APPENDIX L

PRELIMINARY SITE INVESTIGATION

Proposed Industrial Subdivision - 2 Reddall Street, Yass

Preliminary Site Investigation

Diverse Project Solutions

20 February 2025

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Executive Summary

D&N Geotechnical Pty Ltd were engaged by Diverse Project Solutions to conduct a Preliminary Site Investigation to support a proposed industrial subdivision of Lot 4 DP255064, located at 2 Reddall Street, Yass NSW. The objective of the Preliminary Site Investigation was to identify past or present potentially contaminating activities at Lot 4 DP255064, provide a preliminary assessment of potential contamination and, if necessary, to provide a basis for a further intrusive investigation.

The proposed development area is a rural site located in a mixed-use (i.e., commercial/industrial and urban/rural residential) area and has historically (i.e., since at least 1952) been primarily vacant agricultural (grazing) land. A rural residential homestead is located centrally within the property, with various alterations to the building footprint occurring since its construction before 1952. Historically, a single corrugate iron and brick farm shed was located north of the homestead with three (3) additional sheds of varying size constructed east of the homestead between 1973 and 2008. In addition to the agricultural activities undertaken on-site, various equipment (i.e., cars, shipping containers etc.) set down areas were identified in historical aerial imagery in relatively close proximity to the homestead and sheds on-site, with the footprints of set down areas changing over the years. An area of hummocky ground west of the homestead has periodically been used for waste management on-site with indications of historical vegetation burning and waste dumping/burial identified.

D&N's desktop review and site walkover works have identified four (4) Areas of Environmental Concern that potentially represent risks to current and future sensitive (human and ecological) receptors likely associated with the redevelopment, namely:

1. Agricultural activities; with indications of a historical market garden/orchard in operation east of the homestead (circa 1952).
2. Legacy Building(s); with the potential for hazardous building materials noting all structures on-site are to be demolished under and existing complying development certificate.
3. Waste Dumping; with historical and site observations indicating an area west of the homestead has been subject to waste dumping and burial; and
4. Historical Set down and Storage Areas; with potential chemical storage and various equipment (i.e., cars, shipping containers etc.) set down areas were identified in historical aerial imagery.

D&N consider that no impacts have been confirmed that indicate the Site is not suitable for the uses permissible under its current land zoning classification, however; noting the nature of this preliminary desktop investigation (i.e., no intrusive sampling or soil characterisation), the data gaps identified, and the plausible contamination risks outlined in the Conceptual Site Model, the following recommendations for additional investigation and construction management actions should be implemented to support future development of the Site:

- Obtain an asbestos clearance certificate for the approved demolition works, with the clearance certificate extending to soils within and immediately surrounding the footprints of former structures.
- Prepare a Detailed Site Investigation for the Site to characterise and qualify the plausible risks identified. The Detailed Site Investigation should include intrusive soil investigations to facilitate collection of samples for chemical analysis of the range of Chemicals of Potential Concern associated with each Area of Environmental Concern.
- An Unexpected Finds Protocol should be included in a Construction Environment Managemental Plan prepared for the proposed subdivision development to manage potential instances of buried materials that may be unexpectedly encountered on-site.
- Where soil materials surplus to site development require management (i.e., off-site disposal), such materials are to be assessed and classified in accordance with the guidance provided in the NSW Department of Environment and Climate Change Waste Classification Guidelines: Part 1 – Classifying Waste (2014).

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Document Register

Revision	Date	Description	Written by	Reviewed by	Approved by
R1	28 October 2024	For Issue	MB	ND	ND
R2	20 February 2025	Revised For Issue (amendment to Section 1.2 and Appendix A)	MB	ND	ND

Abbreviations

Term	Definition
ACM	Asbestos Containing Material
AEC	Area of Environmental Concern
AF	Asbestos Fines
AFFF	Aqueous Film Forming Foams
ANSIS	Australian National Soil Information System
ASC NEPM	National Environment Protection (Assessment of Site Contamination) Measure
ASS	Acid Sulfate Soil
AST	Aboveground Storage Tank
BGL	Below Ground Level
BoM	Bureau of Meteorology
BTEXN	Benzene, Toluene, Ethylbenzene, Xylenes and Naphthalene
C&D	Construction and Demolition (waste)
CDC	Complying Development Certificate
CEMP	Construction Environment Managemental Plan
CLM Act	Contaminated Land Management Act 1997
CLR	Contaminated Land Register
COPC	Contaminants of Potential Concern
CSM	Conceptual Site Model
DECC	NSW Department of Environment and Climate Change
D&N	D&N Geotechnical Pty Ltd
DPS	Diverse Property Solutions
DSI	Detailed Site Investigation
EPA	NSW Office of the Environment Protection Authority
EPA Act	Environmental Planning and Assessment Act 1979
EPA Regulation	Environmental Planning and Assessment Regulation 2021
EPL	Environment Protection License
FA	Friable Asbestos
FRNSW	Fire and Rescue NSW
GDE	Groundwater Dependent Ecosystem

Term	Definition
LEP	Local Environmental Plan
LPG	Liquified Petroleum Gas
NEPC	National Environmental Protection Council
NPI	National Pollutant Inventory
NSW EPA	NSW Environment Protection Authority
NSWRFS	NSW Rural Fire Service
OCP	Organochlorine Pesticides
OPP	Organophosphorus Pesticides
PAH	Polycyclic Aromatic Hydrocarbons
PCB	Polychlorinated Biphenyls
PFAS	Per- and Poly Fluoro Alkyl substances
POEO Act	Protection of the Environment Operations Act 1997
PPE	Personal Protective Equipment
PSI	Preliminary Site Investigation
SEPP	State Environmental Planning Policy
SES	State Emergency Services
S-P-R	Source – Pathway - Receptor
STP	Sewage Treatment Plant
TRH	Total Recoverable Hydrocarbons
UFP	Unexpected Finds Protocol
UST	Underground Storage Tank
WTS	Waste Transfer Station

Units

Unit	Definition
AHD	Australian Height Datum
Ha	Hectares
km	Kilometre
m	metres
m^2	Square metres

Unit	Definition
L	Litres
m BGL	Metres below ground level

1 Introduction

1.1 Introduction

As part of a development application for a proposed industrial subdivision of the property at 2 Reddall Street, Yass NSW (hereafter referred to as the 'Site'), D&N Geotechnical Pty Ltd (D&N) were engaged by Diverse Project Solutions (DPS) to undertake a Preliminary (contamination) Site Investigation (PSI). Figure 1 (after text) shows the regional location of the Site (north-east of Yass Valley Way) and the current Site layout with the proposed subdivision layout provided in Appendix A.

This report outlines the findings of the PSI, and the subsequent recommendations must be read in conjunction with the limitations outlined in Section 11 below. The findings of this PSI are based on D&N's review of readily available historical data and records, as well as observations made by D&N during the site walkover conducted on 15 October 2024.

1.2 Background

The proposed development is to include the subdivision of one (1) existing allotment into nine (9) individual allotments of areas ranging between 4,078 square metres (m^2) and 22,130 m^2. The subdivision will be accompanied by the construction of access and internal roads and services.

D&N understand that the five (5) existing structures on-site (including a rural residential homestead and [four] associated sheds) are to be demolished via a separate Complying Development Certificate (CDC).

2 Objective

The objectives of this PSI are to identify past and/or present potentially contaminating activities at, or otherwise affecting the Site, provide a preliminary assessment of potential contamination and, if necessary, to provide a basis for a further investigation and/or management (regarding potential contamination).

To meet the above objective of the PSI included the completion of the following:

- Identify past or current land uses and activities at the Site and surrounding areas that have the potential to contaminate land and/or groundwater.
- Identify potential Areas of Environmental Concern (AEC) and Chemicals of Potential Concern (COPC) associated with the historical or current land uses identified for the Site.
- Identify potential sensitive human and ecological receptors relevant to the Site.
- Develop a preliminary Conceptual Site Model (CSM) to assess potential contamination risks to relevant receptors
- Provide a statement of the Site's suitability for the proposed development; and,
- Provide recommendations for further assessment and/or management, as required.

3 Scope of Works

3.1 Regulatory Framework

The Commonwealth National Environment Protection Council Act 1994 (NEPM Act), and complementary State and Territory legislation allow the National Environment Protection Council (NEPC) to make National Environment Protection Measures (NEPMs). NEPMs are a special set of national objectives designed to assist in protecting or managing particular aspects of the environment.

The assessment of land contamination in Australia is principally guided by the National Environment Protection (Assessment of Site Contamination) Measure (ASC NEPM), 1999 (amended 2013). The ASC NEPM provides the policy framework for a nationally consistent approach to contamination assessment.

Schedule A-Recommended General Process for Assessment of Site Contamination (ASC NEPM) outlines the staged site assessment approach with Schedule B2 – Site Characterisation (ASC NEPM) providing guidance for the individual stages of site characterisation that are generally required to achieve appropriate assessment of health and environmental risks associated with contamination.

The NSW planning process for regulating contaminated land is guided by the following legislation:

- *Environmental Planning and Assessment Act 1979* (EPA Act) and *Environmental Planning and Assessment Regulation 2021* (EPA Regulation).
- Contaminated Land Management Act 1997 (CLM Act) and Contaminated Land Management Regulation 2022 (CLM Regulation); and
- State Environmental Planning Policy or SEPP (Resilience and Hazards) 2021.

To meet these legislative requirements, this PSI was conducted in general accordance with the following guidelines:

- National Environment Protection Council (1999, amended 2013), National Environment Protection (Assessment of Site Contamination) Measure (ASC NEPM) - Schedule B2: Guideline on Site Characterisation; and
- NSW EPA (2020) Contaminated Land Guidelines: Consultants Reporting on Contaminated Land.

3.2 Scope of Works

The scope of works undertaken as part of this PSI included the following:

- Obtain and review available historical information relevant to the property and immediate surrounds.
- Obtain and review relevant and available state and local government planning records and certificates, available geological, topographical, hydrogeological and hydrological information.
- Prepare an initial CSM based on the desktop review of available information and undertake a site inspection and walkover to:
  - Ground truth the findings of and assumptions made during the desktop review; and,
  - Inspect the Site for visual and olfactory indications of contamination.
- Collate the outcomes of the works outlined above into a PSI report, including:
  - A summary of the Site details, environmental setting, development and land use history.
  - A summary of the AEC's and associated COPC's identified as potentially affecting the Site.
  - A summary of intrusive assessment locations, sampling and analytical methodologies.
  - A summary of analytical results, as compared to relevant investigation and screening levels.
  - Update the initial CSM into a preliminary CSM; and
  - Recommendations for additional investigations or management actions, if required.

4 Site Description

4.1 Site Details

The Site is wholly within Lot 4 DP 255064, an irregularly shaped parcel of land approximately 10 hectares (Ha) in area, situated immediately north of Reddall Street in Yass, NSW. A rural residential dwelling (i.e., the homestead) and associated sheds previously occupied the central portion with the remainder of the Site predominantly cleared vacant grassland with mature vegetation stands extending along the western boundary.

Table 1 below presents a summary of the Site details.

Table 1 – Site Details Summary

Attribute		Details
Property Identification		Lot 4 DP255064
Street Address		2 Reddall Street, Yass NSW 2582
Approximate Property Area (Ha)		10
Local Government Area		Yass Valley Council (YVC)
Planning Controls (EPI)	Zoning	E3: Productivity Support (Yass Valley Local Environmental Plan 2013)
	State (SEPP)	SEPP (Biodiversity and Conservation)2021 SEPP (Resilience and Hazards) 2021 SEPP (Transport and Infrastructure) 2021 SEPP (Sustainable Buildings) 2022 SEPP (Primary Production) 2021 SEPP (Resources and Energy) 2021 SEPP (Exempt and Complying Development Codes) 2008 SEPP (Housing) 2021 SEPP (Industry and Employment) 2021 SEPP (Planning Systems) 2021
Current Land Use		Agricultural and Rural Residential
Proposed Land Use		Industrial Subdivision

Table 1 Notes:

1. EPI- Environmental Planning Instruments

The surrounding land use consists of a mixture of SP2 – Infrastructure (Rail facility and Sewerage system) to the north and west, a mixture of E4 – General Residential, R1 – General Residential, and R5 – Large lot residential to the east, and a mixture of E3 – Productivity support and E1 – Local centre to the south and west.

Site zoning is depicted on Map 1.2a (in Appendix B) with tabulated zoning and planning control descriptions provided in Table 1.2a and 1.2b respectively in Appendix C.

A summary of land uses surrounding the Site is provided in Table 2 below.

Table 2 – Surrounding Land Use Summary

Direction	Land Uses
North	Lands immediately north of the Site are designated as SP2 – Infrastructure and comprise sewerage system and rail infrastructure. A large dam is situated upon the vacant land to the north. The Yass Sewage Treatment Plant (Yass STP) and Waste Transfer Station (Yass Tip) are located approximately 300 metres (m) north-west of the Site. The heritage-listed Yass Junction train station is located approximately 1 kilometre (km) north of the Site on the Main Southern line with the former Yass Tramway running from Yass Junction station along the Site's western boundary and continuing south into Yass Township.

Direction	Land Uses
East	To the east, lands consist of a mixture of R1 – General Residential and R5 – Large lot residential. BR Durham & Sons, a manufacturer and supplier of drainage products for water, sewer, electrical, communication and infrastructure, is located immediately east (approximately 30 m) of the Site upon E4 – General Residential lands with large lot residential and suburban development further to the east.
South	Reddall Street forms the southern boundary of the Site with land to the south (of the Site) zoned as E3 – Productivity support and E1 – Local centre and generally comprises commercial premises (including Nutrien Ag Solutions, a distributor of both farming supplies and fertiliser and Complete Fleet, a heavy vehicle and plant repairer). A former Shell fuel depot, previously serviced by the Yass Tramway, is located 60 m south of the Site on E3– Productivity support lands. A Services NSW depot (i.e., Transport for NSW – formerly Roads and Transport Authority) is located on the southern side of Yass Valley Way along with various industrial premises (including car yard, transport operations and warehousing and vehicle [smash] repairs) extending west toward Bango Creek, approximately 650 m west of the Site.
West	Land directly west of the Site comprises a mixture of SP2 – Infrastructure (Rail facility and Sewerage system) and E3 – Productivity support. A commercial unit block occupies the lands immediately adjacent to the Site's southwestern boundary, with various mechanical and electrical repair business' operating within (refer Section 5.1.4). The Yass Valley Rural Fire Service (RFS) and State Emergency Service (SES) Yass Unit depots are further to the west along with a depot operated by Yass Valley Council and the Yass Community Centre. The former Yass Tramway, running north to south, separates the commercial unit block and the RFS, SES and Council depots. The Yass River is situated approximately 500 m west of the Site at its closest point.

4.2 Environmental Setting

4.2.1 Topography and Hydrology

The Site is located upon the undulating low hills typically encountered between Yass and Boorowa. A low spine runs north to south through the centre of the Site, sloping west (at ~8%) and east (at ~4%), with surface elevation between 490 to 504 m Australian Height Datum (AHD) (refer to Map 1.5 in Appendix B).

The land surface (of the Site) is predominantly grassed with the homestead and associated structures (currently undergoing demolition) situated centrally within the Site. Runoff from the buildings is expected to be directed to surface and, along with rainfall that does not penetrate unsealed surfaces, is expected to flow overland, predominantly west, toward the existing dam on-site (located centrally on the western boundary) with lands east of the access road and homestead flowing to the southeast toward stormwater infrastructure (kerb, gutter, and pit drains) servicing Reddall Street. The municipal stormwater system is expected to flow to south, delivered to a swale drain and culvert crossing Yass Valley Way (from east to west) before ultimately flowing towards the Yass River, approximately 570 m west of the Site.

4.2.2 Soil Landscape and Geology

The Soil Landscapes of the Goulburn 1:250 000 Sheet (Hird, 1991) identifies the Site as within the *Binalong* (**YEbi**) colluvial soil landscape. These soils are of the undulating low hills between Yass and Boorowa and are typically described as Xanthozems (Gn2 and Dy3), Red Earths and Non-calcic Brown Soils (Dr2). Soils have formed *in situ* from alluvial-colluvial material derived from the parent rock, with possible aeolian influences.

The Yass Special 1:50 000 Geological Map (Colquhoun & Cameron, 2013) indicates that the Site is generally underlain by the Hawkins Volcanic Formation, part of the Silurian aged Douro Group, consisting of pyroclastic rock units including blue-grey, massive, welded, porphyritic biotite-cordierite-garnet rhyolitic to dacitic ignimbrite; sporadic quartz+dioritic xenoliths; flow-banded, vesicular rhyodacitic-dacite; volcanic sandstone, minor rhyodacitic agglomerate and rhyolitic lapilli tuff.

Colluvial and Alluvial formations surround the protruding volcanic unit, including:

- *Colluvium* (**Qc**), of Quaternary (base) to Current (top) age, comprising of poorly sorted, weakly cemented to unconsolidated colluvial lenses of polymictic conglomerate with medium-to very coarse-grained matrix, interspersed with unconsolidated clayey and silty red-brown sand layers; and
- *Alluvium* (**Qa**), comprising of 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 paleosol horizons.

Soil and geological maps for the Site are presented in Maps 1.4a and 1.5 (respectively) in Appendix B and tabulated soil and geological descriptions are provided in Tables 1.4 and 1.5 (respectively) in Appendix C.

The National Acid Sulfate Soils (ASS) map layer (Fitzpatrick et al, 2011) available on the Australian National Soil Information System (ANSIS)[1] portal indicates the Site is located within an area mapped as “low probability of ASS occurrence”, with acid sulfate soils generally within upper 1 m in wet/riparian areas. The confidence of ASS mapping in this class is described as low with inland ASS classifications derived from state soil classification, hydrography and landscape coverage. Nevertheless, the geomorphological conditions at the Site are unlikely to have resulted in the widespread formation of ASS layers with potential reduced sulfide rich layers likely limited to permanently inundated sediments.

ASS mapping is presented as Map 1.4b in Appendix B and tabulated descriptions are provided in Table 1.4 in Appendix C.

4.2.3 Hydrogeology and Groundwater Use

The Bureau of Meteorology (BoM) National Australian Groundwater Explorer[2] identifies the Site as within a hydrogeological unit comprising fractured or fissured aquifers of low to moderate productivity with BoM records showing eighty-one (81) licensed groundwater bores within two (2) km of the Site. No registered groundwater bores were identified on-site. Table 3 below summarises the details of six (6) licensed bores located within 1 km of the Site, noting the closest registered groundwater bore to Site (GW402468) is approximately 140 m south of the Site.

The two (2) nearest registered groundwater bores, GW402468 (approximately 140 m) and GW402927 (approximately 400m) are located south of the Site and are both drilled to a depth of 13.0 m below ground level (BGL), likely accessing moderately shallow (~10 m BGL) aquifers within fractured or fissured rock. Previous groundwater investigations by others (refer Section 5.2.3) of former retail service station sites (to the west) indicated Standing Water Levels (SWL) measured in groundwater monitoring bores installed at Lot 11 DP 789070 (120 m south-east of the Site, now occupied by the Yass SES and RFS facilities) were approximately 1.5 m to 2.0 m BGL with observations made during drilling indicating a deeper water bearing zone was present at 2.5 m to 3.0 m BGL in a confined aquifer (of unknown nature) under hydrostatic pressure. The interconnectivity between the shallow aquifer (assumed to be infiltrated rainwater held with in unconsolidated sediments, and moderately shallow aquifer within underlying sandstone and siltstone layers is unknown but flow direction is assumed to be influenced by topography, inferred to flow to the southwest and west, toward the dominant hydrological features (i.e., Yass River and Bango Creek).

[1] https://portal.ansis.net/
[2] http://www.bom.gov.au/water/groundwater/explorer/

The northern half of the Site is mapped as a groundwater protected area under Clause 6.4 of the Yass Valley Local Environmental Plan (LEP) 2013, and the Yass and Bango Rivers (over 500 m west of the Site) are mapped as a high potential aquatic Groundwater Dependent Ecosystems (GDE).

Details for identified groundwater bores (including driller lithology reports) are presented in Table 2.1 in Appendix C and a map depicting their location, relative to the Site, is presented as Map 2.1 in Appendix B.

Table 3 – Closest Licensed Groundwater Bores

Bore ID	Authorised purpose	Completion Date	Distance (m)	Direction	Drilled Depth (m)	Final depth (m)	Standing Water Level (mBGL)
GW402468	Household	15/06/2003	140.7	South	13.0	13.0	-
GW402927	Household	01/09/2004	397.1	South	13.0	13.0	-
GW029279	Water supply for livestock	01/06/1968	561.0	South	26.8	26.8	-
41010277	Unknown	-	601.7	West	-	-	-
GW402463	Monitoring	19/05/2003	619.1	West	103.0	103.0	2.8
GW402091	Household	14/11/2002	631.2	East	48.0	48.0	34.0

Table 3 Notes:

1. The use of the symbol '-'denotes that no records were found

5 Desktop Information Review

5.1 Public Registers and Records, Licenses, and Incidents

5.1.1 NSW EPA Public Land Register and Sites Notified as Contaminated to the EPA

The Site is not listed on the NSW contaminated land public register of record of notices to the EPA under section 58 of the *Contaminated Land Management Act 1997* (CLM Act).

A search of the NSW Environment Protection Authority (NSW EPA) contaminated land public register of record of notices identified one (1) notice within 1 km of the Site. Notice 20202802 issued 22 April 2020 is an ongoing maintenance order currently in place for the former Mobil Depot Yass and adjacent land located at 54-58 Laidlaw Street (Lots1-3 DP 150413), approximately 980 m south of the Site.

The Site is not listed on the list of NSW contaminated sites notified to the EPA under section 60 of the CLM Act.

A search of NSW contaminated sites notified to the EPA identified one (1) current notice (as described above) and twelve (12) former notices that have been issued for the Mobil Depot Yass and adjacent land, the most recent former notice being an approved voluntary management proposal (20101701).

Search records are provided in Table 3.1 in Appendix C and a map of the location of the nominated and notified sites, in relation to the Site, is presented as Map 3.1 in Appendix B.

5.1.2 NSW EPA POEO Public Register

The Site is not listed on the NSW EPA *Protection of the Environment Operations Act 1997* (POEO Act) public register of licence, applications, and notices (maintained under section 308 of the POEO Act).

A search of the NSW EPA POEO Act public register of licence, applications and notices identified six (6) records within 1 km of the Site, namely:

- A licence (1730) held by Yass Valley Council for the Yass Sewage Treatment Plant (STP) for sewage treatment processing, located immediately north-east of the Site (License number 1730 issued).
- A licence (1805) held by Yass Valley Council for the Yass Water Treatment Plant for miscellaneous licensed discharge to waters, located approximately 830 m east of the Site (License number 1805 issued).
- An unmapped licence (4022) formerly held by the Forestry Corporation of New South Wales for logging operations in state forests and crown timber lands (excluding plantations), this license is no longer in force.
- A Clean Up notice (1564494) dated 3 May 2018, issued to the Yass Valley Council at Laidlaw Street, Yass for the removal of asbestos-impacted soil, approximately 150 m south-west of the Site.
- An unmapped Clean Up notice (1528991) dated 6 March 2015, issued to the Forestry Corporation of New South Wales for logging operations; and
- A Clean Up notice (3502930) dated 17 June 2022 issued to the Yass Valley Council at Cooks Hill Road, Yass for the removal of miscellaneous licensed discharge to waters, approximately 830 m east of the Site.

Search records are provided in Tables 3.2 and 3.3 in Appendix C and a map of the location of identified licensed activities, in relation to the Site, is presented as Map 3.2 in Appendix B.

5.1.3 Sites Managed by Other Bodies

No records for the Site were identified on the National Pollutant Inventory (NPI) National Map[3], and no records for defence area/military sites[4,5] were identified within 2 km of the Site. However, the National Pollutant Inventory (NPI) National Map did identify the former Mobil Depot Yass and Adjacent land (located 980 m south of the Site), for Petroleum Product Wholesaling activities.

The NSW EPA Former Gasworks database[6] identifies the Yass Gas Works, approximately 2 km south of the Site, as a significantly contaminated site. D&N understand the former Yass Gas Works is being managed under an approved voluntary management proposal (20121712) with NSW EPA.

The Yass NSW Rural Fire Service (RFS) facility is located approximately 90 m south-west of the Site, and the Yass Fire and Rescue (F&R) Service Station is located approximately 2 km south of the Site. Neither the Yass F&R Station or the Yass RFS facility are currently listed on the NSW Fire and Rescue Service (FRNSW) Per- and Poly Fluoro Alkyl substances (PFAS) Environmental Investigation Program[7],the NSW RFS PFAS Environmental Investigation Program[8], or the Australian PFAS Chemicals Map[9]. D&N do however note that

[3] https://www.npi.gov.au/npidata/action/load/map-search
[4] https://www.defence.gov.au/about/locations-property/pfas
[5] https://www.defence.gov.au/about/locations-property/regional-contamination-investigation-program
[6] https://www.epa.nsw.gov.au/your-environment/contaminated-land/other-contamination-issues/former-gasworks-sites
[7] PFAS environmental investigation - Fire and Rescue NSW
[8] https://www.rfs.nsw.gov.au/news-and-media/pfas-environmental-investigation
[9] https://pfas.australianmap.net/

these map sources typically identify locations where investigations have or are currently being undertaken and contamination associated with storage, handling and use of Aqueous Film Forming Foams (AFFF) containing PFAS may have occurred on these sites.

The Yass Valley Council Waste Transfer Station (Yass WTS) is currently operating at Faulder Street, approximately 240 m north of the Site. No Environment Protection License (EPL) is required as D&N understand the activities of the Yass WTS do not exceed the *Protection of the environment (Operations) Act 1997* (POEO Act) licensing threshold[10].

Search records for the locations managed by other bodies are provided in Table 3.a in Appendix C, with location details provided in Map 3.3a in Appendix B.

5.1.4 Public Records

A search of commercial and trade directory databases identified twenty-six (26) activities that may cause contamination (per the description 'low- to high-risk activities' either known to cause potential contamination risk) as currently operating on, or within 200 m, of the Site. Table 4 below presents a summary of historical activities.

The database search did not reveal the presence of liquid fuel facilities or waste management facilities within a 200m buffer of the site. However, based on anecdotal information and historical documents provided by Yass Valley Council, a service station (i.e., former Hume Roadhouse) appears to have historically operated 260 m west of the Site, with other service stations believed to have operated on neighbouring lots to the south-west, including former BP and Shell retail fuel facilities along with the former Shell Depot southwest of the Site.

Table 4 – Historical Business Records

Activity	Name	Address	Distance (m)	Direction
Roofing Materials & Supplies	Yass Engineering	Unit 6 Yass Trade Centre 81 Laidlaw St	38.4	West
Mufflers & Exhaust System Replacement & Repairs	Yass Mufflers & Radiators	U2/ 81 Laidlaw St	38.4	West
Saddlers & Riding Supplies	Harrogate Hill Saddlery	Unit 1/ 81 Laidlaw St	38.4	West
Engineers - Motor & Repairers	Shanes Car 'N' Cycle	Unit 5 81 Laidlaw St	38.4	West
Pumps - Mfrs &/or Merchants	Mono Pumps (Aust) Pty Ltd	124 Laidlaw Street	107.0	South-west
Couriers	Darrane Pty Ltd	98 Laidlaw St	127.9	South-west
Transport Services	Bush's Transport	55 Glebe Street	130.1	South-east
Carriers - Light	Yass Freight Express Pty Ltd	55 Glebe Street	130.1	South-east

[10] https://www.epa.nsw.gov.au/-/media/epa/corporate-site/resources/wasteregulation/150105-guide-to-licensing-factsheet.pdf

Activity	Name	Address	Distance (m)	Direction
Wool Buyers & Merchants	Walsh Bernard	10, Orion Street	146.1	South
Fencing Materials & Fittings	Ma Steel	71 Laidlaw Street	147.1	South
Electrical Contractors	T.J.G. Electrical	22 Orion Street	191.3	South-east
Auto Electrical Services	JB's Auto Electrical Service	Yass Trade Centre	Not recorded	West
Earth Moving &/or Excavating Equipment & Machinery	Global Track Warehouse Pty Ltd	Lot Y Laidlaw St YASS 2582 NSW	Not recorded	West
Earth Moving &/or Excavating Equipment & Machinery	Global Track Warehouse Pty Ltd	Lot Y Laidlaw Street	Not recorded	West
Fire Brigades	Rural Fire Brigades	Yass Shire Fire Control Office YASS 2582 NSW	Not recorded	West

Search records are provided in Tables 4.2 and 4.3 in Appendix C and a map of the location of potentially activities identified on or within 200 m of the Site presented as Map 4.2 in Appendix B.

5.2 Planning Records

5.2.1 Planning Certificate

Planning Certificates under Section 10.7 (2) and (5) for the Site were not sourced from Yass Valley Council as the Site history did not indicate a significant change of use from the current land use practices.

5.2.2 SafeWork NSW Hazardous Chemicals Search

A SafeWork NSW hazardous chemicals search (for Schedule 11 Hazardous Chemicals) was not lodged with Safework NSW as the Site is unlikely to have required registration for storage of volumes less than 50,000 litres (L).

