

Soukutsu Pty Ltd

Detailed Site Investigation

Proposed Development at:

1290 Greendale Road

Wallacia, NSW, 2745

Lot 1 DP776645

E20111-1


12th August 2020

Report Distribution

Detailed Site Investigation
 Address: 1290 Greendale Road, Wallacia, NSW, 2745
 GCA Report No.: E20111-1
 Date: 12th August 2020

Copies	Recipient/Custodian
1 Soft Copy (PDF) – Secured and issued by email	Soukutsu Pty Ltd
1 Original – Saved to GCA Archives	Secured and Saved by GCA on Register

Version	Prepared By	Reviewed By	Date Issue
Draft	Oskar Lamperts Graduate Environmental Scientist 	Nick Caltabiano Project Manager 	28 th July 2020
FINAL	Oskar Lamperts Graduate Environmental Scientist 	Nick Caltabiano Project Manager 	5 th August 2020
Revised	Oskar Lamperts Graduate Environmental Scientist 	Nick Caltabiano Project Manager 	12 th August 2020

Report Revision	Details	Report No.	Date	Amended By
0	FINAL Report	E20111-1	12 th August 2020	-
Issued By:			 Joe Nader	

Geotechnical Consultants Australia Pty Ltd

Suite 5, 5-7 Villiers Street
 Parramatta NSW 2151
 (02) 9788 2829
 www.geoconsultants.com.au
 info@geoconsultants.com.au

© Geotechnical Consultants Australia Pty Ltd

This report may only be reproduced or reissued in electronic or hard copy format by its rightful custodians listed above, with written permission by GCA. This report is protected by copyright law.

EXECUTIVE SUMMARY

Geotechnical Consultants Australia Pty Ltd (GCA) were commissioned by Soukutsu Pty Ltd (the client) to undertake a Detailed Site Investigation (DSI) for the property located at No. 1290 Greendale Road, Wallacia, NSW, 2745 (the site).

Location of the sampling conducted can be seen in **Appendix A** of this report. GCA understands that the proposed development includes demolition of the existing infrastructure onsite, followed by the construction of a cemetery. This cemetery will include a chapel, crematorium, cremation walls, mausoleum, footpaths, tombs, vaults, in-ground burial plots and a number of memorial structures. The proposed plans can be found in the PSI report carried out previously for this site, which is located in **Appendix D**.

The objectives of this DSI were to provide an assessment of potential contaminating activities that may have impacted the site. Hence, this report will include the following:

- Review of previous environmental, architectural and/or engineering reports previously prepared for the site;
- Investigate the site through desktop research and a site inspection;
- Implement a soil investigation program in accordance with the NSW Environment Protection Authority (NSW EPA) *Sampling design Guidelines (1995)* to investigate the degree of contamination (if present). This will be conducted by means of intrusive soil sampling, water sampling and laboratory analysis on relevant contaminants: Total Recoverable Hydrocarbons (TRH), Benzene Toluene Ethylbenzene Xylenes (BTEX), Organochlorine Pesticides (OCPs), Organophosphorus Pesticides (OPPs), Polycyclic Aromatic Hydrocarbons (PAHs), heavy metals, PSBs, Fertilizers, Herbicide and VOCs;
- Implement standard Quality Assurance (QA) and Quality Control (QC) which will be conducted by collecting blind duplicate samples;
- Laboratory analysis of samples collected from the site by a National Association of Testing Authorities, Australia (NATA) accredited laboratory;
- Assessment of laboratory analytical data; and
- Provide an assessment of site contamination and recommendations for remediation and/or management.

A site inspection was conducted on the 24th July 2020. GCA found that the property at No. 1290 Greendale Road, Wallacia, NSW, 2745 is an agricultural site featuring a steady downward gradient, sloping towards the southwest. The site features a residential dwelling in the northeast corner of the property, which appears to be composed largely of gyprock, though inspection of the dwelling itself was not undertaken. In close proximity to the house are a small brick fire pit, and an open shed, composed of corrugated steel. The shed houses two above-ground storage tanks (ASTs) which are no longer used, but which were used for fuel storage in the past. Two soil piles were also found in the vicinity of this shed, with one consisting of sand and the other consisting of organic-rich topsoil. An area nearby the shed appears to be used for vehicles to park as it is relatively level, this area is made up of imported fill material identified by digging test pit 'TP6'.

The property also contains a dairy shed and a number of silos. These structures are located south-west of the residential dwelling and are accessed by a separate driveway to Greendale Road. Sampling was conducted at these two areas of the property and a large difference in stratigraphic structure was encountered. In the vicinity of the residential dwelling, which is located near the highest point of the property, the majority of soil encountered was landscaped fill material (organic soil with sandstone boulders in some locations) or virgin organic soil, which became increasingly clay-dominant with depth.

In the vicinity of the dairy shed and silos, the site's underlying stratigraphy consisted of shale (encountered 0.2m bgl) and silt-dominant virgin soil.

Five (5) boreholes were drilled on the low-lying level farm lands found to the east of the Nepean River.

The site contains two dams, and is intersected by Duncan Creek, which was dry at the time of inspection. At the western border of the property, the Nepean River, with its associated bench structures and riparian vegetation was found. Water samples were taken from both dams, as well as a groundwater monitoring well located near the dairy shed.

During the site inspection, a soil investigation program was undertaken with a judgemental approach in accessing locations across the site to identify areas of contamination. Sampling locations were completed based on the preliminary site investigation undertaken by Trace Environmental. Soil samples were submitted to a NATA accredited laboratory for analysis of Chemicals of Potential Concern (COPC) which may have impacted the site during historical or present activities.

Soil sampling and analysis were conducted at 5 bore holes, 15 test pits with twenty-seven (27) soil samples submitted including two (2) field duplicate samples. The soil sampling regime was the most appropriate for this detailed site investigation as it provides a focus on potential contamination sources, and it allows consultants to overcome structural boundaries (building walls and physical obstructions). Soil sampling from the test pits involved scraping from the freshly cut cross section from approximately 0.1m bgl to the maximum pit depth and put into a jar as one sample from that location. The sub surface layers of the site are composed of Cainozoic strata, as well as sediments from the Wianamatta Group.

Three water samples were also taken onsite, one from a groundwater monitoring well previously installed during a historical Geotechnical investigation onsite, and the two dams found on the property. The samples taken were submitted to a NATA accredited laboratory for analysis of Chemicals of Potential Concern (COPC) which may have impacted the site during historical or present activities outlined within the PSI.

In summary, the laboratory results indicate that the proposed developed will be viable within the subject site as tested samples contain negligible amounts of COPC. GCA are satisfied that the site can be made suitable providing the recommendations within **Section 10** are implemented.

LIST OF ABBREVIATIONS

A list of the common abbreviations used throughout this report is provided below.

ACM - Asbestos Containing Material
AEC - Area of Environmental Concern
AGST - Above Ground Storage Tank
AHD - Australian Height Datum
BGS - Below ground surface
CSM - Conceptual site model
BTEX - Benzene, toluene, ethylbenzene and xylenes
B(a)P - Benzo(a)pyrene
CCA - Copper Chromate Arsenate
COC - Contaminants of Concern
DEC - NSW Department of Environment and Conservation
DECCW - NSW Department of Environment, Climate Change and Water DQI - Data quality indicator
DQOs - Data Quality Objectives
DWE - NSW Department of Water and Energy
EPA - NSW Environment Protection Authority
ESA - Environmental Site Assessment
ha - Hectare
HIL - Health based investigation level
LOR - Limit of Reporting
OEH - Office of Environment and Heritage
PAHs - Polycyclic aromatic hydrocarbons
PID - Photo-ionisation Detector
PCB - Polychlorinated Biphenyl
PQL - Practical Quantitation Limit
QA/QC - Quality Assurance/Quality Control
RPD - Relative Percentage Difference
SAQP - Sampling, Analysis and Quality Plan
TRH - Total Recoverable Hydrocarbons (previously Total Petroleum Hydrocarbons)
TSS - Total Suspended Solids
UST - Underground Storage Tank
VOC - Volatile Organic Compound

TABLE OF CONTENTS

1. INTRODUCTION	7
1.1 BACKGROUND AND PURPOSE	7
1.2 PROPOSED DEVELOPMENT	7
1.3 REGULATORY FRAMEWORK	7
1.4 PROJECT OBJECTIVES	7
1.5 SCOPE OF WORKS	8
2. SITE INFORMATION	9
2.1 SITE IDENTIFICATION	9
2.2 SITE DESCRIPTION	9
2.3 SURROUNDING LAND USE	10
2.4 SURFACE WATER RECEPTORS	10
2.5 GEOLOGY	10
2.6 SITE HISTORY	11
2.6.1 HISTORY OF REGION	11
2.6.2 SECTION 10.7 (2) PLANNING CERTIFICATE	11
• No matters arising under the Contaminated Land Management Act 1997 apply to the land. ..	12
2.6.3 NSW EPA CONTAMINATED LAND REGISTER	12
2.6.4 PROTECTION OF THE ENVIRONMENT OPERATIONS ACT (POEO) PUBLIC REGISTER	12
2.6.5 SAFEWORK NSW HAZADROUS GOODS	12
2.6.6 PRODUCT SPILL AND LOSS HISTORY	12
2.6.7 DIAL BEFORE YOU DIG	12
3. PREVIOUS INVESTIGATIONS	13
4. CONCEPTUAL SITE MODEL	13
4.1 POTENTIAL CONTAMINATION	13
4.2 CONTAMINATION SOURCES, EXPOSURE PATHWAYS & RECEPTORS	13
4.3 SITE CHARACTERISATION	15
4.3.1 POTENTIAL MIGRATION	16
4.4 DATA GAPS	17
5. DATA QUALITY OBJECTIVES	17
6. INVESTIGATION METHODOLOGIES	18
6.1 SAMPLING ANALYSIS PLAN	18
6.2 SOIL SAMPLING METHODOLOGY	18
6.3 QUALITY ASSURANCE	22
7. ASSESSMENT CRITERIA	22
8. INVESTIGATION RESULTS	23
8.1 SOIL ANALYTICAL RESULTS	23

8.2 WATER ANALYTICAL RESULTS	31
9. CONCLUSIONS	32
10. RECOMMENDATIONS	32
11. LIMITATIONS	34
12. REFERENCES.....	35

APPENDICES

Appendix A – Figures and Photo Log

Appendix B – Laboratory Results (NATA)

Appendix C –Property Report

Appendix D – TRACE Environmental PSI Report

1. INTRODUCTION

1.1 BACKGROUND AND PURPOSE

Geotechnical Consultants Australia Pty Ltd (GCA) were commissioned by Soukutsu Pty Ltd (the client) to undertake a Detailed Site Investigation (DSI) for the property located at No. 1290 Greendale Road, Wallacia, NSW, 2745.

Location of the sampling conducted can be seen in **Appendix A** of this report.

As shown in **Figure 1**, the site is located approximately 53.71km west of the Sydney Central Business District (CBD), within the Local Government Area of Liverpool City Council. The site covers an approximate area of 738129m² (as shown in the site survey plan, **Appendix D**), and is identified as Lot 1 DP776645. The site is zoned as a RU1- Primary Production.

A Preliminary Site Investigation (PSI) (Project Number: 99.72) dated 14th July 2020 was conducted and completed by Trace Environmental, GCA have relied on the findings within the PSI report (see **Appendix D**) for the scope and desired outcomes of this DSI.

This report is provided in support of a Development Application (DA) to the Liverpool City Council and for the purpose of enabling the developer to meet its obligations under the *Contaminated Land Management Act 1997* (CLM Act), for the assessment and management of contaminated soil and/or groundwater.

1.2 PROPOSED DEVELOPMENT

GCA understands that the proposed development includes demolition of the existing infrastructure onsite, followed by the construction of a cemetery. This cemetery will include a chapel, crematorium, cremation walls, mausoleum, footpaths, tombs, vaults, in-ground burial plots and a number of memorial structures.

1.3 REGULATORY FRAMEWORK

The following regulatory framework and guidelines were considered during the preparation of this report:

- ANZECC & ARMCANZ (2000) Australian and New Zealand Guidelines for Fresh and Marine Water Quality;
- DEC (2007) Guidelines for the Assessment and Management of Groundwater Contamination;
- NSW EPA (1995) Sampling Design Guidelines;
- NEPC (2013) Schedule B (1) Guideline on Investigation Levels for Soil and Groundwater;
- NEPC (2013) Schedule B (2) Guideline on Site Characterisation;
- Contaminated Land Management Act 1997;
- State Environment Protection Policy 55 (SEPP 55) – Remediation of Land; and
- Office of Environment and Heritage (2011) Guidelines for Consultants Reporting on Contaminated Sites.

1.4 PROJECT OBJECTIVES

The objectives of this DSI were to provide an assessment of potential contaminating activities that may have impacted the site. Hence, this report will include the following:

- Discussion of the site condition through a desktop review of neighbouring properties and ecological receptors;

- Review of available environmental, architectural and/or engineering reports previously prepared for the site, including a Preliminary Site Investigation (PSI) (Project Number: 99.72) dated 14th July 2020 was conducted and completed by Trace Environmental. This report provided an assessment for the potential of current and historical contaminating activities to have impacted the site.
- Conduct a site inspection to establish a thorough understanding of the current site condition;
- Implement a soil investigation program in accordance with the NSW Environment Protection Authority (NSW EPA) *Sampling design Guidelines (1995)* to investigate the degree of contamination (if present). This will be conducted by means of intrusive soil sampling, water sampling and laboratory analysis on relevant contaminants: Total Recoverable Hydrocarbons (TRH), Benzene Toluene Ethylbenzene Xylenes (BTEX), Organochlorine Pesticides (OCPs), Organophosphorus Pesticides (OPPs), Polycyclic Aromatic Hydrocarbons (PAHs), PCB, Phenols heavy metals, Fertilizers, Herbicide and VOCs;
- Implement standard Quality Assurance (QA) and Quality Control (QC) which will be conducted by collecting blind duplicate samples;
- Laboratory analysis of samples collected from the site by a National Association of Testing Authorities, Australia (NATA) accredited laboratory;
- Assessment of laboratory analytical data;
- Provide advice on suitability of land for its proposed residential land-use; and
- Provide an assessment of site contamination and recommendations for remediation and/or management.

1.5 SCOPE OF WORKS

To achieve the above listed project objectives, the following scope of works were undertaken to produce this DSI.

1.5.1 Desktop Study

Review of available environmental, architectural and/or engineering reports. Conduct the following:

- Historical investigations relating to the site (if any);
 - Preliminary Site Investigation (PSI) (Project Number: 99.72) dated 14th July 2020 was conducted and completed by Trace Environmental.
- Current and Historical Certificates of Title;
- Local Council records and planning certificates;
- NSW Environment Protection Authority (EPA) environmental contaminated lands register;
- Protection of the Environment Operations (POEO) Act public register;
- Dial-Before-You-Dig enquiry for an evaluation into local underground services and assets;
- Review of local geological and hydrogeological information, including an evaluation of the WaterNSW registered groundwater bore database; and
- Acid Sulphate Soils (ASS) data maps.

