

# **BOYCECORP PTY LTD**



# **Preliminary Site Investigation**

1064 New England Highway, Lochinvar NSW

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# **Document Control**

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Copies		Recipient	
1 Soft Copy (PDF – Secured, issued by email)		Mr. Greg Boyce Boycecorp Pty Ltd	
		Suite 6.05, Level 6, 51 Rawson Street, <b>Epping NSW 2121</b>	
1	Original (Saved to Digital Archives)	El Australia Pty Ltd Suite 6.01, 55 Miller Street, <b>Pyrmont NSW 2009</b>	

Author

**Technical Reviewer** 

And





Cody Carr	nan	Warwick Hayes		
Environme	ntal Scientist	Environmental Scientist		
		EIANZ Certified Environmental Practition	oner 1401	
		SafeWork NSW Licenced Asbestos Assessor LAA00108		
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# **Executive Summary**

El Australia (El) was engaged by Mr. Greg Boyce of Boycecorp Pty Ltd ('the client') to conduct a preliminary investigation of 1064 New England Highway, Lochinvar NSW ('the site').

The site is located within the local government area of Maitland City Council. It is legally identified as Lot 2 in Deposited Plan 261947 and has a total area of 9.818 hectares. At the time of this investigation, the land was vegetated with grasses, bushes and small to large trees.

The site was designated for redevelopment and this preliminary investigation was completed for due diligence purposes, in support of the corresponding development application to Maitland City Council. The aim was to appraise the environmental (potential contamination) condition of the site.

#### Objective

The objective of this preliminary site investigation (PSI) was to qualitatively assess the environmental condition of the land, by appraising the potential for contamination on the basis of field observations, historical land uses and other documentary evidence.

#### Key Findings

The key findings of this PSI were as follows:

- The site had been used for residential / agricultural purposes since the 1960s, at least. The existing residence was built between 1975 and 1976.
- The surrounding areas were historically used for residential and agricultural purposes (mainly).
- The site was free of statutory notices and licencing agreements issued under the *Contaminated Land Management Act 1997* and *Protection of the Environment Operations Act 1997.* It was included on the *List of NSW Contaminated Sites Notified to the EPA*.
- There was no evidence that an underground petroleum storage system had been installed on the site. No above-ground storage tank was present.
- The sub-surface conditions were expected to comprise a layer of filling (≤1m thickness), overlying natural, residual deposits dominated by silt and clay, followed by weathered sandstone and basalt bedrock. The potential for acid sulphate soils to be present was considered to be low; however, the risk for the dryland salinity was high.
- A major cut and fill operation was unlikely to have occurred on the property; however, topsoil filling materials were expected to be present, especially in former building (slab / footing / driveway) areas. A stockpile of topsoil was present in the centre of the site.
- The inferred groundwater flow direction was south-easterly, towards Lochinvar Creek. Lochinvar Creek flows into the Hunter River.
- The conceptual site model established that there was moderate potential for contamination to exist on the land, derived from a variety of sources.

Based on the findings of this PSI, and with consideration of El's *Statement of Limitations* (**Section 7**), there was potential for contamination to exist on the site. In accordance with *State Environmental Planning Policy (Resilience and Hazards) 2021*, further investigation was warranted in order to determine the site's suitability for the proposed (residential) development and use.



# 1. Introduction

### 1.1. Background and Purpose

El Australia (El) was engaged by Mr. Greg Boyce of Boycecorp Pty Ltd ('the client') to conduct a preliminary investigation of 1064 New England Highway, Lochinvar in New South Wales (herein referred to as 'the site').

The site is located within the local government area (LGA) of Maitland City Council (**Figure 1**, **Appendix A**). It is legally identified as Lot 2 in Deposited Plan (DP) 261947 and has a total area of 9.818 hectares.

The land is bordered by the New England Highway to the south, and has rural properties surrounding it (**Figure 1**, **Appendix A**). At the time of this investigation, the site was vegetated with grasses, bushes and small to large trees.

The site was designated for redevelopment and this preliminary investigation was completed for due diligence purposes, in support of the corresponding development application to Maitland City Council. The aim was to appraise the environmental (potential contamination) condition of the site. It enables the client to meet obligations under the *Contaminated Land Management Act 1997* and *State Environmental Planning Policy (Resilience and Hazards) 2021*.

### 1.2. Project Objective

The objective of this preliminary site investigation (PSI) was to qualitatively assess the environmental condition of the land, by appraising the potential for contamination on the basis of field observations, historical land uses and other documentary evidence.

### 1.3. Proposed Development

Based on information provided by the client, the proposed site development involved the construction of a 'Manufactured Home Estate'.

#### 1.4. Scope of Work

In order to achieve the above objective, the following scope of work was completed:

- A review of relevant topographical, geological and soil landscape maps for the project area;
- A site walkover inspection;
- Review of site history, based on land title records, aerial photographs (dating back to 1961) and an environmental risk and planning report prepared by Lotsearch Pty Ltd;
- A request to access property files archived by Maitland City Council for information relating to previous site development and environmental complaints;
- Search of SafeWork NSW records for information relating to possible dangerous goods storage, in particular underground tank approvals and locations;
- Searches of public registers maintained by the New South Wales Environment Protection Authority (EPA) for statutory notices and licensing agreements issued under the Contaminated Land Management Act 1997 and Protection of the Environment Operations Act 1997;
- A search of the List of NSW Contaminated Sites Notified to the EPA;
- Search through the NSW Government PFAS Investigation Program Database for information relating to per- and poly- fluoroalkyl substance (PFAS) contamination in the area;



- Review of existing underground services on-site, from a *Before You Dig Australia* search.
- Presentation of a conceptual site model (CSM); and
- Data interpretation and reporting.

This PSI report was completed with reference to the EPA (2020) *Consultants Reporting on Contaminated Land*. It documents the investigation works, with discussion of the findings in regards to potential exposure pathways and risks to human health and the environment. It concludes with a statement concerning the potential for contamination to exist on the site.

### 1.5. Regulatory Framework

The following regulatory framework and guidelines were considered during this PSI:

- Contaminated Land Management Act 1997 (the CLM Act 1997);
- Protection of the Environment Operations Act 1997 (the POEO Act 1997);
- Environmental Planning and Assessment Act 1979 (the EP&A Act 1979);
- State Environmental Planning Policy (Resilience and Hazards) (2021);
- Maitland Local Environmental Plan 2011;
- EPA (2017) Guidelines for the NSW Site Auditor Scheme;
- EPA (2020) Consultants Reporting on Contaminated Land; and
- NEPC (2013) National Environment Protection (Assessment of Site Contamination) Amendment Measure.



# 2. Site Description

# 2.1. Property Identification, Location and Physical Setting

The site identification details and associated information are presented in **Table 2-1**. The site locality and assessment area are shown in **Figures 1** and **2**, **Appendix A**.

Table 2-1 Site Identification					
Attribute	e Description				
Street Address	1064 New England Highway, Lochinvar NSW				
Location	Site located 130km north-west of the Sydney central business district. Bound by the New England Highway to the south. Rural properties dominated the surroundings.				
Geographical Coordinates	Northern-eastern corner of site (GDA2020-MGA56): • Easting: 354138.842; • Northing: 6380655.59. (Source: <u>http://maps.six.nsw.gov.au</u> )				
Area	9.818 hectares (or 98,180m <sup>2</sup> )				
Lot and DP	Lot 2 in DP 261947				
State Survey Marks	<ul> <li>One permanent and one state survey marks are situated within close proximity to the site:</li> <li>PM157524: on the side of Lochill Close (101m north);</li> <li>SS28388 D: across New England Highway (55m south);</li> <li>(Source: <u>http://maps.six.nsw.gov.au</u>)</li> </ul>				
LGA	City of Maitland				
Parish	Gosforth				
County	Northumberland				
Zoning	RU2: Rural Landscape ( <i>Maitland Local Environmental Plan 2011</i> )				

# 2.2. Local Land Use

The site is situated within an area of mixed agricultural, residential and commercial uses. The sensitive receptors within close proximity (<250m) to the site are identified in **Table 2-2**.

Direction	Land Use Description	Sensitive Receptor (distance from site)
North	Residential and rural properties	Residents (approximately 30m north)
South	New England Highway, followed by residential properties	Residents (immediately adjacent) Lochinvar Creek (approximately 220m south)
East	Residential properties, followed by New England Highway	Residents (approximately 30m south) Commercial properties (approximately 50m east)
West	Rural properties	Residents (approximately 40m west)

Table 2-2 Local Land Use



# 2.3. Regional Setting

Regional topography, (hydro)geology and soil landscape information is given in **Table 2-3**.

Table 2-3 Reg	gional Setting
Attribute	Description
Topography	The site is has a slight down slope to the south, with the elevations ranging between 44m to 56m Australian Height Datum (AHD).
Drainage	Likely to be consistent with the general slope of the site. Stormwater is expected to infiltrate directly into the ground, or become runoff flowing towards the highway.
Geology	The Department of Mineral Resources <i>Singleton 1:250,000 Geological Series Sheet Sl/56-01</i> (DMR GR, 1969) indicates the site is underlain by basalt, siltstone, sandstone and tuff ( <i>Pwdl</i> ).
Soil Landscape	The Soil Conservation Service of NSW <i>Soil Landscapes of the Hunter Region 1:250,000</i> <i>Sheet</i> (DME and Engel 1966) indicates that the site overlies a North Eelah (nex) residual landscape. This landscape is characterised by gently undulating rises to rolling low hills on Permian sediments and basalt in the East Maitland Hills region (slope 5-12%, local relief generally 10-30m but up to 70m, elevation 20-130m, cleared tall open-forest).
Acid Sulfate Soil (ASS) Risk	The <i>Maitland LEP 2011 - Acid Sulfate Soils Map</i> (Sheet ASS_002A) shows the site is in a <i>Class 5</i> area, indicating that the potential for ASS to be present on-site is low. The <i>Greta Acid Sulfate Soil Risk Map</i> (1:25,000 scale; Murphy, 1997) shows the site lies within an area having ' <i>No Known Occurrence</i> '. In such cases, ASSs are not known or expected to occur and "land management activities are not likely to be affected by ASS materials." Based on this map information, as well as the site's relative elevation (44 to 56m AHD), the potential for ASS presence on-site was considered to be low and further consideration was unwarranted.
Nearest Surface Water Feature	Lochinvar Creek, approximately 160m south of the site, at the closest point. This creek eventually flows into the Hunter River.
Groundwater Flow Direction	Inferred to be in a southern direction, towards Lochinvar Creek.

#### Table 2-3 Regional Setting

### 2.4. Groundwater Bore Records and Local Groundwater Use

An online search for groundwater bores registered with WaterNSW was conducted by EI on 21 March 2024 (<u>https://realtimedata.waternsw.com.au/water.stm</u>). The search revealed no registered bores within a 500m radius of the site (**Appendix B**), indicating the local groundwater resource was not being (heavily) utilised.

#### 2.5. Site Walkover Inspection

Observations were recorded during a walkover inspection of the site, conducted on 22 March 2024. These observations are summarised below. Photographs taken during the inspection are presented in **Appendix C**.

- The site was located in a mixed residential and rural area. The surrounding activities included agricultural and rural residential properties.
- The site consisted of one large block of land, mostly covered with vegetation.
- The vegetation on-site included small to medium trees, shrubs, groundcovers, grasses and weeds. None of the vegetation appeared to be distressed. A small patch of trees was seen in the southern portion of the site.



- An area in the middle of the site, along the western fence line, contained a residence, demountable, shipping containers and sheds. The residence was set on suspended concrete slabs.
- The driveway was comprised of gravel.
- Several sheds and shipping containers were present on the property. Tyres were within some of these sheds, indicating that the shed could've been used for farm maintenance.
- A topsoil stockpile was present in the centre of the site.
- No visual evidence of infrastructure associated with an underground petroleum storage system (UPSS) was observed on the site. No above-ground storage tank (AST) was present.
- No fragments of fibre cement sheeting (FCS) were observed across the site surface, although the examination was limited in some areas due to the coverage by dense (overgrown) scrub vegetation.
- The site displayed a down slope towards New England Road (i.e. towards the south east).
- The site topography (surface elevation) was consistent with its immediate surroundings, suggesting that a major cut and fill operation was unlikely to have occurred on the property, although topsoil filling materials were expected to be present, especially in former building (slab / footing / driveway) areas.
- Orchards and livestock were observed in the neighbouring property to the north east. No such agricultural practices were seen on the site.
- Multiple tributaries were observed with the ones in the north flowing further north towards Kaludah Creek, and the ones in the south flowing east towards Lochinvar Creek. Both creeks eventually flow into the Hunter River.
- There was no NSW Fire and Rescue Station (or Training College) in the vicinity (<100m) of the site.

# 3. Site History and Searches

### 3.1. Land Titles Information

An historical land titles search was conducted by EI through Direct Info Pty Ltd. Copies of relevant documents resulting from this search are presented in **Appendix D**.

The search revealed the site had been privately owned by the same entity until 2013, when its ownership was transferred to Monique Elwyn Meyer and Darren Bruce Meyer, before being transferred solely to Darren Bruce Meyer (the current proprietor) in 2022.

### 3.2. Historical Aerial Photograph Review

The historical aerial photographs reviewed as part of this PSI were derived from on-line resources and included:

1961, 1971, 1975, 1976, 1979, 1984, 1987, 1991, 1994, 1998: via Spatial Service NSW

(https://portal.spatial.nsw.gov.au/portal/apps/sites/#/homepage/pages/map-viewers);

2008, 2010, 2015, 2017, 2022, 2023, and 2024: via Google Street View.

A summary of the findings is given in **Table 3-1**.

Photograph	Site Description	Land Use
1961 – 1975	The site is vacant and appears to be rural farmland. Surrounding areas were also farmland, with a homestead on the neighbouring land	Rural Residential / Agricultural
1976 – 1987	The site is still rural farmland, appears to have had a homestead built on the land. It is likely that the land is now separated from the surrounding lots. Surrounding area is mostly unchanged from previous images, except for increase housing in the township.	Rural Residential / Agricultural
1991 – 1998	The site is largely unchanged for the previous images. The township has expanded with more houses, especially to the south.	Residential / Agricultural
2008 – 2017 (street view)	The site is largely unchanged for the previous images. The surrounding areas are largely unchanged for the previous images.	Residential / Agricultural
2022 - 2023 (street view)	The site was largely unchanged since the previous images The township has expanded in the surrounding areas with more houses being built, especially to the south and north of the site.	Residential / Agricultural
2024	The site is largely unchanged for the previous images. The surrounding areas are largely unchanged for the previous images.	Residential / Agricultural

 Table 3-1
 Summary of Aerial Photograph Observations

In summary, the site had continuously been used for residential / agricultural purposes since the 1960s, at least. The residence was built sometime between 1975 and 1976. The surrounding areas had been used for residential and agricultural purposes, including some orchard gardening.



# 3.3. Lotsearch Report

Lotsearch Report LS054221\_EI is presented in **Appendix E**. The relevant (historical) information from this document is summarised below.

- No former gasworks sites were present within a 500m radius of the site.
- No national waste management sites were present within a 500m radius of the site.
- No retail fuel facility sites were present within a 1000m radius of the site.
- No properties that were part of the EPA PFAS Investigation Program, or the Defence or Airservices Australia PFAS programs, were present within a 500m radius of the site.
- No properties assessed as part of the *Defence 3 Year Regional Contamination Investigation Program* were within a 500m radius of the site.
- The site and its surroundings were not recorded as having any "naturally occurring asbestos potential".
- A hydrogeological review of the site described aquifers on-site as porous, extensive and highly productivity.
- Dryland salinity assessment data were recorded for the site, indicating there was a high hazard / risk.
- No mining subsidence districts were present within the surveyed area.
- No SEPP State Significant Precincts were recorded in the vicinity of the site (<500m).
- No local or state heritage item was located on the site.
- Three heritage environmental planning instruments were within 1000m of the site. These are identified in Table 3-2 below:

Name	Classificati on	Significance	Location/ distance from site	Commencement date
Babworth House (including interiors, grounds, gardens, gateposts)	ltem – General	State	267m South	30/05/2014
Kaludah	ltem – General	Local	815m West	14/01/2022
Police Station	ltem – General	Local	980m East	14/01/2022

Table 3-2 Summary of EPI Heritage Items Within 1000m of the Site

- A natural hazard (bushfire prone land) constraint of Vegetation Category 3 applied to the site.
- No other ecological (wetland, groundwater or inflow ecosystem) constraints applied to the site; however, five native vegetation locations, three groundwater dependant ecosystems, and four inflow dependent ecosystems were within a 500m radius. These ecosystems were concentrated to the south of the site, with a native vegetation (Dry Sclerophyll Forest) being located on-site.