5.2.3 Council Records

Records provided by Yass Valley Council indicate a number of sites to the west and southwest of the Site historically operated as service stations including:

Hume Roadhouse or North Yass Roadhouse, operated as a service station by Westoil (having leased the Site from Yass Valley Council), followed by BP Australia Pty Ltd (BP), potentially sub-letting to “Davis Faulkner,” operating as the “BP Roadhouse,” “North Yass Roadhouse” or “Hume Roadhouse”. Five (5) underground storage tanks (UST) are assumed to remain on-site; however, all USTs are reported to have been abandoned and temporarily decommissioned (i.e., filled with water and sealant) following the cessation of the lease held by Westoil Petroleum Pty Ltd (Westoil) in 2000. Two (2) Aboveground Storage Tanks (AST) historically used for storing Liquified Petroleum Gas (LPG) were understood to have been removed from Site circa 2000. A soil gas survey conducted as part of previous investigations (by others) reported Volatile Organic Compound (VOC) concentrations between *not detected* (i.e., 0 parts-per-million [ppm]) and 165 ppm with the highest VOC detection recorded in the north-eastern tank farm (to the north-west of the former service station building.

Lot 7 DP 607205 is currently occupied by Yass Valley Council Works Depot. Prior to Yass Valley Council assuming proprietorship, Lot 7 was leased by The Shell Company of Australia Pty Ltd (Shell) although the commencement of Shell's lease of Lot 7 is unknown. Anecdotal information from Yass Valley Council's records suggests a service station operated on-site from circa 1955, originally retailing fuel under the brand "Neptune" until the cessation of Shell's lease in 1997. Prior to the cessation of Shell's lease of Lot 7, eight (8) USTs were excavated and removed from the former Shell service station, along with approximately 50 cubic metres (m^3) of impacted materials removed insofar as could be achieved.

Residual contamination was identified under the former Shell Yass transport terminal building by Shell's consultant assisting with end-of-lease activities, Rust PPK, in 1996. Further investigations by Rust PPK (also in 1996) identified impact in soils in the roadside verge between the under the former Shell Yass transport terminal building and the Yass Valley Way. Rust PPK did not recommend remediation of the identified off-site petroleum hydrocarbon impact, instead suggesting that the potential for significant migration to result in public health risks was low and natural biodegradation processes should reduce concentrations of contaminants over time. Rust PPK identified (in a letter dated 18 October 1996) groundwater monitoring wells are present on the former Shell Yass transport, previously installed downgradient of the former source area (i.e., Lot 7 tank farm), stating previous sampling and analyses indicated groundwater was not affected.

Lot 11 DP 789070, now occupied by the Yass SES and RFS depots, previously operated as a Truckstop and Café until 1994. The Truckstop and Café site was leased to BP who, upon cessation of the lease, commissioned an assessment of soil contamination of Lot 11. The report (prepared by Groundwater Technology Australia Pty Ltd and dated 23 December 1993) identified elevated hydrocarbon vapours in soils on-site however, the report noted the impermeable nature and shallow depth of bedrock suggested that hydrocarbon and lead contamination would be restricted to fill, residual clay overlying fresh bedrock, tank pits, pump areas, vent lines and supply lines and recommended no further investigation or remediation was required at Lot 11. The eight (8) UST on Lot 11 were reported to have been filled with sand and Yass Valley Council assumed proprietorship of Lot 11 along with the remaining infrastructure, above and underground.

5.3 Historical Records

5.3.1 Australian and NSW Heritage Register

A search of state and local heritage registers did not find any heritage registered sites on the Site.

The now defunct Yass Tramway occupies the corridor along the Site's western boundary. The Yass Junction Railway Station, Yass Town Railway Station and Yass Railway Bridge are listed as items of general local (heritage) significance; however, the Tramway is not (heritage) listed.

Search records are provided in Table 1.3 of Appendix C, and the relevant location details are presented in Map 1.3 of Appendix B.

5.3.2 Historical Aerial Imagery

Eleven (11) historical aerial photographs were obtained, spanning from 1952 to 2024. One (1) historical aerial photograph per decade was generally reviewed, with a total of ten (10) of the eleven (11) images reviewed.

The photographs were examined for signs of potential AEC such as previous structures which may have subsequently been removed, existing (legacy) historic structures, stripped soil or areas of fill or disturbance or other signs of potentially contaminating activities.

All historical aerial images are presented in Appendix D with the findings of the review summarised in Table 5 below.

Table 5 – Historical Aerial Imagery Review

Date	Site Observations	Off-site Observations
1952	The Site consists of a homestead and single shed (Shed 1), located in the central portion of the Site and accessed by an unsealed track that appears to originate from Orion Street (as Reddall Street does not appear to be in operation. A small (approximately 0.2 Ha) homogenous planted area is visible to the immediate northeast of the homestead, potentially indicating a market garden area or orchard. The remainder of the Site appears to have been subjected to stock grazing.	Immediately north of the Site (approximately 70 m) appears to be two (2) constructed ponds likely associated with historical sewage treatment operations. The dam adjacent the north-eastern boundary (i.e., northern Dam) of the Site is apparent however given the visible tracks surrounding the dam, it is assumed the northern dam is not associated with historical sewage treatment operations. Lands to the east and west are relatively undeveloped and are likely used for agricultural purposes. To the south of the Site, lands appear to consist of rural residential properties although the former Shell depot and Yass Services NSW depot are apparent on the southern side of Yass Valley Way, formerly the Hume Highway.
1973	A second shed (Shed 2), constructed to the west of the existing structures is now apparent on-site. Although the image quality is poor, indications of disturbed land are apparent to the immediate north of the new structure (i.e., Shed 2), possibly associated with shed construction. Agricultural activities (i.e., pasture production and/or cattle grazing appear to be continuing.	Immediately to the west, a railway line extends north (towards the Yass Junction Station) and south. Beyond this railway line, industrial or commercial developments are now apparent on the northern side of Yass Valley Way, likely the service station developments described in Section 5.2.3). Residential development of the area south of the Site around Orion and Caster Streets is now apparent.
1983	The homestead appears to have undergone some exterior alterations, evident on the northern, eastern and southern faces, along with additions to the original shed (Shed 1) north of the homestead. A third shed (Shed 3) is also now apparent to the north of the second shed (Shed 2) constructed between 1952 and 1973. Evidence of storage of what is assumed to be farm equipment is visible to the north of the sheds along with indications of an earthen bund further north (of the sheds), likely supporting a future vegetated windbreak. A disturbed rectangular area east of Shed 2 is apparent, located within the area previously identified as a potential market garden/orchard. The unsealed driveway has been realigned, and is now originating from Reddall Street, which is now formed. The farm dam currently located centrally upon the western Site boundary (i.e., Western Dam) is now apparent.	Industrial development of land to the southwest of the Site is apparent, including a new structure on the land immediately adjacent the Site, on the corner of Yass Valley Way and Reddall Street. The Yass STP has expanded west with the construction of new holding pond and treatment infrastructure approximately 150 m west of the Site. A large water storage/holding reservoir, and associated buildings and structures (likely associated with the Yass STP) appear to have been constructed approximately 150 m north-west of the Site. Land to the north remains predominantly unchanged (i.e., vacant) whilst land to the west is now occupied by a rural residential dwelling. Residential development continues in land to the south with commercial and industrial development apparent upon Yass Valley Way (formerly the Hume Highway) further south.

Date	Site Observations	Off-site Observations
1994	The earthen berm north of the homestead is now occupied by a mature tree windbreak and the footprint of Shed 1 appears to have expanded north and west.	The parcel of land adjoining the Site's southwestern corner appears to have been cleared in preparation for development. Lands northeast of the industrial areas to the west of Site have been disturbed although the nature of the disturbance is unclear and may potentially be associated with works at the Yass STP. The Yass WTS is now in operation, to the north of the Yass STP. Circular patterns evident in the grass north of the Yass WTS may indicate irrigation in this area. Residential development has continued south of the Site and a farm dam is now apparent immediately east of the Site, part of the rural residential activities west of the Site. Land disturbance is also apparent to the southwest of Site, west of Yass Valley Way
1997	No significant changes to the Site or development footprint were observed when compared with 1994 aerial photograph, however: • Various equipment items (possibly vehicles or farm equipment and what appear to be shipping containers) are evident in set down areas to the east and north of the homestead; and • An area of land disturbance or stockpiling, potentially burn piles of cleared vegetation, are evident in the southwestern corner of the Site.	Development of the parcel of land adjoining the Site's southwestern corner is now apparent. Yass STP and WTS operations are continuing to the Site's northwest. Industrial and commercial activities continue to the southwest along with residential development to the south. Earthworks, likely for a dam, are apparent in the rural residential property east of the Site.
2008	A fourth shed (Shed 4) is now apparent, immediately south of Shed 2. A new access road originating from Reddall Street and running north along the Site's eastern boundary is apparent, along with set down area established north of the homestead and sheds on-site. The new set down area appears to adjoin a track running around the northern portion of the Site. The previous set down area east of the homestead is no longer visible however the set down area north of the homestead has extended north past the windbreak to link to the new set down area. The stockpiles/ burn piles visible in the southwest corner of the Site appear to have been removed, however; an area of disturbed land is apparent in the land between the homestead and western dam[1]. An unidentified cylindrical object is evident in the central north of the Site.	Land to the immediate east of the Site has undergone further development (likely subdivision) with a second rural residential dwelling now present immediately east of the Site. Further rural residential development is apparent to the north-east and east of the Site. Yass STP and WTS operations are continuing to the Site's northwest. Industrial and commercial activities continue to the southwest, including further expansion adjacent the Yass Council depot, along with continuing residential development to the south. Earthworks and stockpiling activities are visible to the far south-west of the Site, west of Yass Valley Way.

Date	Site Observations	Off-site Observations
2013	The set down area, additional access track and ring track in the northern portion of the Site (observed in the 2008 aerial photograph) appear to no longer be in use although significant disturbance of the former windbreak and berm are apparent. The footprint of the disturbed land previously apparent in the land between the homestead and western dam has reduced. The cylindrical object is still apparent in the central north of the Site.	Development to the east of the Site continues, with an industrial facility (likely BR Durham & Sons) now located immediately east of the Site. Yass STP and WTS operations are continuing to the Site's northwest, with additional facilities evident in the southeast corner of the Yass STP. Industrial and commercial activities continue to the southwest, including further expansion north of the Yass Council depot, along with continuing residential development to the south. Earthworks and stockpiling activities continue to be visible to the far south-west of the Site, west of Yass Valley Way.
2018	No significant changes to the Site or development footprint were observed when compared with 2013 aerial photograph, however; an unsealed track leading from the homestead to disturbed land visible in the land between the homestead and western dam is apparent. The cylindrical object is still apparent in the central north of the Site.	No significant changes to the land surrounding the Site were observed when compared with 2013 aerial photograph, however: Continued development of the industrial facility immediately east of the Site is apparent. An expansion to the Yass WTS facilities west of the Yass STP is underway.
2020	No significant changes to the Site or development footprint were observed when compared with 2018 aerial photograph, however; the unsealed track northwest of the homestead is no longer apparent and the footprint of the associated disturbed lands appears to have reduced. The cylindrical object is still apparent in the central north of the Site.	Development east of the Site continues, with road construction in preparation for further residential development apparent. Continuing commercial development is also apparent immediately south of the Site. The expanded WTS facilities, west of the Yass STP now appear to be in operation.
2024	Land to the north of the homestead has been cleared, including the removal of the eastern and northern-most sheds (Sheds 2 and 3) with the demolition of the homestead and associated sheds on-site appearing to have commenced. The disturbed land in the area between the homestead and western dam continues to be apparent, along with several small circular areas of disturbed land extending to the east. The cylindrical object is still apparent in the central north of the Site.	Earthworks are apparent to the west of the Site, north of the Yass Council depot. Earthworks are also apparent to the immediate east of the Site, likely associated with industrial activities (BR Durham & Sons). Residential development to the east appears completed.

Table 5 Notes:

2. A review of aerial imagery available on Google Earth™ was conducted to provide further information on the land disturbance observed in the land between the homestead and western dam. Google Earth™ imagery dated 1/2008 shows disturbance in this area, with areas of bare earth and visible indications of anthropogenic materials placed in this area. From 1/2008 to 8/2012, the land disturbance is less obvious however piles of vegetation have been placed in the area and appear to have been burnt in imagery available for 12/2012. No obvious changes are apparent in the area until 10/2016 when the burnt piles appear to have been consolidated. Google Earth™ imagery dated 4/2019 shows the hummocky ground along with stockpiles of unidentifiable materials placed on-site to the immediate east. No obvious changes are evident in the area until 10/2023 (the most recent image available on Google Earth™) when the footprint of the stockpiles of unidentifiable materials appears to have expanded north and east with some indications of earthworks (benching apparent).

5.3.3 Historical Title Search

A search of land title records was conducted with search results provided in Appendix E. Historical aerial imagery for the period 1952 to 2024 was provided as part of the historical title information search response with historical aerial imagery discussed in Section 5.3.2 above.

The search records report the acquisitions for Lot 4 DP 255064 include:

- Acquired by Janet Alice Merriman on December 18, 1924.
- Acquired by Olive Barber on October 10, 1949.
- Acquired by John Alger Peet Wilson on March 11, 1958, noting historical title records indicate Wilson was a grazier.
- Acquired by Kenneth Raymond Hickey on May 11, 1964, noting historical title records indicate Hickey was a grazier.
- Acquired by Aber Laurence Cooke and Thelma Rose Cooke on January 15, 1965, noting historical title records indicate Cooke was a stock and station agent.
- Acquired by Anthony George Pty Limited on September 13, 1973.
- Acquired by Hume Nominee Company Pty Limited on January 27, 1978.
- Acquired by Big Wok Pty Limited on October 20, 2014.
- Acquired by Warwick Farm Investments Pty Limited on April 19, 2024.

Three (3) easements, (excluding cross easements for party walls) were identified in the title search response namely:

- An easement for access to the Site 6.09 m wide on December 22, 1939.
- An easement to drain sewage affecting the Site designated “D” on September 5, 1977.
- An easement to drain sewage affecting the Site designated “E” on September 5, 1977.

The historical title search responses, including information on easement locations, are provided in Appendix E, noting that individual leases created for Lot 4 DP 255064 were not found in the search.

6 Site Inspection and Observations

An experienced D&N environmental scientists conducted a walkover of the Site on 15 October 2024. The site walkover was conducted to:

- Observe the development and environmental conditions on-site.
- Ground truth the findings of the desktop information review; and
- Visually inspect the Site for obvious indication of potential contamination.

Site photographs collected during the walkover are presented in Appendix F, with the location and orientation of photographs (presented in Appendix F) depicted on Figure 2 (after text).

Anecdotal evidence (provided by contractors on-site undertaking demolition works during D&N’s site walkover) indicated an additional shed, derelict cars and an old silo were present on-site but have since been removed prior to the Site walkover.

The Site conditions were observed to be consistent with the findings of the desktop review with the following key observations made:

5. The Site is predominantly vacant land accessed by an unsealed paved road originating from Reddall Street (refer to Photograph 1) to the south, with an existing homestead and a sheet metal shed (Shed 1), currently undergoing demolition (refer to Photograph 2), located centrally within the property. The homestead consists of the original building footprint and subsequent building alterations to the north

(refer to Photograph 3), a pool and tennis court, an asphaltic-sealed parking area and an external flat (refer to Photograph 4). Sheep were observed grazing in the northern and western paddocks.

6. The partial demolition of the homestead was reported (by the demolition contractor) to have included the removal of hazardous building materials, including asbestos containing materials.
7. Two (2) rainwater tanks connected to the newer addition of the homestead were observed on-site (refer to Photograph 5) along with building wastes associated with the demolition of the homestead.
8. Shed 1, currently being demolished, was observed north of the homestead. This shed appeared to include an office and storage areas (refer to Photograph 6) and an animal shelter (refer to Photograph 7). Shed 1 appeared to have historically garaged equipment and machinery however evidence of the storage of chemicals and other products could not be ascertained.
9. Construction and demolition (C&D) wastes were observed sporadically around the homestead with a large pile of bricks and concrete, wood and metal waste (refer to Photograph 8) and corrugated sheet metal (refer to Photograph 9), located northeast of the homestead, adjacent the footprint of the demolished Shed 2. A stockpile of soil mixed with construction and demolition (C&D) waste was located on the footprint of Shed 3 (refer to Photograph 10).
10. A partially demolished storage (fuel) tank was observed on-site, associated with C&D stockpiles adjacent the footprint of Shed 2 (refer to Photograph 11). Anecdotal information (obtained from demolition contractors on-site) indicated the damaged tank was sourced from nearby fuel stations for use as a water storage tank. The tank is likely the cylindrical object observed within the central northern portion of the Site, described in historical aerial images between 2008 to 2024.
11. Remnant farm equipment and machinery were observed north of the footprint of Shed 2 (refer to Photograph 12) and north of Shed 1 (refer to Photograph 13).
12. Concrete cattle troughs were observed across the Site, connected via buried polyethylene piping (refer to Photograph 14), possibly historically connected to the former underground storage (fuel) tank when in use.
13. Various areas of bare soil were observed across the Site (refer to Photograph 15), associated with areas of equipment set down and historical soil disturbance identified (in 2024 historical aerial imagery discussed above in Section 5.3.2) north of the homestead and sheds.
14. Other localised stockpiling areas (external to the demolition stockpiles previously described) were observed, including:
    a. A stockpile (burn pile) containing vegetation and C&D waste located approximately 50 m west of the homestead (refer to Photograph 16); and
    b. A small stockpile of soil with partially buried electrical insulators, glass, and metal and plastic pieces located approximately 80 m west of the homestead (refer to Photograph 17 and 18).
15. An area of hummocky ground was observed adjacent to the small stockpile identified in 9(b) above, in the vicinity of historical land disturbance identified in the 2008 historical aerial photograph, approximately 50 m east of the Western Dam. C&D wastes including brick fragments and tiles were evident at surface along with mechanical gaskets and engine parts (refer Photographs 19 and 20). The footprint of the hummocky area observed on-site was measured as approximately 500 square metres (m^2).
16. Five (5) concrete pit lids associated with utilities were observed in relative proximity to the services easement that transects the southwestern portion of the Site, including:
    a. Two (2) concrete risers approximately 40 m east of the western boundary (refer to Photographs 21 and 22), between the farm dam and area of hummocky ground; and

b. A series of two (2) risers and a valve approximately 50 m west of the eastern boundary and 90 m south of the risers described above (refer to Photograph 23).

17. One (1) farm dam is located on-site, present centrally on the western boundary (refer to Photograph 24), whilst a second larger dam is located off-site, adjacent the north-eastern boundary (refer to Photograph 25).
18. Two (2) terracotta pipes were observed in the centre of the northern paddock, atop high point of this area, with a bare patch of land adjacent (refer to Photograph 26). Historical aerial images from 2008 indicated this area was occupied by an unidentified cylindrical object, potentially a former storage tank recycled for use as a stock water storage tank.
19. The former Yass Tramway runs along the western boundary, separated from site by the planted stand of mature pine trees (refer to photograph 27). The tramway is also downslope of the Site with the grade sloping at approximately 10% from east to west and no spur lines or tracks accessing the Site were identified.
20. No significant staining of soils was observed, and no detectable odours were recorded during the site walkover.
21. Although stockpiles of C&D wastes were observed across the central portion of the Site and within fill materials, no indications of asbestos containing materials were observed.

7 Site History and Land Use Summary

7.1 Preliminary Assessment Data Gaps

Whilst D&N have obtained and reviewed a thorough list of current and historical information pertaining to the Site, we note that the following data gaps may exist:

- Historical land uses prior to the earliest available aerial imagery (i.e., prior to 1952) are unknown. Interpretation of aerial imagery and historical title records suggest agricultural activities (primarily grazing) were undertaken on-site however these historical activities could not be confirmed.
- Noting the age of legacy structures on-site (between 1952 and 1994), the presence of hazardous building materials (within existing structures) is unknown, noting that anecdotal information (supplied by site contractors) indicated hazardous materials removal occurred prior to demolition. D&N have assumed that an asbestos clearance certificate will be issued post-demolition, including clearance of the building (homestead and four [4] sheds) footprints.
- Historical earthworks identified in aerial imagery (i.e., earthen berm constructed circa 1983 and disturbed circa 2008) are likely to have utilised site-won materials however this cannot be confirmed and the potential for importation of impacted materials to site remains.
- The lateral and vertical extent of disturbed areas of land across the Site is unknown, specifically within the area of hummocky ground identified in historical aerial images (2008 onwards) and observed on-site during the site walkover. The nature of waste in this area (noting C&D wastes and engine parts have been observed) as well as the status of soils (i.e., impacted from historical waste burial) is also unconfirmed.
- Noting no obvious indications of demolition of former structures was identified, the source(s) of construction wastes observed on-site (i.e., hummocky area) are unknown.
- The nature of agricultural practices inferred to have occurred on-site (i.e., animal husbandry [grazing], pasture production and market gardening/orchard production) and farm activities undertaken to support these pursuits (e.g., fertiliser and pesticide/herbicide application as well as the presence and use of livestock dips) are unknown. Similarly, the status of dam sediments (i.e., impacted from agricultural runoff) is unknown.

- The nature and extent of chemical storage on-site is unknown however D&N assumes that chemical storage would have historically occurred in farm sheds. At the time of our site walkover, the farm sheds were empty, and an inventory of farm chemicals on-site could not be collected; and
- The extent and nature of equipment and materials stored historically in set down and storage areas is unknown.

7.2 On-site Land Use Summary

Historical aerial photography indicates the Site was originally occupied by a homestead and an associated shed (constructed prior to 1952), with imagery and historical land title information indicating the Site and surrounding area were primarily used for agricultural (animal husbandry and grazing) purposes. No obvious indications of extensive cropping or horticulture were identified in the available historical imagery however a small homogenous planted area was identified east of the homestead (in 1952 historical aerial imagery), potentially indicating a market garden, or orchard.

Three (3) additional farm sheds were constructed on-site between 1973 and 2008 and alterations to the homestead also occurred during this period with the extensions in the built footprint to the north, south and east identified in historical aerial imagery. At the time of D&N's site walkover (15 October 2024), three (3) of the four (4) sheds on-site, namely Sheds 2, 3 and 4, had been demolished with demolition of Shed 1 and the homestead actively underway.

Historical title information indicates agricultural activities (grazing) were the dominant land use on-site until at least 1965, however; D&N note that this grazing is likely to have continued with sheep observed in the northern and western paddocks during our site walkover along with the presence of stock watering troughs encountered across the Site.

Various equipment set down areas were identified in relatively close proximity to the homestead and sheds on-site, with what appeared to be primarily vehicles and shipping containers apparent in the 1997 historical aerial imagery. The equipment set down areas expanded to the north in between 1997 and 2008, in conjunction with the creation of a now removed alternate access road to Site (along the eastern boundary). The expanded set down area coincided with an area of land disturbance located northwest of the homestead which, when inspected during D&N's site walkover was observed to be an area of hummocky ground with evidence of C&D wastes and engine parts observed at surface.

The bulk of equipment observed in historical aerial images (i.e., cars, shipping containers etc.) has been periodically removed from Site, however; various relict farm equipment items were observed on-site during our inspection, including a former fuel storage tank inferred to have been historically used for fuel storage at an off-site location prior to being used for on-site stock water storage.

7.3 Off-site Land Use Summary

Land uses surrounding the Site historically included agricultural (grazing and pastural) lands to the north and north-west, and industrial and commercial developments to the south and south-east. The Yass STP has been operating north of the Site circa since before 1952, having undergone various expansions and alterations since circa 1983. Similarly, the Yass WTS has been in operation since circa 1997 and is currently operational to the north and west of the Yass STP.

Commercial and industrial activities to the south-west of the Site included retail fuel operations, historically undertaken on Lot 7 DP 607205 (former Shell Service Station), now occupied by the YVC Works Depot, as well as a former (BP) Truckstop and Café on Lot 11 DP 789070, now occupied by the Yass SES and RFS facilities to the south-west. The industrial footprint has progressively expanded since 1973, principally in a southerly direction along Laidlaw Street.

Rural and rural residential activities to the south and east of the Site have progressively given way to urbanisation and low to medium density residential housing.

Currently the Site, is surrounded by mixed residential and commercial land uses, though lands to the south of the Site remain primarily residential.

7.4 Potential Contaminating Land Use Activities

Table 6 below presents a summary of the potentially contaminating activities that have been identified on, or near, the Site. The table provides a rating for likelihood of contamination derived from a qualitative assessment of the probability of contamination being detected at the respective area in which the potentially contaminating activity occurred or is presumed to have occurred. Where activities are deemed likely or possible to represent a potential contamination risk to the Investigation Area, further assessment is required.

Table 6 – Potential Contaminating Activities and Likelihood of Risk

Activity	Description	Likelihood	Rationale
On-site			
Agricultural activities - Animal husbandry (grazing)	Chemical Storage, Use and Leaks and Spills, possible livestock dip, although not identified	Possible	Historical aerial imagery indicates agricultural activities (grazing) occurred onsite. While chemical application for grazing purposes is unlikely to have resulted in broadscale contamination of the Site, areas used for the prolonged historical storage of significant quantities of chemicals may have caused localised contamination. These areas are expected to be limited to footprints and immediate surrounds of structures formerly and/or currently on-site (i.e., former farm sheds 1 to 4). With the footprints of these areas cleared and grubbed, the potential for significant contamination to be present is considered to be low but possible.
Agricultural activities – Horticulture (market garden/orchard)		Possible	Historical aerial imagery from circa 1952 identified a small homogenous planted area east of the homestead. The pattern of planting may indicate a former market garden or orchard. Past horticultural practices on these lands may have included the application of chemicals, such as organochlorine pesticides, arsenic, cadmium, copper, lead and zinc. Noting the period in which this activity occurred, it is considered possible that persistent chemicals may have been historically applied and may be present in soils and represent a potential risk to future users.
Legacy building(s)	Hazardous Building Materials	Possible	Historical aerial imagery indicates the homestead in the central portion of the Site was constructed prior to 1952, therefore hazardous building material and/or their degradation products (including bonded and friable asbestos products) are likely to be present within existing structures on-site. As discussed in Section 6, anecdotal information suggests that hazardous materials were removed prior to demolition. Noting prior removal, D&N have assumed that a clearance certificate would be issued for the removal with clearance extending to the footprint and immediate vicinity of former structures. Soils in proximity to former structures, particularly those with galvanised sheeting/roofing and structures painted before 1970[11], may also be impacted by degraded sheeting/roofing and paint materials.
Waste Dumping	Hazardous Building Materials, Buried Wastes (C&D wastes, engine parts, electrical transmission part) and Impacted Soils	Likely	Surface occurrences of C&D wastes were observed sporadically across the central portion of the Site, predominantly within the land between the homestead and the Western Dam. An area of approximately 1,000 m^2 of hummocky ground has consistently been utilised for historical stockpiling (burn piles between 2008 and 2016) and placement of unidentifiable materials (soils, anthropogenic materials and associated earthworks between 2019 and present). The presence of C&D wastes and engine parts visible at surface and the nature of placement of these materials suggests waste materials may have been historically buried in this vicinity. In conjunction with the burning of vegetation (noting burn piles identified in the southwestern corner of the Site in 1997 aerial imagery, were either burnt between 1997 and 2008 or, were relocated to the hummocky area for burning between 2008 and 2012), there is potential for contamination to be present in this area, including potential hazardous building materials (noting no indications of demolition of buildings on-site is apparent for the corresponding period inferring building wastes may have been imported to the Site).
Fill	Imported Fill	Unlikely	The historical aerial imagery indicates that earthworks occurred historically on-site, including: • During construction of paved road and unsealed access tracks. • During construction of the Northern and Western dams. • During construction of the earthen berm north of the homestead and sheds; and • Indications of excavation and benching evident in the hummocky area. The materials used in road formation are likely to include engineered materials (e.g., road base) and the potential for contamination to be present in these commercially available materials is considered low. The landform of the Western Dam indicates excavated materials were used as bunding and it is unlikely that imported materials were used in the construction of the Western Dam. Although no bunding was obviously evident surrounding the off-site Northern Dam, it is also unlikely that imported materials were used in the construction of the Northern Dam. Although the likelihood that waste materials have been historically buried in the hummocky area is high, site observations did not infer a significantly difference surface level therefore it is considered unlikely that imported fill material has been placed in this area.
Historical Set down and Storage Areas	Leaks and Spills	Possible	Historical vehicle and equipment set down areas were consistently observed in aerial imagery, predominantly to the north and east of the homestead and sheds. Various isolated equipment set down areas, including relict farm equipment were sporadically observed to the north (i.e., former stock water storage tank in northern paddock), both in historical aerial imagery and during the site walkover. Leaks and spills from vehicles and equipment stored in these set down areas may have resulted in isolated occurrences of soil impact (i.e., hotspots).

