly**

— Override 1

▲ Koala (*Phascolarctos cinereus*)



# Atlas Map



December 10, 2021

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Override 1

▲ Border Thick-tailed Gecko (*Uvidicolus sphyrurus*)

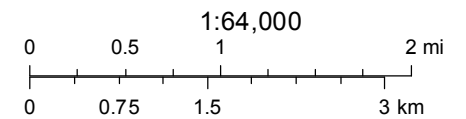
● Pink-tailed Legless Lizard (*Aprasia parapulchella*)

◆ Latham's Snipe (*Gallinago hardwickii*)

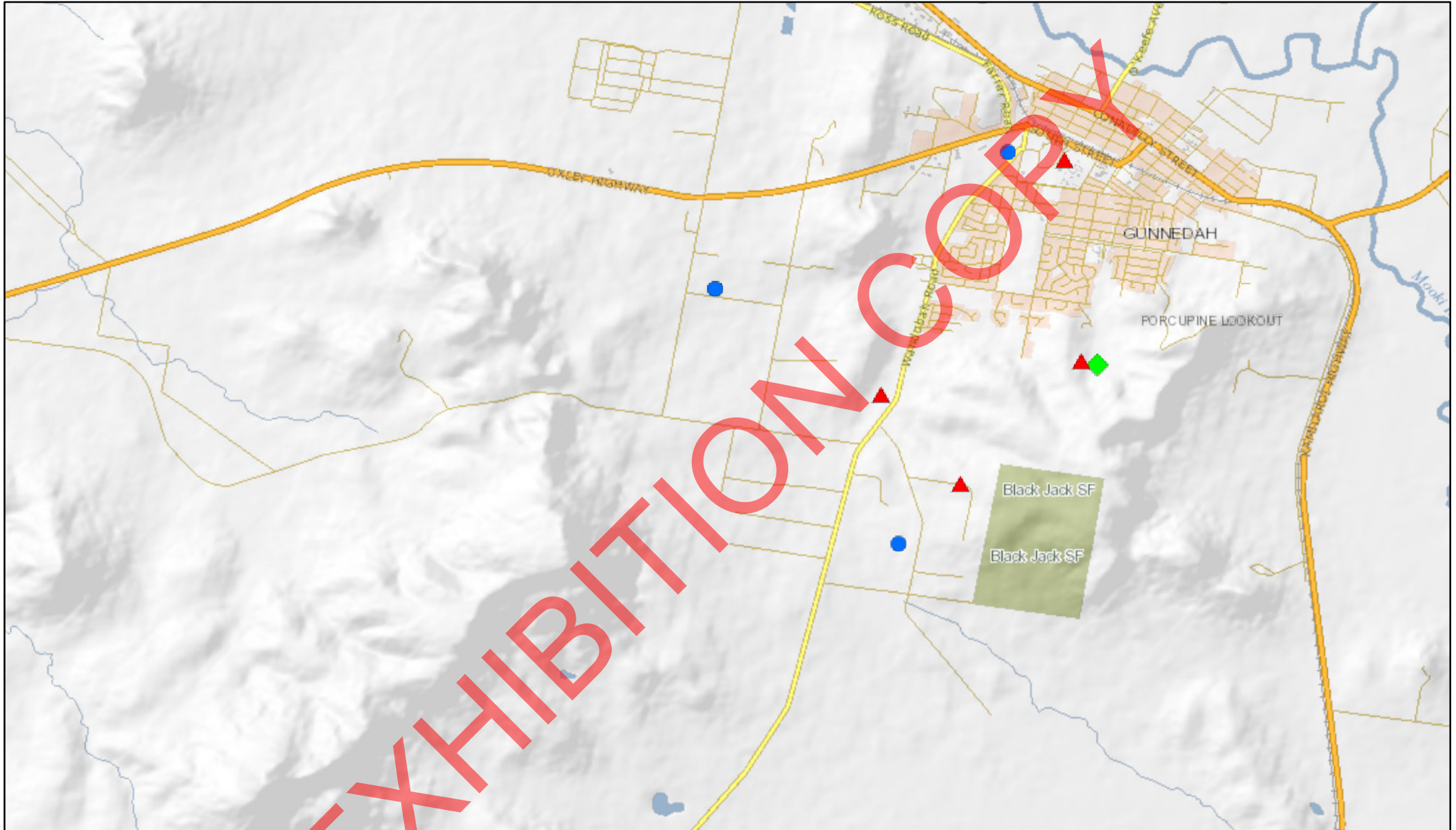
▲ Swift Parrot (*Lathamus discolor*)

■ Painted Honeyeater (*Grantiella picta*)

Page 90 of 212



# Atlas Map



December 10, 2021

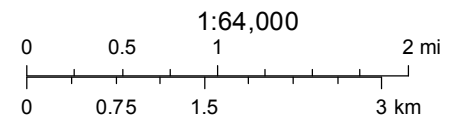
**drawGraphics\_poly**

— Override 1

▲ Spotted-tailed Quoll (*Dasyurus maculatus*)

● Grey-headed Flying-fox (*Pteropus poliocephalus*)

◆ Corben's Long-eared Bat (*Nyctophilus corbeni*)



## APPENDIX K

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**ABORIGINAL DUE DILIGENCE ASSESSMENT REPORT – 170 BUSHES LANE GUNNEDAH, PREPARED BY OzArk ENVIRONMENTAL AND HERITAGE, AUGUST 2023.**

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View southwest of the study area.

## **ABORIGINAL DUE DILIGENCE ASSESSMENT REPORT**

**170 BUSHES LANE, GUNNEDAH**

GUNNEDAH NSW

AUGUST 2023

Report prepared by  
OzArk Environment & Heritage  
for Stewart Surveys Pty Ltd



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## DOCUMENT CONTROLS

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Client	Stewart Surveys Pty Ltd		
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Enquiries should be addressed to OzArk Environment & Heritage.			

### **Acknowledgement**

OzArk acknowledge the traditional custodians of the area on which this assessment took place and pay respect to their beliefs, cultural heritage, and continuing connection with the land. We also acknowledge and pay respect to the post-contact experiences of Aboriginal people with attachment to the area and to the Elders, past and present, as the next generation of role models and vessels for memories, traditions, culture and hopes of local Aboriginal people.

## EXECUTIVE SUMMARY

OzArk Environment & Heritage (OzArk) has been engaged by Stewart Surveys Pty Ltd (the client) on behalf of Ryan Pryde and Nancy Williams (the proponent) to complete an Aboriginal heritage due diligence heritage assessment for the rezoning and subdivision of the property (the project).

The study area consists of approximately 17 hectares of relatively flat land at property Lot 1 DP861697, 170 Bushs Lane in Gunnedah, New South Wales (NSW).

The visual inspection of the study area was undertaken by OzArk Archaeologist Imogen Crome on 4 August 2023. Red Chief Local Aboriginal Land Council representative Athony Conlan also assisted with the visual inspection.

No Aboriginal sites were identified or recorded within the study area. The lack of Aboriginal objects may be a result of the study area's distance from a water source and the lack of landforms with heightened archaeological potential. The small size of the study area and the widespread agricultural disturbances may have also contributed to the lack of recordings.

The undertaking of the due diligence process resulted in the conclusion that the project will have an impact on the ground surface, however, no Aboriginal objects or intact archaeological deposits will be harmed by the Project. This moves the Project to the following outcome:

*Aboriginal Heritage Impact Permit application not necessary. Proceed with caution. If any Aboriginal objects are found, stop work, and notify Heritage NSW (02) 9873 8500 (heritagemailbox@environment.nsw.gov.au). If human remains are found, stop work, secure the site, and notify NSW Police and Heritage NSW.*

To ensure the greatest possible protection to the area's Aboriginal cultural heritage values, the following recommendations are made:

- 1) The proposed work may proceed at Lot 1 DP861697, 170 Bushs Lane in Gunnedah without further archaeological investigation under the following conditions:
  - a) All land and ground disturbance activities must be confined to within the study area, as this will eliminate the risk of harm to Aboriginal objects potentially present in adjacent landforms. Should the parameters of the project extend beyond the assessed area, then further archaeological assessment may be required.
- 2) This assessment has concluded that there is a low likelihood that the proposed work will adversely harm Aboriginal cultural heritage items or sites. If during works, however, Aboriginal artefacts or skeletal material are noted, all work should cease and the procedures in the *Unanticipated Finds Protocol* (**Appendix 2**) should be followed.
- 3) Inductions for work crews should include a cultural heritage awareness procedure to ensure they recognise Aboriginal artefacts (see **Appendix 3**) and are aware of the

legislative protection of Aboriginal objects under the *National Parks and Wildlife Act 1974* and the contents of the *Unanticipated Finds Protocol*.

- 4) The information presented here meets the requirements of the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales*. It should be retained as shelf documentation for five years as it may be used to support a defence against prosecution in the event of unanticipated harm to Aboriginal objects.

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## CONTENTS

<b>EXECUTIVE SUMMARY.....</b>	<b>III</b>
<b>1 INTRODUCTION .....</b>	<b>1</b>
1.1 Brief description of the project.....	1
1.2 Study area .....	1
1.3 Assessment approach .....	1
<b>2 ABORIGINAL DUE DILIGENCE ASSESSMENT .....</b>	<b>3</b>
2.1 Introduction.....	3
2.2 Defences under the NPW Regulation 2019.....	3
2.2.1 Low impact activities .....	3
2.2.2 Disturbed lands.....	3
2.3 Application of the Due Diligence Code of Practice to the project.....	4
2.3.1 Step 1 .....	4
2.3.2 Step 2a .....	4
2.3.3 Step 2b .....	7
2.3.4 Step 2c .....	10
2.3.5 Step 3 .....	10
2.3.6 Step 4 .....	11
2.4 Conclusion.....	12
<b>3 MANAGEMENT RECOMMENDATIONS .....</b>	<b>14</b>
<b>REFERENCES .....</b>	<b>15</b>
<b>PLATES.....</b>	<b>17</b>
<b>APPENDIX 1: AHIMS SEARCH RESULTS .....</b>	<b>18</b>
<b>APPENDIX 2: ABORIGINAL HERITAGE: UNANTICIPATED FINDS PROTOCOL .....</b>	<b>22</b>
<b>APPENDIX 3: ABORIGINAL HERITAGE: ARTEFACT IDENTIFICATION.....</b>	<b>23</b>

## FIGURES

Figure 1-1: Map showing the location of the project. ....	1
Figure 1-2: Aerial showing the study area. ....	2
Figure 2-1: Previously recorded sites in relation to the study area.....	6
Figure 2-2: Site inspection coverage within the study area.....	12

TABLES

Table 2-1: Determination of whether Due Diligence Code of Practice applies. .... 4

Table 2-2: Site types and frequencies of AHIMS sites near the study area. .... 5

Table 2-3: Due Diligence Code of Practice application..... 12

PLATES

Plate 1: View west, from eastern extent of the study area. Note the high levels of ground disturbance and surface visibility..... 17

Plate 2: View north along eastern point fencing, showing juvenile trees in the study area..... 17

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# 1 INTRODUCTION

## 1.1 BRIEF DESCRIPTION OF THE PROJECT

OzArk Environment & Heritage (OzArk) has been engaged by Stewart Surveys Pty Ltd, on behalf of Ryan Pride and Nancy Williams to complete an Aboriginal due diligence heritage assessment at 170 Bushs Lane, Gunnedah associated with the rezoning and subdivision of the property (the project). The project is in the Gunnedah Shire Local Government Area (LGA) (**Figure 1-1**).

**Figure 1-1: Map showing the location of the project.**



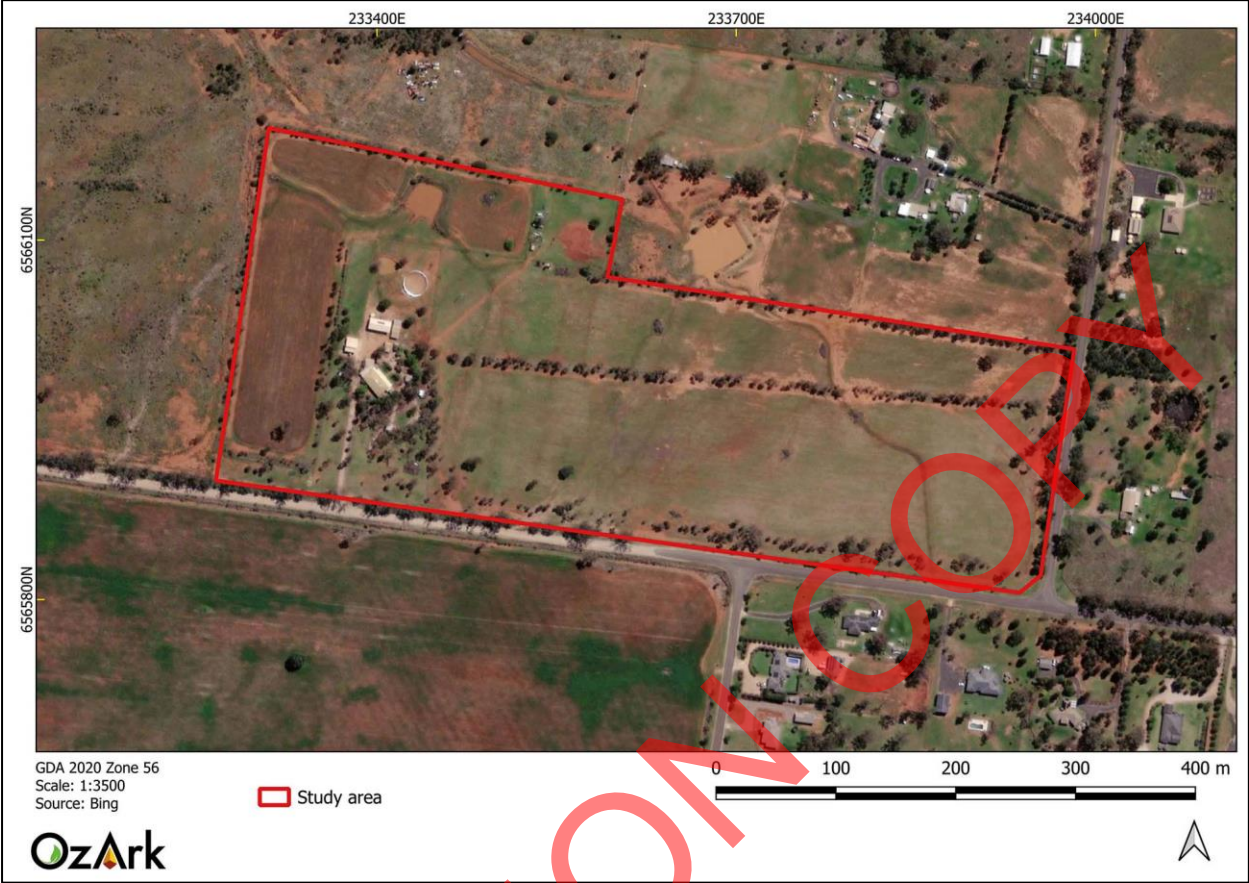
## 1.2 STUDY AREA

The study area encompasses a rectangular plot of approximately 17 hectares (**Figure 1-2**). The land is flat and used primarily for residential and agricultural activities.

## 1.3 ASSESSMENT APPROACH

The desktop and visual inspection component for the study area follows the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales* (due diligence; DECCW 2010). The field inspection followed the *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in New South Wales* (OEH 2011).

Figure 1-2: Aerial showing the study area.



## 2 ABORIGINAL DUE DILIGENCE ASSESSMENT

### 2.1 INTRODUCTION

Section 57 of the National Parks and Wildlife Regulation 2019 (NPW Regulation) made under the *National Parks and Wildlife Act 1974* (NPW Act) advocates a due diligence process to determining likely impacts on Aboriginal objects. Carrying out due diligence provides a defence to the offence of harming Aboriginal objects and is an important step in satisfying Aboriginal heritage obligations in NSW.

### 2.2 DEFENCES UNDER THE NPW REGULATION 2019

#### 2.2.1 Low impact activities

The first step before application of the due diligence process itself is to determine whether the proposed activity is a “low impact activity” for which there is a defence in the NPW Regulation. The exemptions are listed in Section 58 of the NPW Regulation (DECCW 2010:6).

The proposed activity of rezoning and subdivision of the study area is not considered a low impact activity and the due diligence process must be applied.

#### 2.2.2 Disturbed lands

Relevant to this process is the assessed levels of previous land-use disturbance.

The NPW Regulation Section 58 (DECCW 2010: 18) define disturbed land as follows:

*Land is disturbed if it has been the subject of a human activity that has changed the land's surface, being changes that remain clear and observable.*

*Examples include ploughing, construction of rural infrastructure (such as dams and fences), construction of roads, trails and tracks (including fire trails and tracks and walking tracks), clearing vegetation, construction of buildings and the erection of other structures, construction or installation of utilities and other similar services (such as above or below ground electrical infrastructure, water or sewerage pipelines, stormwater drainage and other similar infrastructure) and construction of earthworks.*

The study area is within previously cleared landforms which have been disturbed by the construction of sheds, a residence, dams, and property fences, as well as large areas being used as cropped fields. It could, therefore, be considered that the proposed work is occurring in ‘disturbed land’. However, despite these disturbances, there is potential that small areas of natural vegetation and undisturbed land may remain intact.

In summary, it is determined that the project must be assessed under the Due Diligence Code of Practice. The reasoning for this determination is set out in **Table 2-1**.



**Table 2-1: Determination of whether Due Diligence Code of Practice applies.**

Item	Reasoning	Answer
Is the activity to be assessed under Division 4.7 (state significant development) or Division 5.2 (state significant infrastructure) of the EP&A Act?	The project will be assessed under Part 4 of the EP&A Act.	No
Is the activity exempt from the NPW Act or NPW Regulation?	The project is not exempt under this Act or Regulation.	No
Do either or both apply: Is the activity in an Aboriginal place? Have previous investigations that meet the requirements of this Code identified Aboriginal objects?	The activity will not occur in an Aboriginal place. No previous investigations have been undertaken for this project.	No
Is the activity a low impact one for which there is a defence in the NPW Regulation?	The project is not a low impact activity for which there is a defence in the NPW Regulation.	No
Is the activity occurring entirely within areas that are assessed as 'disturbed lands'?	The project is not entirely within areas of high modification.	No
Due Diligence Code of Practice assessment is required		

## 2.3 APPLICATION OF THE DUE DILIGENCE CODE OF PRACTICE TO THE PROJECT

To follow the generic due diligence process, a series of steps in a question/answer flowchart format (DECCW 2010:10) are applied to the proposed impacts and the study area, and the responses documented.

### 2.3.1 Step 1

Will the activity disturb the ground surface or any culturally modified trees?

**Yes, the project will impact the ground surface and may impact culturally modified trees.**

As the project is a subdivision, not all impacts are known at this stage. Rather, ground disturbance is assumed to be possible anywhere in the study area. The only known impact at this stage of the development will be fencing. The fencing works may also impact vegetation in the construction area, including any culturally modified trees, should they be present.

### 2.3.2 Step 2a

Are there any relevant confirmed site records or other associated landscape feature information on AHIMS?

**No, there are no previously recorded sites within the study area.**

A search of the Aboriginal Heritage Information Management System (AHIMS) was undertaken on 31 July 2023 over a 20 x 20 kilometre (km) search area centred on the study area (GDA 2020 Zone 56, eastings: 223736-243551, northings: 6555987-6575958) (**Appendix 1**). Eighty-three Aboriginal sites have been previously identified within the search area, including one restricted

site. AHIMS confirmed on 2 August 2023 that the restricted site was not within the study area.

**Table 2-2** shows the type of AHIMS sites that are close to the study area.

**Table 2-2: Site types and frequencies of AHIMS sites near the study area.**

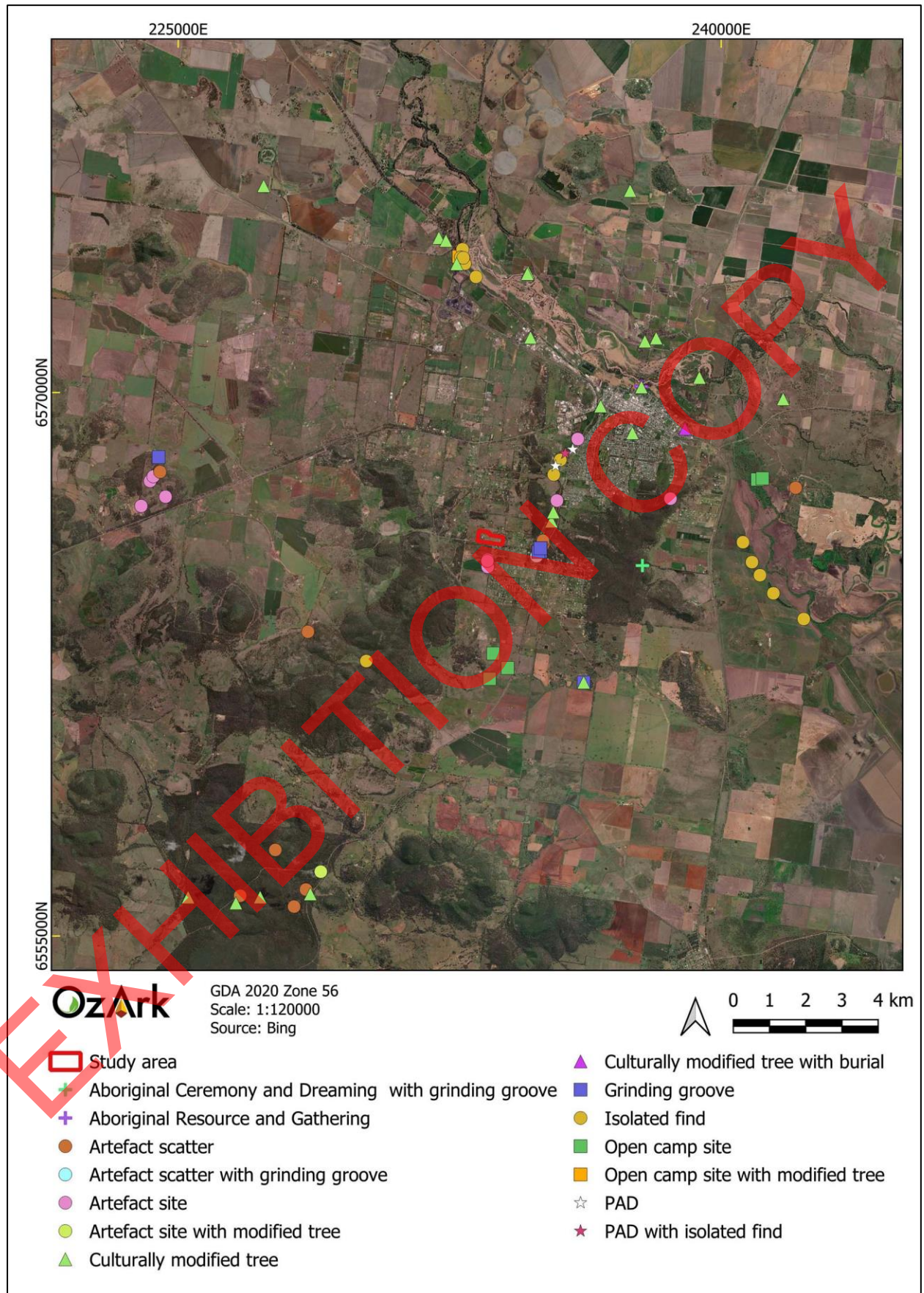
Site Type	Number	% Frequency
Culturally modified tree	23	28%
Isolated find	13	16%
Artefact scatter	11	13%
Artefact site (number unspecified)	10	12%
Grinding groove	9	11%
Open camp site	5	6%
Open camp site with modified tree	3	4%
Potential archaeological deposit (PAD)	2	2%
Artefact site with modified tree	1	1%
Artefact scatter with grinding groove	1	1%
PAD with isolated find	1	1%
Aboriginal Ceremony and Dreaming with grinding groove	1	1%
Aboriginal Resource and Gathering	1	1%
Culturally modified tree with burial	1	1%
Restricted site	1	1%
<b>Total</b>	<b>83</b>	<b>100%</b>

Artefact related sites comprise most of the site types and 47% of sites are artefact scatters and isolated finds (42%). In addition, artefacts have been recorded in association with a number of other site types such as modified trees. Culturally modified trees comprise 28% of the regional site types making this site type reasonably common in the Gunnedah region.

The mapping of the AHIMS search data shows that a range of site types are recorded in the region; many associated with the Namoi River and its tributaries (**Figure 2-1**). The influence of the town of Gunnedah on the spatial distribution of sites is shown by the recordings of sites along linear features such as roads.

The study area is 500 m from the nearest non-perennial waterway. The study area's flat landform and lack of water sources suggest that the study area has a low archaeological potential and any sites, if present, probably reflect travelling or transitory activities. Sites resulting from these activities are likely to be low density artefact scatters and isolated finds. However, as seen on **Figure 2-1**, there is a general likelihood of site recordings across landscapes surrounding Gunnedah.

Figure 2-1: Previously recorded sites in relation to the study area.





### 2.3.3 Step 2b

Are there any other sources of information of which a person is already aware?

**No, there are no other sources of information that would indicate the presence of Aboriginal objects in the study area.**

#### 2.3.3.1 *Ethnographic Contexts*

According to Tindale (1974), the current Study area falls within the limits of the lands occupied by the Gamilaraay (Kamilaroi) language group. The Namoi River landscape was the main resource for the Traditional Owners.

The name Gunnedah is derived from an Aboriginal word, meaning 'place of many white stones' and in the past the town had a sizeable outcrop of white stone where the public school now stands in Bloomfield Street. At the end of the 18th century, the Gunn-e-darr people of the Kamilaroi tribe were led by a legendary warrior named Cumbo Gunnerah (Idriess 1953). He was also known as the 'Red Chief', who eventually became immortalised through being the subject of a 1953 novel by Ion Idriess.

Following Oxley's European 'discovery'<sup>1</sup> of the Liverpool Plains in 1817, a runaway convict George Clarke ("The Barber") began the first European settlement of the Boggabri area (1828? to his capture in 1831). According to historical reports, Clarke made first contact with local Aboriginal people and was adopted into the Aboriginal community (Dunlop et al. 1957 as cited in Hamm 2005).

In 1831, Mitchell's exploring party, following Clarke's route, came across the Leard Forest. Their native guide "Mr Brown" noticed axe marking called "Mogo" on a number of trees which he described as a sign 'to keep away' (O'Rourke 1995). For further information, Michael O'Rourke details an account of Mitchell's crossing in *Raw Possum and Salted Port: Major Mitchell and the Kamilaroi* (O'Rourke 2005).

During the 1830s, European settlement continued in the Gunnedah and Boggabri areas with several sheep and cattle pastoral runs established through the Australian Agricultural Company (Dunlop et al. 1957 as cited in Hamm 2005).

Local Aboriginal people were employed as stock keepers and shepherds by the 1850s and a number of conflicts were reported between European settlers and Aboriginal people near Manilla on the Namoi River (Hamm 2005).

There is no ethnohistoric information which pertains directly to the study area.

<sup>1</sup> 'Discovery' to NSW government knowledge.