### Historical Business Directory

Review of the business directories for the local area (300m radius) established that:

- No service stations operated historically within 500m of the subject site.
  - Searches of current service/fuel stations in the area did not reveal any current service/fuel stations operating in those locations.
  - Based on the absence of service/fuel stations in proximity to the site, it is considered unlikely that contamination as a result of service stations would impact the subject site.
- No dry cleaners and dyers operated historically within 500m of the subject site
  - Searches of current dry cleaners in the area did not reveal any current dry cleaners operating in those locations.
  - Based on the absence of dry cleaners and dyers in proximity to the site, it is considered unlikely that contamination as a result of dry cleaning would impact the subject site.
- A motor garage / engineer had been present on the New England Highway, with the recorded year as 1982.
  - No further information was recorded.

# 3.4. Council Information

An application to access property files archived by Maitland City Council was initiated on 19 March 2024. A response received from Maitland City Council's *Planning and Environment Team* stated that Council had no relevant files relating to the site.

# 3.5. SafeWork NSW Dangerous Goods Register Records

A search of SafeWork NSW records for information relating to the on-site storage of hazardous chemicals, including possible UPSS approvals and locations, was requested by EI during the course of this PSI (request submitted 21 March 2024). The search did not locate any records pertaining to the site.

# 3.6. EPA Online Records

Searches of public registers maintained by the EPA for statutory notices and licensing agreements issued under the *Contaminated Land Management Act 1997* (CLM Act 1997) and *Protection of the Environment Operations Act 1997* (POEO Act 1997) were conducted by EI for this PSI.

### Record of Notices under Section 58 of CLM Act 1997

An on-line search of the contaminated land public record was conducted on 19 March 2024. The contaminated land public record is a searchable database of:

- Orders made under Part 3 of the CLM Act 1997;
- Notices available to the public under Section 58 of the CLM Act 1997;
- Approved voluntary management proposals under the CLM Act 1997 that have not been fully carried out and where the approval of the EPA has not been revoked;
- Site audit statements provided to the EPA under Section 53B of the CLM Act 1997 that relate to significantly contaminated land;
- Where practicable, copies of anything formerly required to be part of the public record; and
- Actions taken by the EPA under Section 35 or 36 of the *Environmentally Hazardous Chemicals Act 1985* (the EHC Act 1985).



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The search confirmed that neither the site nor the surrounding lands within close proximity (≤250m) were subject to any regulatory notices relevant to the above legislations.

#### List of NSW Contaminated Sites Notified to EPA

A search through the *List of NSW Contaminated Sites Notified to the EPA* under Section 60 of the CLM Act 1997 was conducted on 19 March 2024. This list is maintained by the EPA and includes properties on which contamination has been identified, but not deemed to be impacted significantly enough to warrant regulation.

The search confirmed that neither the site, nor any property within close proximity (≤250m), was included on the list.

#### **POEO Public Register**

A search of the *Protection of the Environment Operations Act 1997* public register was conducted on 19 March 2024. This public register contains records related to environmental protection licences, applications, notices, audits, pollution studies and reduction programs.

The search confirmed that neither the site, nor the surrounding lands within close proximity (≤250m), were subject to any licensing agreements / notices / programs relevant to the above legislation.

### 3.7. NSW Government PFAS Investigation

A search of the *NSW Government Per- and Poly- Fluoroalkyl Substance (PFAS) Program Database* was made on 25 March 2024, with no results for any locations in Lochinvar being present.

### 3.8. Before You Dig Records

A search through *Before You Dig* for underground services was conducted on 14 March 2024. Copies of the relevant documents are provided in **Appendix F**. A review of these documents revealed the site had no recorded underground services.



# 4. Conceptual Site Model

In accordance with the NEPC (2013) *Schedule B2 - Guideline on Site Characterisation*, a CSM was developed as part of the contamination appraisal, which assessed plausible linkages between potential contamination sources, migration pathways and receptors. It is hereby presented, taking into account the findings from El's walkover inspection and the historical search information.

### 4.1. Rationale

The primary purpose of this PSI was to appraise the potential for contamination to exist on the site. If such a potential was suspected, the environmental and human-health risks associated with contamination were be evaluated.

This appraisal did not involve intrusive sampling and laboratory analysis of soils, soil vapours or groundwater. Instead, the potential for contamination was based on a desktop study, collating information from history searches and government-maintained databases, as well as a walkover inspection. Professional judgement was then applied, based on previous experience.

### 4.2. Summary of Site History

Based on the walkover inspection and available historical information (**Sections 2** and **3**), the site had been used for residential and agricultural purposes since the 1960s, at least. Agricultural use of the site was expected to still be active at the time of this PSI. The residence on-site was built between 1975 and 1976.

The local surroundings consisted of agricultural and residential properties.

#### 4.3. Predicted Subsurface Conditions

Based on the available map information and site inspection (**Section 2**), the sub-surface conditions were expected to comprise a layer of filling ( $\leq$ 1m thickness; at least in areas where construction occurred), overlying natural, residual deposits dominated by silt and clay, followed by basalt/sandstone bedrock. The potential for ASSs to be present was considered to be low; however, the risk for the dryland salinity was high.

A major cut and fill operation was unlikely to have occurred on the property; however, topsoil filling materials were expected to be present, especially in former building (slab / footing / driveway) areas. A stockpile of topsoil was present in the centre of the site.

The inferred groundwater flow direction was south-easterly, towards Lochinvar Creek.

#### 4.4. Potential Contamination Sources

Initial assessment indicated that there was potential for contamination to exist on the site, derived from the following sources:

- Former and current on-site agricultural activities, including the application of fertilisers and/or pesticides, as well as any maintenance of farming machinery;
- The importation of filling materials of unknown origin and quality;
- Deposition of hazardous building materials, spread through weathering of exposed building fabrics and/or poor demolition practices; and
- Off-site migration from neighbouring properties.



### 4.5. Potential Contaminants

Based on the sources listed in **Section 4.4**, the contaminants of potential concern (COPCs) for this site were considered to be:

- Heavy Metals (HM) arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc;
- Total Recoverable Hydrocarbons (TRH);
- Volatile Organic Compounds (VOC); including
  - Volatile Chlorinated Hydrocarbons (VCH); and
  - Monocyclic aromatic hydrocarbons Benzene, Toluene, Ethylbenzene, Xylenes (BTEX);
- Polycyclic Aromatic Hydrocarbons (PAH);
- Organochlorine and Organophosphorus Pesticides (OCP / OPP);
- Polychlorinated Biphenyls (PCB);
- PFAS; and
- Asbestos.

Salinity was also an issue for local (site) soils.

#### 4.6. Potential Receptors

The following potential receptors of site contamination were identified:

- Existing and future site users / occupiers;
- On-site excavation and construction workers (during future redevelopment);
- Users of the adjacent land (during future redevelopment); and
- Local groundwater and surface (dam) water, including Lochinvar Creek (16om south).

#### 4.7. Risk Assessment

A qualitative assessment of the potential risks for the site relating to the identified sources of contamination is summarised in **Table 4-1**. Note there was also high risk of dryland salinity.

Table 4-1 Assessment of Potential Contamination Risk

Potential Source	Impacted Medium	COPC	Risk of Contamination
The application of fertilisers and/or pesticides The maintenance of farming machinery Imported fill	Near-surface soil (≤1m depth) Dam water	HM, TRH, VOC, PAH, OCP, OPP, PCB, PFAS, asbestos	Moderate to High Agricultural activities and machinery maintenance likely to have occurred on-site since the1960s. Imported fill expected to be present, especially within building and driveway areas, plus soil stockpile.
Building weathering and poor demolition practices	Near-surface soil (≤1m depth)	HM (lead in particular), asbestos	Low to Moderate Buildings on-site likely t ocontain lead-based paint and asbestos cement sheeting.
Migration from off- site sources	Soil, surface water and groundwater	HM, TRH, VOC, PFAS	Low to Moderate Nearby properties used for commercial purposes (mostly agricultural activities).



### 4.8. Summary of the CSM

A summary of the CSM, including the potential contamination sources, exposure pathways and human and environmental receptors, is presented in **Table 4-2**. A diagram of the CSM is provided in **Figure 4-1** below.

Based on this model, there was potential for contamination to exist on the site.



#### Table 4-2 Summary of the Conceptual Site Model

Potential Source	Impacted Medium	COPCs	Transport Mechanism	Exposure Pathway	Potential Receptor	Source-Pathway- Receptor (SPR) Linkag
The application of fertilisers and/or pesticides for agricultural purposes	Soil Surface (dam) water	HM, TRH, VOC (VCH, BTEX), PAH, OCP, OPP, PCB, PFAS and	Disturbance of surface and subsurface soils during site redevelopment, future site maintenance and future use of the site post redevelopment	Ingestion Dermal contact Inhalation of particulates	Future site users Excavation / construction workers Adjacent site users Future intrusive workers Plants in landscaped areas	Likely to be complete
The maintenance of farming machinery		asbestos	Atmospheric dispersion from soil to outdoor and indoor air spaces		Flora and fauna in the dam	
Importation of filling	Groundwater Surface (dam) water	Dissolved HM, TRH, VOC (VCH, BTEX), PAH and PFAS	Volatilisation of contamination from groundwater to indoor or outdoor air spaces (onsite and offsite)	Ingestion Dermal contact Inhalation of vapours	Future site users Excavation / construction workers Adjacent site users Future intrusive workers	Potentially complete
Building weathering and poor demolition practices			Disturbance of surface soils during site redevelopment, future site maintenance and future use of the site post redevelopment	Ingestion Dermal contact	Excavation / construction workers Future intrusive workers	Potentially complete
Migration from off-site sources			Migration of dissolved phase impacts in groundwater via diffusion and advection	Biota uptake	Plants in landscaped areas On-site dam Lochinvar Creek	Potentially complete
Salinity	Soil Groundwater	pH, electrical conductivity, major cations, chloride and sulfate	Vertical movements with alterations in groundwater table		Plants in landscaped areas Flora and fauna in the dam Local groundwater Lochinvar Creek	Likely to be complete

Footnotes:

The overall potential for contamination to exist on the site was deemed to be moderate

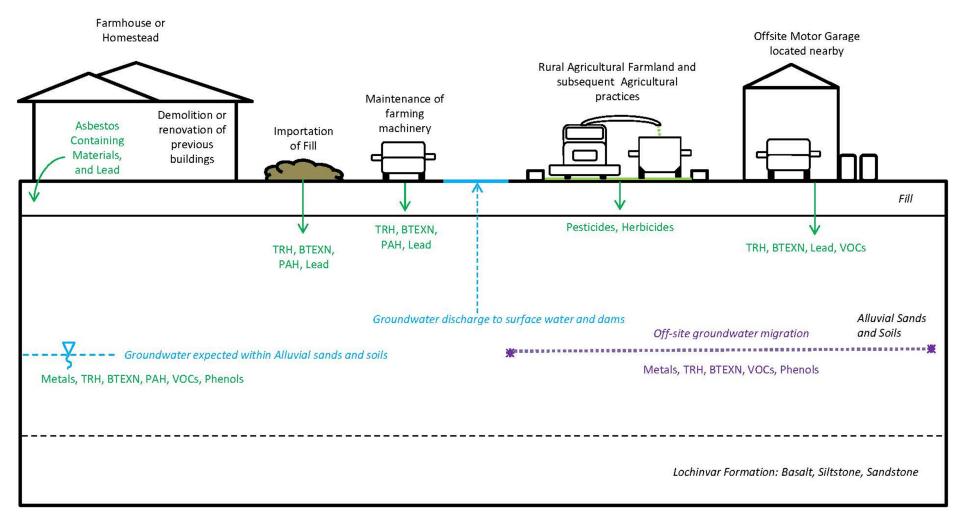
The risk for dryland salinity was high

Risks associated with all Source-Pathway-Receptor linkages considered to be elevated; although Workers during excavation and construction, as well as future service maintenance, assumed to use personal protective equipment (PPE) as per SafeWork NSW regulations, thus eliminating S-P-R linkage



Page | 13

#### Figure 4-1 Conceptual Site Model Diagram



NOT TO SCALE



# 5. Conclusion

The site identified as 1064 New England Highway, Lochinvar NSW was the subject of this PSI, the main objective of which was to appraise the potential for contamination to exist on the land. The key findings of this PSI were as follows:

- The site had been used for residential / agricultural purposes since the 1960s, at least. The existing residence was built between 1975 and 1976.
- The surrounding areas were historically used for residential and agricultural purposes (mainly).
- The site was free of statutory notices and licencing agreements issued under the *Contaminated Land Management Act* 1997 and *Protection of the Environment Operations Act* 1997. It was included on the *List of NSW Contaminated Sites Notified to the EPA*.
- There was no evidence that a UPSS had been installed on the site. No AST was present.
- The sub-surface conditions were expected to comprise a layer of filling (<1m thickness), overlying natural, residual deposits dominated by silt and clay, followed by weathered sandstone and basalt bedrock. The potential for ASSs to be present was considered to be low; however, the risk for the dryland salinity was high.</p>
- A major cut and fill operation was unlikely to have occurred on the property; however, topsoil filling materials were expected to be present, especially in former building (slab / footing / driveway) areas. A stockpile of topsoil was present in the centre of the site.
- The inferred groundwater flow direction was south-easterly, towards Lochinvar Creek. Lochinvar Creek flows into the Hunter River.
- The CSM established that there was moderate potential for contamination to exist on the land, derived from a variety of sources.

Based on the findings of this PSI, and with consideration of El's *Statement of Limitations* (**Section 7**), there was potential for contamination to exist on the site. In accordance with *State Environmental Planning Policy (Resilience and Hazards) 2021*, further investigation was warranted in order to determine the site's suitability for the proposed (residential) development and use. Other recommendations are outlined in **Section 6** of this report.



# 6. Recommendations

El makes the following recommendations in relation to any future development of the site:

- Detailed site investigation (DSI), which includes soil salinity assessment, should be undertaken, to assess the nature and extent of any soil and groundwater contamination.
- Prior to undertaking any building demolition and land clearance, a hazardous materials survey (HMS) should be performed, to assist the management (handling and disposal) of such materials during future development.
- Following removal of the buildings, demountable, shipping containers, sheds and vegetation cover, an inspection of the site surface is to be performed, to check for visual evidence of contamination, in particular fragments of asbestos cement sheeting.
- All soil materials that are designated for off-site disposal, including any virgin excavated natural material (VENM), should be managed in accordance with an appropriate waste management plan, which references the POEO (Waste) Regulations 2014. The waste classification process will require representative soil sampling and analysis, in accordance with the EPA (2014) Waste Classification Guidelines, with the analytical suite to include the identified COPCs (Section 4.4). Analytical data generated under the DSI could be used for this purpose.
- Once appropriately classified, all waste materials are to be transported to EPA-licensed waste facilities by the appointed waste contractors. All tipping dockets supplied by the landfill companies are to be retained, to confirm the appropriate (lawful) disposal of wastes.
- Any material that is imported to the site must be validated as suitable for the intended use, in accordance with EPA guidelines. In particular, imported filling / landscaping material must be certified as meeting the VENM classification, prior to importation.

El emphasise that these recommendations can be managed through the development application process, in accordance with *State Environmental Planning Policy (Resilience and Hazards) 2021.* 



# 7. Statement of Limitations

This report has been prepared for the exclusive use of Boycecorp Pty Ltd, whom is the only intended beneficiary of El's work. The scope of the investigation carried out for the purpose of this report is limited to that agreed with Boycecorp Pty Ltd.

No other party should rely on this document without the prior written consent of EI, and EI undertakes no duty, or accepts any responsibility or liability, to any third party who purports to rely upon this document without EI's approval.

El has used a degree of care and skill ordinarily exercised in similar investigations by reputable members of the environmental industry in Australia, as at the date of this document. No other warranty, expressed or implied, is made or intended. Each section of this report must be read in conjunction with the whole of this report, including its appendices.

The conclusion presented in this report is based on a limited assessment of historical and current uses of the site. Due to the preliminary nature of this investigation, findings are not based on actual samples collected or testing conducted. El has relied upon information provided by the client and other third parties to prepare this document, some of which could not be verified by El due to the anecdotal or historical nature of the information.

El's professional opinions are reasonable and based on its professional judgment, experience and training.

El's professional opinions contained in this document are subject to modification if additional information is obtained through the data searches that have been initiated with government authorities.

Technical opinions may also be amended in the light of further investigation, observations, or validation testing and analysis during remedial activities. In some cases, further testing and analysis may be required, which may result in a further report with different conclusions.



# References

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NEPC (1999) National Environmental Protection (Assessment of Site Contamination) Measure 1999, National Environmental Protection Council, December 1999.