1.5.2 Fieldwork & Laboratory Analysis

A site inspection, water and soil investigation program were undertaken on the 24th July 2020 which included:

- Fifteen (15) pits were dug across the site (Pit 1 to Pit 15 inclusive), and five boreholes were drilled near the site's western boundary, in the vicinity of the Nepean River (BH1 to BH5 inclusive). Pits were dug around the previously identified Areas of Environmental Concern i.e Sheds and House. Boreholes were strategically placed along the low lying land parallel to the Nepean River to identify areas of contamination.

- Multiple level soil sampling within fill and natural soils was conducted. Twenty-seven (27) soil samples (Pit 1 to BH5.2 inclusive) were collected including two (2) blind duplicate samples (D1 - Duplicate of BH4.2, D2 – Duplicate of BH5.2). The collected samples were submitted to a NATA accredited laboratory for analysis of Chemicals of Potential Concern (COPC).

1.5.3 Data Analysis and Reporting

The preparation of this DSI report will also document desktop study findings, a Conceptual Site Model (CSM), data quality objectives, investigation methodologies and analytical results. In addition, a discussion of laboratory analytical results and recommendations for remediation of contamination are presented.

2. SITE INFORMATION

2.1 SITE IDENTIFICATION

The location of the site is shown in **Figure 1** with a detailed site plan shown in **Figure 2**.

Table 1: Site Details

Address	1290 Greendale Road, Wallacia, NSW, 2179
Deposited plan	Lot 1 DP776645
Locality map	Figure 1
Site plan	Figure 2
Site photographs	Appendix A
Area	738,129m ²

2.2 SITE DESCRIPTION

A qualified environmental consultant inspected the site on 24th July 2020. Site photographs are provided in **Appendix A**. Observations noted during the inspection are summarised below.

- The site is largely vacant, featuring long grass and steep terrain, with the ridge line following Greendale road. The land drops down with a dramatic change in elevation down toward the flat low lying areas where crops were being sowed and border with Nepean River.
- There is a residential dwelling in the north-eastern corner of the property.
- There is a large corrugated steel shed located approximately 20 metres west of the residential dwelling, which houses two disused ASTs, farming equipment storage.
- To the North West of this shed within 20m is a flat stopping bay for vehicles, TP6 taken within this area confirmed that parts of the area had been raised and levelled using imported fill material, bricks and plastic pipes were identified.
- There is a dairy shed and multiple silos beside the central eastern border of the property.
- The site is divided into a number of paddocks which are used for agricultural purposes, including growing crops and grazing cattle.
- The terrain is uneven, with the site containing many ridges and raised sections across its extent. The general slope of the site features a decrease in gradient towards the west, culminating at the Nepean River.
- Two groundwater monitoring wells were found at the property, one near the house and the other near the silos. The well near the house was dry and could not be sampled, however the other contained water, which was sampled and has been tested for COPC, referred to as 'Well 1'.
- There are two dams on the property. The southernmost dam (Dam 2) was found to be full of a bright green algae. The northernmost dam (Dam 1) was filled with murky, brown water. Both dams were sampled and tested for COPC.

- There is a dirt track leading from the north-eastern entrance of the property, over Duncan Creek and leading to the Nepean River.
- The Nepean River featured three discernible bench formations, composed largely of sand and organic-rich soil.
- Duncan Creek was dry at the time of inspection, and was found to have healthy riparian vegetation along its banks.

2.3 SURROUNDING LAND USE

A site inspection was conducted on the 24th July 2020. GCA found that the property at No. 1290 Greendale Road, Wallacia, NSW, 2179 is an agricultural site featuring a steady downward gradient, sloping towards the southwest. The site features a residential dwelling in the northeast corner of the property, which appears to be composed largely of gyprock, though inspection of the dwelling itself was not undertaken. In close proximity to the house are a small brick fire pit, and an open shed, composed of corrugated steel. There is a dairy shed and number of silos near the central eastern border of the site. Duncan's Creek runs through the site and the Nepean River runs along the site's western border.

The surrounding areas of the site include residential dwellings and large vacant lots. There are no businesses or commercial infrastructure within 500 metres of the site at this time. The closest water body is Duncan Creek, running through the property. At the time of inspection it was found to be dry, and the closest running water body is the Nepean River, running along the western border of the site. The land use proximal to the site is described in **Table 2**.

Table 2: Surrounding Land Use adjacent to the Site of Interest

Direction from Site	Land Use
North	Agricultural land
East	Greendale Road, followed by agricultural land
South	Agricultural land
West	Agricultural land

2.4 SURFACE WATER RECEPTORS

Based on regional topography and the onsite surface water channels, groundwater is expected to flow to the west the west, towards Duncan Creek and ultimately Nepean River.

A groundwater bore search was conducted on 29th July 2020 and no sites were present within a 500m radius of the site.

2.5 GEOLOGY

As stated in the PSI prepared by TRACE environmental for this site, the geological layers underlying this site include shale, carbonaceous claystone, claystone, laminate, fine to medium-grained lithic sandstone, with rare coal and tuff of the Middle Triassic Bringelly Shale unit of the Wianamatta group. The majority of the Bringelly Shale on-site is overlain by Quaternary fine-grained sand, silt and clay.

The Geological Map of Penrith (Geological Series Sheet 9131 and Part Sheet 9231, Scale 1:100,000, Edition 1, 2015) published by the Department of Minerals and Energy indicates that the geology within the site also includes the following sediments:

- Qal: Fine-grained sand, silt and clay.
- Rwa: Dark-grey to black claystone-siltstone and fine sandstone-siltstone laminate.

The following table depicts the description of the soils encountered during field sampling carried out on 24th July 2020. Based on information from the test pits, the soil profile across the site is generalised as followed:

Topsoil	Organic rich silt. Brown appearance and small grain size.
Natural landscaped Fill	Organic rich silt, sandstone boulders in some areas
Uncontrolled Fill (TP6)	Loose soft dark topsoil with rock ranging in size from 100-300mm, bricks, plastic pipe and concrete.
Natural Soil	Silt dominated organic layer, becoming increasingly clay rich with depth
Bedrock	Grey Shale

2.6 SITE HISTORY

2.6.1 HISTORY OF REGION

A brief review of the history of the region is contained below. A documentary review of the owners of the site is summarised within **Table 3**.

- 1897: Wallace School is built in the Wallacia area.
- 1905: The house owned by Robert Wallace in Wallacia is officially declared Boondah Post Office.
- 1906: The area is officially named Wallacia, after Robert Wallace.
- 1912: Wallacia Weir is built.
- 1937: Wallacia Hotel is opened.

Table 3: Land Ownership History of Lot 1 DP776645

Year	Proprietor (s)
	(Lot 1 DP776645)
2018 to Present	Soukutsu Pty Ltd
2000 to 2018	Paul Galea Mary Galea
1979 to 2000	Thelma May Robinson (Home Duties) Now Thelma May Verran
1971 to 1979	Dennis Edwynne Robinson (Billiard Room Proprietor)
1952 to 1971	Leslie King Wines
22.08.1952	Surrender to the Crown
1928 to 1952	Greendale Limited

2.6.2 SECTION 10.7 (2) PLANNING CERTIFICATE

A Section 10.7 Planning Certificate describes how a property may be used and the restrictions on development. The Planning Certificate is issued under Section 149 of the Environmental Planning and Assessment Act 1979. The Planning Certificate is contained within the PSI created by TRACE Environmental. It is located in Appendix E of the PSI, which is located in **Appendix D** of this report. The following information has been provided:

- The Land Use Zone is RU1- Primary Production;
- The land does not include or comprise a critical habitat, is not within a conservation area and does not contain an item of environmental heritage;
- The land is not affected by 38 or 39 of the Coastal Protection Act, 1979;
- The land is not proclaimed to be a mine subsidence district within the meaning of section 15 of the Mine Subsidence Compensation Act 1961;
- The land is not affected by any road widening or road realignment under Division 2 of Part 3 of the Roads Act 1993, an Environmental Planning Instrument (EPI) or a resolution of Council;
- The land is subjected to followed hazard/risk policies that have been adopted by Liverpool City Council:
 - Bushfire Hazard (Liverpool Development Control Policy (DCP) 2008 and Planning for Bushfire Protection, Rural Fire Services 2006);
 - Potentially Contaminated Land (Liverpool Development Control Policy (DCP) 2008); and
 - Potentially Saline Soils (Liverpool DCP 2008)
- Development on the land is subject to flood related development controls;
- The land, or part of the land, is biodiversity certified land (within the meaning of Part 8 of the Biodiversity Act 2016);
- Part of the land is bushfire prone land; and
- No matters arising under the Contaminated Land Management Act 1997 apply to the land.

2.6.3 NSW EPA CONTAMINATED LAND REGISTER

A search within the NSW EPA contaminated land register was undertaken for the subject site. No results were found for this site or any other address in the suburb of Wallacia.

2.6.4 PROTECTION OF THE ENVIRONMENT OPERATIONS ACT (POEO) PUBLIC REGISTER

A search on the POEO public register of licensed and delicensed premises (DECC) found that there are no currently active or historical licences within a 500 metre radius of this location.

2.6.5 SAFEWORK NSW HAZARDOUS GOODS

A search was not undertaken with NSW WorkSafe for historical dangerous goods stored onsite due to time constraints. However, based on the historical ownership and historical aerial photos of the site, no evidence of historical underground storage of Dangerous Goods were identified, some above ground storage tanks were identified.

2.6.6 PRODUCT SPILL AND LOSS HISTORY

The site inspection carried found no evidence to suggest chemical contaminated impact on the site (i.e. chemical staining, unhealthy vegetation). It is reasonable to assume there is no significant soil, surface water and/or groundwater contamination impacting the site. A soil sampling program was carried out in order to ascertain the accuracy of these observations.

2.6.7 DIAL BEFORE YOU DIG

A review of assets and services via Dial-Before-You-Dig request suggests no contamination is expected to impact the site via underground services and assets or act as a portal to transport potential contamination offsite.

3. PREVIOUS INVESTIGATIONS

A Preliminary Site Investigation (PSI) prepared by TRACE Environmental has been attached to this report in **Appendix D**, which was used to inform sections of this DSI.

4. CONCEPTUAL SITE MODEL

In accordance with NEPM (2013) Schedule B2 – Guideline on Site Characterisation, and to aid in the assessment of data collection for the site, a CSM was created to assess the plausible pollutant linkages between potential contamination sources, migration pathways and receptors. The CSM provides a framework for the review of the reliability and useability of the data collected and to identify data gaps in the existing site characterisation. The CSM can be seen in **Table 4** in **Section 4.2**.

4.1 POTENTIAL CONTAMINATION

The COPC at the site are considered to be:

Petroleum hydrocarbon contamination:

- TRH.
- BTEX.
- PAHs.
- Phenols.
- VOCs.

Historical Farming land use:

- PCB.
- OCPs.
- OPPs.
- Fertilizers.
- Herbicides.
- Heavy Metals.

Onsite buildings, fill material and storage:

- Asbestos

4.2 CONTAMINATION SOURCES, EXPOSURE PATHWAYS & RECEPTORS

Potential contamination sources, exposure pathways and human and environmental receptors that were considered relevant for this assessment are summarised along with a qualitative assessment of the potential risks posed by complete exposure pathways in **Table 4**.

Table 4: Conceptual Site Model

Potential Sources	Potential Receptor	Potential Exposure Pathway	Complete Connection	Risk	Justification
Contaminated soil from importation of uncontrolled fill across the site. ACM Spraying of Chemicals associated with historical farming.	Site occupants, workers, general public	Dermal contact, inhalation/ingestion of particulates	Limited (current)	Low	Direct contact with potentially contaminated soils is limited.
			No (future)	Negligible	If present, impacted soils are likely to be disposed of off-site.
	Duncan's Creek Nepean River	Migration of impacted groundwater and surface water run-off.	Limited (current)	Low	No obvious sources of inorganic contamination were observed on site that could migrate offsite with surface water runoff.
			No (future)	Negligible	If present, contaminated soils and groundwater are likely to be remediated.
	Underlying aquifer	Leaching and migration of contaminants through groundwater infiltration.	Limited (current)	Medium	Due to existing unsealed surfaces and a mixture of shallow and deep bedrock location, contaminants at the surface of the site are likely to leach into the soils below.
			No (future)	Low	If present, contaminated soil and/or groundwater is likely to be remediated.

4.3 SITE CHARACTERISATION

The PSI conducted by Trace Environmental has listed some potential contaminant sources that were identified and were investigated during this DSI. The areas of environmental concerns, details of concerns and potential contaminants of concerns are listed within **Table 5**.

Table 5: The table depicts the areas of environmental concern, rationale and potential contaminants of concern.

AEC (areas of environmental concern)	Rationale / Details	Potential Contaminants of Concern*
Potential imported fill materials associated with the north-eastern section of the site, which is the highest point in altitude across the property.	<ul style="list-style-type: none"> - Imported fill materials may contain asbestos and other contaminants - Degradation of metal features. - Possible pest control activities in the vicinity of the house and shed. 	Heavy Metals, OCP/OPP and asbestos.
Potential pesticides associated with the current and historical use of the site for agricultural purposes.	<ul style="list-style-type: none"> - Potential harmful OCP/OPP contaminated to run into groundwater and contaminate other areas. 	OCP, OPP and Heavy Metals.
Two fuel tanks. Used to store fuel historically, but are now decommissioned.	<ul style="list-style-type: none"> - Fuel storage may contain fuel which could seep within the groundwater of the site causing damage to other areas. 	TRH, PAH, BTEX and Heavy Metals
Onsite septic system.	<ul style="list-style-type: none"> - Old septic tanks, if not monitored and assessed can cause diseases to form and spread into water ways. 	<ul style="list-style-type: none"> - salmonellosis. - trachoma. - gastroenteritis. - hepatitis A. - parasite caused diseases.
Potential lead – based paint and / or asbestos containing material (ACM) in on – site structures	<ul style="list-style-type: none"> - Asbestos and other hazardous materials may be present within the structural dwellings. 	Asbestos, Lead, Synthetic Mineral Fibre (SMF), Polychlorinated Biphenyls (PCBs) and Ozone Depleting Chemicals (ODP).

*The suite of potential contaminants identified should be reviewed subject to the findings of inspection of the footprints after removal offsite.

Based on the potential mobility of contaminants and their associated potential leachability through soil/fill profile, vertical migration of contaminants from the surface soils and fill material into the underlying natural soils may have occurred. As a result, the natural soils are also considered to be potentially contaminated media. Given the relatively impermeable nature of the natural residual soil beneath the site, groundwater underlying the site is considered to have low potential to be impacted.