### 2.3.3.2 *Regional Archaeological Context*

Haglund (1984a and 1984b) undertook two studies during 1984 in the vicinity of Gunnedah. The first study (Haglund 1984a) consisted of a survey of the proposed Red Hill–Top Rocks–Trunk Road 72 coal haulage route. In this study, Haglund refers to sites previously located at Greenwood Creek (Thompson 1981) and Top Rocks (Haglund 1982), with particular emphasis on twenty axe grinding grooves and an extensive archaeological deposit at Top Rocks, located 35 km west of the study area. The grinding grooves were situated in the vicinity of sandstone outcrops at the water's edge. Archaeological deposits within the Haglund study area consisted of stone tools and evidence of manufacturing. Haglund (1984b) also examined the proposed location for a coal loader, situated between the North Western Railway and Trunk Road 72, 3 km west of Gunnedah. This study, covering 87 hectares (ha) of cultivated / cleared land, recorded no archaeological deposits.

In 1985, Haglund conducted a survey of all previous studies relating to the area immediately north of Gunnedah and the Namoi River. This survey concluded that the archaeology of the area is concentrated along rivers and other permanent waterways. This concentration is a result of both prehistoric land use patterns, in which such locations arguably constituted more permanent camps, and historical land use patterns, such as agriculture, which may have disturbed and/or destroyed the archaeology present in areas away from these waterways (Haglund 1985).

Haglund returned to Gunnedah in 1986 to conduct two test excavations of sites requiring ground truthing (Haglund 1987). These sites were located on opposite sides of the Namoi River, and one was a portion of the extensive Namoi River/C.W.R. site. Artefacts were recovered at these sites, however, Haglund noted that the artefacts were largely too dispersed to be considered archaeologically significant and were situated in secondary contexts created by vehicle movement and water flows (Haglund 1987).

John Appleton (2008) conducted salvage operations at Rocglen Coal Mine, following his 2002 survey of the site of the proposed Belmont Coal Mine (now re-named). The salvage area consisted of three locations close to a creek in Tulcumba, situated 25 km north of Gunnedah. Appleton (2002) had previously noted artefacts, including a silcrete core at Site "B1", a micro-debitage scatter of eight small silcrete flakes at Site "B2", and an extended artefact scatter (over 40 artefacts consisting of three cores, with the remainder flaked pieces and flakes) at Site "B3". The salvage operation noted significant disturbance between 2002 and 2008, caused by agricultural activity or storms and slope-wash. Additional artefacts were recovered at "B1" (eight stone artefacts, no cores), at "B2" (13 stone artefacts), and at "B3" (67 artefacts, including three cores). Appleton interpreted the 'Rocglen Assemblage' as a camping area to which various groups returned over an extended period of time.



### 2.3.3.3 *Local Archaeological Context*

Three previous archaeological investigations provide Aboriginal archaeological contexts of local relevance to the study area.

In 1981 the area known as 'Authorisation 138' (Mine Authorisation 138) at 'Springfield' was surveyed by Gorecki (1981). Seventeen locations with artefacts were recorded by Gorecki 5 km south of the study area. These locations were recorded on AHIMS as three sites. The number of artefacts at each site varied, with some locations containing a single stone artefact and others containing clusters. All were found adjacent to Springfield Knob and relatively close to minor drainage features in red soils. Most sites recorded comprised low density artefact scatters. One site with a high density of artefacts was identified. The main artefact types identified comprised of flakes, scrapers, and cores. One blade and a grindstone were also recorded. The dominant raw material types comprised locally sourced chert, quartz, quartzite, and silcrete. One artefact manufactured from petrified wood was also recorded. Gorecki argued that these artefacts were in secondary contexts as agriculture / pastoralism, erosion, and construction of contour banks had disturbed their original locations (Gorecki 1981). It is important to note that no artefacts were found either up slope in the surrounding hills or down slope on the plains.

Appleton (2007) surveyed Lot 2, DP848920, Lincoln St, Gunnedah in response to a project to subdivide the site into 137 residential blocks. This area is located on the southern edge of the Gunnedah township 3.5 km northeast of the study area. No artefacts were located during this assessment; however, Appleton does refer to an isolated artefact and nine grinding grooves located by himself in 2006 in the vicinity of Wandobah Road. Appleton's conclusion for his 2007 survey was that the area was most likely a transit zone between desirable campsites. Appleton noted that Red Chief LALC considered the 2007 study area of cultural significance, as the nearby Porcupine Hill was closely associated with the legendary figure, Red Chief (Appleton 2007).

Suzanne Hudson's (2004) assessment of 'Porky's Cave' at Porcupine Hill, Gunnedah, for Red Chief Local Aboriginal Land Council (LALC). The cave is 5 km northeast of the study area and contained rock engravings and an ironstone cobble. Appleton refers to the cave as a 'Dreaming site' (2007). Hudson recommended that access be restricted on cultural grounds (the cave is of ceremonial significance to the community), safety (due to loose scree), ecological grounds (fires were affecting the resident bat community), and archaeological grounds (trampling and vandalism were gradually destroying the rock engravings).

A 5 km buffer zone around the study area reveals it to be bordered to the south, east and northeast by these three previous studies. Like Appleton's 2007 survey, the study area is most likely to yield low archaeological potential as part of a transitory zone between prominent camping and culturally significant sites.

### 2.3.4 Step 2c

#### Are there any landscape features that are likely to indicate presence of Aboriginal objects?

The Study Area wholly lies within the Brigalow Belt South Bioregion, classified under Mitchell landscapes as Liverpool Alluvial Plains. The Liverpool Plains comprises of Permian and Triassic quartz sandstones. Landscapes include undulating hill and sloping plains with alluvial channels and floodplains with a general elevation of 300 to 350 m with a local relief of less than 10 m. Soils include black earth, deep black and brown cracking clays (Mitchell 2002:11).

The primary landforms are the level flood plains associated with Coxs Creek and the Mooki and Namoi Rivers, of which the latter is the main surface water resource to Gunnedah. The Namoi River runs in the north of Gunnedah, over 5 km from the study area. Several unnamed drainage lines and non-perennial watercourses are located at distances ranging from 450 m to 1200 m from the study area, although none are within the study area. As the Due Diligence Code of Practice identifies landforms within 200 m of 'waters' as having archaeological sensitivity (DECCW 2010:12), the hydrologic landscape of the study area, being further than 200 m from a water source, indicates a low archaeological potential.

Dividing the flood plain corridors are three ridge systems, standing between 300 and 500 m above sea level. The most prominent features in the area are King Jack Mountain (761 m), and Black Jack Mountain (670 m).

The study area is within low-lying landforms where flooding events may have impacted the soil profile. Furthermore, the Namoi subregion has faced considerable ground disturbances since British settlement due to expansion of agriculture. Agriculture covers 77% of the land around Gunnedah and is now the main land use, dominated by grazing and cropping.

Overall, the combination of the landform of the study area and the variety of disturbances suggest that the study area has a low potential for the presence of Aboriginal objects.

### 2.3.5 Step 3

#### Can harm to Aboriginal objects or disturbance of archaeologically sensitive landscape features be avoided?

**Yes. There are no AHIMS registered sites or landforms with identified archaeological sensitivity within or near the study area.**

No AHIMS registered sites were recorded within or near the study area. Additionally, no landforms with heightened archaeological potential were identified within the study area. Therefore, there is low risk of harm to Aboriginal objects.

However, knowledge of the local archaeological context and nearby culturally significant sites suggests that Aboriginal objects may be present and that a visual inspection of the study area will assess the likelihood of the existence of Aboriginal objects.

#### 2.3.6 Step 4

Does a desktop assessment and visual inspection confirm that there are Aboriginal objects or that they are likely?

**No, there were no Aboriginal objects identified within the study area.**

The visual inspection of the study area was undertaken by OzArk Archaeologist, Imogen Crome, on 4 August 2023. Anthony Conlan from Red Chief LALC accompanied the inspection. Pedestrian transects were used to access and assess the study area. GPS tracking data captured the site inspection and is shown on **Figure 2-2**.

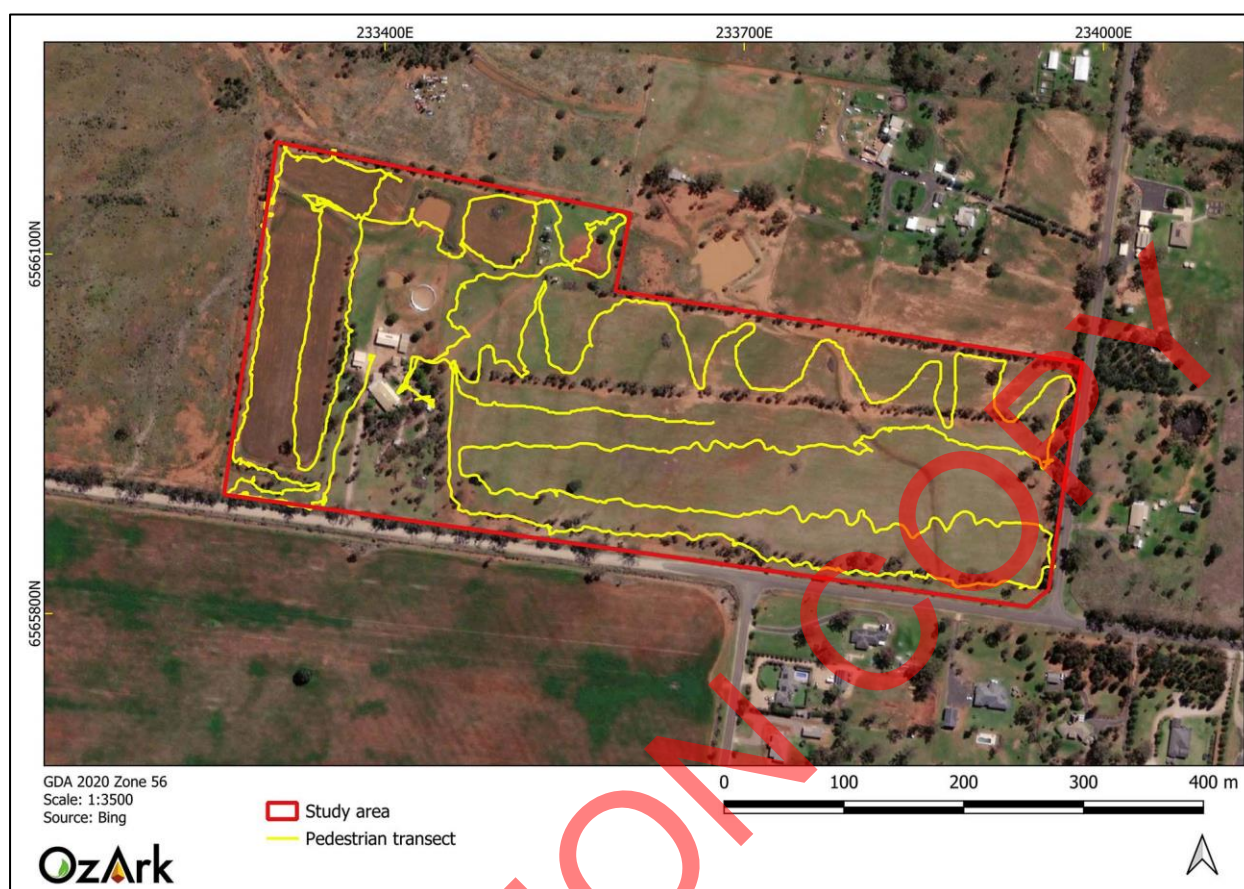
The study area landform was found to be generally flat with slight undulation. GIS data showed this undulation amounts to a 10-degree easterly slope.

The ground surface visibility (GSV) ranged from 75% to 90% across the whole study area due to large areas having been recently ploughed (**Plate 1**).

Vegetation in the study area generally consisted of paddock and exotic grasses. All the trees across the site were juvenile (**Plate 2**), eliminating the possibility that they may contain cultural modifications.

No Aboriginal objects were recorded within the study area. The lack of Aboriginal objects may be a result of the distance from a water source, the lack of landforms with heightened archaeological potential, the small size of the area assessed, or because of the long-term ground disturbances from agriculture.

Figure 2-2: Site inspection coverage within the study area.



## 2.4 CONCLUSION

The due diligence process has resulted in the outcome that an Aboriginal Heritage Impact Permit (AHIP) is not required. The reasoning behind this determination is set out in **Table 2-3**.

**Table 2-3: Due Diligence Code of Practice application.**

Step	Reasoning	Answer
Step 1 Will the activity disturb the ground surface or any culturally modified trees?	The proposed works will disturb the ground surface initially through fencing and potentially later by other impacts as a result of the subdivision.  The project will not impact mature, native vegetation and therefore will not harm culturally modified trees.	Yes
<b>If the answer to Step 1 is 'yes', proceed to Step 2</b>		
Step 2a Are there any relevant records of Aboriginal heritage on AHIMS to indicate presence of Aboriginal objects?	AHIMS indicated that there are no Aboriginal sites within the study area. None of the nearby Aboriginal sites are in close enough proximity to be harmed by the project.	No
Step 2b Are there other sources of information to indicate presence of Aboriginal objects?	There are no other sources of information to indicate that Aboriginal objects are likely in the study area, although it is noted that there is a general likelihood for landforms in the region to contain Aboriginal objects.	No
Step 2c Will the activity impact landforms with archaeological sensitivity as defined by the Due Diligence Code?	There are no landforms with identified archaeological sensitivity present within the study area.	No
<b>If the answer to any stage of Step 2 is 'yes', proceed to Step 3</b>		

Step	Reasoning	Answer
<b>Step 3</b> Can harm to Aboriginal objects listed on AHIMS or identified by other sources of information and/or can the carrying out of the activity at the relevant landscape features be avoided?	There are no AHIMS listed sites within or near the study area. There are no other sources of information that suggest archaeological potential The project will not impact landforms with archaeological sensitivity as identified in the Due Diligence Code of Practice.	Yes
<b>If the answer to Step 3 is 'no', a visual inspection is required. Proceed to Step 4.</b>		
<b>Step 4</b> Does the visual inspection confirm that there are Aboriginal objects or that they are likely?	The visual inspection recorded no Aboriginal objects in the study area. The study area has low archaeological potential and subsurface archaeological deposits are unlikely.	No
<b>Conclusion</b>		
<b>AHIP not necessary. Proceed with caution.</b>		



### 3 MANAGEMENT RECOMMENDATIONS

The undertaking of the due diligence process resulted in the conclusion that the proposed works will have an impact on the ground surface, however, no Aboriginal objects or intact archaeological deposits will be harmed by the project. This moves the project to the following outcome:

*AHIP application not necessary. Proceed with caution. If any Aboriginal objects are found, stop work, and notify Heritage NSW (02) 9873 8500 (heritagemailbox@environment.nsw.gov.au). If human remains are found, stop work, secure the site, and notify NSW Police and Heritage NSW.*

To ensure the greatest possible protection to the area's Aboriginal cultural heritage values, the following recommendations are made:

- 1) The proposed work may proceed at Lot 1 DP861697, 170 Bushs Lane, Gunnedah without further archaeological investigation under the following conditions:
  - a) All land and ground disturbance activities must be confined to within the study area, as this will eliminate the risk of harm to Aboriginal objects in adjacent landforms. Should the parameters of the project extend beyond the assessed areas, then further archaeological assessment may be required.
- 2) This assessment has concluded that there is a low likelihood that the proposed work will adversely harm Aboriginal cultural heritage items or sites. If during works, however, Aboriginal artefacts or skeletal material are noted, all work should cease and the procedures in the *Unanticipated Finds Protocol* (**Appendix 2**) should be followed.
- 3) Inductions for work crews should include a cultural heritage awareness procedure to ensure they recognise Aboriginal artefacts (see **Appendix 3**) and are aware of the legislative protection of Aboriginal objects under the NPW Act and the contents of the *Unanticipated Finds Protocol*.
- 4) The information presented here meets the requirements of the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales*. It should be retained as shelf documentation for five years as it may be used to support a defence against prosecution in the event of unanticipated harm to Aboriginal objects.

## REFERENCES

- Appleton 2002      Appleton, J. 2002. *The archaeological investigation of the site of a proposed Open Cut Coalmine and centred on the "Belmont" property, Wean Road, north of Gunnedah, Northern NSW*. Report prepared for R.W. Corkery & Co. Pty Ltd, on behalf of Whitehaven Coal Mining Limited.
- Appleton 2007      Appleton, J. 2007. *The archaeological investigation for sites of Indigenous cultural significance on Lot 2 DP 848920, Lincoln Street, Gunnedah, Northern NSW*. Report for Daracon Group on behalf of Mr R. Gallen.
- Appleton 2008      Appleton, J. 2008. *The archaeological salvage of three open sites Under Part 3A approval Rocglen Coal Mine, north of Gunnedah, northern NSW*. Report for Whitehaven Coal Mining Ltd.
- Burra Charter 2013      International Council on Monuments and Sites 2013. *The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance*.
- DECCW 2010      DECCW. 2010. *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW*. Department of Environment, Climate Change and Water, Sydney.
- Gorecki 1981      Gorecki, P. 1981. *Archaeological Survey of Authorisation 138, Gunnedah (NSW)*. Report for Gollin Wallsend Coal Company Limited.
- Haglund 1982      Haglund, L. 1982. *Archaeological investigations at Top and Bottom Rocks, Namoi River, NSW*. Report to Vickery Joint Ventures Pty Ltd.
- Haglund 1984a      Haglund, L. 1984. *Archaeological Survey, Coal Haulage Option Red Hill – Top Rocks – Trunk Road 72*. Report for Vickery Joint Venture.
- Haglund 1984b      Haglund, L. 1984. *Archaeological Survey of Area Proposed for Coal Loader at Gunnedah, NSW*. Report to Gutteridge Haskins & Davey Pty Ltd.
- Haglund 1985      Haglund, L. 1985. *Archaeological investigations of areas that may be affected by proposed mining for coal in the Gunnedah area, New South Wales*. Report to Vickery Joint Venture.
- Haglund 1987      Haglund, L. 1987. *Archaeological investigation of locations along proposed haul road route west of Gunnedah, NSW*. Report to Vickery Joint Venture.

- Hamm 2005 Hamm, G. 2005. *Boggabri Coal Project: Aboriginal Cultural Heritage Assessment Report*. Report to Idemitsu Boggabri Coal Pty Limited.
- Hudson 2004 Hudson, S. 2004. *An archaeological survey of Porcupine Hill, Gunnedah*. Report for Red Chief Aboriginal Land Council, Gunnedah.
- Idriess 1953 Idriess, I. 1953. *The Red Chief: As told by the last of his tribe*. Angus and Robertson, Sydney.
- Mitchell 2002 Mitchell, Dr. Peter. 2002. *Description for NSW (Mitchell) Landscapes Version 2*. Department of Environment and Climate Change NSW.
- OEH 2011 Office of Environment and Heritage. 2011. *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in New South Wales*. Department of Environment, Climate Change and Water, Sydney.
- O'Rourke 1995 O'Rourke, M. 1995. *Raw Possum and Salted Pork: Major Mitchell and the Kamilaroi*. Plowpress.
- O'Rourke 2005 O'Rourke, M. 2005. *Sung for Generations: Tales of Red Kangaroo, War Leader of Gunnedah*. Self published.
- Thompson 1981 Thompson, P. 1981. *EIS for the proposed Vickery Coal Mine Project*. Kembla Coal and Cole Pty Ltd.
- Tindale 1974 Tindale, N. 1974. *Aboriginal Tribes of Australia: Their Terrain, Environmental Controls, Distribution, Limits, and Proper Names*. Berkeley: University of California Press.



## PLATES



Plate 1: View west, from eastern extent of the study area. Note the high levels of ground disturbance and surface visibility.



Plate 2: View north along eastern point fencing, showing juvenile trees in the study area.



## APPENDIX 1: AHIMS SEARCH RESULTS

AHIMS Web Services (AWS)										Your Ref/PO Number : 170 Bushs	
Extensive search - Site list report										Client Service ID : 805056	
SiteID	SiteName	Datum	Zone	Eastings	Northings	Context	Site Status **	SiteFeatures	SiteTypes	Reports	
20-4-0381	NR-OS-001	GDA	56	233225	6573191	Open site	Valid	Artefact : 1			
	<b>Contact</b>	<b>Recorders</b>	Kayandel Archaeological Services, Mr. Lance Syme								<b>Permits</b>
20-4-0086	BBS; Red Chief LALC; Bluevale Rd ST 2	AGD	56	234658	6573320	Open site	Valid	Modified Tree (Carved or Scarred) : 1		99031	
	<b>Contact</b>	<b>Recorders</b>	Archaeological Surveys & Salvage, Red Chief LALC - BBS Survey Team								<b>Permits</b>
29-1-0110	Wondobah 13	AGD	56	235308	6566448	Open site	Valid	Modified Tree (Carved or Scarred) : 1			
	<b>Contact</b>	<b>Recorders</b>	Mr. John Shipp								<b>Permits</b>
29-2-0274	Wondoba North Scar Tree 2	AGD	56	227263	6556075	Open site	Valid	Modified Tree (Carved or Scarred) : 1			
	<b>Contact</b>	<b>Recorders</b>	Ms. Daphne Cubby								<b>Permits</b>
29-1-0129	Wondoba Artefact 7	AGD	56	228200	6555816	Open site	Valid	Artefact : 11			
	<b>Contact</b>	<b>Recorders</b>	Mr. Peter Beale								<b>Permits</b>
29-1-0099	Wandobah 2	AGD	56	235007	6565704	Open site	Valid	Grinding Groove : 5			
	<b>Contact</b>	<b>Recorders</b>	Mr. John Shipp								<b>Permits</b>
20-4-0383	NR-OS-006	GDA	56	232854	6573952	Open site	Valid	Artefact : 1			
	<b>Contact</b>	<b>Recorders</b>	Kayandel Archaeological Services, Ms. Caroline Hubschmann								<b>Permits</b>
20-4-0385	NR-OS-002	GDA	56	232919	6573555	Open site	Valid	Artefact : 1			
	<b>Contact</b>	<b>Recorders</b>	Kayandel Archaeological Services, Mr. Tom Knight								<b>Permits</b>
20-4-0815	Sunnyside IA2	GDA	56	224223	6567558	Open site	Valid	Artefact : -			
	<b>Contact</b>	<b>Recorders</b>	Doctor. Matthew Whincop, Whincop Archaeology Pty Ltd								<b>Permits</b>
17-1-0049	Sunnyside AS2	GDA	56	224497	6567811	Open site	Valid	Artefact : 2			
	<b>Contact</b>	<b>Recorders</b>	Mr. John Appleton, Doctor. Matthew Whincop, Doctor. Matthew Whincop, Whincop Archaeology Pty Ltd								<b>Permits</b>
20-4-0539	White Gum Scarred Shield Tree	GDA	56	237795	6570150	Open site	Valid	Modified Tree (Carved or Scarred) : -			
	<b>Contact</b>	<b>Recorders</b>	Ms. Jane Delaney-John								<b>Permits</b>
29-1-0044	DTG/IF1 - Mooki River 1	AGD	56	240600	6565870	Open site	Valid	Artefact : -	Isolated Find		
	<b>Contact</b>	<b>Recorders</b>	Stephanie Garling								<b>Permits</b>
29-1-0047	DTG/IF21 - Mooki River 6	AGD	56	241440	6564460	Open site	Valid	Artefact : -	Isolated Find		
	<b>Contact</b>	<b>Recorders</b>	Mr. Mark Rawson								<b>Permits</b>
29-1-0256	Marshmead3	AGD	56	233547	6565389	Open site	Valid	Artefact : -			
	<b>Contact</b>	<b>Recorders</b>	Mr. Patrick Gaynor								<b>Permits</b>
29-1-0052	Black Jacks Complex	AGD	56	234900	6565485	Open site	Valid	Artefact : 4, Grinding Groove : 2			
	<b>Contact</b>	<b>Recorders</b>	Allen Hutchings								<b>Permits</b>

Report generated by AHIMS Web Service on 31/07/2023 for Imogen Crome for the following area at Datum : GDA, Zone : 56, Eastings : 223736.0 - 243551.0, Northings : 6555987.0 - 6575958.0 with a Buffer of 0 meters. Number of Aboriginal sites and Aboriginal objects found is 84

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Page 1 of 7

AHIMS Web Services (AWS)										Your Ref/PO Number : 170 Bushs	
Extensive search - Site list report										Client Service ID : 805056	
SiteID	SiteName	Datum	Zone	Eastings	Northings	Context	Site Status **	SiteFeatures	SiteTypes	Reports	
20-4-0825	BJC02 reinterment	GDA	56	236036	6568717	Open site	Valid	Artefact : -			
	<b>Contact</b>	<b>Recorders</b>	OzArk Environmental and Heritage Management - Dubbo, Mr. Thomas Dooley								<b>Permits</b>
29-1-0015	King Jack Mountain Springfield,	AGD	56	233700	6562800	Open site	Destroyed	Artefact : -	Open Camp Site	342	
	<b>Contact</b>	<b>Recorders</b>	Paul Gorecki								<b>Permits</b>
29-1-0139	GDRF-OS1 with PAD	AGD	56	228583	6563399	Open site	Valid	Artefact : 2		101309	
	<b>Contact</b>	<b>Recorders</b>	Mr. Phillip Cameron								<b>Permits</b>
20-4-0164	Restriction applied. Please contact ahims@environment.nsw.gov.au.					Open site	Valid				
	<b>Contact</b>	<b>Recorders</b>	Mr. John Shipp								<b>Permits</b>
29-1-0100	Wandobah 3	AGD	56	234950	6565608	Open site	Valid	Grinding Groove : -			
	<b>Contact</b>	<b>Recorders</b>	Mr. John Shipp								<b>Permits</b>
20-4-0382	NR-OS-004	GDA	56	232807	6573729	Open site	Valid	Artefact : 1			
	<b>Contact</b>	<b>Recorders</b>	Kayandel Archaeological Services, Ms. Caroline Hubschmann								<b>Permits</b>
20-4-0384	NR-OS-003	GDA	56	232874	6573717	Open site	Valid	Artefact : 1			
	<b>Contact</b>	<b>Recorders</b>	Kayandel Archaeological Services, Mr. Lance Syme								<b>Permits</b>
16-4-0051	Blackjack Creek PAD 2	GDA	56	235897	6568429	Open site	Valid	Potential Archaeological Deposit (PAD) : -			
	<b>Contact</b>	<b>Recorders</b>	OzArk Environmental and Heritage Management - Dubbo, OzArk Environmental and Heritage Management - Dubbo								<b>Permits</b>
20-4-0813	Sunnyside GG1	GDA	56	224458	6568219	Open site	Valid	Grinding Groove : -			
	<b>Contact</b>	<b>Recorders</b>	Doctor. Matthew Whincop, Whincop Archaeology Pty Ltd								<b>Permits</b>
20-4-0541	White Gum Scarred Shield Tree Woodshed Reserve Gunnedah	GDA	56	237795	6570150	Open site	Valid	Modified Tree (Carved or Scarred) : -			
	<b>Contact</b>	<b>Recorders</b>	Ms. Jane Delaney-John								<b>Permits</b>
20-4-0542	Woodshed Reserve Gunnedah	GDA	56	237796	6570166	Open site	Valid	Aboriginal Resource and Gathering : -			
	<b>Contact</b>	<b>Recorders</b>	Ms. Jane Delaney-John								<b>Permits</b>
29-1-0095	Porcupine Hill Sites	AGD	56	237823	6565225	Open site	Valid	Aboriginal Ceremony and Dreaming : -, Grinding Groove : -			
	<b>Contact</b>	<b>Recorders</b>	Ms. Suzanne Hudson								<b>Permits</b>
20-4-0041	Nardoo;	AGD	56	241000	6567600	Open site	Valid	Artefact : -	Open Camp Site	1169	
	<b>Contact</b>	<b>Recorders</b>	Ms. Laila Haglund								<b>Permits</b>
29-1-0153	MOOKI RIVER ARTEFACT SCATTER 1	GDA	56	242056	6567372	Open site	Valid	Artefact : 8			
	<b>Contact</b>	<b>Recorders</b>	Mr. Kirwan Williams								<b>Permits</b>
29-1-0045	DTG/IF2 - Mooki River 2	AGD	56	242280	6563750	Open site	Valid	Artefact : -	Isolated Find		
	<b>Contact</b>	<b>Recorders</b>	Stephanie Garling								<b>Permits</b>
29-1-0255	Marshmead2	AGD	56	233550	6565188	Open site	Valid	Artefact : -			