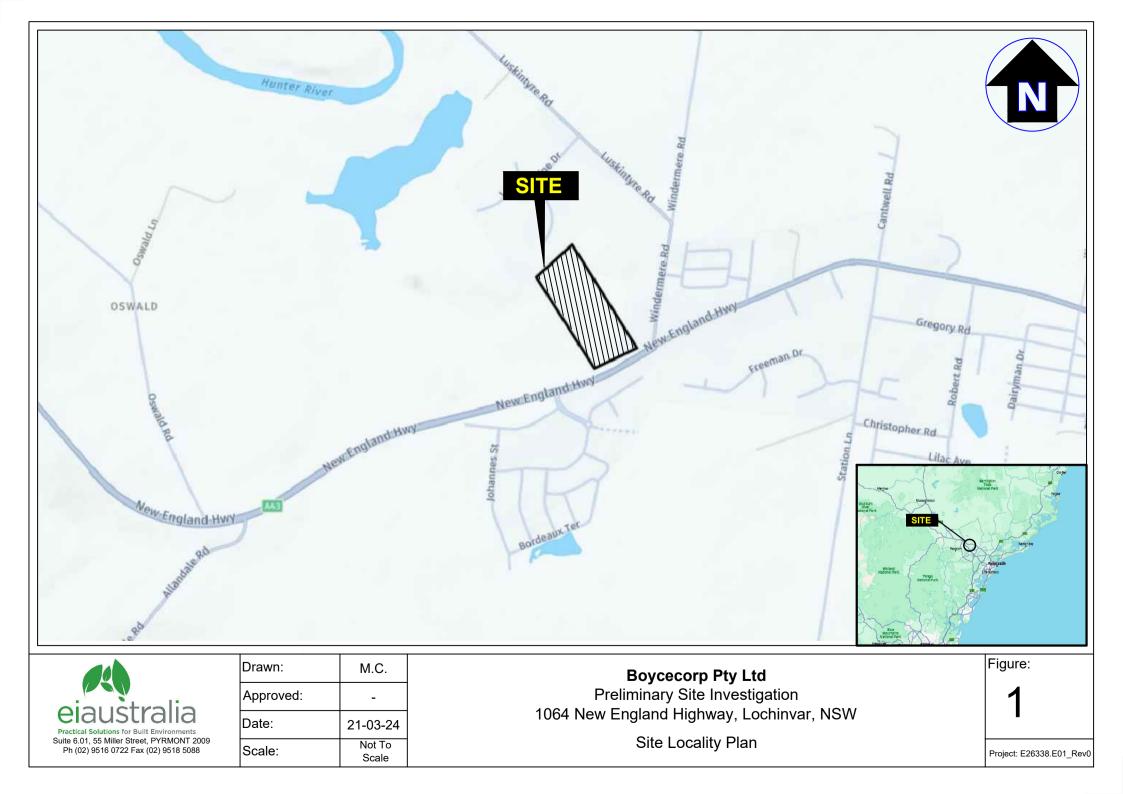
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NSW (2021) State Environmental Planning Policy (Resilience and Hazards) (2021), last modified 2 March 2022.



# Appendix A – Figures







**LEGEND** Note: All locations are approximate





Drawn:	M.C.	В
Approved:	-	<b>ں</b> Prelin 1064 New End
Date:	27-03-24	Sa

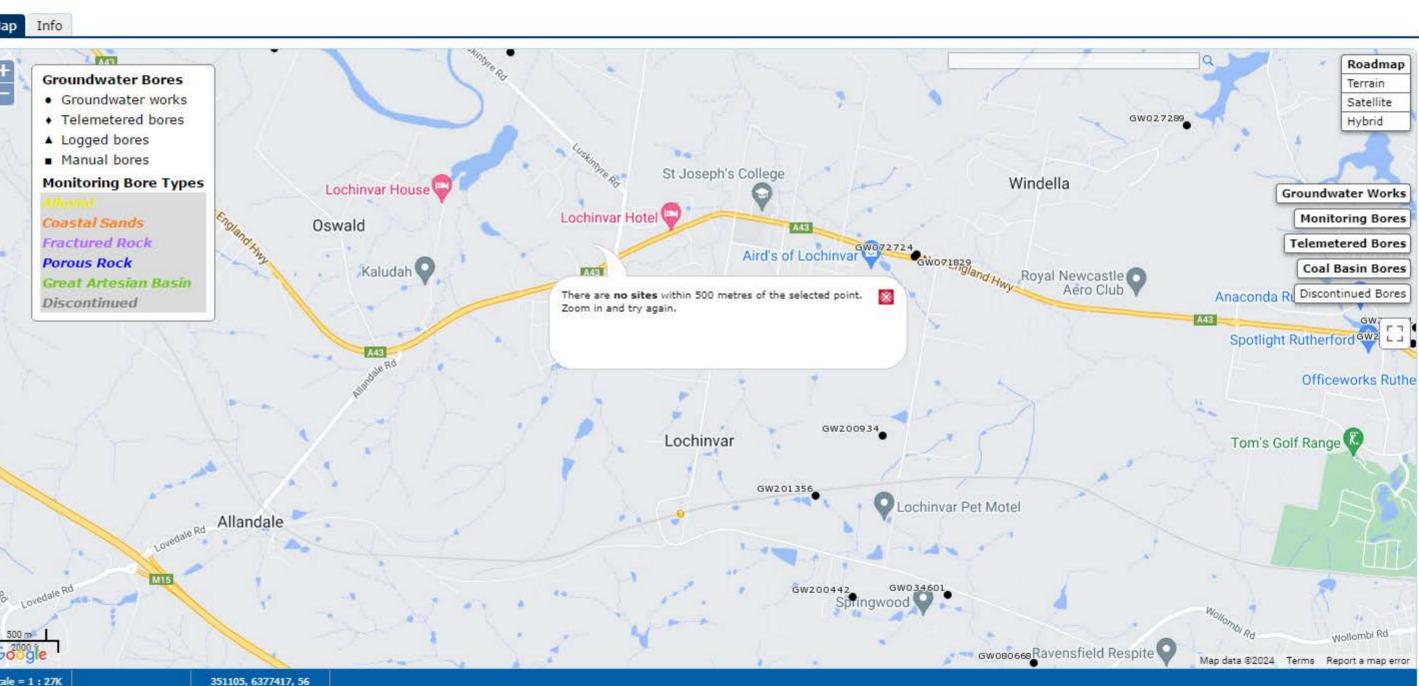
**Boycecorp Pty Ltd** liminary Site Investigation ngland Highway, Lochinvar, NSW Sampling Location Plan Figure:

Project: E26338.E01\_Rev0

Appendix B – Groundwater Bore Search



All Groundwater Site Details home help contact customise ALL GROUNDWATER MAP State Overview All data times are Eastern Standard Time State Overview Map Info **Rivers and Streams** L MES + favourites search download sites find a site **Groundwater Bores** ➡ Real Time Data - Rivers And Streams Logged bores **Daily River Reports**  Manual bores Daily River Reports Dams Coastal Sands Fractured Rock favourites search download sites find a site Porous Rock Real Time Data - Major Dams Discontinued Groundwater (Telemetered data) favourites search download sites find a site I Real Time Data - Bores All Groundwater Site details search download sites find a site search by licence All Groundwater Map Meteorology favourites search download sites find a site Hunter River Salinity Trading Scheme G200 Hunter River Salinity Trading Scheme Scale = 1 : 27K



bookmark this page

# Appendix C – Site Photographs





Photograph 1: Site entrance and gravel driveway from New England Highway, facing north.



Photograph 2: Orchards and livestock on neighbouring property, facing north east.





Photograph 3: Entrance, homestead and sheds, facing south west.



Photograph 4: Homestead and shipping containers, facing west.





Photograph 5: View uphill towards the back of the property, facing north west.



Photograph 6: View uphill towards the back of the property, facing north.





Photograph 7: Topsoil/fill stockpile and vegetation waste.



Photograph 8: View from inside the inner fence of stockpile, looking south east.



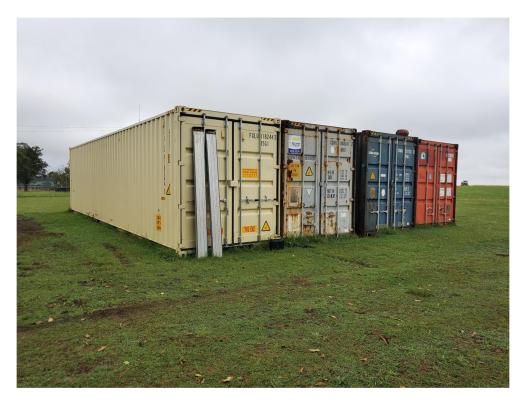


Photograph 9: Main dwelling on the site.



Photograph 10: Main dwelling, demountable building, and shipping containers, facing north.





Photograph 11: Shipping containers located on the site.



Photograph 12: Shed with truck and excavator.





Photograph 13: Shed with car and tyres.



Photograph 14: View of the two sheds, facing east.





Photograph 15: View of old truck located on-site.



Photograph 16: Old truck east of the two sheds, facing north east



Appendix D – Historical Land Title Search







#### **Title Search NSW**

21/03/2024 02:59 PM

Client Reference: DI-E26338

NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

-----

FOLIO: 2/261947

-----

 SEARCH DATE
 TIME
 EDITION NO
 DATE

 ----- ---- ---- ---- 21/3/2024
 2:58 PM
 5
 1/4/2022

LAND

-----

LOT 2 IN DEPOSITED PLAN 261947 AT LOCHINVAR LOCAL GOVERNMENT AREA MAITLAND PARISH OF GOSFORTH COUNTY OF NORTHUMBERLAND TITLE DIAGRAM DP261947

FIRST SCHEDULE

-----

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(TZ AS16621)

SECOND SCHEDULE (3 NOTIFICATIONS)

1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)

2 N490972 COVENANT

DARREN BRUCE MEYER

3 AS16622 MORTGAGE TO MAITLAND MUTUAL LIMITED

NOTATIONS

-----

UNREGISTERED DEALINGS: NIL

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





DI-E26338

PRINTED ON 21/3/2024

\* Any entries preceded by an asterisk do not appear on the current edition of the Certificate of Title. Warning: the information appearing under notations has not been formally recorded in the Register.
 © Office of the Registrar-General 2024





#### **Historical Title Search NSW**

21/03/2024 03:01 PM

Client Reference: DI-E26338

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

\_\_\_\_\_

SEARCH DATE

-----21/3/2024 3:00PM

FOLIO: 2/261947

-----

First Title(s): OLD SYSTEM Prior Title(s): 8/244489

Recorded Number Type of Instrument C.T. Issue

----- -----

19/2/1999 DP261947 DEPOSITED PLAN LOT RECORDED FOLIO NOT CREATED

- 14/8/2000 7019100 DEPARTMENTAL DEALING FOLIO CREATED CT NOT ISSUED
- 23/5/2013 AH749629 CAVEAT
- 16/7/2013 AH877522 TRANSFER 16/7/2013 AH877523 MORTGAGE EDITION 1
- 22/9/2018 AN730138 DEPARTMENTAL DEALING EDITION 2 CORD ISSUED
- 18/3/2022 AR972690 DEPARTMENTAL DEALING EDITION 3
- 24/3/2022 AR987873 DEPARTMENTAL DEALING EDITION 4
- 1/4/2022AS16620DISCHARGE OF MORTGAGE1/4/2022AS16621TRANSFER WITHOUT MONETARY<br/>CONSIDERATION1/4/2022AS16622MORTGAGEEDITION 5

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





DI-E26338

PRINTED ON 21/3/2024

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Direct Info Pty Ltd - ABN 25 160 378 263 an approved NSW Information Broker hereby certifies that the information contained in this document has been provided electronically by the Registrar-General in accordance with Section 96B (2) of the Real Property Act, 1900.





21/03/2024 03:13 PM

 $\ensuremath{\mathbb{G}}$  Office of the Registrar-General 2024

#### **System Document Identification**

Form Number:01T-e Template Number:t\_nsw18 ELN Document ID:1106280599 ELN NOS ID: 1106280601

### TRANSFER

New South Wales Real Property Act 1900 Land Registry Document Identification



#### Stamp Duty: 10355563-001

PRIVACY NOTE: Section 31B of the Real Property Act 1900 (RP Act) authorises the Registrar General to collect the information required by this form for the establishment and maintenance of the Real Property Act Register. Section 96B RP Act requires that the Register is made available to any person for search upon payment of a fee, if any.

#### LODGED BY:

Responsible Subscriber:	LEGALSTREAM PTY LIMITED ABN 90107291501
Address:	L 19, 59 Goulburn ST Sydney 2000
Email:	notifications@legalstream.com.au
ELNO Subscriber Number:	1066
Customer Account Number:	500031Y
<b>Document Collection Box:</b>	302G
Client Reference:	Meyer 122792 Lo

#### LAND TITLE REFERENCE

2/261947

#### TRANSFEROR

MONIQUE ELWYN MEYER

Total share transferred: 1/100

#### TRANSFEREE

DARREN BRUCE MEYER

Tenancy: Sole Proprietor

#### CONSIDERATION

Without Monetary Consideration And As Regards A Court Order

#### **ESTATE TRANSFERRED**

FEE SIMPLE

The Transferor transfers to the Transferee the Estate specified in this Instrument and acknowledges receipt of any Consideration shown.

#### SIGNING FOR TRANSFEROR

I certify that:

- 1. The Certifier has taken reasonable steps to ensure that this Registry Instrument or Document is correct and compliant with relevant legislation and any Prescribed Requirement.
- 2. The Certifier has retained the evidence supporting this Registry Instrument or Document.
- **3.** The Certifier holds a properly completed Client Authorisation for the Conveyancing Transaction including this Registry Instrument or Document.
- 4. The Certifier has taken reasonable steps to verify the identity of the transferor or his, her or its administrator or attorney.

#### Party Represented by Subscriber:

MONIQUE ELWYN MEYER

Signed By: Julia Elizabeth Clarke ELNO Signer Number: 47856

Signer Capacity: Practitioner Certifier Digital Signing Certificate Number:

Signed for Subscriber: JULIA JAMES PTY LIMITED ABN 51108890357 JULIA CLARKE SOLICITOR Subscriber Capacity:Representative Subscriber ELNO Subscriber Number: 20939 Date: 01/04/2022

Customer Account Number:502264

#### SIGNING FOR TRANSFEREE

I certify that:

- 1. The Certifier has taken reasonable steps to ensure that this Registry Instrument or Document is correct and compliant with relevant legislation and any Prescribed Requirement.
- 2. The Certifier has retained the evidence supporting this Registry Instrument or Document.
- **3.** The Certifier holds a properly completed Client Authorisation for the Conveyancing Transaction including this Registry Instrument or Document.
- 4. The Certifier has taken reasonable steps to verify the identity of the transferee or his, her or its administrator or attorney.

#### Party Represented by Subscriber:

DARREN BRUCE MEYER

Signed By: Megan Rer ELNO Signer Number		Signer Capacity:Practitioner Certifier Digital Signing Certificate Number:
Signed for Subscriber:	CDG LAW PTY LIMITED A	BN 50168669190
Subscriber Capacity: ELNO Subscriber Nur Date: 01/04/2022	Representative Subscriber <b>nber:</b> 9180	Customer Account Number:501399





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\* s117 RP Act requires that you must have known the signatory for more than 12 months or have sighted identifying documentation. ALL HANDWRITING MUST BE IN BLOCK CAPITALS. Page 1 of 1

Appendix E – Lotsearch Report LS054221\_El



## Date: 21 Mar 2024 13:01:56 Reference: LS054221 EL Address: 1064 New England Highway, Lochinvar, NSW 2321

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 within 100m	No. Features within Buffer
Cadastre Boundaries	NSW Department of Customer Service - Spatial Services	04/01/2024	04/01/2024	Quarterly	-	-	-	-
Topographic Data	NSW Department of Customer Service - Spatial Services	22/08/2022	22/08/2022	Annually	-	-	-	-
List of NSW contaminated sites notified to EPA	Environment Protection Authority	29/02/2024	09/02/2024	Monthly	1000m	0	0	0
Contaminated Land Records of Notice	Environment Protection Authority	26/02/2024	26/02/2024	Monthly	1000m	0	0	0
Former Gasworks	Environment Protection Authority	24/01/2024	14/07/2021	Quarterly	1000m	0	0	0
Notices under the POEO Act 1997	Environment Protection Authority	17/01/2024	17/01/2024	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	04/03/2024	21/11/2032	Monthly	2000m	0	0	0
Defence PFAS Investigation & Management Program - Investigation Sites	Department of Defence	06/03/2024	06/03/2024	Monthly	2000m	0	0	0
Defence PFAS Investigation & Management Program - Management Sites	Department of Defence	06/03/2024	06/03/2024	Monthly	2000m	0	0	0
Airservices Australia National PFAS Management Program	Airservices Australia	06/03/2024	06/03/2024	Monthly	2000m	0	0	0
Defence Controlled Areas	Department of Defence	12/01/2024	12/01/2024	Quarterly	2000m	0	0	0
Defence 3 Year Regional Contamination Investigation Program	Department of Defence	24/01/2024	02/09/2022	Quarterly	2000m	0	0	0
National Unexploded Ordnance (UXO)	Department of Defence	12/01/2024	12/01/2024	Quarterly	2000m	0	0	0
EPA Other Sites with Contamination Issues	Environment Protection Authority	13/11/2023	15/12/2022	Annually	1000m	0	0	0
Licensed Activities under the POEO Act 1997	Environment Protection Authority	04/03/2024	04/03/2024	Monthly	1000m	0	1	1
Delicensed POEO Activities still regulated by the EPA	Environment Protection Authority	04/03/2024	04/03/2024	Monthly	1000m	0	0	0
Former POEO Licensed Activities now revoked or surrendered	Environment Protection Authority	04/03/2024	04/03/2024	Monthly	1000m	0	3	4
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	-	19	19
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	-	1	1
Points of Interest	NSW Department of Customer Service - Spatial Services	13/11/2023	13/11/2023	Quarterly	1000m	0	0	12
Tanks (Areas)	NSW Department of Customer Service - Spatial Services	13/11/2023	13/11/2023	Quarterly	1000m	0	0	0
Tanks (Points)	NSW Department of Customer Service - Spatial Services	13/11/2023	13/11/2023	Quarterly	1000m	0	0	1
Major Easements	NSW Department of Customer Service - Spatial Services	31/01/2024	31/01/2024	Quarterly	1000m	0	0	2
State Forest	Forestry Corporation of NSW	12/12/2023	11/12/2023	Annually	1000m	0	0	0
NSW National Parks and Wildlife Service Reserves	NSW Office of Environment & Heritage	16/02/2023	31/12/2022	Annually	1000m	0	0	0
Hydrogeology Map of Australia	Commonwealth of Australia (Geoscience Australia)	06/02/2024	19/08/2019	Annually	1000m	1	1	1