[11] https://www.facs.nsw.gov.au/housing/living/health-safety-savings/lead-paint

Activity	Description	Likelihood	Rationale
Off-site			
Adjacent Commercial Operations: Manufacturer Mechanical and Electrical; Agricultural Supply	Chemical Storage, Use and Leaks and Spills	Unlikely	BR Durham and Sons, a manufacturer and supplier of drainage products for water, sewer, electrical, communication and infrastructure, is located 30 m east of the Site. Aerial imagery indicates the presence of materials such as engineered fill materials (aggregate), precast concrete and steel rebar is stored on this site. Whilst runoff is expected to flow east to west and groundwater is inferred to flow in the same direction, the likelihood of contamination from these off-site operations affecting the Site is considered low.
		Unlikely	Commercial mechanical and electrical activities operate to the immediate west and south of the Site. Storage of significant quantities of chemicals is expected to be in controlled areas per relevant Work Health and Safety requirements and leaks and spills from vehicles and equipment stored in these areas is unlikely to have created broadscale contamination affecting the Site.
			Commercial agricultural supply activities operate to the immediate south of the Site. Storage of significant quantities of chemicals is expected to be in controlled areas per relevant Work Health and Safety requirements and leaks and spills from storage areas is unlikely to have created broadscale contamination affecting the Site.
Legacy Service Station and Retail Fuel Operations	Petroleum Storage and Dispensing, Leaks and Spills	Unlikely	Prior to 1995, fuel retailing (including underground petroleum storage and dispensing) and mechanical workshop operations were undertaken on properties west of the former Yass Tramway, including the former Shell Service Station on adjoining the now Yass Valley Council Works Depot on Lot 7 DP 607205, the former BP Truckstop and Café on Lot 11 DP 789070 and a third unidentified former service station on the southern side of Yass Valley Way directly opposite the YVC Works Depot. These properties have been subject to contamination investigations (refer Section 5.2.3) that identified contamination of soil layers (some of which have not been remediated), and soil vapour at depths of approximately 2.0 m BGL. Given these properties are downslope of the Site and noting that runoff and inferred groundwater flow is expected to flow east to west, the risk of contamination to this Site posed by these sources is considered low.
YVC Works and Services NSW Depots		Unlikely	Petroleum storage and dispensing activities continue to occur on Lot 7 DP 60705 (now the YVC Works Depot). Historically up to eight (8) USTs were reported to have been removed from Lot 7 DP 60705 circa 1996. The YVC Works Depot is also assumed to operate as a mechanical workshop, with periodical maintenance of Council plant undertaken. Similar activities are assumed to be undertaken at the Services NSW depot however the presence of UST and AST on the Services NSW is unknown. Given the Yass Valley Council and Services NSW Depots are greater than 140 m downslope and are inferred to be hydraulically downgradient of the Site, the risks posed by contamination associated with these sources is low and unlikely.
Yass RFS and SES	Chemical storage, use and leaks and spills	Unlikely	Lot 11 DP 789070 includes the Yass NSW Rural Fire Service and Yass NSW State Emergency Service. The storage and use of significant quantities of chemicals present in fire-fighting foams i.e., PFAS, may have occurred as part of RFS operations and storage of other chemicals (such as fuels and oils) is likely to have occurred. These facilities are downslope and hydraulically downgradient of the Site and the risks posed by contamination associated with these sources is low and unlikely. There is also no evidence to support the Site has ever been subject to RFS training exercises where foams containing PFAS may have been utilised.
Former Fuel Depot	Petroleum Storage and Dispensing, Leaks and Spills	Unlikely	The fuel depot located 60 m south of the Site's southern boundary operated between 1926 and 1988. Although there are no confirmed indications of underground storage tanks, there is potential for remnant infrastructure and residual soil impact to be present at the former Shell Depot. However given that the former Shell depot is downslope and hydraulically downgradient of the Site, the risks posed by contamination associated with these sources is low and unlikely.
Yass STP	Chemical Storage, Use and Leaks and Spills	Unlikely	Yass STP infrastructure including holding and treatment ponds, as well as pipes transporting effluent, have the potential to leak or leech into the surrounding soil. Leaks and spills may run-off to grassed areas close to the wastewater treatment plant, however widespread contamination from leaks and spills from the Yass STP affecting the Site is unlikely. Further, the wastewater treatment plant is regulated with a current NSW POEO EPL (1730), requiring frequent monitoring and the likelihood of leaks and spills is limited. The Yass STP is also downslope and hydraulically downgradient of the Site.
Yass WTS	Waste Management	Unlikely	Waste management facilities have the potential to leak or leach nutrients and contaminants into surrounding soil. However, the Yass WTS is: A waste transfer station only accepting waste from domestic sources such as household or garden waste; and Assumed to be operating under relevant license and regulatory conditions which would include strategies and monitoring to limit contamination. The Yass WTS is also downslope and hydraulically downgradient of the Site.

8 Preliminary Conceptual Site Model

The CSM is a representation of site-related information (with regard to Source-Pathway-Receptor (S-P-R) linkages, presenting a summary of contamination sources (i.e., AEC), receptors and exposure pathways (between sources and receptors) and provides a qualitative framework for identifying potential risks to receptors. This preliminary CSM has been prepared based on the information obtained during the desktop investigation and information obtained during the site walkover, including consideration of desktop data gaps identified in Section 7.1 above.

8.1 Areas of Environmental Concern and COPC

Table 7 below presents the AEC and associated COPC that have been identified as potentially affecting the Site. The inferred extent of each identified AEC is depicted on Figure 3.

Table 7 – AEC and COPC summary

AEC	Activity	Source Description	Media	Key COPCs
1 - Agricultural Activities	Historical horticulture (market garden/orchard)	Chemical Use and Leaks and Spills	Soils Groundwater	Metals (Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Zinc, Mercury), Organochlorine pesticides (OCP), Organophosphorus Pesticides (OPP), Herbicides
2 - Legacy Building(s)	Hazardous Building Materials	Residual hazardous building materials	Soils	Asbestos containing material/asbestos fines/friable asbestos (ACM/AF/FA), Metals - Lead, Zinc
3 - Waste Dumping	Hazardous Building Materials, Buried Wastes (C&D wastes, engine parts, electrical transmission parts) and Impacted Soils	Residual hazardous building materials	C&D wastes Fill Soils	ACM/AF/FA, Metals (Lead, Zinc)
		Persistent Chemicals	Fill Soils Groundwater	Metals, OCP, OPP, Polychlorinated Biphenyls (PCB)
		Volatile and semi-volatile chemicals		Total Recoverable Hydrocarbons (TRH), Benzene, Toluene, Ethylbenzene, Xylenes and Naphthalene (BTEXN), Polycyclic Aromatic Hydrocarbons (PAH)
4 – Historical Set Down and Storage Areas	Chemical Storage, Leaks and Spills	Residual hazardous materials	Soils	ACM/AF/FA
		Persistent Chemicals	Soils Groundwater	Metals, OCP, OPP
		Volatile and semi-volatile chemicals		TRH, BTEXN, PAH

8.2 Human Receptors

The Site is zoned E3 (Productivity Support), with permissible land uses including (but not limited to) Building identification signs, Environmental Protection works, Home-based childcare, Home businesses, Home occupations, Animal boarding or training establishments, Centre-based child-care facilities, Community facilities, Depots, Industrial retail outlets, and Industrial training facilities. D&N notes the proposed subdivisions is primarily for industrial lots; however, the permissibility of sensitive uses such as

Home-based child-care and Centre-based child-care facilities requires consideration of potential childcare centre users as sensitive receptors.

Groundwater abstraction does not currently occur on-site however bore GW402468, approximately 140 m south of the Site, is registered for household uses, possibly including consumption. Noting the northern half of the Site is mapped as a groundwater protected area (refer Section 4.2.3), there are no restriction on future abstraction on or near the Site.

Sensitive human receptors relevant to the proposed residential development include:

- On-site:
  - Intrusive maintenance and construction workers conducting incidental maintenance and construction activities.
  - Current and future commercial/industrial workers/occupants and transient visitors.
  - Potential future home- and centre-based childcare users' patrons; and
  - Future beneficial groundwater users.
- Off-site:
  - Current and future beneficial groundwater users.

Given the buildings on-site are currently being demolished, D&N have not included rural residential occupants as a sensitive human receptor in this investigation.

8.3 Ecological Receptors

The Site is predominantly well-grassed with stands of mature vegetation along the western boundary and isolated mature trees located around and south of the homestead. No records for threatened ecological communities or threatened/vulnerable/critically endangered species are listed for the Site on the NSW bionet Atlas[12].

The northern half of the Site is mapped as a groundwater protected area (refer Section 4.2.3), and the Yass and Bango Rivers (over 500 m west of the Site) are mapped as a high potential aquatic GDE. The Site is connected to the Yass River via overland flows (refer Section 4.2.1). The northern and western dams are considered to be associated with stock watering activities and have not been considered as aquatic ecological receiving environments for this investigation.

Sensitive ecological receptors relevant to the Site (current and future) include:

- On-site:
  - Terrestrial biota supporting ecological processes (including microorganisms and soil invertebrates) and transitory wildlife.
- Off-site:
  - Aquatic (surface water) ecosystems in Yass River, located 570 m west of the Site, including transitory wildlife; and
  - Local groundwater (GDE associated with Yass and Bango Rivers and vulnerable or sensitive groundwater areas).

[12] https://atlas.bionet.nsw.gov.au/AtlasMapViewer/index.html

8.4 Source-Pathway-Receptor Relationships

For a source to present a significant risk of harm to a specific receptor, a linkage between a contaminant and a receptor (i.e., S-P-R) must be either established or plausible. Table 8 below assesses relevant pathways for COPC at each source to potentially affect a given receptor. The linkage is either:

- Complete – a source has been confirmed with a complete pathway between the source and receptor.
- Plausible – a complete pathway is plausible between a source and receptor however further information is required to confirm the linkage.
- Incomplete – a complete pathway between source and receptor is not present.
- The Incomplete classification can be expanded to include the following:
- Incomplete E (engineered) – the pathway between the source and receptor is considered incomplete due to an existing or proposed engineered management measure. In this instance, commercial and industrial premises are expected to include slab on ground construction, excluding direct contact with soils.
- Incomplete A (administration) – the pathway between the source and receptor is considered incomplete due to an administrative management measure. In this instance, the proposed demolition and redevelopment is assumed to include hazardous materials assessment and demolition under a separate complying development certificate, including an asbestos or hazardous materials register and associated removal control plan in accordance with Clause 425 of the Work Health and Safety Regulation 2017. D&N has assumed that following demolition of structures on-site, an asbestos clearance certificate will be issued for footprints of the former homestead and sheds (1-4).
- Incomplete PPE (personal protective equipment) – the pathway between the source and receptor is considered incomplete due to personal protective equipment (PPE) measures. For example, in this instance, the construction and maintenance workers would employ workplace, health, and safety measures, including assessing risks in accordance with Clause 425 of the Work Health and Safety Regulation 2017 and implementing the use of appropriate PPE.

Table 8 – Potential Human Receptors and Exposure Pathways

AEC	COPC	Secondary Source/s	Exposure Route	Receptors							
				On-site					Off-site		
				Intrusive Construction & Maintenance Workers	Current and Future commercial/industrial workers & visitors	Home- and centre-based childcare users'	Future Groundwater Users	Terrestrial Biota	Current & Future Groundwater Users	Aquatic ecosystems (Yass River)	Local GDE
1 – Agriculture	Metals, OCP, OPP, Herbicides	Soils Groundwater	Dermal contact and Ingestion	Incomplete (A, PPE)	Plausible	Plausible	Plausible	Plausible	Plausible	Plausible	Plausible
2 - Legacy Building(s)	ACM/AF/FA	Soils	Inhalation	Incomplete (A, E, PPE)	Incomplete (A, E)	Incomplete (A, E)	n/a	n/a	n/a	n/a	n/a
	Lead, Zinc		Dermal contact, ingestion	Incomplete (A, E, PPE)	Incomplete (A, E)	Plausible	Incomplete (A)	Plausible	Incomplete (A)	Incomplete (A)	Incomplete (A)
3 - Waste Dumping	ACM/AF/FA	C&D wastes Fill Soils	Inhalation	Plausible	Plausible	Plausible	n/a	n/a	n/a	n/a	n/a
	TRH, BTEXN, PAH	Fill Soils Groundwater	Dermal contact, Ingestion, Inhalation	Plausible	Plausible	Plausible	Plausible	Plausible	Plausible	Plausible	Plausible
	Metals		Dermal contact, Ingestion	Plausible	Plausible	Plausible	Plausible	Plausible	Plausible	Plausible	Plausible
4 – Historical Set Down and Storage Areas	ACM/AF/FA	Soils Groundwater	Inhalation	Incomplete (A, E, PPE)	Incomplete (E)	Plausible	n/a	n/a	n/a	n/a	n/a
	Metals, OCP, OPP		Dermal contact, Ingestion,	Incomplete (A, PPE)	Incomplete (A, E)	Plausible	Plausible	Plausible	Plausible	Plausible	Plausible
	TRH, BTEXN, PAH		Dermal contact, Ingestion, Inhalation	Incomplete (A, PPE	Incomplete (A, E)	Plausible	Plausible	Plausible	Plausible	Plausible	Plausible

9 Discussion and Recommendations

On the basis of the findings of this assessment, in its current state, D&N consider that no impacts have been confirmed that indicate the Site is not suitable for the uses permissible under its current land zoning classification, however; noting the nature of this preliminary desktop investigation (i.e., no intrusive sampling or soil characterisation), the data gaps outlined in Section 7.1 above, and the plausible risks outlined in Table 8 above, the recommendations presented below for additional intrusive investigation and construction management actions should be implemented to support future development of the Site.

The soil sampling and analysis results should be reported as a Detailed Site Investigation (DSI), per the requirements of the NSW EPA (2020) Contaminated Land Guidelines: Consultants Reporting on Contaminated Land. Should concentrations of COPC exceed relevant soil screening criteria, further assessment may be required, including assessment of other media (e.g., groundwater).

Where soil materials surplus to site development require management (i.e., off-site disposal), such materials are to be assessed and classified in accordance with the guidance provided in the NSW Department of Environment and Climate Change (DECC) Waste Classification Guidelines: Part 1 – Classifying Waste (2014).

9.1 AEC 1 – Agriculture

Shallow (i.e., 0.0 m to 0.25 m BGL) soil samples should be collected for analysis in order to assess the presence (or absence) of COPC in soils associated with AEC 1. Soil sampling should be undertaken at a frequency consistent with the NSW EPA Contaminated Land Guidelines: Sampling design part 1 – application (2022) across the area identified as AEC 1 on Figure 3 (after text).

9.2 AEC 2 – Legacy Building(s)

An asbestos clearance certificate should be obtained from a licensed asbestos assessor following the completion of demolition of all structures on-site, with the clearance certificate extending to soils within the footprints of former structures.

Noting D&N expect that the areas are likely to have been cleared and grubbed following demolition, soil samples should be collected within the footprints of former structures on-site, particularly structures erected prior to 1970, and analysed to assess the presence (or absence) of COPC in soils associated with AEC 2. Targeted soil samples should be collected from surface soils located within the drip lines of former structures where possible.

9.3 AEC 3 – Waste Dumping

Intrusive investigations should be undertaken within the hummocky area to confirm the lateral extent and assess the vertical extent of waste materials in this area. Investigations should include the collection and analysis of soil samples to assess the presence (or absence) of COPC in soils associated with AEC 3.

Although no obvious indications of waste dumping in other areas of the Site were identified during this investigation, the potential for additional areas of buried (e.g., C&D) wastes to occur on-site exists. D&N recommend that, to support future construction works, an Unexpected Finds Protocol (UFP) should be included in a Construction Environment Managemental Plan (CEMP) prepared for the proposed subdivision development, to manage potential instances of buried materials that may be unexpectedly encountered on-site.

9.4 AEC 4 – Historical Set Down and Storage Areas

Soil sampling and analyses should be undertaken to assess the presence (or absence) of COPC in soils associated with AEC 4. Should concentrations of COPC exceed relevant soil screening criteria, further assessment may be required.

10 Conclusions

D&N's desktop review and site walkover works have identified four (4) AEC that potentially represent risks to current and future sensitive (human and ecological) receptors likely associated with the redevelopment, namely:

1. Agricultural activities; with indications of a historical market garden/orchard in operation east of the homestead (circa 1952).
2. Legacy Building(s); with the potential for hazardous building materials noting all structures on-site are to be demolished under and existing complying development certificate.
3. Waste Dumping; with historical and site observations indicating an area west of the homestead has been subject to waste dumping and burial; and
4. Historical Set down and Storage Areas; with potential chemical storage and various equipment (i.e., cars, shipping containers etc.) set down areas were identified in historical aerial imagery.

D&N consider that no impacts have been confirmed that indicate the Site is not suitable for the uses permissible under its current land zoning classification, however; noting the nature of this preliminary desktop investigation (i.e., no intrusive sampling or soil characterisation), the data gaps identified, and the plausible contamination risks outlined in the CSM, the following recommendations for additional intrusive investigation and construction management actions should be implemented to support future development of the Site:

- Obtain an asbestos clearance certificate for the approved demolition works, with the clearance certificate extending to soils within and in the vicinity of the footprints of former structures.
- Prepare a DSI for the Site to characterise and qualify the plausible risks identified, including intrusive soil investigations to facilitate collection of samples for chemical analysis of the range of COPC associated with each AEC.
- An UFP should be included in the CEMP prepared for the proposed subdivision development to manage potential instances of buried materials that may be unexpectedly encountered on-site.
- Where soil materials surplus to site development require management (i.e., off-site disposal), such materials are to be assessed and classified in accordance with the guidance provided in the NSW Department of Environment and Climate Change (DECC) Waste Classification Guidelines: Part 1 – Classifying Waste (2014).

11 Limitations

This report is provided for the exclusive use by Diverse Project Solutions (DPS) for this project only and for the purposes as described in the report. It should not be used by or relied upon for other projects or purposes on the same or other site or by a third party. Any party so relying upon this report beyond its exclusive use and purpose as stated above, and without the express written consent of D&N, does so entirely at its own risk and without recourse to D&N for any loss or damage. In preparing this report D&N has necessarily relied upon information provided by the client and/or their agents, and other individuals and organisations. Except as otherwise stated in the report, D&N has not verified the accuracy or completeness of the data obtained. To the extent that the statements, opinions, facts, information, conclusions and/or recommendations in the report (conclusions) are based in whole or part on the data, those conclusions are contingent upon the accuracy and completeness of the data. D&N will not be liable in relation to incorrect conclusions should any data, information or condition be incorrect or have been concealed, withheld, misrepresented, or otherwise not fully disclosed to D&N.

D&N's advice is based upon the conditions identified during this investigation. The results provided in the report are indicative of the conditions on the site only within the limits of the information obtained and reviewed in the preparation of this report. The accuracy of the advice provided by D&N in this report may be affected by additional information either not available or not included as a scoped item which may identify a change in conditions and inherent risks present or otherwise affecting the Site.

This report must be read in conjunction with all of the attached and should be kept in its entirety without separation of individual pages or sections. D&N cannot be held responsible for interpretations or conclusions made by others unless they are supported by an expressed statement, interpretation, outcome, or conclusion stated in this report.

This report, or sections from this report, should not be used as part of a specification for a project, without review and agreement by D&N. This is because this report has been written as advice and opinion rather than instructions for construction.

D&N will not be liable to update or revise the report to take into account any events or emergent circumstances or facts occurring or becoming apparent after the date of the report.

References

Colquhoun G.P. and Cameron R.G., 2013, Yass Special 1:50 000 Geological Sheet (part 8628), Geological Survey of New South Wales, Maitland.

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Hird C., 1991, Soil Landscapes of the Goulburn 1:250,000 Sheet map and report, Soil Conservation Service of NSW, Sydney.

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NSW DECC (2014) Waste classification Guidelines: Part 1 – Classifying Waste.

NSW EPA (2022). Contaminated Land Guidelines: Sampling design part 1 – application (2022), Sydney, NSW.

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NSW Government, 1997, Contaminated Land Management Act.

NSW Government, 1997 Protection of the Environment Operations Act (1997).

NSW State Environmental Planning Policy or SEPP (Resilience and Hazards) 2021.

Figure

C-2435.00 - 2 Reddall Street, Yass NSW: Preliminary Site Investigation

Legend

Lot 4 DP255064

Project Number: C-2435.00

Project Title: 2 Reddall Street, Yass NSW

Figure Number: 1

Figure Title: Site Location & Layout

Data Source:
https://maps.six.nsw.gov.au/arcgis/rest/services/public/NSW_Imagery/MapServer

Cartographic Data and Orientation:

N

1:3,500
Datum: MGA2020
Coordinate Unit: Metres
0 100 m

D&N Geotechnical

Company: D&N Geotechnical
Drawn: SC
Approved: ND
Original size: A3
Date Drawn: 1/10/2024
Client: DPS

C-2345.00 - 2 Reddall Street Yass NSW: Preliminary Site Investigation

Map A references outlined area below.

Legend

Lot Boundary

Photograph Location and Orientation (Approximate)

Project Number: C-2345.00

Project Title: 2 Reddall Street, Yass NSW

Figure Number: 2

Figure Title: Site Walkover Photographs

Data Source: https://maps.six.nsw.gov.au/arcgis/rest/services/public/NSW_Imagery/MapServer

Cartographic Data and Orientation:

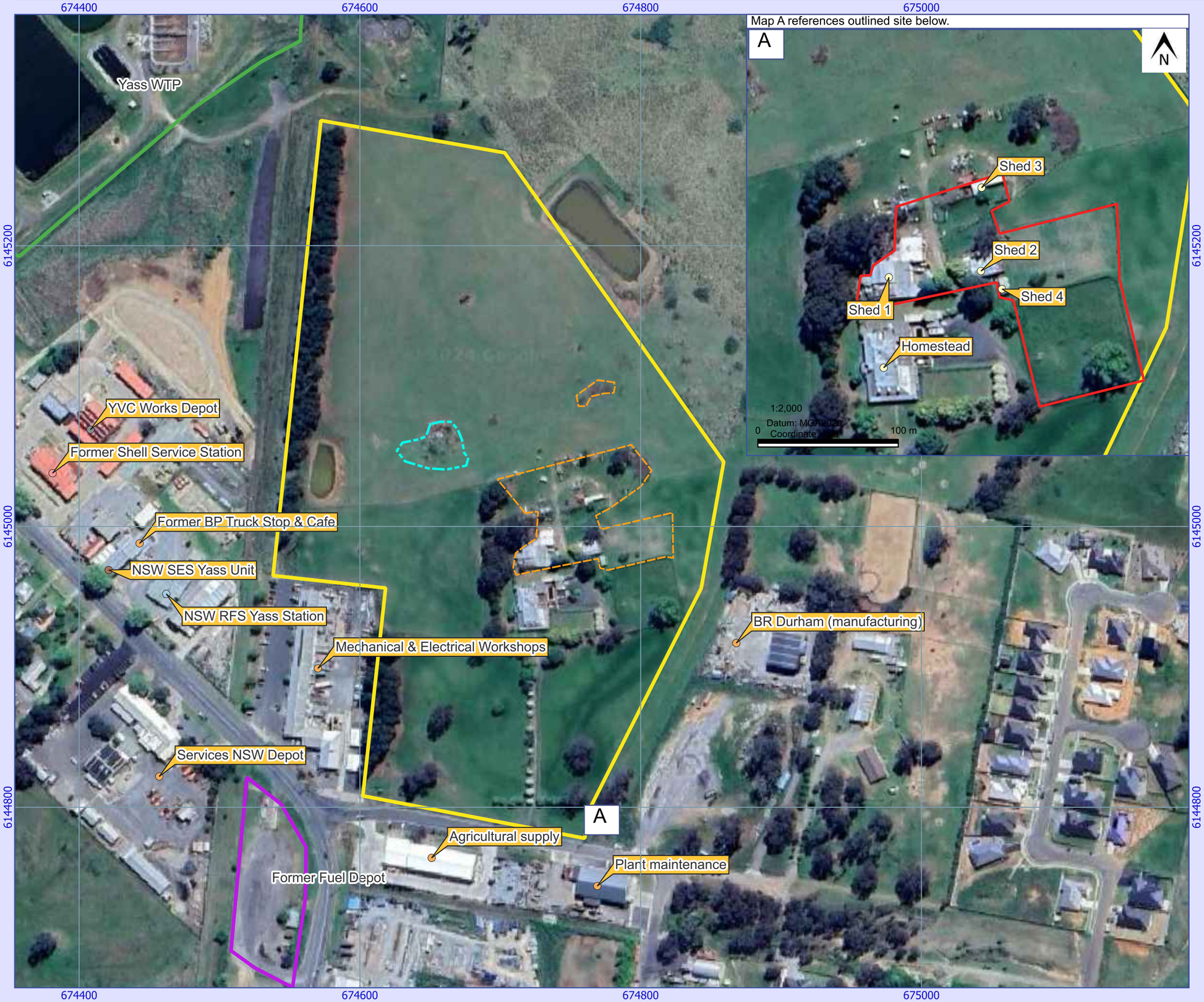
N

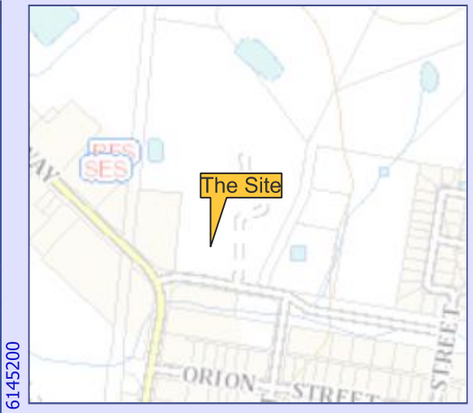
1:2,400
Datum: MGA2020
Coordinate Unit: Metres
0
90 m

D&N Geotechnical

Company: D&N Geotechnical
Drawn: MB
Approved: ND
Original size: A3
Date Drawn: 16/10/2024
Client: DPS

C-2435.00 - 2 Reddall Street, Yass NSW: Preliminary Site Investigation





Legend

- Site Boundary
- AEC 1 - Agriculture (market garden)
- AEC 3 - Waste Dumping (hummocky area)
- AEC 4 - Equipment Set Down Area

Project Number: C-2435.00

Project Title: 2 Reddall Street, Yass NSW

Figure Number: 3

Figure Title: Potentially Contaminating Activities and Identified AEC

Data Source: https://maps.six.nsw.gov.au/arcgis/rest/services/public/NSW_Imagery/MapServer

Cartographic Data and Orientation:

N

Datum: MGA2020
Coordinate Unit: Metres

0 100 m

D&N Geotechnical

Company: D&N Geotechnical
Drawn: MB
Approved: ND
Original size: A3
Date Drawn: 16/10/2024
Client: DPS

Appendix A Proposed Subdivision Layout

PLAN OF LOT 4 DP 255064
10 REDDALL STREET
YASS, N.S.W.
SHOWING PROPOSED LAYOUT

CLIENT: ANDREW TURNBULL

A3 SHEET	1 OF 1
DATE OF SURVEY	FEB 2025
JOB REFERENCE	4900
COMPUTER REFERENCE	4900_PPS4.dwg
LEVEL DATUM	
ORIGIN OF LEVELS	
CONTOUR INTERVAL	

REDUCTION RATIO:
1:2000 @ A3

0 50 100 150

ALL DISTANCES IN METRES

NOTE:

THIS LAYOUT PLAN ONLY AND AS SUCH IS NOT REGISTERED BY THE TITLES OFFICE OF NSW LAND REGISTRY SERVICES. SUBSEQUENT REGISTERED OR OTHER SURVEYS IN THIS AREA MAY AFFECT THE BOUNDARY DEFINITION AS SHOWN ON THE PLAN. ANY DIFFERENCES SO CAUSED TO THE BOUNDARY DEFINITION SHOWN ON THIS PLAN ARE BEYOND THE CONTROL OF DIVERSE PROJECT SOLUTIONS WHO CAN ACCEPT NO RESPONSIBILITY FOR SUCH DIFFERENCES. UNDERGROUND SERVICES ARE NOT SHOWN ON THIS PLAN. AS UNDERGROUND STRUCTURES AND CABLES MAY EXIST THEY MUST BE LOCATED BEFORE CONSTRUCTION – PLEASE DIAL 1100 BEFORE YOU DIG. THIS NOTE IS AN INTEGRAL PART OF THIS PLAN.