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Page 2 of 7





## AHIMS Web Services (AWS)

### Extensive search - Site list report

Your Ref/PO Number : 170 Bushs  
Client Service ID : 805056

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
29-1-0109	Wondobah 12	AGD	56	235362	6566699	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	<b>Contact</b>	<b>Recorders</b>						<b>Permits</b>		
	Ms.Tammy Bush	Mr.Patrick Gaynor								
20-4-0728	BJC02	GDA	56	235556	6568142	Open site	Destroyed	Artefact : 1		103767
	<b>Contact</b>	<b>Recorders</b>						<b>Permits</b>		
	OzArk Environmental and Heritage Management - Dubbo,Mr.Leigh Bate,Apex Arch.								4091	
20-4-0729	BJC03	GDA	56	235690	6568321	Open site	Destroyed	Potential Archaeological Deposit (PAD) : -, Artefact : 1		103767
	<b>Contact</b>	<b>Recorders</b>						<b>Permits</b>		
	OzArk Environmental and Heritage Management - Dubbo,Mr.Leigh Bate,Apex Arch.								4091	
29-1-0127	Wondoba Artefact 5	AGD	56	226712	6556115	Open site	Valid	Artefact : 14		
	<b>Contact</b>	<b>Recorders</b>						<b>Permits</b>		
	Mr.Peter Beale									
20-4-0084	BBS; Red Chief LALC; 4 Mile TSR (West Paddock) ST 2	AGD	56	232200	6574270	Open site	Valid	Modified Tree (Carved or Scarred) : 1		99031
	<b>Contact</b>	<b>Recorders</b>						<b>Permits</b>		
	Archaeological Surveys & Salvage ,Red Chief LALC - BBS Survey Team									
29-1-0016	King Jack Mountain.	AGD	56	234100	6562400	Open site	Destroyed	Artefact : -	Open Camp Site	342
	<b>Contact</b>	<b>Recorders</b>						<b>Permits</b>		
	Paul Gorecki									
29-1-0098	Wandabah 1	AGD	56	235016	6565704	Open site	Valid	Grinding Groove : 1		
	<b>Contact</b>	<b>Recorders</b>						<b>Permits</b>		
	Mr.John Shipp									
29-1-0105	Wondobah 8	AGD	56	235065	6565772	Open site	Valid	Artefact : 50		
	<b>Contact</b>	<b>Recorders</b>						<b>Permits</b>		
	Mr.John Shipp									
29-1-0107	Wondobah 10	AGD	56	235077	6565912	Open site	Valid	Artefact : 50		
	<b>Contact</b>	<b>Recorders</b>						<b>Permits</b>		
	Mr.John Shipp									
20-4-0814	Sunnyside IA1	GDA	56	224311	6567683	Open site	Valid	Artefact : -		
	<b>Contact</b>	<b>Recorders</b>						<b>Permits</b>		
	Doctor.Matthew Whincop,Doctor.Matthew Whincop,Whincop Archaeology Pty Ltd,									
20-4-0061	BBS; Red Chief LALC; Wean Rd ST 2	AGD	56	237891	6571412	Open site	Valid	Modified Tree (Carved or Scarred) : 1		99031
	<b>Contact</b>	<b>Recorders</b>						<b>Permits</b>		
	Archaeological Surveys & Salvage ,Red Chief LALC - BBS Survey Team									
20-4-0060	BBS; Red Chief LALC; Wean Rd ST 3	AGD	56	238203	6571499	Open site	Valid	Modified Tree (Carved or Scarred) : 1		99031
	<b>Contact</b>	<b>Recorders</b>						<b>Permits</b>		
	Archaeological Surveys & Salvage ,Red Chief LALC - BBS Survey Team									
29-1-0291	Dom	GDA	56	238597	6567072	Open site	Valid	Artefact : -		
	<b>Contact</b>	<b>Recorders</b>						<b>Permits</b>		
	Mr.Wade Natty,Yawirawirri Murri Gamilar Descendant Aboriginal Corporation									

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Page 3 of 7



## AHIMS Web Services (AWS)

### Extensive search - Site list report

Your Ref/PO Number : 170 Bushs  
Client Service ID : 805056

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
20-4-0003	Gunnedah	AGD	56	239000	6569000	Open site	Valid	Modified Tree (Carved or Scarred) : -, Burial : -	Burial/s,Carved Tree	
	<b>Contact</b>	<b>Recorders</b>						<b>Permits</b>		
	NPWS - Blackheath Office,R Etheridge,Fred McCarthy									
20-4-0085	BBS; Red Chief LALC; 4 Mile TSR (West Paddock) ST 1	AGD	56	232396	6574191	Open site	Valid	Modified Tree (Carved or Scarred) : 1		99031
	<b>Contact</b>	<b>Recorders</b>						<b>Permits</b>		
	Archaeological Surveys & Salvage ,Red Chief LALC - BBS Survey Team									
29-1-0128	Wondoba Artefact 6	AGD	56	228528	6556286	Open site	Valid	Artefact : 15		
	<b>Contact</b>	<b>Recorders</b>						<b>Permits</b>		
	Mr.Peter Beale									
20-4-0163	Cushions Old Tamworth Rd 1	AGD	56	239397	6570411	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	<b>Contact</b>	<b>Recorders</b>						<b>Permits</b>		
	Mr.John Shipp									
20-4-0040	Nardoo;	AGD	56	241140	6567630	Open site	Valid	Artefact : -	Open Camp Site	1169
	<b>Contact</b>	<b>Recorders</b>						<b>Permits</b>		
	Ms.Laila Haglund									
20-4-0727	BJC01	GDA	56	235374	6567734	Open site	Valid	Artefact : 1		
	<b>Contact</b>	<b>Recorders</b>						<b>Permits</b>		
	Mr.Leigh Bate,Apex Archaeology									
20-4-0052	Gunnedah;	AGD	56	241710	6569820	Open site	Valid	Modified Tree (Carved or Scarred) : -	Scarred Tree	1258
	<b>Contact</b>	<b>Recorders</b>						<b>Permits</b>		
	Helen Brayshaw									
20-5-0028	Som-1;	AGD	56	227360	6575700	Open site	Valid	Modified Tree (Carved or Scarred) : -	Scarred Tree	3127
	<b>Contact</b>	<b>Recorders</b>						<b>Permits</b>		
	Iain Stuart									
29-1-0101	wondobah 4	AGD	56	234950	6565602	Open site	Valid	Grinding Groove : 1		
	<b>Contact</b>	<b>Recorders</b>						<b>Permits</b>		
	Mr.John Shipp									
29-1-0104	Wondobah 7	AGD	56	235006	6565608	Open site	Valid	Grinding Groove : 1		
	<b>Contact</b>	<b>Recorders</b>						<b>Permits</b>		
	Mr.John Shipp									
29-1-0006	Calare;Beverley;	AGD	56	236200	6562000	Open site	Valid	Modified Tree (Carved or Scarred) : -	Scarred Tree	
	<b>Contact</b>	<b>Recorders</b>						<b>Permits</b>		
	Middletons									
20-4-0037	Naomi River/ CWR;	AGD	56	232750	6573750	Open site	Valid	Artefact : -, Modified Tree (Carved or Scarred) : -	Open Camp Site,Scarred Tree	1169
	<b>Contact</b>	<b>Recorders</b>						<b>Permits</b>		
	Ms.Laila Haglund									
29-1-0007	Curlewis;	AGD	56	239000	6555800	Open site	Valid	Grinding Groove : -	Axe Grinding Groove	
	<b>Contact</b>	<b>Recorders</b>						<b>Permits</b>		
	Australian Museum									

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Page 4 of 7



## AHIMS Web Services (AWS)

### Extensive search - Site list report

Your Ref/PO Number : 170 Bushs  
Client Service ID : 805056

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
29-1-0138	GDRF-IF1	AGD	56	230196	6562591	Open site	Valid	Artefact : 1		101309
	<b>Contact</b>	<b>Recorders</b>			Mr.Philip Cameron			<b>Permits</b>		
29-1-0049	DTG/IF23 - Mooki River 8	AGD	56	240850	6565320	Open site	Valid	Artefact : -	Isolated Find	
	<b>Contact</b>	<b>Recorders</b>			Mr.Mark Rawson			<b>Permits</b>		
29-1-0289	Sunnyside AS3	GDA	56	223976	6566869	Open site	Valid	Artefact : -		
	<b>Contact</b>	<b>Recorders</b>			Doctor.Matthew Whincop,Whincop Archaeology Pty Ltd			<b>Permits</b>		
29-1-0288	Marshmead 4	GDA	56	233540	6565352	Open site	Valid	Artefact : -		104777
	<b>Contact</b>	<b>Recorders</b>			PJ Gaynor (consultant),Mr.Patrick Gaynor			<b>Permits</b>		
29-1-0130	Wondoba Artefact 8	AGD	56	228200	6555816	Open site	Valid	Artefact : 8		
	<b>Contact</b>	<b>Recorders</b>			Mr.Peter Beale			<b>Permits</b>		
29-1-0005	Calare;Beverley Gunnedah;	AGD	56	236200	6562000	Open site	Valid	Grinding Groove : -	Axe Grinding Groove	
	<b>Contact</b>	<b>Recorders</b>			Middletons			<b>Permits</b>		
20-4-0067	BBS; Red Chief LALC; 4 Mile TSR ST 1-7	AGD	56	232693	6573548	Open site	Valid	Modified Tree (Carved or Scarred) : 7		99031
	<b>Contact</b>	<b>Recorders</b>			Archaeological Surveys & Salvage ,Red Chief LALC - BBS Survey Team			<b>Permits</b>		
20-4-0047	Namoi River/CWR;	AGD	56	232750	6573750	Open site	Valid	Artefact : -, Modified Tree (Carved or Scarred) : -	Open Camp Site,Scarred Tree	1169
	<b>Contact</b>	<b>Recorders</b>			Ms.Laila Haglund			<b>Permits</b>		
29-1-0093	BBS; Red Chief LALC; Wondoba SF 3	AGD	56	228938	6556779	Open site	Valid	Artefact : -, Modified Tree (Carved or Scarred) : -		99031
	<b>Contact</b>	<b>Recorders</b>			Archaeological Surveys & Salvage ,Red Chief LALC - BBS Survey Team			<b>Permits</b>		
20-4-0999	Mary Orr Canoe Tree	GDA	56	236668	6569622	Open site	Valid	Modified Tree (Carved or Scarred) : -		
	<b>Contact</b>	<b>Recorders</b>			Mr.Wade Natty,Yawiriawiri Murri Gnanur Descendant Aboriginal Corporation			<b>Permits</b>		
20-4-1002	Burrell Tree	GDA	56	237548	6568882	Open site	Valid	Modified Tree (Carved or Scarred) : -		
	<b>Contact</b>	<b>Recorders</b>			Mr.Wade Natty,Yawiriawiri Murri Gnanur Descendant Aboriginal Corporation			<b>Permits</b>		
20-4-0062	BBS; Red Chief LALC; Wean Rd ST 1	AGD	56	237483	6575567	Open site	Valid	Modified Tree (Carved or Scarred) : 1		99031
	<b>Contact</b>	<b>Recorders</b>			Archaeological Surveys & Salvage ,Red Chief LALC - BBS Survey Team			<b>Permits</b>		
29-1-0048	DTG/IF22 - Mooki River 7	AGD	56	241070	6564960	Open site	Valid	Artefact : -	Isolated Find	
	<b>Contact</b>	<b>Recorders</b>			Stephanie Garling			<b>Permits</b>		

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Page 5 of 7



## AHIMS Web Services (AWS)

### Extensive search - Site list report

Your Ref/PO Number : 170 Bushs  
Client Service ID : 805056

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
29-2-0273	Wondoba North Scar Tree 1	AGD	56	225272	6556075	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	<b>Contact</b>	<b>Recorders</b>			Ms.Daphne Cubby			<b>Permits</b>		
20-4-0083	BBS; Red Chief LALC; Bluevale Rd ST 1	AGD	56	234645	6573276	Open site	Valid	Modified Tree (Carved or Scarred) : 1		99031
	<b>Contact</b>	<b>Recorders</b>			Archaeological Surveys & Salvage ,Red Chief LALC - BBS Survey Team			<b>Permits</b>		
29-1-0108	Wondobah 11	AGD	56	235461	6567018	Open site	Valid	Artefact : -		
	<b>Contact</b>	<b>Recorders</b>			Mr.John Shipp			<b>Permits</b>		
29-1-0120	Wondoba Scar tree 10	AGD	56	226593	6555911	Open site	Valid	Modified Tree (Carved or Scarred) : 2		
	<b>Contact</b>	<b>Recorders</b>			Mr.Peter Beale			<b>Permits</b>		
29-2-0271	Wondoba North Artefact 1	GDA	56	227682	6557379	Open site	Valid	Artefact : 14		
	<b>Contact</b>	<b>Recorders</b>			Ms.Daphne Cubby,Ms.Lucy Blackam			<b>Permits</b>		
29-1-0091	BBS; Red Chief LALC; Wondoba SF 1	AGD	56	228649	6556162	Open site	Valid	Modified Tree (Carved or Scarred) : 1		99031
	<b>Contact</b>	<b>Recorders</b>			Archaeological Surveys & Salvage ,Red Chief LALC - BBS Survey Team			<b>Permits</b>		
29-1-0103	Wondobah 6	AGD	56	235006	6565608	Open site	Valid	Grinding Groove : 1		
	<b>Contact</b>	<b>Recorders</b>			Mr.John Shipp			<b>Permits</b>		
20-4-0977	Sunnyside OS1	GDA	56	224649	6567125	Open site	Valid	Artefact : -		
	<b>Contact</b>	<b>Recorders</b>			Doctor.Matthew Whincop,Whincop Archaeology Pty Ltd			<b>Permits</b>		
29-1-0017	King Jack Mountain Springfield	AGD	56	233600	6562100	Open site	Destroyed	Artefact : -	Open Camp Site	342
	<b>Contact</b>	<b>Recorders</b>			Paul Gorecki			<b>Permits</b>		
20-4-0538	Torrens Road ST2	GDA	56	234731	6571520	Open site	Valid	Modified Tree (Carved or Scarred) : -		
	<b>Contact</b>	<b>Recorders</b>			Mr.Patrick Gaynor			<b>Permits</b>		
20-4-0990	Blackjack Creek PAD 1	GDA	56	235425	6567974	Open site	Valid	Potential Archaeological Deposit (PAD) : -		
	<b>Contact</b>	<b>Recorders</b>			OzArk Environmental and Heritage Management - Dubbo,Ms.Stephanie Rusden			<b>Permits</b>		
29-1-0102	wondobah 5	AGD	56	234950	6565602	Open site	Valid	Grinding Groove : 3		
	<b>Contact</b>	<b>Recorders</b>			Mr.John Shipp			<b>Permits</b>		
29-1-0106	wondobah 9	AGD	56	235099	6565818	Open site	Valid	Artefact : 5		
	<b>Contact</b>	<b>Recorders</b>			Mr.John Shipp			<b>Permits</b>		

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Page 6 of 7



**AHIMS Web Services (AWS)**  
**Extensive search - Site list report**

Your Ref/PO Number : 170 Bushs  
Client Service ID : 805056

SiteID	SiteName	Datum	Zone	Eastings	Northings	Context	Site Status **	SiteFeatures	SiteTypes	Reports
20-4-0036	Naomi River/CWR;	AGD	56	232750	6573750	Open site	Valid	Artefact : -, Modified Tree (Carved or Scarred) : -	Open Camp Site,Scarred Tree	1169
<b>Contact</b>		<b>Recorders</b>		Ms.Laila Haglund				<b>Permits</b>		

**\*\* Site Status**  
**Valid** - The site has been recorded and accepted onto the system as valid  
**Destroyed** - The site has been completely impacted or harmed usually as consequence of permit activity but sometimes also after natural events. There is nothing left of the site on the ground but ~~proposers~~ should proceed with caution.  
**Partially Destroyed** - The site has been only partially impacted or harmed usually as consequence of permit activity but sometimes also after natural events. There might be parts or sections of the original site still present on the ground  
**Not a site** - The site has been originally entered and accepted onto AHIMS as a valid site but after further investigations it was decided it is NOT an aboriginal site. Impact of this type of site does not require permit but Heritage NSW should be notified

Report generated by AHIMS Web Service on 31/07/2023 for Imogen Crome for the following area at Datum :GDA, Zone : 56, Eastings : 223736.0 - 243551.0, Northings : 6555987.0 - 6575958.0 with a Buffer of 0 meters. Number of Aboriginal sites and Aboriginal objects found is 84  
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## APPENDIX 2: ABORIGINAL HERITAGE: UNANTICIPATED FINDS PROTOCOL

An Aboriginal artefact is anything which is the result of past Aboriginal activity. This includes stone (artefacts, rock engravings etc.), plant (culturally scarred trees) and animal (if showing signs of modification; i.e. smoothing, use). Human bone (skeletal) remains may also be uncovered while onsite.

Cultural heritage significance is assessed by the Aboriginal community and is typically based on traditional and contemporary lore, spiritual values, and oral history, and may also consider scientific and educational value.

Protocol to be followed if previously unrecorded or unanticipated Aboriginal object(s) are encountered:

1. If any Aboriginal object is discovered and/or harmed in, or under the land, while undertaking the proposed development activities, the proponent must:
  - a. Not further harm the object
  - b. Immediately cease all work at the particular location
  - c. Secure the area to avoid further harm to the Aboriginal object
  - d. Notify Heritage NSW as soon as practical on (02) 9873 8500 (heritagemailbox@environment.nsw.gov.au), providing any details of the Aboriginal object and its location
  - e. Not recommence any work at the particular location unless authorised in writing by Heritage NSW.
2. If Aboriginal burials are unexpectedly encountered during the activity, work must stop immediately, the area secured to prevent unauthorised access and NSW Police and Heritage NSW contacted.
3. Cooperate with the appropriate authorities and relevant Aboriginal community representatives to facilitate:
  - a. The recording and assessment of the find(s)
  - b. The fulfilment of any legal constraints arising from the find(s), including complying with Heritage NSW directions
  - c. The development and implementation of appropriate management strategies, including consultation with stakeholders and the assessment of the significance of the find(s).
4. Where the find(s) are determined to be Aboriginal object(s), recommencement of work in the area of the find(s) can only occur in accordance with any consequential legal requirements and after gaining written approval from Heritage NSW (normally an Aboriginal Heritage Impact Permit).



APPENDIX 3: ABORIGINAL HERITAGE: ARTEFACT IDENTIFICATION

	
A retouched silcrete flake	A quartz flake
	
Microliths (scale = 1 cm)	Volcanic flakes
	
Flake characteristics (scale = 1 cm)	A mudstone/tuff core from which flakes have been removed



## APPENDIX L

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PEM ENVIRONMENTAL – PRELIMINARY SITE INVESTIGATION, 170 BUSHES LANE GUNNEDAH, PREPARED FOR RYAN PRYDE AND NANCY WILLIAMS, AUGUST 2023.

EXHIBITION COPY

*Development Consultants – Surveying, Environmental & Landscape Architecture Services*

**Stewart Surveys Pty Ltd**  
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**PEM ENVIRONMENTAL**




Preliminary Site Investigation (PSI)

170 Bushs Lane, Gunnedah, NSW

Ryan Pryde and Nancy Williams

August 2023

# QUALITY MANAGEMENT

Issue/revision	Issue 1	Revision 1	Revision 2	Revision 3
Remarks	Draft	Final		
Date	16 August 2023	21 August 2023		
Prepared by	Peter Moore	Peter Moore		
Signature				
Authorised by	Peter Moore CEnvP-SC	Peter Moore CEnvP -SC		
Signature		 		
Project number	202306	202306		
File reference	202306RP01	2023RP01		

This report has been prepared in accordance with the scope of services described in the contract or agreement between PEM Environmental (PEM) and the Client. The report relies upon data, surveys, measurements and results taken at or under the particular times and conditions specified herein. Any findings, conclusions or recommendations only apply to the aforementioned circumstances and no greater reliance should be assumed or drawn by the Client. Furthermore, the report has been prepared solely for use by the Client and PEM accepts no responsibility for its use by other parties.

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# CONTENTS

EXECUTIVE SUMMARY	I
1 INTRODUCTION	1
1.1 Background	1
1.2 Objectives of the Investigation	1
1.3 Scope of Work	1
1.4 Report Structure	1
2 SITE CHARACTERISTICS	3
2.1 Site Location	3
2.2 Site Description	3
2.3 Current Site Activities	3
2.4 Surrounding Land uses	4
2.5 Sensitive Environments	4
2.6 Site History	4
2.7 Environmental Setting	7
3 CONCEPTUAL SITE MODEL	10
3.1 Nature and Extent of Contamination	10
3.2 Potential Contamination Sources	10
3.3 Potentially Contaminated Media	10
4 CONCLUSION	11
5 REPORT LIMITATIONS	12

## APPENDICES

A	Figures
B	Search Report
C	Site Photographs

# EXECUTIVE SUMMARY

PEM Environmental was commissioned by Stewart Surveys, on behalf of Ryan Pryde and Nancy Williams (the client) to prepare this Preliminary Site Investigation (PSI) for 170 Bushs Lane, Gunnedah, NSW (the site). The purpose of the PSI was to support an application for subdivision of the property into six smaller allotments.

The PSI was conducted to determine the potential for contamination to exist on the site from past and present site activities.

The objectives of the PSI were to:

- Provide a detailed description of the site.
- Assess the site history to determine the potential for land contamination.
- Identify potential contamination sources and types.
- Determine the potential for on and off-site sources of contamination.
- Assess the need for further investigation; and,
- Report the findings of the PSI to determine the site's suitability for a proposed subdivision into six rural/residential allotments.

To achieve the above objectives, the following scope of works was carried out:

- A site visit (walkover) and discussion with the current site owner on 8 August 2023 to obtain a general characterisation of the property. The site perimeter was also inspected.
- During the walkover, a visual evaluation of surrounding land uses to identify any neighbouring activities which may have affected or present a potential risk to the environmental quality of the site.
- A review of the environmental setting with regards to geology, topography, hydrology and hydrogeology.
- A review of historical aerial photographs.
- Searches of available databases such as NSW Water groundwater bore data and NSW EPA.
- Preparation of a report in general accordance with NSW EPA (2020) *Contaminated Land Guidelines: Consultants Reporting on Contaminated Land*.

## Key Findings:

- The site is currently used for rural residential purposes and has been used for this purpose since circa 1990.
- Prior to this time, it appears to have been cleared land used for grazing.
- No potential contamination sources were identified within or in properties immediately surrounding the site.

In conclusion the PSI found that there have been no activities that would contribute to significant land contamination and on the basis of the review it is suitable for subdivision into smaller rural/residential allotments.



# 1 INTRODUCTION

## 1.1 BACKGROUND

PEM Environmental (PEM) was commissioned by Stewart Surveys, on behalf of Ryan Pryde and Nancy Williams (the client) to prepare this Preliminary Site Investigation (PSI) for 170 Bushs Lane, Gunnedah, NSW (the site) (see Figure 1 and 2 Appendix A). The purpose of the PSI was to support an application for subdivision of the property into six smaller allotments.

The site is currently used for rural/residential purposes and covers an area of approximately 17 hectares (Ha). Land use surrounding the site is generally rural/residential or vacant vegetated land.

## 1.2 OBJECTIVES OF THE INVESTIGATION

The objectives of the PSI were to:

- Provide a detailed description of the site.
- Assess the site history to determine the potential for land contamination.
- Identify potential contamination sources and types.
- Determine the potential for on and off-site sources of contamination.
- Assess the need for further investigation; and
- Report the findings of the PSI to determine the site's suitability for the proposed rural/residential subdivision.

## 1.3 SCOPE OF WORK

PEM conducted the following works:

- A database search conducted by Land Insight.
- A site visit (walkover) and discussion with the current site owner on 8 August 2023 to obtain a general characterisation of the property. The site perimeter was also inspected.
- During the walkover, a visual evaluation of surrounding land uses to identify any neighbouring activities which may have affected or present a potential risk to the environmental quality of the site.
- A review of the environmental setting with regards to geology, topography, hydrology and hydrogeology.
- A review of historical aerial photographs.
- Searches of available databases such as NSW Water groundwater bore data and NSW EPA.
- Preparation of a report in general accordance with NSW EPA (2020) *Contaminated Land Guidelines: Consultants Reporting on Contaminated Land*.

## 1.4 REPORT STRUCTURE

The remainder of the report is organised as follows:

- Section 2 – details the site characteristics including site location, walkover findings, site history, surrounding land uses and environmental setting.

- Section 3 – provides site characterisation and identifies the areas of concern, potentially contaminated media and potential for migration.
- Section 4 – provides the conclusions and recommendations to the investigation; and
- Section 5 – lists the limitations associated with the report.

The appendices that accompany this report comprise figures, search report and site photographs taken during the site inspection.

EXHIBITION COPY

## 2 SITE CHARACTERISTICS

The information in the following sections was sourced from the Land Insight Report (see Appendix B)

### 2.1 SITE LOCATION

The subject site is located at 170 Bushs Lane, Gunnedah, NSW (see Figure 1 and 2 Appendix A).

### 2.2 SITE DESCRIPTION

The site currently comprises a large approximately rectangular east-west running allotment which has an area of approximately 17 Hectares (Ha). It is proposed to subdivide the property into five (5) 1.2 Ha allotments with the balance of the land (10.97Ha) remaining with the existing owner (see Figure 3 Appendix A).

The site is located approximately four (4) kilometres from the CBD of Gunnedah. It is situated in an area dominated by rural/ residential type properties on the outskirts of the town area. To the south-west, the land rises quite steeply to several peaks that are above 600m AHD. Generally, the site is relatively flat with a slope to the north and more prominently to the east.