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)		No. Features within 100m	No. Features within Buffer
Temporary Water Restriction (Botany Sands Groundwater Source) Order 2018	NSW Department of Planning, Industry and Environment	09/05/2023	23/02/2018	Annually	1000m	0	0	0
National Groundwater Information System (NGIS) Boreholes	Bureau of Meteorology; Water NSW	18/04/2023	13/07/2022	Annually	2000m	0	0	4
NSW Seamless Geology Single Layer: Rock Units	Department of Regional NSW	06/12/2023	31/05/2023	Annually	1000m	1	1	2
NSW Seamless Geology – Single Layer: Trendlines	Department of Regional NSW	06/12/2023	31/05/2023	Annually	1000m	0	0	0
NSW Seamless Geology – Single Layer: Geological Boundaries and Faults	Department of Regional NSW	06/12/2023	31/05/2023	Annually	1000m	0	0	0
Naturally Occurring Asbestos Potential	NSW Dept. of Industry, Resources & Energy	04/12/2015	24/09/2015	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	2	3
Soil Landscapes of Central and Eastern NSW	NSW Department of Planning, Industry and Environment	12/12/2023	27/07/2020	Annually	1000m	1	1	2
Environmental Planning Instrument Acid Sulfate Soils	NSW Department of Planning, Industry and Environment	02/02/2024	01/09/2023	Monthly	500m	1	-	-
Atlas of Australian Acid Sulfate Soils	CSIRO	12/01/2024	21/02/2013	Annually	1000m	1	1	3
Dryland Salinity - National Assessment	National Land and Water Resources Audit	18/07/2014	12/05/2013	Annually	1000m	1	1	2
Mining Subsidence Districts	NSW Department of Customer Service - Subsidence Advisory NSW	24/01/2024	24/01/2024	Quarterly	1000m	0	0	0
Current Mining Titles	NSW Department of Industry	06/03/2024	06/03/2024	Monthly	1000m	0	0	0
Mining Title Applications	NSW Department of Industry	06/03/2024	06/03/2024	Monthly	1000m	0	0	0
Historic Mining Titles	NSW Department of Industry	06/03/2024	06/03/2024	Monthly	1000m	7	7	7
Environmental Planning Instrument SEPP State Significant Precincts	NSW Department of Planning, Industry and Environment	02/02/2024	08/09/2023	Monthly	1000m	0	0	0
Environmental Planning Instrument Land Zoning	NSW Department of Planning, Industry and Environment	02/02/2024	19/01/2024	Monthly	1000m	1	7	17
Commonwealth Heritage List	Australian Government Department of the Agriculture, Water and the Environment	20/10/2023	13/04/2022	Annually	1000m	0	0	0
National Heritage List	Australian Government Department of the Agriculture, Water and the Environment	20/10/2023	13/04/2022	Annually	1000m	0	0	0
State Heritage Register - Curtilages	NSW Department of Planning, Industry and Environment	24/01/2024	24/11/2023	Quarterly	1000m	0	0	0
Environmental Planning Instrument Local Heritage	NSW Department of Planning, Industry and Environment	02/02/2024	19/01/2024	Monthly	1000m	0	0	3
Bush Fire Prone Land	NSW Rural Fire Service	26/02/2024	20/11/2023	Monthly	1000m	1	2	4
NSW Native Vegetation Type Map	NSW Department of Planning and Environment	26/05/2023	12/12/2022	Quarterly	1000m	2	3	6
Ramsar Wetlands of Australia	Australian Government Department of Agriculture, Water and the Environment	09/05/2023	01/11/2022	Annually	1000m	0	0	0
Groundwater Dependent Ecosystems	Bureau of Meteorology	28/10/2022	26/10/2022	Annually	1000m	0	0	3
Inflow Dependent Ecosystems Likelihood	Bureau of Meteorology	28/10/2022	26/10/2022	Annually	1000m	0	0	4
NSW BioNet Species Sightings	NSW Office of Environment & Heritage	29/11/2023	29/11/2023	Weekly	10000m	-	-	-

## Site Diagram

1064 New England Highway, Lochinvar, NSW 2321





total site area have not been labelled for increased

nts are approximate only and

that make up a small per

Parcels legibility

ler lengths removed for readability.

Coordinate System: GDA 1994 MGA Zone 56

Date: 21 March 2024

## **Contaminated Land**

1064 New England Highway, Lochinvar, NSW 2321

### 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

 $\ensuremath{\mathbb{C}}$  State of New South Wales through the Environment Protection Authority

## **Contaminated Land**

1064 New England Highway, Lochinvar, NSW 2321

## **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

 $\ensuremath{\mathbb{C}}$  State of New South Wales through the Environment Protection Authority

## **Contaminated Land**

1064 New England Highway, Lochinvar, NSW 2321

### **EPA Notices**

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

Number	Туре	Name	Address	Status	Issued Date	Act	Offence	Offence Date	Loc Conf	Dist	Dir
N/A	No records in buffer										

NSW EPA Notice Data Source: Environment Protection Authority

© State of New South Wales through the Environment Protection Authority

## **Waste Management & Liquid Fuel Facilities**

1064 New England Highway, Lochinvar, NSW 2321

### **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

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## **National Liquid Fuel Facilities**

#### National Liquid Fuel Facilties 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

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## **PFAS Investigation & Management Programs**

1064 New England Highway, Lochinvar, NSW 2321

### **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**

1064 New England Highway, Lochinvar, NSW 2321

## **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**

1064 New England Highway, Lochinvar, NSW 2321

### **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
- Pasminco 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

### **Current EPA Licensed Activities**

1064 New England Highway, Lochinvar, NSW 2321





## **EPA Activities**

1064 New England Highway, Lochinvar, NSW 2321

## 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
10393	MAITLAND CITY COUNCIL	ALL WATERBODIES IN THE MAITLAND LOCAL GOVERNMENT AREA		MAITLAND	Other activities	Network of Features	2m	North East

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

### **Delicensed & Former Licensed EPA Activities**

1064 New England Highway, Lochinvar, NSW 2321





## **EPA Activities**

1064 New England Highway, Lochinvar, NSW 2321

## **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:

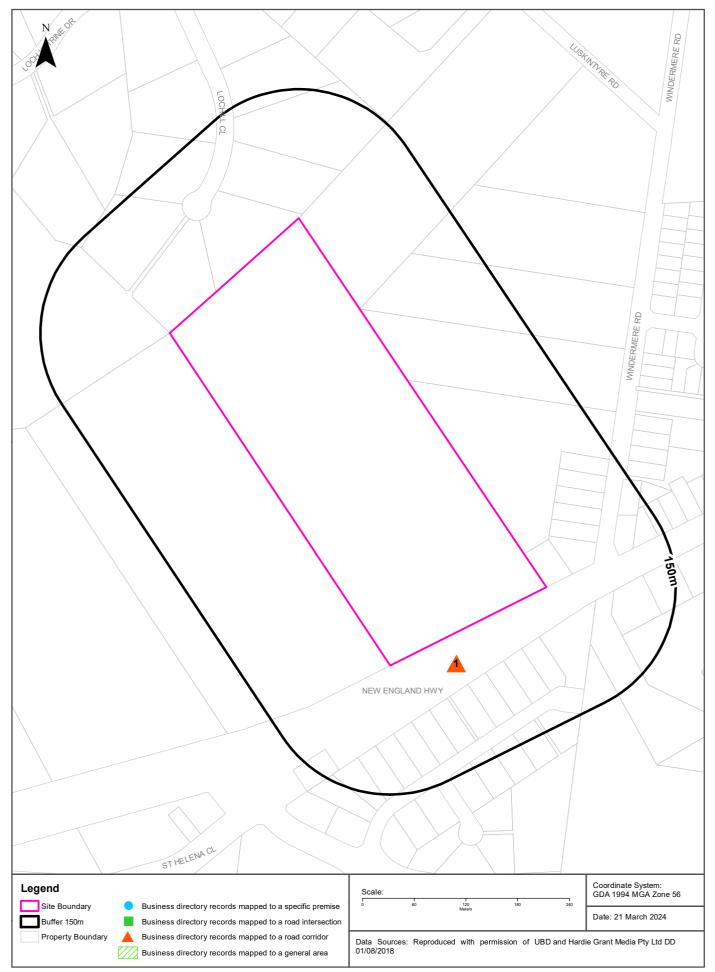
Licence No	Organisation	Location	Status	Issued Date	Activity	Loc Conf	Distance	Direction
4653	LUHRMANN ENVIRONMENT MANAGEMENT PTY LTD	WATERWAYS THROUGHOUT NSW	Surrendered	06/09/2000	Other Activities / Non Scheduled Activity - Application of Herbicides	Network of Features	2m	North East
4838	Robert Orchard	Various Waterways throughout New South Wales - SYDNEY NSW 2000	Surrendered	07/09/2000	Other Activities / Non Scheduled Activity - Application of Herbicides	Network of Features	2m	North East
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	2m	North East
12439	STATE OF NEW SOUTH WALES (Department of Primary Industries - Lands)	Soil Conservation Service, Waterways within the Hunter Valley Flood Mitigation Scheme, MAITLAND	Surrendered	13/02/2007	Other Activities - Application of Herbicides	Network of Features	279m	North West

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

## **Historical Business Directories**

1064 New England Highway, Lochinvar, NSW 2321





## **Historical Business Directories**

1064 New England Highway, Lochinvar, NSW 2321

### 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	Confidence	Distance to Property Boundary or Road Intersection	Direction
N/A	No records in buffer						

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### 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:

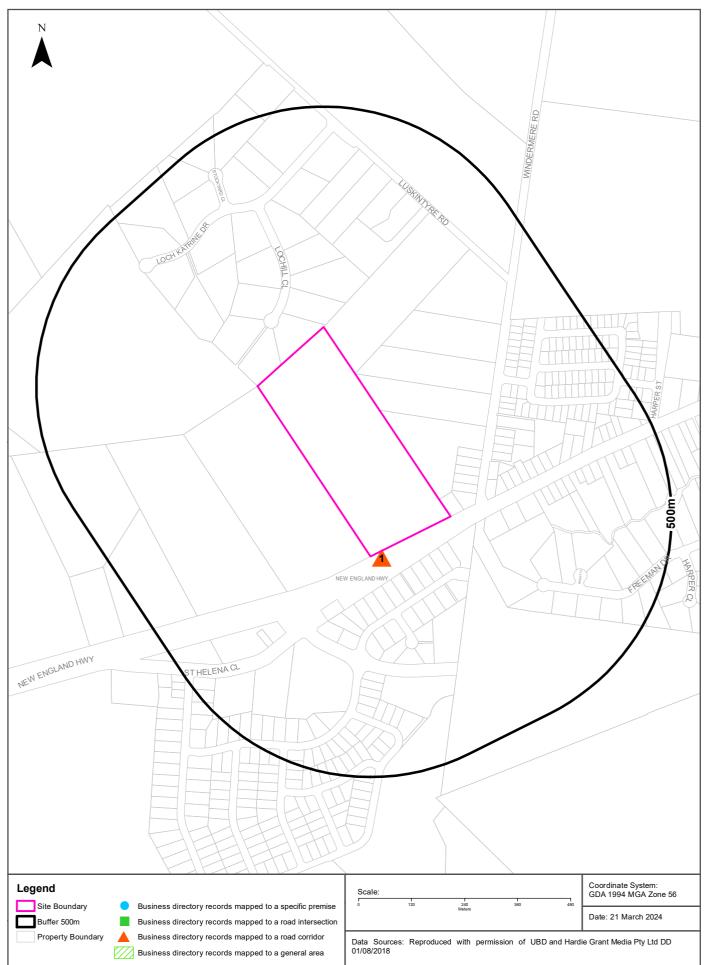
Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
1	CONCRETING CONTRACTORS.	Conicella D & Son Pty Ltd., New England H'way., Lochinvar 2321	77706	1991	Road Match	0m
	CONCRETE REINFORCEMENTS	Gibbs Ian T., 21 New England Highway, Lochinvar 2321	77700	1991	Road Match	0m
	CONCRETE REINFORCEMENTS	Gibbs Ian T., 21 New England H'way Lochinvar 2321	77701	1991	Road Match	0m
	BUILDERS SUPPLIES	Gibbs Ian T., 21 New England H'way, Lochinvar 2321	77492	1991	Road Match	0m
	STEEL FABRICATORS.	Gibbs Ian T., 21 New England H'way., Lochimar, 2321	78981	1991	Road Match	0m
	BUILDERS EQUIPMENT &/OR PLANT HIRERS.	Gibbs Ian T., 21 New England H'way., Lochinvar 2321	77485	1991	Road Match	0m
	CAGES ANIMAL, BIRD ETC. MFRS. &/OR DEALERS.	Gibbs Ian T., 21 New England H'way., Lochinvar 2321	77558	1991	Road Match	0m
	CONCRETE FORMWORK, FORM TIES & ACCESSORIES MFRS. &/OR SUPPLIERS.	Gibbs Ian T., 21 New England H'way., Lochinvar 2321	77697	1991	Road Match	0m
	CONCRETING CONTRACTORS.	Gibbs Ian T., 21 New England H'way., Lochinvar 2321	77707	1991	Road Match	0m
	EARTH MOVING EQUIPMENT - HIRE	Gibbs Ian T., 21 New England H'way., Lochinvar 2321	77778	1991	Road Match	0m
	FENCE &/OR GATE MFRS. &/OR DISTS.	Gibbs Ian T., 21 New England H'way., Lochinvar 2321	77872	1991	Road Match	0m
	FENCING MATERIAL MFRS. &/OR DISTS.	Gibbs Ian T., 21 New England H'way., Lochinvar 2321	77875	1991	Road Match	0m
	BUILDERS &/OR BUILDING CONTRACTORS.	Griffith C G., New England H'way., Lochinvar 2321	77469	1991	Road Match	0m
	BUILDERS &/OR BUILDING CONTRACTORS.	Judge J E., New England H'way., Lochinvar 2321	77473	1991	Road Match	0m
	REFRIGERATOR SALES &/OR SERVICE.	Braemar Refrigeration, New England Highway., Lochinvar 2320	168833	1982	Road Match	0m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Crebert, H. & Sons, New England Highway., Lochinvar 2320	168607	1982	Road Match	0m
	BUILDERS &/OR BUILDING CONTRACTORS.	Griffith, C. G., New England Highway., Lochinvar 2320	167870	1982	Road Match	0m
	BUILDERS &/OR BUILDING CONTRACTORS.	Judge, J. E., New England Highway., Lochinvar 2320	167876	1982	Road Match	0m
	REFRIGERATOR DEALERS & SERVICEMEN	Braemar Refrigeration, New England Hghwy., Lochinvar	639085	1970	Road Match	0m

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## **Dry Cleaners, Motor Garages & Service Stations**



1064 New England Highway, Lochinvar, NSW 2321



## **Historical Business Directories**

1064 New England Highway, Lochinvar, NSW 2321

### 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						

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### 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.