LEGEND:

SEWER MANHOLE — SEWER MAIN

BEFORE YOU DIG www.byda.com.au

DPS DIVERSE PROJECT SOLUTIONS
7 ADELE STREET, YASS NSW 2582
P.O. BOX 5, YASS NSW 2582
(PH) 02 6226 3322
info@dpsyass.com.au

ABN: 31 602 010 006

Appendix B Desktop Search Maps

Appendix A

REPORT MAPS

2 Reddall Street
Yass, NSW

PROPERTY SETTING

Subject Area and Sensitive Receptors

MAP 1.1

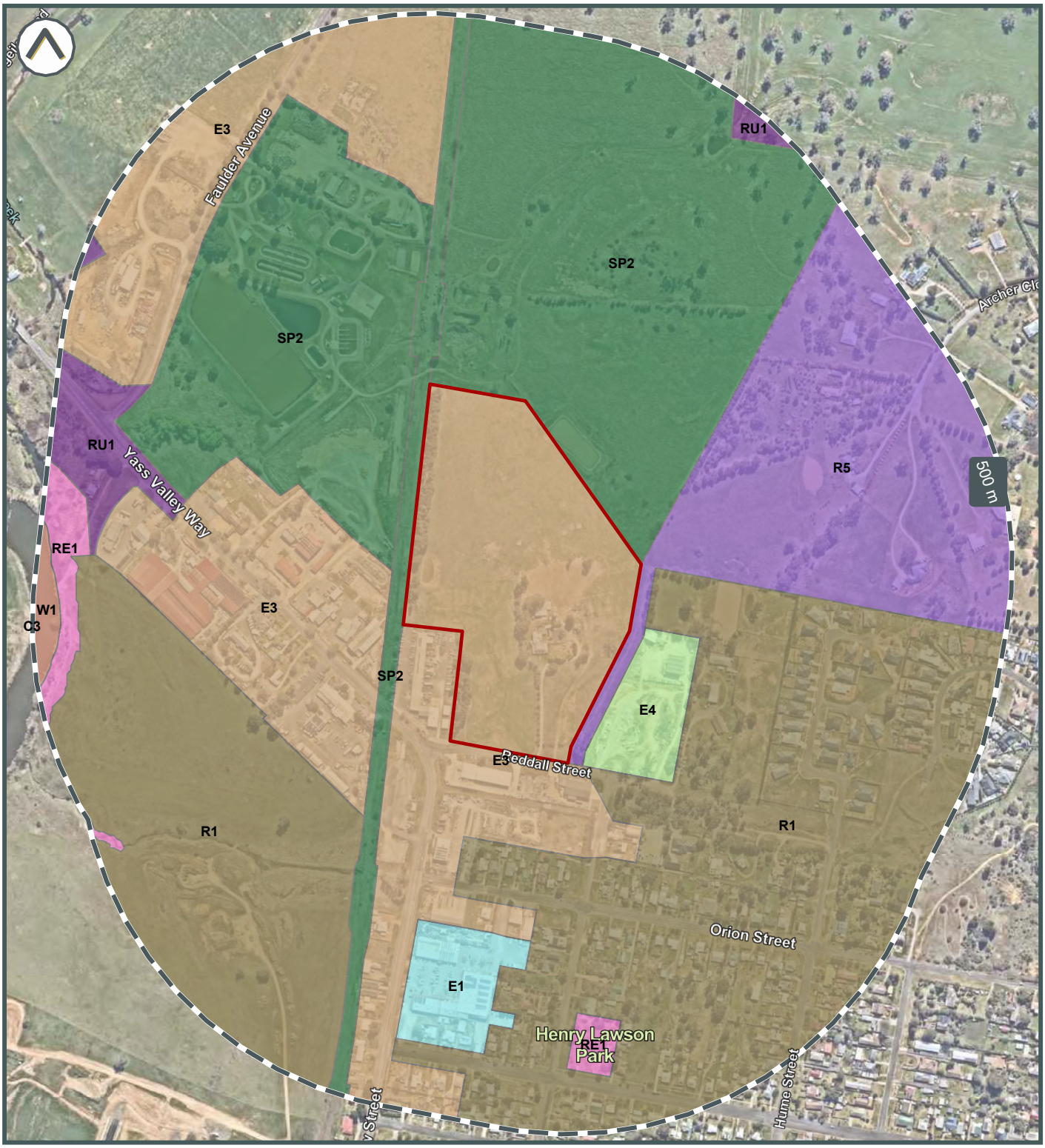
Subject area Water Bodies

0 40 80 120 160 200m

Land Insight

Zoning

MAP 1.2a



Subject area

Zoning

- Environmental Management
- General Industrial
- General Residential
- Infrastructure
- Large Lot Residential
- Local Centre
- Natural Waterways
- Primary Production
- Productivity Support
- Public Recreation

0 60 120 180 240 300m

Land Insight

MAP 1.2b

Planning Overlays

- Subject area

Type
- Additional Permitted Uses
- Allowable Clearing
- Biodiversity
- Coal Seam Gas Exclusions
- Groundwater Vulnerability
- Heritage
- Land Application
- Maximum Building Height (m)
- Maximum Floor Space Ratio (n:1)
- Minimum Lot Size (sq m)
- Minimum Water Use Standard (%)
- Riparian Lands and Watercourses
- SEPP Land Application
- Water, Waste and Sewerage Buffer

0 60 120 180 240 300m

Land Insight

PROPERTY SETTING

Heritage

MAP 1.3

Subject area

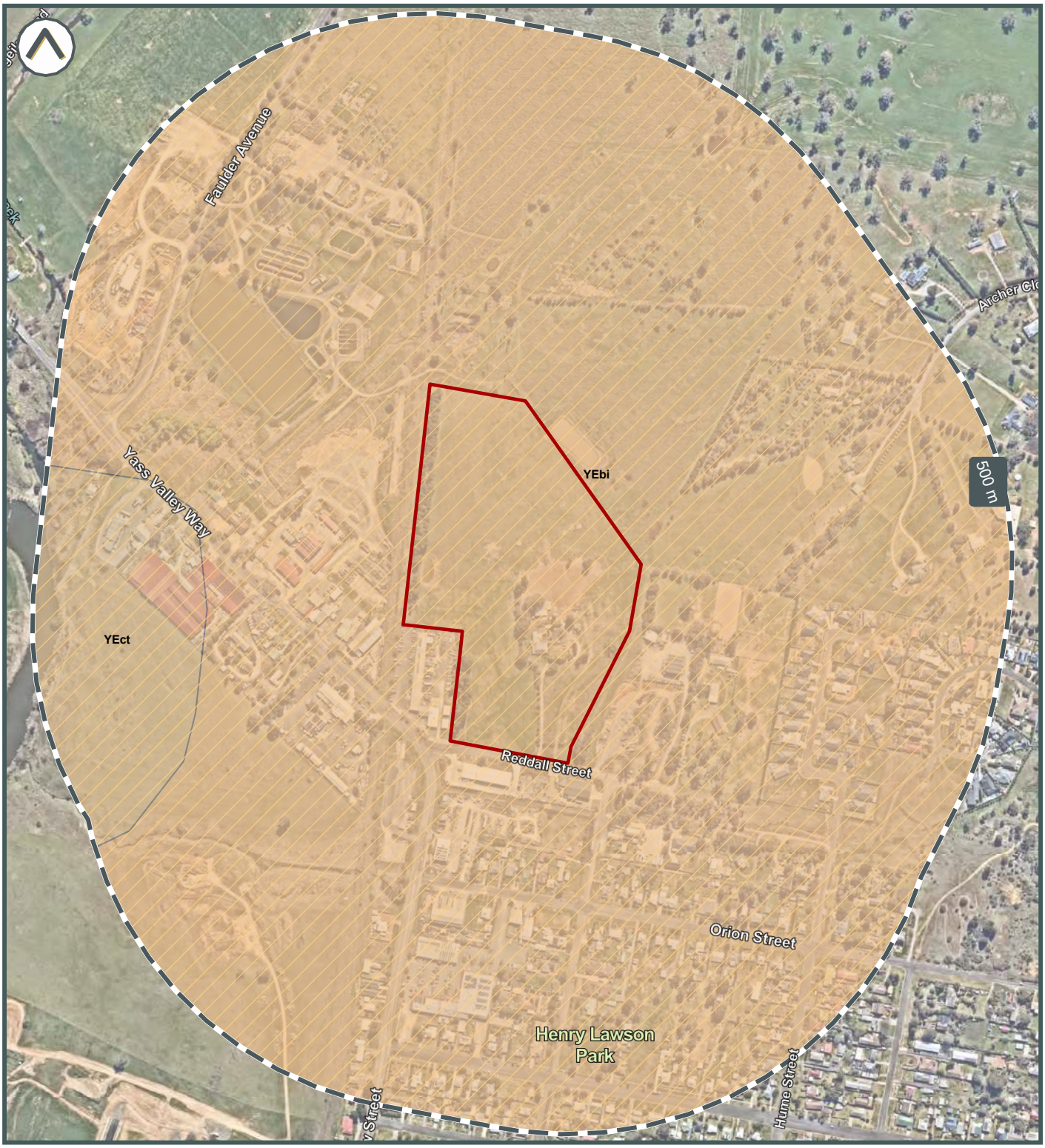
0 40 80 120 160 200m

Land Insight

PROPERTY SETTING

Soil Landscape and Salinity

MAP 1.4a



Subject area

Radon Level (Bq/m3)
5–19

Soil Landscape
YEct
YEbi

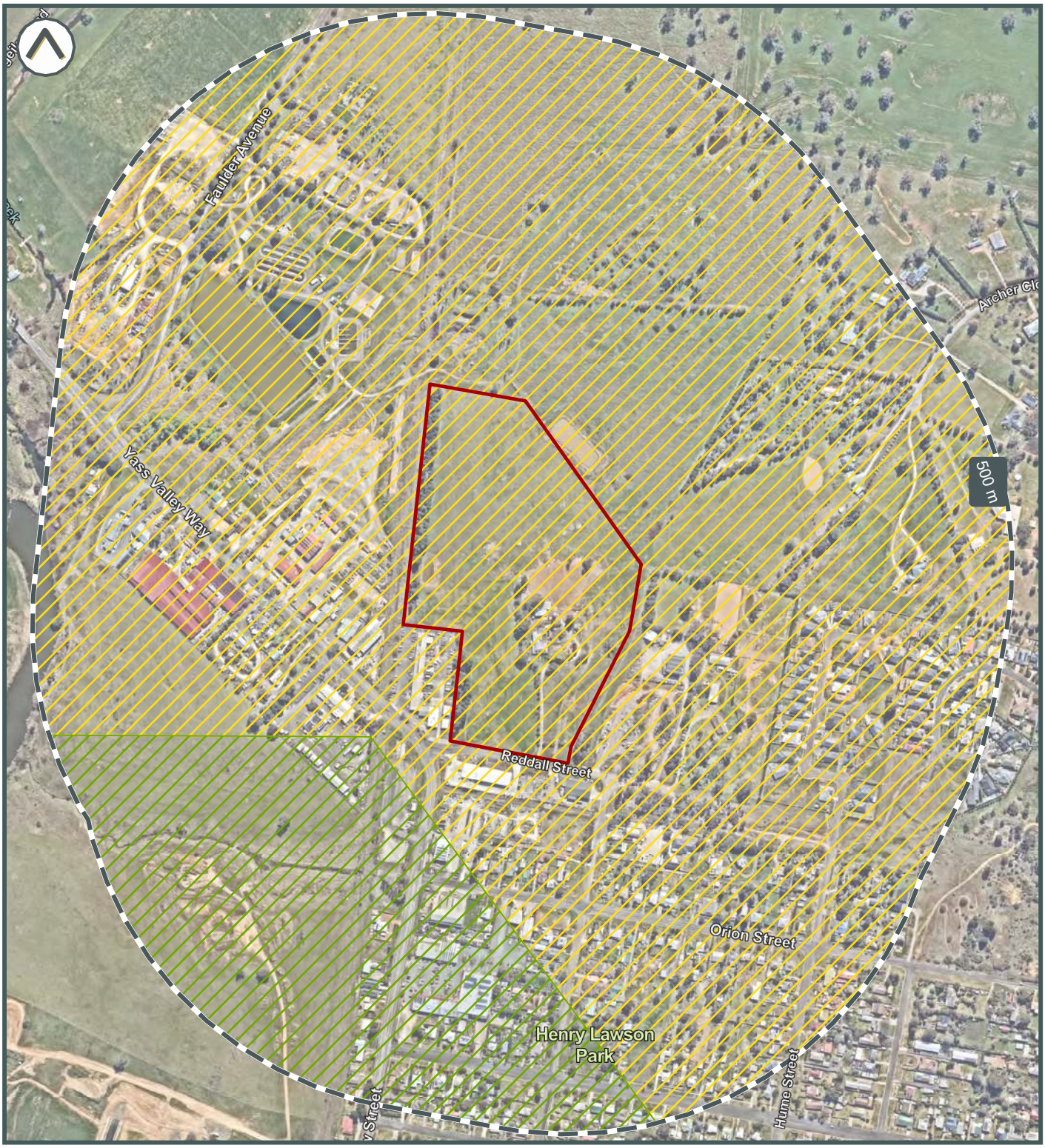
0 60 120 180 240 300m

Land Insight

PROPERTY SETTING

Acid Sulfate Soils

MAP 1.4b



Subject area

Atlas of Australian Acid Sulfate Soils

Low Probability of occurrence

Extremely low probability of occurrence

0 60 120 180 240 300m

Land Insight

Geology and Topography

MAP 1.5

Subject area
Topographic contour (m)

Geology Unit
Q_a
Q_c
Q_r
Sdoh
Sdoso

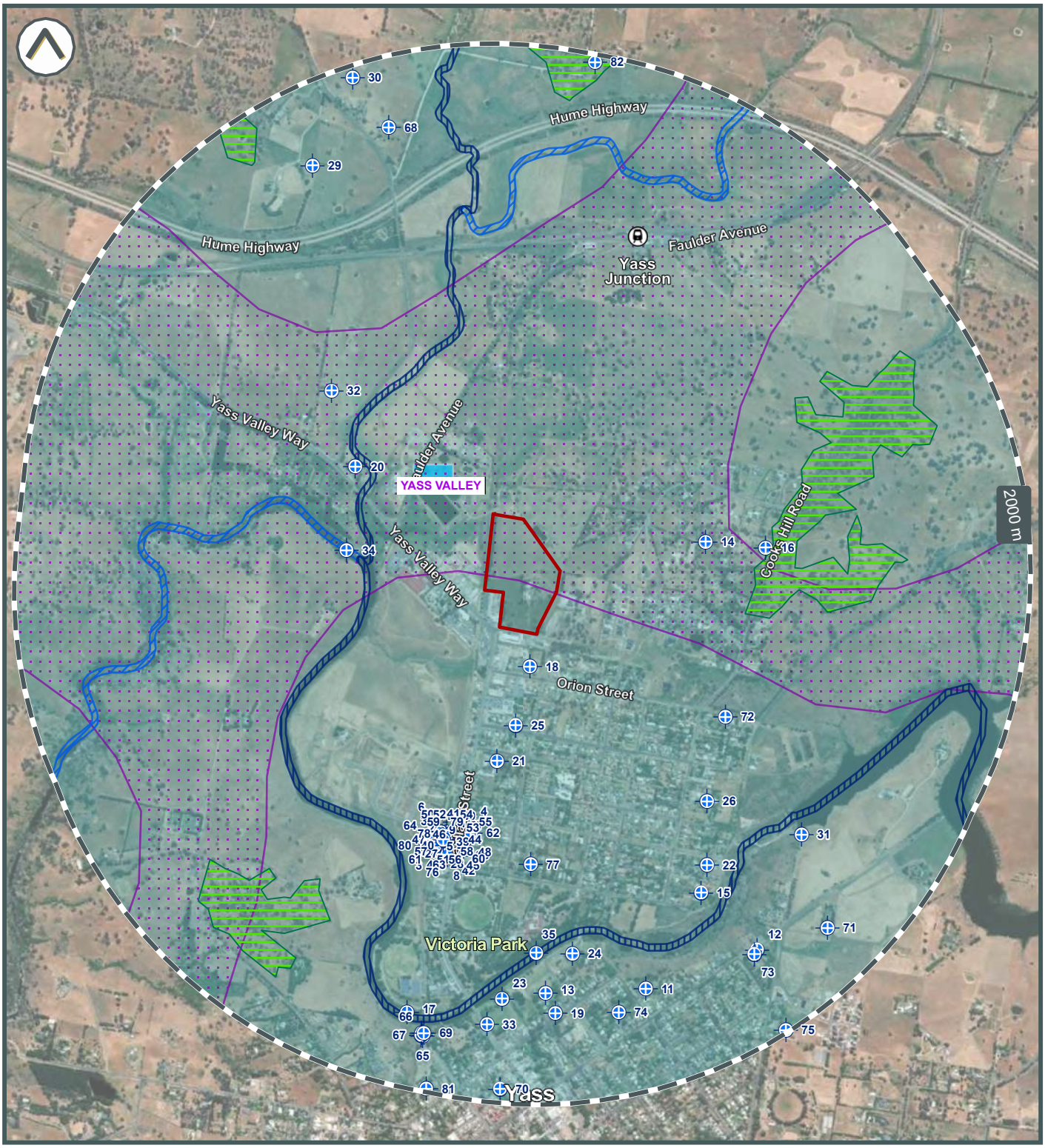
0 60 120 180 240 300m

Land Insight

HYDROGEOLOGY

MAP 2.1

Groundwater Dependent Ecosystems & Hydrogeology Constraints



Subject area

Groundwater bores

Ecosystems that rely on the Surface expression of Groundwater

High potential GDE – from national assessment

Moderate potential GDE – from national assessment

Ecosystems that rely on Subsurface presence of Groundwater

Low potential GDE – from national assessment

Wetlands

Groundwater Protection Areas

Aquifer type

Fractured or fissured, extensive aquifers of low to moderate productivity

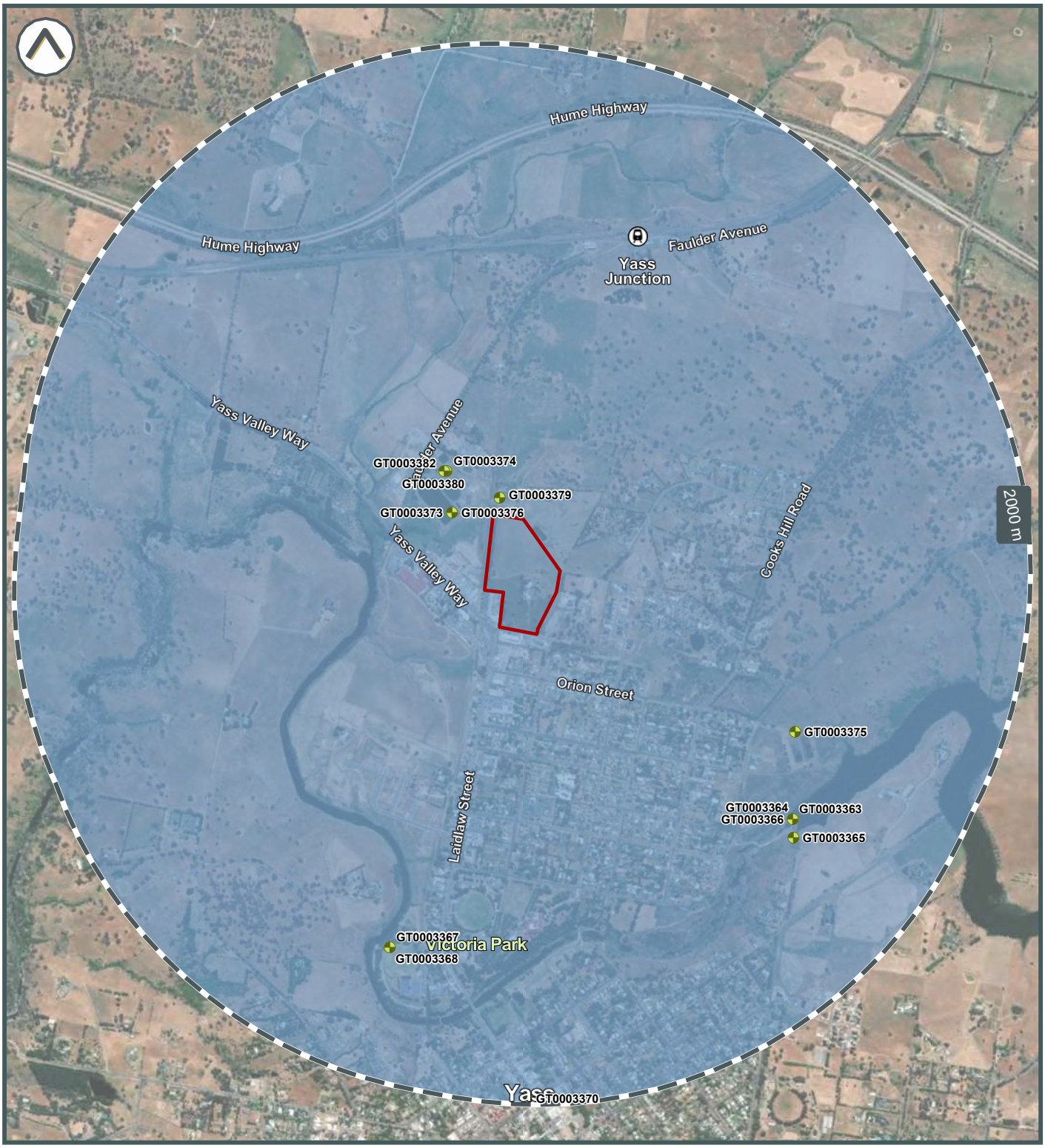
0 210 420 630 840 1,050m

Land Insight

HYDROGEOLOGY

MAP 2.2

Groundwater and Other Bores



Subject area

Other borehole/monitoring well location

Salinity Class

Non-Saline (<3000mg/L)

0 210 420 630 840 1,050m

Land Insight

ENVIRONMENTAL REGISTERS LICENSES AND INCIDENTS

MAP 3.1

Contaminated Land Public Register

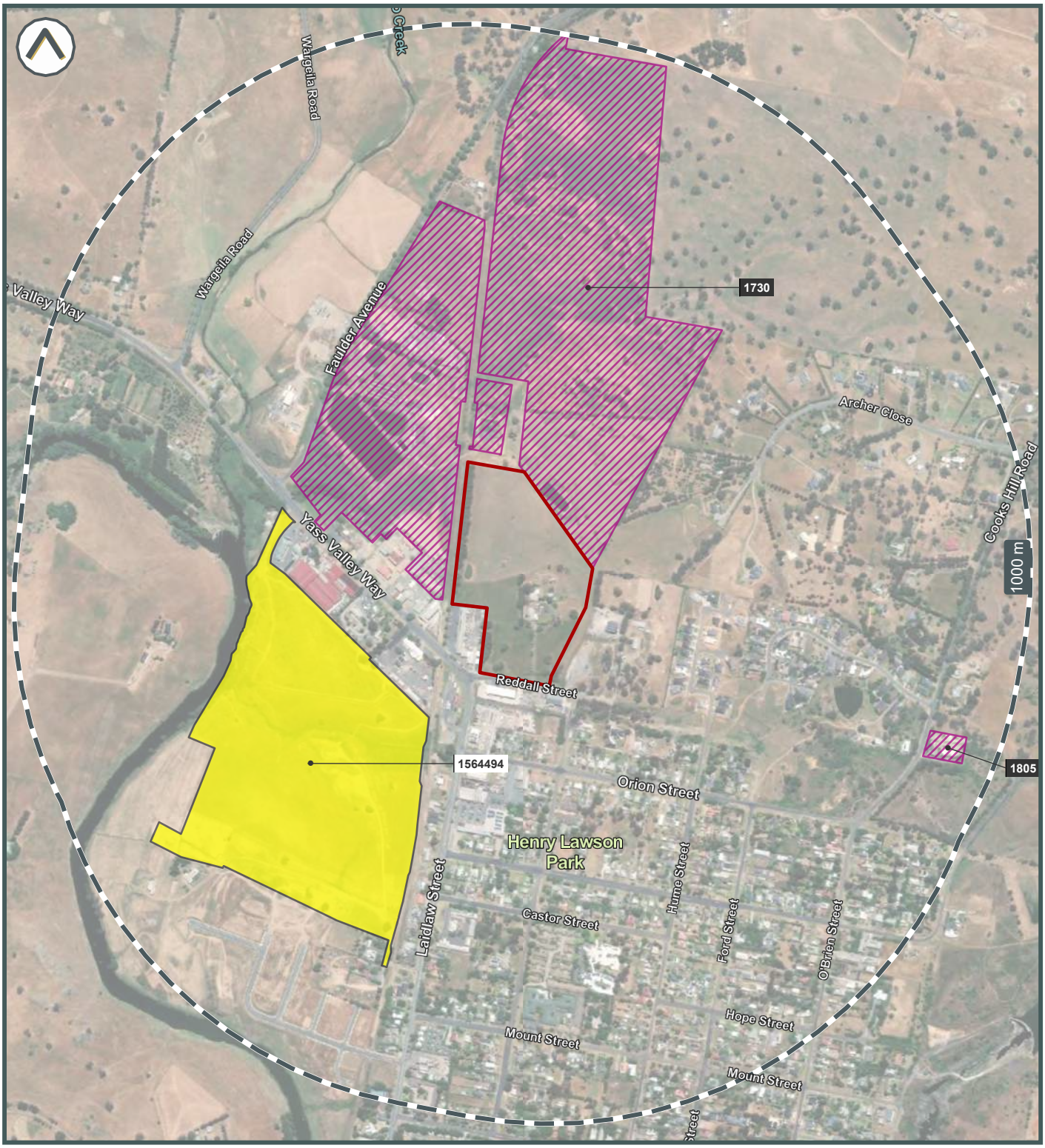
Subject area | Contaminated Land Public Register (EPA) | EPA Record of Notices | EPA Notified Contaminated Sites

0 110 220 330 440 550m

Land Insight

MAP 3.2

Licences, Approvals & Assessments



Subject area
Clean Up and Penalty Notices

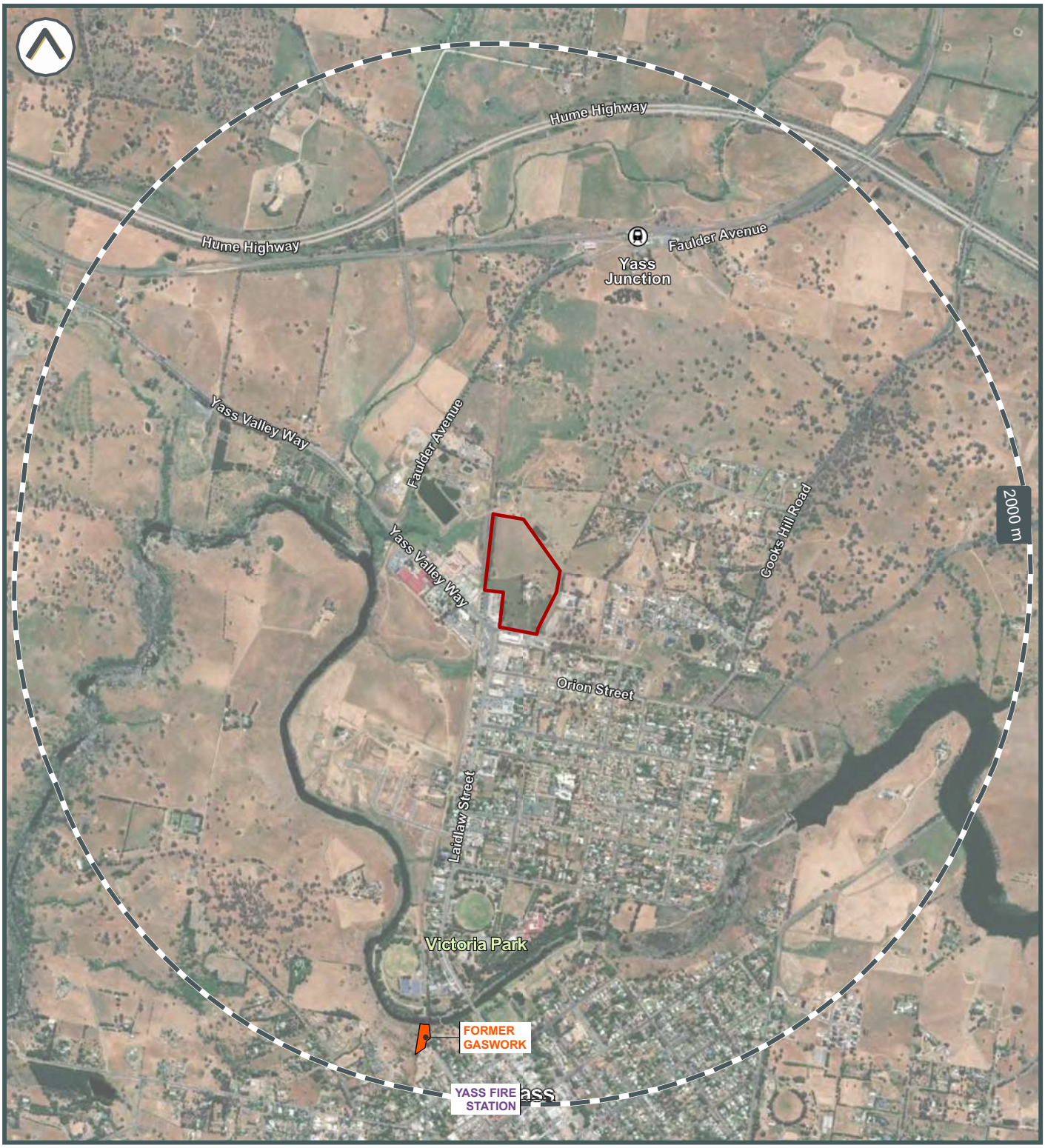
POEO Licences
Issued

0 110 220 330 440 550m

Land Insight

MAP 3.3a

Sites Regulated by Other Jurisdictional Body



Subject area
PFAS sites
Former Gasworks

0 210 420 630 840 1,050m

Land Insight

MAP 3.3b

Other Potential Hazard Sources

Subject area Landfill Sites

0 60 120 180 240 300m

Land Insight

POTENTIALLY CONTAMINATED AREAS

MAP 4.1

Potentially Contaminating Activities (PCAs)

