



Tilbuster 2 Solar Farm



Preliminary Site Investigation

Enerparc Australia

05 November 2024

→ **The Power of Commitment**



Project name		Stage 2 Tilbuster Solar Farm					
Document title		Tilbuster 2 Solar Farm Preliminary Site Investigation					
Project number		12636761					
File name		12636761 Tilbuster Stage 2 Solar Farm _ Preliminary Site (Contam) Investigation.docx					
Status Code	Revision	Author	Reviewer		Approved for issue		
			Name	Signature	Name	Signature	Date
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Acknowledgement of Country

GHD acknowledges Aboriginal and Torres Strait Islander peoples as the Traditional Custodians of the land, water and sky throughout Australia on which we do business. We recognise their strength, diversity, resilience and deep connections to Country. We pay our respects to Elders of the past, present and future, as they hold the memories, knowledges and spirit of Australia. GHD is committed to learning from Aboriginal and Torres Strait Islander peoples in the work we do.



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Glossary

Abbreviation	Definition
Ag	Silver
As	Arsenic
ASS	Acid Sulphate Soil
Au	Gold
BOM	Bureau of Meteorology
BTEXN	Benzene, Toluene, Ethyl benzene, Xylenes, Naphthalene
CLM Act	<i>Contaminated Land Management Act 1997</i> (incorporating amendments made by the <i>Contaminated Land Management Amendment Act 2003</i>)
COPC	Chemical of potential concern
CSM	Conceptual Site Model
CSMP	Contaminated Soils Management Plan
Cu	Copper
Development footprint	The area of the proposal site that would be directly impacted by the proposal (during construction, operation and decommissioning).
DPE	Department of Planning and Environment
EIS	Environmental Impact Statement
EPA	NSW Environment Protection Authority
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EMP	Environmental Management Plan
Enerparc	Enerparc Australia Pty Ltd
ENM	Excavated Natural Material
EPA	Environment Protection Authority
EPL	Environmental Protection Licence
Km	kilometres
kV	Kilovolt
LEPs	Local environmental plans
LGA	Local government area
mbgl	Metres below ground level
MW	megawatts
MWh	Megawatts per hour
NOA	Naturally Occurring Asbestos
NSW EPA	NSW Environment Protection Authority
ha	Hectare
ID	Identification
mAHD	Metres Australian Height Datum
NEPC	National Environment Protection Council
NEPM	<i>National Environment Protection (Assessment of Site Contamination) Measure 1999</i>
NOA	Naturally occurring asbestos
NSW	New South Wales

Abbreviation	Definition
OCP	Organochlorine pesticide
OPP	Organophosphate pesticide
PAH	Polycyclic Aromatic Hydrocarbon
PCB	Polychlorinated Biphenyl
POEO Act	<i>Protection of the Environment Operation Act 1997</i>
Pb	Lead
Proposal	The construction, operation and decommissioning of a ground-mounted photovoltaic (PV) solar array, which would generate approximately 140 MW.
Proposal site	The site within which the proposal is located, namely Lot 4 DP800611, 11915 New England Highway, Black Mountain NSW 2365.
Project	Approved Stage 1 of Tilbuster Solar Farm
PSI	Preliminary Site Investigation
PV	Photovoltaic
Sb	Antimony
SEARs	Secretary's Environmental Assessment Requirements
SEPP	State environmental planning policies
SEPP	<i>State Environmental Planning Policy (Planning Systems) 2021</i>
SEPP Transport and Infrastructure	<i>State Environmental Planning Policy (Transport and Infrastructure) 2021</i>
Sn	Tin
SSD	State Significant Development
Study area	The area that could be indirectly impacted by the proposal and is the subject of relevant database and information searches. The study area is specifically defined for each specialist assessment, where relevant.
s.	Section
TPH	Total Petroleum Hydrocarbons
TRH	Total Recoverable Hydrocarbons
W	Tungsten
Zn	Zinc

1. Introduction

1.1 Background

Enerparc Australia Pty Ltd (Enerparc) is developing the Tilbuster Solar Farm (State Significant Development (SSD) 9619), which was approved under Section 2.22 and Clause 20 of Schedule 1 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) on 3 March 2022. The Tilbuster Solar Farm (the project) is located approximately 15 kilometres (km) north of Armidale in the Armidale Regional local government area (LGA), see Figure 1.1.

The project involves the construction, operation and decommissioning of a new solar farm with a generating capacity of 150 megawatts (MW) and 15 MW/30 MW per hour (MWh) of battery energy storage. The solar farm will connect to the existing Transgrid 330 kilovolt (kV) transmission line, which traverses the site and connects Dumaresq substation to Armidale substation.

Due to design refinements made in response to ecological and heritage constraints identified during the preparation of the environmental impact statement (EIS), the project was approved with a lower MW capacity than originally anticipated. As a result, Enerparc have acquired adjacent land and propose developing Stage 2 of the project to maximise the generation potential of the site (the proposal).

The proposal is located on land adjoining the project and would make use of transmission, storage and construction facilities on that site.

1.2 Proposal overview

The proposal involves the construction, operation and decommissioning of a ground-mounted photovoltaic (PV) solar array, which would generate approximately 140 MW, in addition to the 150 MW generated by the project.

The proposal site is located at Lot 4 DP800611, 11915 New England Highway, Black Mountain NSW 2365. The proposal site has an area of approximately 250 hectares (ha), with the proposed development to be constructed on approximately 140 ha of this land.

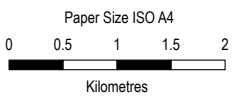
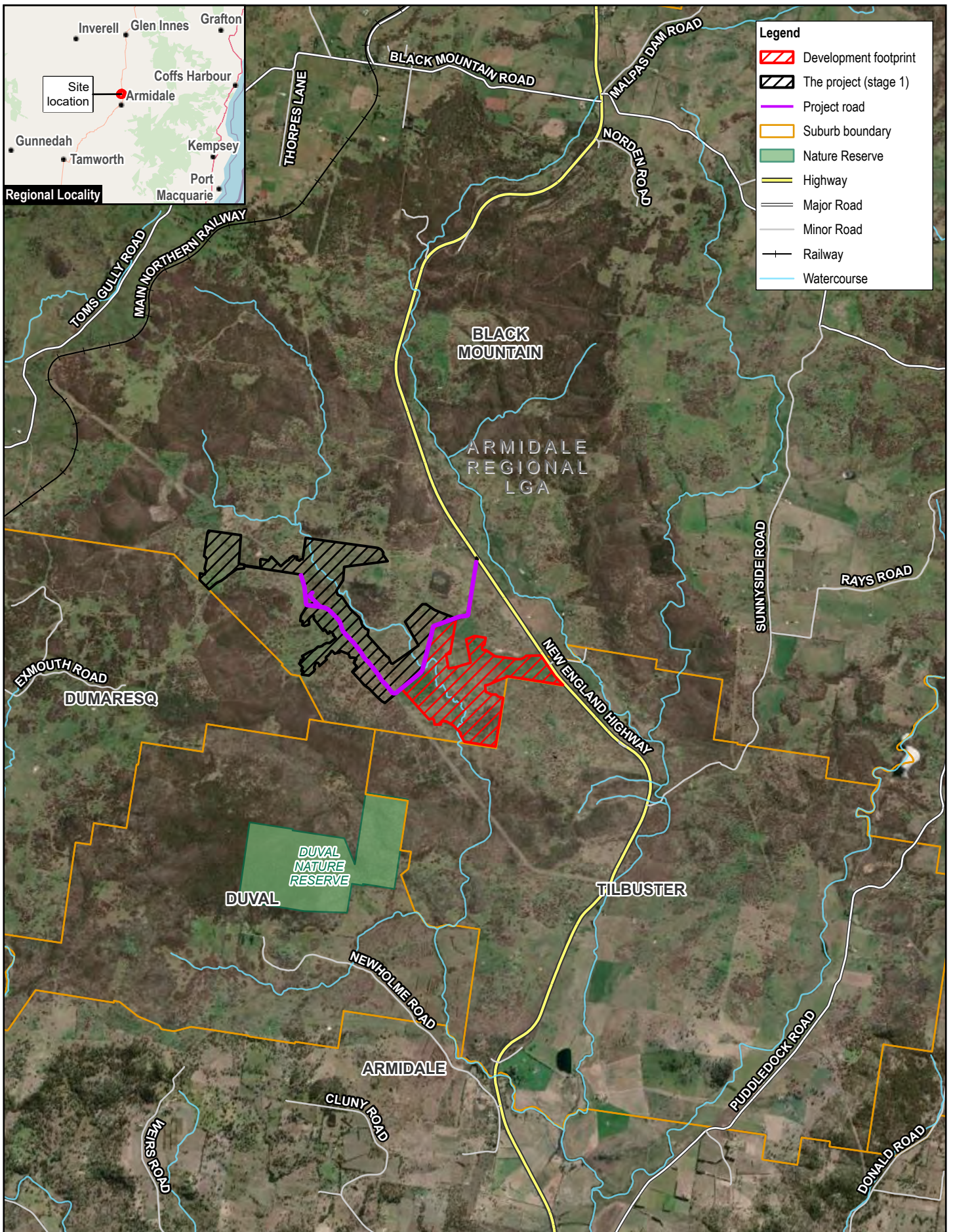
In total, the construction phase of the proposal is expected to take nine months, and the facility is expected to operate for around 30 years or extended pending further approvals. The proposal would be constructed as part of the overall construction of the approved project. This would reduce the construction period for the proposal and minimise impacts on the community.

The primary access point for light and heavy vehicles during construction and operation would be via an existing access off the New England Highway, currently under construction for the project. Temporary construction compounds and laydowns areas would also be located on the project site.

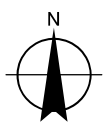
Construction of the proposal is anticipated to take nine months, with work commencing, pending approval, in early 2025. Up to 100 construction workers would be required.

Up to five full time equivalent operations and maintenance staff and service contractors would operate the proposal, as part of the operation of the approved project. Existing transmission and storage infrastructure within the approved project footprint would be used to connect the proposal to the national electricity grid.

Figure 1.2 shows the indicative layout for the proposal, including the location of solar PV panels, associated infrastructure and internal access roads.



Map Projection: Transverse Mercator
 Horizontal Datum: GDA2020
 Grid: GDA2020 MGA Zone 56

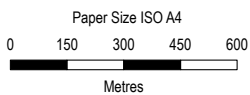
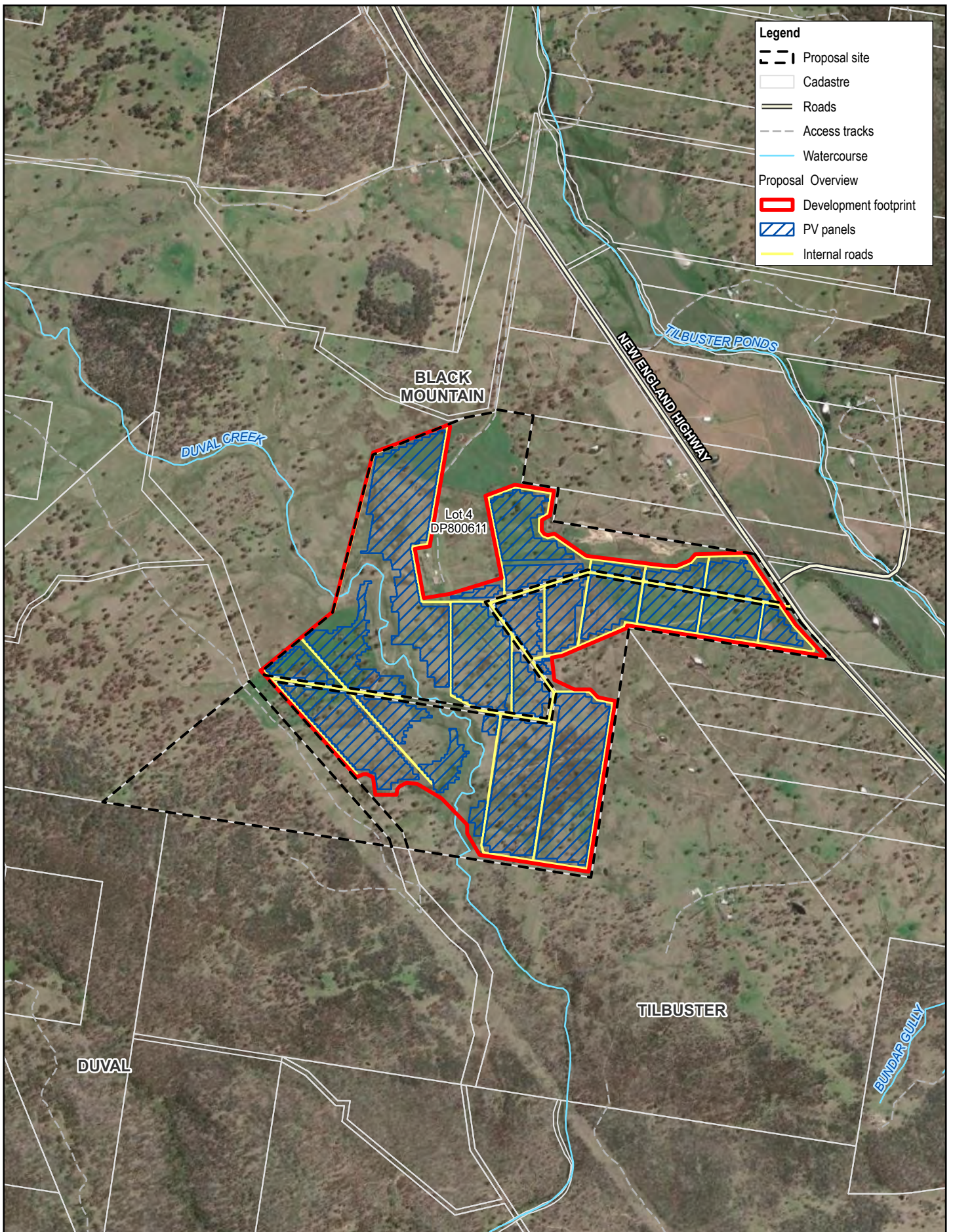


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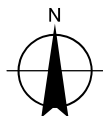
Project No. 12636761
 Revision No. 0
 Date 23/10/2024

Local context

FIGURE 1.1



Map Projection: Transverse Mercator
Horizontal Datum: GDA2020
Grid: GDA2020 MGA Zone 56



Enerparc Australia Pty Ltd
Tilbuster 2 Solar Farm
Preliminary Site Investigation

Project No. 12636761
Revision No. 0
Date 23/10/2024

Overview of the proposal

FIGURE 1.2

1.3 Purpose of the report

The purpose of this Preliminary Site Investigation (PSI) is to inform the EIS regarding the potential contamination issues within the proposal and provide recommendations for further investigation and/or management and/or remediation measures to be implemented (if required).

The PSI has been prepared to address the Secretary's environmental assessment requirements (SEARs) for the proposal, as summarised in Table 1.1.

Table 1.1 Soils and contamination SEARs

Requirement	Where addressed in this report
<p>Contamination and Remediation</p> <p>In accordance with Chapter 4 of SEPP (Resilience and Hazards) 2021, assess and quantify any soil and groundwater contamination and demonstrate that the site is suitable (or will be suitable, after remediation) for the development.</p>	Sections 4, 5 and 6

1.4 Scope of works

The scope of work for the PSI included the following:

- Review of existing available site history information including historical aerial photographs.
- Review of geology, hydrology, hydrogeology and topography information for the site.
- Assessment of neighbouring land uses including any potentially contaminating activities.
- A review of NSW Environment Protection Authority (EPA) notices under the *Contaminated Land Management Act 1997* (CLM Act).
- A site inspection.
- Preparation of this report with reference to the *National Environment Protection (Assessment of Site Contamination) Measure 1999* (NEPM) made by the National Environment Protection Council (NEPC, 2013) summarising the results of the above and providing recommendations for further investigations (as required).

1.5 Limitations and assumptions

This report: has been prepared by GHD for Enerparc Australia and may only be used and relied on by Enerparc Australia for the purpose agreed between GHD and Enerparc Australia as set out in Section 1.3 of this report.

GHD otherwise disclaims responsibility to any person other than Enerparc Australia arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

Historical land titles and Council information (Section 10.7 certificates or register of development or building applications) were not reviewed as part of the desktop study. No soil, sediment, surface water or groundwater sampling was completed as part of this desktop study.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in this report. GHD disclaims liability arising from any of the assumptions being incorrect.

The site inspection undertaken in respect of this Report was limited to visual inspections only and constrained by the particular site conditions, such as access to roads and tracks, and within properties and buildings, and dense vegetation.

Site conditions (including the presence of hazardous substances and/or site contamination) may change after the date of this Report. GHD does not accept responsibility arising from, or in connection with, any change to the site conditions. GHD is also not responsible for updating this report if the site conditions change.

GHD has prepared this report on the basis of information provided by Enerparc Australia, Lotsearch and others who provided information to GHD (including Government authorities), which GHD has not independently verified or checked beyond the agreed scope of work. GHD does not accept liability in connection with such unverified information, including errors and omissions in the report which were caused by errors or omissions in that information.

Except as otherwise expressly stated in this Report, GHD makes no warranty, statement or representation of any kind concerning the suitability of the site for any purpose or the permissibility of any use, development or re-development of the site.

2. Assessment approach

2.1 Legislation and policy context

2.1.1 Environmental Planning and Assessment Act 1979

The *Environmental Planning and Assessment Act 1979* (EP&A Act) establishes a framework for the assessment and approval of developments in NSW. It also provides for the making of environmental planning instruments, including state environmental planning policies (SEPPs) and local environmental plans (LEPs), which determine the permissibility and approval pathway for development proposals and form a part of the environmental assessment process.

The proposal is permissible with consent pursuant to Clause 2.36(1)(b) of *State Environmental Planning Policy (Transport and Infrastructure) 2021* (SEPP Transport and Infrastructure), as the site is within a prescribed non-residential zone (i.e. it is zoned RU1 Primary Production).

The capital investment value of the proposal is expected to be more than \$30 million and therefore it meets the definition of SSD, as defined under Schedule 1 of *State Environmental Planning Policy (Planning Systems) 2021* (SEPP Planning Systems). As SSD, development consent is required from the Minister for Planning, with the application accompanied by an EIS detailing potential environmental, social and economic impacts, and proposed management and mitigation measures.

An EIS has been prepared to assess the impacts of the proposal in accordance with the issued SEARs. This assessment supports the EIS.

2.1.2 Protection of the Environment Operation Act 1997

The *Protection of the Environment Operation Act 1997* (POEO Act) provides the legislative framework for the protection and enhancement of the environment in NSW. Its primary objectives are to reduce risks to harmless levels through pollution prevention, cleaner production, application of waste management hierarchy, continual environmental improvement and environmental monitoring.

Environment Protection licences (EPLs) are required to undertake scheduled activities or scheduled development work. Solar Farms are not listed as a scheduled activity under the POEO Act.

2.1.3 Contaminated Land Management Act 1997

The CLM Act is part of the management framework for contaminated land in NSW. The CLM Act enables the EPA to respond to and manage site contamination when it considers that contamination is significant enough to require regulation. Site contamination requires regulation under the CLM Act when a site is declared 'significantly contaminated land' (defined as land described in a notice having effect under Section 11 of the CLM Act) or when land is subject to a management order or an approved voluntary management project. Lands within the proposal site have not been declared 'significantly contaminated land' and are not subject to a management order.

The CLM Act outlines the circumstances in which notification to the EPA is required in relation to the contamination of land. This may become relevant during construction of the project if contamination is encountered.

Section 105 of the CLM Act allows the EPA to make or approve guidelines for the purposes connected with the objectives of the CLM Act. Contaminated sites not regulated by the EPA can be managed through the planning process by the relevant planning consent authority.

The EPA holds records of sites that have been notified under Section 60 of the CLM Act or otherwise reported to the EPA. This assessment includes a search of the record of sites held by EPA to identify sites which may impact soil and/or groundwater quality within the construction area.

2.1.4 Guidelines

The PSI is undertaken with reference to the following relevant guidelines made or approved by EPA including those for preliminary contamination investigations:

- *Contaminated Land Guidelines: Sampling Design Part 1 – Application* (EPA, 2022).
- *Contaminated Sites: Guidelines for Consultants Reporting on Contaminated Sites* (EPA 2020).
- *National Environment Protection Measure (Assessment of Site Contamination)* (NEPC, 1999) as amended May 2013.
- *Contaminated Land Management: Guidelines for the NSW Site Auditor Scheme* (3rd edition), (EPA, 2017).
- *Contaminated Sites: Guidelines on the Duty to Report Contamination under the Contaminated Land Management (CLM) Act 1997* (DECCW, 2009).

2.2 Methodology

The following key tasks were carried out as part of this PSI:

- A review of relevant legislation, policy and guidelines to address the SEARs and agency requirements.
- A desktop assessment comprising review of existing information, aerial photography and previous ground investigation reports. The review is used to identify current environmental conditions of the proposal site and potential sources of contamination.
- Site inspection on 14 August 2024 to confirm the findings of the background desktop assessment. The inspections involved the observation and recording of terrain, surface condition, topography, vegetative cover, drainage pathways, contaminated land risk areas and surrounding land uses.
- Preparation of a preliminary conceptual site model identifying potential sources, contaminants of potential concern (COPC), pathways and receptors.
- The identification of mitigation measures to eliminate or minimise these impacts (if required).

2.3 PSI terminology

The following terms are used throughout the EIS:

- Proposal – construction, operation and decommissioning of Tilbuster 2 Solar Farm, as described in Section 1.2.
- Project – the approved Tilbuster Solar Farm (SSD 9619) project.
- Proposal site – the site within which the proposal is located, namely Lot 4 DP800611, 11915 New England Highway, Black Mountain NSW 2365.
- Development footprint – the area of the proposal site that would be directly impacted by the proposal (during construction, operation and decommissioning).
- Study area – the area that could be indirectly impacted by the proposal and is the subject of relevant database and information searches. The study area is specifically defined for each specialist assessment, where relevant.

3. Site description

3.1 Site identification

A summary of key features of the proposal site and surrounds is summarised in Table 3.1.

Table 3.1 Site identification summary

Information	Details
Address	11915 New England Highway, Black Mountain NSW 2365
Lot and DP	Lot 4 DP800611
Site area	Approximately 250 ha
Local government area (LGA)	Armidale Regional
Land use zoning	RU1 Primary Production
Current site use	Agricultural
Proposed land use	Solar farm
Surrounding land use	North – agricultural area, wool shed and holding pen (central portion), Stage 1 Tilbuster Solar Farm (under development) South – agricultural area, homestead East – agricultural area, New England Highway, homestead, Tilbuster Ponds West - agricultural area, Duval Nature Reserve

3.2 Site observations

A site inspection was completed by GHD on 14 August 2024. A photographic log is presented in Appendix A.

The proposal site is generally cleared with scattered trees and group of trees and is currently used for grazing. The proposal site is flat to gently undulating (Photo 1, 2, 3 and 6). Duval Creek, which is located in the western portion of the proposal site, was observed to traverse the property from north to south (Photo 4). Several farm dams across the proposal site were also observed (Photo 5).

There is currently no infrastructure within the development footprint, however it is noted that there is an existing wool shed and holding pen in the centre of Lot 4 DP800611. This area is outside of the development footprint. Several aboveground storage tanks and farm equipment were observed in this area. Paints were also observed to be flaking in the walls of the wool shed (Photo 7 and 8).

3.3 Environmental setting

Table 3.2 provides an overview of the environmental setting of the proposal site as obtained from the Lotsearch report LS057206 EP (5 June 2024) (see Appendix A) and publicly available information.

Table 3.2 Site environmental setting

Setting	Site conditions
Topography	The proposal site has an elevation between 1,040 metres (m) Australian height datum (mAHD) to 1,070 mAHD. It is flat to gently undulating, sloping from high points to the west, south and north towards the New England Highway to the east.
Hydrology	Surface water is expected to largely infiltrate into subsurface soils to groundwater. Any surface water runoff is expected to drain towards Duval Creek located in the western portion of the proposal site and into several tributaries of the Tilbuster Ponds located north and east of the proposal site. There are also several farm dams within the proposal site.