4.3.1 POTENTIAL MIGRATION

Contaminants generally migrate from a site via a combination of windblown dust, rainwater infiltration, groundwater migration and surface water run-off. The potential for contaminants to migrate is a combination of:

- The nature of the contaminants (solid / liquid and mobility characteristics)
- The extent of the contaminants (isolated or widespread)
- The location of the contaminants (surface soils or at depths)
- The site topography, geology hydrology and hydrogeology

Off-site impacts of contaminants in soil are generally governed by the transport media available and likely receptors. The most common transport medium is water, whilst receptors include initially uncontaminated soils, groundwater, surface water bodies, humans, flora and fauna.

The potential contaminants identified as part of the site history review, site inspection and field sampling were generally in a solid form (e.g. metals, OCP and asbestos, etc.)

The site is grass and tree covered or sealed by hardstands (house and sheds) across the majority of the surface. The potential for migration of contaminants via wind-blown dust is considered low as a result of the exposed soils within the site. The potential for migration of contamination via surface run-off is also expected to be minor. Some migration of contaminants via surface water may still occur in the event of heavy rain. Surface run-off would generally follow the topography and the creek/drainage line; flowing from the north-eastern section of the site, down gradient to the west.

Migration of soil contaminants to the deeper soils or groundwater regime would generally be via leaching of contaminants from the surface soil or fill, facilitated by infiltration of surface water. Given that the naturally occurring soils beneath the site are relatively impermeable (refer to Section 2.5 for the regional geology information) the potential for recent and ongoing migration of contaminants from the site to groundwater table below is considered low. Furthermore, the relatively impermeable clay would have minimised the potential for contaminants in the past to migrate to deeper soils or the groundwater. It is considered unlikely that the ground water regime beneath the site has been impacted by the contaminants in the soils.

Sensitive receptors at the site under the current site conditions and in the immediate vicinity are considered to include site residents, visitors and ecosystems within the water ways of Duncan's Creek and Nepean river, workers within the site who may come into contact with potentially contaminated media within the site.

4.4 DATA GAPS

GCA identified the following Data Gaps;

- Extent of Hazardous Material within onsite building structures.
- Assessment beneath current onsite buildings, hardstands and septic tank
- Extent of imported fill material identified at location TP6.

5. DATA QUALITY OBJECTIVES

In accordance with the US EPA (2006) Data Quality Assessment and the DEC (2006) Guidelines for the NSW Site Auditor Scheme, the process of developing Data Quality Objectives (DQO) was used to determine the appropriate level of data quality needed for the specific data requirements of the project. The DQO process that was applied for this assessment is documented below.

- **Step 1:** State the problem.
The subject site may be contaminated as a result of previous and current land use which may impact suitability of the site for use as a cemetery.
- **Step 2:** Identify the decision.
The site is suitable for proposed land use without the requirement for remediation and/or management.
- **Step 3:** Identify inputs into the decision.
 - Identification of issues of potential environmental concern;
 - Appropriate identification of COPC;
 - Systematic soil sampling and analysis programs of shallow soil across the site
 - Water sampling of hydrological features of the site.
 - Visual inspection of systematic shallow soil samples for presence of ACM;
 - Appropriate quality assurance / control to enable an evaluation of the reliability of the analytical data; and
 - Screening sample analytical results against appropriate assessment criteria for the intended land use.
- **Step 4:** Define the boundaries of the site. The project boundary is defined as the area within extent of the site.
- **Step 5:** Develop a decision rule.
 - To accept the assessment decision the following decision rules apply:
For judgemental based soil sampling the sampling data must meet the following qualifiers;
 - A single sample does not exceed the soil COPC assessment criteria;
 - The standard deviation of COPC analytical results is less than 50% of the soil assessment criteria; and
 - There is no visible identification of ACM in soil samples or on the ground surface.
- **Step 6:** Specify acceptable limits on decision errors.
 - The field sampling methodology, sample preservation techniques, and laboratory analytical procedures must be appropriate to provide confidence in data quality so any comparison against assessment criteria can be considered reliable. This is achieved by defining and comparing results against the Data Quality Indicators (DQIs).
- **Step 7:** Optimise the design for obtaining data.
This is achieved by sampling plan design in consideration of the available site history information, area of investigation, contaminant behaviour in the environment, and likely spatial distribution of contamination.

6. INVESTIGATION METHODOLOGIES

GCA conducted the onsite investigation and sampling program on the 24th of July 2020. Sample locations for the site are presented in **Figures 10, 11 & 12**. The investigation methodology is presented below.

6.1 SAMPLING ANALYSIS PLAN

To assess the potential for soil contamination within the targeted area, GCA completed the following scope of works:

- Collection of twenty-seven (27) soil samples including two (2) blind duplicate (D1 - Duplicate of BH4.2, D2 – Duplicate BH5.2) sample for quality analysis. The soil samples were collected from twenty (20) locations (Pit 1 to BH5 inclusive) at depths of approximately 0.2m to 1.2m. Refer to **Figures 10 & 11** for sample depths and locations;
- Collection of three (3) water samples from an onsite groundwater monitoring well and the two dams on the property.
- Visual inspection of the ground surface and excavated soil for asbestos and foreign material; and
- Submission of fifteen (15) soil samples (Pit 1 to Pit 15 inclusive) to a NATA accredited laboratory for analysis of COPC comprising TRH, BTEX, PAHs, PCB, Phenols, VOCs, OCPs, OPPS, heavy metals and asbestos. Pit 1, 10 and 12 to be also tested for pH and CEC.
- Submission of twelve (12) soil samples (BH1.1 to 5.2 inclusive) to a NATA accredited laboratory for analysis of COPC comprising of OCP/OPP, Fertilizers, Herbicides, TRH, BTEXN, PAH, PCB, Phenols, VOCs and Heavy Metals.
- Assessment of the 2 identified water monitoring wells onsite. Sampling of only one water monitoring well due to the other not producing water. Assessment of the two onsite dams, Duncans Creek and Nepean River. Sampling of the two onsite Dams, Duncans Creek was dry at the time of assessment.

6.2 SOIL SAMPLING METHODOLOGY

Boreholes BH1 to BH5 inclusive were completed using a hand auger to a depth of 0.8m below ground level (bgl), samples were taken at two depths from each hole either 0.3m and 0.6m or 0.8m. All pits (1 to 15 inclusive) were dug using an excavator, this allowed for visual inspection of the soil cross section. Soil was scraped from the freshly cut cross section from approximately 0.1-1.0m bgl and put into a jar as one sample from that location. The idea behind this was to include any potential fill layers as well as natural underlying clay. If there was any exceedance of the applicable assessment criteria, this location would be flagged as a hot spot for further future assessment. Traditional composite sampling within the field was decided against due to the low accuracy of detecting any volatiles due to the sampling process as well as the likely need to have multiple composite samples from each location and horizontal zone.

The twenty-seven (27) soil samples were collected directly from the hand auger or pit, placed in laboratory prepared 250mL soil jars, labelled and placed on ice in an esky for transport under Chain of Custody (COC) to a NATA accredited laboratory for the analysis of the COPC.

The test pits 1 – 15 were assessed for a suite of;

- Asbestos, TRH, BTEXN, PAH, PCBs, Phenols, VOCs, Heavy Metals and OCP/OPP

This suite was based off the recommended suite suggested within the PSI, and as these samples were the focus of contamination.

Bore holes 1 to 5 were assessed for;

- OCP/OPP, Fertilizers, Herbicides and Heavy Metals

This suite was based off the on-site conditions and suggested suite within the PSI. The onsite conditions suggest natural low-lying soils with current and historical farming.

Subsurface conditions across the site as observed during borehole excavations are summarised in **Table 6**. Borehole and pit locations are referenced in **Figures 10 to 12**.

Table 6: Borehole Logs

Borehole	Depth Range (m)	Description	Moisture	Density	Plasticity
Pit 1	0.0 - 0.7	Clayey-silt, light brown and mottled orange red, trace of grey shale, trace of root fibres	Low	Loose	Low
Pit 2	0.0 - 0.2	Clayey-silt, light brown and mottled orange red, trace of grey shale, trace of root fibres. Shale bedrock encountered	Low	Loose	Low
Pit 3	0.0 - 1.3	Clayey-silt, light brown and mottled orange red, trace of grey shale, trace of root fibres	Low	Loose	Low
Pit 4	0.0 - 0.3	Road based			Low
	0.3 - 1.0	Clayey-silt, light brown and mottled orange red, trace of grey shale, trace of root fibres	Low	Loose	
Pit 5	0.0 - 1.0	Clayey-silt, light brown and mottled orange red, trace of grey shale, trace of root fibres	Low	Loose	Low

Pit 6	0.0 – 1.2	Organic-rich fill material, general solid waste. Loose soft dark topsoil with rock ranging in size from 100-300mm, bricks, plastic pipe and concrete.	Medium	Loose	Low
		(further assessment required to classify the entire area of fill material).			
Pit 7	0.0 – 0.8	Organic-rich natural, fill material	Medium	Loose	Low
Pit 8	0.0 – 0.6	Organic-rich natural, fill material	Medium	Loose	Low
Pit 9	0.0 – 0.7	Organic-rich natural, fill material	Medium	Loose	Low
		Some large sandstone boulders.			
Pit 10	0.0 – 0.8	Organic-rich natural, fill material	Medium	Loose	Low
		100mm concrete slab capping surface.			
Pit 11	0.0 – 1.0	Organic-rich virgin soil.	Medium	Loose	Low
Pit 12	0.0 – 1.0	Clayey-silt, light brown and mottled orange red, trace of grey shale, trace of root fibres	Medium	Loose	Low

Pit 13	0.0 – 1.0	Clayey-silt, light brown and mottled orange red, trace of grey shale, trace of root fibres	Medium	Loose	Low
Pit 14	0.0 – 0.8	Organic-rich brown, clay soil.	Medium	Loose	Low
Pit 15	0.0 – 1.0	Organic-rich virgin soil.	Medium	Loose	Low
BH1	0.0 – 0.1	Organic rich silt, vegetated.	Medium	Loose	Low
	0.1 – 0.6	Silty sand.	Medium	Loose	Low
BH2	0.0 – 0.1	Organic rich silt, vegetated.	Medium	Loose	Low
	0.1 – 0.8	Silty sand.	Medium	Loose	Low
BH3	0.0 – 0.1	Organic rich silt, vegetated.	Medium	Loose	Low
	0.1 – 0.6	Silty sand.	Medium	Loose	Low
BH4	0.0 – 0.1	Organic rich silt, vegetated.	Medium	Loose	Low
	0.1 – 0.8	Silty sand.	Medium	Loose	Low
BH5	0.0 – 0.1	Organic rich silt, vegetated.	Medium	Loose	Low

	0.1 – 0.8	Silty sand.	Medium	Loose	Low

6.3 QUALITY ASSURANCE

QC sampling was undertaken in general accordance with specifications outlined in Australian Standards (AS) 4482.1, *Guide to Sampling and Investigation of Potentially Contaminated Soil*. Field QC samples were collected and are documented within **Table 5**.

Table 5: Duplicate Sample

Sample Identification	Sample Type	Sample Matrix	Rate of Collection
Lab Reference: SE209231.008 GCA Reference: BH4.2	Field Duplicate of: SE209231.011 GCA Reference: D1	Soil	1 in 10 Samples
Lab Reference: SE209231.010 GCA Reference: BH5.2	Field Duplicate of: SE209231.012 GCA Reference: D2	Soil	1 in 10 Samples

The laboratory internal QC procedures are consistent with NEPM policy on laboratory analysis of contaminated soils.

7. ASSESSMENT CRITERIA

The following soil assessment criteria were adopted for the investigation.

NEPM Health Based Investigation Level C (HILs C)

HILs are Tier 1 risk based generic assessment criteria used for the assessment of potential risks to human health from chronic exposure to contaminants in soil. They are intentionally conservative and based on a reasonable worst-case scenario for generic land use settings including Residential (HILs A/B), Open Space/Recreational (HILs C) and Commercial Industrial (HILs D). HILs C soil assessment criteria were adopted on the basis of the proposed site.

NEPM Health Screening Levels C (HSLs C)

HSLs are Tier 1 risk based generic soil assessment criteria used for the assessment of potential risks to human health from chronic inhalation exposure of petroleum vapour emanating off petroleum contaminated soils (Vapour Risk). They are intentionally conservative and based on a reasonable worst-case scenario for generic soil types, contamination depth and land use settings including Residential (HSLs A/B), Open Space/Recreational (HSLs C) and Commercial Industrial (HSLs D). HSLs C soil assessment criteria for were adopted on the basis of the proposed development.

NEPM Management Limits – Residential, parkland and public open space

Management Limits for petroleum have been developed for prevention of explosive vapour accumulation, prevention of the formation of observable Light Non-Aqueous Phase Liquids (LNAPL) and protection against effects on buried infrastructure. Residential, parkland and public open space limits have been adopted based on the proposed land use.

NEPM Soil Ecological Assessment Levels

Ecological investigation levels (EILs) depend on specific soil physicochemical properties and land use scenarios and generally apply to the top 2m of soil. EILs are determined by identifying ambient background concentration (ABC) and adding the added contaminant limits (ACL). The most appropriate land use for assessment is Urban residential and public open spaces.

To confirm the EIL for; CrIII and Pb, the ABC was assumed to be zero as a conservative measure, $EIL = ABC + ACL$.

The EILs for As, DDT and naphthalene are not dependent on soil type and are taken directly from NEPM Schedule B1, Table 1B(4).

Ecological screening levels (ESLs) for petroleum hydrocarbon materials broadly apply to coarse and fine grained soils and various land uses. They are applicable to the top 3m of soil.

The adopted ESLs were for Urban residential and public open space with clay.

Water Quality Guidelines

GCA have referred to the ANZG (2018) guidelines to work through the applicable assessment criteria for the samples taken onsite. The onsite water monitoring well was measured from top of casing, which was approximately 0.4m above the ground level, identified full depth of well was 3.03m, with the ground water measured from top of casing at 2.93m. GCA have applied the;

- Groundwater Investigation Levels for Freshwater outlined within Australian and New Zealand Environment and Conservation Council (ANZECC) & Agriculture and Resource Management Council of Australia and New Zealand (ARMCANZ), 2000.

Due to the depth of the water measured within this and the site conditions within this area being predominately clay, GCA also applied the;

- Health Screening Levels C, recreational/open spaces, Clay 2m to <4m.

8. INVESTIGATION RESULTS

8.1 SOIL ANALYTICAL RESULTS

The soil analytical results are summarised below. Soil analytical results are presented in the laboratory reports in **Appendix B**.