Subject area
Petrol Stations and Fuel Terminals
Waste and Recycling Facilities

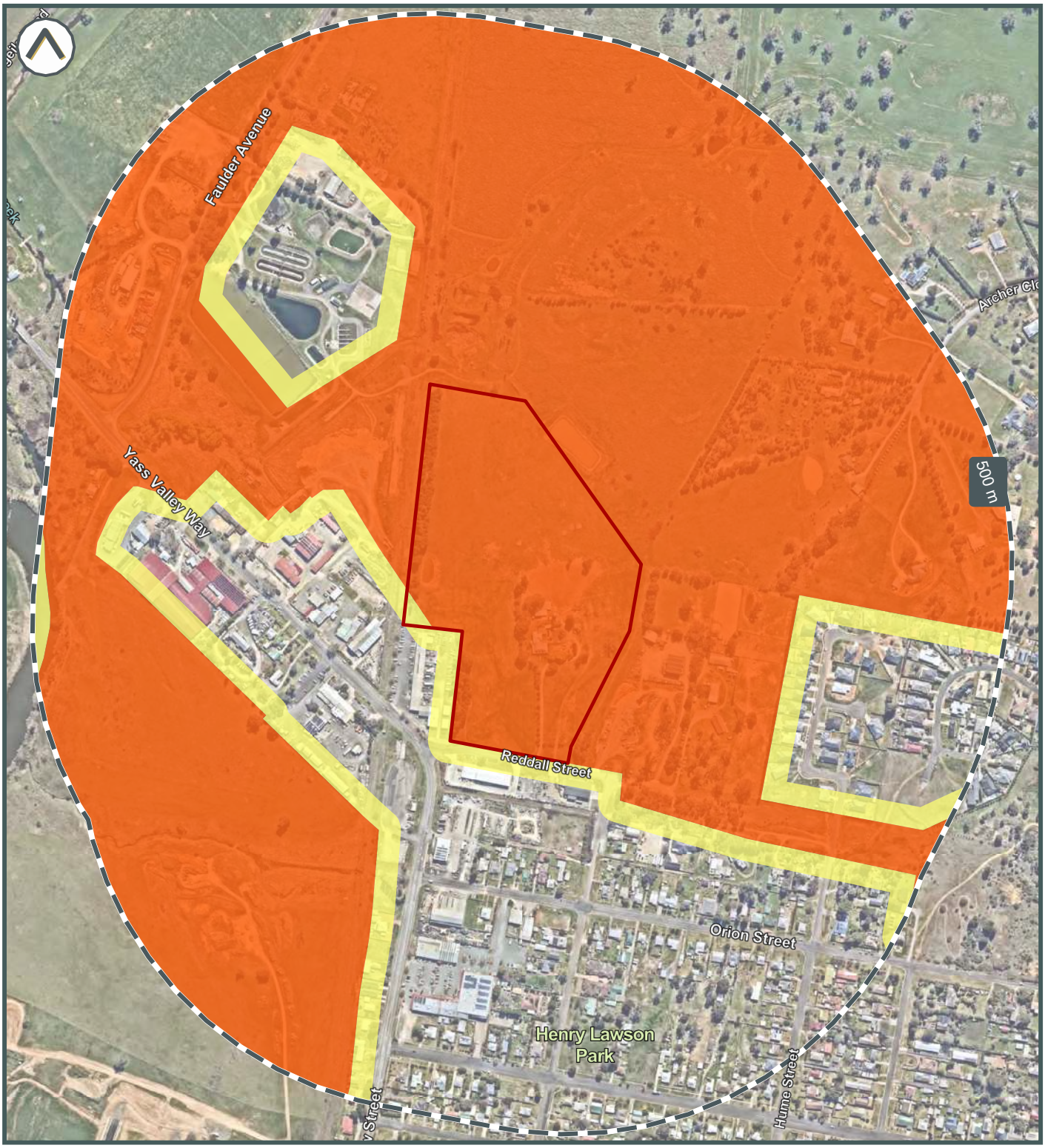
0 40 80 120 160 200m

Land Insight

NATURAL HAZARDS

Fire Hazards

MAP 5.1



Subject area

Vegetation Buffer

Bushfire Prone Area

Vegetation Category 3

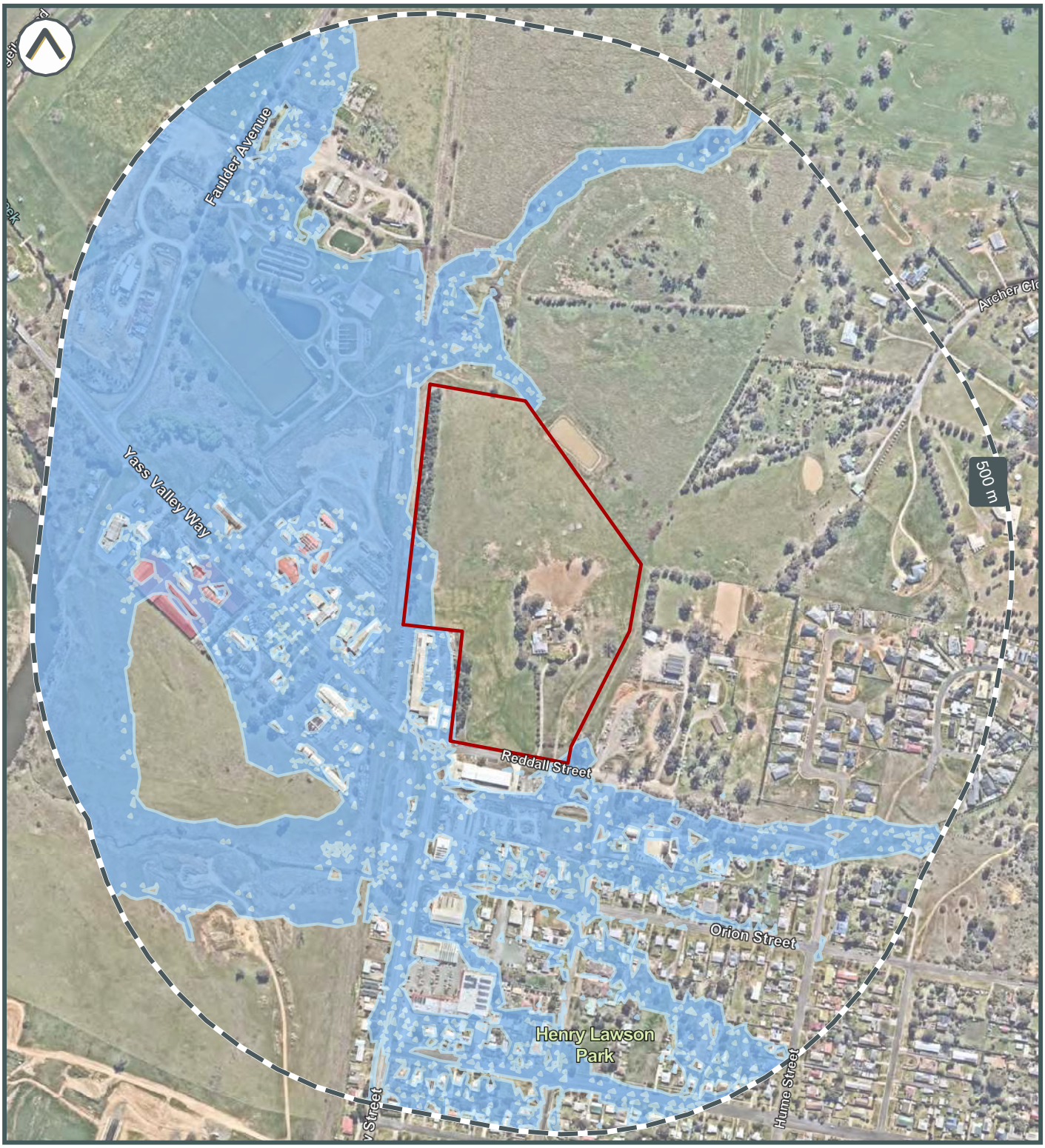
0 60 120 180 240 300m

Land Insight

NATURAL HAZARDS

Flood Hazard

MAP 5.2



Subject area

Type

Probable Maximum Flood (PMF)

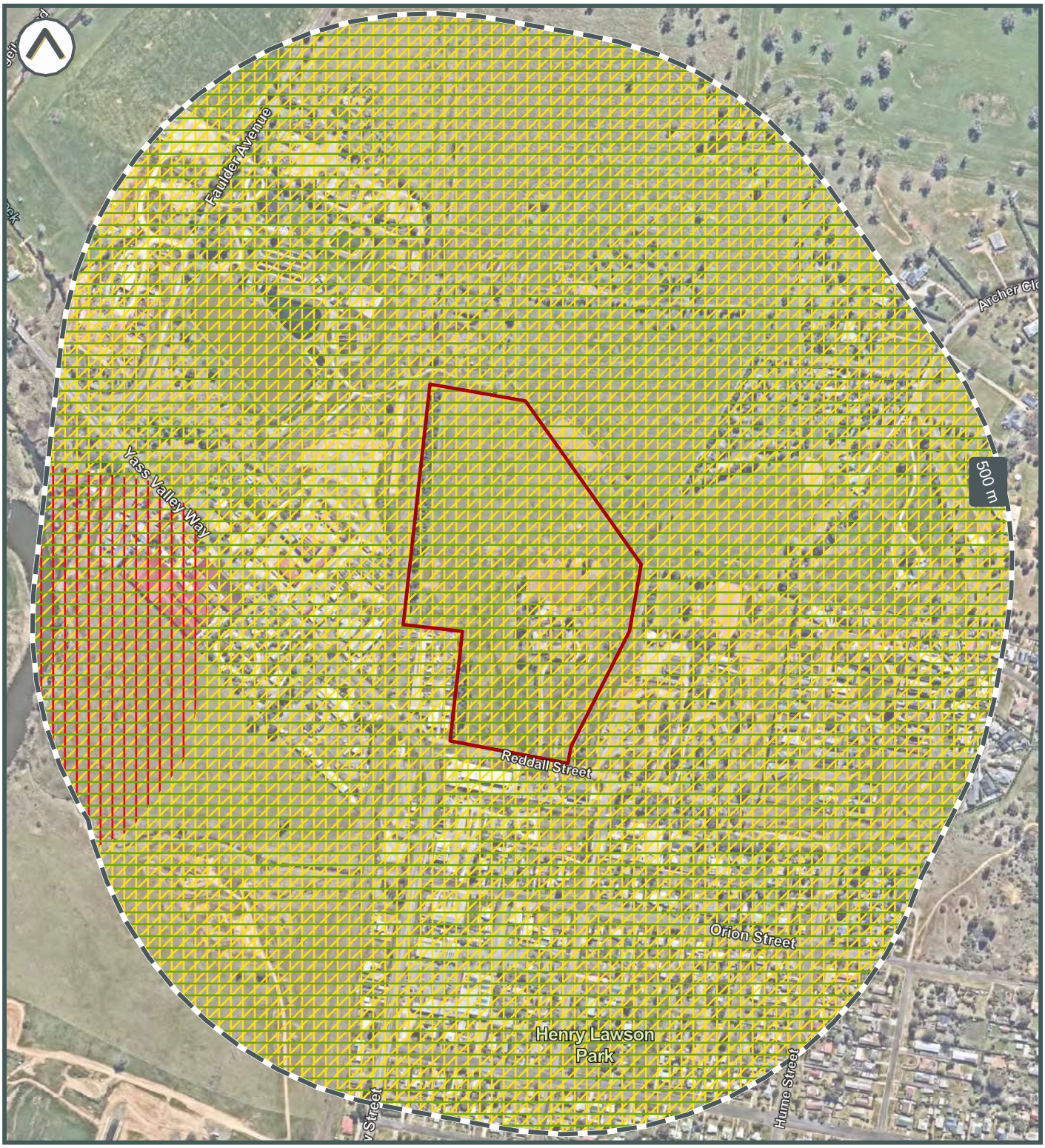
0 60 120 180 240 300m

Land Insight

NATURAL HAZARDS

Erosion Hazard

MAP 5.3



Subject area

Wind Erosion Risk
Moderate

Water Erosion Risk
Very High

Moderate

Landslip Erosion Risk
Very Low

0 60 120 180 240 300m

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Appendix C Desktop Search Report

Land Insight

Enviro-Screen Report

2 Reddall Street
Yass, NSW

25 Sep 2024

Report nº:
LI-4363 ESR

Understanding your report

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

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

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

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

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

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

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

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

Report Summary

	Dataset name	Onsite	On Buffer	Buffer Distance
Section 1 - Property Setting				
1.1	Sensitive Receptors	✓	✓	200m
1.2a	Planning Controls *(Zoning)*	✓	✓	500m
1.2b	Planning Overlays *(Environmental Planning Instruments)*	✓	✓	500m
	Planning Overlays *(Other Planning Information)*			500m
1.3	Heritage *(State and Local Heritage)*			200m
	Heritage *(Australian and World Heritage Database Register)*			200m
1.4a	Soil and Land Use Information *(Soil Landscape)*	✓	✓	500m
	Soil and Land Use Information *(Soil Salinity)*			500m
	Soil and Land Use Information *(Radon)*	✓	✓	500m
1.4b	Acid Sulfate Soil *(State and Local Acid Sulfate Soil Registers)*			500m
	Acid Sulfate Soil *(National Acid Sulfate Soil Registers)*	✓	✓	500m
1.5	Geology and Topography *(Geology)*	✓	✓	500m
	Geology and Topography *(Naturally Occurring Asbestos Potential NOA)*			500m
Section 2 – Hydrogeology and Geotechnical				
2.1	GDE & Hydrogeology Constraints *(Aquifer Type)*	✓	✓	2000m
	GDE & Hydrogeology Constraints *(Groundwater Protection Areas)*	✓	✓	2000m
	GDE & Hydrogeology Constraints *(Wetlands)*		✓	2000m
	GDE & Hydrogeology Constraints *(GDE Surface)*		✓	2000m
	GDE & Hydrogeology Constraints *(GDE Subsurface)*		✓	2000m
	GDE & Hydrogeology Constraints *(Groundwater Licences)*			2000m
	GDE & Hydrogeology Constraints *(Groundwater Bores)*		✓	2000m
2.2	Groundwater and Other Bores *(Groundwater Restricted Use Zones)*			2000m
	Groundwater and Other Bores *(Groundwater Salinity)*	✓	✓	2000m
	Groundwater and Other Bores *(Other Known Boreholes Investigations)*		✓	2000m
Section 3 - Environmental Registers, Licences and Incidents				
3.1	Contaminated Land Public Register (Contaminated Sites)		✓	1000m
3.2	Licences, Approvals & Assessments *(Licences)*		✓	1000m
	Licences, Approvals & Assessments *(Audits)*			1000m
	Licences, Approvals & Assessments *(Clean up Notices, Penalty Notices and Orders)*		✓	1000m
3.3a	Sites Regulated by other Jurisdictional Body (*Contaminated Legacy Areas)*			2000m
	Sites Regulated by other Jurisdictional Body (*Defence, Military Sites and UXO Areas)*			2000m
	Sites Regulated by other Jurisdictional Body (*Former Gasworks Sites)*		✓	2000m
	Sites Regulated by other Jurisdictional Body (*PFAS Sites)*		✓	2000m
3.3b	Other Potential Hazard Sources (*Mines and Quarries)*			500m
	Other Potential Hazard Sources (*Landfills)*		✓	500m
	Other Potential Hazard Sources (*National Pollutant Inventory NPI)*			500m
Section 4 - Potentially Contaminated Areas				
4.1	Potentially Contaminating Activities (Liquid Fuel Facilities)			200m
	Potentially Contaminating Activities (Waste Management Facilities & Recycling Centres)			200m
4.2	Historical Business Directories		✓	200m
Section 5 - Natural Hazards				
5.1	Fire Hazard *(Bushfire Prone Areas)*	✓	✓	500m
	Fire Hazard *(Bushfire History)*			500m
5.2	Flood Hazard *(Flood Planning Area)*			500m
	Flood Hazard *(Other Flood Studies)*	✓	✓	500m
	Flood Hazard *(Flood History)*			500m
5.3	Erosion Hazard	✓	✓	500m

Index

Section 1 Property Setting

1.1 SENSITIVE RECEPTORS

Map 1.1 (200m Buffer)

Sensitive receptor	Type	Distance (m)	Direction
Watercourse	Watercourse	0.0	Onsite
Farm Dam Area	Farm Dam Area	0.0	Onsite
Watercourse Line	Watercourse Line	152.1	North-west

1.2a PLANNING CONTROLS

Map 1.2a (500m Buffer)

Zoning

Zoning	Type	Details	Distance (m)	Direction
E3	Productivity Support	Yass Valley Local Environmental Plan 2013	0.0	Onsite
SP2	Infrastructure	Yass Valley Local Environmental Plan 2013	0.0	West
R5	Large Lot Residential	Yass Valley Local Environmental Plan 2013	0.0	East
E4	General Industrial	Yass Valley Local Environmental Plan 2013	19.9	South-east
R1	General Residential	Yass Valley Local Environmental Plan 2013	20.3	East
E1	Local Centre	Yass Valley Local Environmental Plan 2013	241.9	South
RU1	Primary Production	Yass Valley Local Environmental Plan 2013	308.9	West
RE1	Public Recreation	Yass Valley Local Environmental Plan 2013	335.1	South
W1	Natural Waterways	Yass Valley Local Environmental Plan 2013	460.9	West

Zoning	Type	Details	Distance (m)	Direction
C3	Environmental Management	Yass Valley Local Environmental Plan 2013	495.7	West

1.2b PLANNING OVERLAYS

Map 1.2b (500m Buffer)

Environmental Planning Instruments

Name	Type	Details	Distance (m)	Direction
Buffer Area	Coal Seam Gas Exclusions	State Environmental Planning Policy (Resources and Energy) 2021	0.0	Onsite
Land Application	SEPP Land Application	State Environmental Planning Policy (Transport and Infrastructure) 2021	0.0	Onsite
Land Application	SEPP Land Application	State Environmental Planning Policy (Biodiversity and Conservation) 2021	0.0	Onsite
Land Application	SEPP Land Application	State Environmental Planning Policy No 65—Design Quality of Residential Apartment Development	0.0	Onsite
Land Application	SEPP Land Application	State Environmental Planning Policy (Resilience and Hazards) 2021	0.0	Onsite
Included	Land Application	Yass Valley Local Environmental Plan 2013	0.0	Onsite
Refer to Schedule 1	Additional Permitted Uses	Yass Valley Local Environmental Plan 2013	0.0	Onsite
Biodiversity	Biodiversity	Yass Valley Local Environmental Plan 2013	0.0	Onsite
40%	Minimum Water Use Standard (%)	State Environmental Planning Policy (Sustainable Buildings) 2022	0.0	Onsite
Land Application	SEPP Land Application	State Environmental Planning Policy (Resources and Energy) 2021	0.0	Onsite
Groundwater Vulnerability	Groundwater Vulnerability	Yass Valley Local Environmental Plan 2013	0.0	Onsite
Water Waste and Sewerage Buffers	Water, Waste and Sewerage Buffer	Yass Valley Local Environmental Plan 2013	0.0	Onsite
Excluded	Allowable Clearing	State Environmental Planning Policy (Biodiversity and Conservation) 2021	0.0	Onsite
Land Application	SEPP Land Application	State Environmental Planning Policy (Planning Systems) 2021	0.0	Onsite
Land Application	SEPP Land Application	State Environmental Planning Policy (Sustainable Buildings) 2022	0.0	Onsite
Subject Land	SEPP Land Application	State Environmental Planning Policy (Biodiversity and Conservation) 2021	0.0	Onsite
Land Application	SEPP Land Application	State Environmental Planning Policy (Primary Production) 2021	0.0	Onsite
Land Application	SEPP Land Application	State Environmental Planning Policy (Industry and Employment) 2021	0.0	Onsite
Land Application	SEPP Land Application	State Environmental Planning Policy (Housing) 2021	0.0	Onsite
Land Application	SEPP Land Application	State Environmental Planning Policy (Exempt and Complying Development Codes) 2008	0.0	Onsite
2-4.9	Minimum Lot Size (sq m)	Yass Valley Local Environmental Plan 2013	0.1	South-east
700-749	Minimum Lot Size (sq m)	Yass Valley Local Environmental Plan 2013	20.0	East
0.5-0.54	Maximum Floor Space Ratio (n:1)	Yass Valley Local Environmental Plan 2013	20.0	East
8-8.9	Maximum Building Height (m)	Yass Valley Local Environmental Plan 2013	20.0	East

Name	Type	Details	Distance (m)	Direction
Land Within a Residential Zone	Coal Seam Gas Exclusions	State Environmental Planning Policy (Resources and Energy) 2021	20.0	East
1000-1999	Minimum Lot Size (sq m)	Yass Valley Local Environmental Plan 2013	74.8	East
Item - General	Heritage	Yass Valley Local Environmental Plan 2013	202.6	South
1-1.09	Maximum Floor Space Ratio (n:1)	Yass Valley Local Environmental Plan 2013	202.7	South
2000-2999	Minimum Lot Size (sq m)	Yass Valley Local Environmental Plan 2013	232.0	South
10-49.9	Minimum Lot Size (sq m)	Yass Valley Local Environmental Plan 2013	309.3	West
Watercourse	Riparian Lands and Watercourses	Yass Valley Local Environmental Plan 2013	465.6	West

Other Planning Information

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

Including Mining Subsidence Areas.

1.3 HERITAGE

Map 1.3 (200m Buffer)

State and Local Heritage Registers

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

Australian Heritage Database Register

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

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

1.4a SOIL AND LAND USE INFORMATION

Map 1.4a (500m Buffer)

Soil Landscape

Code	Name	Soil Group	Description	Distance (m)	Direction
YEbi	Binalong	Yellow earths	Undulating low hills between Yass and Boorowa. Moderately deep, bright yellowish brown or rarely red, gradational or occasionally duplex textured, weakly to moderately structured soils occur on crests and sideslopes. A2 horizons are sometimes present as is mottling of the subsoil. Soil reaction is neutral. Similar to yellow earths whilst the better structured, heavier textured variants could be considered Xanthozems (Gn2 and Dy3). Other soil groups likely to occur include Red Earths and Non-calcic Brown Soils (Dr2) and Solodic Soils (Dy3.4) on footslopes and in drainage lines. Mottled slightly alkaline grey clays may occur beneath the solum. These have been interpreted as relict soils or subsolar features (van Dijk 1959, 1969).	0.0	Onsite

Code	Name	Soil Group	Description	Distance (m)	Direction
YEct	Cockatoo	Yellow earths	Found on small rocky hills which rise above the surrounding landscape between Yass and Boorowa. Outcrops of tombstone-like rocks are usually aligned in a north-south direction along the spines of hills. Shallow to moderately deep, brightly coloured red and yellow gradationally textured soils with weak to occasionally moderate structure, neutral to slightly alkaline reaction trends and occasional development of non-bleached A2 horizons are typical on slopes. The change in colour appears to be due to local variations in lithology as well as topographical (and perhaps aeolian) influences. These soils are similar to better quality Red and Yellow Earths (Gn2). Non-calcic Brown Soils (Dr2) also occur on slopes with Lithosols (Uc and Um) on crests. Terra Rossa soils are found on the occasional limestone outcrops.	264.6	West

Soil Salinity

Salinity Hazard	Type	Details	Distance (m)	Direction
Not identified	-	-	-	-

Radon

Radon Level (Bq/m³)	Distance (m)	Direction
15	0.0	Onsite

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

1.4b ACID SULFATE SOIL

Map 1.4b (500m Buffer)

State and Local Acid Sulfate Soil Registers

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

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

National Acid Sulfate Soil Register

Name	Classification	Description	Distance (m)	Direction
Atlas of Australian Acid Sulfate Soils	Low Probability of occurrence	Acid sulfate soil generally within upper 1m in wet / riparian areas.	0.0	Onsite
Atlas of Australian Acid Sulfate Soils	Extremely low probability of occurrence	Acid sulfate soil generally within upper 1m in wet / riparian areas.	81.8	South-west

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

1.5 GEOLOGY AND TOPOGRAPHY

Map 1.5 (500m Buffer)

Geology

Map Sheet	Code	Formation	Age	Group	Dominant Lithology	Description	Distance (m)	Direction
Eastern Lachlan Orogen version 2 - digital dataset	Q_c	Null	Quaternary (base) to Now (top)	Colluvium	Clastic sediment	Poorly sorted, weakly cemented to unconsolidated colluvial lenses of polymictic conglomerate with medium- to very coarse-grained sand matrix; interspersed with unconsolidated clayey and silty red-brown (aeolian) sand layers, modified by pedogenesis.	0.0	Onsite
Yass Special 1:50 000 Geology	Sdoh	Hawkins Volcanics	Pterospathodus amorphognathoides (base) to Kockelella amsdeni (top)	Douro Group	Pyroclastic rock	Blue-grey, massive, welded, porphyritic biotite-cordierite-garnet rhyolitic to dacitic ignimbrite; sporadic quartz+dioritic xenoliths. Flow-banded, vesicular rhyodacitic-dacite; volcanic sandstone, minor rhyodacitic agglomerate and rhyolitic lapilli tuff.	0.0	Onsite
Eastern Lachlan Orogen version 2 - digital dataset	Sdoh	Hawkins Volcanics	Pterospathodus amorphognathoides (base) to Kockelella amsdeni (top)	Douro Group	Pyroclastic rock	Blue-grey, massive, welded, porphyritic biotite-cordierite-garnet rhyolitic to dacitic ignimbrite; sporadic quartz+dioritic xenoliths. Flow-banded, vesicular rhyodacitic-dacite; volcanic sandstone, minor rhyodacitic agglomerate	0.0	Onsite

Map Sheet	Code	Formation	Age	Group	Dominant Lithology	Description	Distance (m)	Direction
						and rhyolitic lapilli tuff.		
Yass Special 1:50 000 Geology	Q_c	Null	Quaternary (base) to Now (top)	Colluvium	Clastic sediment	Poorly sorted, weakly cemented to unconsolidated colluvial lenses of polymictic conglomerate with medium- to very coarse-grained sand matrix; interspersed with unconsolidated clayey and silty red-brown (aeolian) sand layers, modified by pedogenesis.	0.0	Onsite
Eastern Lachlan Orogen version 2 - digital dataset	Q_a	Null	Quaternary (base) to Now (top)	Alluvium	Clastic sediment	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.	0.0	Onsite
Yass Special 1:50 000 Geology	Q_a	Null	Quaternary (base) to Now (top)	Alluvium	Clastic sediment	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.	0.0	Onsite
Eastern Lachlan Orogen version 2 - digital dataset	Q_r	Null	Quaternary (base) to Now (top)	Residual deposits	Saprolite	A weakly-consolidated regolithic residuum such as soil or saprolite mostly developed in-	89.5	North-east

Map Sheet	Code	Formation	Age	Group	Dominant Lithology	Description	Distance (m)	Direction
						situ as a result of advanced weathering and/or pedogenesis.		
Yass Special 1:50 000 Geology	Q_r	Null	Quaternary (base) to Now (top)	Residual deposits	Saprolite	A weakly-consolidated regolithic residuum such as soil or saprolite mostly developed in-situ as a result of advanced weathering and/or pedogenesis.	89.5	North-east
Yass Special 1:50 000 Geology	Sdoso	Yass Formation	Kockelella amsdeni (base) to Kockelella amsdeni (top)	Douro Group	Sandstone	Brown-beige to off-white, very coarse- to medium-grained quartzo-feldspathic sandstone, poorly sorted, sub-rounded to angular grains. Sparsely fossiliferous (brachiopods, gastropods, crinoid stems), rare laminar siltstone near the base.	159.6	West
Eastern Lachlan Orogen version 2 - digital dataset	Sdoso	Yass Formation	Kockelella amsdeni (base) to Kockelella amsdeni (top)	Douro Group	Sandstone	Brown-beige to off-white, very coarse- to medium-grained quartzo-feldspathic sandstone, poorly sorted, sub-rounded to angular grains. Sparsely fossiliferous (brachiopods, gastropods, crinoid stems), rare laminar siltstone near the base.	159.6	West

Naturally Occurring Asbestos Potential (NOA)

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

Topography

Topography (Onsite)	490 - 504 mAHD

Section 2 Hydrogeology

2.1 GDE & HYDROGEOLOGY CONSTRAINTS

Map 2.1 (2000m Buffer)

Aquifer Type

Type	Distance (m)	Direction
Fractured or fissured, extensive aquifers of low to moderate productivity	0.0	Onsite

Groundwater Protection Areas

Name	Water Plan Area	Distance (m)	Direction
Yass valley	Yass Valley Local Environmental Plan 2013	0.0	Onsite

Wetlands

Name	Description	Distance (m)	Direction
Reservoir	Reservoir	196.6	North-west

Groundwater Dependent Ecosystems (GDE) - Aquatic (Surface)

Potential	Distance (m)	Direction
High potential GDE - from national assessment	487.1	West
Moderate potential GDE - from national assessment	535.7	West

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

Groundwater Dependent Ecosystems (GDE) - Terrestrial (Subsurface)

Potential	Distance (m)	Direction
Low potential GDE - from national assessment	805.8	East

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

Groundwater Licences (Western Australia)