The site measures approximately 700m long and between 200-250 m wide. The site is fenced with metal post and wire/wire mesh farm type fencing around the perimeter, which is in good condition. Access to the property is by the unsealed Bushs Lane with the access gate being located towards the western end of the Bushs Road boundary near the residential property. Any roads on site are unsealed.

All vegetation throughout the site and neighbouring properties appears to be in a healthy condition.

Photographs from PEM's site inspection of 8 August 2023 reflecting current landform, site condition and vegetation cover are contained within Appendix C.

Table 2.2: Site Description

Parameter	Site Details
Street Address	170 Bushs Lane, Gunnedah, NSW
Lot / DP	Lot 1 DP861697
Local Government Area	Gunnedah
Zoning	RU4 Primary Production Small Lots - Gunnedah Local Environmental Plan (LEP) (2012)
Current Landuse	Rural/Residential
Proposed Landuse	Rural/Residential
Site Area	17ha (approx.)
Geographical Coordinates (approx. centre of site)	Long 150.21 E Lat 31.01 S

### 2.3 CURRENT SITE ACTIVITIES

An interview was conducted with Mr Ryan Pryde who accompanied Mr Peter Moore on the site inspection. Mr Pryde has owned the property for approximately four years. The site is currently used as a rural/residential property. The eastern portion is currently unused with trees found on the site perimeters as well as a strip of trees running in an east

west direction, which bisects the property. The ground is extremely rocky and has been reportedly ploughed in the past. The western end comprises a residential building and sheds which are surrounded by landscaping. The buildings appeared to be in good condition. Buildings were constructed of concrete flooring, rendered bricks, metal and metal roofs. Given that the first buildings appeared to have been constructed circa 1990, there is little likelihood of asbestos containing materials contained within the buildings.

There are two dams located north of the buildings and the area surrounding the dams has some improved pasture (oats) and was being used for the grazing of animals and a horse paddock was also located immediately north of the farm buildings. Farm equipment such as storage bins and small machinery were found in some areas. Several burn areas were scattered around the property where dead vegetation (mainly dead trees) has been reportedly burnt. A number of unburnt piles of trees remained in some locations.

The site is supplied with town water which enters the property on the southern eastern corner and then traverses the property to the house. The site is also serviced by the Council waste service which collects general household waste and recyclables. There is no sewer system connected to the property with wastewater being directed to a septic tank connected to a soak away system. Some minor contamination may be located within the soak away trench, but would be very localised.

There were no observations of staining or extensive dieback of vegetation observed across the site. No underground fuel storage tanks are located on the property.

The site is listed as having a registered water bore. This is located to the south of the house but is no longer used.

## 2.4 SURROUNDING LAND USE

The site is situated along Bushs Lane which is located along the southern boundary. Access to the property is towards the western end of the road.

Surrounding land uses include:

North: Rural/residential properties.

East: Hunts Road (sealed) followed by rural/residential properties (identified as large lot residential in LEP). The Gunnedah Gun Club is found to the north-east along Hunts Road but not immediately adjacent to the property.

South: Bushs Road (unsealed) with rural/residential properties (large lot residential) on the eastern end and vacant land to the west portion.

West: vacant vegetated land.

## 2.5 SENSITIVE ENVIRONMENTS

The nearest sensitive environments were as follows:

- Residential properties were located immediately to the north, east and south.
- The nearest notable environmental receptor is the Namoi River located approximately 5 kms to the north-east. An ephemeral water course is located approximately 1km to the east (Google maps).
- Bushland is located several kilometres to the east and west of the site.

## 2.6 SITE HISTORY

The history of the site and surrounding area was obtained from a review of the information provided in the Land Insight Report (see Appendix B).

### 2.6.1 Review of Title Records

The site is described as Lot 1 in Deposited Plan 861697.

## 2.6.2 Review of Aerial Photographs

Aerial photos were reviewed to assist in identifying the history of the site and the surrounding area. The selected images were sourced from the Land Insight report and included images ranging from 1958 to 2022. Copies of the aerial photographs are included in Appendix B. Table 2.6 presents a summary of the review of each of these photographs.

EXHIBITION COPY



Table 2.6 Historical Aerial Photo Review:

Year of Aerial Photograph	Description of Site	Description of Surrounding Area
1958	Photograph unclear. Appears to be cleared vacant land, with some vegetation present.	Surrounding land appears to be similar.
1966	The site remained undeveloped with few trees visible.	Rural residential buildings were noted to the north and north-east.
1975/78	The site remained undeveloped.	No significant changes noted.
1986	Photograph unclear due to cloud cover.	No significant changes noted.
1993	First buildings noted on site in current location. Dams noted on northern part of the site to the north of site buildings.	Rural residential buildings and dam appeared east of site. Otherwise, no significant changes to surrounding area.
1998	Additional buildings noted in current location. Remainder of site remains similar.	No significant changes to surrounding area.
2012	Larger buildings noted in current location. More trees appeared across the property.	Additional and new buildings noted to the north, east and south-east. Earthworks noted to the south-east. A small orchard appears further to the north.
2016	Buildings noted in current area with slightly different configuration. Row of trees across the centre of the property noted.	Additional residences have appeared in south-east in the area where earthworks were noted in previous photograph.
2019-2022	Site appears to be similar with no significant changes.	More housing noted to the south-east.

### 2.6.3 Review of Council Records

Under the terms of the Gunnedah Local Environmental Plan (LEP) (2012) the subject land is zoned Primary Production Small Lots (RU4). The objectives of the zone are to:

- Enable sustainable primary industry and other compatible land uses.
- To encourage and promote diversity and employment opportunities in relation to primary industry enterprises, particularly those that require smaller lots or that are more intensive in nature.
- Maintain the rural and scenic character of the land.
- Ensure that development does not unreasonably increase the demand for public services or public facilities.
- Minimise conflict between land uses within the zone and land uses within adjoining zones.

- To conserve and enhance the quality of valuable environmental assets, including waterways, riparian land, wetlands and other surface and groundwater resources, remnant native vegetation and fauna movement corridors as part of all new development and land use.
- To provide opportunities for a restricted range of employment-generating development that is compatible with, and adds value to, local agricultural production.
- To maintain native vegetation and wildlife corridors.

#### 2.6.4 EPA Notices and Registers

The site nor surrounding sites are on the NSW EPA Contaminated Land register database.

No licences or regulation under the Protection of Environment Operations Act (1997) apply to the site. The nearest regulated site is the former Gunnedah Colliery site located 300m to the west.

No potentially contaminating activities have been identified within a 200m buffer zone surrounding the site.

#### 2.6.5 Fire Hazard

The site is not listed as a bushfire prone area.

#### 2.6.6 Flood and Erosion Risk

The site is listed as a high, water erosion risk and moderate wind erosion risk. It is not listed as a flood risk.

#### 2.6.7 Gas Extraction

Coal seam gas extraction is not permissible on the site.

#### 2.6.8 Ecosystems

Groundwater dependent ecosystems are reported to be found in small areas on the southern boundary of the site. No sensitive environmental receptors are reported to be on site or within 200m of the site.

### 2.7 ENVIRONMENTAL SETTING

#### 2.7.1 Topography

The 1:25,000 Wondoba Topographic Series Sheet 8935-4N shows the site to be elevated between 330-340m above the Australian Height Datum. The site gradually falls approximately 10m downwards in a north to north-easterly direction. The lowest point of the site is situated on the north-eastern site boundary.

#### 2.7.2 Soils

The site is situated in the Fullwood Road Transferral Soil Landscape Grouping. This landscape is characterised by extremely long pediment footslopes comprising alluvial fans below Permian and Triassic lithic sandstone hills in open woodlands. The soils are mostly degraded red brown earths or red earths on upper slopes. They are characterised by a high erosion hazard, hard setting surfaces, high structural decline, dryland salinity on lower slopes and saline aquifer recharge zones.

#### 2.7.3 Geology

According to the NSW Seamless Geology Map Sheet Version 2.2 dated May 2022, the site is located on the Permian to Lopingian Watermark Formation consisting predominantly of siltstone but also including claystone silty sandstone, bedded siltstone and sandstone.

#### 2.7.4 Hydrogeology and Hydrology

The site has a northerly to easterly aspect. It is expected that the surface water would initially infiltrate the unsealed land surfaces with any excess surface water or groundwater would flow in a north to north-easterly direction following the topography towards the ephemeral creek along Bushs Lane and then eventually the Namoi River located further downgradient.

The groundwater bore search identified one (1) registered borehole on site which was observed during the site inspection, but not currently being used. No bore details were available, but the site owner has reported that the groundwater level is approximately 8-10metres below ground level indicating there may be a confined aquifer below the site given that bores in the surrounding area have been drilled into rock.

For the locations of the other bores in the area, these are reported as between 300-500 metres or even further in westerly, easterly and northerly directions from the site. The boreholes were drilled to depths between 20-60m below ground level and used for a variety of purposes including monitoring, water supply and stock supply. The logs indicate the presence of sandstone, mudstones and shales in the area and water quality generally appears to be brackish where information is available.

#### 2.7.5 Acid Sulfate Soils

ASRIS (Australian Soil Resource Information System) was accessed by Land Insight to identify the potential for acid sulfate soils to be present at the site. The area is classified as having an extremely low probability of the occurrence of acid sulfate soils.

#### 2.7.6 Salinity

The south-east border of the site is listed as having potentially saline soils.

## 3 CONCEPTUAL SITE MODEL

### 3.1 NATURE AND EXTENT OF CONTAMINATION

As part of the PSI, a review of background data followed by a site inspection was conducted on 8 August 2023 on Lot 1 in DP 861697. The following observations were made:

- The site appeared to be vacant land prior to circa 1990.
- Groundcover across the site mostly comprised of scattered trees predominantly located on site boundaries, near the residence and in a strip bisecting the site. The trees appeared to be in a healthy condition.
- Conditions across the site were dry with little grass cover observed in the eastern portion because of the recent dry weather.
- A residence and associated sheds/buildings were located on the western end of the property. All appeared to be in good condition.
- Improved pastures and animal grazing was observed to the north of the residential area.
- No evidence of contamination of soils was noted during the inspection.

### 3.2 POTENTIAL CONTAMINATION SOURCES

No potential sources of contamination within the context of the historical and current site uses were identified.

### 3.3 POTENTIALLY CONTAMINATED MEDIA

In the absence of potential contamination sources, no contaminated media can be present.

## 4. CONCLUSION

Based on the results of the PSI conducted at 170 Bushs Road, Gunnedah, NSW PEM concludes the following:

- The site covers a total area of approximately 17.0ha and is currently used for rural/ residential purposes since circa 1990.
- Historical evidence suggests that the site has not been subject to historical development and possibly used for grazing prior to the 1990s.
- No evidence of potentially contaminating activities that would affect the site were observed or found in the area immediately surrounding the site.
- The closest environmental receptors are residential properties adjoining the site. Environmental receptors down-gradient of the site include ephemeral creek located approximately 1km to the east of the site.
- Based on the above information, PEM considers that there is a low potential for contamination to be present at the site.

In conclusion the PSI found that there have been no activities that would contribute to significant land contamination and on the basis of the review it is suitable for subdivision into smaller rural/residential allotments.



## 5 REPORT LIMITATIONS

The findings of this report are based on the scope of work outlined in section 1.3. PEM performed its services in a manner consistent with the normal level of care and expertise exercised by members of the environmental assessment profession. No warranties, express or implied are made.

Subject to the scope of work, PEM's assessment was limited strictly to identifying the environmental conditions associated with the subject property and does not include evaluation of any other issues. The absence of any identified hazardous or toxic materials on the subject property should not be interpreted as a guarantee that such materials do not exist on the subject property. The assessment did not include any intrusive investigation works.

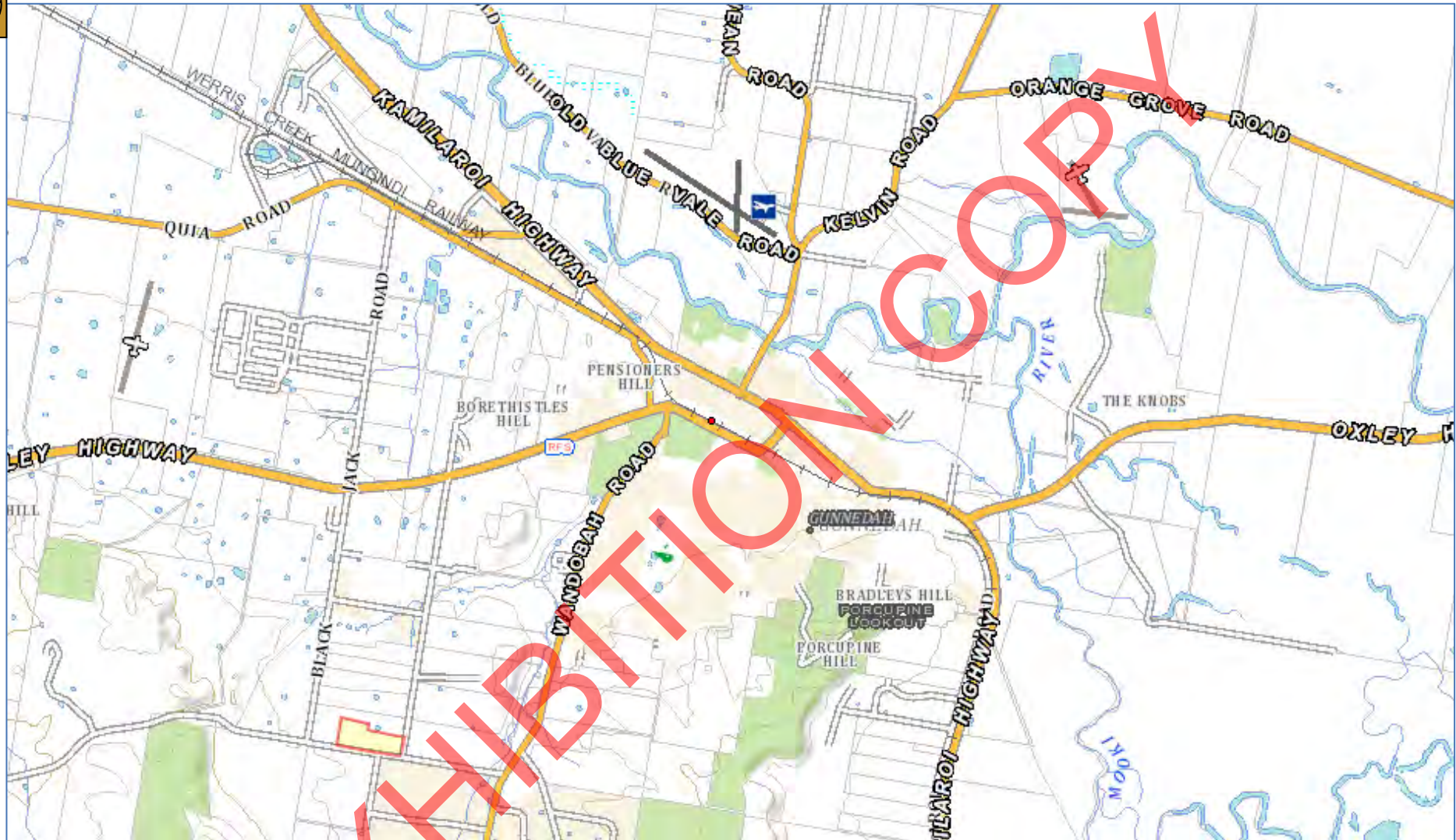
This report does not comment on any regulatory obligations based on the findings. This report relates only to the objectives stated and does not relate to any other work undertaken for the Client.

All conclusions and recommendations regarding the property are the professional opinions of the PEM personnel involved with the project, subject to the qualifications made above. While normal assessments of data reliability have been made, PEM assumes no responsibility or liability for errors in any data obtained from regulatory agencies, statements or sources outside of PEM, or developments resulting from situations outside the scope of this project.

PEM is not engaged in environmental assessment and reporting for the purpose of advertising sales promoting, or endorsement of any client interests, including raising investment capital, recommending investment decisions, or other publicity purposes. It is acknowledged that this report is for the exclusive use of the client.

## Appendix A      Report Figures

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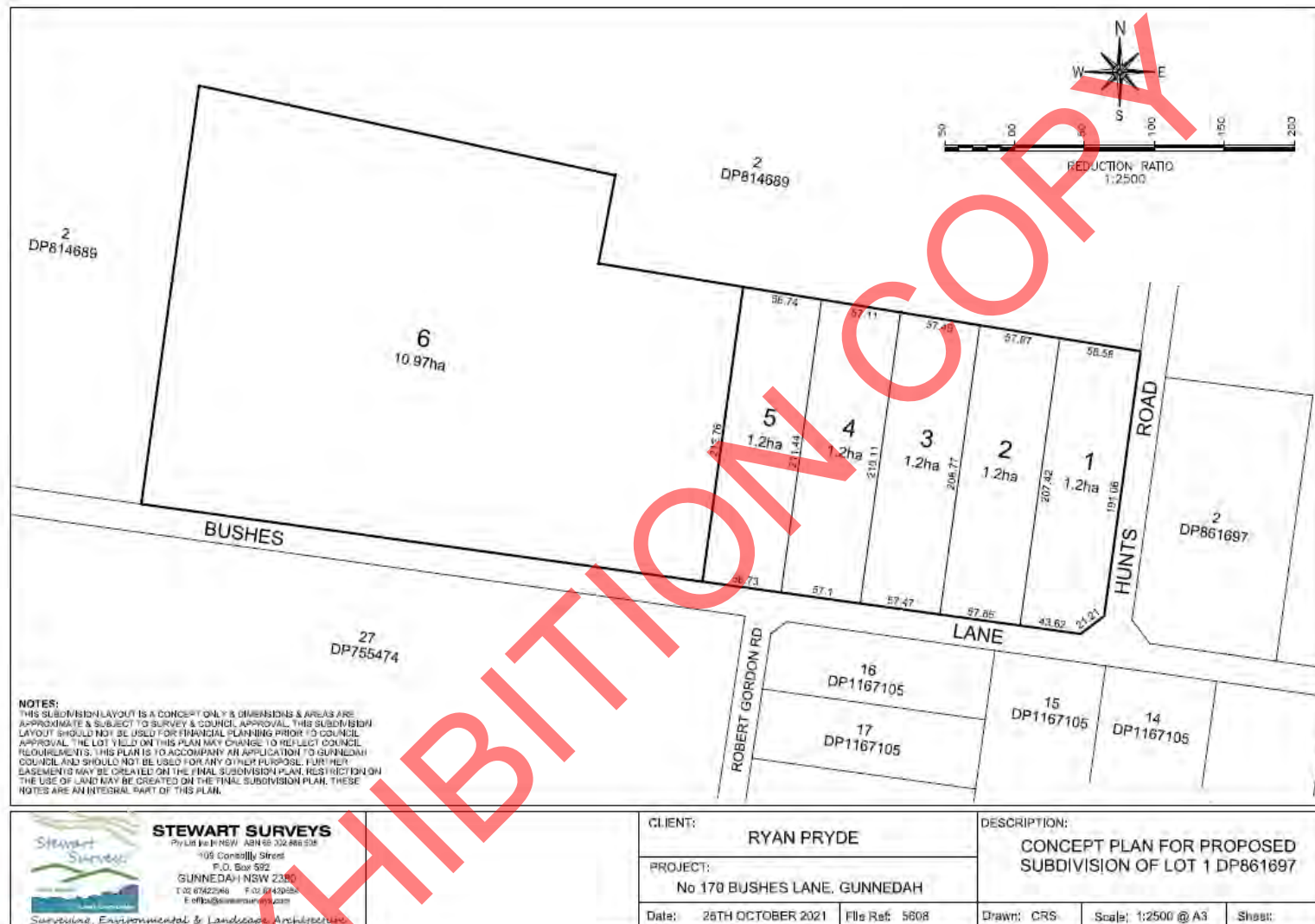


Client:	Ryan Pryde and Nancy Williams		Drawn:	PM	<b>PEM ENVIRONMENTAL</b>  Image courtesy Sixmaps
Project:	202306 Gunnedah		Approved:	PM	
Title:	Site Location		Date:	16/08/2023	
Project no:	202306	Figure no:	1	Original Size:	1:72224
Page 141 of 212					





Client:	Ryan Pryde and Nancy Williams		Drawn:	PM	<b>PEM ENVIRONMENTAL</b>  Image courtesy Sixmaps
Project:	202306 Gunnedah		Approved:	PM	
Title:	Site Layout		Date:	16/08/2023	
Project no:	202306	Figure no:	2	Scale:	NTS
			Original Size:	1:4514	
Page 142 of 212					



Client:	Ryan Pryde and Nancy Williams			Drawn:	PM	<b>PEM ENVIRONMENTAL</b>
Project:	202306 Gunnedah			Approved:	PM	
				Date:	16/08/2023	
Title:	Proposed Subdivision			Scale:	NTS	
Project no:	202306	Figure no:	3	Original Size:	1:2500 @ A3	
Image courtesy Stewart Surveys						
Page 143 of 212						



## Appendix B      Land Insight Report

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# Due Diligence Insight Report

170 Bush's Lane  
Gunnedah, NSW

26 July 2023

Report n°:  
LI-3586 DDR








# Understanding your report

Thank you for ordering your report from Land Insight. If you have any feedback, questions or queries, please get in touch with us at [orders@landinsight.co.au](mailto:orders@landinsight.co.au).

Your Report has been produced by Land Insight and contains information related to current and historical land use information, environmental risks and hazards.

The information presented in this report includes Land Insights' comprehensive research into current and historical land use derived from Land Insight's proprietary National Land Use Atlas (NLUA), environmental risk information and data available from public databases, third party providers, local and state authorities. The report also includes detailed property and soil setting information, hydrogeology, identification of potential pollution and contamination along with ground and natural hazards. The records identified are presented within a 200 to 2000m radius (buffer zone) from the boundaries of the Property searched, depending on the screened constraint. The report is separated and grouped into easy to navigate sections as per Summary below:

	<b>Section 1</b>	<b>PROPERTY SETTING</b>	Sensitive Receptors, Planning Controls, Zoning, Heritage, Soil and Land Information, Geology and Topography
	<b>Section 2</b>	<b>HYDROGEOLOGY</b>	Groundwater Bores and Other Borehole investigations, Groundwater Dependent Ecosystems (GDE), Aquifer and Wetland, Other Hydrogeology information.
	<b>Section 3</b>	<b>ENVIRONMENTAL REGISTERS, LICENCES AND INCIDENTS</b>	Contaminated Land Public Register, Licences, Audits and Orders, Sites Regulated by Other Jurisdictional Body (Former Gaswork sites / PFAS sites, UXO Areas), Historical Landfills, Derelict Mines and National Pollutant Inventory (NPI).
	<b>Section 4</b>	<b>POTENTIALLY CONTAMINATED AREAS</b>	Potentially Contaminating activities (Industries, businesses and activities that may cause contamination), Historical Potentially Contaminating activities and Historical Land Use.
	<b>Section 5</b>	<b>NATURAL HAZARDS</b>	Erosion hazard, Flood hazards, Bushfire prone land and Bushfire history.

**This report includes** data listed on page 4 (table of contents). All sources of data and definitions are provided in the Product Guide (Attached). For a full list of references, metadata, publications or additional information not provided in this report, please contact [orders@landinsight.co.au](mailto:orders@landinsight.co.au).

**This report does not include** information derived from a physical inspection. It is important to note that a site inspection can present information relevant to other risks and hazards that may not be identified by this Report.

Due to the ongoing nature of database development and frequency of updates provided by various state government regulators and data sources, the data displayed within this report is only current from date of production. While every effort is made to ensure the details in your Report are correct, Land Insight cannot guarantee the accuracy or completeness of the information and/or data provided.