Setting	Site conditions			
Geology and soils	Geological information for the proposal site and surrounding areas as described in the Lotsearch Report LS057206 EP (see Appendix A) is summarised below.			
	Unit name	Description	Dominant lithology	Location
	Dummy Creek Conglomerate	Lithic conglomerate, coarse sandstone, massive mudstone	Conglomerate	Onsite – central and southern portion
	Ungrouped Cenozoic sedimentary units	Ungrouped Cenozoic sedimentary units	Unconsolidated material	Onsite – northwest and northeast portion
	Annalee Pyroclastics	Felsic pyroclastic rock, rhyolite, trachyte, minor rhyolitic tuffaceous sandstone	Pyroclastic rock	Offsite – 612 m northwest
A summary of the soil units identified at the proposal site and surrounding areas, as described in the Lotsearch Report LS057206 EP (see Appendix A) is summarised below.				
Map unit code	Soil order	Map unit description	Distance/direction	
Ub54	Sodosol	Undulating to low hilly terrain with variable hilly portions and some steep slopes, rock outcrops: chief soils are hard neutral and acidic yellow mottled soils (Dy3.42 and Dy3.41), generally on undulating areas and mid hill slopes. Associated are a wide variety of soils including commonly (i) (Um4.1) and (Um4.2)-upper slopes and hill tops; (ii) (Dr2.22), (Dr2.21), (Dy3.2), and shallow forms of (Dy3.41 hill slopes; (iii) (Dy3.41 and Dy3.42) both containing ironstone gravel--flatter, often poorly drained areas; (iv) (Dy3.43) on relatively low-lying sites in which some salinity may be evident; less commonly (v) red and yellow earths (Gn2.14 and Gn2.24); and (vi) (Db2.4) soils on hill slopes.	0 m onsite	
Ub56	Sodosol	Low hilly to hilly terrain with some flat to undulating portions, rock outcrops: chief soils are hard neutral yellow mottled soils (Dy3.42). Associated are: (i) a great variety of other (Dy) soils including (Dy3.21) on upper slopes, (Dy3.41 and Dy3.42), both containing ironstone gravels, on relatively poorly drained areas, and (Dy3.43) on relatively low-lying sites and valleys; (ii) yellow earths (Gn2.55) on colluvial slopes; (iii) soils of unit Wa10; (iv) soils of unit JJ6 on hill tops; (v) minor areas of (Dr2) soils on hill slopes; (vi) minor areas (Dg1.41) in wet places; and (vii) minor occurrences of some soils of unit Rh5.	522 m Southwest	
Acid sulfate soils (ASS)	A search of the NSW Planning Industry and Environment eSpade site for ASS potential indicated that the probability of occurrence of ASS is low; there is no on-site environmental risk from ASS.			
Naturally occurring asbestos (NOA)	An examination of the online NSW NOA map shows there are no records of NOA within 1 km of the proposal site.			

Setting	Site conditions					
Hydrogeology and groundwater bore search	Hydrogeology within the proposal site is characterised by fractured and fissured extensive aquifers of low to moderate productivity (LS057206 EP).					
	One onsite and two registered groundwater bores within 2 km of the proposal site were identified which are summarised below:					
	Bore ID	Direction	Intended purpose	Bore depth (m)	Standing water level (mbgl)	Status
	GW305373	On site	Stock and domestic			Unknown
	GW306773	276 m Northeast	Stock and domestic	32.00	14.00	Unknown
GW307754	1680 m North	Water Supply	48.00	15.00	Unknown	
A review of the Australian Groundwater Explorer (BoM, 2018) showed that all three bores were listed with unknown status. Groundwater in the vicinity of the proposal site is expected to vary between 14 mbgl and 15 mbgl based on information from the two offsite bores to the north and northeast. Based on the bore usage information, it is possible that groundwater within the area could be used for either domestic or stock/irrigation purposes.						

4. Desktop investigation

The following sections provide an overview of the desktop information reviewed from the Lotsearch report LS057206 EP (5 June 2024) (see Appendix A), publicly available information and relevant information provided by Enerparc.

4.1 Aerial photograph review

A selection of historical aerial photographs were reviewed to assess past activities and land uses within and surrounding the proposal site. Photographs were reviewed for the years 1943, 1956, 1964, 1971, 1984, 1994, 2014, 2018, 2021 and 2023 (see Lotsearch Report in Appendix A).

A summary of the information gained from the historical aerial review for the proposal site and its surrounds is provided in Table 4.1.

Table 4.1 Review of historical aerial photographs

Year of photograph and type	Observations
1943 (Black and white)	Majority of the proposal site and the surrounding areas appears to be cleared (possibly for agricultural use) with scattered vegetation across the area. A wool shed with visible holding pens is located at the centre of Lot 4 DP800611. A homestead is also located adjacent to the northeastern boundary of the proposal site, Duval Creek in the western portion and several tributaries of Tilbuster Ponds that are located in the north of the proposal site (just outside the development footprint) are already visible. Several access roads across the proposal site are also notable. The New England Highway located in the eastern boundary of the proposal site is also visible.
1956 (Black and white)	There is no significant change to the proposal site and the surrounding land from the previous photograph. The holding pen located south of the wool shed located at the centre of Lot 4 DP800611 is less visible.
1964 (Black and white)	There is very little change from the previous aerial photograph. More tracks and farm dams are visible in the northeastern portion of the proposal site. The holding pens south of the wool shed located in the central portion of Lot 4 DP800611 are also more defined. There is an increase in vegetation to the south of the proposal site.
1971 (Black and white)	There is very little change from the previous aerial photograph. The tributaries to Tilbuster Ponds that are located in the north of the proposal site and those located adjacent to the east are more prominent and appear to have more water. Several farm dams that are located along these tributaries are also visible.
1984 (Black and white)	There is very little change from the previous aerial photograph. The area in the south of the proposal site has less vegetation. Another homestead located further to the southeast of the proposal site is also now visible.
1994 (Colour)	One of the structures (potentially a shed) in the wool shed are located in the central portion of Lot 4 DP800611 has been removed, while the homesteads located north and southeast of the proposal site appears to have expanded with more structures visible.
2014 (Colour)	A semicircle road that is traversing the proposal site and connects the New England Highway and the wool shed located at the central portion of Lot 4 DP800611 is more visible. There are also several trench-looking linear structures south and west of the property, which appear to be planted and are used to form windbreak. The tributaries to Tilbuster Pond along the northern boundary of the proposal site also appears to be more defined.
2018 (Colour)	There appears to be no significant changes from the previous aerial photograph.
1921 (colour)	There appears to be no significant changes from the previous aerial photograph.
2023 (colour)	There appears to be no significant changes from the previous aerial photograph.

Based on the review of historical aerial photographs, the proposal site appears to have been primarily used for agricultural use such as grazing as early as 1943. The wool shed and holding pens located at the centre of Lot 4 DP800611 (just outside of the development footprint) were present since 1943. No significant changes in land use was noted.

4.2 Previous investigation reports

No previous investigations have been identified specific to the proposal site, however the Stage 1 EIS prepared by NGH (October 2020) covers land to the immediate north of the proposal site. Relevant findings from this EIS are summarised in Table 4.2.

Table 4.2 Summary of previous investigations

Report	Summary
Environmental Impact Statement – Tilbuster Solar Farm (NGH October 2020)	<p>Section 7.3.2 Existing environment, with respect to contamination, noted:</p> <ul style="list-style-type: none"> – A search of the Environmental Protection Authority (EPA) Section 60 of the <i>Contaminated Lands Management (CLM) Act</i>, conducted on the 23 September 2019, identified six sites within the Armidale LGA, the closest of which is located approximately 9.3 km south of the proposal site. – A search of Section 58 of the CLM Act record of notices conducted on 23 September 2019 did not identify any sites within the Armidale LGA. <p>It also noted that the site has a history of agricultural land use and as such, agricultural sites may contain buried rubbish including contaminants such as herbicides that may be encountered during excavation. The EIS concluded that no indications of potential sources of contamination were identified during the site assessment.</p>

4.3 EPA database searches

A search of the datasets maintained by EPA including notices under the CLM Act and the POEO Act EPL Register was carried out and is summarised in the Lotsearch Report LS057206_EP (see Appendix A). The search results are summarised in Table 4.3.

Table 4.3 EPA dataset search results

	Summary																		
List of NSW contaminated sites notified to EPA	No properties within 1 km of the proposal site.																		
Contaminated land record of notices	No properties within 1 km of the proposal site.																		
EPA notices	No penalty notices (Section (s.) 91 and s.96 clean up notices, and s.96 prevention notices) within 1 km of the proposal site.																		
POEO license register	No current licenced activities under the POEO Act within 1 km of the proposal site. Three former POEO Act licenced activities are identified onsite as summarised below:																		
	<table border="1"> <thead> <tr> <th>Organisation</th> <th>Location</th> <th>Issue date</th> <th>Activity</th> <th>Distance</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Luhrmann Environment Management Pty Ltd</td> <td>Waterways throughout NSW</td> <td>06/09/2000</td> <td>Other Activities/ Non-scheduled Activity - Application of Herbicides</td> <td>0 m</td> <td>Onsite</td> </tr> <tr> <td>Robert Orchard</td> <td>Various waterway throughout NSW (Sydney NSW 2000)</td> <td>07/09/2000</td> <td>Other Activities/ Non-scheduled Activity - Application of Herbicides</td> <td>0 m</td> <td>Onsite</td> </tr> </tbody> </table>	Organisation	Location	Issue date	Activity	Distance	Direction	Luhrmann Environment Management Pty Ltd	Waterways throughout NSW	06/09/2000	Other Activities/ Non-scheduled Activity - Application of Herbicides	0 m	Onsite	Robert Orchard	Various waterway throughout NSW (Sydney NSW 2000)	07/09/2000	Other Activities/ Non-scheduled Activity - Application of Herbicides	0 m	Onsite
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Luhrmann Environment Management Pty Ltd	Waterways throughout NSW	06/09/2000	Other Activities/ Non-scheduled Activity - Application of Herbicides	0 m	Onsite														
Robert Orchard	Various waterway throughout NSW (Sydney NSW 2000)	07/09/2000	Other Activities/ Non-scheduled Activity - Application of Herbicides	0 m	Onsite														

Summary						
	Sydney Weed and Pests Management Pty Ltd	Waterways throughout NSW (Prospect NSW 2148)	09/11/2000	Other Activities/ Non-scheduled Activity - Application of Herbicides	0 m	Onsite

4.4 Other information

Searches of other publicly available land use databases (see Appendix A) are summarised in Table 4.4.

Table 4.4 Publicly available database search results

Landuse	Details																																																												
Former gas works	No records within 1 km of the proposal site.																																																												
Waste management facilities	No records within 1 km of the proposal site.																																																												
Liquid fuel facilities	No records within 1 km of the proposal site.																																																												
Investigation or Management for Per- and Poly-Fluoroalkyl Substances	No records within 1 km of the proposal site.																																																												
Defence controlled areas	No records within 1 km of the proposal site.																																																												
National unexploded ordnance (uxo)	No records within 1 km of the proposal site.																																																												
Mining titles	<p>There are currently no applications for, and no existing mining and exploration titles within 1 km of the proposal site.</p> <p>The historical mining and exploration titles that have been issued within and/or 1 km of the proposal site are summarised below:</p> <table border="1"> <thead> <tr> <th>Holder</th> <th>Start date</th> <th>End date</th> <th>Resources</th> <th>Distance</th> <th>Direction</th> </tr> </thead> <tbody> <tr> <td>Gordon, Dudley</td> <td>05/02/1998</td> <td>04/02/2000</td> <td>Minerals (Sb)</td> <td>0m</td> <td>Onsite</td> </tr> <tr> <td>Freeport of Australia Inc</td> <td>01/01/1985</td> <td>01/08/1985</td> <td>Minerals (Au)</td> <td>0m</td> <td>Onsite</td> </tr> <tr> <td>Aberfoyle Limited</td> <td>01/03/1982</td> <td>01/09/1982</td> <td>Minerals (Sn, Cu, Pb, Zn, Ag)</td> <td>0m</td> <td>Onsite</td> </tr> <tr> <td>Aberfoyle Limited</td> <td>01/03/1982</td> <td>01/09/1982</td> <td>Minerals (Sn, Cu, Pb, Zn, Ag)</td> <td>0m</td> <td>Onsite</td> </tr> <tr> <td>Geogen Victoria Pty Ltd</td> <td>18/08/2009</td> <td>18/08/2012</td> <td>Minerals</td> <td>0m</td> <td>Onsite</td> </tr> <tr> <td>Peel Exploration Limited</td> <td>26/02/2007</td> <td>25/02/2011</td> <td>Minerals</td> <td>0m</td> <td>Onsite</td> </tr> <tr> <td>IRGS Northern Gold Pty Ltd</td> <td>06/06/2011</td> <td>04/08/2014</td> <td>Minerals (Au, Sb, Ag, As, Cu, W)</td> <td>0m</td> <td>Onsite</td> </tr> <tr> <td>Pangaea Oil & Gas Pty Limited</td> <td>11/11/2009</td> <td>11/11/2010</td> <td>Petroleum</td> <td>0m</td> <td>Onsite</td> </tr> <tr> <td>Tinga Holdings Pty Limited</td> <td>01/03/1983</td> <td>01/12/1985</td> <td>Minerals (Au, Ag)</td> <td>66m</td> <td>East</td> </tr> </tbody> </table> <p>Note: Ag – silver, Au – gold, As – arsenic, Cu – copper, Pb – lead, Sb – antimony, Sn – tin, W – tungsten, Zn – zinc</p>	Holder	Start date	End date	Resources	Distance	Direction	Gordon, Dudley	05/02/1998	04/02/2000	Minerals (Sb)	0m	Onsite	Freeport of Australia Inc	01/01/1985	01/08/1985	Minerals (Au)	0m	Onsite	Aberfoyle Limited	01/03/1982	01/09/1982	Minerals (Sn, Cu, Pb, Zn, Ag)	0m	Onsite	Aberfoyle Limited	01/03/1982	01/09/1982	Minerals (Sn, Cu, Pb, Zn, Ag)	0m	Onsite	Geogen Victoria Pty Ltd	18/08/2009	18/08/2012	Minerals	0m	Onsite	Peel Exploration Limited	26/02/2007	25/02/2011	Minerals	0m	Onsite	IRGS Northern Gold Pty Ltd	06/06/2011	04/08/2014	Minerals (Au, Sb, Ag, As, Cu, W)	0m	Onsite	Pangaea Oil & Gas Pty Limited	11/11/2009	11/11/2010	Petroleum	0m	Onsite	Tinga Holdings Pty Limited	01/03/1983	01/12/1985	Minerals (Au, Ag)	66m	East
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Landuse	Details				
Mining subsidence district	No records within 1 km of the proposal site.				
State forests, national parks or wildlife reserves	No records within 1 km of the proposal site.				
Major easement	There are no easements onsite. However there are three easements within 1 km of the proposal site summarised below:				
	Map ID	Easement Class ¹	Easement Type	Distance	Direction
	120120805	Primary	Undefined	78 m	Southwest
	120114289	Primary	Undefined	84 m	Southwest
	120116919	Primary	Undefined	543 m	South
¹ Limited to major easements such as Rights of Carriageway, electrical lines (66 kVa, etc) easement to drain water, and significant subterranean pipelines (gas, water, etc).					

5. Preliminary conceptual site model

A preliminary conceptual site model (CSM) was developed to provide an understanding of the potential for exposure to contaminants. The CSM draws together historical data, specific and regional geological, hydrogeological information, and the information provided from the site inspection to identify potential contamination sources, migration and exposure pathways and sensitive receptors for the project. As a preliminary CSM it is unknown if the identified pathways are actively present.

5.1 Sources

Based on the desktop review, the following potential contamination sources, and COPC associated with each source were identified as summarised Table 5.1.

Table 5.1 Potential contamination sources

Location	Source	COPC	Potential for contamination
Proposal site	<p><i>Long term agricultural use</i></p> <p>Use of herbicides and pesticides for weed control.</p> <p>Spills/leaks from agricultural equipment and other agricultural chemicals.</p> <p>Potential for various anthropogenic wastes associated with agricultural usage, or due to illegal dumping.</p> <p>Use of fill sourced from unknown locations.</p>	<p>Organochlorine pesticides (OCPs), Organophosphorous pesticides (OPPs), total recoverable hydrocarbon (TRH), benzene, toluene, ethylbenzene, xylene, naphthalene (BTEXN), polycyclic aromatic hydrocarbon (PAH), heavy metals (including lead and arsenic) and asbestos.</p>	<p>Low – Although there is a potential for application of chemicals for agricultural purposes the risk of significant contamination to soils is considered to be low.</p> <p>No Storage of materials, machinery or wastes was observed within the Proposal site.</p>
Boundary between the development footprint and the wool shed located in the central portion of Lot 4 DP800611	<p>Building materials, Spills/leaks from agricultural equipment and other agricultural chemicals.</p>	<p>Asbestos containing materials, lead based paints, heavy metals, PAH, TRH, BTEXN, and polychlorinated biphenyls (PCBs) OCPs, OPPs.</p>	<p>Moderate – There is a potential for contamination in the vicinity of this area which could potentially migrate via surface water runoff towards the Proposal Site footprint.</p>

5.2 Pathways

The primary pathways by which current and future receptors could be exposed to the potential sources of contamination are considered to be:

- Direct contact (including ingestion) with potentially contaminated soil or groundwater.
- Inhalation of potential contaminants in soil, if disturbed (particularly asbestos if present).
- Lateral migration of potential contaminants via surface water run-off to impact surface water (Tilbuster Ponds, Duval Creek).
- Vertical and horizontal migration of potential contaminants within the groundwater (where present).

5.3 Potential receptors

When evaluating potential adverse health/environmental effects from exposure to a contaminated site, all potentially exposed populations should be considered. For the proposal site, the key populations or receptors of interest are considered to include:

Human health receptors

- Current occupants/workers at the proposal site
- Intrusive workers during project construction
- Visitors to the proposal (such as members of the public - trespassers)
- Future workers for the proposal and associated infrastructure (commercial/industrial)
- Current and future occupants of surrounding properties (residents, workers and visitors)
- Recreational users of water bodies traversing the proposal site
- Offsite groundwater usage

Environmental receptors

- Flora and fauna within the proposal site and surrounding land
- Surface water systems throughout the proposal site including Duval Creek and Tilbuster Ponds
- Groundwater beneath the proposal site

Based on the results of the desktop assessment, the overall likelihood for significant chemical contamination to be present at the proposal site is considered to be low, except for areas in the vicinity of the boundary between the development footprint and the existing wool shed and holding pen.

6. Conclusions and recommendations

GHD was engaged by Enerparc to undertake a PSI for the proposal. The purpose of the PSI is to inform the EIS with regard to the potential for contamination issues associated with the proposal and provide recommendations for management and/or remediation measures to be implemented (if required) during construction and operation.

A summary of the findings from the site inspection and desktop review include:

- The proposal site appears to have been primarily used for agricultural use such as grazing from as early as 1943.
- There is no infrastructure located within the development footprint. The wool shed and holding pens located at the centre of Lot 4 DP800611 appear to have been present since at least 1943.
- No significant changes in the land use was noted since 1943.
- A search of the EPA register showed that there are no current contaminated land records/notices or notifications reported on or within one kilometre of the proposal site.

There is the potential for chemical contamination associated with:

- Long term of the proposal site for agricultural use, with potential use of herbicides and pesticides for weed spraying, and/or horticultural activities and spills/leaks from agricultural equipment.
- Potential presence of asbestos containing materials and lead based paints from building materials at the site of the wool shed.
- Various anthropogenic wastes associated with the agricultural land use, or due to illegal dumping or use of fill from unknown sources within the proposal site.

Based on the information contained within this assessment and the limitations outlined in Section 1.5, the overall likelihood for significant chemical contamination to be present at the proposal site is considered to be low except for areas in the vicinity of the existing wool shed and holding pen. These areas are excluded from the proposal development footprint.

Based on the results of this PSI, it is considered that the proposal site is suitable or can be made suitable (after management or remediation) for the proposed development.

Any risks from unidentified contaminated soil can be managed during the works by developing a Contaminated Soil Management Plan (CSMP). The CSMP should include the following:

- Provision for further detailed assessment (if necessary) where specific remediation or management of areas is required. The further assessment should be based on the potential for exposure to workers and to end-users respectively, based on the nature of the proposed construction works, and final design and operation of the proposal.
- Appropriate management controls to minimise the potential for exposure of contamination to workers and/or operations within the proposal site, both during and post construction.
- Description of appropriate methodologies for excavation, validation, management and/or disposal requirements for potentially contaminated materials, if identified by further assessment or encountered during the construction of the proposal.
- Sampling and analysis requirements for assessment of potentially contaminated soils for re-use or for waste classification prior to offsite disposal.
- Contingency plans including unexpected finds protocols for potentially contaminated soils (if encountered) including landfill or anthropogenic waste and potential asbestos containing materials.
- Any future contamination reports should be prepared or reviewed and approved by an appropriately qualified environmental consultant.

7. References

Lotsearch Report - LS057206 EP, 11915 New England Highway, Black Mountain, NSW 2365

NEPC (2013). *National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended by the National Environment Protection (Assessment of Site Contamination) Amendment Measure 2013 (No. 1)*, National Environment Protection Council, May 2013

NGH (2020), Environmental Impact Statement – Tilbuster Solar Farm (October 2020), Project Number: 18-645, Final Version 1.1

NSW EPA *Contaminated Sites: Guidelines on the Duty to Report Contamination under the Contaminated Land Management (CLM) Act 1997*

NSW EPA (2017) *Guidelines for the NSW Site Auditor Scheme (3rd edition)*. NSW EPA 2017

NSW EPA (2020) *Contamination Guidelines - Consultants Reporting on Contaminated Land*. NSW EPA 2020

NSW EPA, Public registers (nsw.gov.au) (accessed 15 May 2024)

NSW EPA (2022) *Sampling Design Part 1 – Application*. NSW EPA 2022

NSW Department of Planning, Housing and Infrastructure, Environmental Planning Instrument (SEPP State Significant Precincts) (accessed 4 June 2024)

NSW Department of Planning, Housing and Infrastructure, Environmental Planning Instrument (Environmental Planning Instrument Land Zoning) (accessed 4 June 2024)

NSW Six Maps (<http://maps.six.nsw.gov.au/>) (accessed 18 June 2024)

WaterNSW All Groundwater Database. www.realtimedata.waternsw.com.au. (Accessed 18 June 2024)

Appendices

Appendix A

Photographic log

Photographic Log



Photo 1 *The proposal site contains areas that are generally cleared, covered with grass and currently used for grazing. Scattered vegetation is also observed across the site. It is flat to gently undulating.*



Photo 2 *The proposal site contains areas that are generally cleared, covered with grass and currently used for grazing. Scattered vegetation is also observed across the site. It is flat to gently undulating.*



Photo 3 *Some areas of the proposal site are covered with taller grass.*



Photo 4 *Duval Creek is located in the western portion of the proposal site and traverses the site from north to south.*



Photo 5 Several farm dams are located across the proposal site.



Photo 6 Scattered vegetation is observed across the site. The western and southern portions of the site have more vegetation.



Photo 7 The wool shed is located in the central portion of Lot 4 DP800611. Several aboveground storage tanks and farm equipment were observed in this area. Some flaking paints were also observed in the woolshed. This area is excluded from the development footprint.



Photo 8 A holding pen is located adjacent south of the wool shed.

Appendix A

Lotsearch report - LS057206 EP, 11915

**New England Highway, Black Mountain,
NSW 2365**



LOTSEARCH

LOTSEARCH ENVIRO PROFESSIONAL

Date: 05 Jun 2024 16:24:32

Reference: LS057206 EP

Address: 11915 New England Highway, Black Mountain, NSW 2365

Disclaimer:

The purpose of this report is to provide an overview of some of the site history, environmental risk and planning information available, affecting an individual address or geographical area in which the property is located. It is not a substitute for an on-site inspection or review of other available reports and records. It is not intended to be, and should not be taken to be, a rating or assessment of the desirability or market value of the property or its features. You should obtain independent advice before you make any decision based on the information within the report. The detailed terms applicable to use of this report are set out at the end of this report.