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

Groundwater Bores

Map ID	Groundwater Bore ID	Authorised Purpose	Completion Date	Drilled Depth (m)	Final Depth (m)	SWL (m)	Salinity (mg/l)	Yield (L/s)	Distance (m)	Direction
18	GW402468	Household	15/06/2003	13.0	13.0	Null	Null	0.5	140.7	South
25	GW402927	Household	01/09/2004	13.0	13.0	Null	Null	0.2	397.1	South
21	GW029279	Water supply for livestock	01/06/1968	26.8	26.8	Null	Good	0.8	561.0	South
34	41010277	Unknown	Null	Null	Null	Null	Null	Null	601.7	West
20	GW402463	Monitoring	19/05/2003	103.0	103.0	2.8	Null	1.5	619.1	West
14	GW402091	Household	14/11/2002	48.0	48.0	34.0	Null	0.2	631.2	East
4	GW401567	Monitoring	20/01/1999	6.0	6.0	5.0	Null	Null	808.8	South
32	410046	Unknown	Null	Null	Null	Null	Null	Null	863.8	North-west
6	GW401563	Monitoring	19/01/1999	5.0	5.0	0.5	Null	Null	871.9	South
72	GW415345	Household	02/08/2005	113.5	113.0	Null	Null	Null	875.5	South-east
16	GW402090	Household	13/11/2002	36.0	36.0	20.0	Null	0.2	879.4	East
62	40110039	Unknown	Null	Null	Null	Null	Null	Null	881.3	South
55	21910096	Unknown	Null	Null	Null	Null	Null	Null	885.5	South
49	21810009	Unknown	Null	Null	Null	Null	Null	Null	894.6	South
52	21810002	Unknown	Null	Null	Null	Null	Null	Null	894.6	South
54	21910094	Unknown	Null	Null	Null	Null	Null	Null	894.6	South
40	21810004	Unknown	Null	Null	Null	Null	Null	Null	900.1	South
50	21810006	Unknown	Null	Null	Null	Null	Null	Null	906.3	South
41	20910071	Unknown	Null	Null	Null	Null	Null	Null	906.3	South
48	20910083	Unknown	Null	Null	Null	Null	Null	Null	915.9	South
36	40110037	Unknown	Null	Null	Null	Null	Null	Null	915.9	South

Map ID	Groundwater Bore ID	Authorised Purpose	Completion Date	Drilled Depth (m)	Final Depth (m)	SWL (m)	Salinity (mg/l)	Yield (L/s)	Distance (m)	Direction
10	GW103359	Monitoring	09/09/1998	5.7	5.7	Null	Null	Null	916.9	South
78	GW103376	Monitoring	21/11/1995	Null	6.9	Null	Null	Null	917.8	South
37	21810013	Unknown	Null	Null	Null	Null	Null	Null	920.2	South
27	GW401564	Monitoring	19/01/1999	5.0	5.0	1.1	Null	Null	921.9	South
56	20910079	Unknown	Null	Null	Null	Null	Null	Null	924.8	South
44	20910069	Unknown	Null	Null	Null	Null	Null	Null	924.8	South
53	20910073	Unknown	Null	Null	Null	Null	Null	Null	924.8	South
58	21910106	Unknown	Null	Null	Null	Null	Null	Null	930.1	South
59	21810017	Unknown	Null	Null	Null	Null	Null	Null	930.1	South
1	GW401568	Monitoring	20/01/1999	5.8	5.8	4.0	Null	Null	932.2	South
79	GW103375	Monitoring	21/11/1995	Null	7.0	Null	Null	Null	934.3	South
57	21610030	Unknown	Null	Null	Null	Null	Null	Null	936.1	South
38	21910100	Unknown	Null	Null	Null	Null	Null	Null	936.1	South
39	21610032	Unknown	Null	Null	Null	Null	Null	Null	936.1	South
51	21910110	Unknown	Null	Null	Null	Null	Null	Null	936.1	South
47	21610028	Unknown	Null	Null	Null	Null	Null	Null	936.1	South
7	GW401571	Monitoring	20/01/1999	5.8	5.8	3.9	Null	Null	936.7	South
64	20910077	Unknown	Null	Null	Null	Null	Null	Null	950.0	South
60	21810015	Unknown	Null	Null	Null	Null	Null	Null	950.5	South
46	20910084	Unknown	Null	Null	Null	Null	Null	Null	950.5	South
63	20910075	Unknown	Null	Null	Null	Null	Null	Null	955.0	South
2	GW401573	Monitoring	20/08/1998	5.3	5.3	Null	Null	Null	959.9	South
43	21910091	Unknown	Null	Null	Null	Null	Null	Null	960.2	South
9	GW401572	Monitoring	20/08/1998	4.5	4.5	Null	Null	Null	966.5	South
5	GW401565	Monitoring	19/01/1999	5.3	5.3	1.9	Null	Null	967.4	South
61	21910108	Unknown	Null	Null	Null	Null	Null	Null	972.4	South
80	GW103374	Monitoring	13/03/1996	Null	3.3	Null	Null	Null	977.6	South
77	GW400723	Household	10/05/1998	Null	66.6	13.3	S.Brackish	1.4	978.9	South
3	GW401566	Monitoring	19/01/1999	5.1	5.1	0.7	Null	Null	984.1	South
42	20910081	Unknown	Null	Null	Null	Null	Null	Null	985.3	South
45	40110035	Unknown	Null	Null	Null	Null	Null	Null	985.3	South

Map ID	Groundwater Bore ID	Authorised Purpose	Completion Date	Drilled Depth (m)	Final Depth (m)	SWL (m)	Salinity (mg/l)	Yield (L/s)	Distance (m)	Direction
28	GW401570	Monitoring	19/01/1999	4.2	4.2	4.1	Null	Null	986.0	South
8	GW401569	Monitoring	20/01/1999	4.5	4.5	3.5	Null	Null	988.7	South
76	GW066478	Household	Null	40.0	40.0	8.0	Good	1.2	993.3	South
26	GW403033	Household	06/03/2005	80.0	80.0	Null	Null	290.0	1013.9	South-east
22	GW401950	Household	29/06/2002	80.0	80.0	58.0	Null	0.6	1219.4	South-east
15	GW402198	Household	15/01/2003	92.0	92.0	Null	Null	0.4	1302.2	South-east
35	41010279	Unknown	Null	Null	Null	Null	Null	Null	1354.5	South
24	GW403131	Household	23/09/2002	56.0	52.0	Null	Null	0.5	1366.3	South
31	41010089	Unknown	Null	Null	Null	Null	Null	Null	1411.6	South-east
13	GW402478	Household	08/08/2003	42.0	42.0	8.0	Fresh	0.6	1527.2	South
23	GW402467	Monitoring	17/04/2003	72.0	72.0	Null	Null	0.2	1556.6	South
11	GW402089	Household	13/11/2002	66.0	66.0	26.0	Null	0.2	1577.2	South
19	GW402379	Household	15/04/2003	61.0	61.0	Null	Null	0.2	1613.4	South
12	GW402483	Household	15/06/2003	51.0	51.0	Null	Null	0.5	1635.5	South-east
74	GW066492	Household	21/03/1991	29.0	29.0	9.0	Good	1.8	1645.1	South
73	GW415874	Household	01/01/2003	56.0	56.0	Null	Null	0.4	1645.1	South-east
29	GW403174	Household	13/07/2005	48.0	48.0	14.0	Null	200.0	1667.9	North-west
33	41010098	Unknown	Null	Null	Null	Null	Null	Null	1672.1	South
17	GW402466	Monitoring	13/05/2003	103.0	103.0	2.8	Null	0.2	1683.2	South
68	GW415894	Household	21/01/2008	66.0	66.0	10.0	Null	Null	1702.8	North
69	GW414604	Monitoring	13/01/2010	14.5	14.5	Null	Null	Null	1755.2	South
71	GW414805	Water supply for livestock	16/03/2010	60.0	60.0	17.0	Null	0.5	1756.7	South-east
66	GW414600	Monitoring	13/01/2010	15.0	14.5	Null	Null	Null	1756.9	South
67	GW414594	Monitoring	12/01/2010	15.0	15.0	Null	Null	Null	1765.1	South
65	GW414605	Monitoring	13/01/2010	15.0	15.0	Null	Null	Null	1767.9	South
70	GW414578	Household	05/11/1998	72.0	72.0	5.0	Fair	0.4	1939.8	South
30	GW404297	Household	01/05/2005	59.0	59.0	Null	Null	3.8	1948.6	North
82	GW066483	Unknown	24/03/1991	72.0	72.0	17.0	0-500 ppm	1.1	1967.4	North
81	GW401924	Household	30/06/1995	Null	110.0	14.0	Null	Null	1986.0	South
75	GW065034	Recreation	12/03/1989	Null	48.0	20.0	Null	1.8	1988.3	South-east

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

Groundwater Bores Driller Lithology Details

Groundwater Bore ID	From Depth – To Depth (m) Lithology	Distance (m)	Direction
GW402468	0m-1m Topsoil 1m-2m Silty clay, brown 2m-4m Silty clay, red 4m-7m Sandy clay, brown 7m-8m Silty clay 8m-9m Gravel 9m-10m Sand, and gravel 10m-13m Gravel, sandy, large	140.7	South
GW402927	0m-0.05m Topsoil 0.05m-4m Clay 4m-13m Gravel, river	397.1	South
GW029279	0m-9.75m Clay 9.75m-11.89m Gravel sand 11.89m-14.94m Porphyry decomposed 14.94m-26.82m Porphyry water supply	561.0	South
41010277	Null	601.7	West
GW402463	0m-6m Clay, red brown 6m-27m Siltstone, calcareous, dark grey and minor shale 27m-32m Silstone, calcareous, grey to greenish 32m-103m Mudstone, dark grey with occasional calcite grains	619.1	West
GW402091	0m-2m Soil, clays 2m-15m Granite, weathered brown 15m-48m Granite, hard grey blue	631.2	East
GW401567	0m-0.005m Fill, bitumen 0.01m-0.2m Fill, weathered siltstone, whitish yellow, very dense 0.2m-1.2m Fill, clayey silt, brown, v/dense, dry 1.2m-1.4m Silt, clayey, grey brown, dense, moist 1.4m-2.5m Clay, silty, yellow brown, stiff, moist 2.5m-4.7m Clay, silty, yellow grey, v/stiff, dry to moist 4.7m-6m Sand, clayey, coarse, red brown, dense, wet	808.8	South
410046	Null	863.8	North-west
GW401563	0m-1m Topsoil, clayey silt, d/brown to black, stiff moist 1m-4.5m Sand, clayey, coarse grain, yellow, medium dense, moist to wet, becoming wet at 1.9m 4.5m-5m Gravel, clayey, yellow brown, dense, wet	871.9	South
GW415345	0m-2m Clay, brown 2m-10m Granite, decomposed 10m-113.5m Granite, blue	875.5	South-east
GW402090	0m-1.5m Soil, clay 1.5m-9m Granite, red weathered 9m-16m Granite, grey brown 16m-36m Granite, hard blue	879.4	East
40110039	Null	881.3	South
21910096	Null	885.5	South
21810009	Null	894.6	South
21810002	Null	894.6	South
21910094	Null	894.6	South
21810004	Null	900.1	South
21810006	Null	906.3	South
20910071	Null	906.3	South
20910083	Null	915.9	South
40110037	Null	915.9	South
GW103359	0m-0.3m Fill, sandy silt, darkgrey, ash & gravel, loose, moist 0.3m-2.7m Silty clay, med plasticity, brown, gravels subrounded 2.7m-3m Sandy clay, low plast, l/brown, gravels subrounded 3m-5.7m Sand, gravelly, light brown, coarse grain, gravels subrounded	916.9	South
GW103376	Null	917.8	South
21810013	Null	920.2	South

Groundwater Bore ID	From Depth – To Depth (m) Lithology	Distance (m)	Direction
GW401564	0m-1m Silt, sandy, red brown, loose dry, sime medium quartz gravel 1m-1.8m Clay, gravelly, orange brown, stiff dry 1.8m-2m Sand, clayey, coarse grain, yellow brown, dense, moist 2m-2.8m Gravel, clayey, yellow grey, dense, moist 2.8m-3.1m Clay, gravelly, red brown, stiff, moist 3.1m-5m Gravel, clayey, yellow grey, dense, moist, becoming wet at 3.8m	921.9	South
20910079	Null	924.8	South
20910069	Null	924.8	South
20910073	Null	924.8	South
21910106	Null	930.1	South
21810017	Null	930.1	South
GW401568	0m-0.4m Silt, clayey, d/brown, med dense, dry 0.4m-1.8m Clay, silty, red brown, stiff, dry to moist 1.8m-4.4m Clay, sandy, coarse, red brown, stiff, moist to wet 4.4m-5.8m Gravel, clayey, orange brown, dense, wet	932.2	South
GW103375	Null	934.3	South
21610030	Null	936.1	South
21910100	Null	936.1	South
21610032	Null	936.1	South
21910110	Null	936.1	South
21610028	Null	936.1	South
GW401571	0m-0.2m Fill, concrete roadbase 0.2m-1.9m Fill, gravelly clay, red brown, stiff, moist 1.9m-3.9m Sand, clayey, medium to ext coarse grain, yellow brown, dense, moist 3.9m-5.8m Sand, clayey, coarse, grey, dense, wet	936.7	South
20910077	Null	950.0	South
21810015	Null	950.5	South
20910084	Null	950.5	South
20910075	Null	955.0	South
GW401573	0m-0.1m Concrete 0.1m-0.2m Fill, road base & coarse river sand 0.2m-1.1m Clay, grey brown, weathered rock, hydrocarbon odour 1.1m-2.5m Clay, gravelly, dark brown 2.5m-4m Clay, sandy gravelly, dark brown, firm coarse sand, weathered sandstone 4m-5.3m Gravel, sandy clayey, dark brown, wet, dense, coarse sand, weathered sandstone	959.9	South
21910091	Null	960.2	South
GW401572	0m-1m Clay, silty sandy, red brown, v/soft, minor gravels 1m-1.2m Gravel, ironstone band 1.2m-1.8m Clay, gravelly, red brown, firm 1.8m-4.5m Gravel, sandy clayey, yellow brown, wet, dense, quartz gravels, ext weathered sandstone	966.5	South
GW401565	0m-0.8m Silt, sandy, brown, loose, dry, fine to med quartz gravel 0.8m-1.9m Clay, gravelly, orange brown, stiff dry, fine quartz gravel 1.9m-2.3m Sand, clayey, grey, dense, moist, some shale fragments 2.3m-4m Gravel, clayey, brown, med dense, moist, becoming grey & wet at 2.8m 4m-5.3m Sand, gravelly, grey, dense, wet	967.4	South
21910108	Null	972.4	South
GW103374	Null	977.6	South
GW400723	Null	978.9	South
GW401566	0m-0.5m Sand, silty, brown, loose, dry 0.5m-0.8m Clay, silty gravelly, brown, firm, dry 0.8m-1.8m Clay, gravelly, orange brown, stiff dry 1.8m-3.4m Gravel, clayey, brown, v/dense, moist 3.4m-4.3m Sand, clayey, med to coarse grain, brown, dense, wet 4.3m-5.1m Sand, clayey, med to coarse grain, yellow brown, dense, wet	984.1	South
20910081	Null	985.3	South

Groundwater Bore ID	From Depth – To Depth (m) Lithology	Distance (m)	Direction
40110035	Null	985.3	South
GW401570	0m-0.8m Silt, sandy, red brown, loose, dry, some gravels 0.8m-2.5m Silt, clayey, red, loose, dry, becoming grey red at 1.1m 2.5m-3.6m Sand, clayey, grey, v/dense, dry to moist 3.6m-3.9m Sand, clayey, yellow brown, becoming wet at 3.8m 3.9m-4.2m Shale, dry	986.0	South
GW401569	0m-0.6m Fill, topsoil-clayey silt, dark brown, loose, dry 0.6m-1.4m Fill, sandy clay, some gravel & building rubble 1.4m-1.8m Fill, clayey sand, red brown, coarse, dense, moist 1.8m-4.2m Sand, clayey, coarse, orange grey, moist, dense 4.2m-4.5m Gravel, clayey, yellow brown, dense, moist, some med quartz gravel	988.7	South
GW066478	Null	993.3	South
GW403033	0m-0.3m Topsoil 0.3m-28m Gravel, weathered 28m-80m Gravel, grey	1013.9	South-east
GW401950	0m-1m Topsoil 1m-5m Basalt 5m-80m Shale, hard	1219.4	South-east
GW402198	0m-1m Topsoil 1m-4m Granite, weathered 4m-38m Granite, grey 38m-60m Granite, black 60m-64m Sandstone 64m-92m Granite, grey	1302.2	South-east
41010279	Null	1354.5	South
GW403131	0m-1m Topsoil 1m-2m Clay 2m-3m Gravel 3m-56m Granite	1366.3	South
41010089	Null	1411.6	South-east
GW402478	0m-6m Soil, weathered dacite 6m-9m Gravel, large river 9m-42m Dacite, grey blue	1527.2	South
GW402467	0m-2m Soil, light brown 2m-6m Gravel, clayey 6m-16m Mudstone, medium to dark grey, calcareous 16m-18m Silstone 18m-47m Mudstone, dark grey 47m-49m Calcaranite, with limestone, light grey 49m-72m Dacitic, volcanics, dark grey to greenish with thin chert	1556.6	South
GW402089	0m-2m Soil, clay 2m-7m Granite, weathered brown 7m-66m Granite, hard blue	1577.2	South
GW402379	0m-0.5m Topsoil 0.5m-7m Granite, weathered 7m-61m Granite, grey	1613.4	South
GW402483	0m-0.1m Topsoil 0.1m-6m Clay, red and yellow 6m-17m Shale, weathered brown 17m-51m Granite	1635.5	South-east
GW066492	Null	1645.1	South
GW415874	0m-1m Topsoil 1m-4m Clay, brown 4m-25m Shale, fractured 25m-56m Shale, blue grey	1645.1	South-east
GW403174	0m-2m Granite, loose 2m-12m Granite, soft loose decomposed 12m-48m Dacile, blue grey	1667.9	North-west
41010098	Null	1672.1	South
GW402466	0m-3m Soil 3m-5m Gravels, (clayey) 5m-17m Limestone, silty and calcareous mudstone 17m-37m Mudstone, light grey, calcareous 37m-49m Sandstone, greenish, siltstone and minor shale 49m-61m Mudstone, dark grey, calcareous	1683.2	South

Groundwater Bore ID	From Depth – To Depth (m) Lithology	Distance (m)	Direction
	61m-65m Sandstone, greenish 65m-74m Mudstone, dark grey, calcareous, with thin sandstone interbeds 74m-87m Sandstone, light grey 87m-103m Mudstone, dark grey, calcareous		
GW415894	0m-1m Topsoils 1m-3m Clays 3m-66m Shales, grey	1702.8	North
GW414604	0m-4m Fill 4m-4.75m Shale 4.75m-10m Sandstone 10m-11.5m Shale 11.5m-14.5m Sandstone	1755.2	South
GW414805	0m-4m Clay, brown 4m-15m Granite, light brown weathered 15m-60m Granite, grey & black	1756.7	South-east
GW414600	0m-2.5m Fill 2.5m-3.5m Shale 3.5m-5.5m Sandstone 5.5m-6m Shale 6m-8m Sandstone 8m-8.5m Shale 8.5m-15m Sandstone	1756.9	South
GW414594	0m-3.5m Fill 3.5m-3.9m Clay 3.9m-6m Shale 6m-6.5m Sandstone 6.5m-7m Shale 7m-8.2m Sandstone 8.2m-9m Shale 9m-10m Sandstone 10m-11.5m Shale 11.5m-15m Sandstone	1765.1	South
GW414605	0m-3m Fill 3m-4m Sandstone 4m-4.5m Shale 4.5m-6m Sandstone 6m-8.5m Shale 8.5m-9m Sandstone 9m-11m Shale 11m-13m Sandstone 13m-15m Shale	1767.9	South
GW414578	0m-0.2m Topsoil 0.2m-4m Clay - sticky - brown 4m-36m Shale - soft - grey 36m-65m Shale - black 65m-72m Sandstone - grey	1939.8	South
GW404297	0m-0.5m Topsoil 0.5m-20m Granite - weathered 20m-59m Granite - grey	1948.6	North
GW066483	Null	1967.4	North
GW401924	Null	1986.0	South
GW065034	Null	1988.3	South-east

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

2.2 GROUNDWATER AND OTHER BORES

Map 2.2 (2000m Buffer)

Groundwater Restricted Use Zones

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

Groundwater Salinity

Class	Salinity Value	Source	Distance (m)	Direction
Non-Saline (<3000mg/L)	500 - 1500	Office of Water, New South Wales	0.0	Onsite

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

Borehole ID	Purpose	Project	Client/ License	Date Drilled	Depth (m)	Distance (m)	Direction
GT0003379	Intrusive Investigation	A collection of NSW geotechnical reports as part of the NSW Government Geotechnical Report Database Project (GGRD).	Drilling located at Yass water supply augmentation sub surface investigation - Geomechanics Laboratory - LO 1084	01/01/1985	0.0	72.3	North
GT0003376	Intrusive Investigation	A collection of NSW geotechnical reports as part of the NSW Government Geotechnical Report Database Project (GGRD).	Soil Sample Analysis located at Yass Wastewater Augmentation Catch Pond - Soil Testing	01/01/1987	0.0	174.0	West
GT0003373	Intrusive Investigation	A collection of NSW geotechnical reports as part of the NSW Government Geotechnical Report Database Project (GGRD).	Soil Sample Analysis located at Yass Sewerage Treatment Works - Test Results Of Fill For Catch Pond	01/01/1988	0.0	174.5	West
GT0003374	Intrusive Investigation	A collection of NSW geotechnical reports as part of the NSW Government Geotechnical Report Database Project (GGRD).	Drilling, Standard Penetration Test (SPT), Soil Sample Analysis located at Yass Sewerage, Sewage Treatment Plant	01/01/2005	0.0	270.5	North-west
GT0003380	Intrusive Investigation	A collection of NSW geotechnical reports as part of the NSW Government Geotechnical Report Database Project (GGRD).	Drilling, Standard Penetration Test (SPT), Soil Sample Analysis located at Yass water supply augmentation	01/01/1986	0.0	270.5	North-west
GT0003382	Intrusive Investigation	A collection of NSW geotechnical reports as part of the NSW Government Geotechnical Report Database Project (GGRD).	located at Yass Water Treatment Works - Test Results Of Foundation Material	01/01/1988	0.0	277.4	North-west
GT0003375	Intrusive Investigation	A collection of NSW geotechnical reports as part of the NSW Government Geotechnical Report Database Project (GGRD).	Test Pits, Soil Sample Analysis located at Yass Valley Council : proposed rising main	01/01/2006	0.0	1173.4	South-east
GT0003363	Intrusive Investigation	A collection of NSW geotechnical reports as part of the NSW Government Geotechnical Report Database Project (GGRD).	Site Inspection located at Yass Dam : site inspection, 4.6.03 - The Geotechnical & Environmental Section	01/01/2003	0.0	1343.0	South-east
GT0003364	Intrusive Investigation	A collection of NSW geotechnical reports as	Drilling, Site Inspection located	01/01/2006	0.0	1343.0	South-east

Borehole ID	Purpose	Project	Client/ License	Date Drilled	Depth (m)	Distance (m)	Direction
		part of the NSW Government Geotechnical Report Database Project (GGRD).	at Yass dam : diamond drilling investigation - J.F.Young - 14 August 2006				
GT0003366	Intrusive Investigation	A collection of NSW geotechnical reports as part of the NSW Government Geotechnical Report Database Project (GGRD).	Drilling, Soil Sample Analysis located at Yass Dam - storage perimeter inspection to assess potential erodibility	01/01/2009	0.0	1343.0	South-east
GT0003365	Intrusive Investigation	A collection of NSW geotechnical reports as part of the NSW Government Geotechnical Report Database Project (GGRD).	Drilling, Point load tests (PLTs), Soil Sample Analysis, Pore Water Pressure Measurement located at Yass Dam Raising	01/01/2009	0.0	1391.8	South-east
GT0003367	Intrusive Investigation	A collection of NSW geotechnical reports as part of the NSW Government Geotechnical Report Database Project (GGRD).	Drilling, Standard Penetration Test (SPT), Soil Sample Analysis located at Yass effluent reuse scheme : pumping station	01/01/2007	0.0	1439.1	South
GT0003368	Intrusive Investigation	A collection of NSW geotechnical reports as part of the NSW Government Geotechnical Report Database Project (GGRD).	Drilling, Standard Penetration Test (SPT), Soil Sample Analysis located at Yass effluent reuse scheme : pumping station	01/01/2007	0.0	1439.1	South
GT0003370	Intrusive Investigation	A collection of NSW geotechnical reports as part of the NSW Government Geotechnical Report Database Project (GGRD).	Soil Sample Analysis located at Yass Local Office - Materials Testing	01/01/1987	0.0	1975.7	South

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

Section 3 Environmental Registers, Licences and Incidents

3.1 CONTAMINATED LAND PUBLIC REGISTER

Map 3.1 (1000m Buffer)

Contaminated Sites

Register Type	Site Name	Address	Description	Details	Distance (m)	Direction
Record of Notices	Former Mobil Depot Yass and adjacent land	54-58 Laidlaw STREET,YASS	Service Station	Notices relating to this site (1 current and 12 former)	911.2	South
Sites Notified as Contaminated	Former Mobil Depot Yass and adjacent land	54-58 Laidlaw STREET YASS	Service Station	Ongoing maintenance required to manage residual contamination (CLM Act)	911.2	South

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

Table 3.1.1 Contaminated Land Public Register		
State	**Regulatory Body**	**Information included in this search (by state)**
ACT	EPA (Environment Protection Authority)	Contaminated Land Search Register of Contaminated Sites * (on request)
NSW	EPA (Environment Protection Authority)	Sites Notified as Contaminated Records of Notices
NT	EPA (Environment Protection Authority)	Contaminated Land Audit Pollution Abatement Notice

Table 3.1.1 Contaminated Land Public Register		
QLD	DES (Department of Environment and Science)	Contaminated Land Search (Environmental Management and Contaminated Land Registers) * (per lot)
SA	EPA (Environment Protection Authority)	Site Contamination Index Assessment Areas
TAS	EPA (Environment Protection Authority)	Regulated Sites and Premises Lutana and Parts of Hobarts Eastern Shore
VIC	EPA (Environment Protection Authority)	Priority Sites Register Pollution Abatement Notice
WA	DWER (Department of Water and Environmental Regulation)	Contaminated Sites Database

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

3.2 LICENCES, APPROVALS & ASSESSMENTS

Map 3.2 (1000m Buffer)

Licences

Licence N°	Type	Licence holder	Location Name	Premise Address	Activity	Dist. (m)*	Direct
1730	Issued	YASS VALLEY COUNCIL	YASS SEWAGE TREATMENT PLANT	FAULDER AVE, YASS NSW	Sewage treatment processing by small plants	1.4	North-east
1805	Issued	YASS VALLEY COUNCIL	YASS WATER TREATMENT PLANT	COOKS HILL ROAD, YASS NSW	Miscellaneous licensed discharge to waters (at any time)	835.6	East
4022	No longer in force	FORESTRY CORPORATION OF NEW SOUTH WALES	SOUTHERN REGION (S.R.) MEANS THE STATE FORESTS AND CROWN - TIMBER LANDS (EXCLUDING PLANTATIONS)	SOUTHERN REGION (S.R.) MEANS THE STATE FORESTS AND CROWN - TIMBER LANDS (EXCLUDING PLANTATIONS)	Logging operations	Not mapped	Not mapped

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

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

Audits, PRSA

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

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

Clean Up, Penalty Notices and Orders

N°	Type	Licence holder	Location Name	Premise Address	Details	Dist. (m)*	Direction
1564494	Clean Up Notice	YASS VALLEY COUNCIL	Laidlaw Street, YASS, NSW, 2582	Laidlaw Street, YASS, NSW, 2582	s.91 Clean Up Notice	153.6	South-west
1528991	Clean Up Notice	FORESTRY CORPORATION	SOUTHERN REGION (S.R.) MEANS THE	SOUTHERN REGION (S.R.) MEANS THE	s.91 Clean Up Notice	Not mapped	Not mapped

N°	Type	Licence holder	Location Name	Premise Address	Details	Dist. (m)*	Direction
		OF NEW SOUTH WALES	STATE FORESTS AND CROWN - TIMBER LANDS (EXCLUDING PLANTATIONS)	STATE FORESTS AND CROWN - TIMBER LANDS (EXCLUDING PLANTATIONS)			
3502930	Clean Up Notice	YASS VALLEY COUNCIL	YASS WATER TREATMENT PLANT	COOKS HILL ROAD, YASS, NSW 2582	s.91 Clean Up Notice	Not mapped	Not mapped

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

Table 3.2.1 Licences, Approvals & Assessments		
State	**Regulatory Body**	**Information included in this search (by state)**
ACT	EPA (Environment Protection Authority)	Environment Protection Authorisation Search Environment Protection Agreement Search
NSW	EPA (Environment Protection Authority)	POEO Public Register (Environment Protection licences, applications, notices, audits or pollution studies and reduction programs)
NT	EPA (Environment Protection Authority)	Environment Protection Licences
QLD	DES (Department of Environment and Science)	Environmental Authorities
SA	EPA (Environment Protection Authority)	Licences or Authorisations (Licences, Exemptions and Works Approvals) Environment Protection Orders (EPO) and Clean Up Orders (CUO)
TAS	EPA (Environment Protection Authority)	Regulated Premises
VIC	EPA (Environment Protection Authority)	Permissions Register (Operating Licence, Permit and Registration) Audit Reports
WA	DWER (Department of Water and Environmental Regulation)	Licences and Works Approvals

3.3a SITES REGULATED BY OTHER JURISDICTIONAL BODY

Map 3.3a (2000m Buffer)

Contaminated Legacy Areas

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

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

Defence, Military Sites and UXO Areas

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

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

Former Gasworks Sites

Site name	Description	Distance (m)	Direction
Former Gaswork	The Environmental Protection Authority declared the old gasworks site Significantly Contaminated in July 2010. The Yass Gas Works were established in 1892 and continued to be used for the production of coal derived gas until 1966 when the gas supply to Yas was converted to LPG. In 1993, reticulated LPG supply ceased and was replaced with natural gas rendering the site defunct. The retort house where the coal was heated to form the gas was demolished during site decontamination works in 2012-2013, however other structures used in the production of coal gas at the is site remain. The original gasometer is a partially below ground, partially above ground expanding gas tank. (Source: NSW EPA)	1713.4	South

PFAS Sites

Site name	Type	Details	Distance (m) *	Direction
Yass Fire Station	Potential historical use of PFAS.	Potential historical use of PFAS. (Fire and Rescue NSW)	1954.2	South

3.3b OTHER POTENTIAL HAZARD SOURCES

Map 3.3b (500m Buffer)

Mines and Quarries (current and historical)

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

Landfills (current and historical)

Site name	Description	Status	Distance (m)	Direction
Yass Valley Council Waste Transfer Station	Landfill Site. The Yass Transfer Station is located on Faulder Avenue and is open seven days a week from 8:00 AM to 4:30 PM. (Yass Valley Council)	Current	241.6	North

National Pollutant Inventory (NPI)

Facility name	Address	Primary ANZSIC Class	Latest report	Distance (m)	Direction
Not identified	-	-	-	-	-

Section 4 Potentially Contaminated Areas

4.1 POTENTIALLY CONTAMINATING ACTIVITIES

Map 4.1 (200m Buffer)

Liquid Fuel Facilities

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

Waste Management Facilities & Recycling Centres

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

**Status:* Information is current as when this report was created.*
The operational status of the business is determined using the available data sources and does not indicate real-time conditions at the site.
Current: business is operating on the day this report was issued.
Former: business that have been closed or discontinued within 2 years from the date of this report.