**This Report, and your use of it, is regulated by Land Insight's Terms and Conditions. For more information, see Land Insight's Product Guide.**

# Data maintenance schedule

Dataset name	Update frequency	Dataset buffer
<b>Section 1 - Property Setting</b>		
Sensitive Receptors	Quarterly	200m
Planning Controls ( <i>Zoning, Planning Instruments, Other planning information</i> )	Quarterly	500m
State and Local Heritage	Quarterly	200m
Commonwealth, National and World Heritage Areas	Annually	200m
Soil Landscape and Land Use Information	Annually	500m
Salinity Hazard	Annually	500m
Radon Level	Annually	500m
State, Local and National Acid Sulfate Soil (ASS)	Annually	500m
Geology	Annually	500m
Naturally Occurring Asbestos Potential	Annually	500m
Topography	As required	500m
<b>Section 2 - Hydrogeology</b>		
Groundwater Aquifers	Annually	2000m
Wetlands	Annually	2000m
Groundwater Bores	Annually	2000m
Drinking Water Catchments	Annually	500m
Groundwater Prohibition/Restricted Use/Exclusion Zones	Annually	500m
Hydrogeologic Units	Annually	500m
Groundwater Dependent Ecosystems	Annually	500m
Other Borehole Locations ( <i>Coal Seam Gas, Petroleum Wells, other boreholes</i> )	Annually	500m
<b>Section 3 - Environmental Registers, Licences and Incidents</b>		
Contaminated Land Public Register	Monthly	1000m
Licences, Approvals, Audits, Authorisations & Assessments		
Licences	Monthly	1000m
Surrendered Licences	Monthly	1000m
Clean Up Notices, Penalty Notices and Orders	Monthly	1000m
Permissions	Monthly	1000m
Audits	Monthly	1000m
Authorisations	Monthly	1000m
Sites Regulated by other Jurisdictional Body		
Contaminated Legacy Areas ( <i>James Hardies Asbestos, Pasminco Smelter and Uranium sites</i> )	Quarterly	2000m
Defence 3 Year Regional Contamination Investigation Program (RCIP)	Quarterly	2000m
Defence Sites - Current and Former	Ongoing	2000m
Unexploded Ordnance (UXO) Sites - Department of Defence (DoD)	Annually	2000m
Former Gasworks Sites	Ongoing	2000m
PFAS Investigation Sites ( <i>EPA PFAS Investigation Program/s, AirServices Australia etc.</i> )	Monthly	2000m
NPI Industrial Facilities	Annually	2000m
<b>Section 4 - Potentially Contaminated Areas</b>		
Potentially Contaminating Activities (PCA) ( <i>Petrol Stations, Dry cleaners, Waste sites etc</i> )	Ongoing	500m
Historical Business Directory ( <i>Commercial and Trade Directory Data from 1990-2020</i> )	Not required	200m
<b>Section 5 - Natural Hazards</b>		
Bushfire Prone Areas	Bi-annual	500m
Bushfire History	Bi-annual	500m
Erosion Hazard	Bi-annual	500m
Flood Hazard	Ongoing	500m

# Index

1.1 SENSITIVE RECEPTORS Map 1.1 (200m Buffer)	3
1.2a PLANNING CONTROLS Map 1.2a (500m Buffer)	3
Zoning	3
1.2b PLANNING OVERLAYS Map 1.2b (500m Buffer)	3
Environmental Planning Instruments	3
Other Planning Information	4
1.3 HERITAGE Map 1.3 (200m Buffer)	4
State and Local Heritage Registers	4
Australian Heritage Database Register	4
1.4a SOIL AND LAND USE INFORMATION Map 1.4a (500m Buffer)	4
Soil Landscape	4
Soil Salinity	5
Radon	5
1.4b ACID SULFATE SOIL Map 1.4b (500m Buffer)	5
State and Local Acid Sulfate Soil Registers	5
National Acid Sulfate Soil Register	5
1.5 GEOLOGY AND TOPOGRAPHY Map 1.5 (500m Buffer)	6
Geology	6
Naturally Occurring Asbestos Potential (NOA)	6
Topography	6
2.1 GDE & HYDROGEOLOGY CONSTRAINTS Map 2.1 (2000m Buffer)	7
Aquifer Type	7
Groundwater Protection Areas	7
Wetlands	7
Groundwater Dependent Ecosystems (GDE) - Aquatic (Surface)	7
Groundwater Dependent Ecosystems (GDE) - Terrestrial (Subsurface)	8
Groundwater Licences (Western Australia)	8
Groundwater Bores	8
Groundwater Bores Driller Lithology Details	10
2.2 GROUNDWATER AND OTHER BORES Map 2.2 (2000m Buffer)	16
Groundwater Restricted Use Zones	16
Groundwater Salinity	16
Other Known Borehole Investigations (Coal Seam Gas (CSG), Petroleum Wells and Other Boreholes)	16
3.1 CONTAMINATED LAND PUBLIC REGISTER Map 3.1 (1000m Buffer)	17
Contaminated Sites	17
3.2 LICENCES, APPROVALS & ASSESSMENTS Map 3.2 (1000m Buffer)	18
Licences	18
Audits	18
Clean Up, Penalty Notices and Orders	18
3.3a SITES REGULATED BY OTHER JURISDICTIONAL BODY Map 3.3a (2000m Buffer)	19
Contaminated Legacy Areas	19
Defence, Military Sites and UXO Areas	19
Former Gasworks Sites	19
PFAS Sites	19
3.3b OTHER POTENTIAL POLLUTION SOURCES Map 3.3b (500m Buffer)	19
Derelict Mines and Quarries	19
Historical Landfills	19
National Pollutant Inventory (NPI)	19



4.1 POTENTIALLY CONTAMINATING ACTIVITIES (PCA) Map 4.1 (200m Buffer).....	20
Industries, businesses and activities that may cause contamination.....	20
4.2 HISTORICAL BUSINESS DIRECTORIES (not mapped) .....	22
5.1 Fire Hazard Map 5.1 (500m Buffer).....	23
Bushfire Prone Areas .....	23
Bushfire History .....	23
5.2 Flood Hazard Map 5.2 (500m Buffer) .....	23
Flood Planning Area .....	23
Flood History .....	24
Other Flood Studies .....	24
5.3 Erosion Hazard Map 5.3 (500m Buffer).....	24
Erosion Hazard.....	24

ATTACHMENTS	
Attachment A - Report Maps	
Attachment B - Historical Imagery	
Land Insight Product Guide and Terms and Conditions	

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## Section 1 Property Setting

### 1.1 SENSITIVE RECEPTORS

Map 1.1 (200m Buffer)

Sensitive receptor	Type	Distance (m)	Direction
-	-	-	-

### 1.2a PLANNING CONTROLS

Map 1.2a (500m Buffer)

#### Zoning

Zoning	Type	Details	Distance (m)	Direction
RU4	Primary Production Small Lots	Gunnedah Local Environmental Plan 2012	0.0	Onsite
R5	Large Lot Residential		20.0	East
RU1	Primary Production		311.8	West

### 1.2b PLANNING OVERLAYS

Map 1.2b (500m Buffer)

#### Environmental Planning Instruments

Name	Type	Details	Distance (m)	Direction
Coal Seam Gas Exclusions	SEPP (MPPEI) 2007 Coal Seam Gas Exclusions Map	State Environmental Planning Policy (Resources and Energy) 2021	0.0	Onsite
Lot Size	Lot Size Map	Gunnedah Local Environmental Plan 2012	0.0	Onsite

## Other Planning Information

Name	Category	Details	Distance (m)	Direction
Curlewis	Mines Subsidence District Area	-	311.9	South-west

## 1.3 HERITAGE

Map 1.3 (200m Buffer)

### State and Local Heritage Registers

Site ID	Site Name	Type	Details	Distance (m)	Direction
Not identified	-	-	-	-	-

### Australian Heritage Database Register

Site ID	Site Name	Type	Details	Distance (m)	Direction
Not identified	-	-	-	-	-

Commonwealth Heritage List, National Heritage List and World Heritage Area.

## 1.4a SOIL AND LAND USE INFORMATION

Map 1.4a (500m Buffer)

### Soil Landscape

Code	Name	Soil Group	Description	Distance (m)	Direction
TRfr	Fullwoods Road	Transferral	<p>Landscape—extremely long (400–2 500 m) pediment footslopes comprised of coalescing alluvial fans below Permian and Triassic lithic sandstone hills. Local relief to 80 m, slopes 2–8%, elevation between 290 and 400 m. Mostly cleared open-woodland.</p> <p>Soils—mostly degraded Red-brown Earths (Db1.13, Dr2.12, Dr2.13, Dr2.32, Dr2.33) with Red Earths (Gn2.12) commonly encountered on upper footslopes.</p> <p>Limitations—water erosion hazard, high run-on. High structural decline hazard, hardsetting surfaces, highly erodible topsoils, dryland salinity hazard on lower footslopes. Saline aquifer recharge zone.</p>	0.0	Onsite
COel	East Lynne	Colluvial	<p>Landscape—moderately to steeply inclined midslopes below Triassic and Jurassic sandstone escarpments on large hills and mountains. Local relief ranges from 80–120 m, slope range predominantly 32–56% but some areas ranging from 12–80% occur, elevation range 260–560 m. Largely uncleared open-forest and woodland with relict rainforest species along deeply incised drainage lines.</p> <p>Soils—deep (&gt;150 cm) to extremely shallow (&lt;10 cm) soils which are extremely variable. Some soil types encountered include Earthy Sands (Uc1.23, Uc1.24), Yellow Earths (Gn2.25) and Red Podzolics (Dr5.41).</p> <p>Limitations—steep slopes, mass movement hazard, rock outcrop, rock fall hazard, and high water erosion hazard. Soils generally of low fertility, and very stony.</p>	489.4	East

## Soil Salinity

Salinity Hazard	Type	Details	Distance (m)	Direction
High hazard or risk	Australian Dryland Salinity Assessment (1:2,500,000) 2001	High hazard or risk in 2000, 2020, and 2050	0.0	Onsite

## Radon

Radon Level (Bq/m <sup>3</sup> )	Distance (m)	Direction
9	0.0	Onsite

Typical radon levels in Australia are low and the values shown are the average values for each census district. For specific location, factors such as the local geology and house type could lead to different values. (ARPANSA).

## 1.4b ACID SULFATE SOIL

### Map 1.4b (500m Buffer)

### State and Local Acid Sulfate Soil Registers

Name	Classification	Description	Distance (m)	Direction
-	-	-	-	-

To ensure that development does not disturb, expose or drain acid sulfate soils and cause environmental damage, development consent may be required for the carrying out of works within areas and land shown on the Acid Sulfate Soils Map.

### National Acid Sulfate Soil Register

Name	Classification	Description	Distance (m)	Direction
Atlas of Australian Acid Sulfate Soils	Extremely low probability of occurrence	Acid sulfate soil generally within upper 1m in wet / riparian areas.	0.0	Onsite

Source: ASRIS Atlas of Australian Sulfate Soils (CSIRO). Acid Sulfate Soils (ASS) are all those soils in which sulfuric acid may be produced, is being produced, or has been produced in amounts that have a lasting effect on main soil characteristics.

## Geology

Map Sheet	Code	Formation	Age	Group	Dominant Lithology	Description	Distance (m)	Direction
NSW Seamless Geology version 2.2 May2022	Pmiw	Watermark Formation	Permian (base) to Lopingian (top)	Millie Group	Siltstone	Siltstone, claystone, silty sandstone, thinly bedded siltstone and sandstone.	0.0	Onsite
	Pmip	Porcupine Formation	Lopingian (base) to Lopingian (top)	Millie Group	Conglomerate	Basal conglomerate passing upward into bioturbated silty sandstone and minor siltstone with dropped pebbles.	363.1	East

## Naturally Occurring Asbestos Potential (NOA)

Category	On the Property?	Within Buffer?
Not identified	-	-

## Topography

Topography (onsite)	330 - 340 mAHD
---------------------	----------------





## Section 2 Hydrogeology



### 2.1 GDE & HYDROGEOLOGY CONSTRAINTS

Map 2.1 (2000m Buffer)

#### Aquifer Type

Type	Distance (m)	Direction
Porous, extensive highly productive aquifers	0.0	Onsite

#### Groundwater Protection Areas

Name	Water Plan Area	Distance (m)	Direction
Not identified	-	-	-

#### Wetlands

Name	Description	Distance (m)	Direction
-	-	-	-

#### Groundwater Dependent Ecosystems (GDE) - Aquatic (Surface)

Potential	Distance (m)	Direction
Not identified	-	-

*Aquatic - Ecosystems that rely on the Surface expression of groundwater.*

## Groundwater Dependent Ecosystems (GDE) - Terrestrial (Subsurface)

Potential	Distance (m)	Direction
High potential GDE - from regional studies	0.0	Onsite
Low potential GDE - from regional studies	0.0	Onsite

Terrestrial - Ecosystems that rely on the Subsurface expression of groundwater.

## Groundwater Licences (Western Australia)

Map ID	WRI number	Allocation (KL)	Address	All Parties	Distance (m)	Direction
Not identified	-	-	-	-	-	-

## Groundwater Bores

Map ID	Groundwater Bore ID	Authorised Purpose	Completion Date	Drilled Depth (m)	Final Depth (m)	SWL (m)	Salinity (mg/l)	Yield (L/s)	Distance (m)	Direction
48	GW044880	Household	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	0.0	Onsite
42	GW965545	Monitoring	14/05/2000	24.0	24.0	<Null>	<Null>	<Null>	344.2	North-west
46	GW965545	Monitoring	14/05/2000	24.0	24.0	<Null>	<Null>	<Null>	344.2	North-west
31	GW965569	Monitoring	24/05/2000	30.0	30.0	<Null>	<Null>	<Null>	360.9	West
34	GW965569	Monitoring	24/05/2000	30.0	30.0	<Null>	<Null>	<Null>	360.9	West
50	GW965569.1	Null	N/A	<Null>	<Null>	<Null>	<Null>	<Null>	361.4	West
51	GW965569.1.2	Null	N/A	<Null>	<Null>	<Null>	<Null>	<Null>	361.4	West
67	GW971645	Null	N/A	<Null>	60.0	<Null>	<Null>	0.252	394.2	East
21	GW047626	Irrigated agriculture	1/04/1980	25.0	25.0	<Null>	Hard	<Null>	485.5	East
47	GW968699	Household	20/12/2008	60.0	60.0	6	<Null>	0.25	536.8	West
32	GW966188	Household	16/09/1994	36.6	36.6	15.2	<Null>	1.26	578.9	North-east
7	GW007568	Water supply	1/11/1947	61.9	61.9	<Null>	Brackish	<Null>	591.7	North-west
53	GW971566	Null	N/A	<Null>	<Null>	<Null>	<Null>	<Null>	608.8	North-west
56	GW008733	Unknown	<Null>	<Null>	20.1	<Null>	<Null>	<Null>	703.8	North-west
18	GW052392	Household	1/05/1980	39.0	39.0	23	<Null>	0.375	739.3	North
1	GW970547	Domestic,stock	13/02/2013	0.0	46.6	3.3	<Null>	1.5	753.6	East
2	GW970547	Domestic,stock	13/02/2013	0.0	46.6	3.3	<Null>	1.5	753.6	East
12	GW070443	Household	19/01/1993	25.9	25.9	28.6	<Null>	1	777.1	North
8	GW008732	Unknown	<Null>	3.7	3.7	<Null>	S.Brackish	<Null>	802.8	North
58	GW050416	Unknown	<Null>	<Null>	32.9	<Null>	Good Stock	<Null>	834.3	North
43	GW902252	Household	8/05/2000	23.0	23.0	1.75	<Null>	1.3	881.8	North-east
62	GW008734	Unknown	<Null>	<Null>	14.0	11	S.Brackish	<Null>	886.3	North-west

Map ID	Groundwater Bore ID	Authorised Purpose	Completion Date	Drilled Depth (m)	Final Depth (m)	SWL (m)	Salinity (mg/l)	Yield (L/s)	Distance (m)	Direction
45	GW967151	Household	11/09/2005	126.0	126.0	<Null>	<Null>	<Null>	907.8	North
24	GW900537	Household	29/03/1993	49.6	49.6	19.81	Good	1	915.7	South
33	GW965565	Monitoring	16/05/2002	18	18	<Null>	<Null>	<Null>	969.3	North
36	GW965565	Monitoring	16/05/2002	18	18	<Null>	<Null>	<Null>	969.3	North
52	GW971539	Null	N/A	<Null>	<Null>	<Null>	<Null>	<Null>	1036.6	West
35	GW007908	Unknown	<Null>	30.5	30.5	18.3	S.Brackish	<Null>	1039.0	South-east
54	GW969698	Household	18/03/2011	24.4	24.4	7	<Null>	1.26	1057.3	North
66	GW904027	Null	N/A	61	61	14.8	<Null>	0.5	1066.7	North
64	GW902827	Null	N/A	0	35	<Null>	<Null>	<Null>	1072.3	North-east
60	GW966639	Unknown	8/12/1990	<Null>	5.9	<Null>	<Null>	<Null>	1100.2	North
61	GW966640	Unknown	8/12/1990	<Null>	5.9	5	<Null>	<Null>	1116.5	North
30	GW965944	Household	8/03/2003	20	20	11.5	<Null>	0.6	1118.0	North
26	GW966285	Household	18/11/1993	49	49	16.2	<Null>	2.25	1144.7	South
38	GW900423	Household	10/07/1994	53.3	53.3	9.1	Fair	1.1	1175.2	South
59	GW900530	Household	12/09/1991	<Null>	43	15	<Null>	8.75	1209.6	South
40	GW063843	Household	1/07/1987	26	26	<Null>	Brackish	0.488	1244.5	South-east
6	GW008749	Unknown	<Null>	12.2	12.2	<Null>	S.Brackish	<Null>	1257.6	North
41	GW900132	Unknown	10/10/1990	17.9	17.9	1	Fair	2.5	1331.6	South-east
14	GW070223	Household	25/09/1992	<Null>	37.5	9	Good	1.5	1348.8	South-east
65	GW902907	Null	N/A	0	54	40	<Null>	0.4	1349.8	North
11	GW068748	Household	17/07/1990	49.6	49.6	<Null>	Good	1.8	1364.1	South
37	GW070238	Household	19/11/1992	49.6	49.6	24	Good	1.5	1375.1	South
57	GW067939	Household	1/01/1989	<Null>	40.8	<Null>	<Null>	2	1434.2	South-east
25	GW070362	Unknown	15/10/1992	<Null>	49.6	14	<Null>	0.5	1476.8	South
27	GW965103	Household	22/05/2000	85.3	85.3	14.3	<Null>	1.26	1490.1	North
20	GW055036	Household	1/06/1981	70.3	70.3	<Null>	<Null>	<Null>	1520.8	North
23	GW062617	Household	1/06/1986	42	42	<Null>	Hard	0.667	1522.3	North
5	GW008747	Unknown	<Null>	61.6	61.6	<Null>	S.Brackish	<Null>	1532.8	North-west
15	GW054900	Household	1/05/1981	40.1	40.1	5.4	<Null>	0.379	1578.8	North
44	GW967000	Household	31/10/2003	27	27	15	<Null>	0.5	1586.9	North
16	GW045468	Water supply for livestock	1/06/1976	29	29	9.1	Good	1.667	1597.3	South

Map ID	Groundwater Bore ID	Authorised Purpose	Completion Date	Drilled Depth (m)	Final Depth (m)	SWL (m)	Salinity (mg/l)	Yield (L/s)	Distance (m)	Direction
63	GW065417	Household	5/11/1988	<Null>	18.2	1	Fair	1.9	1639.1	North
28	GW965942	Household	13/02/2003	6.7	6.7	<Null>	<Null>	<Null>	1642.2	North
17	GW070216	Household	19/11/1992	31	31	9.4	Good	4.5	1645.8	South-east
29	GW966051	Household	2/04/1995	22.8	22.8	9.1	Good	1.7	1669.8	South-east
3	GW037068	Household	1/10/1973	42.7	42.6	12.1	<Null>	0.505	1673.8	South-east
13	GW063918	Household	1/03/1987	44.5	43.8	13.7	Very Good	1.389	1709.9	South
39	GW062878	Household	1/10/1986	35.4	35.4	<Null>	Very Good	1.01	1741.1	South
49	GW966125	Household	<Null>	<Null>	<Null>	<Null>	<Null>	<Null>	1755.6	South-east
10	GW019177	Water supply	1/08/1962	120.4	120.4	14.6	Good	0.139	1783.4	South
55	GW007906	Unknown	<Null>	<Null>	45.7	<Null>	Stock	<Null>	1786.3	South
19	GW054006	Household	1/05/1981	51.7	51.7	10.7	<Null>	0.139	1829.7	South
22	GW064479	Household	1/06/1987	36.7	36.7	15.3	<Null>	<Null>	1924.2	South-east
4	GW007732	Water supply	1/04/1949	33.5	33.5	7.6	Fresh	<Null>	1925.6	North
9	GW007909	Unknown	<Null>	54.9	54.9	33.5	S.Brackish	<Null>	1948.0	South-east

Note: The use of the symbol "-" or N/A indicates that no records were found.

### Groundwater Bores Driller Lithology Details

Groundwater Bore ID	From Depth - To Depth (m)	Lithology	Distance (m)	Direction
GW044880	#N/A		0.0	Onsite
GW965545	0m-1m Silty/sandy/clay red 1m-5m Sandstone/lithic weathered 5m-6m Sandstone/siltstone 6m-8m Sandstone/brown siltstone and mudstone grey 8m-10m Mudstone/siltstone brown 10m-11m Mudstone/brown to dark grey 11m-13m Mudstone/shale bluish 13m-14m Shale blue brown circulation lose(14-15.2) 14m-15m Mudstone blue-grey 15m-23m Shale blue(circulation lose23.2-23.4) 23m-24m Shale blue		344.2	North-west
GW965545	0m-1m Silty/sandy/clay red 1m-5m Sandstone/lithic weathered 5m-6m Sandstone/siltstone 6m-8m Sandstone/brown siltstone and mudstone grey 8m-10m Mudstone/siltstone brown 10m-11m Mudstone/brown to dark grey 11m-13m Mudstone/shale bluish 13m-14m Shale blue brown circulation lose(14-15.2) 14m-15m Mudstone blue-grey 15m-23m Shale blue(circulation lose23.2-23.4) 23m-24m Shale blue		344.2	North-west
GW965569	0m-1m Silty clay loam red 1m-2m Sandstone/siltstone weathered red brown 2m-4m Sandstone/with interbeds of shale layers 4m-5m Sandstone siltstone weathered damp 5m-9m Sandstone/siltstone weathered red 9m-10m Sandstone siltstone weathered with pebbles 10m-11m Sandstone weathered with interbeds of shale 11m-24m Mudstone pale blue		360.9	West

Groundwater Bore ID	From Depth - To Depth (m)	Lithology	Distance (m)	Direction
	24m-25m Mudstone with interbeds of shale 25m-26m Shale pale blue 26m-27m Mudstone with interbeds of shale 27m-30m Mudstone			
GW965569	0m-1m Silty clay loam red 1m-2m Sandstone/siltstone weathered red brown 2m-4m Sandstone/with interbeds of shale layers 4m-5m Sandstone siltstone weathered damp 5m-9m Sandstone/siltstone weathered red 9m-10m Sandstone siltstone weathered with pebbles 10m-11m Sandstone weathered with interbeds of shale 11m-24m Mudstone pale blue 24m-25m Mudstone with interbeds of shale 25m-26m Shale pale blue 26m-27m Mudstone with interbeds of shale 27m-30m Mudstone		360.9	West
GW965569.1	#N/A		361.4	West
GW965569.1.2	#N/A		361.4	West
GW971645	#N/A		394.2	East
GW047626	0m-0.6m Topsoil 0.6m-2m Clay sandy 2m-8.5m Rock soft basaltic 8.5m-14m Clay sedimentary rock mixed 14m-25m Rock cemented basaltic water supply		485.5	East
GW968699	0m-5.3m Clay, red 5.3m-17.5m Shale, blue 17.5m-60m Basalt, fractured, blue		536.8	West
GW966188	0m-0.6m Topsoil 0.6m-3m Ridge clay 3m-22.8m Sandstone 22.8m-27.3m Sandy shale 27.3m-27.6m Water bearing shale 27.6m-36.6m Sandy shale		578.9	North-east
GW007568	0m-10.67m Clay 10.67m-15.24m Shale yellow 15.24m-61.87m Shale water supply		591.7	North-west
GW971566	#N/A		608.8	North-west
GW008733	#N/A		703.8	North-west
GW052392	0m-0.7m Topsoil 0.7m-23m Clay sandy some gravel 23m-29.5m Rock basaltic 29.5m-34.4m Rock fractured basaltic 34.4m-39m Basalt water supply		739.3	North
GW970547	0m-0.6m Topsoil 0.6m-3.6m Clay 3.6m-28.9m Shale 28.9m-45m Shale, Sandy 45m-46.6m Sandstone		753.6	East
GW970547	0m-0.6m Topsoil 0.6m-3.6m Clay 3.6m-28.9m Shale 28.9m-45m Shale, Sandy 45m-46.6m Sandstone		753.6	East
GW070443	0m-1m Soil 1m-4.6m Ridge clay 4.6m-9.2m Shale yellow 9.2m-11.6m Shale blue 11.6m-22.9m Shale - hard blue 22.9m-23.2m Shale w.b 23.2m-25.9m Shale - blue		777.1	North
GW008732	0m-3.66m Clay		802.8	North
GW050416	#N/A		834.3	North
GW902252	0m-0.8m Light brown topsoil 0.8m-1.5m Sandy, moist light brown sub soil 1.5m-3.5m Soft sandy light brown & ginger brown clay		881.8	North-east



Groundwater Bore ID	From Depth - To Depth (m)	Lithology	Distance (m)	Direction
	3.5m-5m Firm brown & grey clay 5m-6m Decomposed, crumbly limestone & stones 6m-7.9m Decomposed limestone into decomposed sandstone 7.9m-9m Firm limestone 9m-10.5m White, grey & brown sandstone 10.5m-14m White, grey & brown sandstone & grey shale in layers 14m-17m Firm sandstone 17m-19m Firm, grey, coarse sandstone & some slate 19m-20m Brown & grey sandstone 20m-21m Grey sandstone 21m-23m Brown & grey fractured sandstone			
GW008734	#N/A		886.3	North-west
GW967151	0m-0.3m Topsoil 0.3m-4m Clay 4m-126m Shale		907.8	North
GW900537	0m-5.4m Topsoil & clay bands 5.4m-12.19m Light grey shale 12.19m-22.25m Dark grey shale 22.25m-41.75m Grey shale 41.75m-49.63m Dark grey shale		915.7	South
GW965565	0m-1m Clay/red brown 1m-2m Clay/red brown plastic 2m-3m Sandstone/light yellow brown weathered 3m-6m Sandstone/light yellow brown weathered calcareous 6m-7m Sandstone/siltstone grey yellow 7m-8m Sandstone/siltstone grey yellow with shale 8m-9m Sandstone/siltstone with shale 9m-10m Shale/dark blue 10m-11m Shale/dark with brown weathered layer 11m-12m Shale/dark with quartz 12m-18m Shale/dark		969.3	North
GW965565	0m-1m Clay/red brown 1m-2m Clay/red brown plastic 2m-3m Sandstone/light yellow brown weathered 3m-6m Sandstone/light yellow brown weathered calcareous 6m-7m Sandstone/siltstone grey yellow 7m-8m Sandstone/siltstone grey yellow with shale 8m-9m Sandstone/siltstone with shale 9m-10m Shale/dark blue 10m-11m Shale/dark with brown weathered layer 11m-12m Shale/dark with quartz 12m-18m Shale/dark		969.3	North
GW971539	#N/A		1036.6	West
GW007908	0m-30.48m Sandstone permian water bearing		1039.0	South-east
GW969698	0m-0.6m Topsoil 0.6m-3.6m Sandy clay 3.6m-10.3m Shale, brown 10.3m-17m Shale, blue 17m-17.3m Shale, water bearing 17.3m-20m Shale, blue 20m-20.6m Shale, water bearing 20.6m-24.4m Shale, sandy, blue		1057.3	North
GW904027	#N/A		1066.7	North
GW902827	#N/A		1072.3	North-east
GW966639	#N/A		1100.2	North
GW966640	#N/A		1116.5	North
GW965944	0m-0.3m Soil 0.3m-3m Clay 3m-18m Blue shale 18m-19m Brown mud stone (water bearing) 19m-20m Blue shale		1118.0	North

Groundwater Bore ID	From Depth - To Depth (m)	Lithology	Distance (m)	Direction
GW966285	0m-1.2m Clay 1.2m-17.4m Shale 17.4m-34.5m Shale 34.5m-39.6m Shale 39.6m-49m Shale		1144.7	South
GW900423	0m-0.1m Top soil 0.1m-6m Red gritty clay 6m-8.5m Red & white clay 8.5m-10.6m Hard sand stone 10.6m-20.7m Black shale 20.7m-28m Blue shale (soakage 28.) 28m-29.5m Blue shale (soakage 29.5) 29.5m-36.5m Black shale 36.5m-46.3m Blue shale 46.3m-48.7m Black and white shale 48.7m-50.2m Softer blue shale 50.2m-51.8m Decomposed gravel and shale wash 51.8m-53.3m Blue shale		1175.2	South
GW900530	#N/A		1209.6	South
GW063843	0m-0.45m Topsoil 0.45m-6.7m Clay 6.7m-11.7m Clay shaley bands 11.7m-11.8m Shale fractured water supply 11.8m-23.1m Shale hard 23.1m-23.7m Shale fractured water supply 23.7m-24.6m Shale very hard 24.6m-25.4m Pebbles water supply 25.4m-26m Shale hard		1244.5	South-east
GW008749	0m-12.19m Sandstone pebbles/pebbly water bearing nominal		1257.6	North
GW900132	0m-0.3m Top soil 0.3m-4.8m Clay 4.8m-12.1m Sandstone 12.1m-17.6m Shale 17.6m-17.9m Gravel wash		1331.6	South-east
GW070223	0m-0.3m Topsoil 0.3m-6m Red clay 6m-11.88m Mudstone 11.88m-37.5m Shale		1348.8	South-east
GW902907	#N/A		1349.8	North
GW068748	0m-0.6m Red clay 0.6m-2.1m Grey clay 2.1m-12.1m Brown mudstone 12.1m-25.2m Grey mudstone 25.2m-49.6m Grey shale		1364.1	South
GW070238	0m-1.5m Red clay 1.5m-16.7m Brown mudstone 16.7m-26.5m Grey mudstone 26.5m-49.6m Blue shale		1375.1	South
GW067939	#N/A		1434.2	South-east
GW070362	0m-0.3m Red clay 0.3m-4.2m Mudstone 4.2m-7.6m Mudstone 7.6m-49.6m Shale		1476.8	South
GW965103	0m-0.6m Topsoil 0.6m-2.4m Red clay 2.4m-16.1m Basalt 16.1m-82.2m Shale 82.2m-82.8m Water bearing sandstone 82.8m-85.3m Shale		1490.1	North
GW055036	0m-0.6m Topsoil 0.6m-2.4m Clay sandy 2.4m-3.5m Sandstone 3.5m-12.6m Clay hard gravel conglomerate		1520.8	North