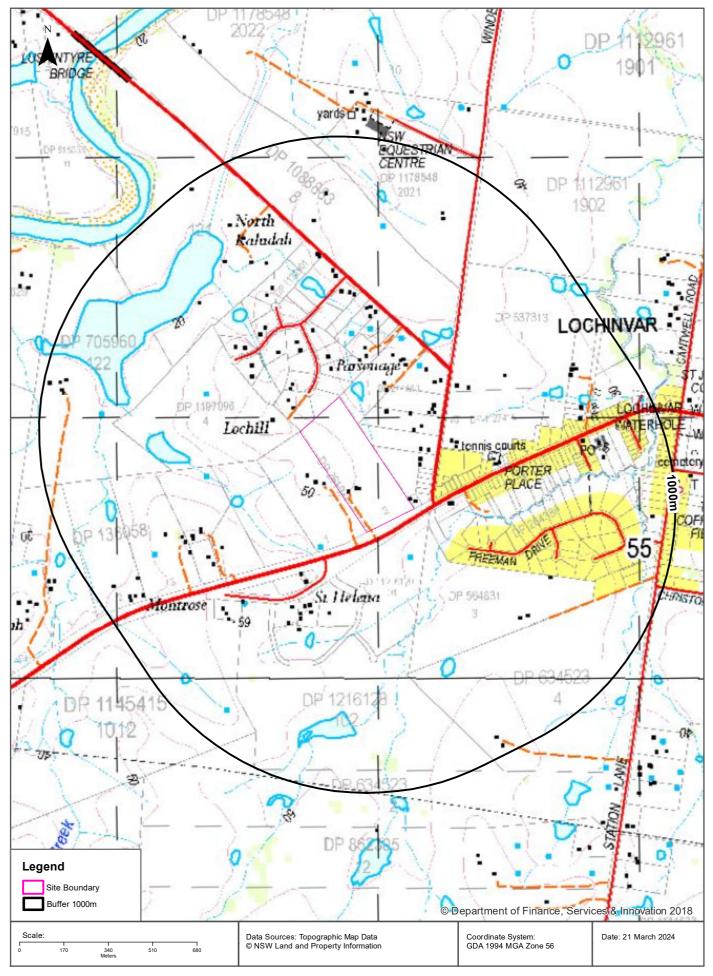
Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
1	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Crebert, H. & Sons, New England Highway., Lochinvar 2320	168607	1982	Road Match	0m

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**Topographic Map 2015** 

1064 New England Highway, Lochinvar, NSW 2321

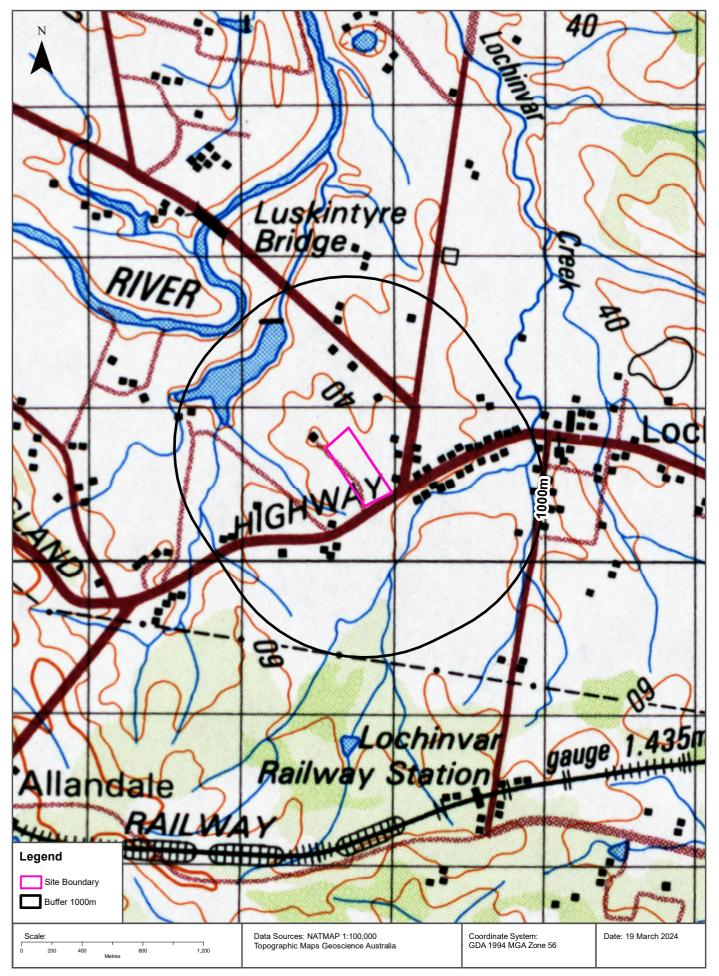




## Historical Map 1982



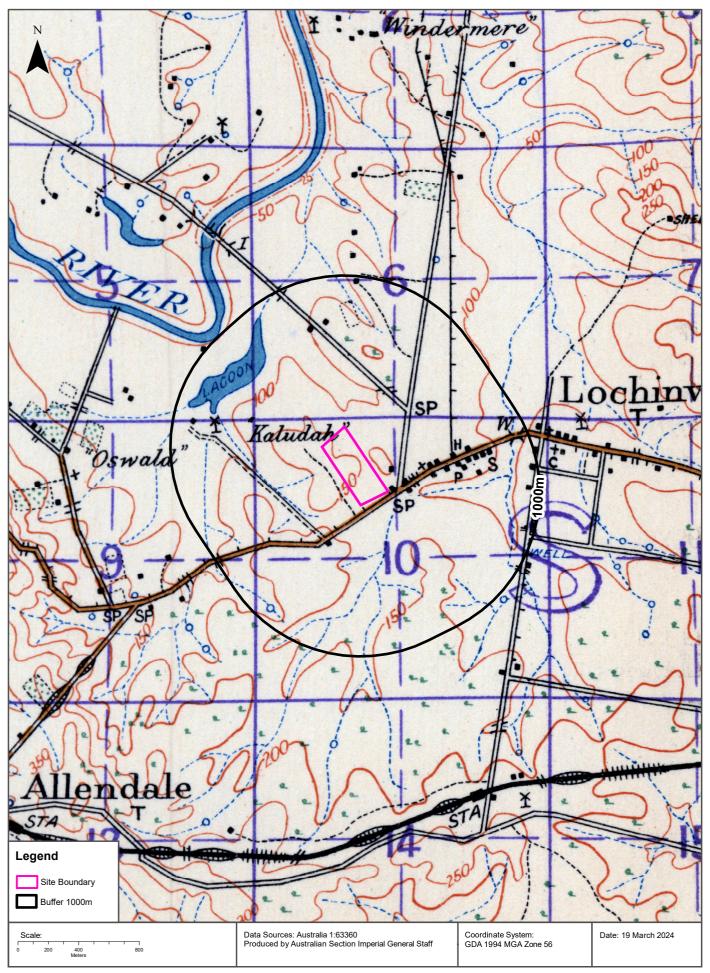




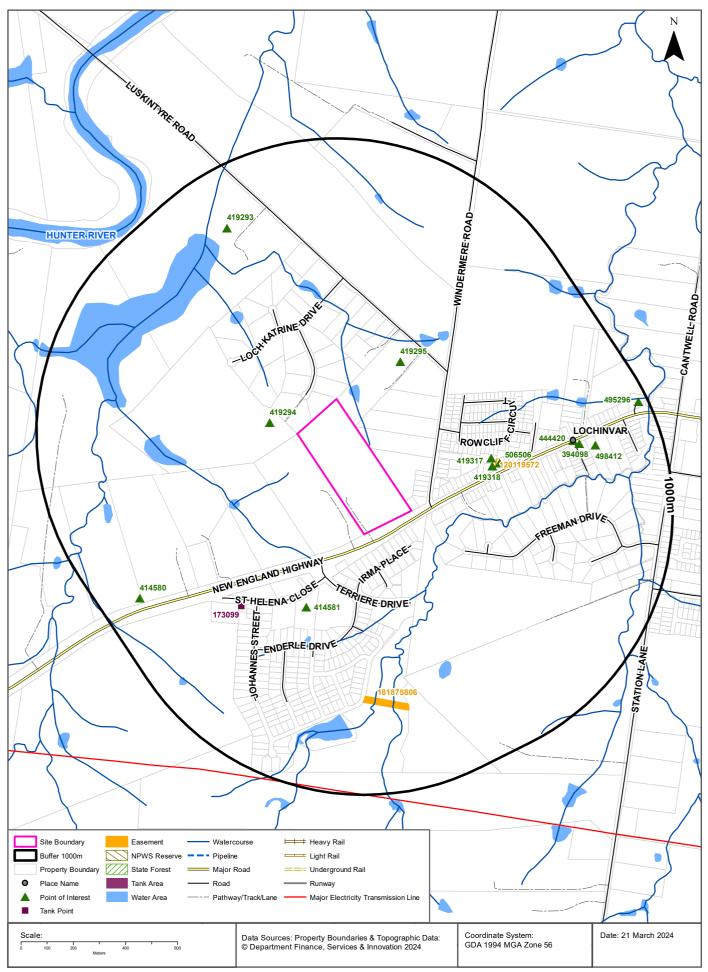
## Historical Map c.1927



1064 New England Highway, Lochinvar, NSW 2321







1064 New England Highway, Lochinvar, NSW 2321

### **Points of Interest**

What Points of Interest exist within the dataset buffer?

Map Id	Feature Type	Label	Distance	Direction
419294	Homestead	LOCHILL	114m	North West
419295	Homestead	PARSONAGE	283m	North East
419318	Community Facility	LOCHINVAR TENNIS CLUB	354m	East
414581	Homestead	ST HELENA	356m	South
419317	Sports Court	TENNIS COURTS	365m	East
506506	Park	PORTER PLACE	384m	East
444420	Town	LOCHINVAR	675m	East
394098	Post Office	LOCHINVAR POST OFFICE	693m	East
498412	Primary School	LOCHINVAR PUBLIC SCHOOL	748m	East
419293	Homestead	NORTH KALUDAH	780m	North West
414580	Homestead	MONTROSE	851m	South West
495296	Manmade Waterbody	LOCHINVAR WATERHOLE	965m	East

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

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1064 New England Highway, Lochinvar, NSW 2321

## 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
173099	Water	Operational		01/10/2011	544m	South West

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
120119572	Primary	Undefined		355m	East
181875806	Primary	Right of way	23m	621m	South

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

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1064 New England Highway, Lochinvar, NSW 2321

### **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) Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

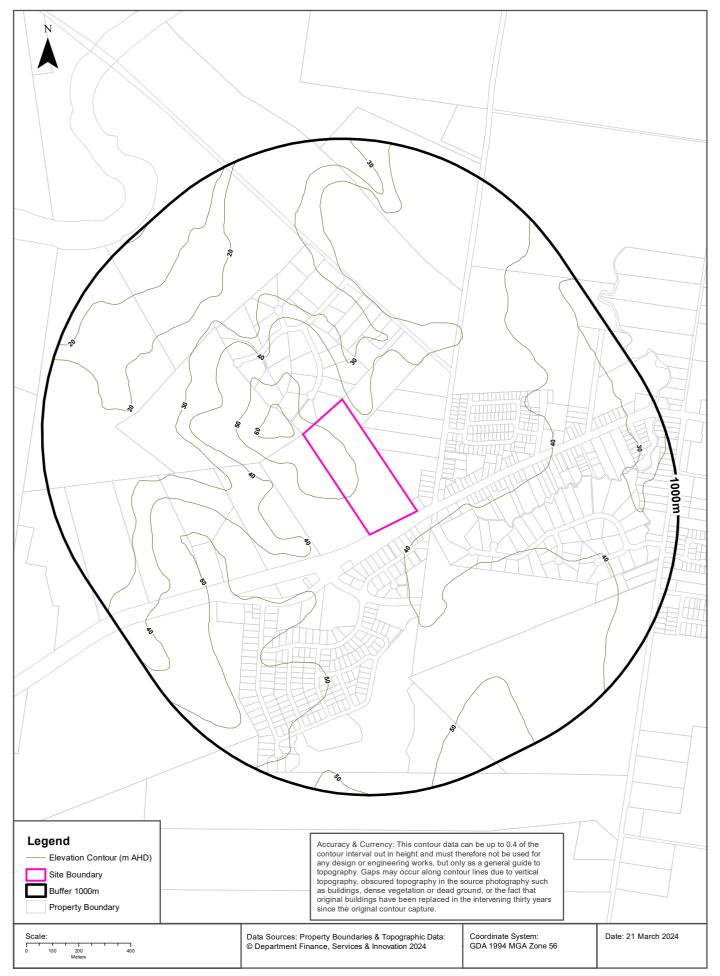
### **National Parks and Wildlife Service Reserves**

What NPWS Reserves exist within the dataset buffer?

Reserve Number	Reserve Type	Reserve Name	Gazetted Date	Distance	Direction
N/A	No records in buffer				

NPWS Data Source: © NSW Department of Finance, Services & Innovation (2018) Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en **Elevation Contours (m AHD)** 





## Hydrogeology & Groundwater

1064 New England Highway, Lochinvar, NSW 2321

## Hydrogeology

Description of aquifers within the dataset buffer:

Description	Distance	Direction
Porous, extensive highly productive aquifers	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**





## Hydrogeology & Groundwater

1064 New England Highway, Lochinvar, NSW 2321

### **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
10029544	GW028891	Unknown	Functioning		16.50		AHD				1318m	North
10138903	GW060900	Monitoring	Abandoned	01/03/1985	18.30	25.00	AHD	501-1000 ppm			1448m	East
10143490	GW055019	Stock and Domestic	Removed	01/07/1982	23.80		AHD	Fair			1777m	East
10139703	GW057354	Monitoring	Unknown	01/07/1982	22.90	37.00	AHD	1001- 3000 ppm			1849m	East

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

1064 New England Highway, Lochinvar, NSW 2321

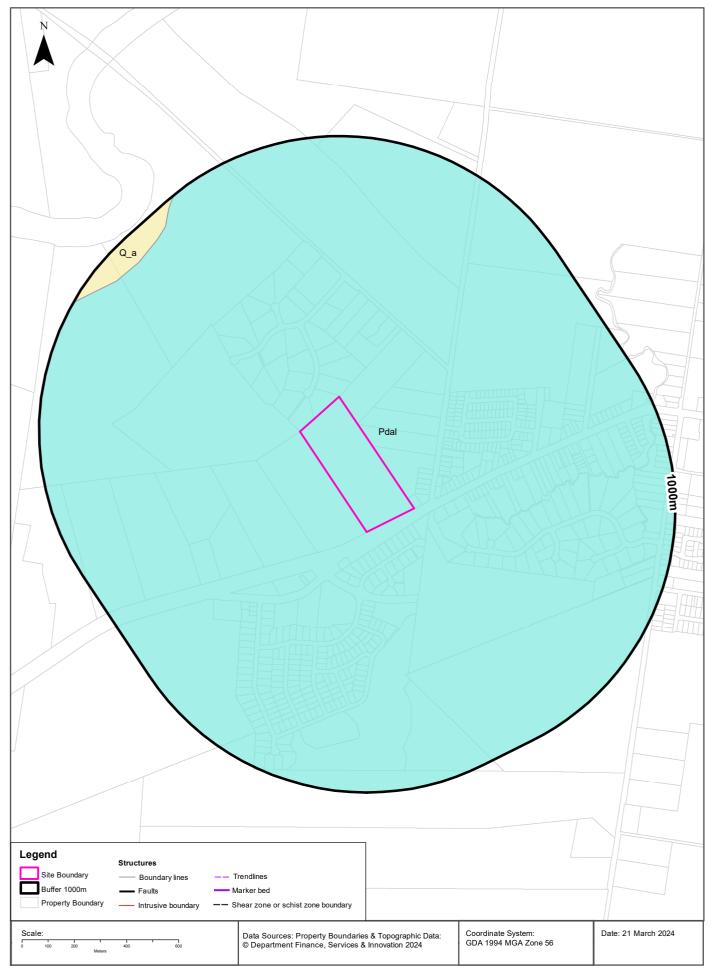
## **Driller's Logs**

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

NGIS Bore ID	Drillers Log	Distance	Direction
10138903	0.00m-4.20m Clay 4.20m-4.87m Sandstone Weathered Water Supply 4.87m-10.00m Clay 10.00m-10.66m Andesite Weathered Water Supply 10.66m-16.15m Sandstone Or Siltstone Water Supply 16.15m-18.28m Shale Grey	1448m	East
10143490	0.00m-9.10m Clay 9.10m-16.40m Basalt Decomposed 16.40m-23.80m Basalt Water Supply	1777m	East
10139703	0.00m-10.00m Clay 10.00m-22.00m Sandstone Water Supply 22.00m-22.86m Basalt	1849m	East

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

1064 New England Highway, Lochinvar, NSW 2321

### **Geological Units**

What are the Geological Units within the dataset buffer?