Total Recoverable Hydrocarbons

The laboratory results for the fifteen (15) soil samples tested for TRH, sample Pit 2 had a negligible indication of TRH, all other sample results were below the level of reporting. This is shown **Table 6** below. Overall, all samples were below the Health Screening, Investigation and Ecological Screening Levels.

Table 6: TRH Values from Each Sample

Chemical	Health Screening Levels (HSL-C) Recreational /Open Space Direct contact	HSL Screening Levels (HSL - C) Recreational Vapour (0- <1m)	ESL (fine soil, urban residential)	Sample	Pit 1	Pit 2	Pit 3	Pit 4	Pit 5	Pt 6
C ₆ - C ₁₀	5,100	NL	180		<25	<25	<25	<25	<25	<25
>C ₁₀ - C ₁₆	3,800	NL	120		<25	<25	<25	<25	<25	<25
>C ₁₆ - C ₃₄	5,300	NL	1,300		<90	110	<90	<90	<90	<90
>C ₃₄ - C ₄₀	7,400	NL	5,600		<120	<120	<120	<120	<120	<120

Chemical	Health Screening Levels (HSL-C) Recreational /Open Space Direct contact	HSL Screening Levels (HSL - C) Recreational Vapour (0- <1m)	ESL (fine soil, urban residential)	Sample	Pit 7	Pit 8	Pit 9	Pit 10	Pit 11	Pit 12
C ₆ - C ₁₀	5,100	NL	180		<25	<25	<25	<25	<25	<25
> C ₁₀ - C ₁₆	3,800	NL	120		<25	<25	<25	<25	<25	<25
>C ₁₆ - C ₃₄	5,300	NL	1,300		<90	<90	<90	<90	<90	<90
>C ₃₄ - C ₄₀	7,400	NL	5,600		<120	<120	<120	<120	<120	<120

Chemical	Health Screening Levels (HSL-C) Recreational /Open Space Direct contact	HSL Screening Levels (HSL - C) Recreational Vapour (0- <1m)	ESL (fine soil, urban residential)	Sample	Pit 13	Pit 14	Pit 15
C ₆ - C ₁₀	5,100	NL	180		<25	<25	<25
> C ₁₀ - C ₁₆	3,800	NL	120		<25	<25	<25
>C ₁₆ - C ₃₄	5,300	NL	1,300		<90	<90	<90
>C ₃₄ - C ₄₀	7,400	NL	5,600		<120	<120	<120

Benzene Toluene Ethylbenzene Xylenes

All samples tested for BTEX at this site produced results below the limit of reporting. These results are shown in **Table 7**.

Table 7: BTEX Values from Each Sample

Chemical	Health Screening Levels (HSL-C) Recreational /Open Space Direct contact	HSL Screening Levels (HSL - C) Recreational Vapour (0- <1m)	ESL (fine soil, urban residential)	Sample	Pit 1	Pit 2	Pit 3	Pit 4	Pit 5	Pit 6
Benzene	120	1800	65		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	18,000	NL	105		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	5,300	NL	125		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve Xylenes	15,000	NL	45		<0.3	<0.3	<0.3	<0.3	<0.3	<0.3

Chemical	Health Screening Levels (HSL-C) Recreational /Open Space Direct contact	HSL Screening Levels (HSL - C) Recreational Vapour (0- <1m)	ESL (fine soil, urban residential)	Sample	Pit 7	Pit 8	Pit 9	Pit 10	Pit 11	Pit 12
Benzene	120	0.7	65		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	18,000	480	105		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	5,300	NL	125		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve Xylenes	15,000	110	45		<0.3	<0.3	<0.3	<0.3	<0.3	<0.3

Chemical	Health Screening Levels (HSL-C) Recreational /Open Space Direct contact	HSL Screening Levels (HSL – C) Recreational Vapour (0- <1m)	ESL (fine soil, urban residential)	Sample	Pit 13	Pit 14	Pit 15
Benzene	120	0.7	65		<0.1	<0.1	<0.1
Toluene	18,000	480	105		<0.1	<0.1	<0.1
Ethylbenzene	5,300	NL	125		<0.1	<0.1	<0.1
Total +ve Xylenes	15,000	110	45		<0.3	<0.3	<0.3

Polycyclic Aromatic Hydrocarbons

Low levels of PAHs were detected in sample Pit 6, however, the result does not approach the Health Investigation Levels. All other samples showed no indication of contamination above the laboratory's limit of reporting. These results are shown in **Table 8**.

Table 8: PAH Values from Each Sample

Chemical	Health Investigation Level (HIL)- Recreational C	Pit 1	Pit 2	Pit 3	Pit 4
Total +ve PAHs	300	<0.8	<0.8	<0.8	<0.8
Chemical	Health Investigation Level (HIL)- Recreational C	Pit 5	Pit 6	Pit 7	Pit 8
Total +ve PAHs	300	<0.8	4.3	<0.8	<0.8
Chemical	Health Investigation Level (HIL)- Recreational C	Pit 9	Pit 10	Pit 11	Pit 12
Total +ve PAHs	300	<0.8	<0.8	<0.8	<0.8
Chemical	Health Investigation Level (HIL)- Recreational C	Pit 13	Pit 14	Pit 15	
Total +ve PAHs	300	<0.8	<0.8	<0.8	

Heavy Metals

Many of the samples contained samples above the level of reporting for heavy metals, however none of these values approached Health Investigation Levels. This information is summarised below in **Table 9**. This suggests the presence of minor contamination across the site, which may provide reason for further testing.

Table 9: Heavy Metal Values for Each Sample.

Chemical	Health Investigation Levels (HIL-C) Recreational	EIL Urban residential	Sample	Pit 1	Pit 2	Pit 3	Pit 4	Pit 5
Arsenic	300	100		6	4	11	7	6
Cadmium	90	-		<0.3	<0.3	<0.3	<0.3	<0.3
Chromium	300	400		15	6.9	5.6	10	12
Copper	17,000	-		19	35	33	23	22
Lead	600	1100		18	19	15	21	15
Mercury	80	-		0.13	<0.05	0.10	<0.05	<0.05
Nickel	1200	-		15	10	18	14	11
Zinc	30,000	-		55	170	73	57	41

Chemical	Health Investigation Levels (HIL-C) Recreational	EIL Urban residential	Sample	Pit 6	Pit 7	Pit 8	Pit 9	Pit 10
Arsenic	300	100		4	4	5	5	5
Cadmium	90	-		<0.3	<0.3	<0.3	<0.3	<0.3
Chromium	300	400		11	3.5	11	8.1	11
Copper	17,000	-		11	27	23	9.0	35
Lead	600	1100		16	16	15	12	17
Mercury	80	-		<0.05	<0.05	<0.05	<0.05	<0.05
Nickel	1200	-		4.6	4.0	11	7.2	10
Zinc	30,000	-		26	22	48	38	75

Chemical	Health Investigation Levels (HIL-C) Recreational	EIL Urban residential	Sample	Pit 11	Pit 12	Pit 13	Pit 14	Pit 15
Arsenic	300	100		5	9	5	5	4
Cadmium	90	-		<0.3	<0.3	<0.3	<0.3	<0.3
Chromium	300	400		9.4	13	14	9.3	13
Copper	17,000	-		13	24	24	12	21
Lead	600	1100		17	14	14	16	17
Mercury	80	-		<0.05	<0.05	<0.05	<0.05	<0.05
Nickel	1200	-		8.0	11	24	7.5	6.4
Zinc	30,000	-		49	53	39	54	35

Chemical	Health Investigation Levels (HIL-C) Recreational	EIL Urban residential	Sample	BH1.1	BH1.2	BH2.1	BH2.2	BH3.1
Arsenic	300	100		2	2	2	2	2
Cadmium	90	-		<0.3	<0.3	<0.3	<0.3	<0.3
Chromium	300	400		6.6	6.3	6.6	6.1	5.5
Copper	17,000	-		6.1	6.2	6.7	6.1	5.2
Lead	600	1100		7	7	8	8	7
Mercury	80	-		<0.05	<0.05	<0.05	<0.05	<0.05
Nickel	1200	-		5.2	5.0	4.9	4.8	4.1
Zinc	30,000	-		25	23	25	28	19

Chemical	Health Investigation Levels (HIL-C) Recreational	EIL Urban residential	Sample	BH3.2	BH4.1	BH4.2	BH5.1	BH5.2
Arsenic	300	100		2	3	2	2	3
Cadmium	90	-		<0.3	<0.3	<0.3	<0.3	<0.3

Chromium	300	400		5.3	6.9	6.3	7.5	9.1
Copper	17,000	-		5.1	6.5	5.8	6.3	6.6
Lead	600	1100		6	9	7	8	8
Mercury	80	-		<0.05	<0.05	<0.05	<0.05	<0.05
Nickel	1200	-		3.9	5.2	4.8	5.5	5.8
Zinc	30,000	-		18	23	21	19	19

Chemical	Health Investigation Levels (HIL-C) Recreational	EIL Urban residential	Sample	D1	D2
Arsenic	300	100		3	3
Cadmium	90	-		<0.3	<0.3
Chromium	300	400		7.1	9.4
Copper	17,000	-		6.7	6.5
Lead	600	1100		8	8
Mercury	80	-		<0.05	<0.05
Nickel	1200	-		5.8	5.9
Zinc	30,000	-		22	19

Phosphorous

Phosphorous levels were detected in the samples provided for laboratory testing. Phosphorus fertiliser is mostly applied in a water-soluble form, which reacts rapidly in the soil (principally with iron, aluminium and calcium) to form less soluble, more stable compounds. This means there is competition between soil and plant roots for the water-soluble phosphorus. Only 5–30% of the applied phosphorus is taken up by the crop in the year of application.

The levels recorded onsite are within the average for east Australian soils of 150 to 700, which is suitable for the proposed land use without remediation. The levels recorded by the laboratory are summarised below in **Table 10**.

Table 10: Phosphorous levels in soil samples taken at the site.

Chemical	Sample	BH1.1	BH1.2	BH2.1	BH2.2
Total Phosphorous (mg/kg)		220	240	230	220
Chemical	Sample	BH3.1	BH3.2	BH4.1	BH4.2
Total Phosphorous (mg/kg)		320	220	300	260
Chemical	Sample	BH5.1	BH5.2	D1	D2
Total Phosphorous (mg/kg)		310	260	280	260

Phenols

Low Levels of Phenols were found in samples Pit 2, Pit 6, Pit 8, Pit 9, Pit 12 and Pit 15. The majority of samples produced levels below the limit of reporting.

Table 11: Phenol levels in soil samples taken at the site

Chemical	Health Investigation Levels (HIL-C) Recreational	Sample	Pit 1	Pit 2	Pit 3	Pit 4
Total Phenols (mg/kg)	40,000		<0.1	0.5	<0.1	<0.1
Chemical		Sample	Pit 5	Pit 6	Pit 7	Pit 8

Total Phenols (mg/kg)	40,000		<0.1	0.1	<0.1	0.1
Chemical		Sample	Pit 9	Pit 10	Pit 11	Pit 12
Total Phenols (mg/kg)	40,000		0.2	<0.1	<0.1	0.2
Chemical		Sample	Pit 13	Pit 14	Pit 15	
Total Phenols (mg/kg)	40,000		<0.1	<0.1	0.1	

OCP/OPP

Organochlorine Pesticides were not detected above the laboratories limit of reporting in any of the soil samples collected.

Table 12: OCP/OPP in soils taken onsite

Chemical	Health Investigation Levels (HIL-C) Recreational	Sample	Pit 1	Pit 2	Pit 3	Pit 4	Pit 5
Mirex	20		<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	400		<0.1	<0.1	<0.1	<0.1	<0.1
HCB	10		<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	20		<0.2	<0.2	<0.2	<0.2	<0.2
Heptachlor	10		<0.1	<0.1	<0.1	<0.1	<0.1
Chemical	Health Investigation Levels (HIL-C) Recreational	Sample	Pit 6	Pit 7	Pit 8	Pit 9	Pit 10
Mirex	20		<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	400		<0.1	<0.1	<0.1	<0.1	<0.1
HCB	10		<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	20		<0.2	<0.2	<0.2	<0.2	<0.2
Heptachlor	10		<0.1	<0.1	<0.1	<0.1	<0.1
Chemical	Health Investigation Levels (HIL-C) Recreational	Sample	Pit 11	Pit 12	Pit 13	Pit 14	Pit 15
Mirex	20		<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	400		<0.1	<0.1	<0.1	<0.1	<0.1
HCB	10		<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	20		<0.2	<0.2	<0.2	<0.2	<0.2
Heptachlor	10		<0.1	<0.1	<0.1	<0.1	<0.1
Chemical	Health Investigation Levels (HIL-C) Recreational	Sample	BH1.1	BH1.2	BH2.1	BH2.2	BH3.1
Mirex	20		<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	400		<0.1	<0.1	<0.1	<0.1	<0.1
HCB	10		<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	20		<0.2	<0.2	<0.2	<0.2	<0.2
Heptachlor	10		<0.1	<0.1	<0.1	<0.1	<0.1

Chemical	Health Investigation Levels (HIL-C) Recreational	Sample	BH3.2	BH4.1	BH4.2	BH5.1	BH5.2
Mirex	20		<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	400		<0.1	<0.1	<0.1	<0.1	<0.1
HCB	10		<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	20		<0.2	<0.2	<0.2	<0.2	<0.2
Heptachlor	10		<0.1	<0.1	<0.1	<0.1	<0.1

Chemical	Health Investigation Levels (HIL-C) Recreational	Sample	D1	D2
Mirex	20		<0.1	<0.1
Methoxychlor	400		<0.1	<0.1
HCB	10		<0.1	<0.1
Endrin	20		<0.2	<0.2
Heptachlor	10		<0.1	<0.1

Herbicides

Herbicides were not detected above the laboratory's limit of reporting in any of the soil samples collected.

Table 13: Herbicides in soils taken onsite

Chemical	Health Investigation Levels (HIL-C) Recreational	Sample	BH .1	BH1.2	BH2.1	BH2.2	BH3.1
2,4,5-T	800		<0.01	<0.01	<0.01	<0.01	<0.01
2,4-D	1,300		<0.01	<0.01	<0.01	<0.01	<0.01
MCPA	800		<0.01	<0.01	<0.01	<0.01	<0.01
MCPB	800		<0.01	<0.01	<0.01	<0.01	<0.01
Mecoprop	800		<0.01	<0.01	<0.01	<0.01	<0.01
Picloram	5,700		<0.01	<0.01	<0.01	<0.01	<0.01

Chemical	Health Investigation Levels (HIL-C) Recreational	Sample	BH3.2	BH4.1	BH4.2	BH5.1	BH5.2
2,4,5-T	800		<0.01	<0.01	<0.01	<0.01	<0.01
2,4-D	1,300		<0.01	<0.01	<0.01	<0.01	<0.01
MCPA	800		<0.01	<0.01	<0.01	<0.01	<0.01
MCPB	800		<0.01	<0.01	<0.01	<0.01	<0.01
Mecoprop	800		<0.01	<0.01	<0.01	<0.01	<0.01

Chemical	Health Investigation Levels (HIL-C) Recreational	Sample	D1	D2
2,4,5-T	800		<0.01	<0.01
2,4-D	1,300		<0.01	<0.01
MCPA	800		<0.01	<0.01
MCPB	800		<0.01	<0.01
Mecoprop	800		<0.01	<0.01

VOCs

VOCs were not detected above the laboratories limit of reporting in any of the soil samples collected.