Groundwater Bore ID	From Depth - To Depth (m)	Lithology	Distance (m)	Direction
	12.6m-51m Shale water supply 51m-70.3m Sandstone			
GW062617	0m-4m Soil 4m-13m Sandstone yellow water bearing 13m-25m Shale grey water supply 25m-33m Sandstone light grey water supply 33m-42m Shale grey water supply		1522.3	North
GW008747	0m-15.24m Driller 15.24m-61.57m Or coal 15.24m-61.57m Sandstone nominal 15.24m-61.57m Shale nominal		1532.8	North-west
GW054900	0m-1.2m Soil, sandstone yellow 1.2m-6.5m Shale hard 6.5m-7.6m Sandstone yellow 7.6m-8.2m Shale 8.2m-28m Rock white hard 28m-28.3m Shale 28.3m-30.4m Conglomerate 30.4m-38.3m Slate shale 38.3m-38.6m Conglomerate, rock white 38.6m-40.1m Conglomerate		1578.8	North
GW967000	0m-0.3m Topsoil 0.3m-7m Clay 7m-10m Slate/chalky 10m-19.5m Shale/hard 19.5m-21m Sandstone/fractured 21m-24m Shale/hard 24m-25m Sandstone/fractured 25m-27m Shale		1586.9	North
GW045468	0m-0.3m Topsoil 0.3m-1.21m Clay 1.21m-7.01m Sandstone 7.01m-24.69m Shale 24.69m-25.91m Rock black 25.91m-26.21m Rock broken water supply 26.21m-28.96m Rock black hard		1597.3	South
GW065417	#N/A		1639.1	North
GW965942	0m-1.2m Topsoil 1.2m-4.6m Brown, hard shale 4.6m-6.7m Basalt - very hard		1642.2	North
GW070216	0m-0.3m Red surf soil 0.3m-1.8m Red clay 1.8m-18.2m Brown mudstone 18.2m-28.3m Blue shale 28.3m-31m Blue basalt		1645.8	South-east
GW966051	0m-0.2m Topsoil 0.2m-1.8m Clay 1.8m-12.5m Shale 12.5m-20.1m Blue shale 20.1m-21.8m Decomposed 21.8m-22.8m Blue shale		1669.8	South-east
GW037068	0m-1.52m Gravel clay 1.52m-12.19m Sandstone hard broken 12.19m-17.06m Conglomerate 17.06m-17.67m Shale 17.67m-20.42m Sandstone yellow soft 20.42m-24.38m Shale grey sandy 24.38m-29.87m Shale sandy 29.87m-35.96m Sandstone hard 35.96m-36.57m Quartz white hard sandstone 36.57m-39.62m Shale grey sandy 39.62m-42.36m Sandstone white water supply 42.36m-42.67m Shale water supply		1673.8	South-east
GW063918	0m-0.15m Topsoil 0.15m-2.1m Clay dark red 2.1m-3m Sandstone 3m-14.6m Clay yellow 14.6m-15.5m Rock hard		1709.9	South

Groundwater Bore ID	From Depth - To Depth (m)	Lithology	Distance (m)	Direction
	15.5m-42.6m Shale grey oily 42.6m-43.2m Wash water bearing water supply 43.2m-44.5m Shale grey oily			
GW062878	0m-0.3m Topsoil 0.3m-1.5m Clay dark red 1.5m-3.3m Sandstone white crumbly 3.3m-5.7m Clay light yellow 5.7m-7.2m Clay multicoloured rock 7.2m-8.1m Clay 8.1m-8.4m Rock hard 8.4m-18.7m Clay 18.7m-19.3m Soakage water bearing 19.3m-25.4m Shale oily 25.4m-25.7m Soakage 25.7m-34.8m Shale oily 34.8m-35.4m Wash water supply		1741.1	South
GW966125	#N/A		1755.6	South-east
GW019177	0m-5.18m Clay 5.18m-20.12m Shale 20.12m-20.42m Mudstone yellow 20.42m-110.64m Shale 110.64m-111.25m Shale broken water supply 111.25m-120.4m Shale		1783.4	South
GW007906	#N/A		1786.3	South
GW054006	0m-1m Clay red 1m-16m Mudstone yellow 16m-17m Shale white 17m-20m Shale grey 20m-29m Shale hard 29m-30.5m Shale grey fractured 30.5m-48m Shale grey hard water supply 48m-49m Shale grey fractured 49m-51.7m Shale dark grey water supply		1829.7	South
GW064479	0m-15m Clay 15m-36.7m Shale grey white		1924.2	South-east
GW007732	0m-10.97m Clay 10.97m-24.38m Sandstone water bearing 24.38m-26.21m Coal rotten 26.21m-30.48m Shale black 30.48m-33.53m Shale grey water supply		1925.6	North
GW007909	0m-54.86m Conglomerate 0m-54.86m Sandstone permian water bearing		1948.0	South-east

Note: The use of the symbol "-" or N/A indicates that no records were found.

## 2.2 GROUNDWATER AND OTHER BORES

Map 2.2 (2000m Buffer)

### Groundwater Restricted Use Zones

Name / Number	Address	Site History	Description	Distance (m)	Direction
Not identified	-	-	-	-	-

### Groundwater Salinity

Class	Salinity Value	Source	Distance (m)	Direction
Non-Saline (<3000mg/L)	1500 - 3000	Sinclair Knight Merz	0.0	Onsite

### Other Known Borehole Investigations (Coal Seam Gas (CSG), Petroleum Wells and Other Boreholes)

Borehole ID	Purpose	Project	Client/ Licence	Date Drilled	Depth (m)	Distance (m)	Direction
Not identified	-	-	-	-	-	-	-

Note: The use of the symbol "-" or N/A indicates that no records were found.





## Section 3

# Environmental Registers, Licences and Incidents



### 3.1 CONTAMINATED LAND PUBLIC REGISTER

Map 3.1 (1000m Buffer)

#### Contaminated Sites

Register Type	Site Name	Address	Description	Details	Distance (m)	Direction
Not identified	-	-	-	-	-	-

If the record does not contain a complete street address and/or cannot be located, the records' geographic location will be approximated and reported as being within the surrounding area.

Table 3.1.1 Contaminated Land Public Register		
State	Regulatory Body	Information included in this search (by state)
ACT	EPA (Environment Protection Authority)	Contaminated Land Search Register of Contaminated Sites
NSW	EPA (Environment Protection Authority)	Sites Notified as Contaminated Records of Notices
NT	EPA (Environment Protection Authority)	Contaminated Land Audit Pollution Abatement Notice
QLD	DES (Department of Environment and Science)	Contaminated Land Search (Environmental Management and Contaminated Land Registers)
SA	EPA (Environment Protection Authority)	Site Contamination Index
TAS	EPA (Environment Protection Authority)	Regulated Sites and Premises Lutana and Parts of Hobarts Eastern Shore
VIC	EPA (Environment Protection Authority)	Priority Sites Register Pollution Abatement Notice
WA	DWER (Department of Water and Environmental Regulation)	Contaminated Sites Database

This search contains information retrieved from the relevant state authority, agency/department, or government authority that notifies and identifies contaminated land. The list only contains contaminated sites that the regulatory body is aware of or that have been notified by owners or occupiers as contaminated land. The sites are recorded on the register at various stages of the assessment and/or remediation process. If a site is not on the list, it does not necessarily mean the site is not contaminated.

### 3.2 LICENCES, APPROVALS & ASSESSMENTS

### Map 3.2 (1000m Buffer)

#### Licences

Licence N°	Type	Licence holder	Location Name	Premise Address	Activity	Dist. (m)*	Direct
1863	Issued	Namoi Mining Pty. Ltd.	Gunnedah Colliery	Black Jack Road, Gunnedah, NSW, 2380	Waste disposal by application to land	311.8	West
12981	No longer in force	Forestry Corporation Of New South Wales	Ifoa Area "The Brigalow-Nandewar Region"	Brigalow and Nandewar Community Conservation Area, DUBBO, NSW 2830	Logging operations	Not mapped	Not mapped

If the record does not contain a complete street address and/or cannot be located, the records' geographic location will be approximated and reported as being within the surrounding area.

\* Not mapped - Licences that are applied to larger areas and/or without specific definition; such as waterways, forests etc will still be identified in the search results but will not be shown within the map.

#### Audits

N°	Type	Licence holder	Location Name	Premise Address	Activity	Dist. (m)*	Direction
-	Not identified	-	-	-	-	-	-

If the record does not contain a complete street address and/or cannot be located, the records' geographic location will be approximated and reported as being within the surrounding area.

#### Clean Up, Penalty Notices and Orders

N°	Type	Licence holder	Location Name	Premise Address	Activity/Details	Dist. (m)*	Direction
1512568	Penalty Notice	Namoi Mining Pty. Ltd.	Gunnedah Colliery	Black Jack Road, Gunnedah, NSW, 2380	Contravene any condition of licence - not noise - corporation	311.8	West
1512569	Penalty Notice	Namoi Mining Pty. Ltd.	Gunnedah Colliery	Black Jack Road, Gunnedah, NSW, 2380	Contravene any condition of licence - not noise - corporation	311.8	West
1549190	Penalty Notice	Namoi Mining Pty. Ltd.	Gunnedah Colliery	Black Jack Road, Gunnedah, NSW, 2380	Contravene any condition of licence - not noise - corporation	311.8	West

If the record does not contain a complete street address and/or cannot be located, the records' geographic location will be approximated and reported as being within the surrounding area.

### 3.3a SITES REGULATED BY OTHER JURISDICTIONAL BODY

Map 3.3a (2000m Buffer)

#### Contaminated Legacy Areas

Site Name	Description	Distance (m)	Direction
Not identified	-	-	-

Includes known contaminated areas such as James Hardies Asbestos waste legacy areas, Pasminco Smelter and Uranium processing site.

#### Defence, Military Sites and UXO Areas

Site name	Type*	Details	Distance (m)	Direction
Not identified	-	-	-	-

\*RCIP (Regional Contamination Investigation Program). UXO (Unexploded Ordnance Areas)

#### Former Gasworks Sites

Site name	Description	Distance (m)	Direction
Not identified	-	-	-

#### PFAS Sites

Site name	Type	Details	Distance (m) *	Direction
Not identified	-	-	-	-

### 3.3b OTHER POTENTIAL HAZARD SOURCES

Map 3.3b (500m Buffer)

#### Mines and Quarries (current and historical)

Site name	Description	Status	Distance (m)	Direction
Gunnedah Colliery	The Gunnedah Colliery was a coal - black, bauxite and gold mine (Source: <a href="http://www.bonzle.com">http://www.bonzle.com</a> )	Former	311.8	West

#### Landfills (current and historical)

Site name	Description	Status	Distance (m)	Direction
Not identified	-	-	-	-

#### National Pollutant Inventory (NPI)

Facility name	Address	Primary ANZSIC Class	Latest report	Distance (m)	Direction
Gunnedah Colliery	Black Jack Road, Gunnedah	Closed coal mine - rehabilitation activities	2020/2021	311.8	West



## Section 4 Potentially Contaminated Areas



### 4.1 POTENTIALLY CONTAMINATING ACTIVITIES (PCA)

Map 4.1 (200m Buffer)

Industries, businesses and activities that may cause contamination

Map ID	Site name	Category	Description	Address	Status*	Dist. (m)*	Direction
Not identified	-	-	-	-	-	-	-

\***Status:** Information is current as when this report was created.

The operational status of the business is determined using the available data sources and does not indicate real-time conditions at the site.

Current: business is operating on the day this report was issued.

Former: business that have been closed or discontinued within 2 years from the date of this report.

#### Categories included in this search. (Notifiable activities)

Abattoirs	Explosives and Dangerous Goods	Paint Industries
Abrasive Blasting	Extractive Industries	Petrol Stations
Agriculture / Horticulture	Fire and Rescue	Pharmaceuticals
Airports	Food Manufacturing	Port and Marina Operations
Asbestos	Foundry, Smelting or Refining	Power Plants
Asphalt or Bitumen	Fuel Terminals & Depots	Printing and Photography
Batteries	Glass, Ceramics and Plastic	Rail Industry and Associated Activities
Breweries / Distilleries	Gun, Pistol or Rifle Ranges	Rubber and Tyre
Cement, Concrete or Lime	Hospitals and Research Facilities	Storage Tanks
Cemeteries	Landfill Sites	Substations and Switching Stations
Chemicals	Livestock Dips	Textiles and Tannery
Coal Yards	Mechanical and Automotive	Timber, Pulp and Paper Works
Depots and Storage Yards	Metal Fabrication and Treatments	Waste and Recycling Facilities
Dry Cleaners	Oil and Gas	Wastewater Treatment Facilities
Electrical or Electrical Components	Other Infrastructure Facilities	-

Industries, businesses, and activities identified as having an increased likelihood of causing contamination.

The industries and business activities listed above have been identified as having an increased likelihood of causing contamination and have been identified through published state and national guidelines and regulations. These industries are noted due to their potential to store or use substances that could cause contamination to the surrounding environment if not managed appropriately. The identification of these activities does not imply the presence of contamination at the site.

The records identified are based on the reported business activity and have not been assessed based on any current or previous site inspection. Please note that records not identified within this section (due to error or unforeseen omission) does not necessarily mean that the screened area is not potentially contaminated or free of any risks.

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## 4.2 HISTORICAL BUSINESS DIRECTORIES

(not mapped)

Year	Activity	Name	Address	Positional accuracy <sup>1</sup>	Distance (m)	Direction
2005	Septic Tank Cleaning Services	M. Jaeger	Bush's La, GUNNEDAH,NSW,2380	Street		South-east
2005	Building Excavations & Foundations	Murphy Ray	Bush's La, GUNNEDAH,NSW,2380	Street		South-east

Land Insight uses a number of address geocoding techniques and has characterised them based on completeness (match rates) and positional accuracy. When a historical street address is incomplete or a match is not found, a record identified as being in the surrounding area will be included for reference and the accuracy of the data is approximate only. An explanation of the positional accuracy records is defined in the table below.

Historical data positional accuracy and georeferencing results explanation		
Positional accuracy	Georeferenced	Description
Address	Located to the address level	When street address and names fully match.
Street	Located to the street centroid	When street names match but no exact address was found. Location is approximate.
Place	Located to the structure, building or complex	When building, residential complex or structure name match but no exact address was found. Location is approximate.
Suburb	Located to the suburb area	When suburb name match but no exact address was found. Location is approximate.

The data used in this section was extracted from range of historical commercial trade directories and business listings. The business addresses were geocoded using historical information and the accuracy of the data may vary due to changes to the physical address at a given locality over time or the quality of the original records. From 2005, the historical business records in this section are considered more accurate as information was extracted from digital directories with geographic coordinate location information available. On this basis, reliance on the historic listing data should be considered when assessing the risk of contamination from an activity at the site. The presence of a business listing does not definitively confirm the actual activity that has occurred at the site. For more information on how these records were geocoded and the methodology used by Land Insight, contact us at [info@landinsight.co](mailto:info@landinsight.co).

Historical business directory listings have been filtered to match activities and industries identified as PCAs in Section 4.1. Please note that any record not identified within this section (due to error or unforeseen omission) does not necessarily mean that the screened area is not potentially contaminated or free of any risks.



## Section 5 Natural Hazards



### 5.1 Fire Hazard

Map 5.1 (500m Buffer)

#### Bushfire Prone Areas

Category	Type	Details	Distance (m)	Direction
Bushfire Prone Area	Vegetation Buffer	Vegetation Buffer - Bush Fire Prone is an area of land that can support a bush fire or is likely to be subject to bush fire attack. Bush Fire Prone Land areas becomes the trigger for planning for bush fire protection.	81.9	South-east
Bushfire Prone Area	Vegetation Category 1	Bushfire Prone Area - Vegetation Category 1 is considered to be the highest risk for bush fire. Bush Fire Prone Areas becomes the trigger for planning for bush fire protection.	181.8	South-east

#### Bushfire History

Type	Season	Details	Distance (m)	Direction
Not identified			-	-

### 5.2 Flood Hazard

Map 5.2 (500m Buffer)

#### Flood Planning Area

Category	Type	Details	Distance (m)	Direction
Not identified	-	-	-	-

## Other Flood Studies

Category	Type	Details	Distance (m)	Direction
Not identified	-	-	-	-

## Flood History

Type	Season	Details	Distance (m)	Direction
Not identified	-	-	-	-

The list provided is not comprehensive and does not consider all flood history. It only includes the information that is currently available.

## 5.3 Erosion Hazard

### Erosion Hazard

### Map 5.3 (500m Buffer)

Category	Type	Details	Distance (m)	Direction
Landslip Erosion Risk	Very slight to negligible limitations	Very Low	0.0	Onsite
	Extremely severe limitations	Very High	489.4	East
Water Erosion Risk	Severe limitations	High	0.0	Onsite
	Very severe limitations	Very High	489.4	East
Wind Erosion Risk	Slight but significant limitations	Low	489.4	East
	Moderate limitations	Moderate	0.0	Onsite

**Table 5.2.1 – Flood Hazard definitions and explanations**

**Annual Exceedance Probability (AEP)** - The probability of a flood event of a given size occurring in any one year, usually expressed as a percentage annual chance

0.2%AEP	A flood event of this size is considered rare but may still occur. A flood of size or larger has a 1 in 500 chance or a 0.2% probability of occurring in any year
1% AEP	A flood of this size or larger has a 1 in 100 chance or a 1% probability of occurring in any year
2% AEP	A flood of this size or larger has a 1 in 50 chance or a 2% probability of occurring in any year.
5% AEP	A flood of this size or larger has a 1 in 20 chance or a 5% probability of occurring in any year
20%AEP	A flood of this size or larger has a 1 in 5 chance or a 20% probability of occurring in any year.

**Average Recurrence Interval (ARI)**. The long-term average number of years between the occurrence of a flood as big as, or larger than, the selected event. For example, floods reaching a height as great as, or greater than, the 20 year ARI flood event will occur on average once every 20 years

**Flood Liable Land** - Synonymous with flood prone land, i.e. land susceptible to flooding by the Probable Maximum Flood (PMF) event. Note that the term flood liable land covers the whole floodplain, not just the part below the flood planning level

**Flood Planning Area (FPA)** – Councils develop Flood Planning Areas (FPAs) as part of Flood Overlay mapping to guide future building and development in flood prone areas. The FPAs are designed to recognise the flood hazard for different flooding types.

**Flood Hazard** - Flood hazard is a combination of frequency of flooding, the flood depth, and the speed or velocity at which the water can travel.

**Probable Maximum Flood (PMF)** - The largest flood that could conceivably be expected to occur at a particular location, usually estimated from probable maximum precipitation. The PMF defines the maximum extent of flood prone

**Table 5.2.1 – Flood Hazard definitions and explanations**

land, that is, the floodplain. It is difficult to define a meaningful Annual Exceedance Probability for the PMF, but it is commonly assumed to be of the order of  $10^{-4}$  to  $10^{-7}$  (once in 10,000 to 10,000,000 years)

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# Appendix A

REPORT MAPS

170 Bush's Lane  
Gunnedah, NSW

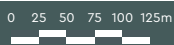




**Subject Area and Sensitive Receptors**



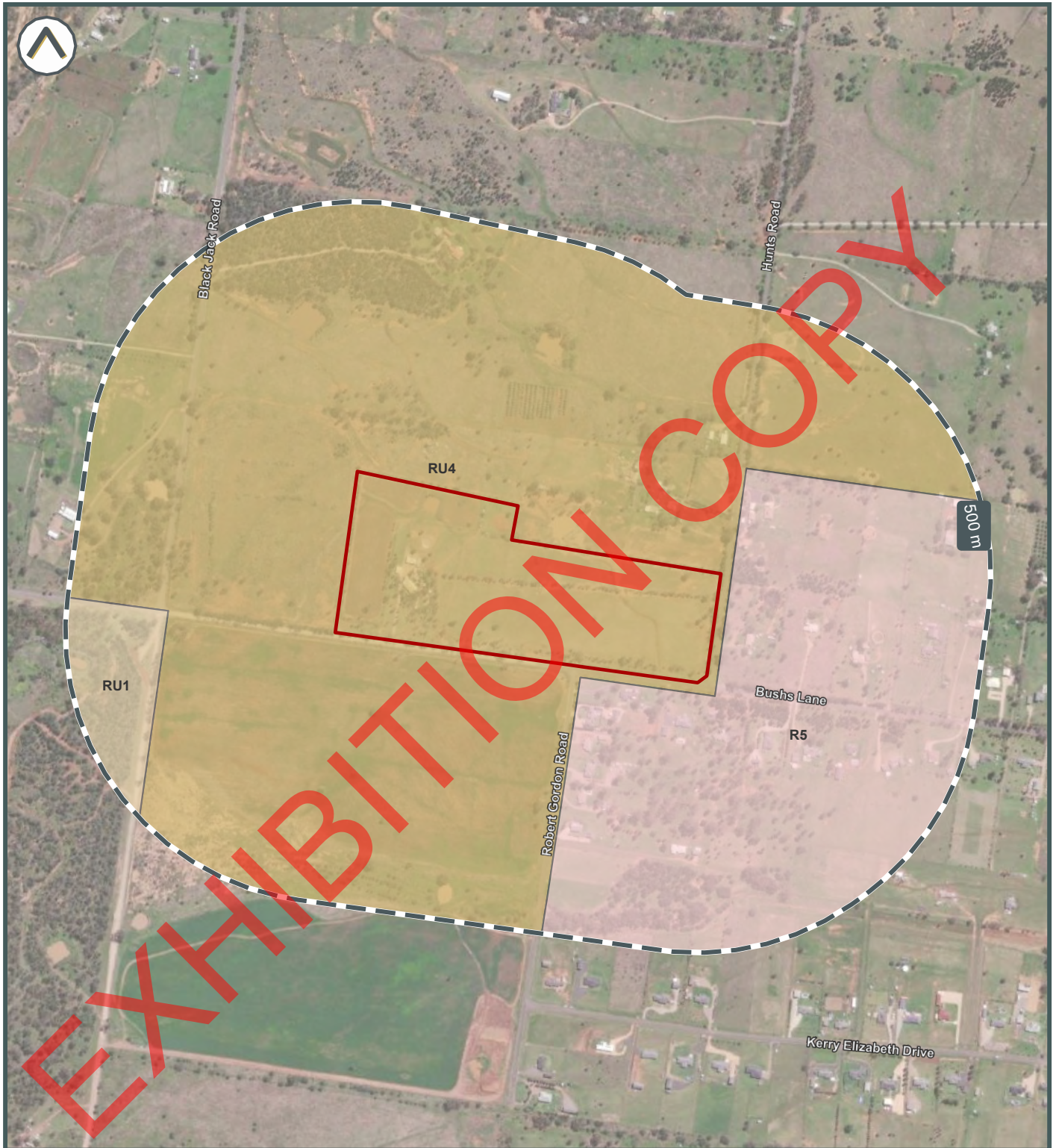
 Subject area







Zoning



- Subject area
- Land Zoning
- RU1 | Primary Production
  - R5 | Large Lot Residential
  - RU4 | Rural Small Holdings



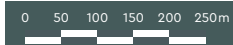




©2023 Land Insight (LI) www.landinsight.co | R:\LI\3586 DOR Gunnedah NSW\Working\GIS\Project\U-XXXXX XXXX AAP Layouts\ 26/07/2023 | Data source: Please refer to 'Digital Data Sources' in the Product Guide



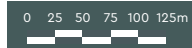
- |              |   |          |
|--------------|---|----------|
| Subject area | Mines Subsidence District Area            | Lot Size |
|              | <b>Environmental Planning Instruments</b> |          |
|              | Coal Seam Gas Exclusions                  |          |







Subject area



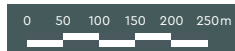




Soil Landscape and Salinity



- |                     |                     |                |
|---------------------|---------------------|----------------|
| Subject area        | Soil Salinity       | Soil Landscape |
| Radon Level (Bq/m3) | High hazard or risk | COel           |
| 5-19                |                     | TRfr           |



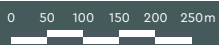




Acid Sulfate Soils



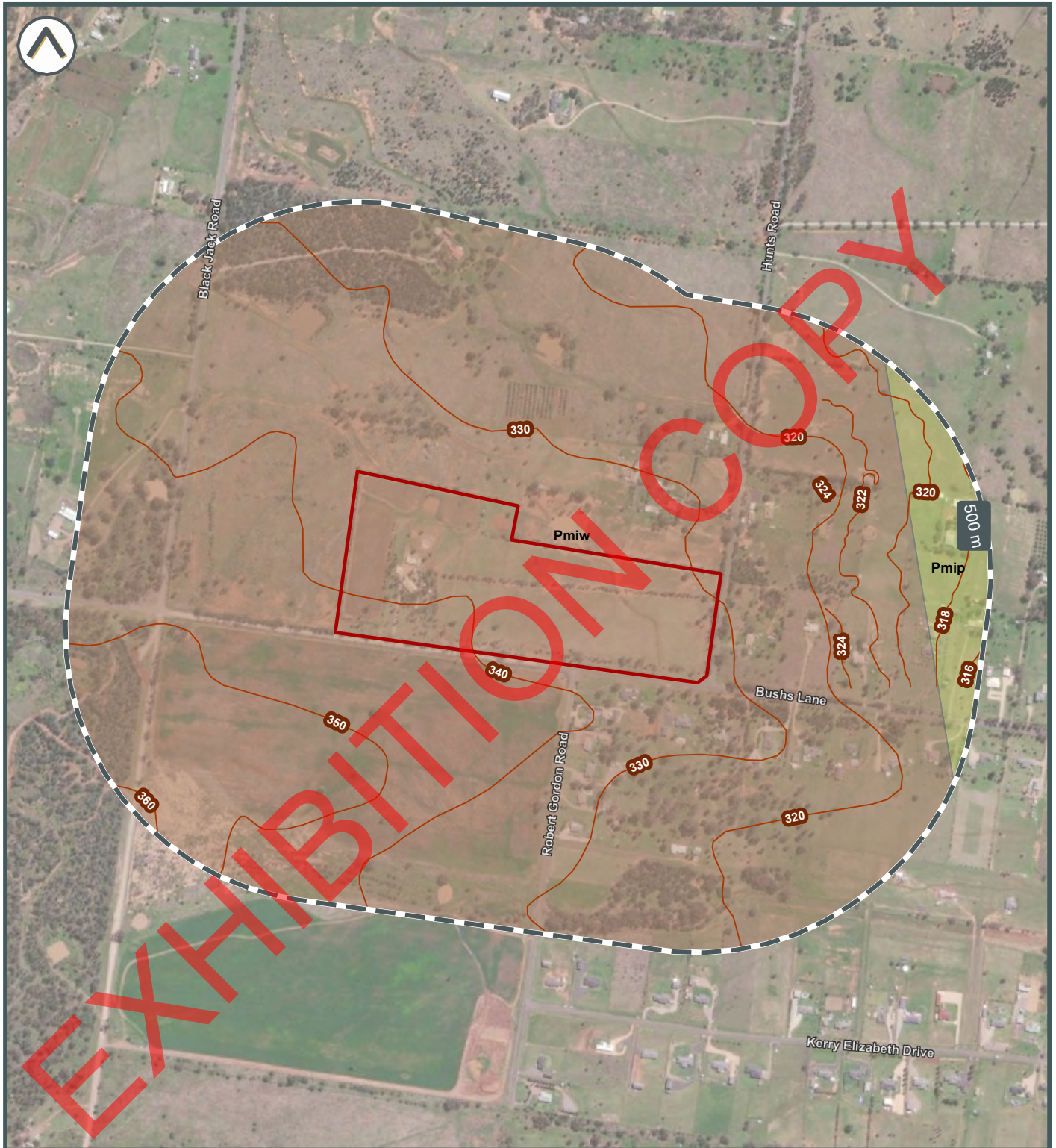
- Subject area
- Atlas of Australian Acid Sulfate Soils
- Extremely low probability of occurrence