Dataset Listing

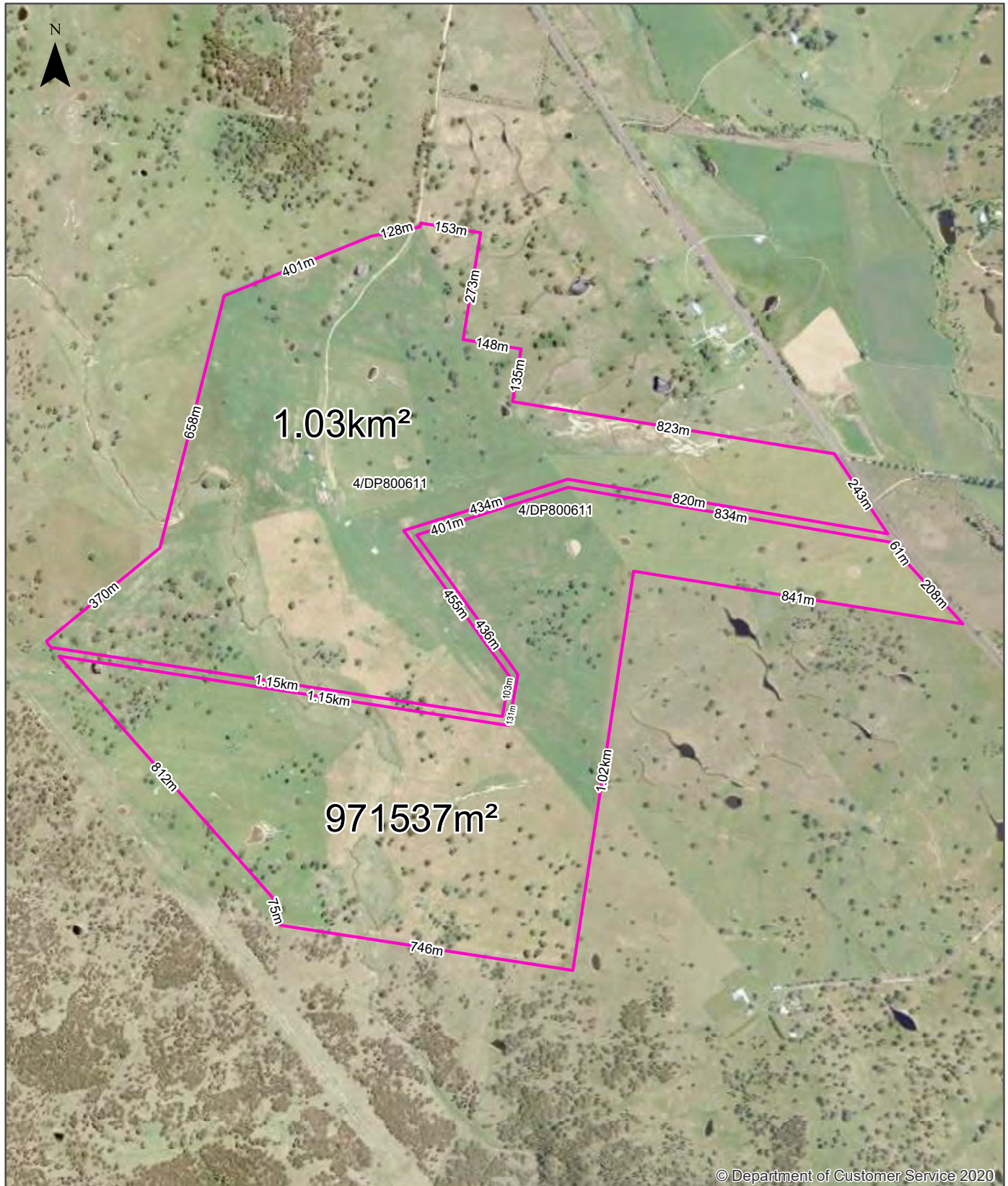
Datasets contained within this report, detailing their source and data currency:

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features On-site	No. Features within 100m	No. Features within Buffer
Cadastre Boundaries	NSW Department of Customer Service - Spatial Services	17/04/2024	17/04/2024	Quarterly	-	-	-	-
Topographic Data	NSW Department of Customer Service - Spatial Services	21/05/2024	21/05/2024	Annually	-	-	-	-
List of NSW contaminated sites notified to EPA	Environment Protection Authority NSW	15/05/2024	10/05/2024	Monthly	1000m	0	0	0
Contaminated Land Records of Notice	Environment Protection Authority NSW	15/05/2024	15/05/2024	Monthly	1000m	0	0	0
Former Gasworks	Environment Protection Authority NSW	28/04/2024	14/07/2021	Quarterly	1000m	0	0	0
Notices under the POEO Act 1997	Environment Protection Authority NSW	15/05/2024	15/05/2024	Monthly	1000m	0	0	0
National Waste Management Facilities Database	Geoscience Australia	26/05/2022	07/03/2017	Annually	1000m	0	0	0
National Liquid Fuel Facilities	Geoscience Australia	20/09/2023	07/09/2020	Annually	1000m	0	0	0
EPA PFAS Investigation Program	Environment Protection Authority NSW	15/05/2024	21/11/2023	Monthly	2000m	0	0	0
Defence PFAS Investigation & Management Program - Investigation Sites	Australian Department of Defence	16/05/2024	29/02/2024	Monthly	2000m	0	0	0
Defence PFAS Investigation & Management Program - Management Sites	Australian Department of Defence	16/05/2024	29/02/2024	Monthly	2000m	0	0	0
Airservices Australia National PFAS Management Program	Airservices Australia	16/05/2024	16/05/2024	Monthly	2000m	0	0	0
Defence Controlled Areas	Australian Department of Defence	15/04/2024	15/04/2024	Quarterly	2000m	0	0	0
Defence 3 Year Regional Contamination Investigation Program	Australian Department of Defence	30/04/2024	02/09/2022	Quarterly	2000m	0	0	0
National Unexploded Ordnance (UXO)	Australian Department of Defence	15/04/2024	15/04/2024	Quarterly	2000m	0	0	0
EPA Other Sites with Contamination Issues	Environment Protection Authority NSW	13/11/2023	15/12/2022	Annually	1000m	0	0	0
Licensed Activities under the POEO Act 1997	Environment Protection Authority NSW	15/05/2024	15/05/2024	Monthly	1000m	0	0	0
Delicensed POEO Activities still regulated by the EPA	Environment Protection Authority NSW	15/05/2024	15/05/2024	Monthly	1000m	0	0	0
Former POEO Licensed Activities now revoked or surrendered	Environment Protection Authority NSW	15/05/2024	15/05/2024	Monthly	1000m	3	3	3
UBD Business Directories (Premise & Intersection Matches)	Hardie Grant			Not required	150m	0	0	0
UBD Business Directories (Road & Area Matches)	Hardie Grant			Not required	150m	-	0	0
UBD Business Directory Dry Cleaners & Motor Garages/Service Stations (Premise & Intersection Matches)	Hardie Grant			Not required	500m	0	0	0
UBD Business Directory Dry Cleaners & Motor Garages/Service Stations (Road & Area Matches)	Hardie Grant			Not required	500m	-	0	0
Points of Interest	NSW Department of Customer Service - Spatial Services	16/04/2024	16/04/2024	Quarterly	1000m	0	0	5
Tanks (Areas)	NSW Department of Customer Service - Spatial Services	16/04/2024	16/04/2024	Quarterly	1000m	0	0	0
Tanks (Points)	NSW Department of Customer Service - Spatial Services	16/04/2024	16/04/2024	Quarterly	1000m	0	0	0
Major Easements	NSW Department of Customer Service - Spatial Services	06/05/2024	06/05/2024	Quarterly	1000m	0	2	3
State Forest	Forestry Corporation of NSW	12/12/2023	11/12/2023	Annually	1000m	0	0	0
Hydrogeology Map of Australia	Geoscience Australia	17/04/2024	19/08/2019	Annually	1000m	1	1	1

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features On-site	No. Features within 100m	No. Features within Buffer
Temporary Water Restriction (Botany Sands Groundwater Source) Order 2018	NSW Department of Climate Change, Energy, the Environment and Water	28/05/2024	23/02/2018	Quarterly	1000m	0	0	0
National Groundwater Information System (NGIS) Boreholes	Bureau of Meteorology; Water NSW	28/05/2024	13/07/2022	Annually	2000m	1	1	3
NSW Seamless Geology Single Layer: Rock Units	NSW Department of Regional NSW	06/12/2023	31/05/2023	Annually	1000m	2	2	3
NSW Seamless Geology Single Layer: Trendlines	NSW Department of Regional NSW	06/12/2023	31/05/2023	Annually	1000m	1	1	4
NSW Seamless Geology Single Layer: Geological Boundaries and Faults	NSW Department of Regional NSW	06/12/2023	31/05/2023	Annually	1000m	2	2	3
Naturally Occurring Asbestos Potential	NSW Department of Regional NSW	26/04/2024	14/03/2024	Annually	1000m	0	0	0
Atlas of Australian Soils	Australian Bureau of Agriculture and Resource Economics and Sciences (ABARES)	12/01/2024	17/02/2011	Annually	1000m	1	1	2
Environmental Planning Instrument Acid Sulfate Soils	NSW Department of Planning, Housing and Infrastructure	04/06/2024	03/05/2024	Monthly	500m	0	-	-
Atlas of Australian Acid Sulfate Soils	CSIRO	12/01/2024	21/02/2013	Annually	1000m	1	1	1
Dryland Salinity - National Assessment	Australian Bureau of Agricultural and Resource Economics and Sciences	03/06/2024	24/05/2024	Annually	1000m	0	0	0
Mining Subsidence Districts	NSW Department of Customer Service	03/05/2024	03/05/2024	Quarterly	1000m	0	0	0
Current Mining Titles	NSW Department of Regional NSW	17/05/2024	17/05/2024	Monthly	1000m	0	0	0
Mining Title Applications	NSW Department of Regional NSW	17/05/2024	17/05/2024	Monthly	1000m	0	0	0
Historic Mining Titles	NSW Department of Regional NSW	17/05/2024	17/05/2024	Monthly	1000m	8	9	9
Environmental Planning Instrument SEPP State Significant Precincts	NSW Department of Planning, Housing and Infrastructure	04/06/2024	08/09/2023	Monthly	1000m	0	0	0
Environmental Planning Instrument Land Zoning	NSW Department of Planning, Housing and Infrastructure	04/06/2024	10/05/2024	Monthly	1000m	1	1	2
Commonwealth Heritage List	Australian Department of Climate Change, Energy, the Environment and Water	20/10/2023	13/04/2022	Annually	1000m	0	0	0
National Heritage List	Australian Department of Climate Change, Energy, the Environment and Water	20/10/2023	13/04/2022	Annually	1000m	0	0	0
State Heritage Register - Curtilages	NSW Department of Planning, Industry and Environment	26/04/2024	08/03/2024	Quarterly	1000m	0	0	0
Environmental Planning Instrument Local Heritage	NSW Department of Planning, Housing and Infrastructure	04/06/2024	10/05/2024	Monthly	1000m	0	0	0
Bush Fire Prone Land	NSW Rural Fire Service	16/05/2024	12/03/2024	Monthly	1000m	0	1	2
NSW Native Vegetation Type Map	NSW Department of Climate Change, Energy, the Environment and Water	26/05/2023	12/12/2022	Quarterly	1000m	5	5	10
Ramsar Wetlands of Australia	Australian Department of Climate Change, Energy, the Environment and Water	16/05/2024	11/04/2024	Annually	1000m	0	0	0
Collaborative Australian Protected Areas Database (CAPAD) 2022 - Terrestrial	Australian Department of Climate Change, Energy, The Environment and Water	04/03/2024	30/06/2022	Annually	1000m	0	0	1
Collaborative Australian Protected Areas Database (CAPAD) 2022 - Marine	Australian Department of Climate Change, Energy, The Environment and Water	04/03/2024	30/06/2022	Annually	1000m	0	0	0
Groundwater Dependent Ecosystems	Bureau of Meteorology	28/10/2022	26/10/2022	Annually	1000m	1	1	3
Inflow Dependent Ecosystems Likelihood	Bureau of Meteorology	28/10/2022	26/10/2022	Annually	1000m	1	2	6
NSW BioNet Species Sightings	NSW Department of Climate Change, Energy, the Environment and Water	29/11/2023	29/11/2023	Weekly	10000m	-	-	-

Site Diagram

11915 New England Highway, Black Mountain, NSW 2365



© Department of Customer Service 2020

Legend Site Boundary Internal Parcel Boundaries	Total Area: 2.01km ² Total Perimeter: 13.04km	Scale:
	Disclaimers: Measurements are approximate only and may have been simplified or smaller lengths removed for readability. Parcels that make up a small percentage of the total site area have not been labelled for increased legibility.	Data Sources: Aerial Imagery: © NSW Department of Finance, Services & Innovation
		Date: 05 June 2024

Contaminated Land

11915 New England Highway, Black Mountain, NSW 2365

List of NSW contaminated sites notified to EPA

Records from the NSW EPA Contaminated Land list within the dataset buffer:

Map Id	Site	Address	Suburb	Activity	Management Class	Status	Location Confidence	Dist	Direction
N/A	No records in buffer								

The values within the EPA site management class in the table above, are given more detailed explanations in the table below:

EPA site management class	Explanation
Contamination being managed via the planning process (EP&A Act)	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation. The contamination of this site is managed by the consent authority under the Environmental Planning and Assessment Act 1979 (EP&A Act) planning approval process, with EPA involvement as necessary to ensure significant contamination is adequately addressed. The consent authority is typically a local council or the Department of Planning and Environment.
Contamination currently regulated under CLM Act	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation under the Contaminated Land Management Act 1997 (CLM Act). Management of the contamination is regulated by the EPA under the CLM Act. Regulatory notices are available on the EPA's Contaminated Land Public Record of Notices.
Contamination currently regulated under POEO Act	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation. Management of the contamination is regulated under the Protection of the Environment Operations Act 1997 (POEO Act). The EPA's regulatory actions under the POEO Act are available on the POEO public register.
Contamination formerly regulated under the CLM Act	The EPA has determined that the contamination is no longer significant enough to warrant regulation under the Contaminated Land Management Act 1997 (CLM Act). The contamination was addressed under the CLM Act.
Contamination formerly regulated under the POEO Act	The EPA has determined that the contamination is no longer significant enough to warrant regulation. The contamination was addressed under the Protection of the Environment Operations Act 1997 (POEO Act).
Contamination was addressed via the planning process (EP&A Act)	The EPA has determined that the contamination is no longer significant enough to warrant regulation. The contamination was addressed by the appropriate consent authority via the planning process under the Environmental Planning and Assessment Act 1979 (EP&A Act).
Ongoing maintenance required to manage residual contamination (CLM Act)	The EPA has determined that ongoing maintenance, under the Contaminated Land Management Act 1997 (CLM Act), is required to manage the residual contamination. Regulatory notices under the CLM Act are available on the EPA's Contaminated Land Public Record of Notices.
Regulation being finalised	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation under the Contaminated Land Management Act 1997. A regulatory approach is being finalised.
Regulation under the CLM Act not required	The EPA has completed an assessment of the contamination and decided that regulation under the Contaminated Land Management Act 1997 is not required.
Under assessment	The contamination is being assessed by the EPA to determine whether regulation is required. The EPA may require further information to complete the assessment. For example, the completion of management actions regulated under the planning process or Protection of the Environment Operations Act 1997. Alternatively, the EPA may require information via a notice issued under s77 of the Contaminated Land Management Act 1997 or issue a Preliminary Investigation Order.

NSW EPA Contaminated Land List Data Source: Environment Protection Authority
 © State of New South Wales through the Environment Protection Authority

Contaminated Land

11915 New England Highway, Black Mountain, NSW 2365

Contaminated Land: Records of Notice

Record of Notices within the dataset buffer:

Map Id	Name	Address	Suburb	Notices	Area No	Location Confidence	Distance	Direction
N/A	No records in buffer							

Contaminated Land Records of Notice Data Source: Environment Protection Authority
© State of New South Wales through the Environment Protection Authority
Terms of use and disclaimer for Contaminated Land: Record of Notices, please visit
<http://www.epa.nsw.gov.au/clm/clmdisclaimer.htm>

Former Gasworks

Former Gasworks within the dataset buffer:

Map Id	Location	Council	Further Info	Location Confidence	Distance	Direction
N/A	No records in buffer					

Former Gasworks Data Source: Environment Protection Authority
© State of New South Wales through the Environment Protection Authority

Contaminated Land

11915 New England Highway, Black Mountain, NSW 2365

EPA Notices

Penalty Notices, s.91 & s.92 Clean up Notices and s.96 Prevention Notices within the dataset buffer:

Map ID	Number	Type	Name	Address	Status	Issued Date	Act	Offence	Offence Date	Loc Conf	Dist	Dir
N/A												

NSW EPA Notice Data Source: Environment Protection Authority
© State of New South Wales through the Environment Protection Authority

Waste Management & Liquid Fuel Facilities

11915 New England Highway, Black Mountain, NSW 2365

National Waste Management Site Database

Sites on the National Waste Management Site Database within the dataset buffer:

Site Id	Owner	Name	Address	Suburb	Class	Landfill	Reprocess	Transfer	Comments	Loc Conf	Dist	Direction
N/A	No records in buffer											

Waste Management Facilities Data Source: Geoscience Australia
Creative Commons 3.0 © Commonwealth of Australia <http://creativecommons.org/licenses/by/3.0/au/deed.en>

National Liquid Fuel Facilities

National Liquid Fuel Facilities within the dataset buffer:

Map Id	Owner	Name	Address	Suburb	Class	Operational Status	Operator	Revision Date	Loc Conf	Dist	Direction
N/A	No records in buffer										

National Liquid Fuel Facilities Data Source: Geoscience Australia
Creative Commons 3.0 © Commonwealth of Australia <http://creativecommons.org/licenses/by/3.0/au/deed.en>

PFAS Investigation & Management Programs

11915 New England Highway, Black Mountain, NSW 2365

EPA PFAS Investigation Program

Sites that are part of the EPA PFAS investigation program, within the dataset buffer:

Map ID	Site	Address	Loc Conf	Dist	Dir
N/A	No records in buffer				

EPA PFAS Investigation Program: Environment Protection Authority
© State of New South Wales through the Environment Protection Authority

Defence PFAS Investigation Program

Sites being investigated by the Department of Defence for PFAS contamination within the dataset buffer:

Map ID	Base Name	Address	Loc Conf	Dist	Dir
N/A	No records in buffer				

Defence PFAS Investigation Program Data Custodian: Department of Defence, Australian Government

Defence PFAS Management Program

Sites being managed by the Department of Defence for PFAS contamination within the dataset buffer:

Map ID	Base Name	Address	Loc Conf	Dist	Dir
N/A	No records in buffer				

Defence PFAS Management Program Data Custodian: Department of Defence, Australian Government

Airservices Australia National PFAS Management Program

Sites being investigated or managed by Airservices Australia for PFAS contamination within the dataset buffer:

Map ID	Site Name	Impacts	Loc Conf	Dist	Dir
N/A	No records in buffer				

Airservices Australia National PFAS Management Program Data Custodian: Airservices Australia

Defence Sites and Unexploded Ordnance

11915 New England Highway, Black Mountain, NSW 2365

Defence Controlled Areas (DCA)

Defence Controlled Areas provided by the Department of Defence within the dataset buffer:

Site ID	Location Name	Loc Conf	Dist	Dir
N/A	No records in buffer			

Defence Controlled Areas, Data Custodian: Department of Defence, Australian Government

Defence 3 Year Regional Contamination Investigation Program (RCIP)

Sites which have been assessed as part of the Defence 3 Year Regional Contamination Investigation Program within the dataset buffer:

Property ID	Base Name	Address	Known Contamination	Loc Conf	Dist	Dir
N/A	No records in buffer					

Defence 3 Year Regional Contamination Investigation Program, Data Custodian: Department of Defence, Australian Government

National Unexploded Ordnance (UXO)

Sites which have been assessed by the Department of Defence for the potential presence of unexploded ordnance within the dataset buffer:

Site ID	Location Name	Category	Area Description	Additional Information	Commonwealth	Loc Conf	Dist	Dir
N/A	No records in buffer							

National Unexploded Ordnance (UXO), Data Custodian: Department of Defence, Australian Government

EPA Other Sites with Contamination Issues

11915 New England Highway, Black Mountain, NSW 2365

EPA Other Sites with Contamination Issues

This dataset contains other sites identified on the EPA website as having contamination issues. This dataset currently includes:

- James Hardie asbestos manufacturing and waste disposal sites
- Radiological investigation sites in Hunter's Hill
- Pasmenco Lead Abatement Strategy Area

Sites within the dataset buffer:

Site Id	Site Name	Site Address	Dataset	Comments	Location Confidence	Distance	Direction
N/A	No records in buffer						

EPA Other Sites with Contamination Issues: Environment Protection Authority
© State of New South Wales through the Environment Protection Authority

EPA Activities

11915 New England Highway, Black Mountain, NSW 2365

Licensed Activities under the POEO Act 1997

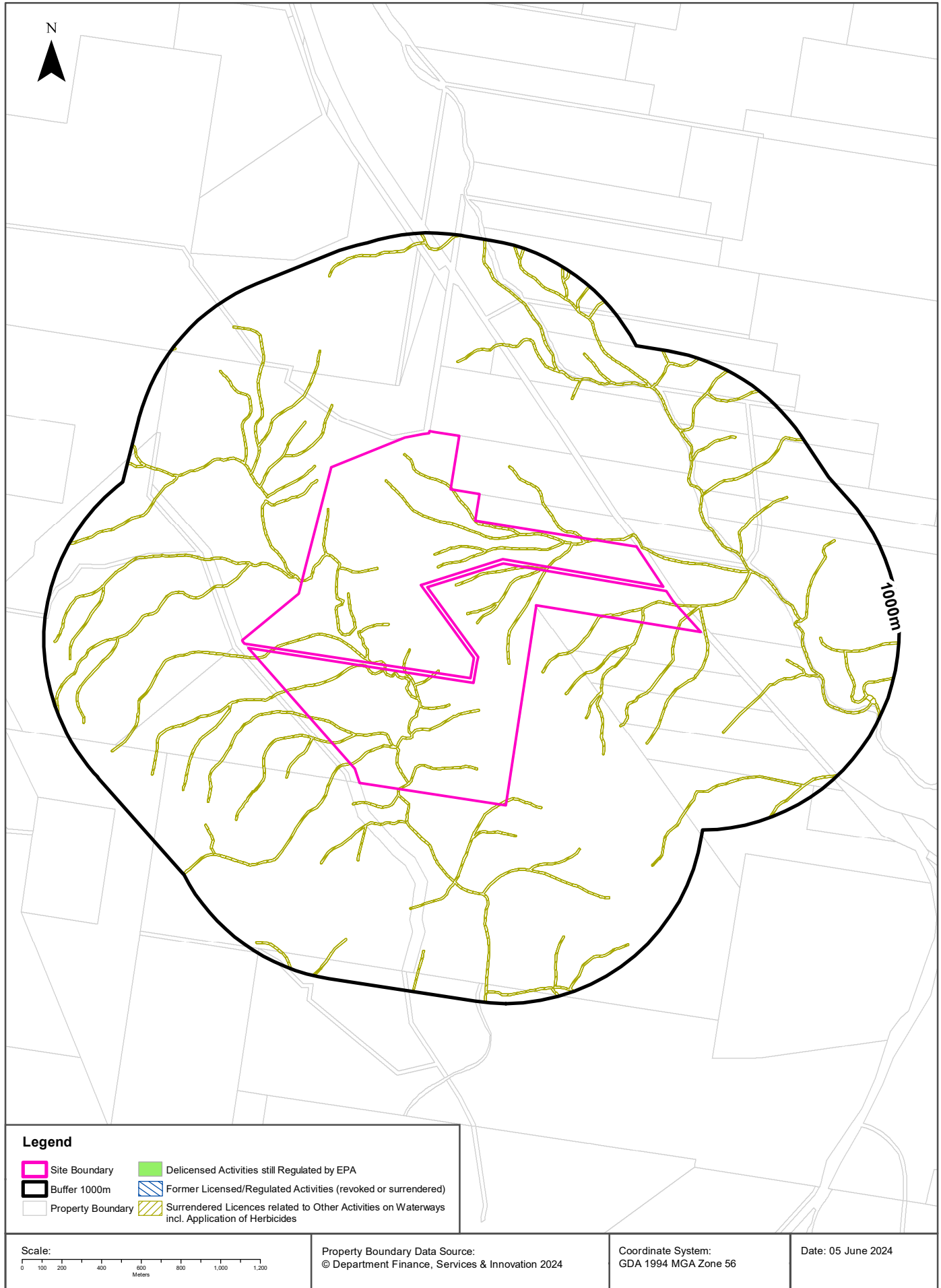
Licensed activities under the Protection of the Environment Operations Act 1997, within the dataset buffer:

EPL	Organisation	Name	Address	Suburb	Activity	Loc Conf	Distance	Direction
N/A	No records in buffer							

POEO Licence Data Source: Environment Protection Authority
© State of New South Wales through the Environment Protection Authority

Delicensed & Former Licensed EPA Activities

11915 New England Highway, Black Mountain, NSW 2365



EPA Activities

11915 New England Highway, Black Mountain, NSW 2365

Delicensed Activities still regulated by the EPA

Delicensed activities still regulated by the EPA, within the dataset buffer:

Licence No	Organisation	Name	Address	Suburb	Activity	Loc Conf	Distance	Direction
N/A	No records in buffer							

Delicensed Activities Data Source: Environment Protection Authority
© State of New South Wales through the Environment Protection Authority

Former Licensed Activities under the POEO Act 1997, now revoked or surrendered

Former Licensed activities under the Protection of the Environment Operations Act 1997, now revoked or surrendered, within the dataset buffer:

Licence No	Organisation	Location	Status	Issued Date	Activity	Loc Conf	Distance	Direction
4653	LUHRMANN ENVIRONMENT MANAGEMENT PTY LTD	WATERWAYS THROUGHOUT NSW	Surrendered	06/09/2000	Other Activities / Non Scheduled Activity - Application of Herbicides	Network of Features	0m	On-site
4838	Robert Orchard	Various Waterways throughout New South Wales - SYDNEY NSW 2000	Surrendered	07/09/2000	Other Activities / Non Scheduled Activity - Application of Herbicides	Network of Features	0m	On-site
6630	SYDNEY WEED & PEST MANAGEMENT PTY LTD	WATERWAYS THROUGHOUT NSW - PROSPECT, NSW, 2148	Surrendered	09/11/2000	Other Activities / Non Scheduled Activity - Application of Herbicides	Network of Features	0m	On-site

Former Licensed Activities Data Source: Environment Protection Authority
© State of New South Wales through the Environment Protection Authority

Historical Business Directories

11915 New England Highway, Black Mountain, NSW 2365

Business Directory Records 1950-1991 Premise or Road Intersection Matches

Potentially contaminative business activities extracted from Universal Business Directories from years 1991, 1982, 1970, 1961 & 1950, mapped to a premise or road intersection within the dataset buffer:

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
N/A	No records in buffer						

Reproduced with permission of UBD and Hardie Grant Media Pty Ltd DD 01/08/2018

Business Directory Records 1950-1991 Road or Area Matches

Potentially contaminative business activities extracted from Universal Business Directories from years 1991, 1982, 1970, 1961 & 1950, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published:

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
N/A	No records in buffer					

Reproduced with permission of UBD and Hardie Grant Media Pty Ltd DD 01/08/2018

Historical Business Directories

11915 New England Highway, Black Mountain, NSW 2365

Dry Cleaners, Motor Garages & Service Stations Premise or Road Intersection Matches

Dry Cleaners, Motor Garages & Service Stations from UBD Business Directories, mapped to a premise or road intersection, within the dataset buffer.

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
N/A	No records in buffer						

Reproduced with permission of UBD and Hardie Grant Media Pty Ltd DD 01/08/2018

Dry Cleaners, Motor Garages & Service Stations Road or Area Matches

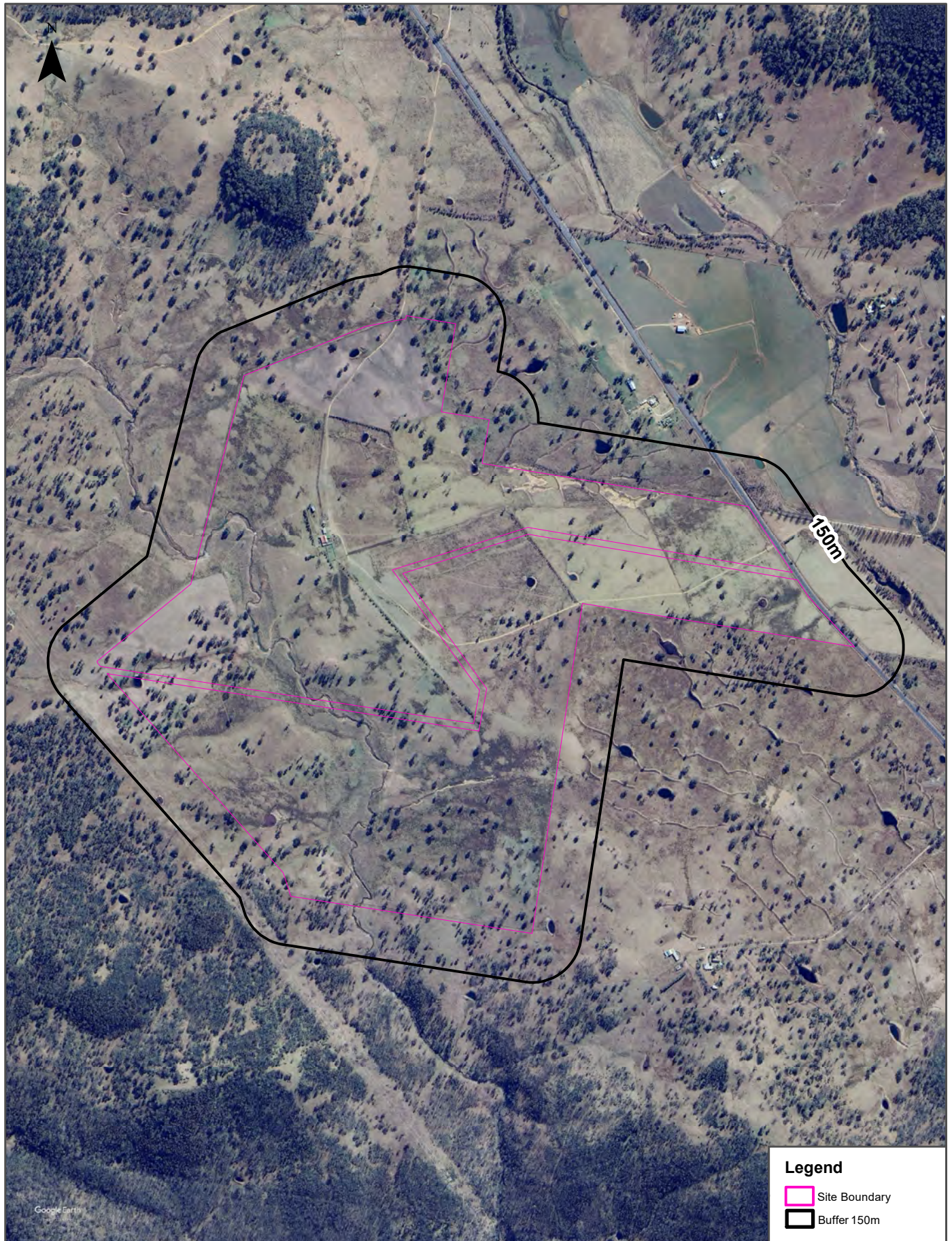
Dry Cleaners, Motor Garages & Service Stations from UBD Business Directories, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published.

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
N/A	No records in buffer					

Reproduced with permission of UBD and Hardie Grant Media Pty Ltd DD 01/08/2018

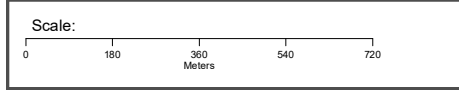
Aerial Imagery 2023

11915 New England Highway, Black Mountain, NSW 2365



Legend

- Site Boundary
- Buffer 150m



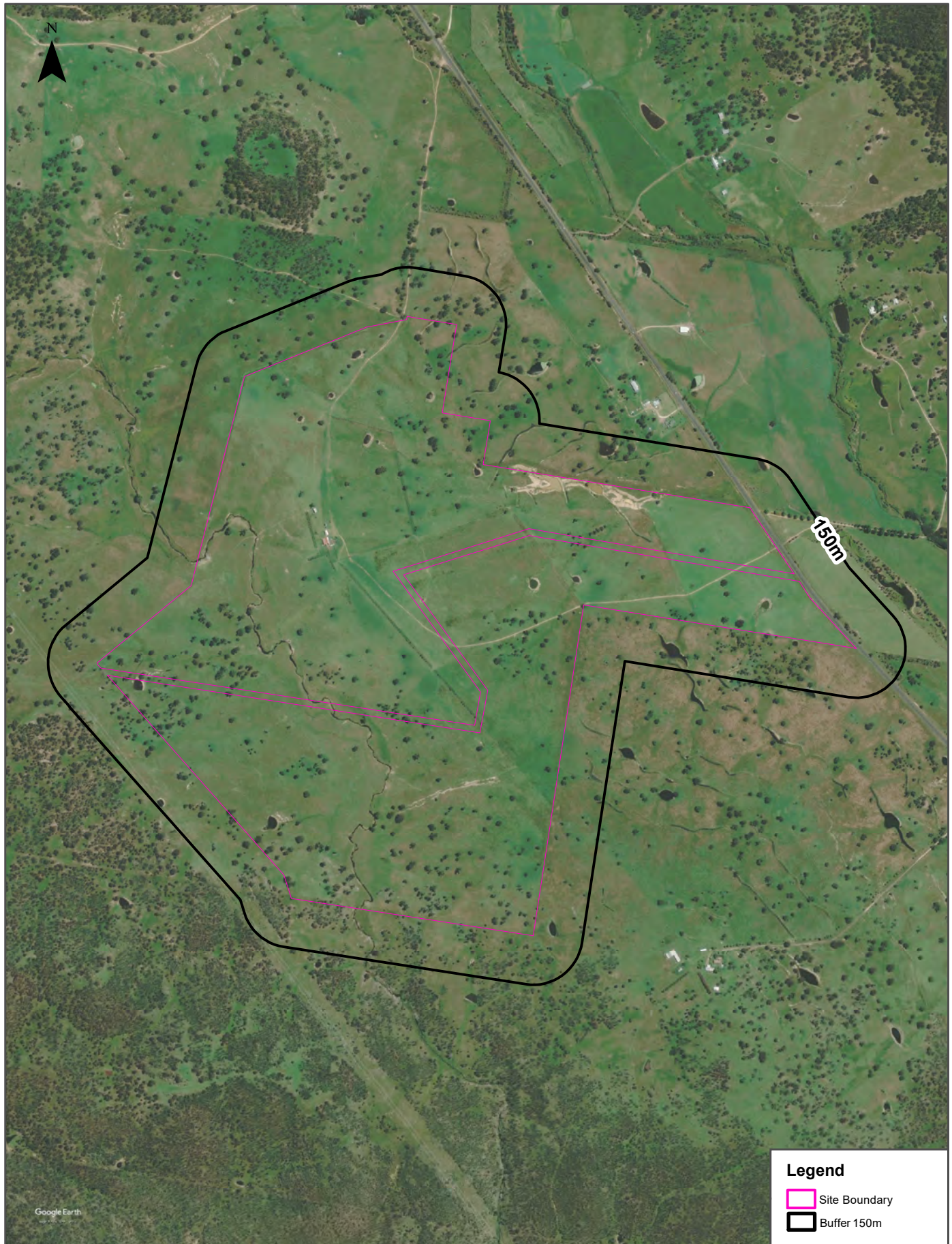
Data Source Aerial Imagery: © 2024 Google Inc, used with permission. Google and the Google logo are registered trademarks of Google Inc.

Coordinate System:
GDA 1994 MGA Zone 56

Date: 06 June 2024

Aerial Imagery 2021

11915 New England Highway, Black Mountain, NSW 2365



Legend

- Site Boundary
- Buffer 150m

Scale:

0 180 360 540 720
Meters

Data Source Aerial Imagery: © 2024 Google Inc, used with permission. Google and the Google logo are registered trademarks of Google Inc.

Coordinate System:
GDA 1994 MGA Zone 56



Date: 06 June 2024

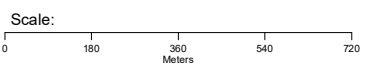
Aerial Imagery 2018

11915 New England Highway, Black Mountain, NSW 2365



Legend

-  Site Boundary
-  Buffer 150m



Data Source Aerial Imagery: © 2024 Google Inc, used with permission. Google and the Google logo are registered trademarks of Google Inc.

Coordinate System:
GDA 1994 MGA Zone 56



Date: 06 June 2024

Aerial Imagery 2014

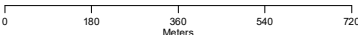
11915 New England Highway, Black Mountain, NSW 2365



Legend

-  Site Boundary
-  Buffer 150m

Scale:



0 180 360 540 720
Meters

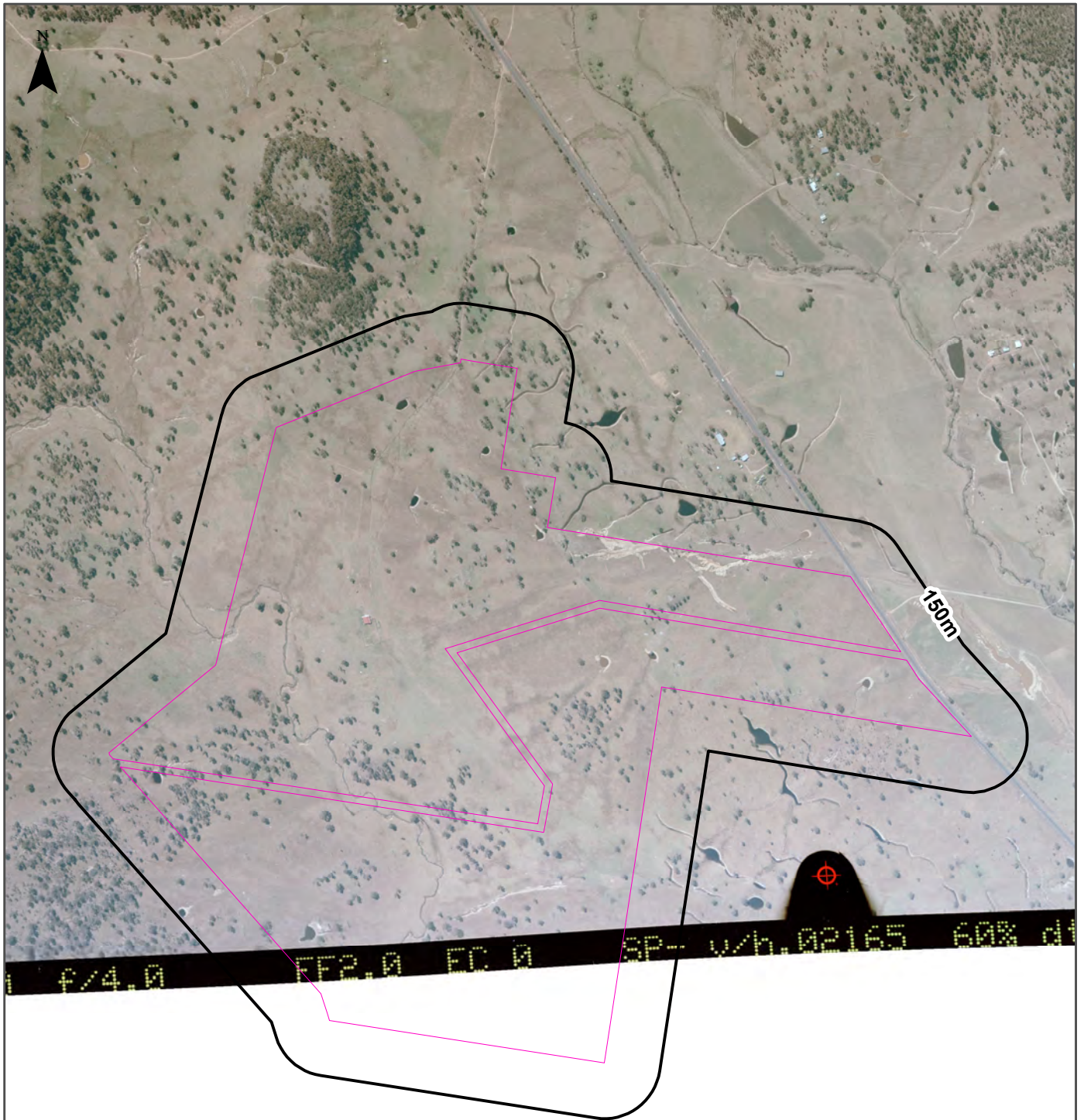
Data Source Aerial Imagery: © 2024 Google Inc, used with permission. Google and the Google logo are registered trademarks of Google Inc.

Coordinate System:
GDA 1994 MGA Zone 56

Date: 06 June 2024



Aerial Imagery 1994

11915 New England Highway, Black Mountain, NSW 2365

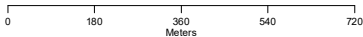


f/4.0 FF2.0 EC.0 SP- v/h.02165 60% d

Legend

-  Site Boundary
-  Buffer 150m

Scale:



Data Source Aerial Imagery:
© NSW Department of Customer Service

Coordinate System:
GDA 1994 MGA Zone 56

Date: 07 June 2024

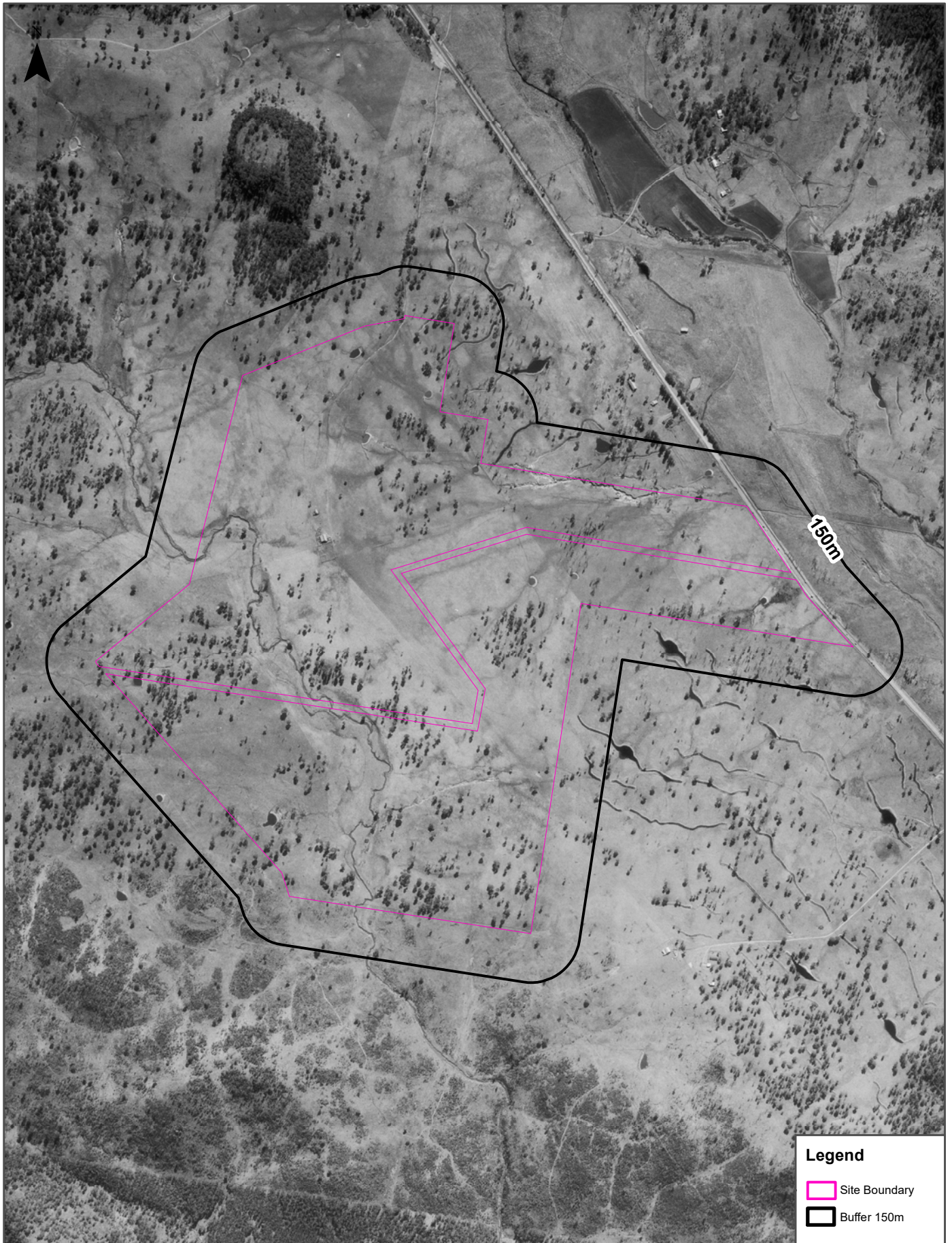
Aerial Imagery 1994

11915 New England Highway, Black Mountain, NSW 2365





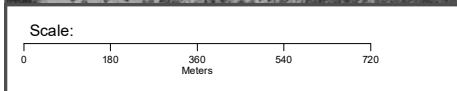
Aerial Imagery 1984

11915 New England Highway, Black Mountain, NSW 2365



Legend

-  Site Boundary
-  Buffer 150m



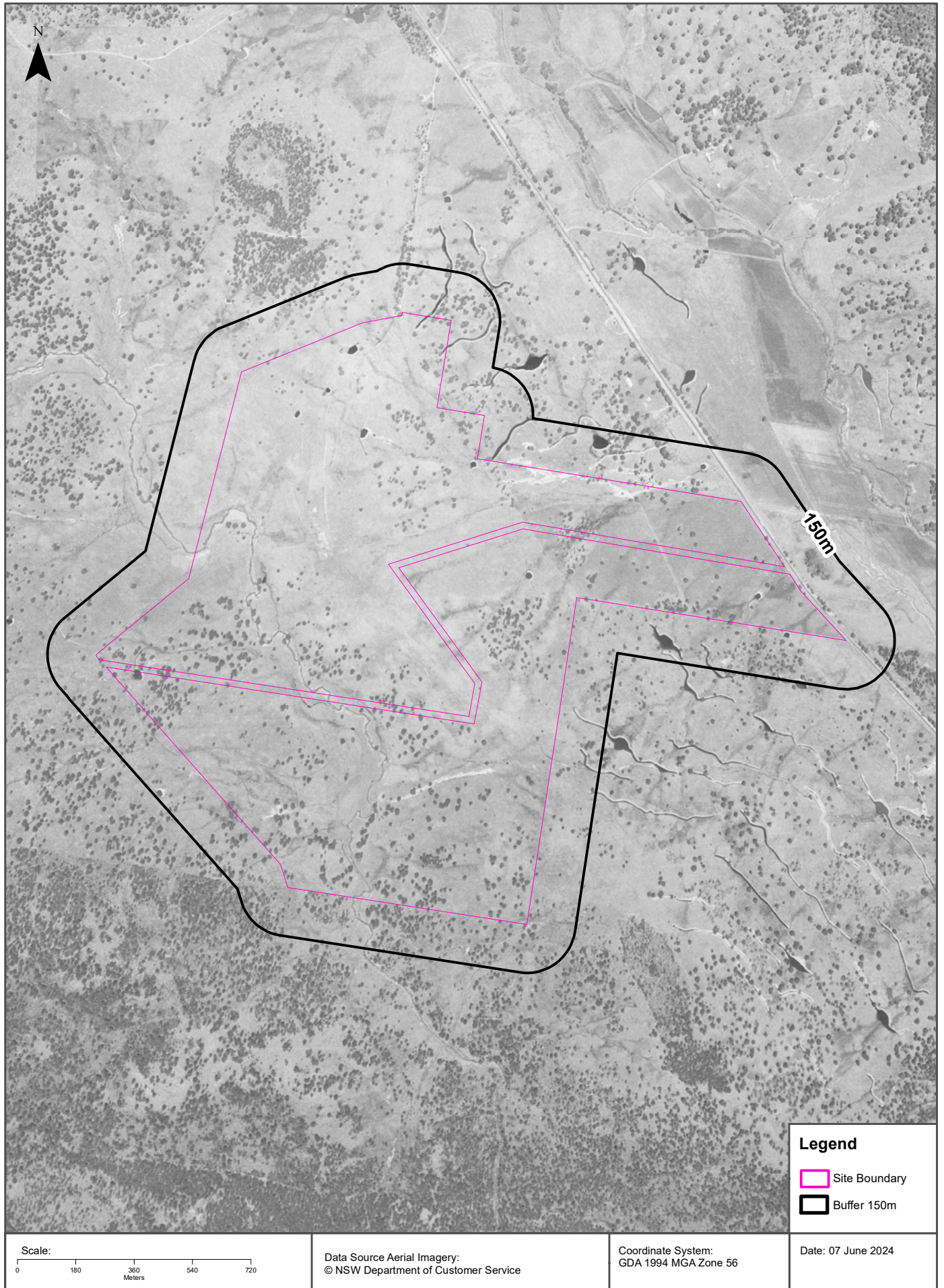
Data Source Aerial Imagery:
© NSW Department of Customer Service