Table 14: VOCs in soils onsite

Chemical	Interim soil vapour HIL C	Sample	BH .1	BH1.2	BH2.1	BH2.2	BH3.1
TCE	800		<0.1	<0.1	<0.1	<0.1	<0.1
PCE	1,300		<0.1	<0.1	<0.1	<0.1	<0.1
Cis-1,2-dichloroethene	800		<0.1	<0.1	<0.1	<0.1	<0.1
Vinyl chloride	800		<0.1	<0.1	<0.1	<0.1	<0.1
Chemical	Interim soil vapour HIL C	Sample	BH3.2	BH4.1	BH4.2	BH5.1	BH5.2
TCE	800		<0.1	<0.1	<0.1	<0.1	<0.1
PCE	1,300		<0.1	<0.1	<0.1	<0.1	<0.1
Cis-1,2-dichloroethene	800		<0.1	<0.1	<0.1	<0.1	<0.1
Vinyl chloride	800		<0.1	<0.1	<0.1	<0.1	<0.1
Chemical	Interim soil vapour HIL C	Sample	D1	D2			
TCE	800		<0.1	<0.1			
PCE	1,300		<0.1	<0.1			
Cis-1,2-dichloroethene	800		<0.1	<0.1			
Vinyl chloride	800		<0.1	<0.1			

PCBs

PCBs were not detected above the laboratory's limits of reporting.

Table 15: PCB levels in soil samples taken at the site

Chemical	Health Investigation Levels (HIL-C) Recreational	Sample	Pit 1	Pit 2	Pit 3	Pit 4
Total PCBs (mg/kg)	1		<1	<1	<1	<1
Chemical		Sample	Pit 5	Pit 6	Pit 7	Pit 8
Total PCBs (mg/kg)	1		<1	<1	<1	<1
Chemical		Sample	Pit 9	Pit 10	Pit 11	Pit 12
Total PCBs (mg/kg)	1		<1	<1	<1	<1
Chemical		Sample	Pit 13	Pit 14	Pit 15	
Total PCBs (mg/kg)	1		<1	<1	<1	

Asbestos

Asbestos fibres were not detected in any of the soil samples collected. Although the methods used for sampling for Asbestos onsite are not consistent with industry best practise, a Licenced Asbestos Assessor was onsite at the time of field work and did undertake extensive visual assessment. Further targeted soil sampling will be undertaken in Areas of Environmental Concern as part of the Data Gap Investigation.

Chemical	Sample	Pit 1	Pit 2	Pit 3	Pit 4	Pit 5	Pit 6
Asbestos Detected		No	No	No	No	No	No
Chemical	Sample	Pit 7	Pit 8	Pit 9	Pit 10	Pit 11	Pit 12
Asbestos Detected		No	No	No	No	No	No
Chemical	Sample	Pit 13	Pit 14	Pit 15			
Asbestos Detected		No	No	No			

8.2 WATER ANALYTICAL RESULTS

The water samples taken at this site showed trace amounts of some contaminants including Toluene, Nickel, Zinc, Copper, Arsenic, phosphorus and phenols.

Although only sample 'Dam 2' had levels of copper above the GILs for fresh water, with sample 'Well 1' having recorded Zinc above the GILs for freshwater also. These results are contained in **Table 12**.

Table 12: Water sample results for Water samples (HSL C 2 to < 4m clay)

Chemical	Groundwater Investigation Level (mg/L)	HSL C	Well 1	Dam 1	Dam 2
		Recreational / open space. 2m to <4m	Total well depth 3.03m bgl (From Top Of Casing) Depth to water 2.96m bgl (From Top Of Casing)		
TRH					
C ₆ – C ₁₀	NL	NL	<50	<50	<50
> C ₁₀ – C ₁₆	NL	NL	<60	<60	<60
BTEX					
Benzene	NL	NL	<0.5	<0.5	<0.5
Toluene	NL	NL	0.6	1.0	1.2
Ethylbenzene	NL	NL	<1	<1	<1
Total +ve Xylenes	NL	NL	<2	<2	<2

Arsenic	-	-	<1	<1	7
Cadmium	0.2	-	<0.1	<0.1	<0.1
Chromium	1	-	<1	<1	<1
Copper	1.4	-	1	1	2
Lead	3.4	-	<1	<1	<1
Mercury	-	-	<0.0001	<0.0001	<0.0001
Nickel	11	-	1	2	6
Zinc	8	-	15	6	<5
Phosphorous	-	-	0.41	0.88	12
Phenols	-	-	<0.01	0.02	0.02
PAH (GIL Fresh Water) (mg/L)					
Napthalene	16	-	<0.1	<0.1	<0.1
Benzopyrene	-	-	<0.1	<0.1	<0.1
Total PAH	-	-	<1	<1	<1

*Slight exceedance of the Ground Water Investigation Levels for Fresh Water. The investigation levels are seen as extremely conservative. The levels of Copper and Zinc are not considered to be significant in nature. In its current state stored within the onsite dams, GCA believes there is not a significant risk to the surrounding environment. However if the dams are to be decommissioned then a dewatering management plan will need to be undertaken. Based on this, GCA considers these values suitable.

9. CONCLUSIONS

The property located at No. 1290 Greendale Road, Wallacia was the subject of a DSI to assess if there is presence of contamination associated with current and historical use of the property.

The objectives of this DSI were to provide an assessment of potential contaminating activities to have impacted the site with a judgemental approach.

Based on this Detailed Site Investigation, laboratory analysis of the soil and water samples assessed for; Total Recoverable Hydrocarbons (TRH), Benzene Toluene Ethylbenzene Xylenes (BTEX), Organochlorine Pesticides (OCPs), Organophosphorus Pesticides (OPPs), Polycyclic Aromatic Hydrocarbons (PAHs), heavy metals, PCBs, Fertilizers, Herbicides, VOCs and Asbestos. The results from testing indicate no exceedances of the relevant assessment criteria.

Laboratory assessment was completed by SGS laboratories, which is a NATA accredited laboratory who undertake internal QC/QC procedures. GCA also undertook QA/QC procedures in accordance with industry best practise. GCA is confident in relying on the laboratory results to make decisions on the overall site conditions.

GCA have made all conclusions and recommendations based on review of the proposed development (reference **Appendix D**). GCA understands that the proposed development includes demolition of the existing infrastructure onsite, followed by the construction of a cemetery. This cemetery will include a chapel, crematorium, cremation walls, mausoleum, footpaths, tombs, vaults, in-ground burial plots and a number of memorial structures. If the proposed development changes in any way, the findings of this report may not be applicable.

In summary, the laboratory results indicate that the proposed developed will be viable within the subject site as tested samples contain negligible amounts of COPC. GCA are satisfied that the site can be made suitable providing the recommendations within **Section 10** are implemented.

10. RECOMMENDATIONS

GCA recommends that the following be implemented:

- Closing of Data Gap investigation, this will involve assessment of the following;
 - Undertake a Hazardous Materials Building Survey (HMS) for all onsite structures, with any control measures outlined in the HAZMAT survey to be implemented during demolition.
 - Assessment of areas beneath current onsite structures and foot prints
 - Assessment of area around the removed septic tank, including any ground water
 - The area identified by TP6, which had identified uncontrolled fill material should be assessed, quantified and classified in accordance with the NSW EPA Waste Classification Guidelines. It is likely that this material will need to be removed offsite.
- If the onsite dams are to be decommissioned, a suitably qualified Ecologist to be engaged to undertake an Ecological Survey and Dewatering management plan.
- Undertake a Remediation Action Plan, if required based on the Data Gap investigation.
- Any soils requiring removal from the site, as part of future site works, should be classified in accordance with the "Waste Classification Guidelines, Part 1: Classifying Waste" NSW EPA (2014).

11. LIMITATIONS

The findings of this report are based on the scope of work outlined in Section 1.5. GCA performed the services in a manner consistent with the normal level of care and expertise exercised by members of the environmental consulting profession. No warranties, express or implied are made.

The results of this assessment are based upon the information documented and presented in this report. All conclusions and recommendations regarding the site are the professional opinions of GCA personnel involved with the project, subject to the qualifications made above. While normal assessments of data reliability have been made, GCA assumes no responsibility or liability for errors in any data obtained from regulatory agencies, statements from sources outside of GCA, or developments resulting from situations outside the scope of this project.

The results of this assessment are based on the site conditions identified at the time of the site inspection and validation sampling. GCA will not be liable to revise the report to account for any changes in site characteristics, regulatory requirements, assessment criteria or the availability of additional information, subsequent to the issue date of this report.

GCA is not engaged in environmental consulting and reporting for the purpose of advertising sales promoting, or endorsement of any client interests, including raising investment capital, recommending investment decisions, or other publicity purposes.

Geotechnical Consultants Australia Pty Ltd (GCA)

Prepared by:



Oskar Lamperts
Graduate Environmental Scientist

Reviewed by:



Nick Caltabiano
Project Manager

12. REFERENCES

- NSW Environmental Protection Authority, *Waste Classification Guidelines Part 1: Classifying Waste*, 2014.
- Google Earth, <https://www.google.com/earth>.
- Kooyman, R Laffan, S & Westoby, M 2017, 'The Incidence of Low Phosphorus Soils in Australia', *Plant and Soil*, Vol.412.
- National Environment Protection Measures (2013), *Schedule B1 – Guideline on Investigation Levels for Soil and Groundwater*.
- the science of phosphorus nutrition:
forms in the soil, plant uptake, and plant response dated 18th feb 2009, *neal menzies, the university of queensland, st lucia*
- National Environment Protection Measures (2013), *Schedule B2 – Guideline on Site Characterisation*.
- NSW Environmental Protection Authority, *Guidelines for Consultants Reporting on Contaminated Sites*, 2011.
- NSW Environmental Protection Authority, *Sampling Design Guidelines*, 1995
- Six Maps, <https://www.maps.six.nsw.gov.au>.
- State Environment Protection Policy 55 (SEPP 55). *Remediation of Land Under the Environmental Planning and Assessment Act*.
- WaterNSW, waterNSW.com.au.

APPENDIX A

Figures and Site Photographic Log



Figure 1:
Depicts an
aerial map of
the site in
relation to the
CBD. The site is
located
approximately
53.71 km west
of Sydney's
CBD.

 Site
location

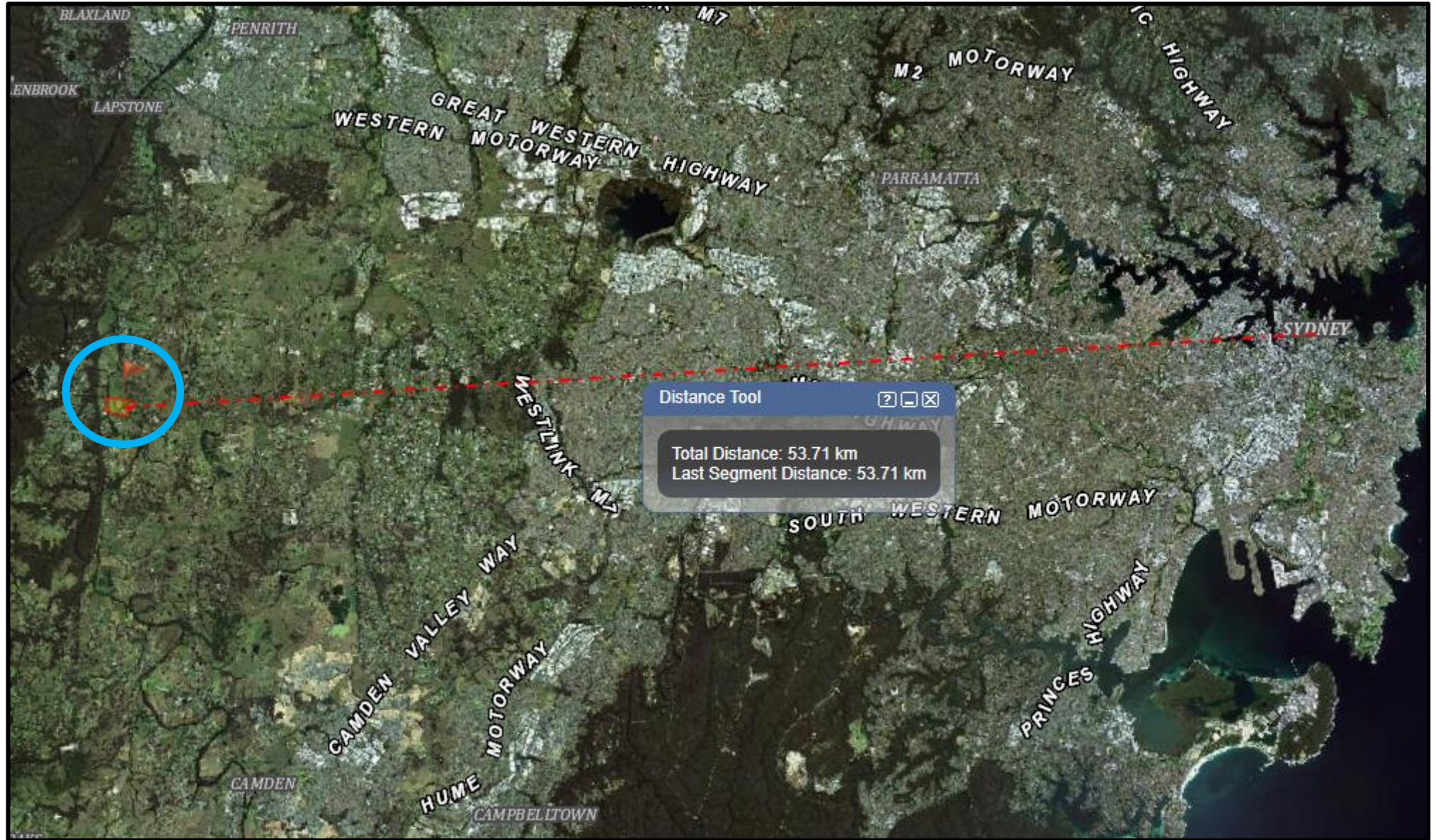
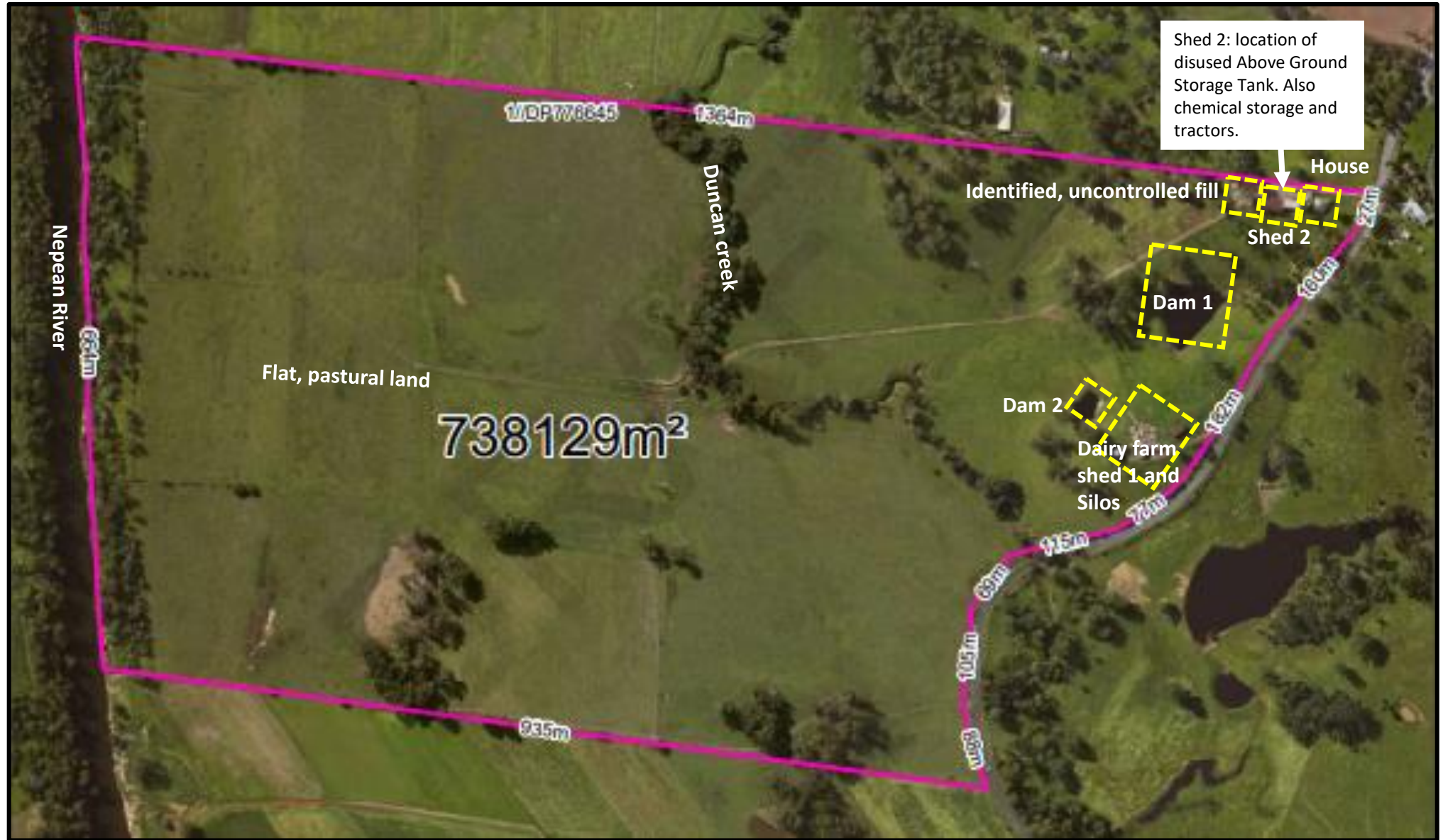