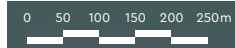
Geology and Topography



Subject area  
Topographic contour (m)

Geology Unit  
Pmip

Pmiw



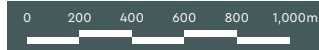




Groundwater Dependent Ecosystems & Hydrogeology Constraints



- Subject area
- Groundwater bores
- Ecosystems that rely on Subsurface presence of Groundwater
- High potential GDE - from regional studies
- Low potential GDE - from regional studies
- Aquifer type
- Porous, extensive highly productive aquifers



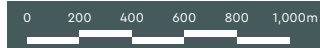




Groundwater and Other Bores



Subject area Salinity Class  
Non-Saline (<3000mg/L)



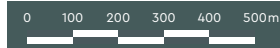




Contaminated Land Public Register



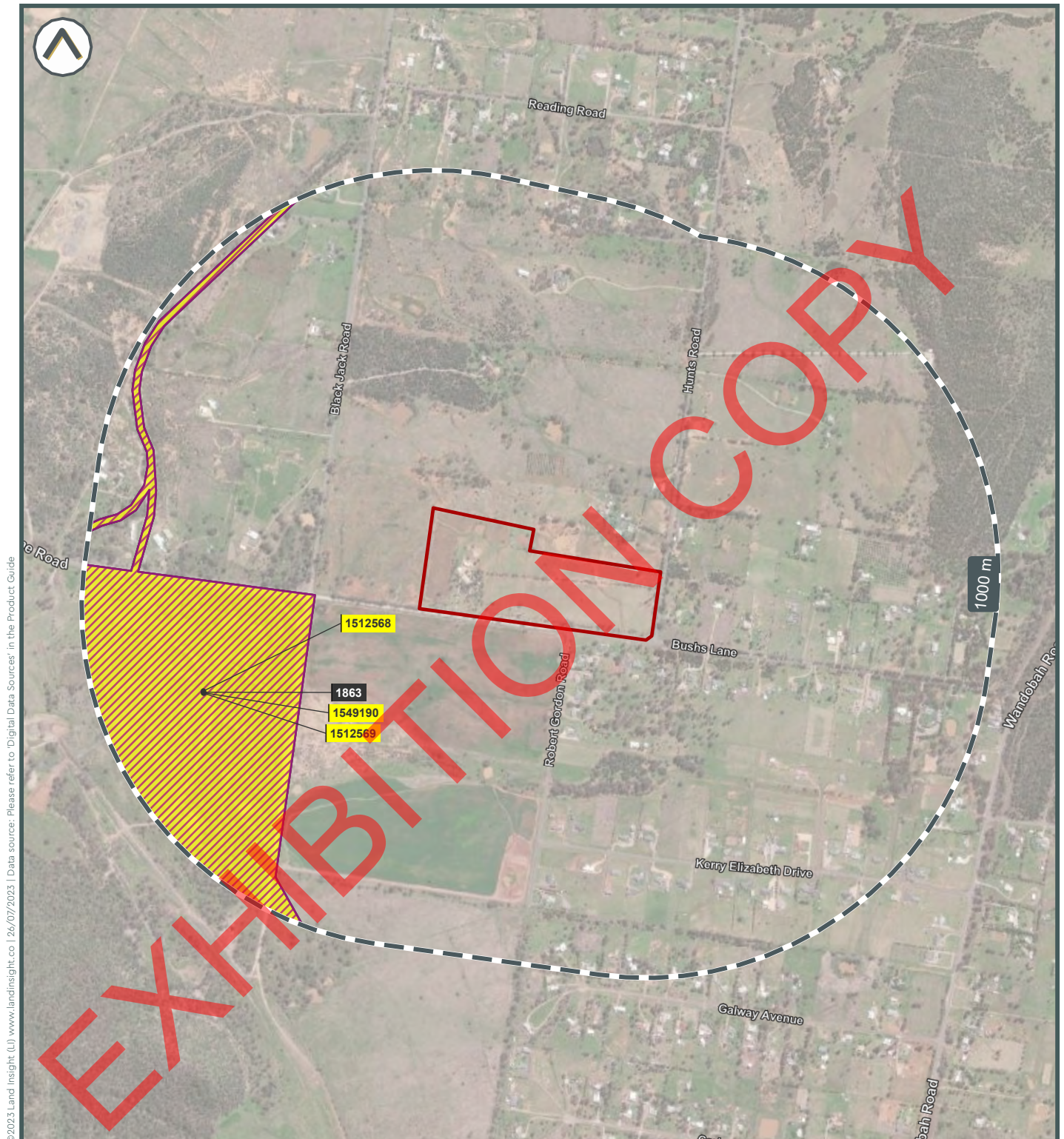
Subject area



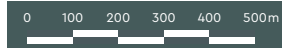




Licences, Approvals & Assessments



- Subject area
- POEO Licences Issued
- Clean Up and Penalty Notices








**Sites Regulated by Other Jurisdictional Body**



 Subject area



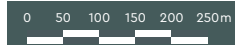




**Other Potential Hazard Sources**



- Subject area
- NPI Facilities
- Derelict/Abandoned Mines







**Current Potentially Contaminating Activities (PCAs)**



Subject area

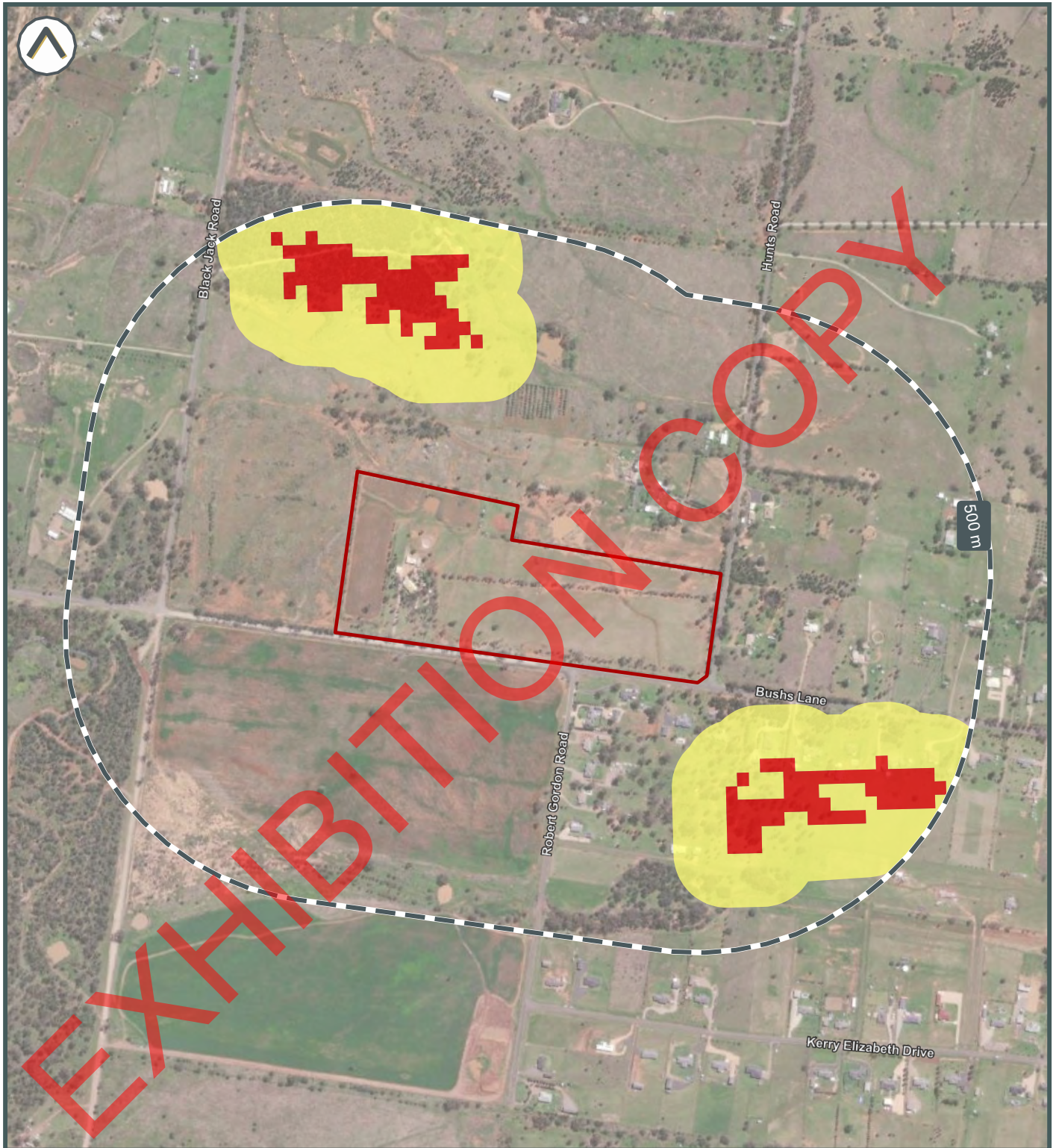
Data is current as when this report was created. However due to the turnover of business locations, some addresses may be former.







Fire Hazards



- Subject area
- Vegetation Buffer
- Bushfire Prone Area**
- Vegetation Category 1



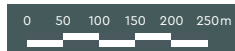




Flood Hazard



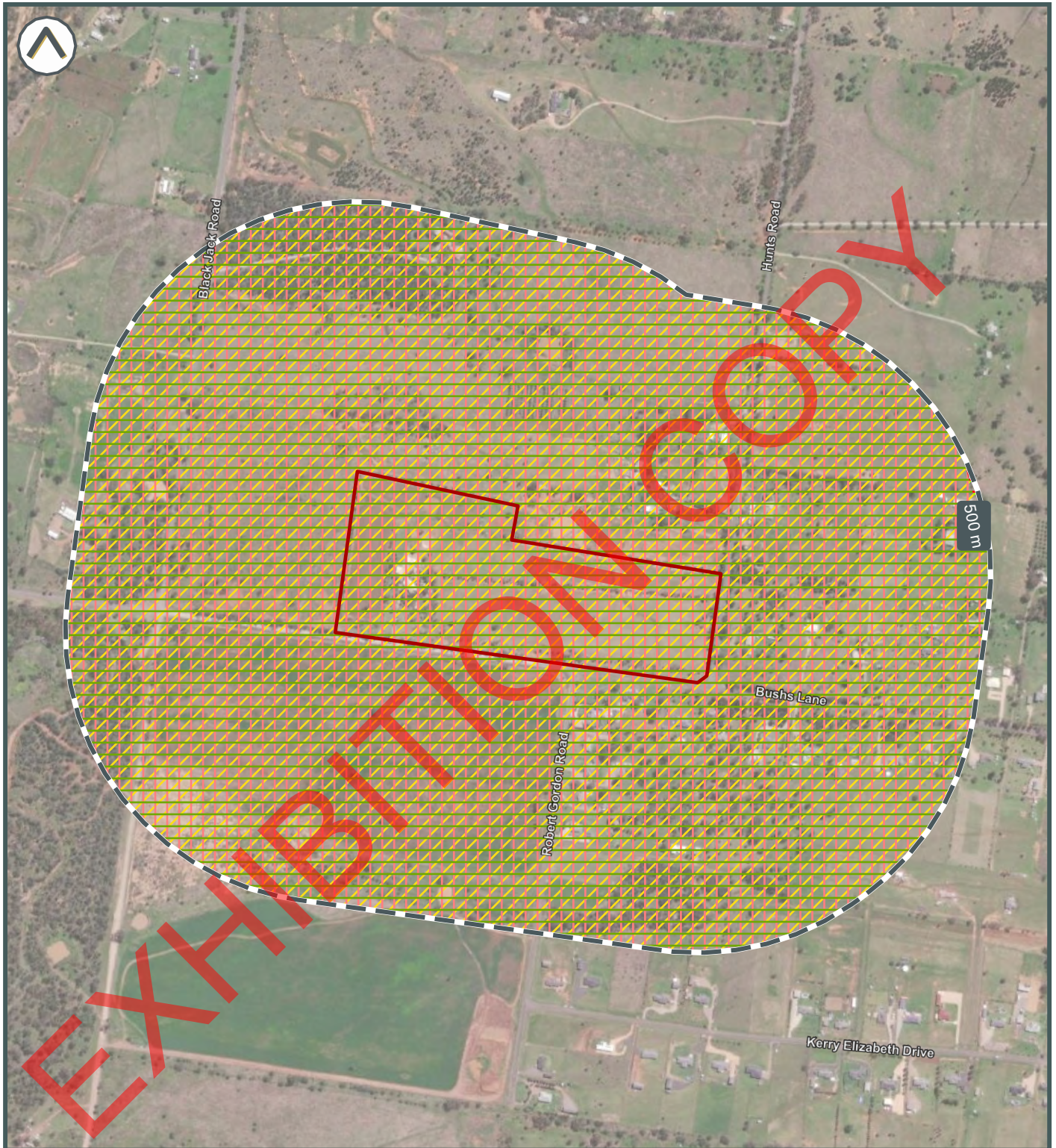
Subject area







Erosion Hazard



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- |                    |                       |
|--------------------|-----------------------|
| Subject area       | High                  |
| Wind Erosion Risk  |                       |
| Moderate           | Landslip Erosion Risk |
| Low                | Very High             |
| Water Erosion Risk | Very Low              |
| Very High          |                       |