Coordinate System:
GDA 1994 MGA Zone 56

Date: 07 June 2024

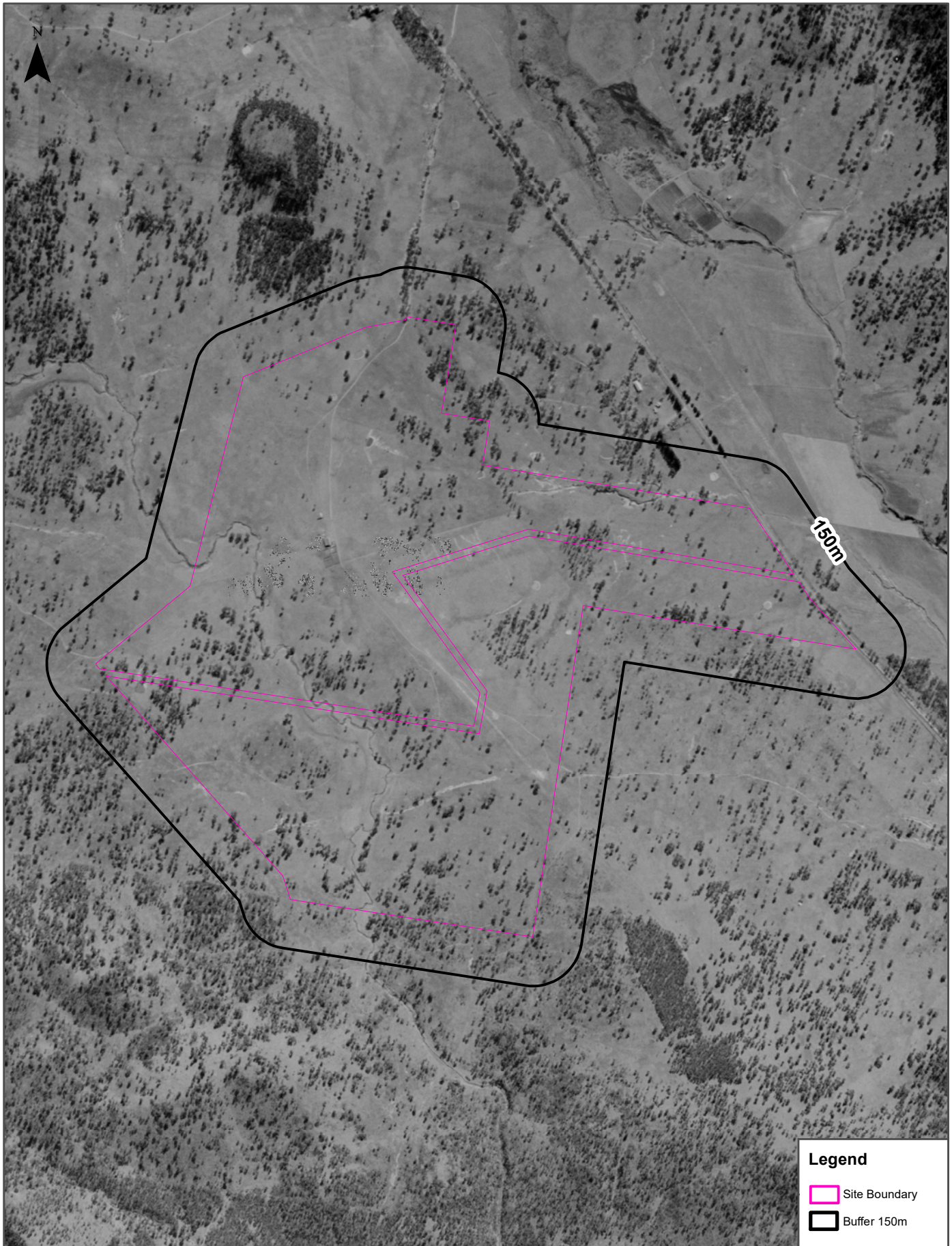
Aerial Imagery 1971

11915 New England Highway, Black Mountain, NSW 2365



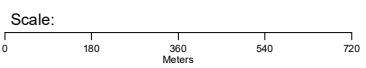
Aerial Imagery 1964

11915 New England Highway, Black Mountain, NSW 2365



150m

- Legend**
- Site Boundary
 - Buffer 150m



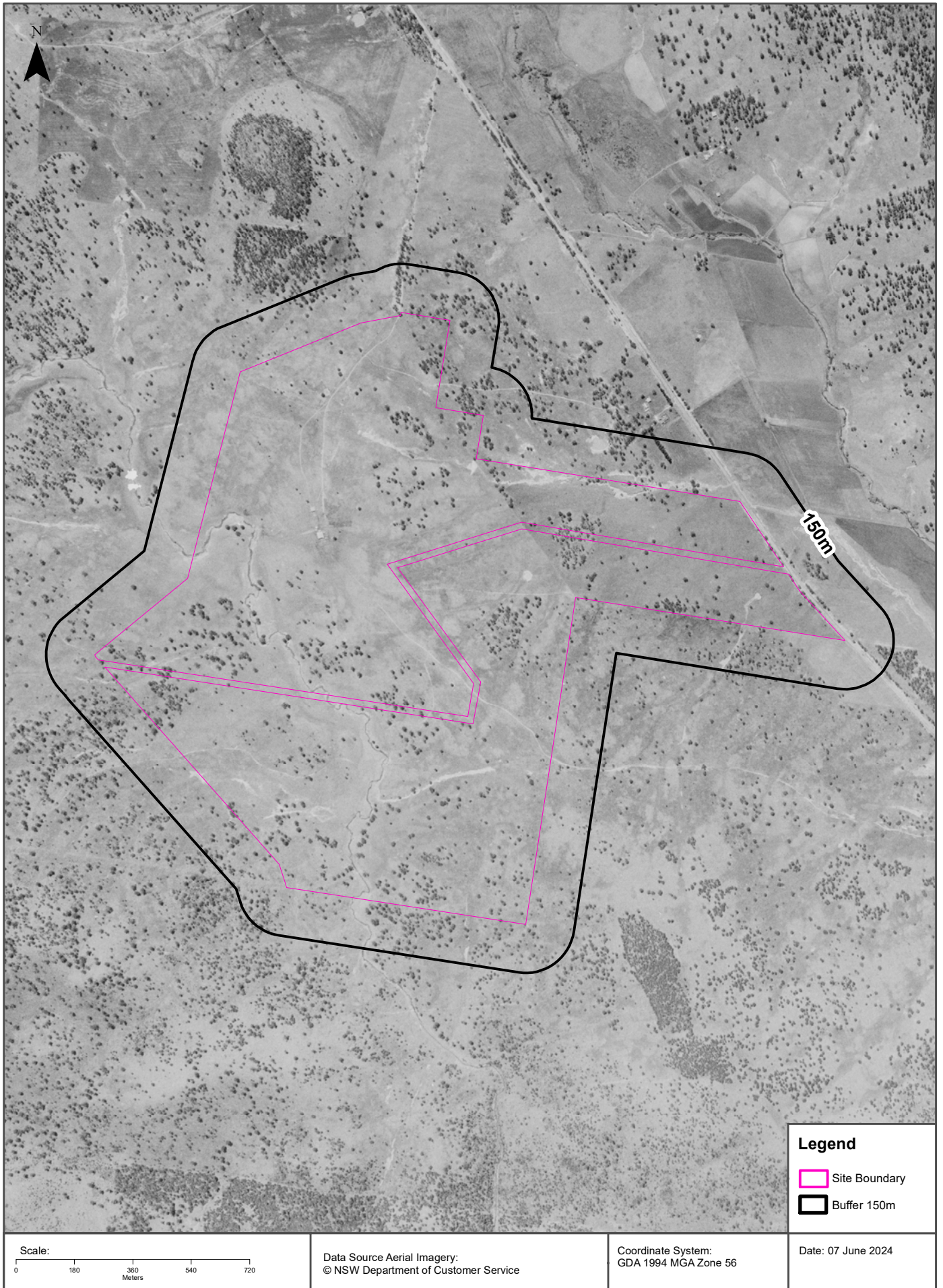
Data Source Aerial Imagery: ©2024 Geoscience Australia

Coordinate System: GDA 1994 MGA Zone 56

Date: 06 June 2024

Aerial Imagery 1956



11915 New England Highway, Black Mountain, NSW 2365

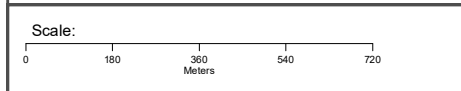


Aerial Imagery 1943

11915 New England Highway, Black Mountain, NSW 2365



Legend	
	Site Boundary
	Buffer 150m



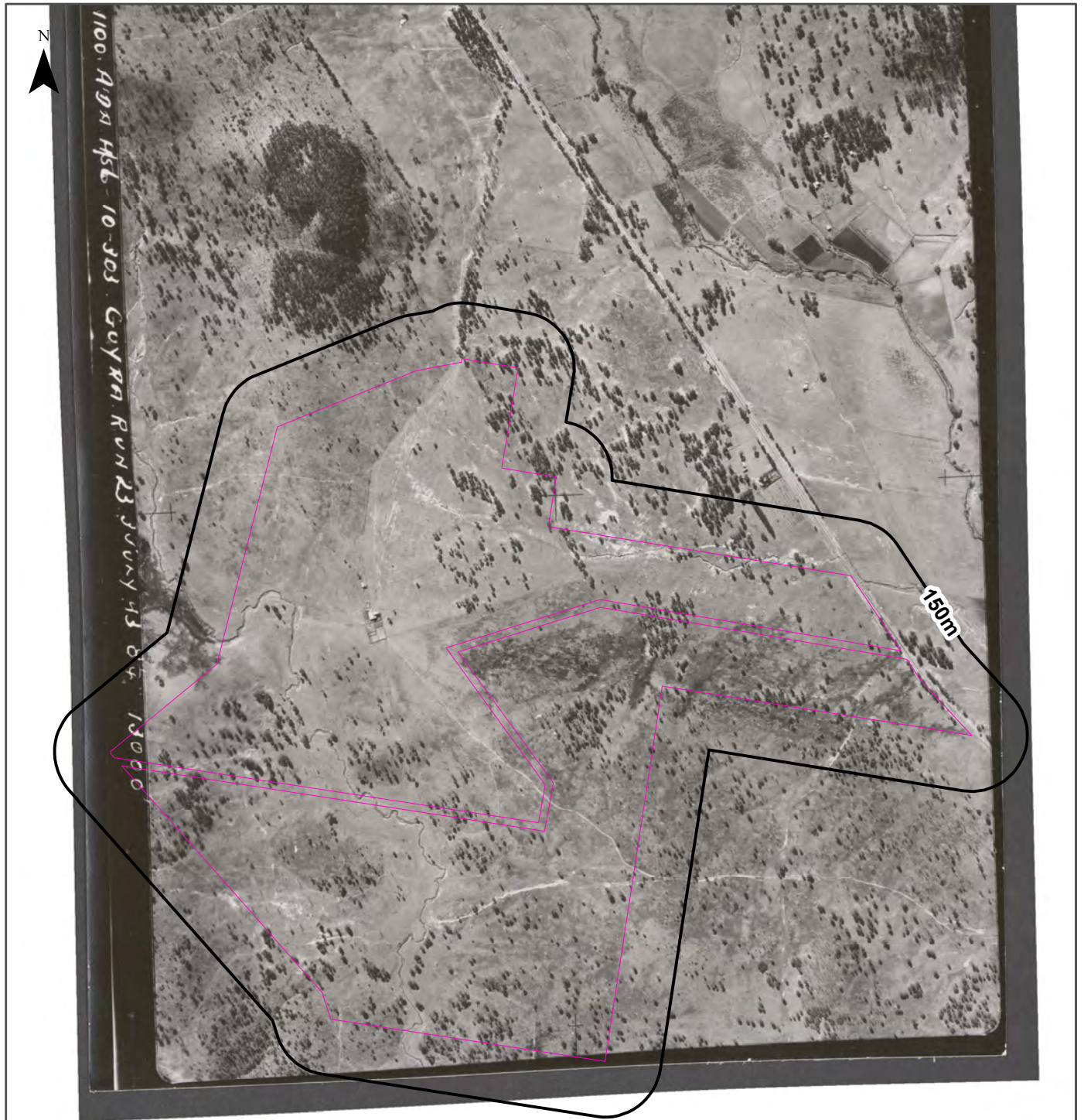
Data Source Aerial Imagery: National Library of Australia

Coordinate System: GDA 1994 MGA Zone 56
--


Date: 11 June 2024

Aerial Imagery 1943

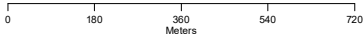
11915 New England Highway, Black Mountain, NSW 2365



Legend

-  Site Boundary
-  Buffer 150m

Scale:



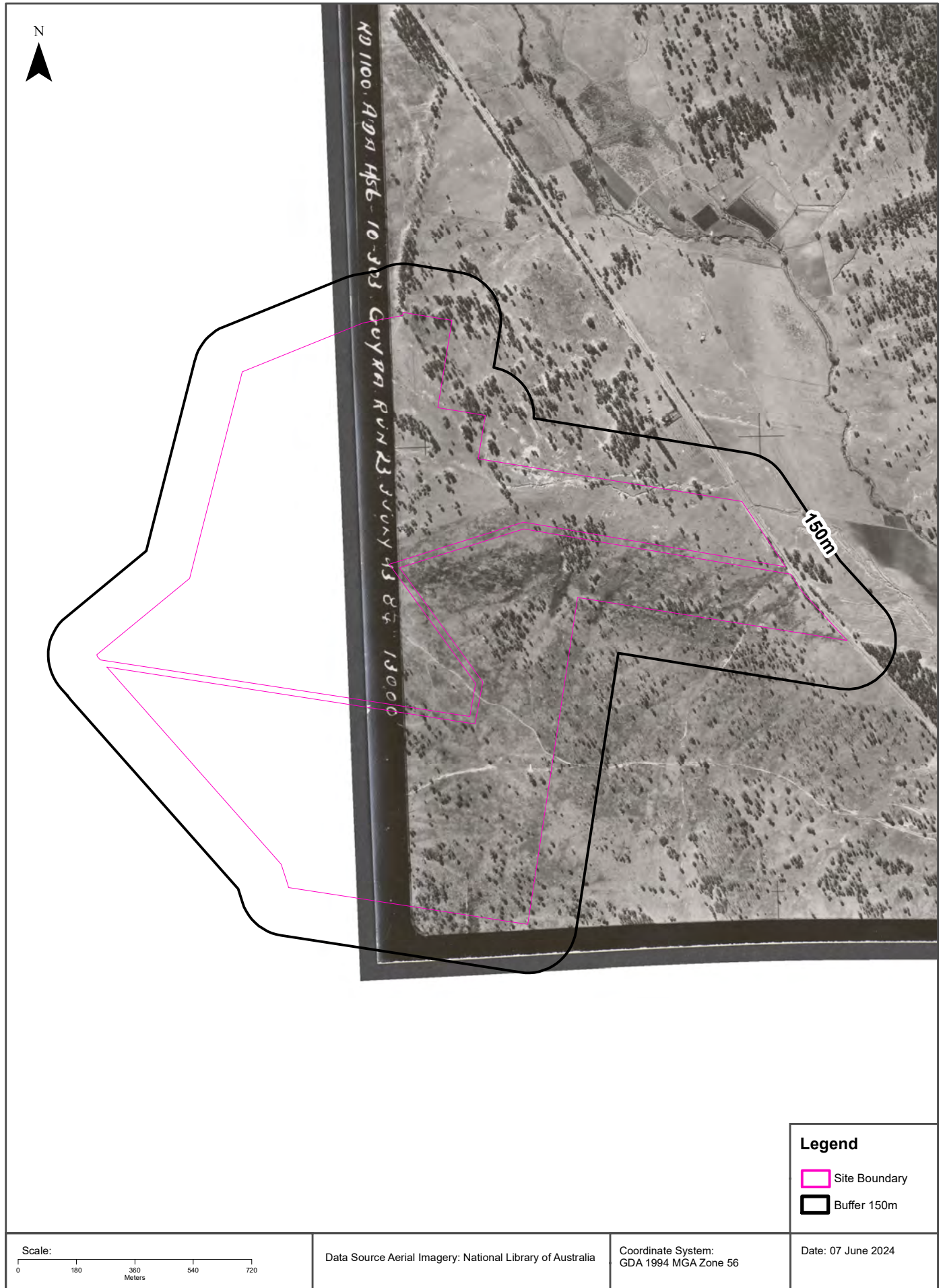
Data Source Aerial Imagery: National Library of Australia

Coordinate System:
GDA 1994 MGA Zone 56

Date: 07 June 2024

Aerial Imagery 1943

11915 New England Highway, Black Mountain, NSW 2365



Aerial Imagery 1943

11915 New England Highway, Black Mountain, NSW 2365



Scale:
0 180 360 540 720
Meters

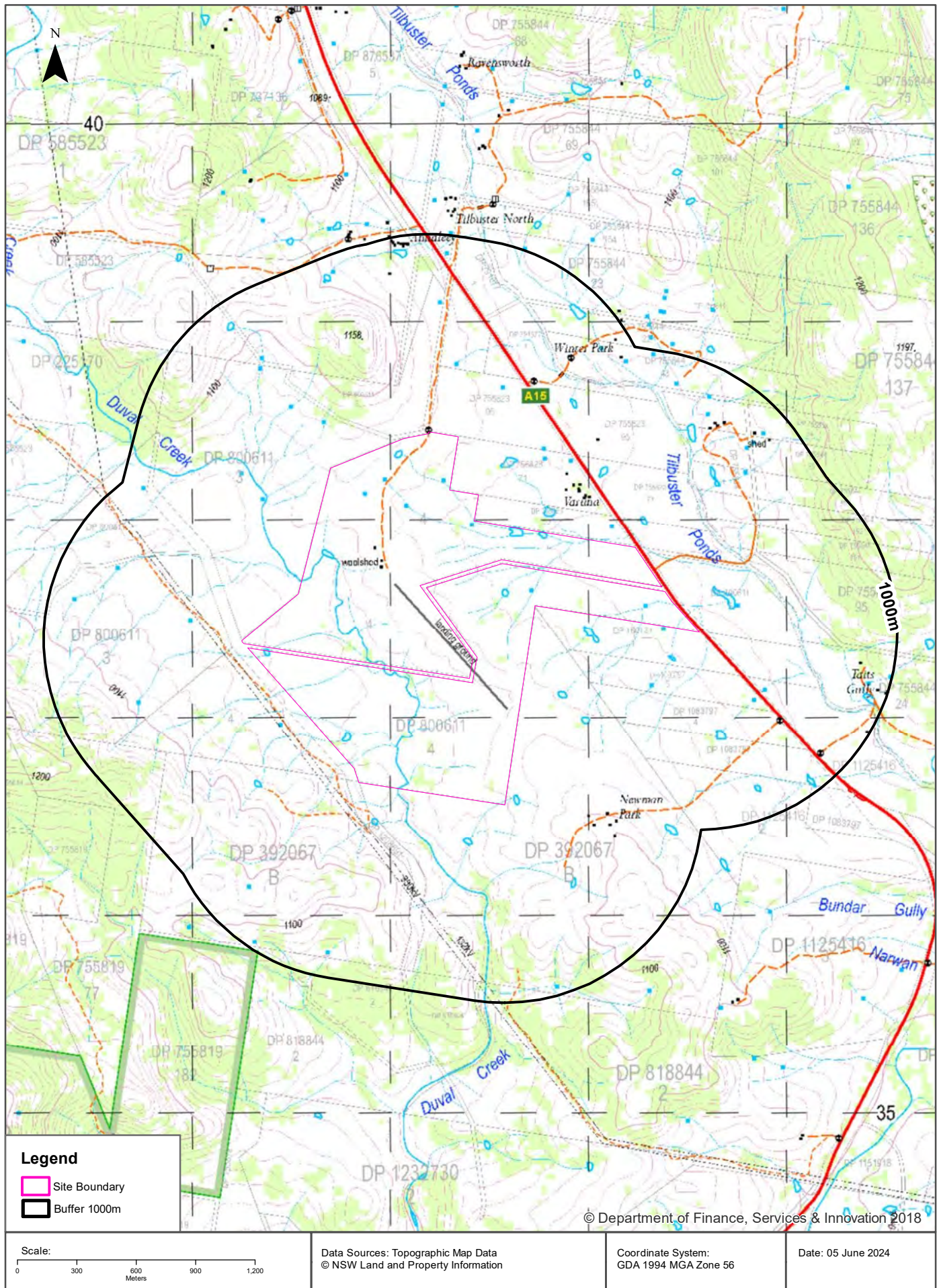
Data Source Aerial Imagery: National Library of Australia

Coordinate System:
GDA 1994 MGA Zone 56

Date: 07 June 2024

Topographic Map 2015

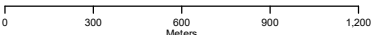
11915 New England Highway, Black Mountain, NSW 2365



Legend

- Site Boundary
- Buffer 1000m

Scale:



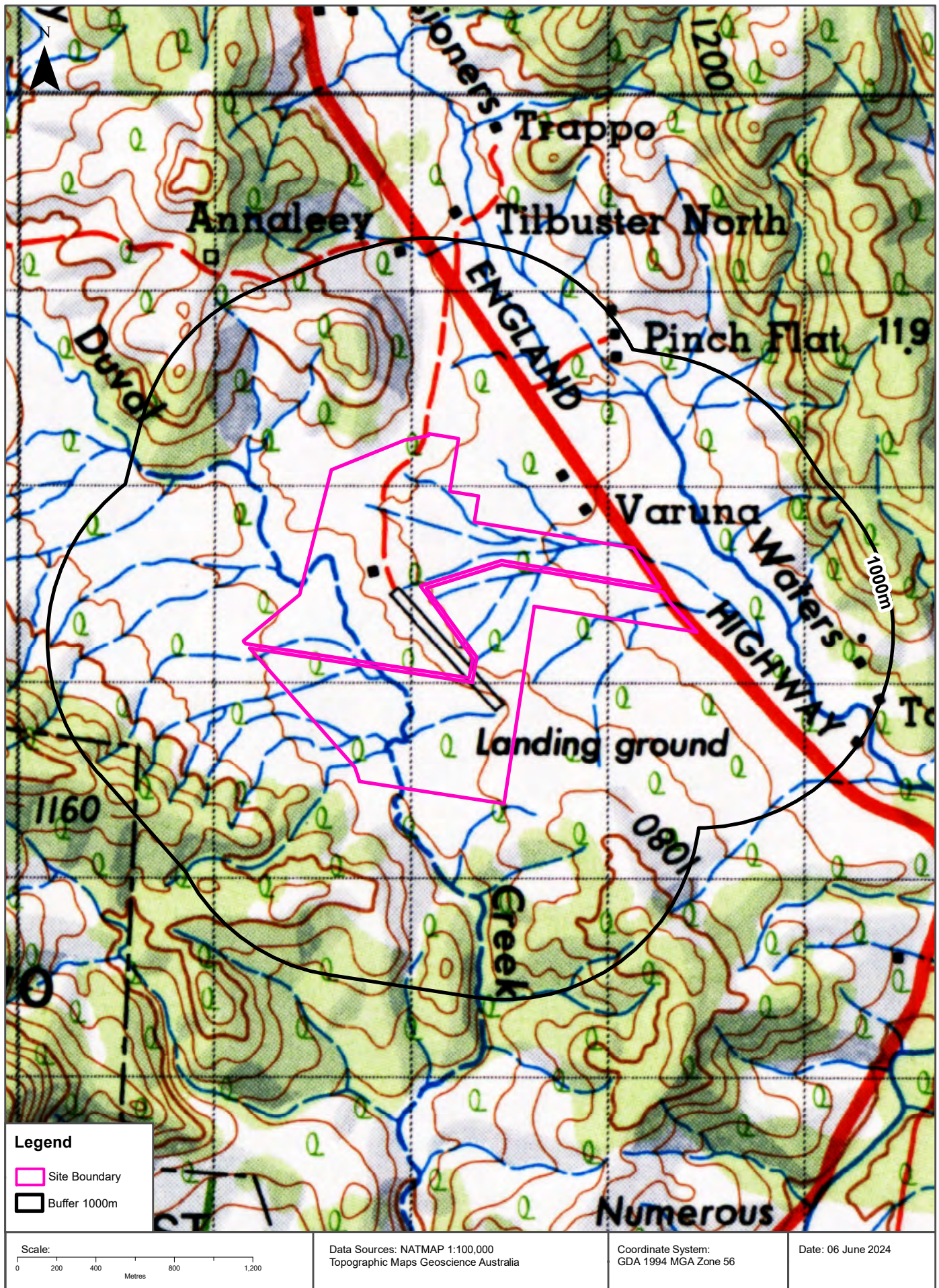
Data Sources: Topographic Map Data
© NSW Land and Property Information

Coordinate System:
GDA 1994 MGA Zone 56

Date: 05 June 2024

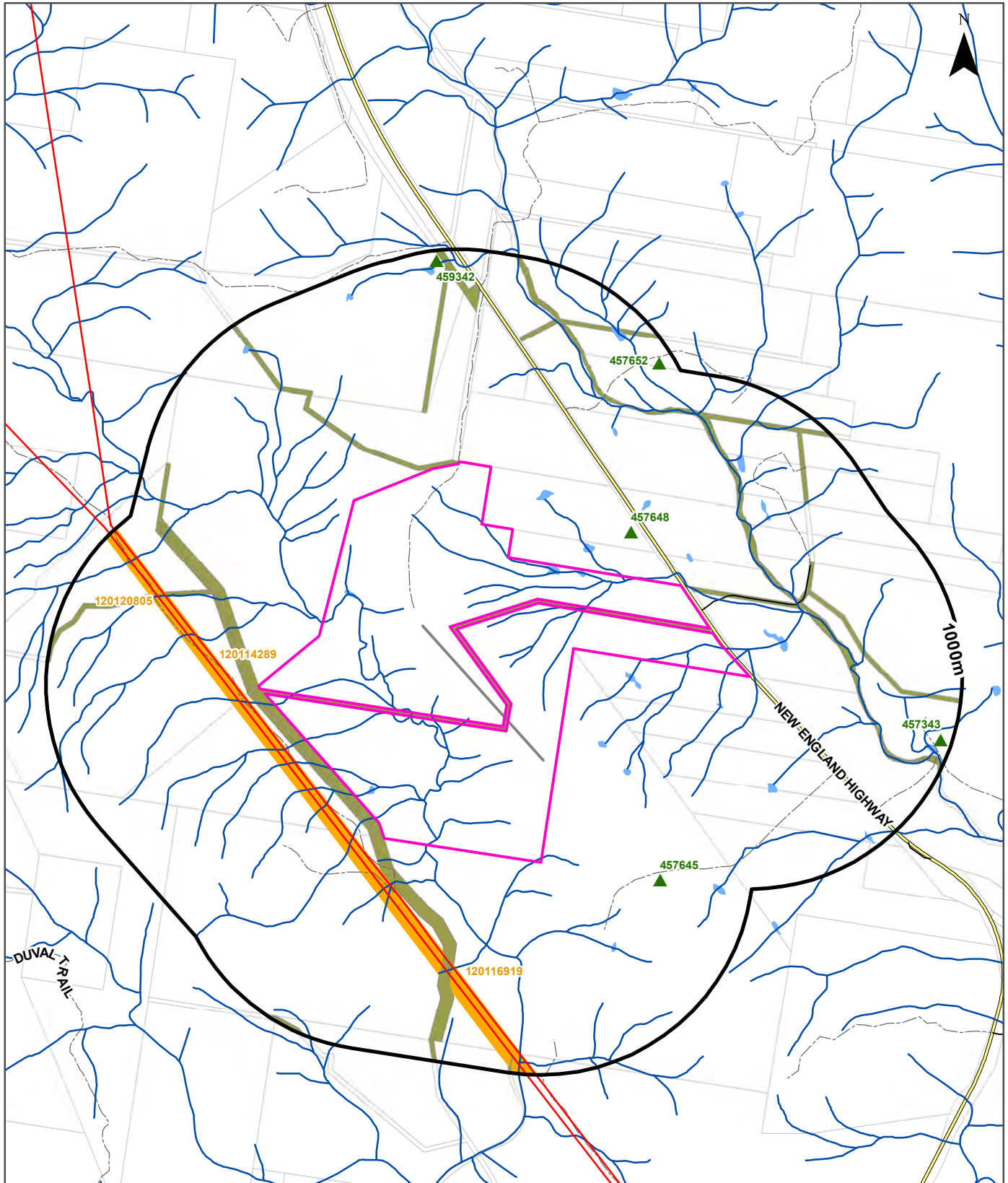
Historical Map 1976

11915 New England Highway, Black Mountain, NSW 2365

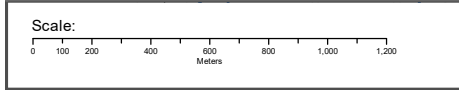


Topographic Features

11915 New England Highway, Black Mountain, NSW 2365



Site Boundary	Easement	Watercourse	Heavy Rail
Buffer 1000m	NPWS Reserve	Pipeline	Light Rail
Property Boundary	State Forest	Major Road	Underground Rail
Place Name	Tank Area	Road	Runway
Point of Interest	Water Area	Pathway/Track/Lane	Major Electricity Transmission Line
Tank Point	Crown Land (data supplied 2014-15)		



Data Sources: Property Boundaries & Topographic Data:
© Department Finance, Services & Innovation 2024

Coordinate System:
GDA 1994 MGA Zone 56

Date: 05 June 2024

Topographic Features

11915 New England Highway, Black Mountain, NSW 2365

Points of Interest

What Points of Interest exist within the dataset buffer?

Map Id	Feature Type	Label	Distance	Direction
457648	Homestead	VARUNA	212m	North East
457645	Homestead	NEWMAN PARK	568m	South East
457652	Homestead	WINTER PARK	929m	North East
457343	Homestead	TAITS GULLY	945m	East
459342	Homestead	ANNALEEY	951m	North

Topographic Data Source: © Land and Property Information (2015)

Creative Commons 3.0 © Commonwealth of Australia <http://creativecommons.org/licenses/by/3.0/au/deed.en>

Topographic Features

11915 New England Highway, Black Mountain, NSW 2365

Tanks (Areas)

What are the Tank Areas located within the dataset buffer?

Note. The large majority of tank features provided by LPI are derived from aerial imagery & are therefore primarily above ground tanks.

Map Id	Tank Type	Status	Name	Feature Currency	Distance	Direction
N/A	No records in buffer					

Tanks (Points)

What are the Tank Points located within the dataset buffer?

Note. The large majority of tank features provided by LPI are derived from aerial imagery & are therefore primarily above ground tanks.

Map Id	Tank Type	Status	Name	Feature Currency	Distance	Direction
N/A	No records in buffer					

Tanks Data Source: © Land and Property Information (2015)

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Major Easements

What Major Easements exist within the dataset buffer?

Note. Easements provided by LPI are not at the detail of local governments. They are limited to major easements such as Right of Carriageway, Electrical Lines (66kVa etc.), Easement to drain water & Significant subterranean pipelines (gas, water etc.).

Map Id	Easement Class	Easement Type	Easement Width	Distance	Direction
120120805	Primary	Undefined		78m	South West
120114289	Primary	Undefined		84m	South West
120116919	Primary	Undefined		543m	South

Easements Data Source: © Land and Property Information (2015)

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Topographic Features

11915 New England Highway, Black Mountain, NSW 2365

State Forest

What State Forest exist within the dataset buffer?

State Forest Number	State Forest Name	Distance	Direction
N/A	No records in buffer		

State Forest Data Source: © NSW Department of Finance, Services & Innovation (2018)
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Elevation Contours (m AHD)

11915 New England Highway, Black Mountain, NSW 2365



Legend

- Elevation Contour (m AHD)
- ▭ Site Boundary
- ▭ Buffer 1000m
- ▭ Property Boundary

Accuracy & Currency: This contour data can be up to 0.4 of the contour interval out in height and must therefore not be used for any design or engineering works, but only as a general guide to topography. Gaps may occur along contour lines due to vertical topography, obscured topography in the source photography such as buildings, dense vegetation or dead ground, or the fact that original buildings have been replaced in the intervening thirty years since the original contour capture.

Scale:
0 100 200 400
Meters

Data Sources: Property Boundaries & Topographic Data:
© Department Finance, Services & Innovation 2024

Coordinate System:
GDA 1994 MGA Zone 56

Date: 05 June 2024

Hydrogeology & Groundwater

11915 New England Highway, Black Mountain, NSW 2365

Hydrogeology

Description of aquifers within the dataset buffer:

Description	Distance	Direction
Fractured or fissured, extensive aquifers of low to moderate productivity	0m	On-site

Hydrogeology Map of Australia : Commonwealth of Australia (Geoscience Australia)
Creative Commons 3.0 © Commonwealth of Australia <http://creativecommons.org/licenses/by/3.0/au/deed.en>

Temporary Water Restriction (Botany Sands Groundwater Source) Order 2018

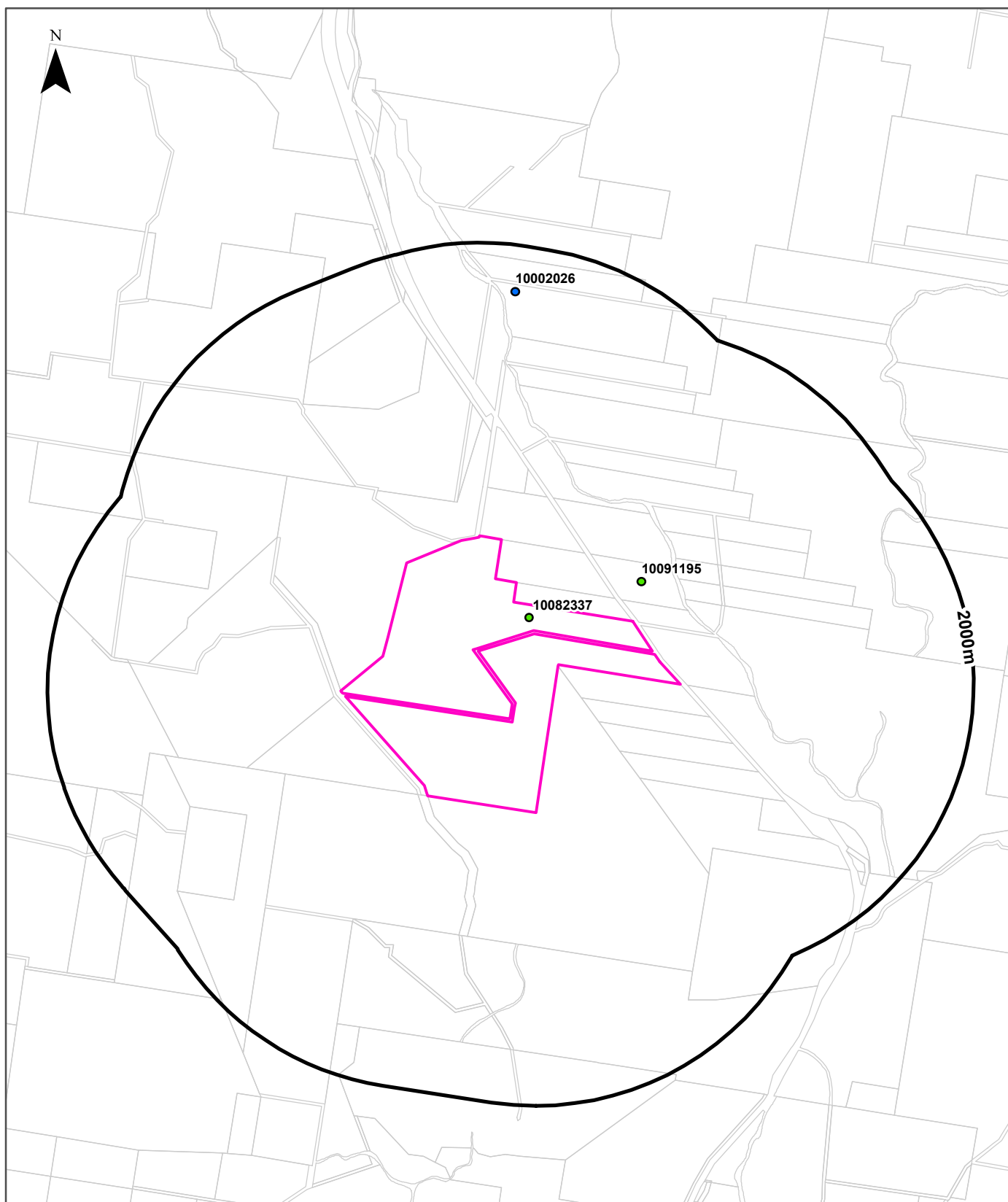
Temporary water restrictions relating to the Botany Sands aquifer within the dataset buffer:

Prohibition Area No.	Prohibition	Distance	Direction
N/A	No records in buffer		

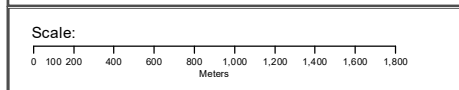
Temporary Water Restriction (Botany Sands Groundwater Source) Order 2018 Data Source : NSW Department of Primary Industries

Groundwater Boreholes

11915 New England Highway, Black Mountain, NSW 2365



Legend		
Site Boundary	Borehole	Monitoring
Buffer 2000m	Commercial and Industrial	Other; Unknown
Property Boundary	Dewatering	Stock and Domestic
	Exploration	Water Supply
	Irrigation	



Data Sources: Property Boundaries & Topographic Data:
© Department Finance, Services & Innovation 2024

Coordinate System:
GDA 1994 MGA Zone 56

Date: 05 June 2024

Hydrogeology & Groundwater

11915 New England Highway, Black Mountain, NSW 2365

Groundwater Boreholes

Boreholes within the dataset buffer:

NGIS Bore ID	NSW Bore ID	Bore Type	Status	Drill Date	Bore Depth (m)	Reference Elevation	Height Datum	Salinity (mg/L)	Yield (L/s)	SWL (mbgl)	Distance	Direction
10082337	GW305373	Stock and Domestic	Unknown	10/10/2005			AHD				0m	On-site
10091195	GW306773	Stock and Domestic	Unknown	10/04/1992	32.00		AHD		1.500	14.00	276m	North East
10002026	GW307754	Water Supply	Functioning	21/03/2014	48.00		AHD		0.250	15.00	1680m	North

Borehole Data Source: Bureau of Meteorology; Water NSW. Creative Commons 3.0 © Commonwealth of Australia <http://creativecommons.org/licenses/by/3.0/au/deed.en>

Hydrogeology & Groundwater

11915 New England Highway, Black Mountain, NSW 2365

Driller's Logs

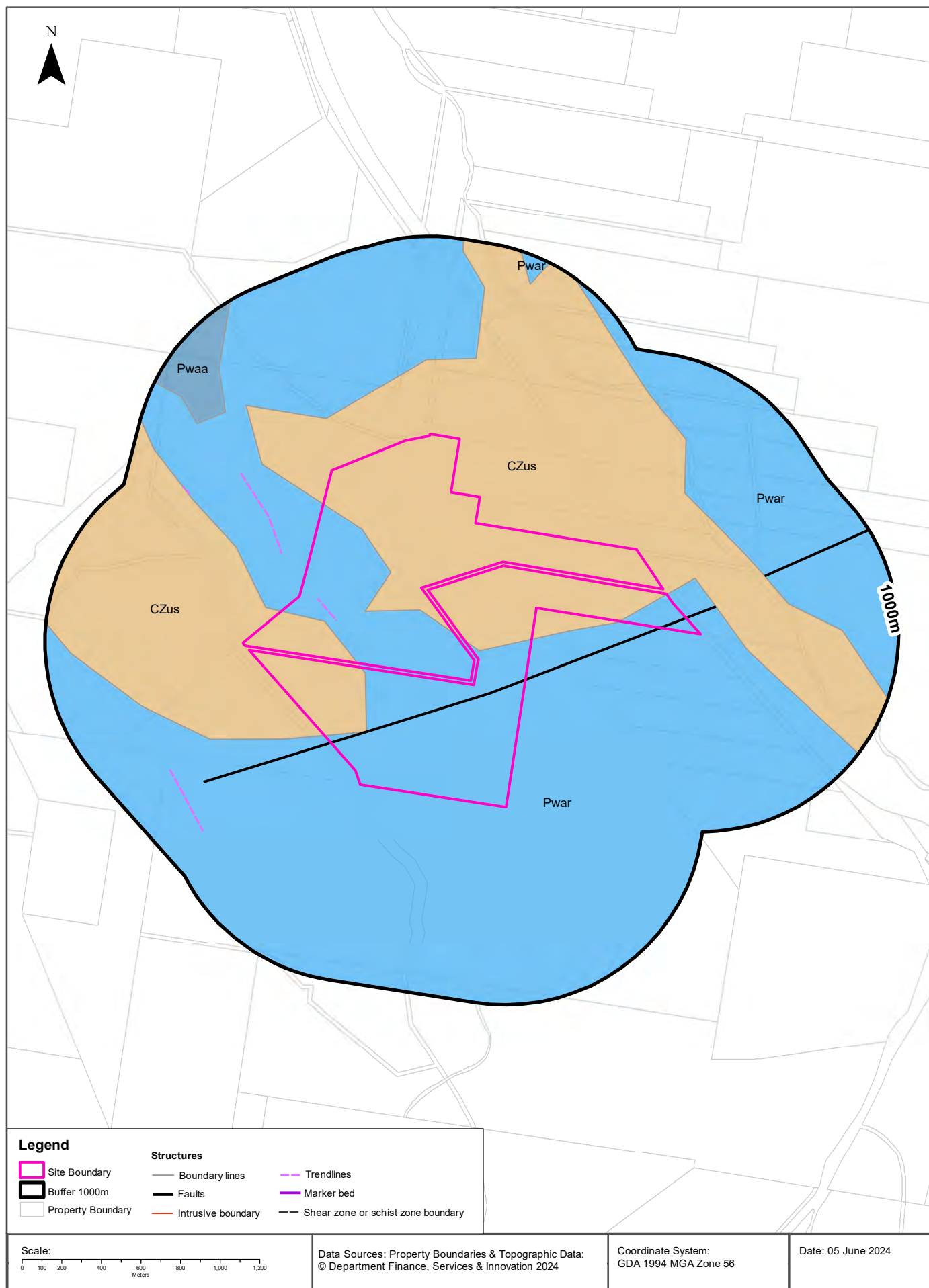
Drill log data relevant to the boreholes within the dataset buffer:

NGIS Bore ID	Drillers Log	Distance	Direction
10002026	0.00m-2.00m Topsoil 2.00m-6.00m Basalt; weathered 6.00m-36.00m Basalt; blue 36.00m-38.00m Basalt; broken, water bearing 38.00m-48.00m Basalt; blue	1680m	North

Drill Log Data Source: Bureau of Meteorology; Water NSW. Creative Commons 3.0 © Commonwealth of Australia <http://creativecommons.org/licenses/by/3.0/au/deed.en>

Geology

11915 New England Highway, Black Mountain, NSW 2365



Geology

11915 New England Highway, Black Mountain, NSW 2365

Geological Units

What are the Geological Units within the dataset buffer?

Unit Code	Unit Name	Description	Unit Stratigraphy	Age	Dominant Lithology	Distance
Pwar	Dummy Creek Conglomerate	Lithic conglomerate, coarse sandstone, massive mudstone.	Wandsworth Volcanic Group\\Dummy Creek Conglomerate\\	Permian (base) to Lopingian (top)	Conglomerate	0m
CZus	Ungrouped Cenozoic sedimentary units	Ungrouped Cenozoic sedimentary units.	Ungrouped Cenozoic sedimentary units\\	Miocene (base) to Pliocene (top)	Unconsolidated material	0m
Pwaa	Annalee Pyroclastics	Felsic pyroclastic rock, rhyolite, trachyte, minor rhyolitic tuffaceous sandstone.	Wandsworth Volcanic Group\\Annalee Pyroclastics\\	Permian (base) to Lopingian (top)	Pyroclastic rock	612m

Linear Geological Structures

What are the Dyke, Sill, Fracture, Lineament and Vein trendlines within the dataset buffer?

Map ID	Feature Description	Map Sheet Name	Distance
17177	Dyke, accurate	Guyra 1:100,000 Geological Compilation Map	0m
13423	Dyke, accurate	Guyra 1:100,000 Geological Compilation Map	142m
18056	Dyke, accurate	Guyra 1:100,000 Geological Compilation Map	667m
17946	Dyke, accurate	Guyra 1:100,000 Geological Compilation Map	699m

What are the Faults, Shear zones or Schist zones, Intrusive boundaries & Marker beds within the dataset buffer?