Liquid Fuel Facilities Datasets, representing the spatial locations of liquid fuel depots, refineries, terminals and petrol stations present in the Australian Government National Liquid Fuel Facilities Dataset and Petrol stations identified by Land Insights. Waste Management Facilities, representing the spatial locations of reprocessing facilities, transfer stations and landfills present in the Australian Government National Waste Management Facilities Dataset and Waste/Recycling facilities identified by Land Insights.

A more comprehensive list of all Potentially Contaminating Activities is available in the Due Diligence Insight report.

4.2 HISTORICAL BUSINESS DIRECTORIES (not mapped)

YEAR	Activity	Name	Address	Positional accuracy	Distance (m)	Direction
2005	Roofing Materials	Yass Engineering	Unit 6 Yass Trade Centre 81 Laidlaw St,YASS,NSW,2582	Address	38.4	West
2010	Roofing Materials & Supplies	Yass Engineering	Unit 6 Yass Trade Centre 81 Laidlaw St YASS 2582 NSW	Address	38.4	West
2010	Mufflers & Exhaust System Replacement & Repairs	Yass Mufflers & Radiators	U2/ 81 Laidlaw St YASS 2582 NSW	Address	38.4	West
2010	Saddlers & Riding Supplies	Harrogate Hill Saddlery	Unit 1/ 81 Laidlaw St YASS 2582 NSW	Address	38.4	West
2015	Engineers - Motor & Repairers	Shanes Car 'N' Cycle	Unit 5 81 Laidlaw St Yass NSW 2582	Address	38.4	West
2015	Mufflers & Exhaust System Replacement & Repairs	Yass Mufflers & Radiators	Unit 2/81 Laidlaw St Yass NSW 2582	Address	38.4	West
2015	Roofing Materials & Supplies	Yass Engineering	Unit 6 Yass Trade Centre 81 Laidlaw St Yass NSW 2582	Address	38.4	West
1970	Pumps - Mfrs &/or Merchants	Mono Pumps (Aust) Pty Ltd	124 Laidlaw Street,Yass,NSW	Address	107.0	South-west
1970	Pumps - Mfrs &/or Merchants	Mono Pumps (Aust) Pty Ltd	124 Laidlaw Street,Yass	Address	107.0	South-west
1980	Pumps - Mfrs &/or Merchants	Mono Pumps (Aust) Pty Ltd	124 Laidlaw Street,Yass,NSW	Address	107.0	South-west
2010	Couriers	Darrane Pty Ltd	98 Laidlaw St YASS 2582 NSW	Address	127.9	South-west
1990	Transport Services	Bushs Transport	55 Glebe Street,Yass,NSW	Address	130.1	South-east
1990	Carriers - Light	Yass Freight Express Pty Ltd	55 Glebe Street,Yass,NSW	Address	130.1	South-east
1990	Carriers - Light	Bushs Transport	55 Glebe Street,Yass,NSW	Address	130.1	South-east
2005	Livestock Transport Services; Carriers--Light; Carriers--Heavy	Bushs Transport	55 Glebe St,YASS,NSW,2582	Address	130.1	South-east
2005	Carriers--Heavy; Carriers--Light; Livestock Transport Services	Bush's Transport	55 Glebe St,YASS,NSW,2582	Address	130.1	South-east
2010	Carriers - Heavy Industrial Transportation	Bush's Transport	55 Glebe St YASS 2582 NSW	Address	130.1	South-east
2015	Carriers - Heavy Industrial Transportation	Bush's Transport	55 Glebe St Yass NSW 2582	Address	130.1	South-east
1965	Wool Buyers & Merchants	Walsh Bernard	10,Orion,NSW	Address	146.1	South
2010	Fencing Materials & Fittings	Ma Steel	71 Laidlaw St YASS 2582 NSW	Address	147.1	South
2005	Electrical Contractors	T.J.G. Electrical	22 Orion St,YASS,NSW,2582	Address	191.3	South-east

YEAR	Activity	Name	Address	Positional accuracy	Distance (m)	Direction
2005	Auto Electrical Services	JB's Auto Electrical Service	Yass Trade Cntr,YASS,NSW,2582	Street		West
2010	Earth Moving &/or Excavating Equipment & Machinery	Global Track Warehouse Pty Ltd	Lot Y Laidlaw St YASS 2582 NSW	Street		West
2010	Auto Electrical Services Including Mobile	Jb's Auto Electrical Service	Yass Trade Cntr YASS 2582 NSW	Street		West
2010	Earth Moving &/or Excavating Equipment & Machinery	Global Track Warehouse Pty Ltd	Lot Y Laidlaw St YASS 2582 NSW	Street		West
2010	Fire Brigades	Rural Fire Brigades	Yass Shire Fire Control Office YASS 2582 NSW	Street		West

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

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

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

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

Section 5 Natural Hazards

5.1 Fire Hazard

Map 5.1 (500m Buffer)

Bushfire Prone Areas

Category	Type	Details	Distance (m)	Direction
Bushfire Prone Area	Vegetation Buffer	Vegetation Buffer - Bush Fire Prone is an area of land that can support a bush fire or is likely to be subject to bush fire attack. Bush Fire Prone Land areas becomes the trigger for planning for bush fire protection.	0.0	Onsite
Bushfire Prone Area	Vegetation Category 3	Bushfire Prone Area - Vegetation Category 3 is considered to be medium bush fire risk vegetation. Bush Fire Prone Areas becomes the trigger for planning for bush fire protection.	0.0	Onsite

Bushfire History

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

5.2 Flood Hazard

Map 5.2 (500m Buffer)

Flood Planning Area

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

Other Flood Studies

Type	Name	Details	Distance (m)	Direction
Probable Maximum Flood (PMF)	Yass Floodplain Risk Management Study and Plan 2021	The largest flood that could conceivably be expected to occur at a particular location, usually estimated from probable maximum precipitation. The PMF defines the maximum extent of flood prone land, that is, the floodplain. It is difficult to define a meaningful Annual Exceedance Probability for the PMF, but it is commonly assumed to be of the order of 104 to 107 (once in 10,000 to 10,000,000 years).	0.0	Onsite

Flood History

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

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

5.3 Erosion Hazard

Map 5.3 (500m Buffer)

Erosion Hazard

Category	Type	Details	Distance (m)	Direction
Landslip Erosion Risk	Very slight to negligible limitations	Very Low	0.0	Onsite
Water Erosion Risk	Moderate to severe limitations	Moderate	0.0	Onsite
	Very severe limitations	Very High	264.6	West
Wind Erosion Risk	Moderate limitations	Moderate	0.0	Onsite
	Moderate to severe limitations	Moderate	264.6	West

Land Insight

The Commons
388 George Street
Sydney NSW 2000 Australia
info@landinsight.co
www.landinsight.co

Appendix D Historical Aerial Imagery

Appendix B

HISTORIC IMAGERY

2 Reddall Street
Yass, NSW

MAP B1

Historic Aerial Photograph – 1952

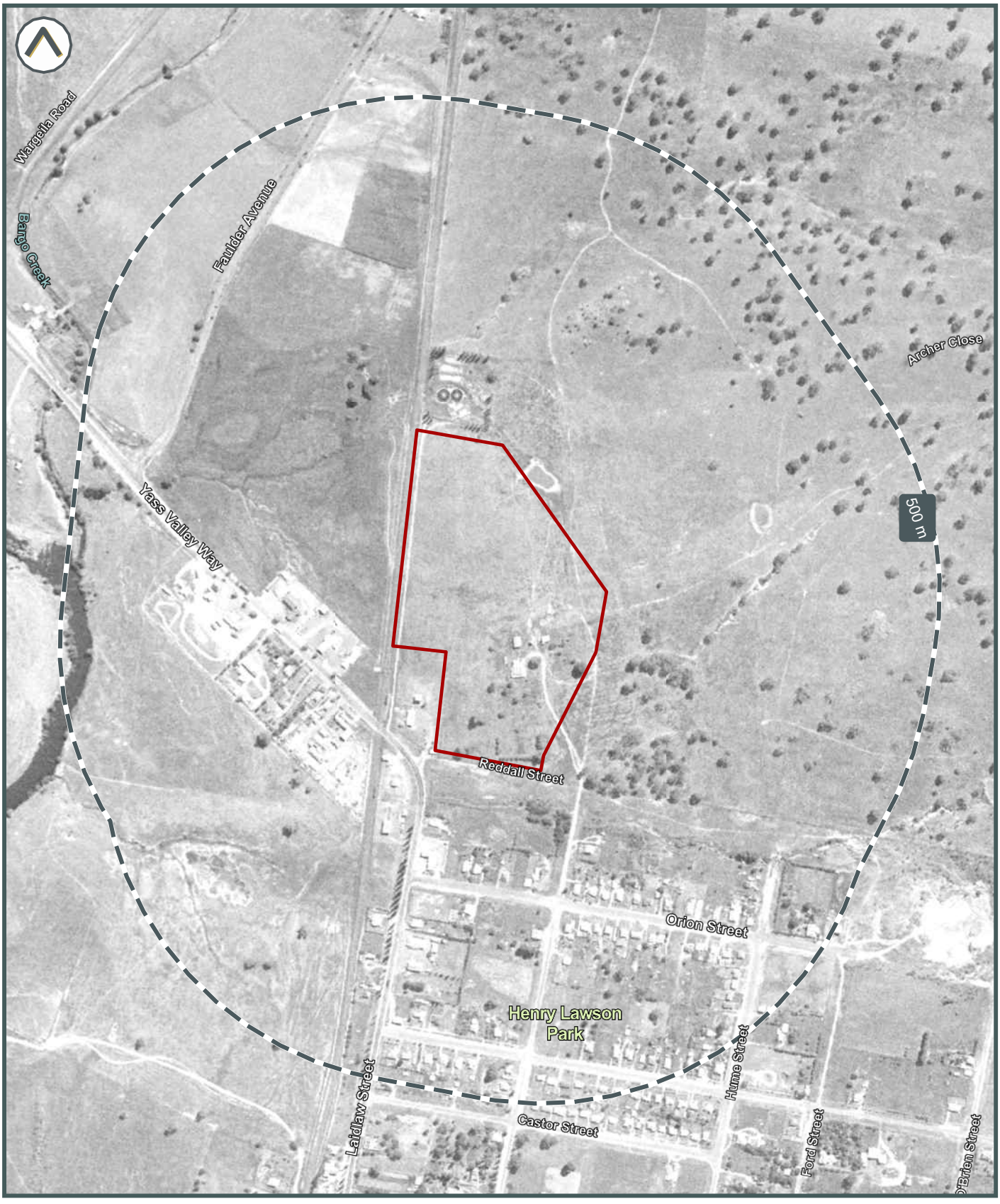
Subject area

0 70 140 210 280 350m

Land Insight

MAP B2

Historic Aerial Photograph – 1973



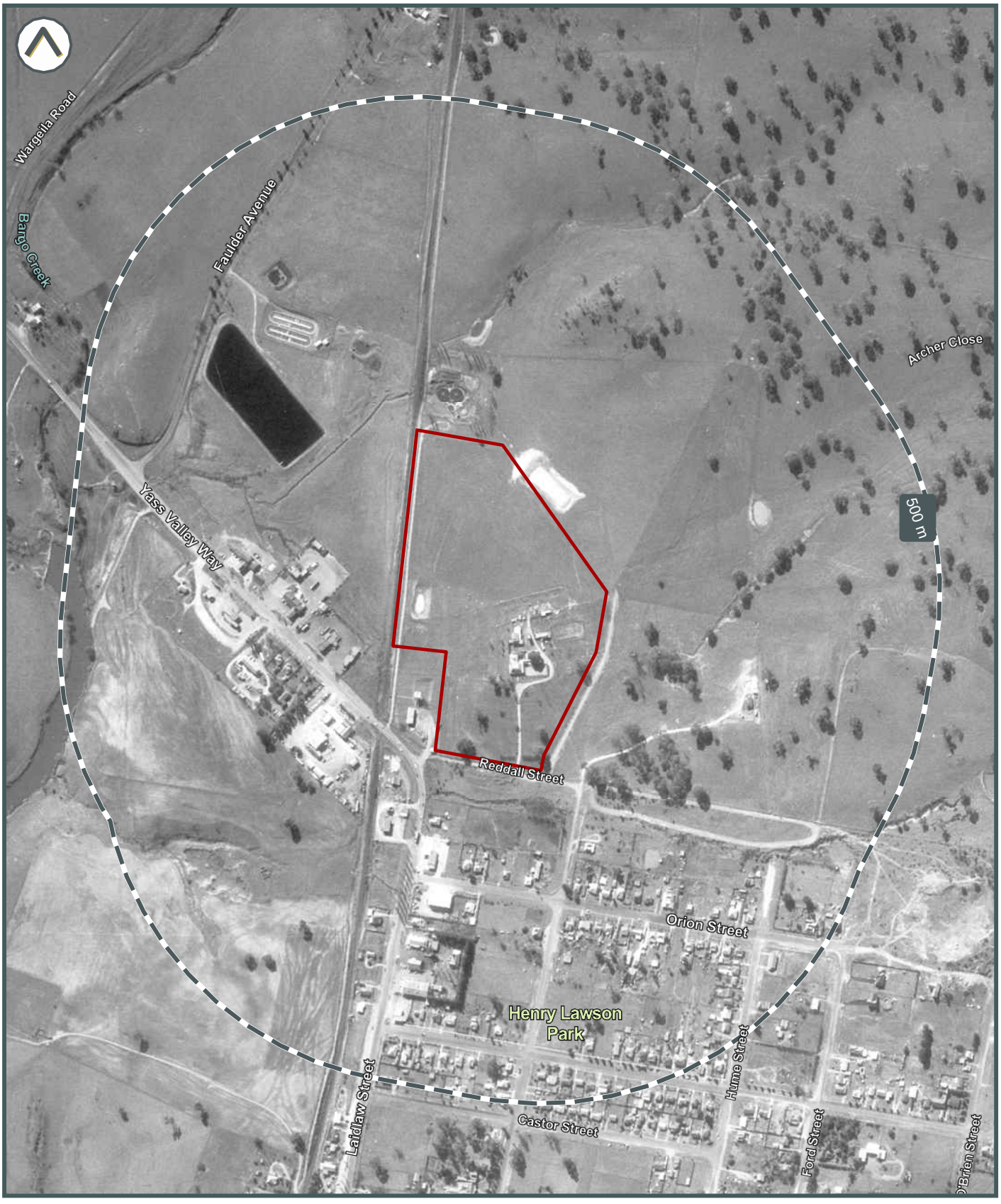
Subject area

0 70 140 210 280 350m

Land Insight

MAP B3

Historic Aerial Photograph – 1983



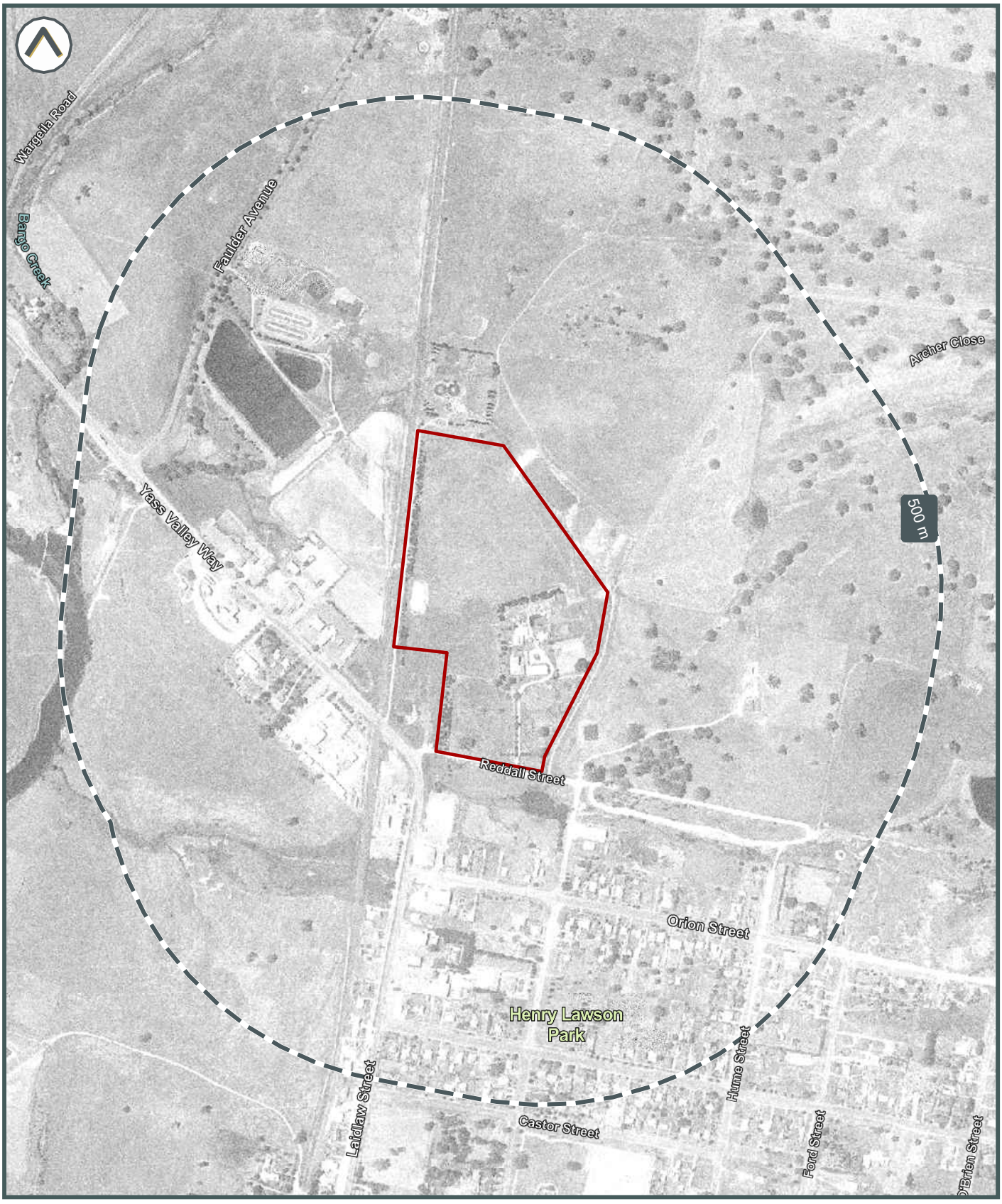
Subject area

0 70 140 210 280 350m

Land Insight

MAP B4

Historic Aerial Photograph – 1989



Subject area

0 70 140 210 280 350m

Land Insight

MAP B5

Historic Aerial Photograph – 1994

Subject area

0 70 140 210 280 350m

Land Insight

MAP B6

Historic Aerial Photograph – 1997

Subject area

0 70 140 210 280 350m

Land Insight

MAP B7

Historic Aerial Photograph – 2008

Subject area

0 70 140 210 280 350m

Land Insight

MAP B8

Historic Aerial Photograph – 2013

Subject area

0 70 140 210 280 350m

Land Insight

MAP B9

Historic Aerial Photograph – 2018

Subject area

0 70 140 210 280 350m

Land Insight

MAP B10

Historic Aerial Photograph – 2020

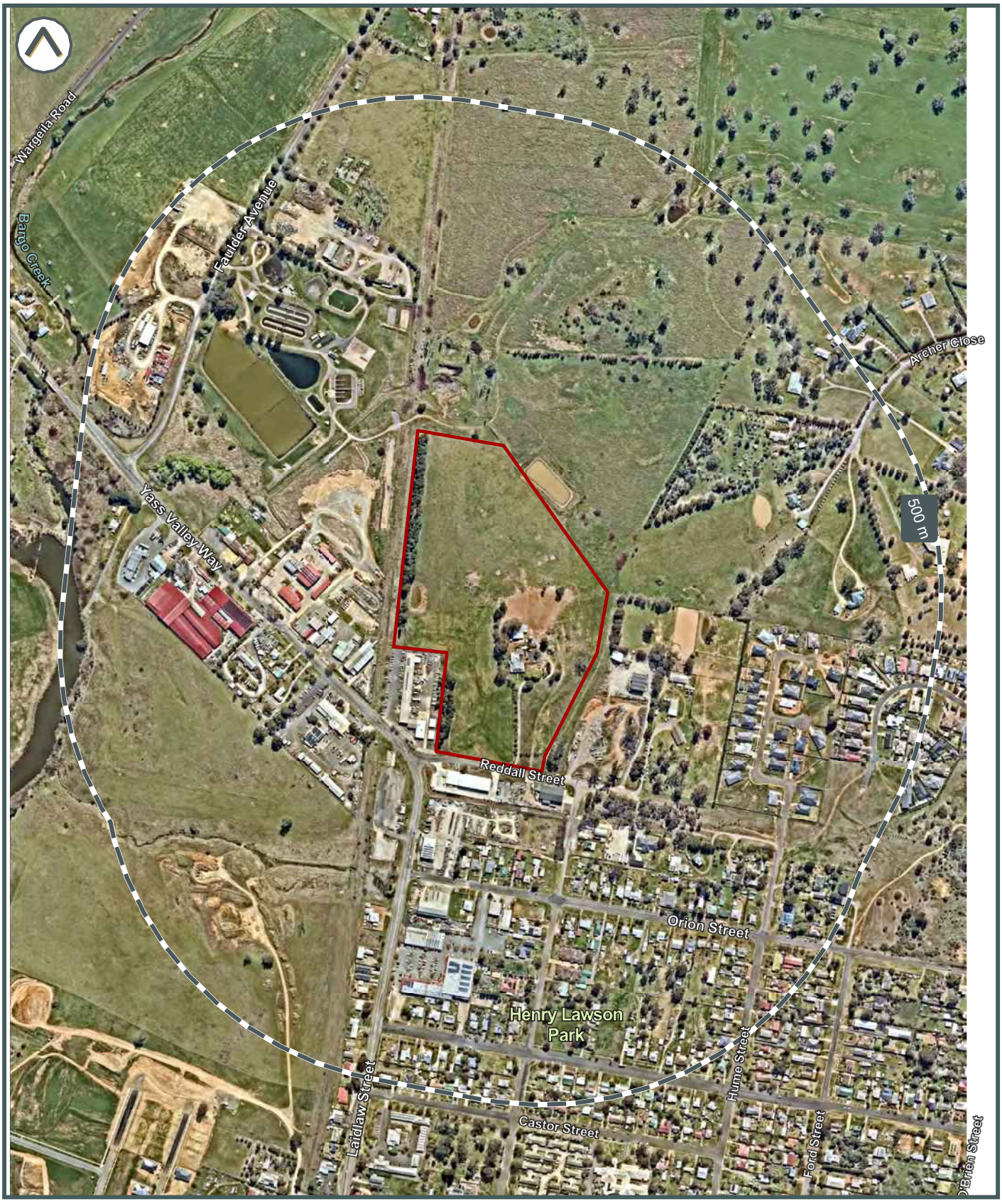
Subject area

0 70 140 210 280 350m

Land Insight

MAP B11

Historic Aerial Photograph – 2024



Subject area

0 70 140 210 280 350m

Land Insight

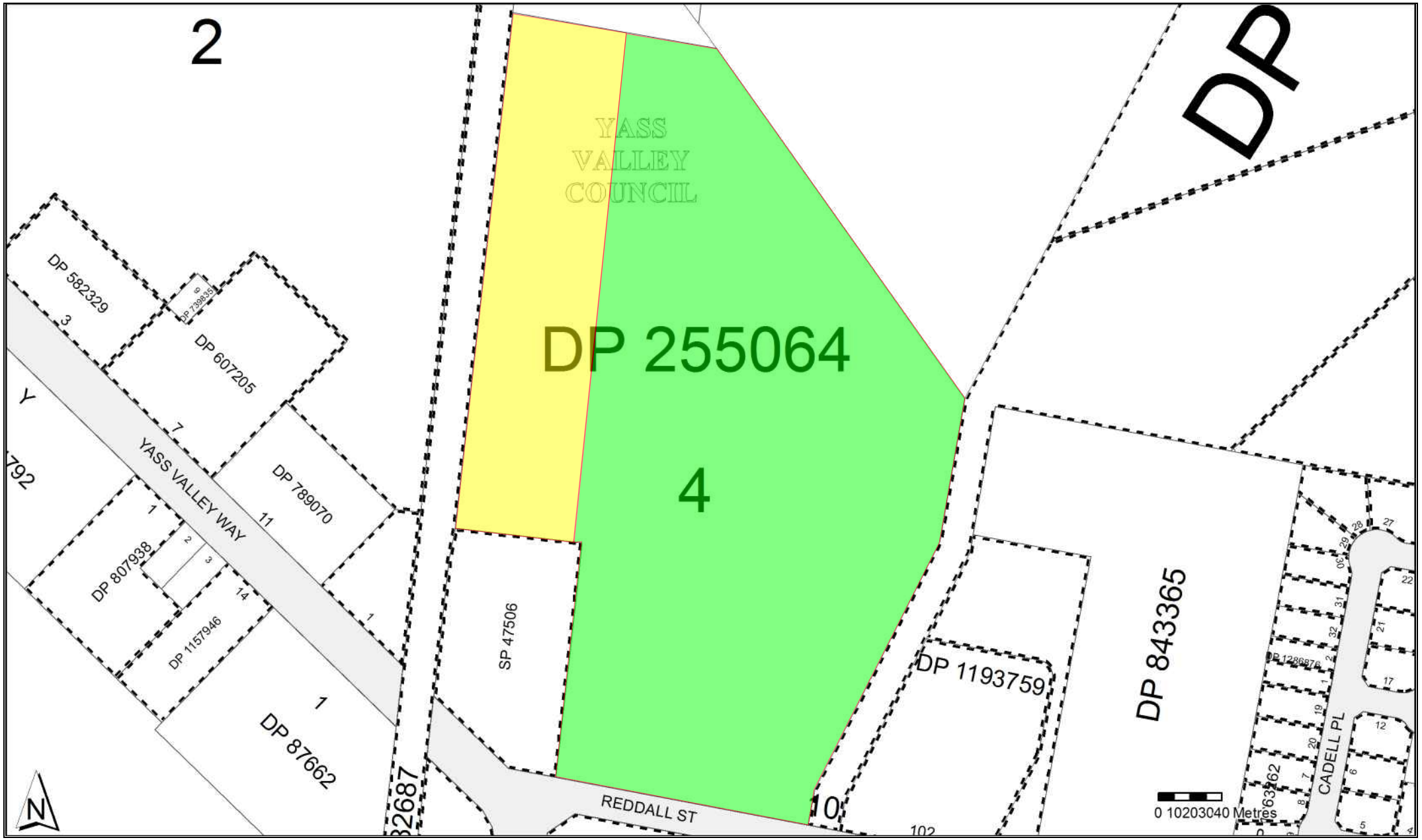
Land
Insight

Appendix E Historical Title Search Results

Cadastral Records Enquiry Report : Lot 4 DP 255064

Ref : 2 Reddall Street, Yass

Locality : YASS
Parish : YASS
LGA : YASS VALLEY
County : KING



This information is provided as a searching aid only.Whilst every endeavour is made to ensure that current map, plan and titling information is accurately reflected, the Registrar General cannot guarantee the information provided. For ALL ACTIVITY PRIOR TO SEPTEMBER 2002 you must refer to the RGs Charting and Reference Maps

Plan Form 2

Plan Drawing only to appear in this space.

*OFFICE USE ONLY

D. P. 255064 *

Registered: 15.9.1977

C.A.: No. 5177 OF 27-5-1977

Title System: TORRENS

Purpose: SUBDIVISION

Ref. Map: PARISH

Last Plan: D. P. 28673

PLAN

SUBDIVISION OF LOTS C, D, E & G D.P. 28673.

Reduction Ratio 1: 4000

Lengths are in metres.