Figure 1	Locality Map
Project	1290 Greendale Road, Wallacia, NSW, 2745

Source: Six Maps
2020



Figure 2: Depicts an aerial photo of the site. The total area of this site is approximately 738129 m².



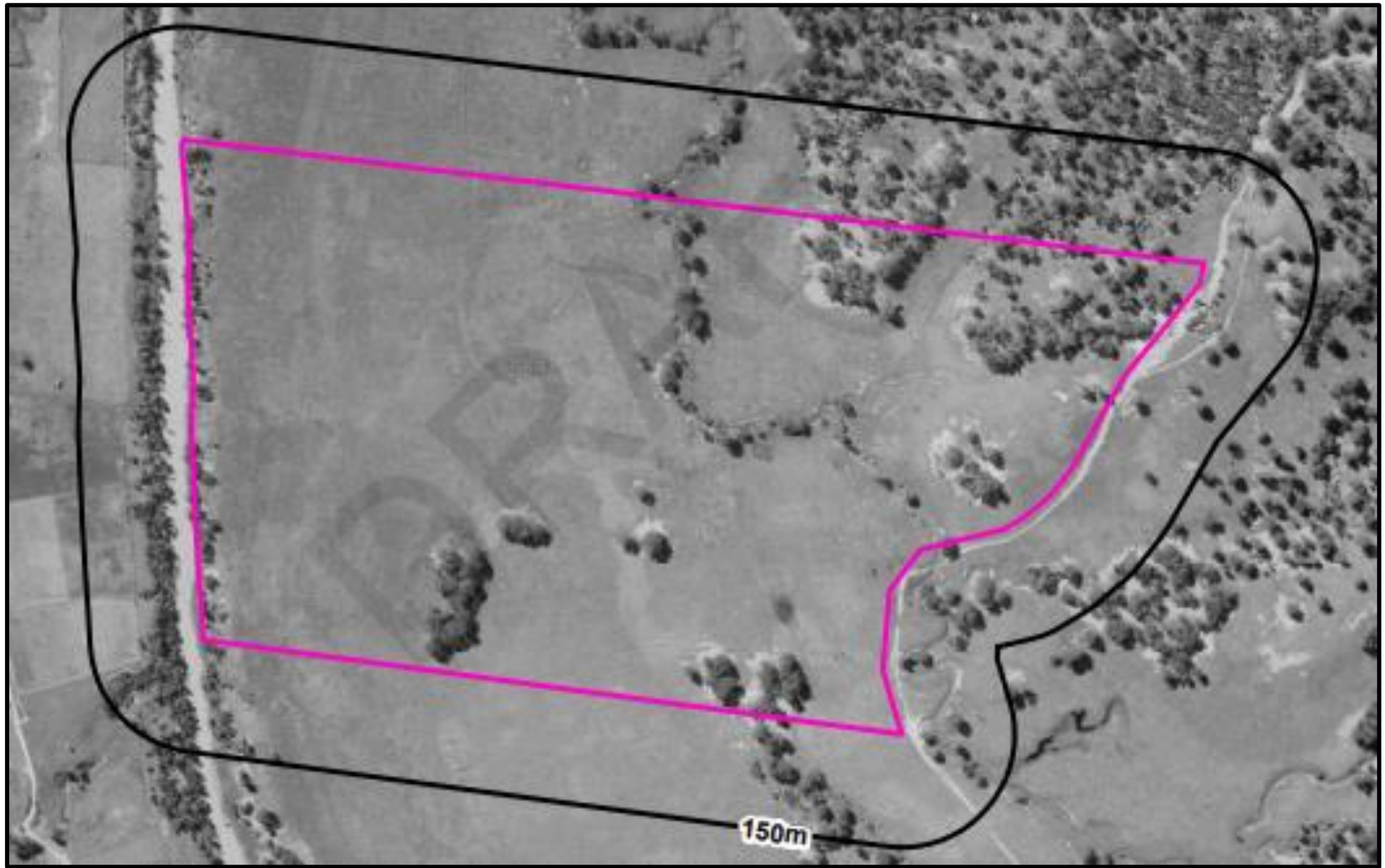
 Site boundary

Source: Aerometrex 2020

Figure 2	Site Area
Project	1290 Greendale Road, Wallacia, NSW, 2745



Figure 3: Depicts an aerial image of the site in 1949. From this image, it does not appear that any of the structures located on the site in 2020 had been built at this time.



Source: Aerial
Imagery: DFSI

Figure 3	Historical Image: 1949
Project	1290 Greendale Road, Wallacia, NSW, 2745



Figure 4: Depicts an aerial image of the site in 1965. Structures are now visible in the north-eastern corner of the property, and there is visible evidence that agricultural practices have commenced.



Source: Aerial Imagery: DFSI

Figure 4	Historical Image: 1965
Project	1290 Greendale Road, Wallacia, NSW, 2745



Figure 5: Depicts an aerial image of the site in 1970: More of the site's eastern portion has now been incorporated into the use of the site for farmland.



Source: Aerial
Imagery: DFSI

Figure 5	Historical Image: 1970
Project	1290 Greendale Road, Wallacia, NSW, 2745



Figure 6: Depicts an aerial image of the site in 1978: A second entrance has been constructed and structures have been erected in the centre of the site's eastern border.



Source: Aerial Imagery: DFSI

Figure 6	Historical Image: 1978
Project	1290 Greendale Road, Wallacia, NSW, 2745



Figure 7: Depicts an aerial image of the site in 1986: At this time, the site's state largely resembles it's state in 1978.



Source: Aerial Imagery: DFSI

Figure 7	Historical Image: 1986
Project	1290 Greendale Road, Wallacia, NSW, 2745



Figure 8: Depicts an aerial image of the site in 1991: This image shows that the northern dam onsite has been constructed near the properties north-eastern corner.



Source: Aerial Imagery: DFSI

Figure 8	Historical Image: 1991
Project	1290 Greendale Road, Wallacia, NSW, 2745



Figure 9: Depicts an aerial image of the site in 2009: The southern dam has now been built on the site, north-west of the silos and dairy shed.



Figure 9	Historical Image: 2009
Project	1290 Greendale Road, Wallacia, NSW, 2745



Sample ID	Depth of pit (m)
Pit 1	0.7
Pit 2	0.2 (hit shale)
Pit 3	1.2
Pit 4	1
Pit 5	1



Figure 10	Pit Locations 1-5 (proximal to silos and southern shed)
Project	1290 Greendale Road, Wallacia, NSW, 2745

Source: Metro Maps
2020



Sample ID	Depth of pit (m)
Pit 6	1.2
Pit 7	0.8
Pit 8	0.6
Pit 9	0.7
Pit 10	0.8
Pit 11	1
Pit 12	1
Pit 13	1
Pit 14	0.8
Pit 15	1



Source: Metro Maps
2020

Figure 11	Pit Locations 6-150 (proximal to house and shed)
Project	1290 Greendale Road, Wallacia, NSW, 2745



Sample ID	Depth (m)
BH1.1	0.3
BH1.2	0.6
BH2.1	0.3
BH2.2	0.8
BH3.1	0.3
BH3.2	0.6
BH4.1	0.3
BH4.2	0.8
BH5.1	0.3
BH5.2	0.8
D1 (BH4.2)	0.8
D2 (BH5.2)	0.8

Site boundary

Source: Aerometrex 2020

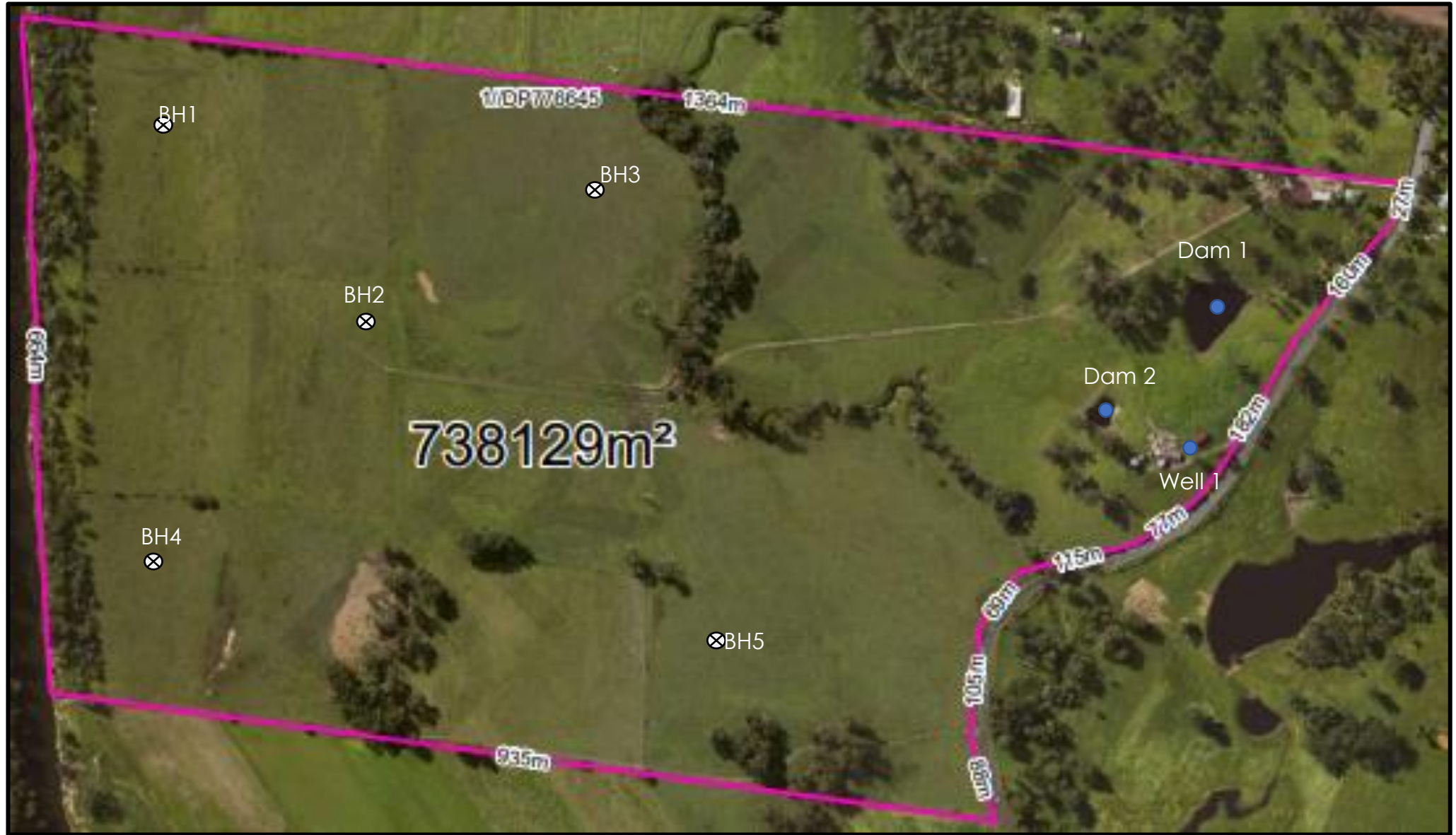


Figure 12	Water and Bore hole Sample Locations
Project	1290 Greendale Road, Wallacia, NSW, 2745

Onsite Photographs: 24/07/2020



Image 1: This image depicts the location of Pit 12, south of the onsite residential dwelling. In this area, near the highest point of the property, the soil consisted largely of organic fill material, with some sandstone boulders also being encountered.