Map ID	Boundary Type	Description	Map Sheet Name	Distance
620079	Faulted boundary	Fault, position approximate	Upper North East CRA Digital geology dataset	0m
620371	Faulted boundary	Fault, position approximate	Upper North East CRA Digital geology dataset	0m
620742	Faulted boundary	Fault, position approximate	Upper North East CRA Digital geology dataset	437m

Geological Data Source: Statewide Seamless Geology v2.1, Department of Regional NSW
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Naturally Occurring Asbestos Potential

11915 New England Highway, Black Mountain, NSW 2365

Naturally Occurring Asbestos Potential

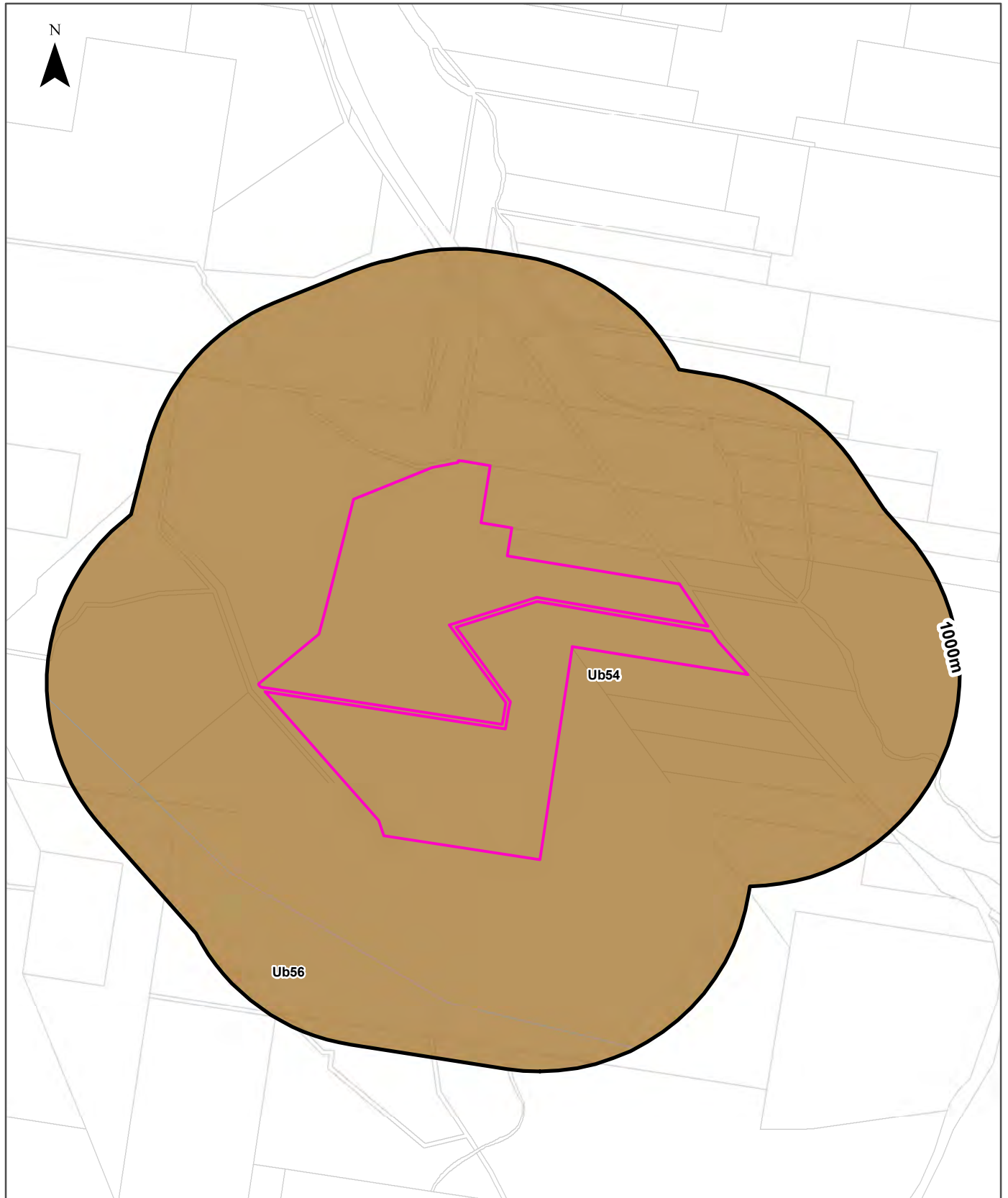
Naturally Occurring Asbestos Potential within the dataset buffer:

Potential	Sym	Strat Name	Group	Formation	Scale	Min Age	Max Age	Rock Type	Dom Lith	Description	Dist	Dir
No records in buffer												

Naturally Occurring Asbestos Potential Data Source: © State of New South Wales through NSW Department of Industry, Resources & Energy

Atlas of Australian Soils

11915 New England Highway, Black Mountain, NSW 2365



Legend		Australian Soil Classification Orders					
Site Boundary	Anthroposol	Dermosol	Kandosol	Podosol	Tenosol	No Data	
Buffer 1000m	Calcarosol	Ferrosol	Kurosol	Rudosol	Vertosol		
Property Boundary	Chromosol	Hydrosol	Organosol	Sodosol	Lake		
Scale: 		Data Sources: Property Boundaries & Topographic Data. © Department Finance, Services & Innovation 2024		Coordinate System: GDA 1994 MGA Zone 56		Date: 05 June 2024	

Soils

11915 New England Highway, Black Mountain, NSW 2365

Atlas of Australian Soils

Soil mapping units and Australian Soil Classification orders within the dataset buffer:

Map Unit Code	Soil Order	Map Unit Description	Distance	Direction
Ub54	Sodosol	Undulating to low hilly terrain with variable hilly portions and some steep slopes, rock outcrops: chief soils are hard neutral and acidic yellow mottled soils (Dy3.42 and Dy3.41), generally on undulating areas and mid hill slopes. Associated are a wide variety of soils including commonly (i) (Um4.1) and (Um4.2)--upper slopes and hill tops; (ii) (Dr2.22),(Dr2.21),(Dy3.2), and shallow forms of (Dy3.41 hill slopes; (iii) (Dy3.41 and Dy3.42) both containing ironstone gravel--flatter, often poorly drained areas; (iv) (Dy3.43) on relatively low-lying sites in which some salinity may be evident; less commonly (v) red and yellow earths (Gn2.14 and Gn2.24); and (vi) (Db2.4) soils on hill slopes.	0m	On-site
Ub56	Sodosol	Low hilly to hilly terrain with some flat to undulating portions, rock outcrops: chief soils are hard neutral yellow mottled soils (Dy3.42). Associated are: (i) a great variety of other (Dy) soils including (Dy3.21) on upper slopes, (Dy3.41 and Dy3.42), both containing ironstone gravels, on relatively poorly drained areas, and (Dy3.43) on relatively low-lying sites and valleys; (ii) yellow earths (Gn2.55) on colluvial slopes; (iii) soils of unit Wa10; (iv) soils of unit JJ6 on hill tops; (v) minor areas of (Dr2) soils on hill slopes; (vi) minor areas (Dg1.41) in wet places; and (vii) minor occurrences of some soils of unit Rh5.	522m	South West

Atlas of Australian Soils Data Source: CSIRO

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Acid Sulfate Soils

11915 New England Highway, Black Mountain, NSW 2365

Environmental Planning Instrument - Acid Sulfate Soils

What is the on-site Acid Sulfate Soil Plan Class that presents the largest environmental risk?

Soil Class	Description	EPI Name
N/A		

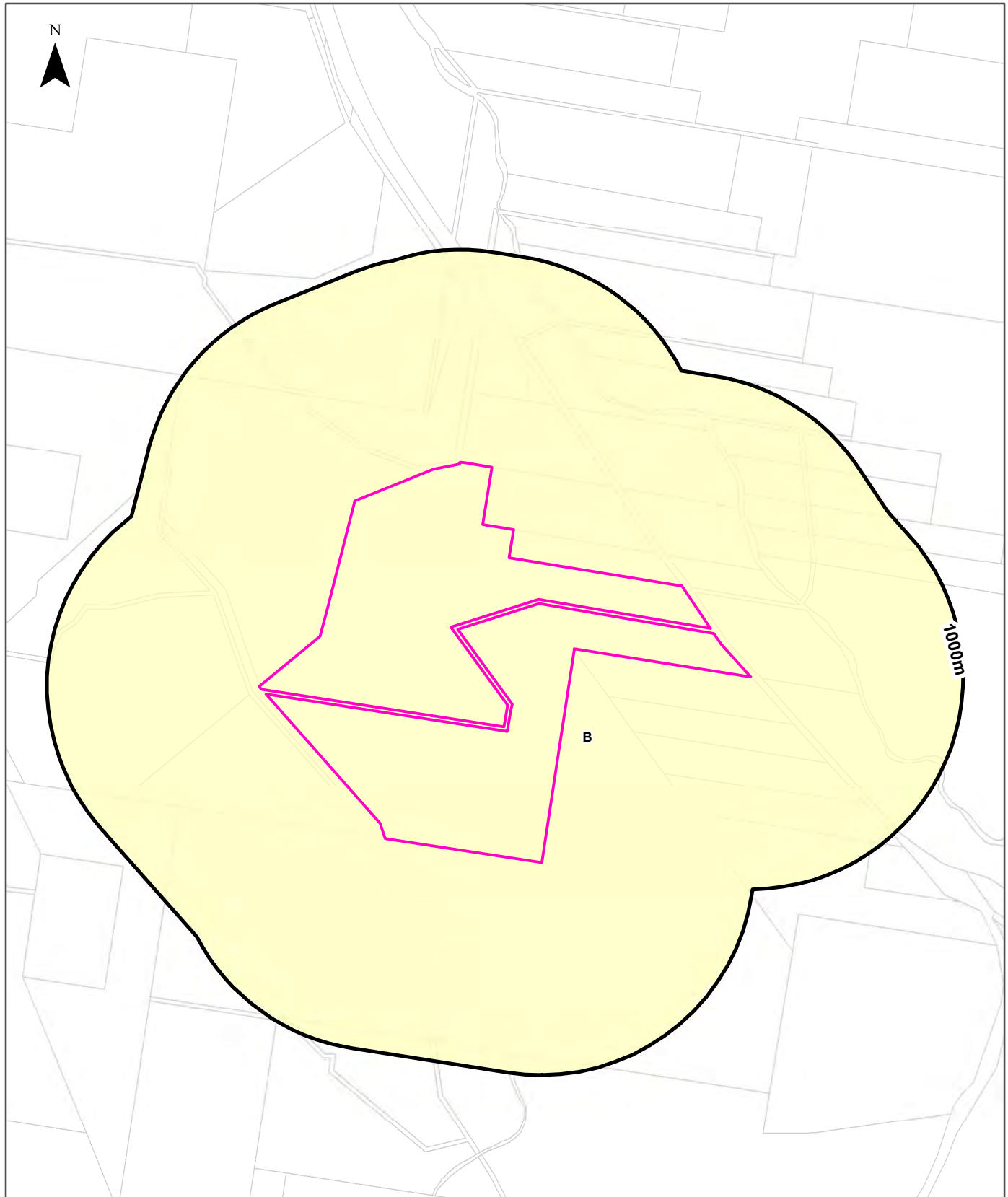
If the on-site Soil Class is 5, what other soil classes exist within 500m?

Soil Class	Description	EPI Name	Distance	Direction
N/A				

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Atlas of Australian Acid Sulfate Soils

11915 New England Highway, Black Mountain, NSW 2365



Legend			
Site Boundary	Probability of occurrence of Acid Sulfate Soils		
Buffer 1000m	A. High (>70%)	C. Extremely Low (1-5%)	No Data
Property Boundary	B. Low (6-70%)	D. No Chance (0%)	
Scale: 0 100 200 400 600 800 1,000 1,200 Meters	Data Sources: Property Boundaries & Topographic Data: © Department Finance, Services & Innovation 2024		Coordinate System: GDA 1994 MGA Zone 56
			Date: 05 June 2024

Acid Sulfate Soils

11915 New England Highway, Black Mountain, NSW 2365

Atlas of Australian Acid Sulfate Soils

Atlas of Australian Acid Sulfate Soil categories within the dataset buffer:

Class	Description	Distance	Direction
B	Low Probability of occurrence. 6-70% chance of occurrence.	0m	On-site

Atlas of Australian Acid Sulfate Soils Data Source: CSIRO

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Dryland Salinity

11915 New England Highway, Black Mountain, NSW 2365

Dryland Salinity - National Assessment

Is there Dryland Salinity - National Assessment data onsite?

No

Is there Dryland Salinity - National Assessment data within the dataset buffer?

No

What Dryland Salinity assessments are given?

Assessment 2000	Assessment 2020	Assessment 2050	Distance	Direction
N/A	N/A	N/A		

Dryland Salinity Data Source : National Land and Water Resources Audit

The Commonwealth and all suppliers of source data used to derive the maps of "Australia, Forecast Areas Containing Land of High Hazard or Risk of Dryland Salinity from 2000 to 2050" do not warrant the accuracy or completeness of information in this product. Any person using or relying upon such information does so on the basis that the Commonwealth and data suppliers shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information. Any persons using this information do so at their own risk.

In many cases where a high risk is indicated, less than 100% of the area will have a high hazard or risk.

Mining

11915 New England Highway, Black Mountain, NSW 2365

Mining Subsidence Districts

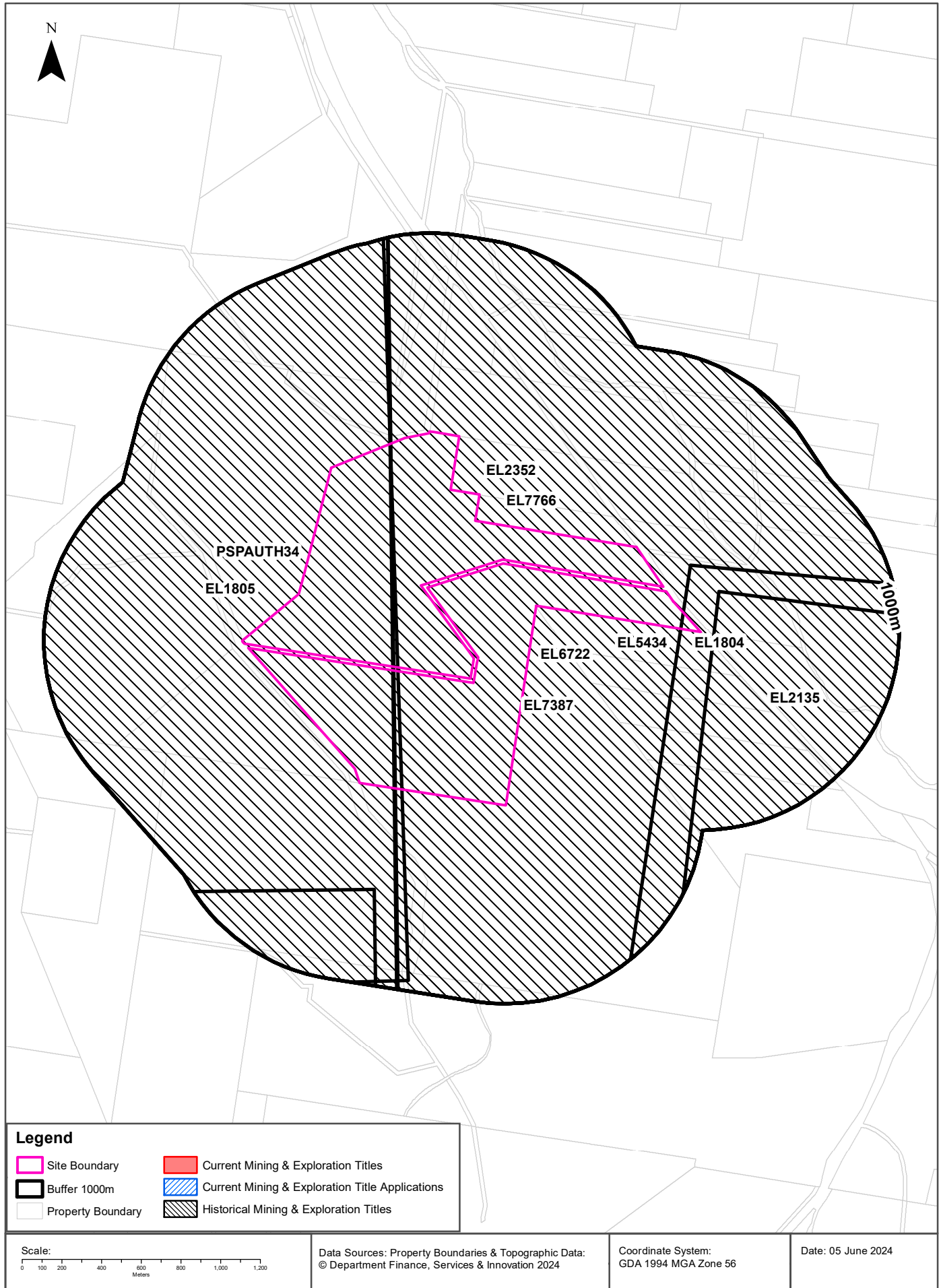
Mining Subsidence Districts within the dataset buffer:

District	Distance	Direction
There are no Mining Subsidence Districts within the report buffer		

Mining Subsidence District Data Source: © Land and Property Information (2016)
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Mining & Exploration Titles

11915 New England Highway, Black Mountain, NSW 2365



Mining

11915 New England Highway, Black Mountain, NSW 2365

Current Mining & Exploration Titles

Current Mining & Exploration Titles within the dataset buffer:

Title Ref	Holder	Grant Date	Expiry Date	Last Renewed	Operation	Resource	Minerals	Dist	Dir
N/A	No records in buffer								

Current Mining & Exploration Titles Data Source: © State of New South Wales through NSW Department of Industry

Current Mining & Exploration Title Applications

Current Mining & Exploration Title Applications within the dataset buffer:

Application Ref	Applicant	Application Date	Operation	Resource	Minerals	Dist	Dir
N/A	No records in buffer						

Current Mining & Exploration Title Applications Data Source: © State of New South Wales through NSW Department of Industry

Mining

11915 New England Highway, Black Mountain, NSW 2365

Historical Mining & Exploration Titles

Historical Mining & Exploration Titles within the dataset buffer:

Title Ref	Holder	Start Date	End Date	Resource	Minerals	Dist	Dir
EL5434	GORDON, Dudley	19980205	20000204	MINERALS	Sb	0m	On-site
EL2352	FREEPOR OF AUSTRALIA INC	19850101	19850801	MINERALS	Au	0m	On-site
EL1805	ABERFOYLE LIMITED	19820301	19820901	MINERALS	Sn Cu Pb Zn Ag	0m	On-site
EL1804	ABERFOYLE LIMITED	19820301	19820901	MINERALS	Sn Cu Pb Zn Ag	0m	On-site
EL7387	GEOGEN VICTORIA PTY LTD	20090818	20120818	MINERALS	Geothermal	0m	On-site
EL6722	PEEL EXPLORATION LIMITED	20070226	20110225	MINERALS		0m	On-site
EL7766	IRGS NORTHERN GOLD PTY LTD	20110606	20140804	MINERALS	Au Sb Ag As Cu W	0m	On-site
PSPAUTH34	PANGAEA OIL & GAS PTY LIMITED	20091111	20101111	PETROLEUM	Petroleum	0m	On-site
EL2135	TINGA HOLDINGS PTY LIMITED	19830301	19851201	MINERALS	Au Ag	66m	East

Historical Mining & Exploration Titles Data Source: © State of New South Wales through NSW Department of Industry

State Environmental Planning Policy

11915 New England Highway, Black Mountain, NSW 2365

State Significant Precincts

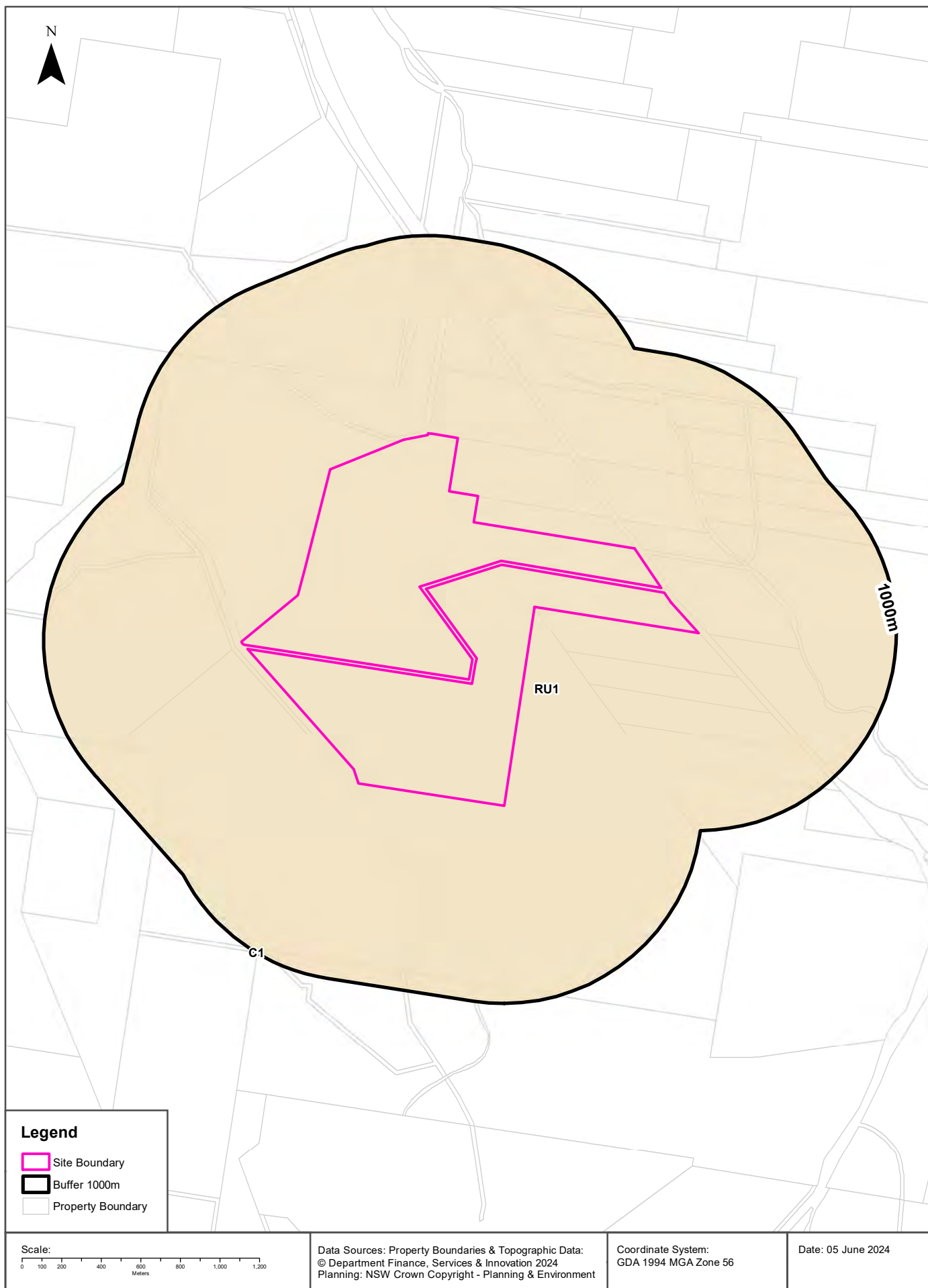
What SEPP State Significant Precincts exist within the dataset buffer?

Map Id	Precinct	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
N/A	No records in buffer							

State Environment Planning Policy Data Source: NSW Crown Copyright - Planning & Environment
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EPI Planning Zones

11915 New England Highway, Black Mountain, NSW 2365



Environmental Planning Instrument

11915 New England Highway, Black Mountain, NSW 2365

Land Zoning

What EPI Land Zones exist within the dataset buffer?

Zone	Description	Purpose	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
RU1	Primary Production		Armidale Regional Local Environmental Plan 2012	19/01/2024	19/01/2024	19/01/2024	Map Amendment No 2	0m	On-site
C1	National Parks and Nature Reserves		Armidale Regional Local Environmental Plan 2012	21/04/2023	26/04/2023	19/01/2024	Map Amendment No 1	998m	South West

Environmental Planning Instrument Data Source: NSW Crown Copyright - Planning & Environment
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Heritage

11915 New England Highway, Black Mountain, NSW 2365

Commonwealth Heritage List

What are the Commonwealth Heritage List Items located within the dataset buffer?

Place Id	Name	Address	Place File No	Class	Status	Register Date	Distance	Direction
N/A	No records in buffer							

Heritage Data Source: Australian Government Department of the Environment and Energy - Heritage Branch
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National Heritage List

What are the National Heritage List Items located within the dataset buffer?

Note. Please click on Place Id to activate a hyperlink to online website.

Place Id	Name	Address	Place File No	Class	Status	Register Date	Distance	Direction
N/A	No records in buffer							

Heritage Data Source: Australian Government Department of the Environment and Energy - Heritage Branch
Creative Commons 3.0 © Commonwealth of Australia <https://creativecommons.org/licenses/by/3.0/au/deed.en>

State Heritage Register - Curtilages

What are the State Heritage Register Items located within the dataset buffer?