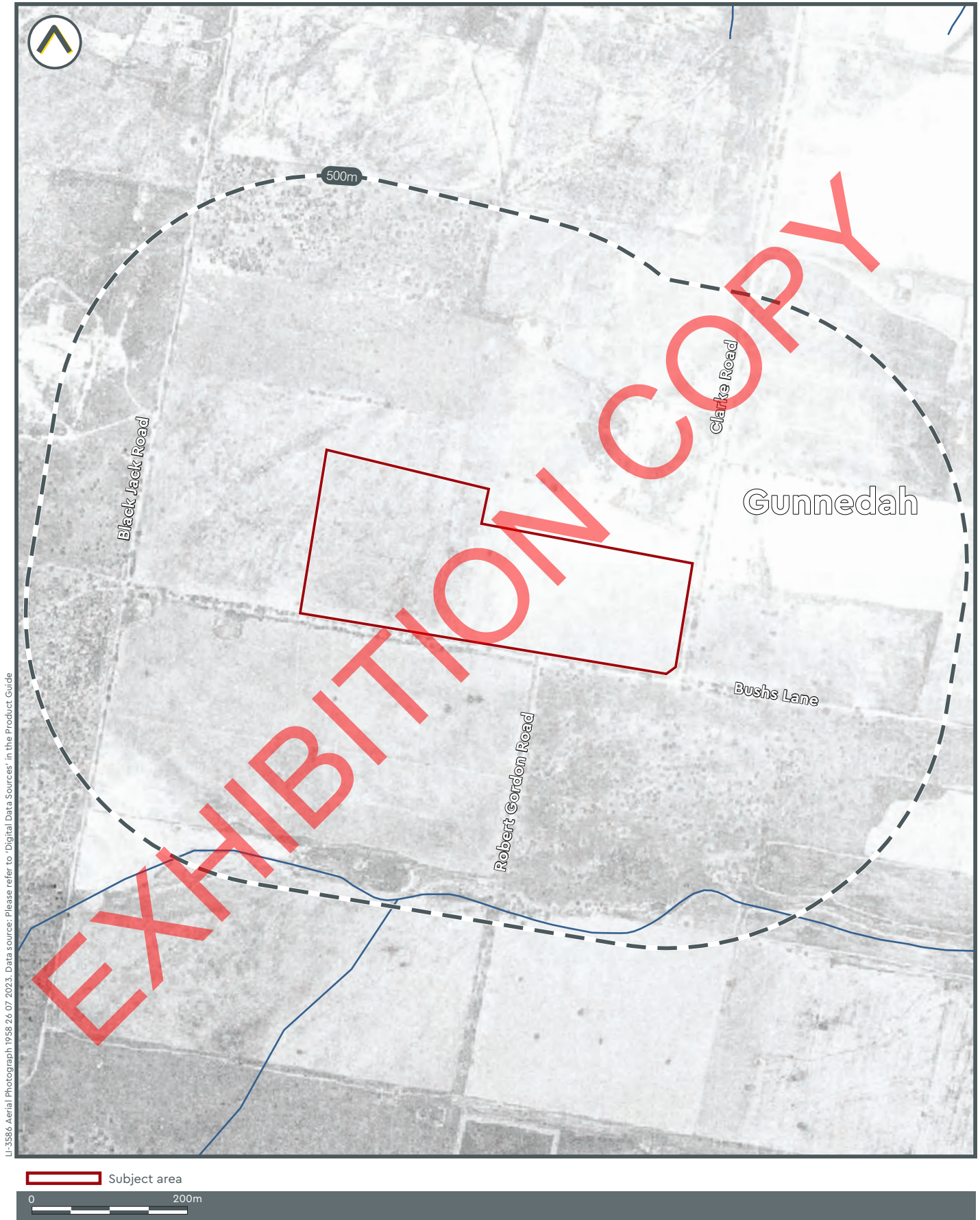
# Appendix B

HISTORIC IMAGERY

170 Bush's Lane  
Gunnedah, NSW

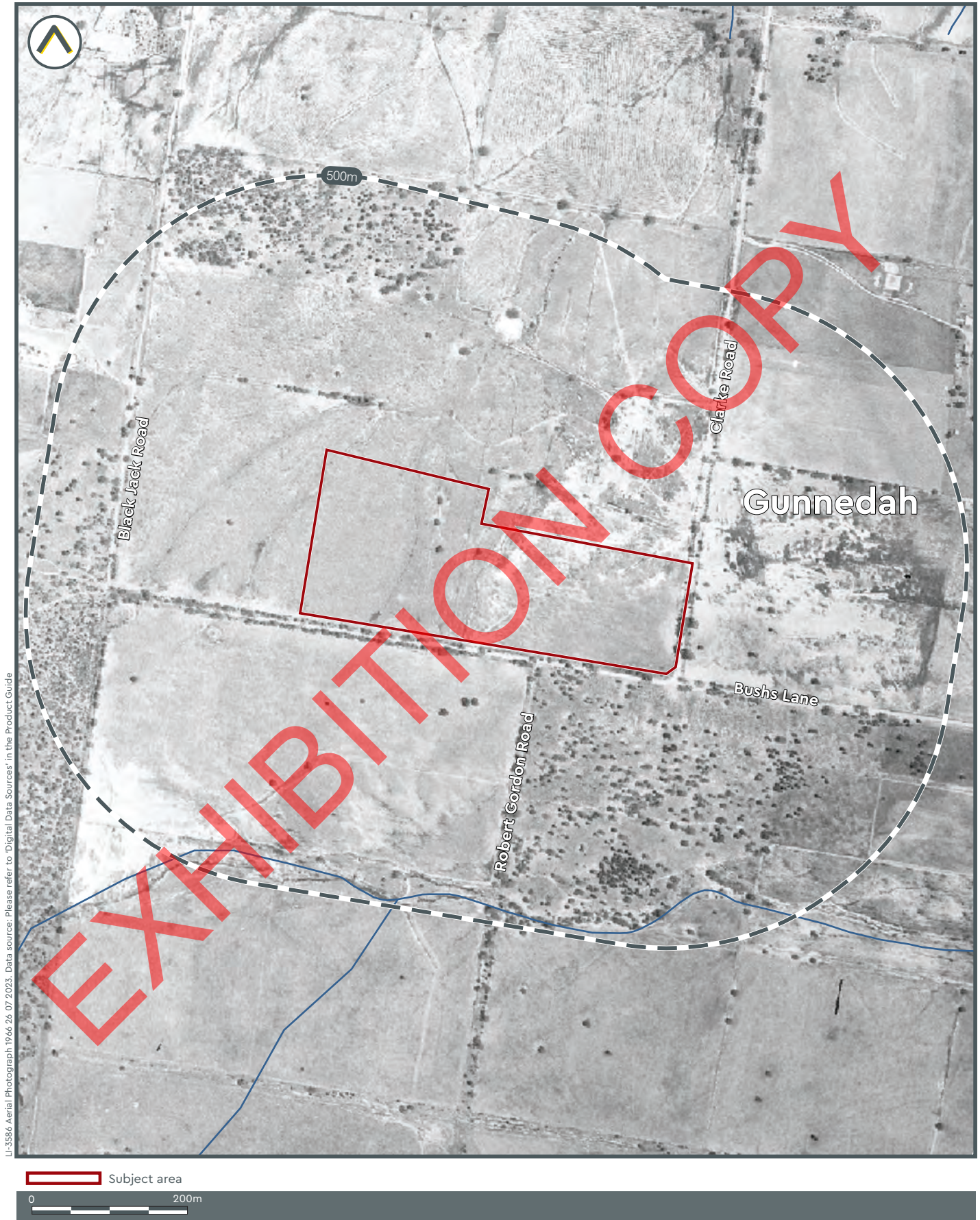


## Historic Aerial Photograph - 1958



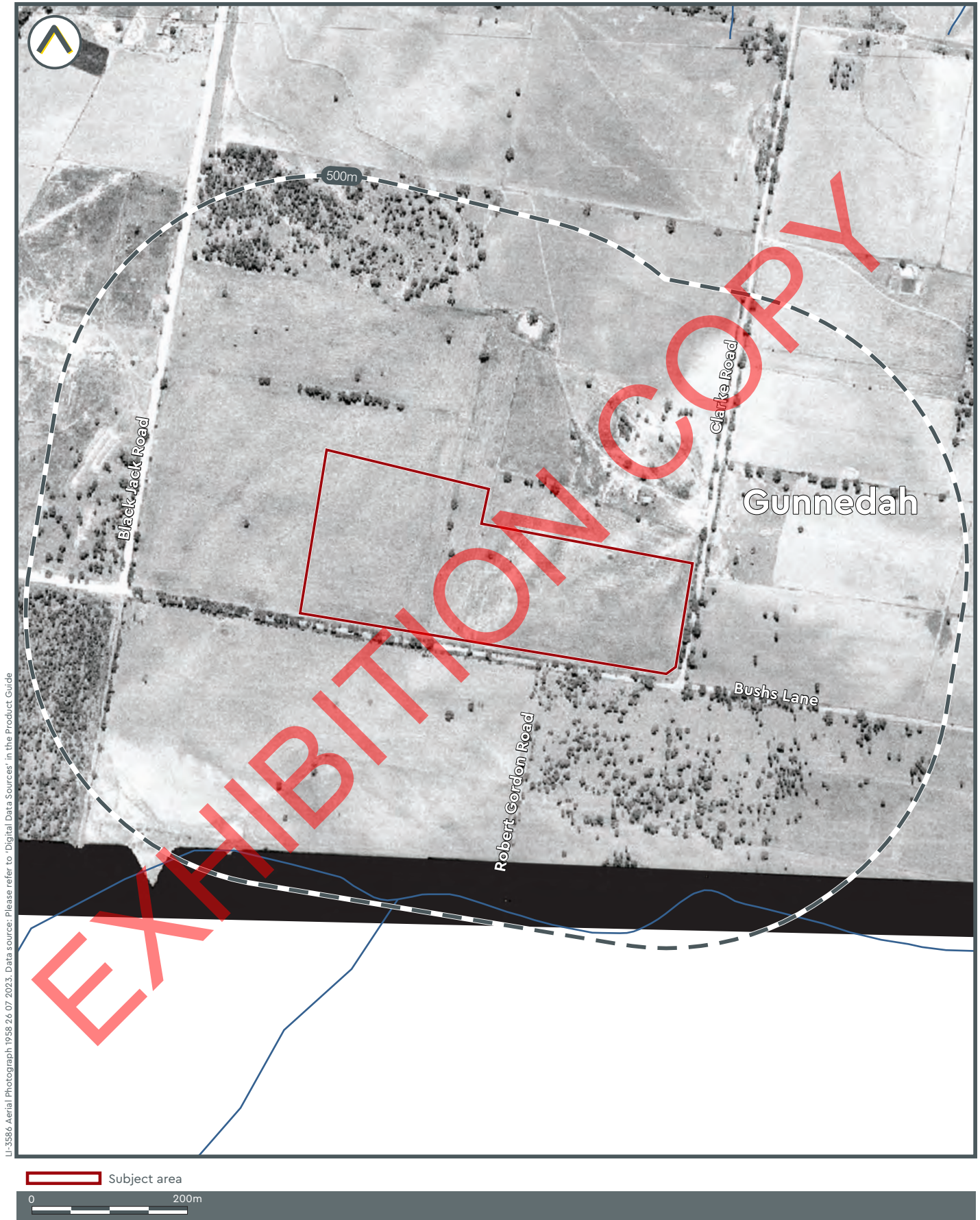


## Historic Aerial Photograph - 1966





## Historic Aerial Photograph - 1975



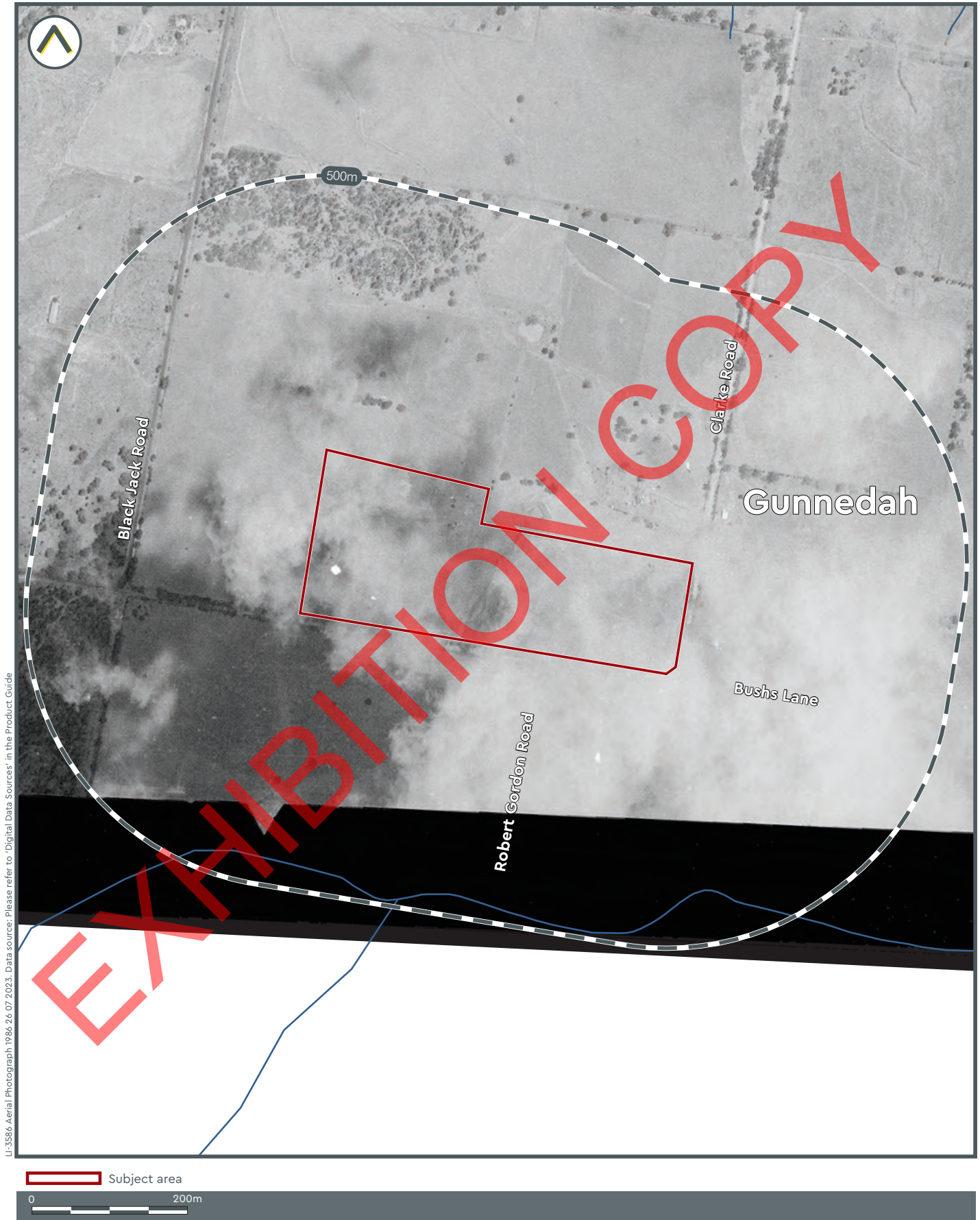


## Historic Aerial Photograph - 1978





## Historic Aerial Photograph - 1986



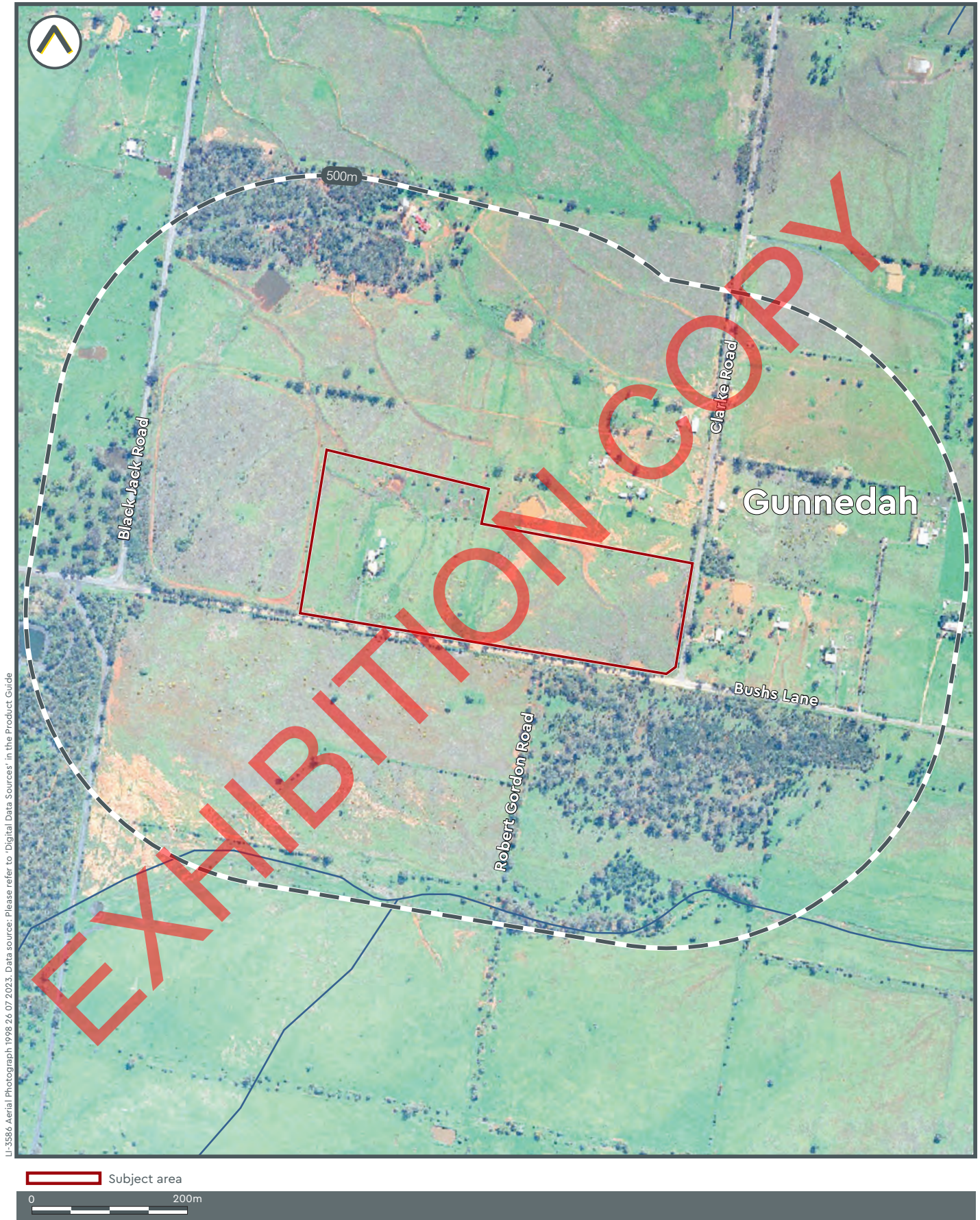


## Historic Aerial Photograph - 1993



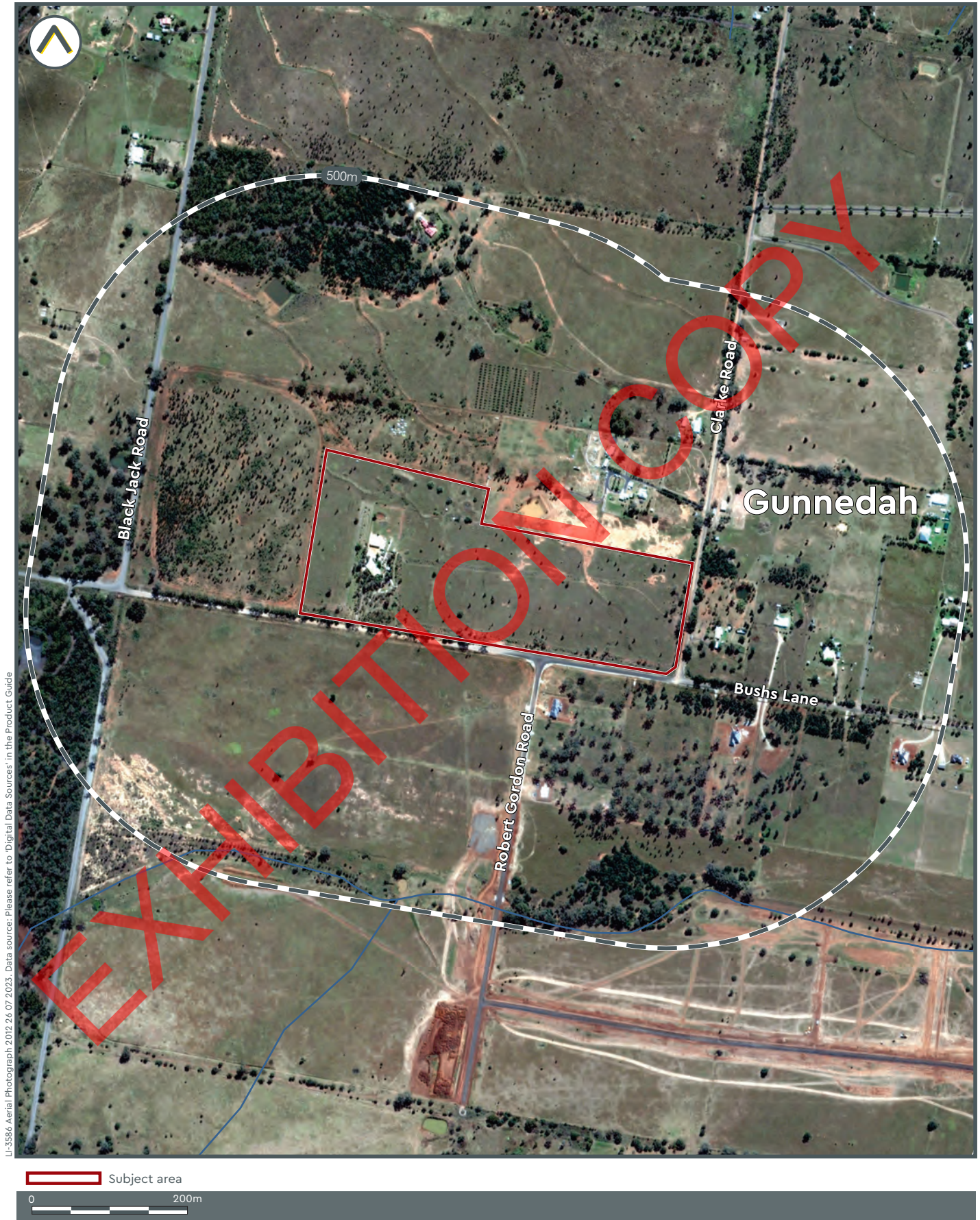


## Historic Aerial Photograph - 1998



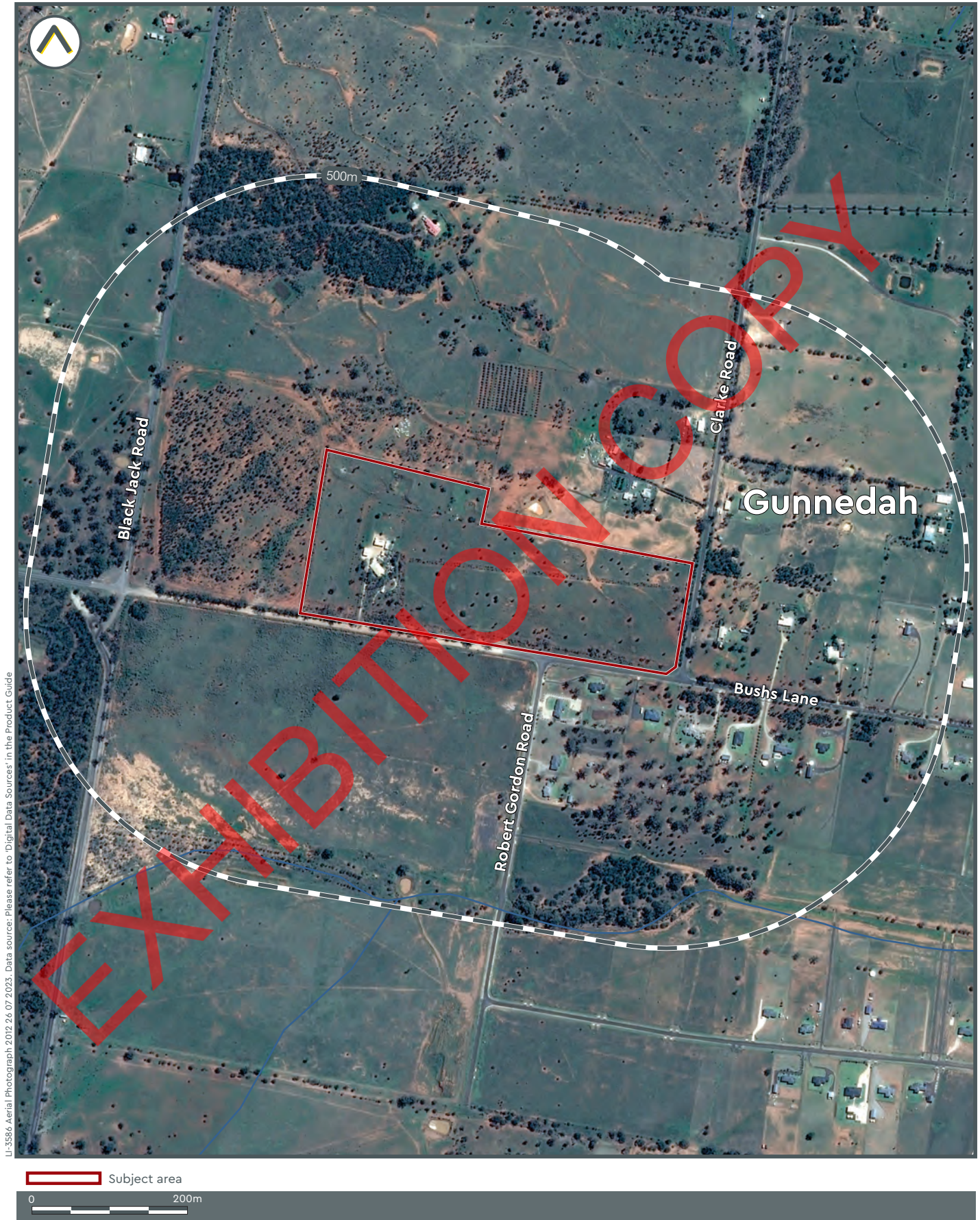


## Historic Aerial Photograph - 2012



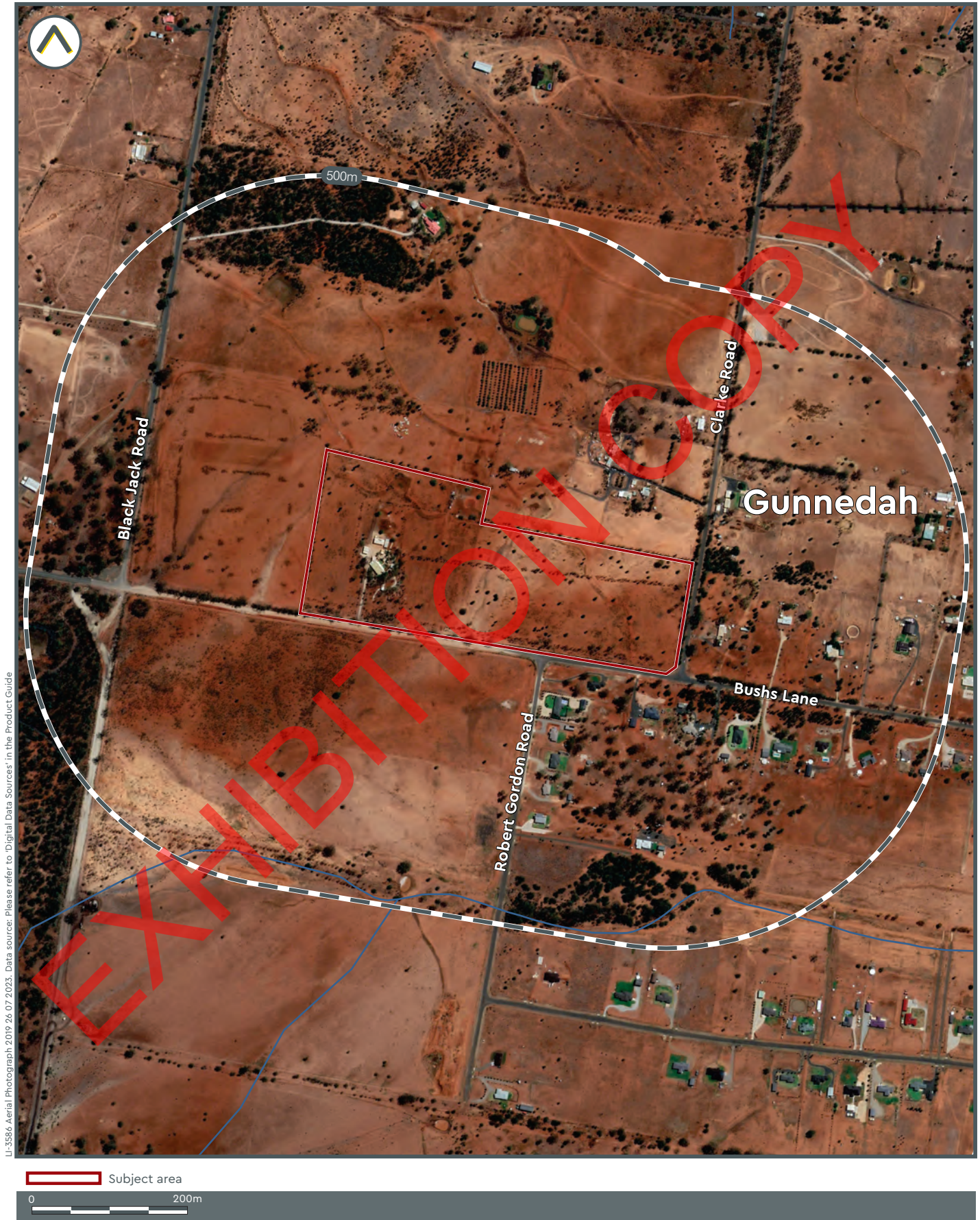


## Historic Aerial Photograph - 2016



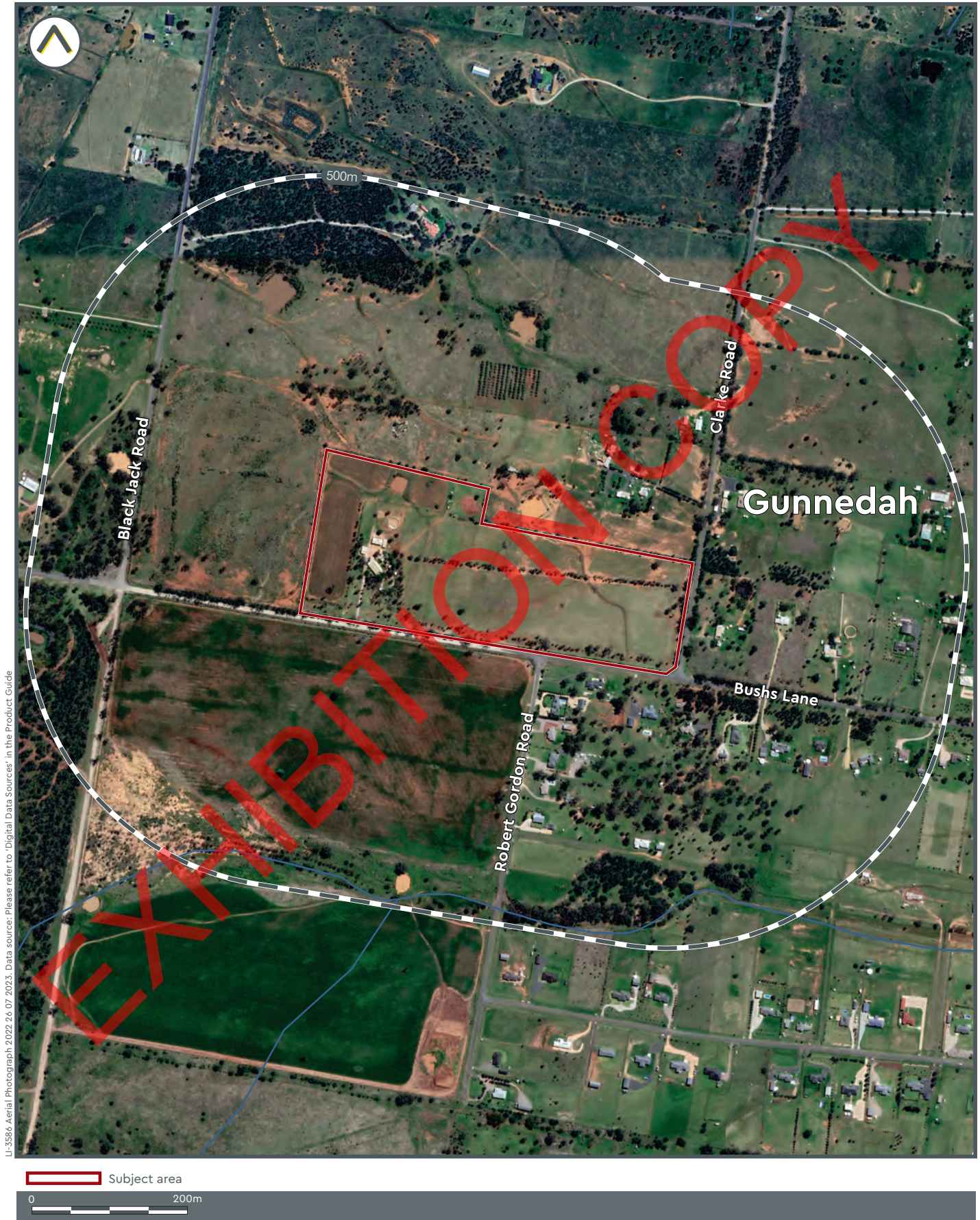


## Historic Aerial Photograph - 2019



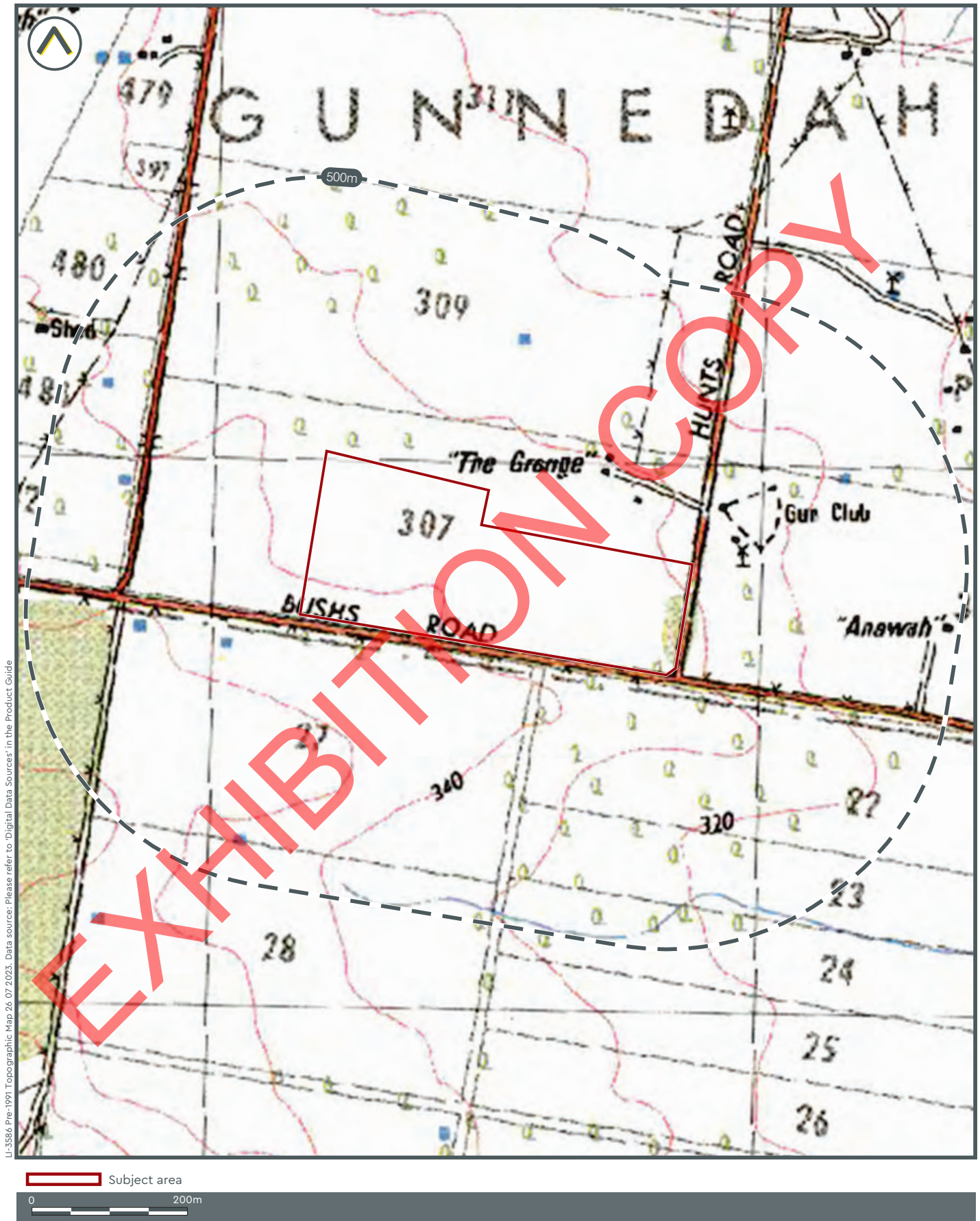


## Historic Aerial Photograph - 2022





## 1969-1991 1:25,000 Topographic Map (Wondoba 8935-4N)



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## Appendix C      Site Photographs

EXHIBITION COPY


Photo Number: 1	8/08/2023	
Description:  Photograph of the residential and building area from south-west corner.		

Photo Number: 2	8/08/2023	
Description:  Photograph of property looking west from north-east corner. Note trees along boundary and tree growth that bisects property to the left.		



Photo Number: 3	8/08/2023	
Description:  North-west area of the property with shed to right and one dam in background.		

Photo Number: 4	8/08/2023	
Description:  North-west area of the property looking back to the south-east. Horse yard in background and beginning of second dam to the left.		


Photo Number: 5	8/08/2023	
Description:  View to south-west towards residential area. Dam in centre with elevated ground off site in background.		

Photo Number: 6	8/08/2023	
Description:  View towards south-east from north-west part of the property with grazing animals and improved pasture in foreground.		


Photo Number: 7	8/08/2023	
Description:  Surplus farm equipment with timber pile waiting for burning in foreground.		

Photo Number: 8	8/08/2023	
Description:  View of improved pasture and adjoining rural/residential properties to north.		




Photo Number: 9	8/08/2023	
Description: Vacant land to west.		

Photo Number: 10	8/08/2023	
Description:  View to the east from residential area. Proposed smaller allotment area.		


Photo Number: 11	8/08/2023	
Description:  One of the sheds on property with entry to property from Bushs Lane on left.		

Photo Number: 12	8/08/2023	
Description:  Disused groundwater bore.		

EXHIBITION COPY