Image 2: One of the ASTs found in the shed near the residential dwelling onsite. Other notable materials found in this shed include a gas bottle, farming equipment, pesticides and herbicides.



Image 3: This image shows Dam 1, the northernmost dam on the property. The water encountered at this location was murky and brown but featured very little algae.



Image 4: In the foreground that water monitoring well identified as Well 1. This image depicts the dairy shed onsite, looking north-east. Behind this building the silos can be seen also. Following these properties the site slopes downwards towards the Nepean River.



Image 5: There is a small shed near the dairy shed. In the vicinity of this area, shale was encountered within 0.2 metres of the surface.



Image 6: This image depicts the bench structures along the bank of the Nepean River. Some samples were taken from the benches, which were composed of sand, sandy silt, and organic rich materials.



Image 7: Soil cross section, TP3.



Image 8: Soil cross section, TP4.



Image 9: Soil cross section, TP1.



Image 10: Example of natural rock reached at 0.2m within TP2. Dark-grey to black claystone-siltstone, as described within section 2.5.

APPENDIX B

Laboratory Results and Chain of Custody



CHAIN OF CUSTODY & ANALYSIS REQUEST

SGS Environmental Services
 Unit 16, 33 Maddox Street
 Alexandria NSW 2015
 Telephone No: (02) 85940400
 Facsimile No: (02) 85940499
 Email: ausamplerreceipts.sydney@sgs.com

Company Name: NEO Consulting Pty Ltd
 Address: 186 Riverside Parade, Riverstone NSW, 2765
 Contact Name: Nick Calabiano
Luke Greu

Project Name/No: N4381
 Purchase Order No: 317
 Results Required By: As per order
 Telephone: 0416 690 375
 Facsimile: 0455 485 502
 Email Results: [Read comment section]

Client Sample ID	Date Sampled	Lab Sample ID	WATER	SOIL	PRESERVATIVE	NO OF CONTAINERS	Received By:	Date/Time
BH1.1		1		✓		To be confirmed	<u>Bing</u>	<u>27/7</u>
" 1.2		2		✓				
" 2.1		3		✓				
" 2.2		4		✓				
" 3.1		5		✓				
" 3.2		6		✓				
" 4.1		7		✓				
" 4.2		8		✓				
" 5.1		9		✓				
Relinquished By: <u>UPO</u>		Date/Time: <u>27/7</u>	Received By: <u>Bing</u>		Date/Time: <u>27/7/04</u>			
Relinquished By:		Date/Time:	Received By:		Date/Time:			
Samples Intact: <u>Yes/No</u>		Temperature: Ambient / <u>Cooled</u>	Sample Cooler Sealed: <u>Yes/No</u>		Laboratory Quotation No:			
Comments: <u>Email Report and Invoices to all emails =></u> <u>① n.ch@neoconsulting.com.au</u> <u>③ admin@neoconsulting.com.au</u> <u>② luke@neoconsulting.com.au</u> <u>④ other@neoconsulting.com.au</u>								

SGS EHS Sydney COC
SE209231



SGS Environmental Services
 Unit 16, 33 Maddox Street
 Alexandria NSW 2015
 Telephone No: (02) 85940400
 Facsimile No: (02) 85940499
 Email: au.samplerreceipt.sydne@sgs.com

CHAIN OF CUSTODY & ANALYSIS REQUEST

Company Name: NEO Consulting Pty Ltd
 Address: 186 Riverstone Parade, Riverstone NSW, 2765
 Contact Name: Nick Calabiano
Luhe Arzou

Project Name/No: N4381
 Purchase Order No:
 Results Required By: Accepted / 3 days / Standard
 Telephone: Phone: 0416 680 375
 Facsimile: Phone: 0455 485 502

Email Results: [Read Comment section]

Client Sample ID	Date Sampled	Lab Sample ID	WATER	SOIL	PRESERVATIVE	NO OF CONTAINERS														
BH5.2		10	/	/			To be confirmed													
P1		11	/	/																
P2		12	/	/																
Pt 1		13	/	/																
" 2		14	/	/																
" 3		15	/	/																
" 4		16	/	/																
" 5		17	/	/																
" 6		18	/	/																
Relinquished By: <u>NEO</u>	Date/Time: <u>27/7</u>	Received By: <u>[Signature]</u>	Date/Time: <u>27/7</u>	Received By: <u>[Signature]</u>	Date/Time: <u>27/7</u>	Received By: <u>[Signature]</u>	Date/Time: <u>27/7</u>	Received By: <u>[Signature]</u>	Date/Time: <u>27/7</u>	Received By: <u>[Signature]</u>	Date/Time: <u>27/7</u>	Received By: <u>[Signature]</u>	Date/Time: <u>27/7</u>	Received By: <u>[Signature]</u>	Date/Time: <u>27/7</u>	Received By: <u>[Signature]</u>	Date/Time: <u>27/7</u>	Received By: <u>[Signature]</u>	Date/Time: <u>27/7</u>	Received By: <u>[Signature]</u>
Relinquished By: <u>NEO</u>	Date/Time: <u>27/7</u>	Received By: <u>[Signature]</u>	Date/Time: <u>27/7</u>	Received By: <u>[Signature]</u>	Date/Time: <u>27/7</u>	Received By: <u>[Signature]</u>	Date/Time: <u>27/7</u>	Received By: <u>[Signature]</u>	Date/Time: <u>27/7</u>	Received By: <u>[Signature]</u>	Date/Time: <u>27/7</u>	Received By: <u>[Signature]</u>	Date/Time: <u>27/7</u>	Received By: <u>[Signature]</u>	Date/Time: <u>27/7</u>	Received By: <u>[Signature]</u>	Date/Time: <u>27/7</u>	Received By: <u>[Signature]</u>	Date/Time: <u>27/7</u>	Received By: <u>[Signature]</u>
Samples Intact: <u>Yes/No</u>	Temperature: <u>Ambient / Chilled</u>	Sample Cooler Sealed: <u>Yes/No</u>	Comments: <u>Email Report and Invoices to all emails =></u>																	
			<u>① Nick @ neoconsulting.com.au</u> <u>③ admin @ neoconsulting.com.au</u> <u>② Luhe @ neoconsulting.com.au</u> <u>④ Oskar @ neoconsulting.com.au</u>																	



SGS Environmental Services
 Unit 16, 33 Maddox Street
 Alexandria NSW 2015
 Telephone No: (02) 85940400
 Facsimile No: (02) 85940499
 Email: au.samplereceipt.sydne@sgs.com

CHAIN OF CUSTODY & ANALYSIS REQUEST

Company Name: NEO Consulting Pty Ltd
 Address: 186 Riverstone Parade, Riverstone NSW, 2765
 Contact Name: Nick Calabiano
Like Brew

Project Name/No: N428
 Purchase Order No:
 Results Required By: Next day / 2 days / standard
 Telephone: (02) 85940400
 Facsimile: (02) 85940499
 Email Results: Send Comment section

Client Sample ID	Date Sampled	Lab Sample ID	NO OF CONTAINERS				Date/Time	Received By:	Date/Time
			WATER	SOIL	PRESERVATIVE	NO OF CONTAINERS			
P17	19	19		/					
"8	20	20		/					
"9	21	21		/					
"10	22	22		/					
"11	23	23		/					
"12	24	24		/					
"13	25	25		/					
"14	26	26		/					
"15	27	27		/					

Relinquished By: NEO Date/Time: 27/7
 Relinquished By: _____ Date/Time: _____
 Samples Intact: Yes / No
 Temperature: Ambient / Chilled
 Comments: Email Report and Invoices to all emails =>
1 Nick@neiconsulting.com.au
2 Like@neiconsulting.com.au
3 admin@neiconsulting.com.au
4 Other@neiconsulting.com.au



SGS Environmental Services
 Unit 16, 33 Maddox Street
 Alexandria NSW 2015
 Telephone No: (02) 85940400
 Facsimile No: (02) 85940499
 Email: au.samplerreceipt.sydney@sgs.com

CHAIN OF CUSTODY & ANALYSIS REQUEST

Company Name: NEO Consulting Pty Ltd
 Address: 186 Riverside Parade, Riverstone, NSW, 2765
 Contact Name: Nick Calabiano
 Project Name/No: N4381
 Purchase Order No: Acceptance / 3 days / Standard
 Results Required By: 17/04/16 6:00 PM
 Telephone: (02) 855 485 502
 Facsimile: (02) 855 485 502
 Email Results: Read Comment section

Client Sample ID	Date Sampled	Lab Sample ID	WATER	SOIL	PRESERVATIVE	NO OF CONTAINERS	Received By:	Date/Time
Well 1		28	/	/		To be confirmed		
Para 1		29	/	/		To be confirmed		
Para 2		30	/	/		To be confirmed		
Relinquished By: <u>NBO</u>		Date/Time: <u>27/7</u>	Received By: <u>[Signature]</u>		Date/Time: <u>27/7 @ 4:48</u>			
Relinquished By:		Date/Time:	Received By:		Date/Time:			
Samples Intact: <u>Yes/No</u>		Temperature: <u>Ambient / Skilled</u>	Sample Cooler Sealed: <u>Yes/No</u>		Laboratory Quotation No:			
Comments: <u>Email Report and Invoices to all emails => Nick@neiconsulting.com.au</u> <u>Order@neiconsulting.com.au</u> <u>Order@neiconsulting.com.au</u>								

Yin, Emily (Sydney)

From: nick caltabiano <nick@neoconsulting.com.au>
Sent: Tuesday, 28 July 2020 9:55 AM
To: Yin, Emily (Sydney)
Cc: Oskar@neoconsulting.com.au; Luke Brevia; AU.SampleReceipt.Sydney (Sydney)
Subject: [EXTERNAL] Re: SE209231 - N4381

*** WARNING: this message is from an EXTERNAL SENDER. Please be cautious, particularly with links and attachments. ***

Hi Emily,

Can we please undertake the following;

13-27
Pit 1 - Pit 15 tested for;
- Asbestos
- TRH, BTEXN, PAH, PCB, Phenols and VOCs
- Heavy Metals
- OCP/OPP

13 27 24
Pit 1, Pit 10 and Pit 12 also test for;
pH, CEC

1-10 11 12
BH1.1 - BH5.2 including D1 and D2;
- OCP/OPP

- Fertilizers
- Herbicides
- Heavy Metals

28 29 30
Well 1, Dam 1 and Dam 2;
- OCP/OPP
- Fertilizers
- Herbicides
- TRH, BTEXN, PAH, PCB, Phenols and VOCs
- Heavy Metals

Kind regards,

Nick

On Mon, Jul 27, 2020 at 10:10 PM Yin, Emily (Sydney) <Emily.Yin@sgs.com> wrote:

Dear All,

Please advise analysis for these samples.

Thank You.

Yin, Emily (Sydney)

From: nick caltabiano <nick@neoconsulting.com.au>
Sent: Tuesday, 28 July 2020 4:45 PM
To: Adams, Erin (Sydney)
Cc: oskar@neoconsulting.com.au; Luke Breva
Subject: Re: [EXTERNAL] Re: SE209231 - N4381

*** WARNING: this message is from an EXTERNAL SENDER. Please be cautious, particularly with links and attachments. ***

Hi Erin,

Yes can we please test for Nitrate and Phosphorous instead of Fertilizers?

Kind regards,

Nick

On Tue, Jul 28, 2020 at 3:38 PM Adams, Erin (Sydney) <Erin.Adams@sgs.com> wrote:

Hi Nick,

In the below request you have requested Fertilizers, we don't have a set suite for this analysis, are you specifically looking for the Nitrate and Phosphorous content or something else?

Regards,

Erin Adams

Environment, Health & Safety

GBS Coordinator & Customer Service Representative

Phone: +61 (0)2 8594 0400

Direct: +61 (0)2 8594 0465

CLIENT DETAILS

LABORATORY DETAILS

Contact Nick Caltabiano
 Client NEO CONSULTING PTY LTD
 Address PO BOX 279
 RIVERSTONE NSW 2765

Telephone 0416 680 375
 Facsimile (Not specified)
 Email nick@neoconsulting.com.au

Project **N4381**
 Order Number (Not specified)
 Samples 30

Manager Huong Crawford
 Laboratory SGS Alexandria Environmental
 Address Unit 16, 33 Maddox St
 Alexandria NSW 2015

Telephone +61 2 8594 0400
 Facsimile +61 2 8594 0499
 Email au.environmental.sydney@sgs.com

SGS Reference **SE209231 R0**
 Date Received 27/7/2020
 Date Reported 4/8/2020

COMMENTS

Accredited for compliance with ISO/IEC 17025 - Testing. NATA accredited laboratory 2562(4354).

No respirable fibres detected in all soil samples using trace analysis technique.

A portion of the sample supplied has been sub-sampled for asbestos analysis in soil according to SGS In-house procedures. We therefore cannot guarantee that the sub-sample is representative of the entire sample supplied. SGS Environmental Services recommends supplying approximately 50-100g of sample in a separate container.

Asbestos analysed by Approved Identifier Ravee Sivasubramaniam .