Unit Code	Unit Name	Description	Unit Stratigraphy	Age	Dominant Lithology	Distance
Pdal	Lochinvar Formation	Basalt, siltstone, sandstone.	\Dalwood Group\ \Lochinvar Formation\\	Permian (base) to Permian (top)	Basalt	0m
Q_a	Alluvium	Unconsolidated grey to brown to beige humic (±)micaceous silty clay, quartz-(±)lithic silt, fine- to medium-grained quartz-rich to quartz-lithic sand, polymictic pebble to cobble gravel (as sporadic lenses); sporadic palaeosol horizons.		Quaternary (base) to Now (top)	Clastic sediment	896m

### **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
No Features			

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
No Features				

Geological Data Source: Statewide Seamless Geology v2.1, Department of Regional NSW Creative Commons 4.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/4.0/au/deed.en

## **Naturally Occurring Asbestos Potential**

1064 New England Highway, Lochinvar, NSW 2321

## **Naturally Occurring Asbestos Potential**

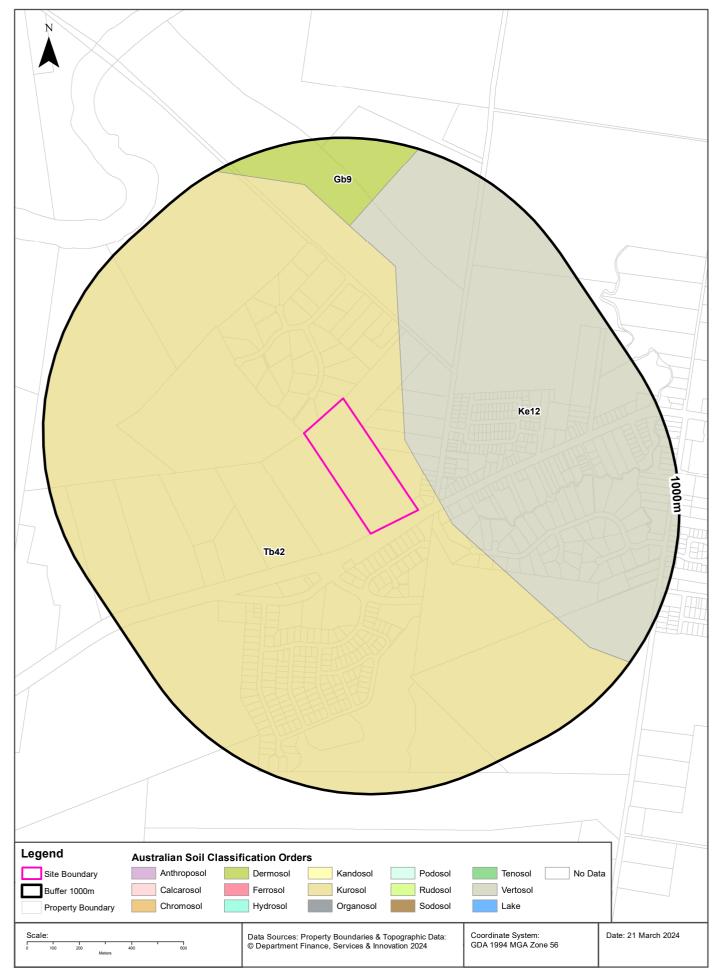
Naturally Occurring Asbestos Potential within the dataset buffer:

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**





## Soils

1064 New England Highway, Lochinvar, NSW 2321

## **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
Tb42	Kurosol	Undulating to hilly with a general ridge, slope, and valley sequence throughout; some outcropping sandstone or conglomerate on the ridges, occasionally some escarpments: chief soils are hard acidic yellow mottled soils (Dy3.41), possibly with (Dy3.42). Associated are: narrow ridges of shallow (Dy3.41) and (Dr3.41) soils, both often containing ironstone gravel; (Dr2.41) soils on broader ridges some broad sandy flats of (Dy5.81) soils containing ironstone gravels; dunes of (Uc1.2) soils on local sand deposits; and various undescribed soils along the streams where salinity is a common local feature.	Om	On-site
Ke12	Vertosol	Undulating with shallow valleys: chief soils are dark cracking clays (Ug5.15), (Ug5.16), (Ug5.13), (Ug5.12), and (Ug5.14). Associated are small areas of other cracking clays, such as (Ug5.3), (Ug5.2), and (Ug5.S); dark friable earths (Gn3.42); and minor areas of all the soils common to unit Oc10. As mapped, small areas of unit LK1 are included.	87m	East
Gb9	Dermosol	River terraces and flood-plains: chief soils are dark friable loamy soils (Um6.11) locally underlain by either sandy or clayey substrata, and occurring on the middle river terraces. Associated are hard alkaline dark soils (Dd1.33 and Dd1.43), and/or friable dark soils (Dd3.12), and/or hard alkaline brown soils (Db1.33) on terrace remnants flanking the valley slopes; siliceous sands (Uc1.23) on low terraces adjoining the river; and local areas of various soils including (Ug5.15), (Ug5.16) and possibly (Ug5.4), (Db1), and (Dy) soils. Locally the (Ug5) soils may form soil complexes with the (Dd) and (Db) soils.	664m	North

Atlas of Australian Soils Data Source: CSIRO

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## Soil Landscapes of Central and Eastern NSW





## Soils

1064 New England Highway, Lochinvar, NSW 2321

## Soil Landscapes of Central and Eastern NSW

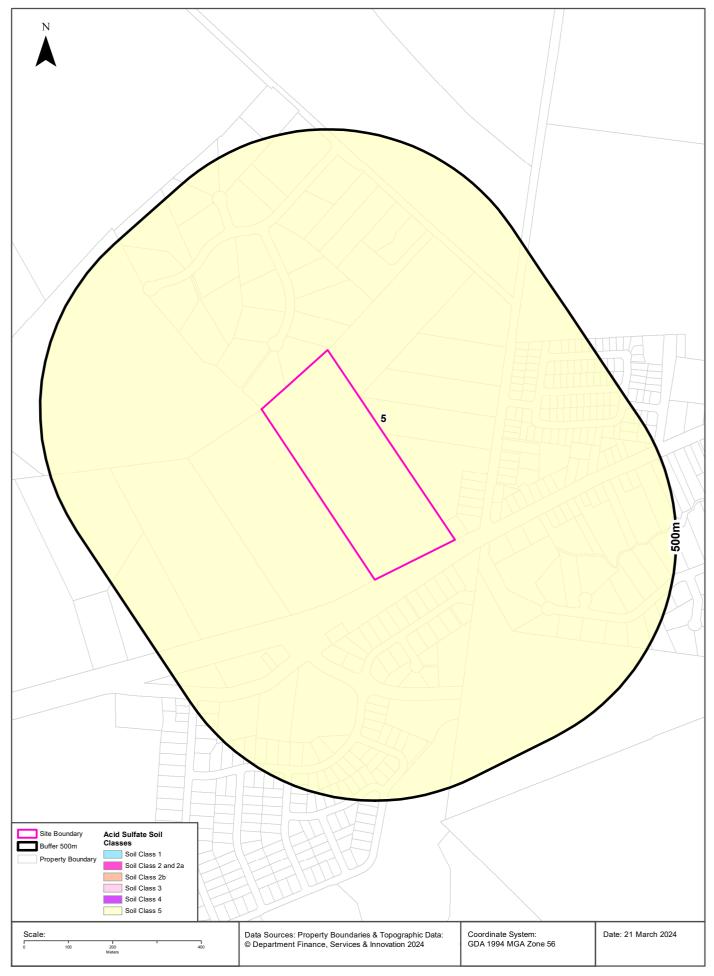
#### Soil Landscapes of Central and Eastern NSW within the dataset buffer:

Soil Code	Name	Distance	Direction
<u>SI5601Iv</u>	Lochinvar	0m	On-site
<u>SI5601hu</u>	Hunter	584m	North West

Soil Landscapes of Central and Eastern NSW: NSW Department of Planning, Industry and Environment Creative Commons 4.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/4.0/au/deed.en

### **Acid Sulfate Soils**





## **Acid Sulfate Soils**

1064 New England Highway, Lochinvar, NSW 2321

### **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
5	Works within 500 metres of adjacent Class 1, 2, 3, or 4 land that is below 5 metres AHD and by which the watertable is likely to be lowered below 1 metre AHD on adjacent Class 1, 2, 3 or 4 land, present an environmental risk	Maitland Local Environmental Plan 2011

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

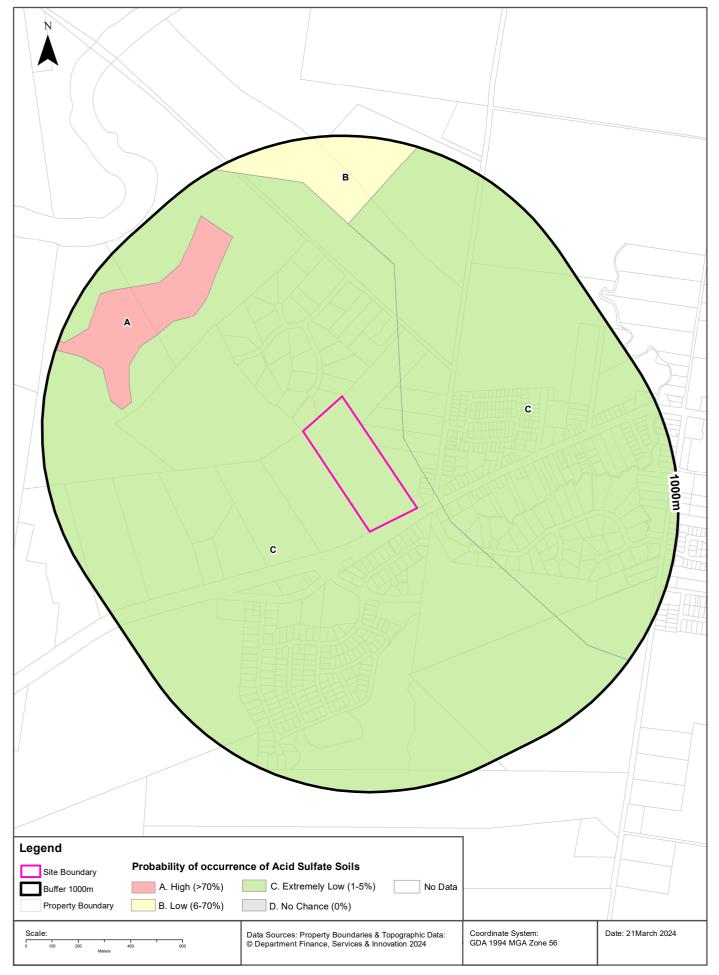
Soil Class	Description	EPI Name	Distance	Direction
None				

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## Atlas of Australian Acid Sulfate Soils





## **Acid Sulfate Soils**

1064 New England Highway, Lochinvar, NSW 2321

### **Atlas of Australian Acid Sulfate Soils**

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

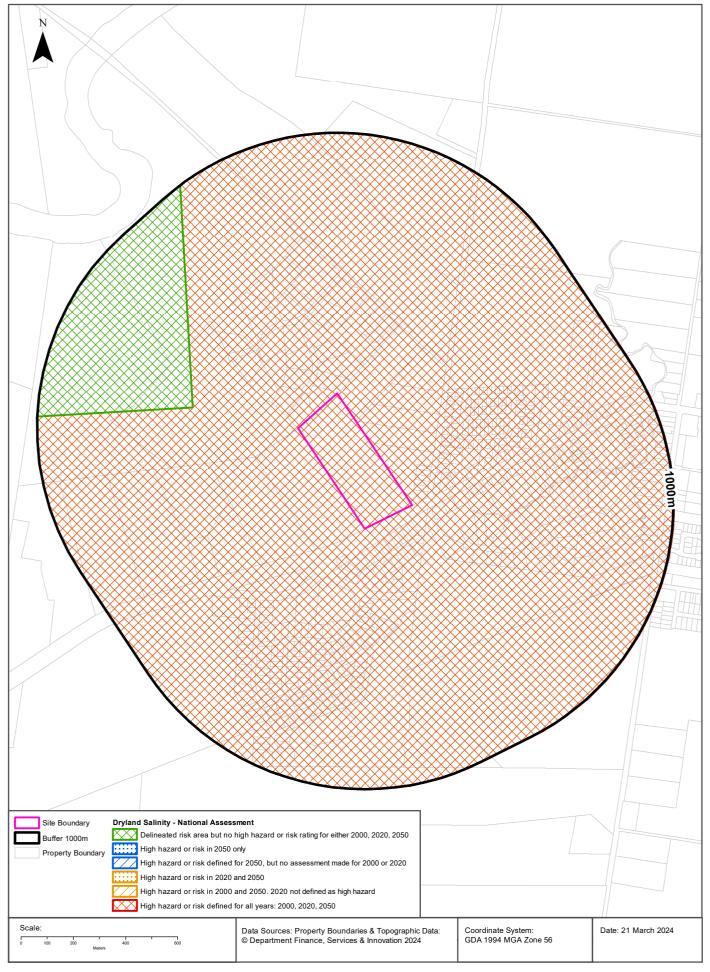
Class	Description	Distance	Direction
С	Extremely low probability of occurrence. 1-5% chance of occurrence with occurrences in small localised areas.	0m	On-site
A	High Probability of occurrence. >70% chance of occurrence.	609m	North West
В	Low Probability of occurrence. 6-70% chance of occurrence.	663m	North

Atlas of Australian Acid Sulfate Soils Data Source: CSIRO

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## **Dryland Salinity**





## **Dryland Salinity**

1064 New England Highway, Lochinvar, NSW 2321

### **Dryland Salinity - National Assessment**

Is there Dryland Salinity - National Assessment data onsite?

#### Yes

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

#### Yes

What Dryland Salinity assessments are given?

Assessment 2000	Assessment 2020	Assessment 2050	Distance	Direction
High hazard or risk	High hazard or risk	High hazard or risk	0m	On-site
Delineated risk area but no high hazard or risk rating	Delineated risk area but no high hazard or risk rating	Delineated risk area but no high hazard or risk rating	412m	North West

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

1064 New England Highway, Lochinvar, NSW 2321

## **Mining Subsidence Districts**

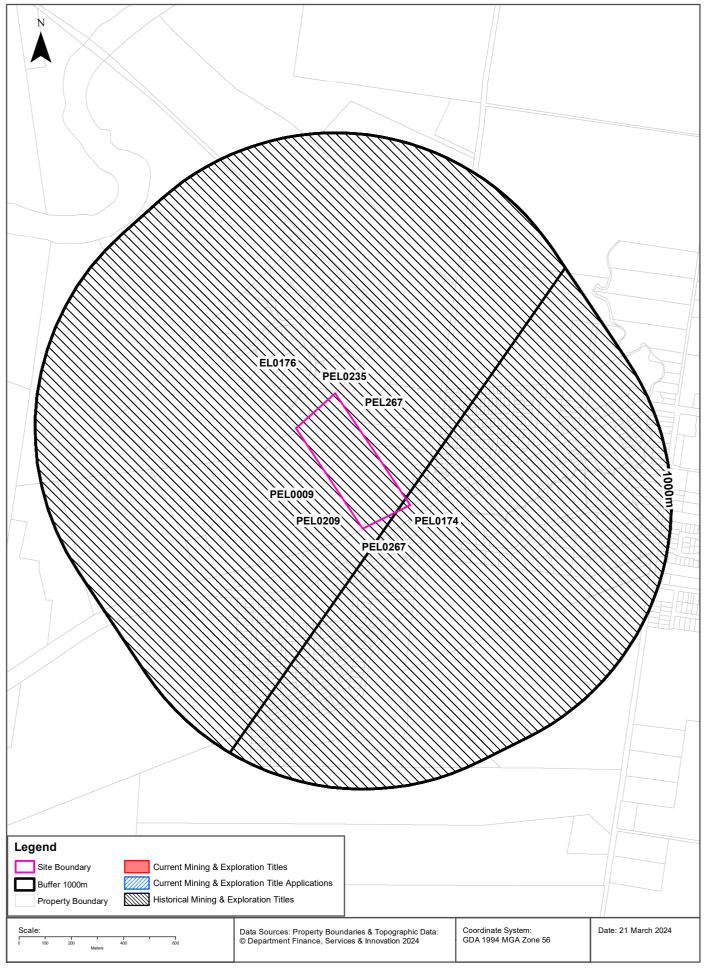
#### Mining Subsidence Districts within the dataset buffer:

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

Mining Subsidence District Data Source: © Land and Property Information (2016) Creative Commons 3.0 © Commonwealth of Australia http://creativecommons.org/licenses/by/3.0/au/deed.en

## **Mining & Exploration Titles**





## Mining

1064 New England Highway, Lochinvar, NSW 2321

## **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

1064 New England Highway, Lochinvar, NSW 2321

## **Historical Mining & Exploration Titles**

Historical Mining & Exploration Titles within the dataset buffer:

Title Ref	Holder	Start Date	End Date	Resource	Minerals	Dist	Dir
PEL0174	NSW OIL AND GAS COMPANY NL			PETROLEUM	Petroleum	0m	On-site
PEL0267	SYDNEY OIL CO (NSW) PTY LTD, MANVANE PTY LTD AUSTRALIA NL, BASE RESOURCES LTD, SEAHAWK OIL AUSTRALIA NL, READING & BATES	19850801	20150607	PETROLEUM	Petroleum	0m	On-site
PEL267	AGL UPSTREAM INVESTMENTS PTY LIMITED	19930413	19991205	MINERALS		0m	On-site
PEL0209	EARTH RESOURCES AUSTRALIA PTY LTD			PETROLEUM	Petroleum	0m	On-site
EL0176	LEFTWICH, R W	19690501	19700501	MINERALS	Cu Pb Zn Ag	0m	On-site
PEL0009	AUSTRALIAN OIL AND GAS CORPORATION LTD, UNION OIL DEVELOPMENT CORP., KERN COUNTY LAND CO.			PETROLEUM	Petroleum	0m	On-site
PEL0235	EASTMET LTD	19810504		PETROLEUM	Petroleum	0m	On-site