Map Id	Name	Address	LGA	Listing Date	Listing No	Plan No	Distance	Direction
N/A	No records in buffer							

Heritage Data Source: NSW Crown Copyright - Office of Environment & Heritage
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Environmental Planning Instrument - Heritage

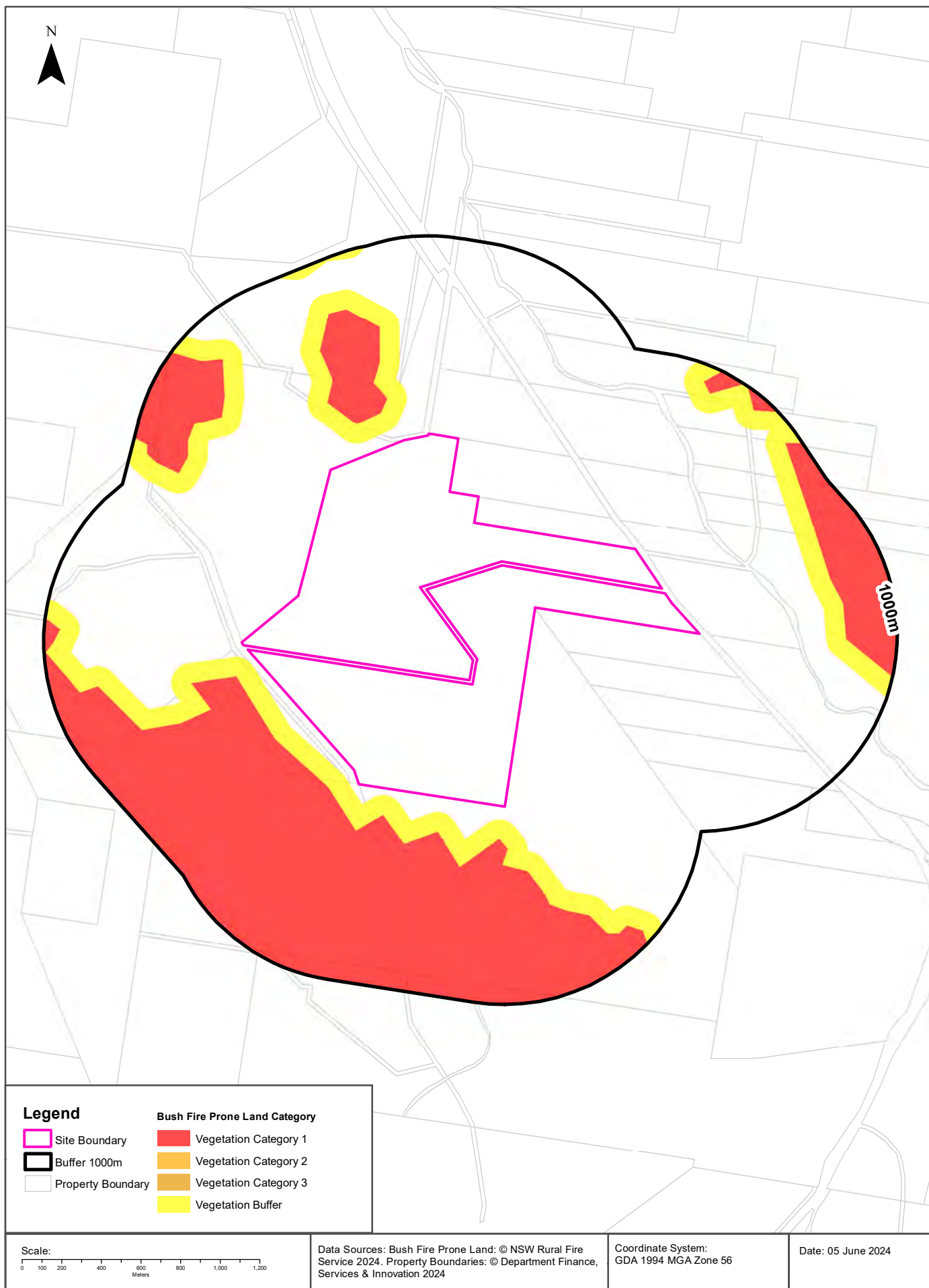
What are the EPI Heritage Items located within the dataset buffer?

Map Id	Name	Classification	Significance	EPI Name	Published Date	Commenced Date	Currency Date	Distance	Direction
N/A	No records in buffer								

Heritage Data Source: NSW Crown Copyright - Planning & Environment
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Natural Hazards - Bush Fire Prone Land

11915 New England Highway, Black Mountain, NSW 2365



Natural Hazards

11915 New England Highway, Black Mountain, NSW 2365

Bush Fire Prone Land

What are the nearest Bush Fire Prone Land Categories that exist within the dataset buffer?

Bush Fire Prone Land Category	Distance	Direction
Vegetation Buffer	34m	South
Vegetation Category 1	134m	South West

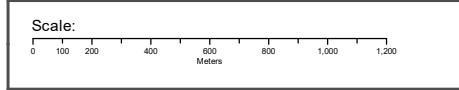
NSW Bush Fire Prone Land - © NSW Rural Fire Service under Creative Commons 4.0 International Licence

Ecological Constraints - Vegetation & Ramsar Wetlands

11915 New England Highway, Black Mountain, NSW 2365



Site Boundary	Dry Sclerophyll Forests (Shrub/grass sub-formation)	Semi-arid Woodlands (Grassy sub-formation)
Report Buffer	Dry Sclerophyll Forests (Shrubby sub-formation)	Semi-arid Woodlands (Shrubby sub-formation)
Property Boundary	Forested Wetlands	Wet Sclerophyll Forests (Grassy sub-formation)
Ramsar Wetland	Freshwater Wetlands	Wet Sclerophyll Forests (Shrubby sub-formation)
Native Vegetation		
Alpine Complex	Grasslands	Non vegetated
Arid Shrublands (Acacia sub-formation)	Grassy Woodlands	Unattributed
Arid Shrublands (Chenopod sub-formation)	Heathlands	Not classified
	Rainforests	Other
	Saline Wetlands	



Data Sources: Property Boundaries & Topographic Data.
© Department Finance, Services & Innovation 2024

Coordinate System:
GDA 1994 MGA Zone 56

Date: 05 June 2024

Ecological Constraints

11915 New England Highway, Black Mountain, NSW 2365

Native Vegetation

What native vegetation exists within the dataset buffer?

Map ID	Vegetation Formation	Plant Community Type and Vegetation Formation	Vegetation Class	Dist	Dir
3155280	Not classified	(Not classified) Not classified	Not classified	0m	On-site
3609602	Grassy Woodlands	(Grassy Woodlands) New England Ribbon Gum Grassy Forest	Tableland Clay Grassy Woodlands	0m	On-site
3609611	Grassy Woodlands	(Grassy Woodlands) Armidale Creekflat Snow Gum Woodland-Scrub	New England Grassy Woodlands	0m	On-site
3609628	Grassy Woodlands	(Grassy Woodlands) Guyra Silvertop Stringybark Moist Forest	New England Grassy Woodlands	0m	On-site
3609637	Grassy Woodlands	(Grassy Woodlands) New England Hills Stringybark-Box Woodland	New England Grassy Woodlands	0m	On-site
3609858	Dry Sclerophyll Forests (Shrubby sub-formation)	(Dry Sclerophyll Forests (Shrubby sub-formation)) New England Youmans Stringybark-Box Forest	Northern Tableland Dry Sclerophyll Forests	266m	South West
3609590	Grassy Woodlands	(Grassy Woodlands) Guyra Basalt Snow Gum Woodland	Tableland Clay Grassy Woodlands	306m	North
3609582	Wet Sclerophyll Forests (Grassy sub-formation)	(Wet Sclerophyll Forests (Grassy sub-formation)) Guyra Granitoids Gum-Messmate Forest	Northern Tableland Wet Sclerophyll Forests	313m	North West
3609618	Grassy Woodlands	(Grassy Woodlands) Armidale Quartz Hills Stringybark Forest	New England Grassy Woodlands	338m	South
3609727	Dry Sclerophyll Forests (Shrubby sub-formation)	(Dry Sclerophyll Forests (Shrubby sub-formation)) Western New England Ranges Orange Gum-Blackbutt Forest	Northern Tableland Dry Sclerophyll Forests	928m	South West

Native Vegetation Type Map : NSW Department of Planning and Environment 2022

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Ecological Constraints

11915 New England Highway, Black Mountain, NSW 2365

Ramsar Wetlands

What Ramsar Wetland areas exist within the dataset buffer?

Map ID	Ramsar Name	Wetland Name	Designation Date	Source	Distance	Direction
N/A	No records in buffer					

Ramsar Wetlands Data Source: © Commonwealth of Australia - Department of Agriculture, Water and the Environment

Ecological Constraints - Protected Areas

11915 New England Highway, Black Mountain, NSW 2365



Legend		IUCN category					
	Site Boundary		Strict Nature Reserve		Natural Monument or Feature		Protected area sustainable use of natural resources
	Buffer 1000m		Wilderness Area		Habitat/Species Management Area		Uncategorised Protected Area
	Property Boundary		National Park		Protected Landscape/Seascape		

<p>Scale:</p>	<p>Data Sources: Property Boundaries & Topographic Data: © Department Finance, Services & Innovation 2024</p>	<p>Coordinate System: GDA 1994 MGA Zone 56</p>	<p>Date: 05 June 2024</p>
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Ecological Constraints

11915 New England Highway, Black Mountain, NSW 2365

Collaborative Australian Protected Areas Database - Terrestrial

Protected areas in terrestrial environments identified by the CAPAD within the dataset buffer:

Map ID	Area Name	Area Details	Management Category	Authority	Jurisdiction	Dist	Dir
1	Duval	Nature Reserve	Strict Nature Reserve	NSW Department of Planning and Environment	State	979m	South West

Collaborative Australian Protected Areas Database - Marine

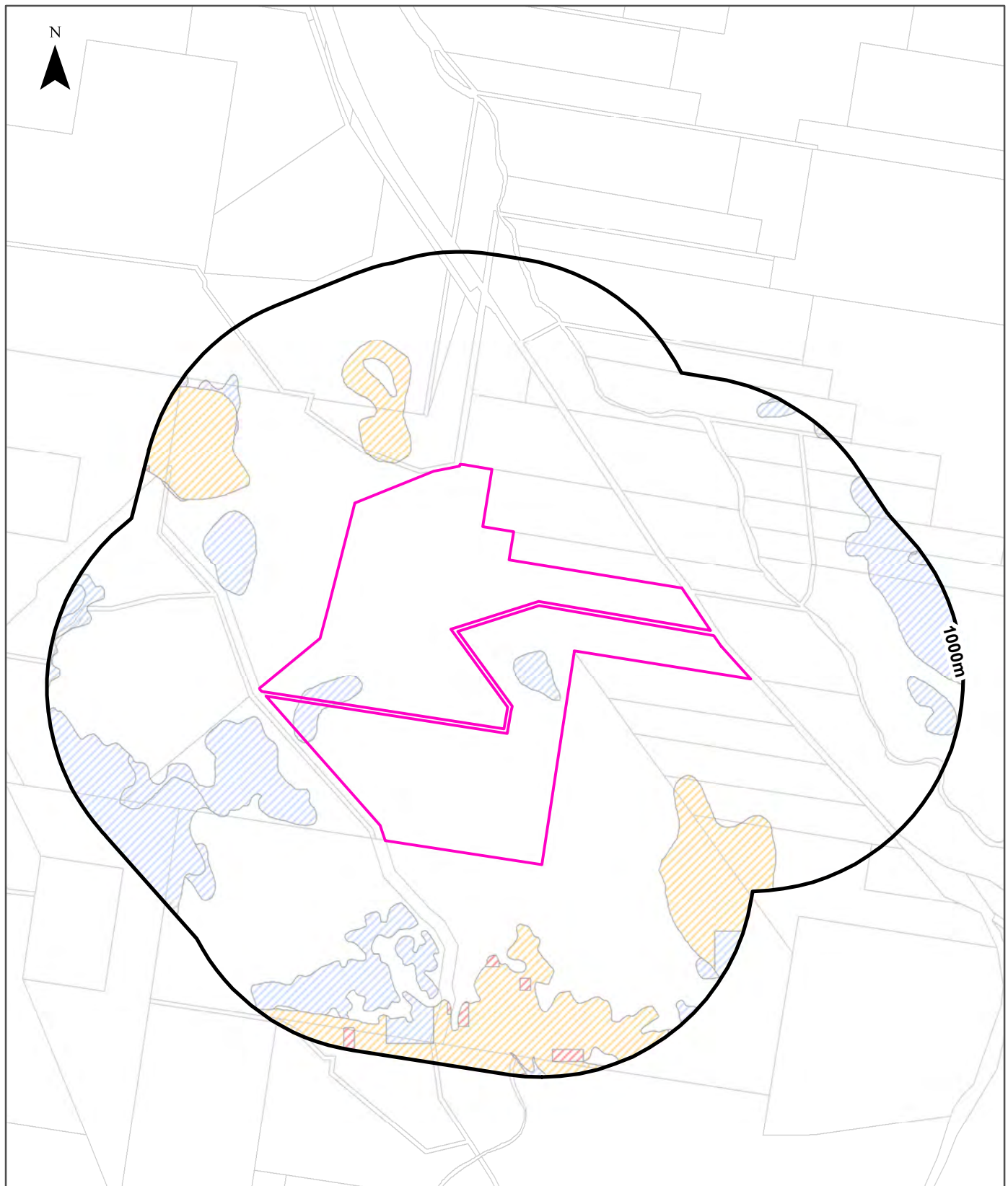
Protected areas in marine environments identified by the CAPAD within the dataset buffer:

Map ID	Area Name	Area Details	Management Category	Authority	Jurisdiction	Dist	Dir
N/A	No records in buffer						

Source: Collaborative Australian Protected Areas Database (CAPAD) 2022
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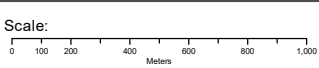
Ecological Constraints - Groundwater Dependent Ecosystems Atlas

11915 New England Highway, Black Mountain, NSW 2365



Legend

Site Boundary	High potential GDE - from national assessment	Low potential GDE - from national assessment
Buffer 1000m	High potential GDE - from regional studies	Low potential GDE - from regional studies
Property Boundaries	Moderate potential GDE - from national assessment	Known GDE - from regional studies
	Moderate potential GDE - from regional studies	Unclassified potential GDE - from national assessment
		Unclassified potential GDE - from regional studies



Data Sources: Property Boundaries & Topographic Data:
© Department Finance, Services & Innovation 2024

Coordinate System:
GDA 1994 MGA Zone 56

Date: 05 June 2024

Ecological Constraints

11915 New England Highway, Black Mountain, NSW 2365

Groundwater Dependent Ecosystems Atlas

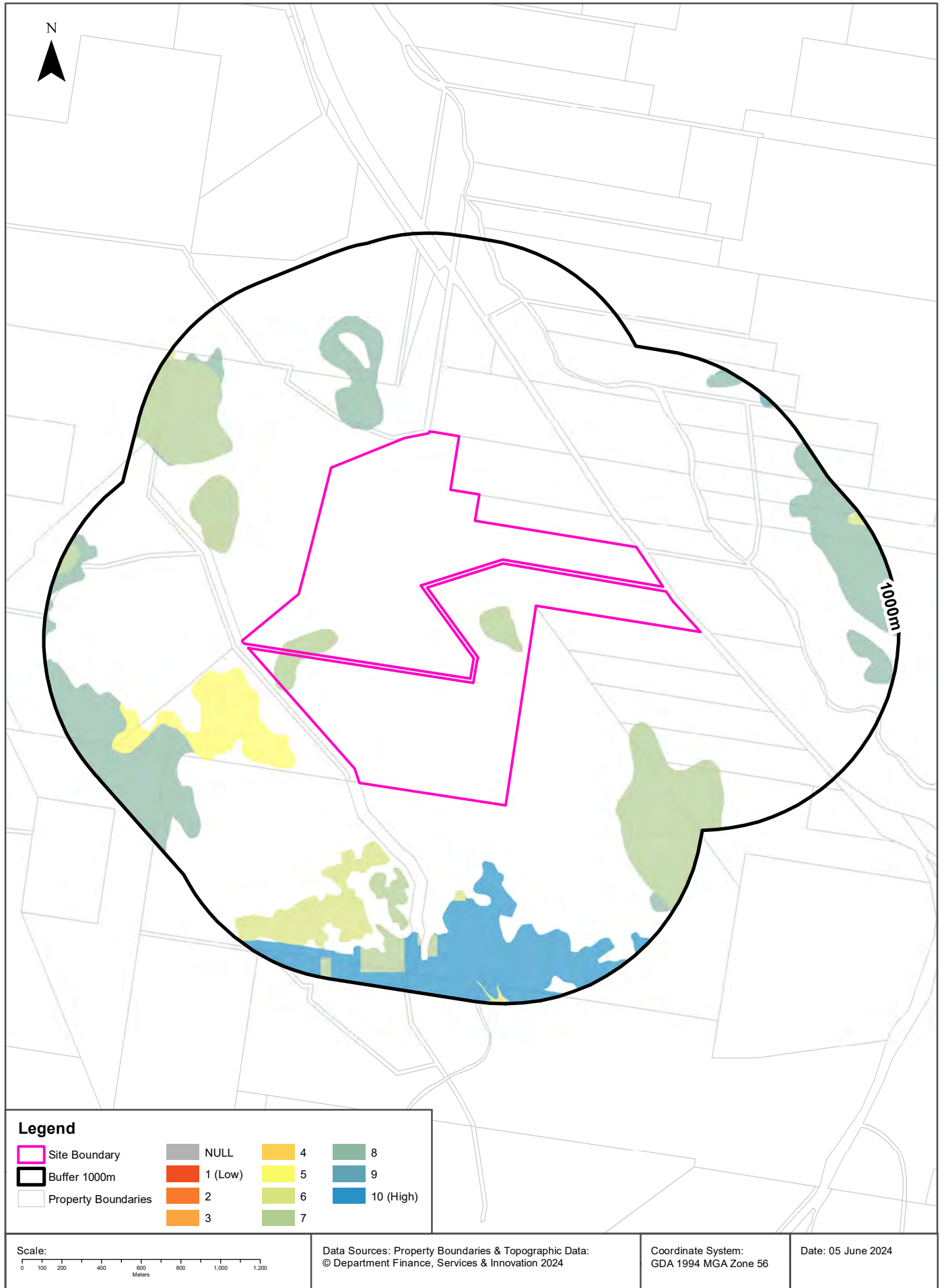
Type	GDE Potential	Geomorphology	Ecosystem Type	Aquifer Geology	Distance	Direction
Terrestrial	Low potential GDE - from regional studies	Undulating granitic plateau with higher residuals including basalt cappings.	Vegetation		0m	On-site
Terrestrial	Moderate potential GDE - from regional studies	Undulating granitic plateau with higher residuals including basalt cappings.	Vegetation		102m	North
Terrestrial	High potential GDE - from regional studies	Undulating granitic plateau with higher residuals including basalt cappings.	Vegetation		452m	South

Groundwater Dependent Ecosystems Atlas Data Source: The Bureau of Meteorology

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Ecological Constraints - Inflow Dependent Ecosystems Likelihood

11915 New England Highway, Black Mountain, NSW 2365



Ecological Constraints

11915 New England Highway, Black Mountain, NSW 2365

Inflow Dependent Ecosystems Likelihood

Type	IDE Likelihood	Geomorphology	Ecosystem Type	Aquifer Geology	Distance	Direction
Terrestrial	7	Undulating granitic plateau with higher residuals including basalt cappings.	Vegetation		0m	On-site
Terrestrial	5	Undulating granitic plateau with higher residuals including basalt cappings.	Vegetation		100m	South West
Terrestrial	8	Undulating granitic plateau with higher residuals including basalt cappings.	Vegetation		102m	North
Terrestrial	6	Undulating granitic plateau with higher residuals including basalt cappings.	Vegetation		280m	South
Terrestrial	10	Undulating granitic plateau with higher residuals including basalt cappings.	Vegetation		294m	South
Terrestrial	9	Undulating granitic plateau with higher residuals including basalt cappings.	Vegetation		955m	North East

Inflow Dependent Ecosystems Likelihood Data Source: The Bureau of Meteorology
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Ecological Constraints

11915 New England Highway, Black Mountain, NSW 2365

NSW BioNet Atlas

Species on the NSW BioNet Atlas that have a NSW or federal conservation status, a NSW sensitivity status, or are listed under a migratory species agreement, and are within 10km of the site?

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Animalia	Amphibia	<i>Litoria castanea</i>	Yellow-spotted Tree Frog	Critically Endangered	Not Sensitive	Critically Endangered	
Animalia	Aves	<i>Anthochaera phrygia</i>	Regent Honeyeater	Critically Endangered	Category 2	Critically Endangered	
Animalia	Aves	<i>Aphelocephala leucopsis</i>	Southern Whiteface	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Aves	<i>Artamus cyanopterus cyanopterus</i>	Dusky Woodswallow	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	<i>Calyptorhynchus lathami lathami</i>	South-eastern Glossy Black-Cockatoo	Vulnerable	Category 2	Vulnerable	
Animalia	Aves	<i>Chthonicola sagittata</i>	Speckled Warbler	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	<i>Climacteris picumnus victoriae</i>	Brown Treecreeper (eastern subspecies)	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	<i>Cuculus optatus</i>	Oriental Cuckoo	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	<i>Daphoenositta chrysoptera</i>	Varied Sittella	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	<i>Ephippiorhynchus asiaticus</i>	Black-necked Stork	Endangered	Not Sensitive	Not Listed	
Animalia	Aves	<i>Gallinago hardwickii</i>	Latham's Snipe	Not Listed	Not Sensitive	Not Listed	ROKAMBA;JAMBA
Animalia	Aves	<i>Glossopsitta pusilla</i>	Little Lorikeet	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	<i>Grantiella picta</i>	Painted Honeyeater	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Aves	<i>Haliaeetus leucogaster</i>	White-bellied Sea-Eagle	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	<i>Hieraaetus morphnoides</i>	Little Eagle	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	<i>Hirundapus caudacutus</i>	White-throated Needletail	Not Listed	Not Sensitive	Vulnerable	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	<i>Lathamus discolor</i>	Swift Parrot	Endangered	Not Sensitive	Critically Endangered	
Animalia	Aves	<i>Lophoictinia isura</i>	Square-tailed Kite	Vulnerable	Category 3	Not Listed	
Animalia	Aves	<i>Ninox connivens</i>	Barking Owl	Vulnerable	Category 3	Not Listed	
Animalia	Aves	<i>Petroica boodang</i>	Scarlet Robin	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	<i>Stagonopleura guttata</i>	Diamond Firetail	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	<i>Aepyprymnus rufescens</i>	Rufous Bettong	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	<i>Chalinolobus nigrogriseus</i>	Hoary Wattle Bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	<i>Dasyurus maculatus</i>	Spotted-tailed Quoll	Vulnerable	Not Sensitive	Endangered	
Animalia	Mammalia	<i>Falsistrellus tasmaniensis</i>	Eastern False Pipistrelle	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	<i>Miniopterus orianae oceanensis</i>	Large Bent-winged Bat	Vulnerable	Not Sensitive	Not Listed	

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Animalia	Mammalia	Myotis macropus	Southern Myotis	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Petauroides volans	Southern Greater Glider	Endangered	Not Sensitive	Endangered	
Animalia	Mammalia	Petaurus norfolcensis	Squirrel Glider	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Phascolarctos cinereus	Koala	Endangered	Not Sensitive	Endangered	
Animalia	Mammalia	Pteropus poliocephalus	Grey-headed Flying-fox	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Mammalia	Scoteanax rueppellii	Greater Broad-nosed Bat	Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Dichanthium setosum	Bluegrass	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Eucalyptus nicholii	Narrow-leaved Black Peppermint	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Eucalyptus tetrapleura	Square-fruited Ironbark	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Swainsona sericea	Silky Swainson-pea	Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Thesium australe	Austral Toadflax	Vulnerable	Not Sensitive	Vulnerable	

Data does not include NSW category 1 sensitive species.

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LC Code	Location Confidence
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Area Match	Georeferenced to an approximate or general area
Road Match	Georeferenced to a road or rail corridor
Road Intersection	Georeferenced to a road intersection
Buffered Point	A point feature buffered to x metres
Adjacent Match	Land adjacent to a georeferenced feature
Network of Features	Georeferenced to a network of features
Suburb Match	Georeferenced to a suburb boundary
As Supplied	Spatial data supplied by provider

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