Mun./Shire-City: YASS

Locality: YASS

Parish: YASS

County: KING

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

DONALD HENRY MORE

of 69 SPRINGVALE DRIVE WEETANGERA ACT

a surveyor registered under the Surveyors Act, 1929, as amended, hereby certify that the survey represented in this plan IS OF LOTS 1-5 ONLY LOT 6 COMPILED* is accurate and has been made *(1) by me (3)-under-my-immediate-supervision- in accordance with the Survey Practice Regulations, 1933, and was completed on † 12TH APRIL 1977

Signature: ...

Surveyor registered under Surveyors Act, 1929, as amended.
Datum Line of Azimuth "A-B"
*Strike out either (1) or (3). †Insert date of survey.

Panel for use only for statements of intention to dedicate public roads or to create public reserves, drainage reserves, easements or restrictions as to user.

*PURSUANT TO SECTION 88B OF THE CONVEYANCING ACT 1919 1964 IT IS INTENDED TO CREATE:—

1) EASEMENT TO DRAIN SEWAGE 6 AND 10 METRES WIDE

2) EASEMENT FOR WATER SUPPLY 6 WIDE

3 RESTRICTION AS TO USER

* INSTRUMENT FILED AS Q 252601

SIGNATURES AND SEALS ONLY

Council Clerk's Certificate.

I hereby certify that—

(a) the requirements of the Local Government Act, 1919 (other than the requirements for the registration of plans), and

*(b) the requirements of section 34B of the Metropolitan Water, Sewerage, and Drainage Act, 1924, as amended, †Hunter District Water, Sewerage, and Drainage Act, 1938, as amended,

have been complied with by the applicant in relation to the proposed (insert "new road", "subdivision" or "consolidated lot") set out hereon.

Subdivision No. 5/77

Date 27th May 1977

(Signature) ... Council Clerk.

*This part of certificate to be deleted where the application is only for a consolidated lot or the opening of a new road or where the land to be subdivided is wholly outside the areas of operations of the Metropolitan Water Sewerage and Drainage Board and the Hunter District Water Board. †Delete if inapplicable.

(E) ┼ EASEMENT TO DRAIN SEWAGE 10 WIDE
(D) ┼ EASEMENT TO DRAIN SEWAGE 6 WIDE
(C) ✕ SITE OF EASEMENT FOR WATER PIPE LINE CREATED BY G 221756 (FP 390223)

DIAGRAM X SCALE 1:1000

DIAGRAM Y NOT TO SCALE

REDDALL STREET

ROAD 20·115 WIDE

DMR CONTROL MARK FD N° 2/9452

D.P. 255064

D.P. 28673

EASEMENT FOR ACCESS 6095 WIDE

YASS TRAMWAY

F.P. 190914

TREATMENT WORKS

SHEET 2 ADJOINS

1 — OLD PEG FD DISTURBED

2 10·81 ha

3 10·32 ha

4 10·92 ha

5 3468 m²

6

10·93 ha

EASEMENT FOR WATER SUPPLY 6 WIDE

SEE DIAGRAM X

SEE DIAGRAM Y

LAIDLAW STREET

EXISTING LEASE FOR WATER SUPPLY 457 WIDE (D.P. 449349)

SURVEYOR'S REFERENCE: 112 B

WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION

M.P.D.

FRAME 1

I, Bruce Richard Davies, Registrar General for New South Wales, certify that this negative is a photograph made as a permanent record of a document in my custody this 19th day of September, 1977

Plan Form 3—To be used in conjunction with Plan Form 2.

WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION

*OFFICE USE ONLY

D. P. 255064 *

Registered: 15.9.1977

This is sheet 2 of my plan in 2 sheets dated 12 TH APRIL 1977

Surveyor registered under Surveyors Act, 1929.

This is sheet 2 of the plan of 2 sheets covered by my Certificate No. 5177 of 27th May 1977

Council Clerk

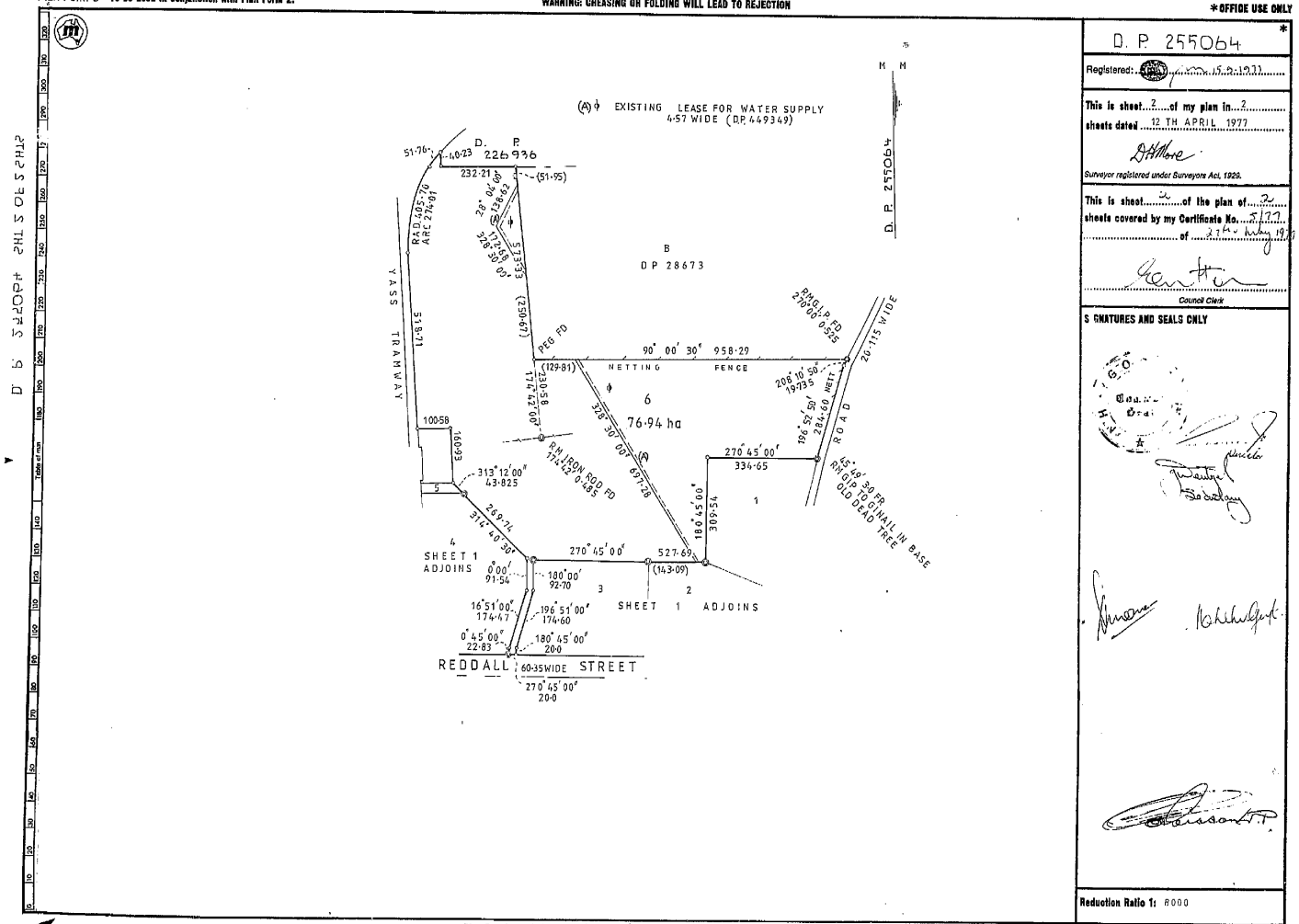
SIGNATURES AND SEALS ONLY

Reduction Ratio 1: 1000

SURVEYOR'S REFERENCE: 1128

Plan Drawing only to appear in this space.

M.P.D.



FRAME 2

I, Bruce Richard Davies, Registrar General for New South Wales, certify that this negative is a photograph made as a permanent record of a document in my custody this 19th day of September, 1977

12291195

CERTIFICATE OF TITLE

NEW SOUTH WALES

PROPERTY ACT, 1900

Vol. 12291 Fol. 195

IVA No. 13421
Appln. No. 50500

Reg. Gen. 21·8·1974

Edition issued 5-12-1973.

CANCELLED

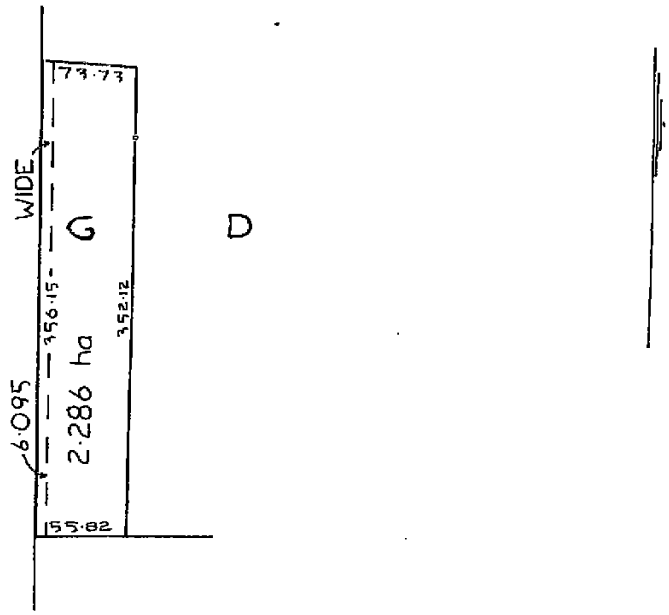
I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such exceptions encumbrances and interests as are shown in the Second Schedule.

Registrar General.

(Page 1) Vol. 12291 Fol. 195

PLAN SHOWING LOCATION OF LAND

LENGTHS ARE IN METRES



IVA 13421

REDUCTION RATIO 1:4000

ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot G in Deposited Plan 28673 in the Municipality of Yass Parish of Yass and County of King being part of Portion 14 granted to George Barber on 29-7-1837.

FIRST SCHEDULE

~~MUTUAL ACCEPTANCE LIMITED.~~ MORTGAGEE

SECOND SCHEDULE

1. Reservations and conditions, if any, contained in the Crown Grant above referred to.
2. ~~CAUTION No.N593379 pursuant to Section 28J Real Property Act, 1900.~~ Cancelled See Application No.50500
3. ~~Caveat No. N593380 by the Registrar General.~~ Withdrawn RPA50500. ~~Incorrect date entered on mortgage.~~
4. Easement for Access created by notification in Government Gazette dated 22-12-1939 Folio 5897 affecting the piece of land 6.095 metres wide shown in the plan hereon.

21·8·1974

REG GEN 5·9·1974

Registrar General.

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	ENTERED	Signature of Registrar General
Anthony George Pty. Limited.	Application	50500		21-8-1974	[signature]

This deed is cancelled as to the whole

New Certificates of Title have issued on 10-11-1977

for lots in Deposited Plan No. 255064 as follows:-

Lots 1-6 Vol. 13473 Fols. 149-154 respectively.

[signature]

REGISTRAR GENERAL

NEW CERTIFICATE(S) OF TITLE ISSUING ON DP255064

~~NO DEALING TO BE REGISTERED WITHOUT REFERENCE TO~~ SURVEY DRAFTING BRANCH.

N948384

Q108037 M

Q251967 M

DP 255064 10-3-77

Q342379 T (Lot 5 DP 255064)

Q402303 (Lot 4 DP 255064)

SECOND SCHEDULE (continued)

INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	PARTICULARS	ENTERED	Signature of Registrar General	CANCELLATION
Mortgage	N948384	19-7-1974	to Mutual Acceptance Limited.	~~5-12-1973~~ 21-8-1974.	[signature]	
Mortgage	Q108037	—	to Mutual Acceptance Limited.	14-3-1977	[signature]	
MORTGAGE	Q251967	—	to MUTUAL ACCEPTANCE LIMITED	15-9-1977	[signature]	
			Interests created pursuant to Section 88B Conveyancing Act, 1919			
			by the registration of Deposited Plan 255064	15.9.1977	[signature]	

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED

NEW SOUTH WALES

[redacted]E OF TITLE

[redacted]RTY ACT, 1900

Appln. Nos.17218 and 50500

Prior Titles Vol. 7657 Fol.100
Vol.12291 Fol.195

Vol. 13473 Fol. 152

CANCELLED

EDITION ISSUED

11 11 1977

SEE AUTO FOLIO

I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such exceptions encumbrances and interests as are shown in the Second Schedule.

Registrar General.

(Page 1) Vol. 13473 Fol. 152

ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot 4 in Deposited Plan 255064 at Yass in the Municipality of Yass Parish of Yass and County of King being part of Portions 14 and 15 granted to George Barber on 29-7-1837 and 20-5-1840 respectively.

FIRST SCHEDULE

~~ANTHONY GEORGE PTY. LIMITED.~~

SECOND SCHEDULE

GRY
EA(B) 2. Easement for Access created by notification in ~~Government~~ Gazette ~~dated~~ 22-12-1939 ~~Folio~~ 5897 affecting the land designated (B) shown in ~~the~~ plan hereon. DP255064 P

EA(C) 3. G221756 Easement for Water Pipeline appurtenant to the part of the land above described formerly ~~comprised~~ in ~~Certificate of Title~~ Volume 6976 ~~Folio~~ 47 affecting the land designated (C) shown in the plan hereon. DP255064P

4. ~~N548385 Mortgage to Mutual Acceptance Limited.~~ Discharged Q402308

5. ~~N948384 Mortgage to Mutual Acceptance Limited.~~ Discharged Q402308

6. ~~Q108037 Mortgage to Mutual Acceptance Limited.~~ Discharged Q402308

7. ~~Q251467 Mortgage to Mutual Acceptance Limited.~~ Discharged Q402308

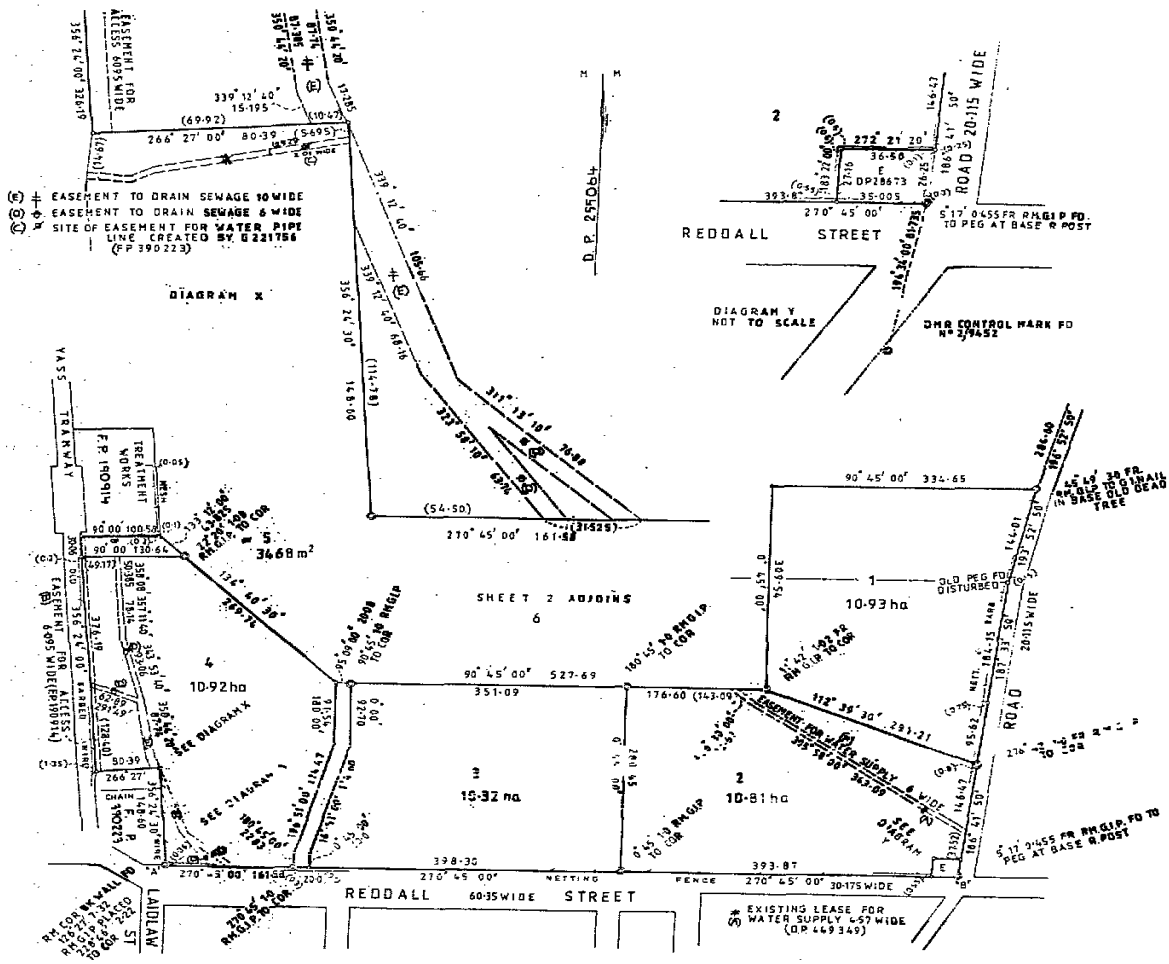
ES(D) 8. Easement to Drain Sewage affecting the part of the land above described designated (D) in the plan hereon created by the registration of Deposited Plan 255064P See Q252607.

ES(E) 9. Easement to Drain Sewage affecting the part of the land above described designated (E) in the plan hereon created by the registration of Deposited Plan 255064P See Q252607.

RU 10. Restriction as to user created by the registration of Deposited Plan 255064P See Q252607.

PLAN SHOWING LOCATION OF LAND

LENGTHS ARE IN METRES



FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	REGISTERED	Signature of Registrar General
Hume Nominee Company Pty. Limited	Transfer	Q402309	27.1.1978	

Q402308 D/m
Q402309 Te

SECOND SCHEDULE (continued)

INSTRUMENT NATURE	INSTRUMENT NUMBER	PARTICULARS	REGISTERED	Signature of Registrar General	CANCELLATION	

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED

Vol. 13473 Fol. 152

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FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT		REGISTERED	Signature of Registrar General
	NATURE	NUMBER		

SECOND SCHEDULE (continued)

INSTRUMENT		PARTICULARS	REGISTERED	Signature of Registrar General	CANCELLATION	
NATURE	NUMBER					

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED

LAND REGISTRY SERVICES Historical Search

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
10/10/2024 11:14AM

FOLIO: 4/255064

First Title(s): SEE PRIOR TITLE(S)
Prior Title(s): VOL 13473 FOL 152

Recorded	Number	Type of Instrument	C.T. Issue
5/6/1987		TITLE AUTOMATION PROJECT	LOT RECORDED FOLIO NOT CREATED
16/10/1987		CONVERTED TO COMPUTER FOLIO	FOLIO CREATED CT NOT ISSUED
1/7/1994		AMENDMENT: LOCAL GOVT AREA	
26/5/2004	AA669585	DEPARTMENTAL DEALING	
20/10/2014	AI972525	TRANSFER WITHOUT MONETARY CONSIDERATION	EDITION 1
18/4/2024	AT992653	TRANSFER	
18/4/2024	AT992654	MORTGAGE	EDITION 2

*** END OF SEARCH ***

Form: 01TWC
Release: 4·1

TRANSFER

without monetary considerati

New South Wales
Real Property Act 1900

AI972525K

PRIVACY NOTE: Section 31B of the Real Property Act 1900 (RP Act) authorises the Regist by this form for the establishment and maintenance of the Real Property Act Re... the Register is made available to any person for search upon payment of a fee, if any.

STAMP DUTY Office of State Revenue use only

NEW SOUTH WALES DUTY
09-09-2014 0007649787-001
SECTION 54(3)
DUTY $ **********50.00

(A) **TORRENS TITLE** volume 13473 folio 152

(B) **LODGED BY**

Document Collection Box	Name, Address or DX, Telephone, and Customer Account Number if any	CODES
1W	REED & CO 2 FIRST STREET BOOKAGUL NSW 2284 PH. 02 49585729 Reference: MFR/STANSFIELD	TZ

(C) **TRANSFEROR** Hume Nominee Company Pty Limited A.C.N. 001217581

(D) **CONSIDERATION** Pursuant to deed appointing new trustee

(E) **ESTATE** and as regards the above land transfers to the transferee an estate in fee simple

(F) **SHARE TRANSFERRED** the whole

(G) Encumbrances (if applicable):

(H) **TRANSFEREE** Big Wok Pty Ltd A.C.N. 002320907

(I) **TENANCY:**

DATE 9 SEPTEMBER 2014

(J) Certified correct for the purposes of the Real Property Act 1900 and executed on behalf of the company named below by the authorised person(s) whose signature(s) appear(s) below pursuant to the authority specified.

Company: Hume Nominee Company Pty Limited A.C.N. 001217581
Authority: section 127 of the Corporations Act 2001

Signature of authorised person: X
Name of authorised person: Malcolm Geoffrey Glasson
Office held: Director

Signature of authorised person: X
Name of authorised person: Paul Horton Twohill
Office held: Director

Certified correct for the purposes of the Real Property Act 1900 on behalf of the transferee by the person whose signature appears below.

Signature:

Signatory's name: Maxwell Frank Reed
Signatory's capacity: solicitor

(K) The transferee's solicitor certifies that the eNOS data relevant to this dealing has been submitted and stored under eNOS ID No. 687548 Full name: Maxwell Frank Reed Signature:

* *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

1303

NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: 4/255064

SEARCH DATE	TIME	EDITION NO	DATE
10/10/2024	11:13 AM	2	18/4/2024

LAND

LOT 4 IN DEPOSITED PLAN 255064
AT YASS
LOCAL GOVERNMENT AREA YASS VALLEY
PARISH OF YASS COUNTY OF KING
TITLE DIAGRAM DP255064

FIRST SCHEDULE

WARWICK FARM INVESTMENTS PTY LTD (T AT992653)

SECOND SCHEDULE (7 NOTIFICATIONS)

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1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
2 DP255064 EASEMENT FOR ACCESS CREATED BY NOTIFICATION IN GOV GAZ 22.12.1939 FOL 5897 AFFECTING THE SITE DESIGNATED (B) IN THE TITLE DIAGRAM
3 DP255064 EASEMENT FOR WATER PIPELINE APPURTENANT TO THE PART OF THE LAND ABOVE DESCRIBED FORMERLY IN VOL 6976 FOL 47 AFFECTING THE SITE DESIGNATED (C) IN THE TITLE DIAGRAM
4 DP255064 EASEMENT TO DRAIN SEWAGE AFFECTING THE SITE DESIGNATED (D) IN THE TITLE DIAGRAM
5 DP255064 EASEMENT TO DRAIN SEWAGE AFFECTING THE SITE DESIGNATED (E) IN THE TITLE DIAGRAM
6 DP255064 RESTRICTION(S) ON THE USE OF LAND
7 AT992654 MORTGAGE TO NATIONAL AUSTRALIA BANK LIMITED

NOTATIONS

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

ABN: 36 092 724 251
Ph: 02 9099 7400
(Ph: 0412 199 304)

Level 14, 135 King Street, Sydney
Sydney 2000
GPO Box 4103 Sydney NSW 2001
DX 967 Sydney

Summary of Owners Report

Re: - 2 Reddall Street, Yass

Description: - Lot 4 D.P. 255064

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
	As regards the part tinted yellow on the attached Cadastral Records Enquiry Report.	
18.12.1924 (1924 to 1949)	Janet Alice Merriman (Married Woman)	Book 1370 No. 553
11.10.1949 (1949 to 1958)	Olive Barber (Married Woman)	Book 2149 No. 104
14.03.1958 (1958 to 1964)	John Alger Peet Wilson (Grazier)	Book 2438 No. 489
13.05.1964 (1964 to 1965)	Kenneth Raymond Hickey (Grazier)	Book 2700 No. 687
15.01.1965 (1965 to 1973)	Eber Laurence Cooke (Stock & Station Agent) Thelma Rosalea Cooke (Married Woman)	Book 2731 No. 565
13.09.1973 (1973 to 1978)	Anthony George Pty Limited	Book 3118 No. 392 Then Volume 12291 Folio 195 Now Volume 13473 Folio 152
	As regards the part tinted green on the attached Cadastral Records Enquiry Report.	
23.12.1924 (1924 to 1950)	Janet Alice Merriman (Married Woman)	Volume 2243 Folio 99
05.06.1950 (1950 to 1959)	Olive Barber (Married Woman)	Volume 2243 Folio 99 Now Volume 6976 Folio 47
06.03.1959 (1950 to 1964)	John Alger Peet Wilson (Grazier)	Volume 6976 Folio 47 Now Volume 7657 Folio 100
09.07.1964 (1964 to 1965)	Kenneth Raymond Hickey (Grazier)	Volume 7657 Folio 100
12.02.1965 (1965 to 1973)	Eber Laurence Cooke (Stock & Station Agent) Thelma Rosalea Cooke (Married Woman)	Volume 7657 Folio 100
13.09.1973 (1973 to 1978)	Anthony George Pty Limited	Volume 7657 Folio 100 Now Volume 13473 Folio 152
	Continued as regards the whole of the subject land	
27.01.1978 (1978 to	Hume Nominee Company Pty Limited	Volume 13473 Folio 152 Now 4/255064

Continued over.

ABN: 36 092 724 251
Ph: 02 9099 7400
(Ph: 0412 199 304)

Level 14, 135 King Street, Sydney
Sydney 2000
GPO Box 4103 Sydney NSW 2001
DX 967 Sydney

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
20.10.2014 (2014 to 2024)	Big Wok Pty Ltd	4/255064
18.04.2024 (2024 to date)	# Warwick Farm Investments Pty Ltd	4/255064

# Denotes Current Registered Proprietor

Leases: - NIL

Easements, excluding Cross Easements for Party Walls: -

- 22nd December 1939 Easement for Access 6.09 metres wide.
- 05.09.1977 (D.P. 255064) Easement to Drain Sewage designated "D"
- 05.09.1977 (D.P. 255064) Easement to Drain Sewage designated "E"

Yours Sincerely
Mark Groll
10 October 2024

Appendix F Site Walkover Photographic Log

Photograph 1 – View of Site access/entrance (from Reddall Street) to homestead, looking south towards Reddall Steet.

Date: 15/10/2024

Photograph 2 – View of the front of the homestead and tennis court to the right, looking north.

Date: 15/10/2024

Photograph 3 – View of the homestead, facing east, highlighting (newer) additions to the homestead on the left.

Date: 15/10/2024

Photograph 4 – View of the outhouse and pool connected to the homestead, facing north.

Date: 15/10/2024

Photograph 5 – View of rainwater tanks connected to homestead (facing east) and demolition waste (to the left).

Date: 15/10/2024

Photograph 6 – View of partially demolished Shed 1 (facing south-east) containing office and storage areas.

Date: 15/10/2024

Photograph 7 – View of partially demolished Shed 2 (facing north-west) containing potential animal shelter and storage.

Date: 15/10/2024

Photograph 8 – Construction & Demolition waste atop stockpile/filled in central portion of the Site, facing east.

Date: 15/10/2024

Photograph 9 – Construction and Demolition (C&D) waste (corrugated iron) atop stockpile/filled area in central portion of the Site, facing west.

Date: 15/10/2024

Photograph 10 – Looking north-east across the central portion of the Site with C&D waste atop stockpile/filled areas and stacks of pallets.

Date: 15/10/2024

Photograph 11 – A partially demolished fuel tank atop of stockpiled C&D waste in central portion of the Site, facing south-west.

Date: 15/10/2024

Photograph 12 – Remnant farm equipment located northeast of the homestead (facing south-east).

Date: 15/10/2024

Photograph 13 – Remnant farm equipment, located north of Shed 1 (in background), facing south.

Date: 15/10/2024

Photograph 14 – Remnant concrete cattle trough located northeast of the homestead and structures (facing east). Note PVC piping in right of photograph.

Date: 15/10/2024

Photograph 15 – View of bare area associated with past equipment set down (facing west) located approximately 100 m north of the homestead.

Date: 15/10/2024

Photograph 16 – View of a stockpile (burn pile) located approximately 50 m west of the homestead (looking southeast), containing vegetation and C&D waste.

Date: 15/10/24

Photograph 17 – View of stockpiles and burn/burial site located in the back paddock north-west of the homestead, facing south-west.

Date: 15/10/2024

Photograph 18 – Electrical insulators and ceramic parts located within the stockpile and burn/burial site in the back paddock.

Date: 15/10/24

Photograph 19 – Brick and tile fragments in hummocky ground area, approximately 85 m northwest of homestead, with gaskets and engine parts also observed at surface.

Date: 15/10/24

Photograph 20 – Concrete and brick fragments in hummocky ground area, approximately 85 m northwest of homestead.

Date: 15/10/24

Photograph 21 – View of northern concrete riser and lid (1 of 2) located between hummocky area and western dam.

Date: 15/10/2024

Photograph 22 – View of southern concrete riser and lid (2 of 2) located between hummocky area and western dam.

Date: 15/10/2024

Photograph 23 – View of two concrete risers and lids and service valve (facing southeast), located 50 m east of western boundary.

Date: 15/10/2024

Photograph 24 – View of western dam, facing south-west with off-site commercial and industrial facilities in background.

Date: 15/10/2024

Photograph 25 – View of off-site (northern) dam, facing south-east.

Date: 15/10/2024

Photograph 26 – C&D waste located within back paddock atop slope, facing north-west.

Date: 15/10/2024

Photograph 27 – View of rail corridor running along western boundary of the Site, facing south-west.

Date: 15/10/2024