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

## **State Environmental Planning Policy**

1064 New England Highway, Lochinvar, NSW 2321

## **State Significant Precincts**

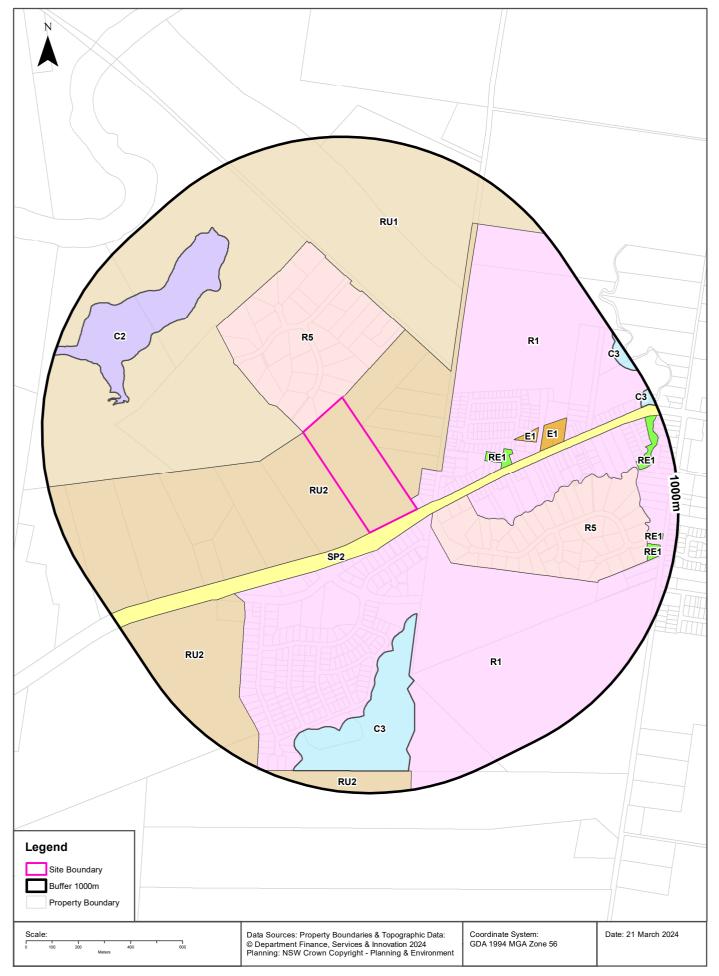
### What SEPP State Significant Precincts exist within the dataset buffer?

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 Creative Commons 4.0 © Commonwealth of Australia https://creativecommons.org/licenses/by/4.0/

**EPI Planning Zones** 1064 New England Highway, Lochinvar, NSW 2321





## **Environmental Planning Instrument**

1064 New England Highway, Lochinvar, NSW 2321

## Land Zoning

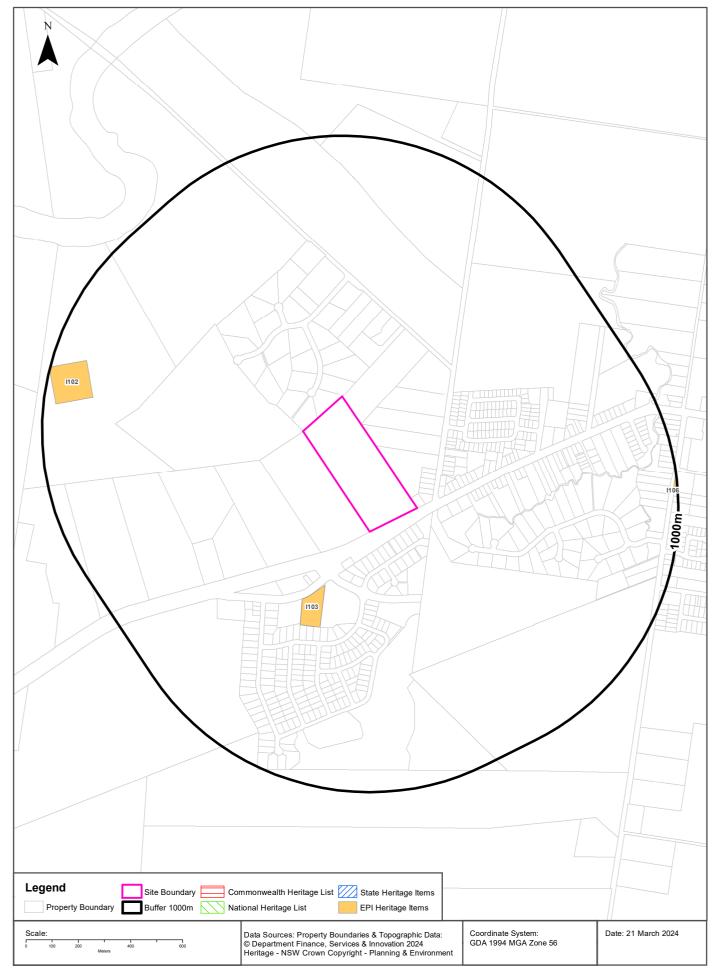
What EPI Land Zones exist within the dataset buffer?

Zone	Description	Purpose	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
RU2	Rural Landscape		Maitland Local Environmental Plan 2011	21/04/2023	26/04/2023	15/12/2023	Map Amendment No 4	0m	On-site
R5	Large Lot Residential		Maitland Local Environmental Plan 2011	21/04/2023	26/04/2023	15/12/2023	Map Amendment No 4	0m	North
RU1	Primary Production		Maitland Local Environmental Plan 2011	21/04/2023	26/04/2023	15/12/2023	Map Amendment No 4	0m	North West
R1	General Residential		Maitland Local Environmental Plan 2011	21/04/2023	26/04/2023	15/12/2023	Map Amendment No 4	0m	North East
SP2	Infrastructure	Classified Road	Maitland Local Environmental Plan 2011	21/04/2023	26/04/2023	15/12/2023	Map Amendment No 4	0m	South
R1	General Residential		Maitland Local Environmental Plan 2011	21/04/2023	26/04/2023	15/12/2023	Map Amendment No 4	43m	South East
R5	Large Lot Residential		Maitland Local Environmental Plan 2011	21/04/2023	26/04/2023	15/12/2023	Map Amendment No 4	59m	East
RE1	Public Recreation		Maitland Local Environmental Plan 2011	21/04/2023	26/04/2023	15/12/2023	Map Amendment No 4	318m	East
C3	Environmental Management		Maitland Local Environmental Plan 2011	21/04/2023	26/04/2023	15/12/2023	Map Amendment No 4	355m	South
E1	Local Centre		Maitland Local Environmental Plan 2011	21/04/2023	26/04/2023	15/12/2023	Map Amendment No 4	455m	East
E1	Local Centre		Maitland Local Environmental Plan 2011	21/04/2023	26/04/2023	15/12/2023	Map Amendment No 4	519m	East
RU2	Rural Landscape		Maitland Local Environmental Plan 2011	21/04/2023	26/04/2023	15/12/2023	Map Amendment No 4	548m	South West
C2	Environmental Conservation		Maitland Local Environmental Plan 2011	21/04/2023	26/04/2023	15/12/2023	Map Amendment No 4	623m	North West
RE1	Public Recreation		Maitland Local Environmental Plan 2011	21/04/2023	26/04/2023	15/12/2023	Map Amendment No 4	855m	East
RE1	Public Recreation		Maitland Local Environmental Plan 2011	21/04/2023	26/04/2023	15/12/2023	Map Amendment No 4	880m	East
RE1	Public Recreation		Maitland Local Environmental Plan 2011	21/04/2023	26/04/2023	15/12/2023	Map Amendment No 4	890m	East
C3	Environmental Management		Maitland Local Environmental Plan 2011	21/04/2023	26/04/2023	15/12/2023	Map Amendment No 4	942m	East

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### **Heritage Items**





## Heritage

1064 New England Highway, Lochinvar, NSW 2321

## **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 Creative Commons 3.0 © Commonwealth of Australia https://creativecommons.org/licenses/by/3.0/au/deed.en

## **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 Creative Commons 4.0 © Commonwealth of Australia https://creativecommons.org/licenses/by/4.0/

## **Environmental Planning Instrument - Heritage**

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

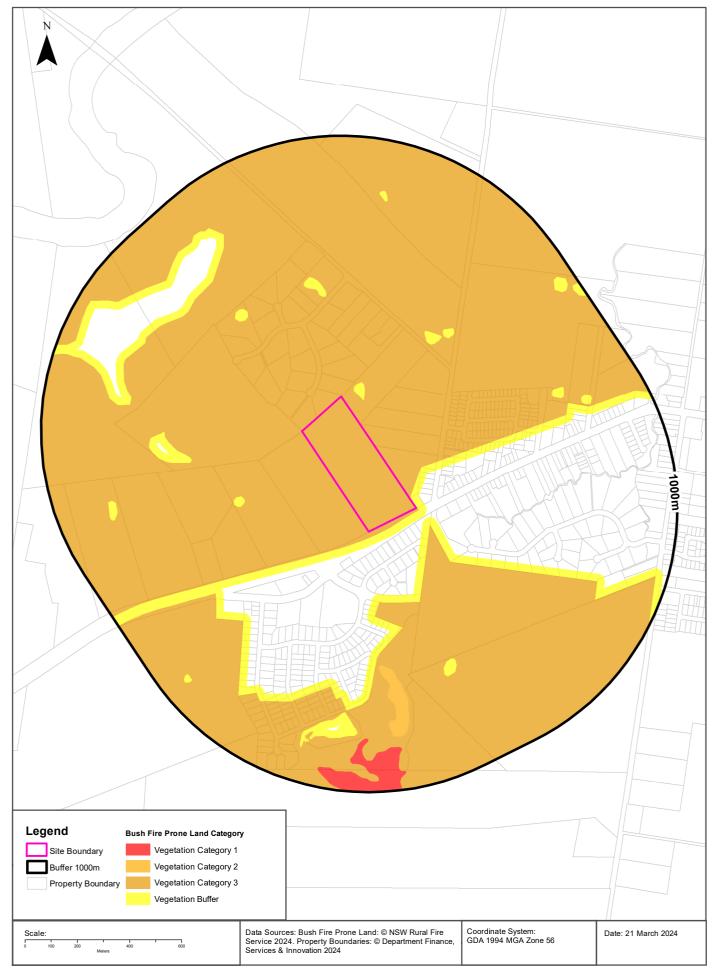
Map Id	Name	Classification	Significance	EPI Name	Published Date	Commenced Date	Currency Date	Distance	Direction
1103	Babworth House- building including interiors, grounds, gardens, gateposts to Darling Point Road, Smal	Item - General	State	Maitland Local Environmental Plan 2011	30/05/2014	30/05/2014	14/01/2022	267m	South
1102	Kaludah	Item - General	Local	Maitland Local Environmental Plan 2011	14/01/2022	14/01/2022	14/01/2022	815m	West
1106	Police Station	Item - General	Local	Maitland Local Environmental Plan 2011	14/01/2022	14/01/2022	14/01/2022	980m	East

Heritage Data Source: NSW Crown Copyright - Planning & Environment

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### **Natural Hazards - Bush Fire Prone Land**





## **Natural Hazards**

1064 New England Highway, Lochinvar, NSW 2321

## **Bush Fire Prone Land**

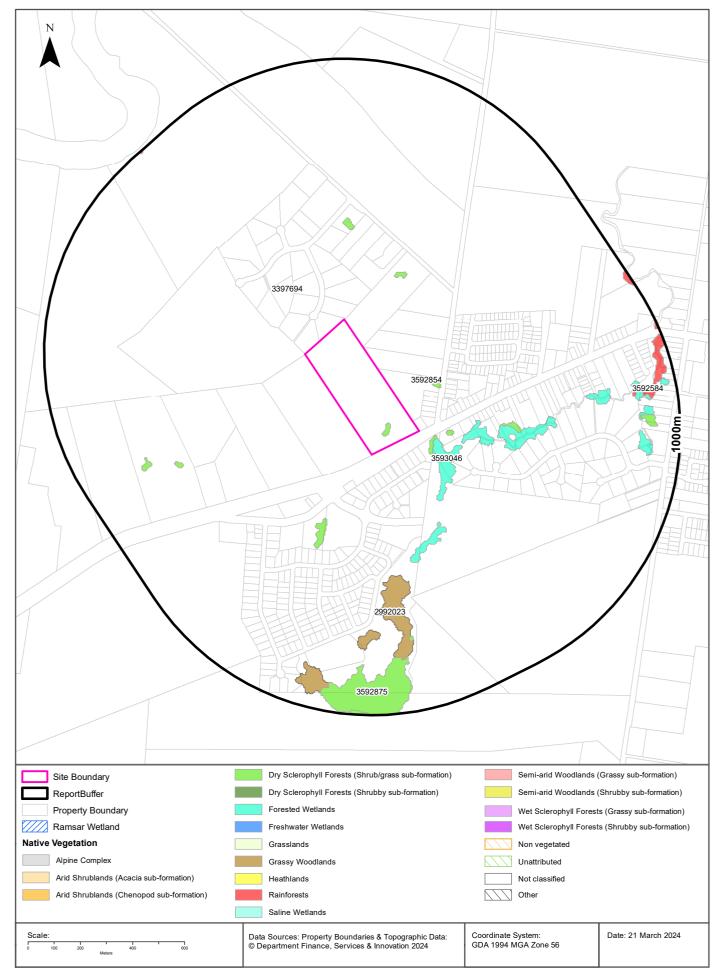
What are the nearest Bush Fire Prone Land Categories that exist within the dataset buffer?

Bush Fire Prone Land Category	Distance	Direction
Vegetation Category 3	0m	On-site
Vegetation Buffer	0m	South East
Vegetation Category 2	513m	South
Vegetation Category 1	793m	South

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

### **Ecological Constraints - Vegetation & Ramsar Wetlands**





# **Ecological Constraints**

1064 New England Highway, Lochinvar, NSW 2321

## **Native Vegetation**

What native vegetation exists within the dataset buffer?

Map ID	Vegetation Formation	Plant Community Type and Vegetation Formation	Vegetation Class	Dist	Dir
3397694	Not classified	(Not classified) Not classified	Not classified	0m	On-site
3592854	Dry Sclerophyll Forests (Shrub/grass sub- formation)	(Dry Sclerophyll Forests (Shrub/grass sub-formation)) Lower Hunter Lowland Ironbark-Paperbark Forest	Hunter-Macleay Dry Sclerophyll Forests	0m	On-site
3593046	Forested Wetlands	(Forested Wetlands) Coastal Valleys Swamp Oak Riparian Forest	Coastal Floodplain Wetlands	64m	East
3592875	Dry Sclerophyll Forests (Shrub/grass sub- formation)	(Dry Sclerophyll Forests (Shrub/grass sub-formation)) Lower Hunter Spotted Gum-Ironbark Forest	Hunter-Macleay Dry Sclerophyll Forests	302m	South
2992023	Grassy Woodlands	(Grassy Woodlands) Lower Hunter Red Gum-Paperbark Riverflat Forest	Coastal Valley Grassy Woodlands	470m	South
3592584	Rainforests	(Rainforests) Lower Hunter Tuckeroo Riparian Rainforest	Dry Rainforests	827m	East

Native Vegetation Type Map : NSW Department of Planning and Environment 2022 Creative Commons Attributions 4.0 © Commonwealth of Australia https://creativecommons.org/licenses/by/4.0/

### **Ramsar Wetlands**

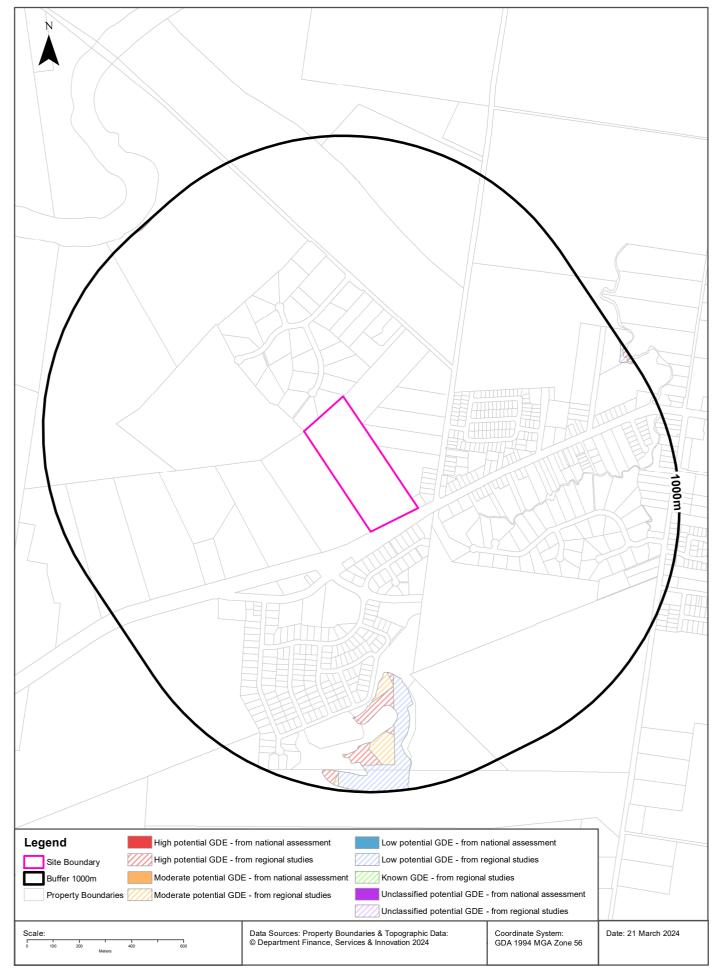
#### What Ramsar Wetland areas exist within the dataset buffer?

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 - Groundwater Dependent Ecosystems Atlas**





# **Ecological Constraints**

1064 New England Highway, Lochinvar, NSW 2321

# **Groundwater Dependent Ecosystems Atlas**

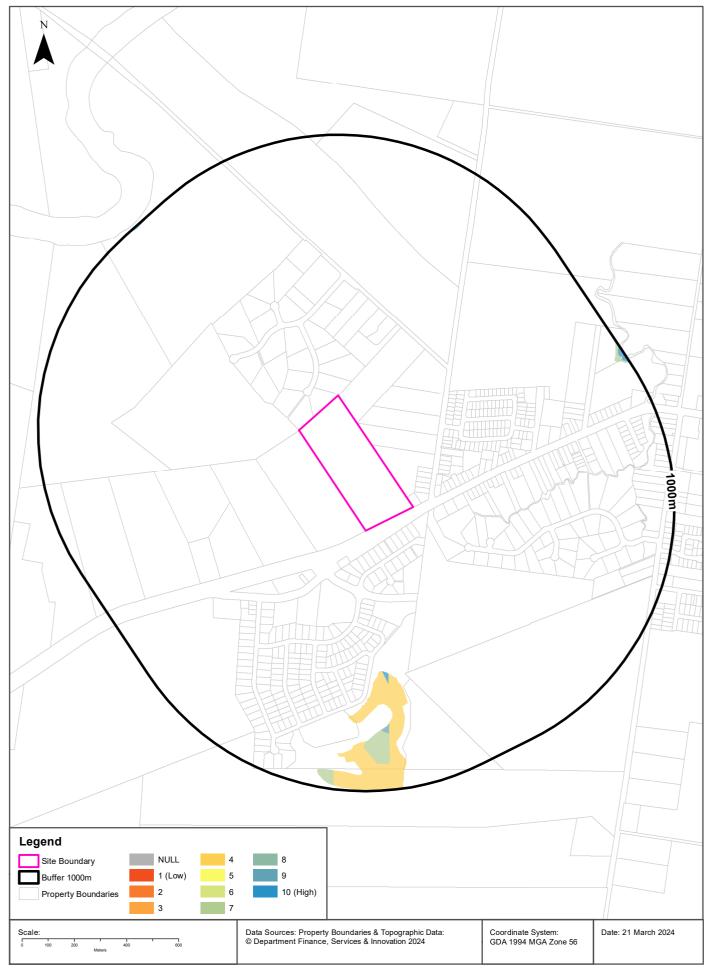
Туре	GDE Potential	Geomorphology	Ecosystem Type	Aquifer Geology	Distance	Direction
Terrestrial	Moderate potential GDE - from regional studies	Undulating to low hilly country on weak rocks, with alluvial and sandy littoral plains.	Vegetation		542m	South
Terrestrial	High potential GDE - from regional studies	Undulating to low hilly country on weak rocks, with alluvial and sandy littoral plains.	Vegetation		543m	South
Terrestrial	Low potential GDE - from regional studies	Undulating to low hilly country on weak rocks, with alluvial and sandy littoral plains.	Vegetation		553m	South

Groundwater Dependent Ecosystems Atlas Data Source: The Bureau of Meteorology

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Ecological Constraints - Inflow Dependent Ecosystems Likelihood

1064 New England Highway, Lochinvar, NSW 2321



# **Ecological Constraints**

1064 New England Highway, Lochinvar, NSW 2321

# Inflow Dependent Ecosystems Likelihood

Туре	IDE Likelihood	Geomorphology	Ecosystem Type	Aquifer Geology	Distance	Direction
Terrestrial	4	Undulating to low hilly country on weak rocks, with alluvial and sandy littoral plains.	Vegetation		542m	South
Terrestrial	10	Undulating to low hilly country on weak rocks, with alluvial and sandy littoral plains.	Vegetation		543m	South
Terrestrial	9	Undulating to low hilly country on weak rocks, with alluvial and sandy littoral plains.	Vegetation		742m	South
Terrestrial	7	Undulating to low hilly country on weak rocks, with alluvial and sandy littoral plains.	Vegetation		767m	South

Inflow Dependent Ecosystems Likelihood Data Source: The Bureau of Meteorology

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# **Ecological Constraints**

1064 New England Highway, Lochinvar, NSW 2321

# **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	Heleioporus australiacus	Giant Burrowing Frog	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Amphibia	Litoria aurea	Green and Golden Bell Frog	Endangered	Not Sensitive	Vulnerable	
Animalia	Amphibia	Litoria littlejohni	Littlejohn's Tree Frog	Endangered	Not Sensitive	Endangered	
Animalia	Aves	Anthochaera phrygia	Regent Honeyeater	Critically Endangered	Category 2	Critically Endangered	
Animalia	Aves	Apus pacificus	Fork-tailed Swift	Not Listed	Not Sensitive	Not Listed	Rokamba;camba; Jamba
Animalia	Aves	Ardenna pacifica	Wedge-tailed Shearwater	Not Listed	Not Sensitive	Not Listed	JAMBA
Animalia	Aves	Ardenna tenuirostris	Short-tailed Shearwater	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Artamus cyanopterus cyanopterus	Dusky Woodswallow	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Botaurus poiciloptilus	Australasian Bittern	Endangered	Not Sensitive	Endangered	
Animalia	Aves	Calidris acuminata	Sharp-tailed Sandpiper	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Calidris melanotos	Pectoral Sandpiper	Not Listed	Not Sensitive	Not Listed	ROKAMBA;JAMBA
Animalia	Aves	Callocephalon fimbriatum	Gang-gang Cockatoo	Vulnerable	Category 3	Endangered	
Animalia	Aves	Calyptorhynchus lathami lathami	South-eastern Glossy Black- Cockatoo	Vulnerable	Category 2	Vulnerable	
Animalia	Aves	Chthonicola sagittata	Speckled Warbler	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Circus assimilis	Spotted Harrier	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Climacteris picumnus victoriae	Brown Treecreeper (eastern subspecies)	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Cuculus optatus	Oriental Cuckoo	Not Listed	Not Sensitive	Not Listed	Rokamba;camba; Jamba
Animalia	Aves	Daphoenositta chrysoptera	Varied Sittella	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Ephippiorhynchus asiaticus	Black-necked Stork	Endangered	Not Sensitive	Not Listed	
Animalia	Aves	Epthianura albifrons	White-fronted Chat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Falco subniger	Black Falcon	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Gallinago hardwickii	Latham's Snipe	Not Listed	Not Sensitive	Not Listed	ROKAMBA;JAMBA
Animalia	Aves	Glossopsitta pusilla	Little Lorikeet	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Haliaeetus leucogaster	White-bellied Sea-Eagle	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Hieraaetus morphnoides	Little Eagle	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Hirundapus caudacutus	White-throated Needletail	Not Listed	Not Sensitive	Vulnerable	ROKAMBA;CAMBA; JAMBA

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Animalia	Aves	Hydroprogne caspia	Caspian Tern	Not Listed	Not Sensitive	Not Listed	JAMBA
Animalia	Aves	Ixobrychus flavicollis	Black Bittern	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Lathamus discolor	Swift Parrot	Endangered	Not Sensitive	Critically Endangered	
Animalia	Aves	Lophochroa leadbeateri	Major Mitchell's Cockatoo	Vulnerable	Category 2	Not Listed	
Animalia	Aves	Lophoictinia isura	Square-tailed Kite	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Melanodryas cucullata cucullata	South-eastern Hooded Robin	Endangered	Not Sensitive	Endangered	
Animalia	Aves	Neophema pulchella	Turquoise Parrot	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Ninox connivens	Barking Owl	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Ninox strenua	Powerful Owl	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Numenius minutus	Little Curlew	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Oxyura australis	Blue-billed Duck	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Pandion cristatus	Eastern Osprey	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Petroica boodang	Scarlet Robin	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Pluvialis squatarola	Grey Plover	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Pomatostomus temporalis temporalis	Grey-crowned Babbler (eastern subspecies)	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Ptilinopus regina	Rose-crowned Fruit-Dove	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Sternula albifrons	Little Tern	Endangered	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Stictonetta naevosa	Freckled Duck	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Thinornis cucullatus cucullatus	Eastern Hooded Dotterel	Critically Endangered	Not Sensitive	Vulnerable	
Animalia	Aves	Tringa nebularia	Common Greenshank	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Tringa stagnatilis	Marsh Sandpiper	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Tyto novaehollandiae	Masked Owl	Vulnerable	Category 3	Not Listed	
Animalia	Mammalia	Chalinolobus dwyeri	Large-eared Pied Bat	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Mammalia	Dasyurus maculatus	Spotted-tailed Quoll	Vulnerable	Not Sensitive	Endangered	
Animalia	Mammalia	Falsistrellus tasmaniensis	Eastern False Pipistrelle	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Micronomus	Eastern Coastal Free-tailed Bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Miniopterus	Little Bent-winged	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	australis Miniopterus orianae oceanensis	Bat Large Bent- winged Bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Myotis macropus	Southern Myotis	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Petaurus norfolcensis	Squirrel Glider	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Phascogale	Brush-tailed	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	tapoatafa Phascolarctos	Phascogale Koala	Endangered	Not Sensitive	Endangered	
Animalia	Mammalia	cinereus Pteropus poliocephalus	Grey-headed Flying-fox	Vulnerable	Not Sensitive	Vulnerable	

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Animalia	Mammalia	Saccolaimus flaviventris	Yellow-bellied Sheathtail-bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Scoteanax rueppellii	Greater Broad- nosed Bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Vespadelus troughtoni	Eastern Cave Bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Reptilia	Aprasia parapulchella	Pink-tailed Legless Lizard	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Reptilia	Caretta caretta	Loggerhead Turtle	Endangered	Not Sensitive	Endangered	
Animalia	Reptilia	Chelonia mydas	Green Turtle	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Acacia bynoeana	Bynoe's Wattle	Endangered	Not Sensitive	Vulnerable	
Plantae	Flora	Callistemon linearifolius	Netted Bottle Brush	Vulnerable	Category 3	Not Listed	
Plantae	Flora	Cymbidium canaliculatum	Tiger Orchid	Endangered Population	Category 2	Not Listed	
Plantae	Flora	Diuris tricolor	Pine Donkey Orchid	Vulnerable	Category 2	Not Listed	
Plantae	Flora	Eucalyptus camaldulensis	River Red Gum	Endangered Population	Not Sensitive	Not Listed	
Plantae	Flora	Eucalyptus glaucina	Slaty Red Gum	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Eucalyptus parramattensis subsp. decadens		Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Grevillea parviflora subsp. parviflora	Small-flower Grevillea	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Macadamia tetraphylla	Rough-shelled Bush Nut	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Persoonia pauciflora	North Rothbury Persoonia	Critically Endangered	Category 3	Critically Endangered	
Plantae	Flora	Pterostylis chaetophora		Vulnerable	Category 2	Not Listed	
Plantae	Flora	Pterostylis gibbosa	Illawarra Greenhood	Endangered	Category 2	Endangered	
Plantae	Flora	Rhodomyrtus psidioides	Native Guava	Critically Endangered	Not Sensitive	Critically Endangered	
Plantae	Flora	Rutidosis heterogama	Heath Wrinklewort	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Syzygium paniculatum	Magenta Lilly Pilly	Endangered	Not Sensitive	Vulnerable	

Data does not include NSW category 1 sensitive species.

NSW BioNet: © State of NSW and Office of Environment and Heritage

# **Location Confidences**

Where Lotsearch has had to georeference features from supplied addresses, a location confidence has been assigned to the data record. This indicates a confidence to the positional accuracy of the feature. Where applicable, a code is given under the field heading "LC" or "LocConf". These codes lookup to the following location confidences:

LC Code	Location Confidence
Premise Match	Georeferenced to the site location / premise or part of site
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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  - (k) the End User should undertake its own inspections of the Land or Property to satisfy itself that there are no defects or failures
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12. These Terms are subject to New South Wales law.

Appendix F – Before You Dig Plans



byda.com.au

#### **Contact Details**

Contact Vagner Jorden

Email

Contact number (02) 9516 0722 Company

Enquirer ID 3009511

Address Suite 601 55 Miller Street Pyrmont NSW 2009

## Job Site and Enquiry Details

dbyd@eiaustralia.com.au

**WARNING:** The map below only displays the location of the proposed job site and does not display any asset owners' pipe or cables. The area highlighted has been used only to identify the participating asset owners, who will send information to you directly.

Enquiry date         Start date         End date           13/03/2024         14/03/2024         14/04/20	On behalf of 24Job purposeLocationsOnsite activitiesPrivateExcavationPrivateVertical Boring				
Lost Hatrine on the Hatring to any	Check that the location of the job site is correct. If not, you must submit a new enquiry.				
56 m	If the scope of works change or plan validity dates expire, you must submit a new enquiry.				
s Enderle Drive	Do NOT dig without plans. Safe excavation is your responsibility. If you don't understand the plans or how to proceed safely, please contact the relevant asset owners.				
User Reference 1064 New England Highway, Lochinva	AddressNotes/description1064 New England Highway-Lochinvar NSW 2321-				
Your Responsibility and Duty of Ca					

- Lodging an enquiry does not authorise project commencement. Before starting work, you must obtain all necessary information from all affected asset owners.
- If you don't receive plans within 2 business days, contact the asset owner & quote their sequence number.
- Always follow the 5Ps of Safe Excavation (page 2), and locate assets before commencing work.
- Ensure you comply with State legislative requirements for Duty of Care and safe digging.
- If you damage an underground asset, you MUST advise the asset owner immediately.
- By using the BYDA service, you agree to the Privacy Policy and Term of Use.
- For more information on safe digging practices, visit www.byda.com.au

### Asset Owner Details

Below is a list of asset owners with underground infrastructure in and around your job site. It is your responsibility to identify the presence of these assets. Plans issued by Members are indicative only unless specified otherwise. Note: not all asset owners are registered with BYDA. You must contact asset owners not listed here directly.

Referral ID (Seq. no)	Authority Name	Phone	Status
236629212	Ausgrid	(02) 4951 0899	NOTIFIED
236629213	Hunter Water Corporation	1300 657 657	NOTIFIED
236629215	Jemena Gas North	1300 880 906	NOTIFIED
236629216	Optus and or Uecomm Nsw	1800 505 777	NOTIFIED
236629214	Telstra NSW Central	1800 653 935	NOTIFIED

END OF UTILITIES LIST

Prepare

Prepare by

Locator.

communicating with

need assistance. Look

asset owners if you

for clues onsite.

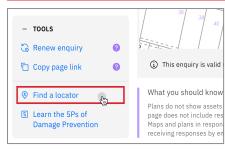
Engage a skilled



#### Plan

Plan your job. Use the BYDA service at least one day before your job is due to begin, and ensure you have the correct plans and information required to carry out a safe project.

# Engage a skilled Locator



## Book a FREE BYDA Session



BYDA offers two different sessions to suit you and your organisation's needs. The free sessions are offered in two different formats - online and face-to-face:

1. Awareness Session: Understand the role of BYDA, safe excavation practices, complying with asset-owner instructions, and the consequences of damages. Learn how to mitigate and avoid potential damage and harm and ensure a safe work environment.

2. **Plan Reading Session:** Develop the skills to interpret asset owners' plans, legends, and symbols effectively. Understand the complexities of plan interpretation to ensure smooth project execution.

## **BOOK NOW**

To book a session, visit: byda.com.au/contact/education-awareness-enquiry-form/



### Pothole

When you lodge an enquiry you will

see skilled Locators to contact

Potholing is physically sighting the asset by hand digging or hydro vacuum extraction.



### Protect

Protecting and supporting the exposed infrastructure is the responsibility of the excavator. Always erect safety barriers in areas of risk and enforce exclusion zones.

for a locator near you



#### Proceed

Visit the Certified Locator website directly and search

dbydlocator.com/certified-locating-organisation

Only proceed with your excavation work after planning, preparing, potholing (unless prohibited), and having protective measures in place.