SIGNATORIES

Bennet LO
 Senior Organic Chemist/Metals Chemist

Dong LIANG
 Metals/Inorganics Team Leader

Ly Kim HA
 Organic Section Head

Ravee SIVASUBRAMANIAM
 Hygiene Team Leader

Shane MCDERMOTT
 Inorganic/Metals Chemist

VOC's in Soil [AN433] Tested: 29/7/2020

PARAMETER	UOM	LOR	Pit 1	Pit 2	Pit 3	Pit 4	Pit 5
			SOIL - 24/7/2020 SE209231.013	SOIL - 24/7/2020 SE209231.014	SOIL - 24/7/2020 SE209231.015	SOIL - 24/7/2020 SE209231.016	SOIL - 24/7/2020 SE209231.017
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Dichlorodifluoromethane (CFC-12)	mg/kg	1	<1	<1	<1	<1	<1
Chloromethane	mg/kg	1	<1	<1	<1	<1	<1
Vinyl chloride (Chloroethene)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromomethane	mg/kg	1	<1	<1	<1	<1	<1
Chloroethane	mg/kg	1	<1	<1	<1	<1	<1
Trichlorofluoromethane	mg/kg	1	<1	<1	<1	<1	<1
Acetone (2-propanone)	mg/kg	10	<10	<10	<10	<10	<10
Iodomethane	mg/kg	5	<5	<5	<5	<5	<5
1,1-dichloroethene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acrylonitrile	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dichloromethane (Methylene chloride)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Allyl chloride	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carbon disulfide	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-dichloroethene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1-dichloroethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Vinyl acetate	mg/kg	10	<10	<10	<10	<10	<10
MEK (2-butanone)	mg/kg	10	<10	<10	<10	<10	<10
cis-1,2-dichloroethene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromochloromethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chloroform	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2,2-dichloropropane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2-dichloroethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1,1-trichloroethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1-dichloropropene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carbon tetrachloride	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibromomethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2-dichloropropane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-nitropropane	mg/kg	10	<10	<10	<10	<10	<10
Bromodichloromethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
MIBK (4-methyl-2-pentanone)	mg/kg	1	<1	<1	<1	<1	<1
cis-1,3-dichloropropene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-1,3-dichloropropene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1,2-trichloroethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,3-dichloropropane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorodibromomethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-hexanone (MBK)	mg/kg	5	<5	<5	<5	<5	<5
1,2-dibromoethane (EDB)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1,1,2-tetrachloroethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorobenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromoform	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
cis-1,4-dichloro-2-butene	mg/kg	1	<1	<1	<1	<1	<1
Styrene (Vinyl benzene)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1,2,2-tetrachloroethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2,3-trichloropropane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-1,4-dichloro-2-butene	mg/kg	1	<1	<1	<1	<1	<1

VOC's in Soil [AN433] Tested: 29/7/2020 (continued)

PARAMETER	UOM	LOR	Pit 1	Pit 2	Pit 3	Pit 4	Pit 5
			SOIL - 24/7/2020 SE209231.013	SOIL - 24/7/2020 SE209231.014	SOIL - 24/7/2020 SE209231.015	SOIL - 24/7/2020 SE209231.016	SOIL - 24/7/2020 SE209231.017
Isopropylbenzene (Cumene)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromobenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
n-propylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-chlorotoluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4-chlorotoluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,3,5-trimethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
tert-butylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2,4-trimethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
sec-butylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,3-dichlorobenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,4-dichlorobenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p-isopropyltoluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2-dichlorobenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
n-butylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2-dibromo-3-chloropropane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2,4-trichlorobenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Hexachlorobutadiene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2,3-trichlorobenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total VOC*	mg/kg	24	<24	<24	<24	<24	<24
Total Volatile Chlorinated Hydrocarbons*	mg/kg	3	<3.0	<3.0	<3.0	<3.0	<3.0
Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8	<1.8	<1.8	<1.8	<1.8
Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8	<1.8	<1.8	<1.8	<1.8

VOC's in Soil [AN433] Tested: 29/7/2020 (continued)

PARAMETER	UOM	LOR	Pit 6	Pit 7	Pit 8	Pit 9	Pit 10
			SOIL - 24/7/2020 SE209231.018	SOIL - 24/7/2020 SE209231.019	SOIL - 24/7/2020 SE209231.020	SOIL - 24/7/2020 SE209231.021	SOIL - 24/7/2020 SE209231.022
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Dichlorodifluoromethane (CFC-12)	mg/kg	1	<1	<1	<1	<1	<1
Chloromethane	mg/kg	1	<1	<1	<1	<1	<1
Vinyl chloride (Chloroethene)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromomethane	mg/kg	1	<1	<1	<1	<1	<1
Chloroethane	mg/kg	1	<1	<1	<1	<1	<1
Trichlorofluoromethane	mg/kg	1	<1	<1	<1	<1	<1
Acetone (2-propanone)	mg/kg	10	<10	<10	<10	<10	<10
Iodomethane	mg/kg	5	<5	<5	<5	<5	<5
1,1-dichloroethene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acrylonitrile	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dichloromethane (Methylene chloride)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Allyl chloride	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carbon disulfide	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-dichloroethene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1-dichloroethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Vinyl acetate	mg/kg	10	<10	<10	<10	<10	<10
MEK (2-butanone)	mg/kg	10	<10	<10	<10	<10	<10
cis-1,2-dichloroethene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromochloromethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chloroform	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2,2-dichloropropane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2-dichloroethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1,1-trichloroethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1-dichloropropene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carbon tetrachloride	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibromomethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2-dichloropropane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-nitropropane	mg/kg	10	<10	<10	<10	<10	<10
Bromodichloromethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
MIBK (4-methyl-2-pentanone)	mg/kg	1	<1	<1	<1	<1	<1
cis-1,3-dichloropropene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-1,3-dichloropropene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1,2-trichloroethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,3-dichloropropane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorodibromomethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-hexanone (MBK)	mg/kg	5	<5	<5	<5	<5	<5
1,2-dibromoethane (EDB)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1,1,2-tetrachloroethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorobenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromoform	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
cis-1,4-dichloro-2-butene	mg/kg	1	<1	<1	<1	<1	<1
Styrene (Vinyl benzene)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1,2,2-tetrachloroethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2,3-trichloropropane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-1,4-dichloro-2-butene	mg/kg	1	<1	<1	<1	<1	<1

VOC's in Soil [AN433] Tested: 29/7/2020 (continued)

PARAMETER	UOM	LOR	Pit 6	Pit 7	Pit 8	Pit 9	Pit 10
			SOIL - 24/7/2020 SE209231.018	SOIL - 24/7/2020 SE209231.019	SOIL - 24/7/2020 SE209231.020	SOIL - 24/7/2020 SE209231.021	SOIL - 24/7/2020 SE209231.022
Isopropylbenzene (Cumene)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromobenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
n-propylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-chlorotoluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4-chlorotoluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,3,5-trimethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
tert-butylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2,4-trimethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
sec-butylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,3-dichlorobenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,4-dichlorobenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p-isopropyltoluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2-dichlorobenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
n-butylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2-dibromo-3-chloropropane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2,4-trichlorobenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Hexachlorobutadiene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2,3-trichlorobenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total VOC*	mg/kg	24	<24	<24	<24	<24	<24
Total Volatile Chlorinated Hydrocarbons*	mg/kg	3	<3.0	<3.0	<3.0	<3.0	<3.0
Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8	<1.8	<1.8	<1.8	<1.8
Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8	<1.8	<1.8	<1.8	<1.8

VOC's in Soil [AN433] Tested: 29/7/2020 (continued)

PARAMETER	UOM	LOR	Pit 11	Pit 12	Pit 13	Pit 14	Pit 15
			SOIL - 24/7/2020 SE209231.023	SOIL - 24/7/2020 SE209231.024	SOIL - 24/7/2020 SE209231.025	SOIL - 24/7/2020 SE209231.026	SOIL - 24/7/2020 SE209231.027
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total BTEX	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Dichlorodifluoromethane (CFC-12)	mg/kg	1	<1	<1	<1	<1	<1
Chloromethane	mg/kg	1	<1	<1	<1	<1	<1
Vinyl chloride (Chloroethene)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromomethane	mg/kg	1	<1	<1	<1	<1	<1
Chloroethane	mg/kg	1	<1	<1	<1	<1	<1
Trichlorofluoromethane	mg/kg	1	<1	<1	<1	<1	<1
Acetone (2-propanone)	mg/kg	10	<10	<10	<10	<10	<10
Iodomethane	mg/kg	5	<5	<5	<5	<5	<5
1,1-dichloroethene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acrylonitrile	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dichloromethane (Methylene chloride)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Allyl chloride	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carbon disulfide	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-dichloroethene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
MtBE (Methyl-tert-butyl ether)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1-dichloroethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Vinyl acetate	mg/kg	10	<10	<10	<10	<10	<10
MEK (2-butanone)	mg/kg	10	<10	<10	<10	<10	<10
cis-1,2-dichloroethene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromochloromethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chloroform	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2,2-dichloropropane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2-dichloroethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1,1-trichloroethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1-dichloropropene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carbon tetrachloride	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibromomethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2-dichloropropane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Trichloroethene (Trichloroethylene -TCE)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-nitropropane	mg/kg	10	<10	<10	<10	<10	<10
Bromodichloromethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
MIBK (4-methyl-2-pentanone)	mg/kg	1	<1	<1	<1	<1	<1
cis-1,3-dichloropropene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-1,3-dichloropropene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1,2-trichloroethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,3-dichloropropane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorodibromomethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-hexanone (MBK)	mg/kg	5	<5	<5	<5	<5	<5
1,2-dibromoethane (EDB)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Tetrachloroethene (Perchloroethylene,PCE)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1,1,2-tetrachloroethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorobenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromoform	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
cis-1,4-dichloro-2-butene	mg/kg	1	<1	<1	<1	<1	<1
Styrene (Vinyl benzene)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1,2,2-tetrachloroethane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2,3-trichloropropane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-1,4-dichloro-2-butene	mg/kg	1	<1	<1	<1	<1	<1

VOC's in Soil [AN433] Tested: 29/7/2020 (continued)

PARAMETER	UOM	LOR	Pit 11	Pit 12	Pit 13	Pit 14	Pit 15
			SOIL - 24/7/2020 SE209231.023	SOIL - 24/7/2020 SE209231.024	SOIL - 24/7/2020 SE209231.025	SOIL - 24/7/2020 SE209231.026	SOIL - 24/7/2020 SE209231.027
Isopropylbenzene (Cumene)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromobenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
n-propylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-chlorotoluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
4-chlorotoluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,3,5-trimethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
tert-butylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2,4-trimethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
sec-butylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,3-dichlorobenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,4-dichlorobenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p-isopropyltoluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2-dichlorobenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
n-butylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2-dibromo-3-chloropropane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2,4-trichlorobenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Hexachlorobutadiene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2,3-trichlorobenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total VOC*	mg/kg	24	<24	<24	<24	<24	<24
Total Volatile Chlorinated Hydrocarbons*	mg/kg	3	<3.0	<3.0	<3.0	<3.0	<3.0
Total Other Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8	<1.8	<1.8	<1.8	<1.8
Total Chlorinated Hydrocarbons VIC EPA*	mg/kg	1.8	<1.8	<1.8	<1.8	<1.8	<1.8

Volatile Petroleum Hydrocarbons in Soil [AN433] Tested: 29/7/2020

PARAMETER	UOM	LOR	Pit 1	Pit 2	Pit 3	Pit 4	Pit 5
			SOIL	SOIL	SOIL	SOIL	SOIL
			- 24/7/2020 SE209231.013	- 24/7/2020 SE209231.014	- 24/7/2020 SE209231.015	- 24/7/2020 SE209231.016	- 24/7/2020 SE209231.017
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

PARAMETER	UOM	LOR	Pit 6	Pit 7	Pit 8	Pit 9	Pit 10
			SOIL	SOIL	SOIL	SOIL	SOIL
			- 24/7/2020 SE209231.018	- 24/7/2020 SE209231.019	- 24/7/2020 SE209231.020	- 24/7/2020 SE209231.021	- 24/7/2020 SE209231.022
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

PARAMETER	UOM	LOR	Pit 11	Pit 12	Pit 13	Pit 14	Pit 15
			SOIL	SOIL	SOIL	SOIL	SOIL
			- 24/7/2020 SE209231.023	- 24/7/2020 SE209231.024	- 24/7/2020 SE209231.025	- 24/7/2020 SE209231.026	- 24/7/2020 SE209231.027
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

TRH (Total Recoverable Hydrocarbons) in Soil [AN403] Tested: 29/7/2020

PARAMETER	UOM	LOR	Pit 1	Pit 2	Pit 3	Pit 4	Pit 5
			SOIL	SOIL	SOIL	SOIL	SOIL
			24/7/2020 SE209231.013	24/7/2020 SE209231.014	24/7/2020 SE209231.015	24/7/2020 SE209231.016	24/7/2020 SE209231.017
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	130	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100	<100
TRH >C10-C16	mg/kg	25	<25	<25	<25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	110	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	130	<110	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	<210	<210

PARAMETER	UOM	LOR	Pit 6	Pit 7	Pit 8	Pit 9	Pit 10
			SOIL	SOIL	SOIL	SOIL	SOIL
			24/7/2020 SE209231.018	24/7/2020 SE209231.019	24/7/2020 SE209231.020	24/7/2020 SE209231.021	24/7/2020 SE209231.022
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100	<100
TRH >C10-C16	mg/kg	25	<25	<25	<25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	<210	<210

PARAMETER	UOM	LOR	Pit 11	Pit 12	Pit 13	Pit 14	Pit 15
			SOIL	SOIL	SOIL	SOIL	SOIL
			24/7/2020 SE209231.023	24/7/2020 SE209231.024	24/7/2020 SE209231.025	24/7/2020 SE209231.026	24/7/2020 SE209231.027
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100	<100
TRH >C10-C16	mg/kg	25	<25	<25	<25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	<210	<210

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 29/7/2020

PARAMETER	UOM	LOR	Pit 1	Pit 2	Pit 3	Pit 4	Pit 5
			SOIL - 24/7/2020 SE209231.013	SOIL - 24/7/2020 SE209231.014	SOIL - 24/7/2020 SE209231.015	SOIL - 24/7/2020 SE209231.016	SOIL - 24/7/2020 SE209231.017
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8

PARAMETER	UOM	LOR	Pit 6	Pit 7	Pit 8	Pit 9	Pit 10
			SOIL - 24/7/2020 SE209231.018	SOIL - 24/7/2020 SE209231.019	SOIL - 24/7/2020 SE209231.020	SOIL - 24/7/2020 SE209231.021	SOIL - 24/7/2020 SE209231.022
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	0.3	<0.1	<0.1	<0.1	0.2
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	0.7	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.1	0.7	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.1	0.3	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	0.3	<0.1	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	0.6	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	0.2	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	0.4	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	0.3	<0.1	<0.1	<0.1	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	0.5	<0.1	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	0.6	<0.2	<0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	0.7	<0.3	<0.3	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	0.6	<0.2	<0.2	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	4.3	<0.8	<0.8	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	4.3	<0.8	<0.8	<0.8	<0.8

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 29/7/2020 (continued)

PARAMETER	UOM	LOR	Pit 11	Pit 12	Pit 13	Pit 14	Pit 15
			SOIL - 24/7/2020 SE209231.023	SOIL - 24/7/2020 SE209231.024	SOIL - 24/7/2020 SE209231.025	SOIL - 24/7/2020 SE209231.026	SOIL - 24/7/2020 SE209231.027
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8

OC Pesticides in Soil [AN420] Tested: 29/7/2020

PARAMETER	UOM	LOR	BH1.1	BH1.2	BH2.1	BH2.2	BH3.1
			SOIL - 24/7/2020 SE209231.001	SOIL - 24/7/2020 SE209231.002	SOIL - 24/7/2020 SE209231.003	SOIL - 24/7/2020 SE209231.004	SOIL - 24/7/2020 SE209231.005
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lindane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Delta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
p,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Ketone	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Isodrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total CLP OC Pesticides	mg/kg	1	<1	<1	<1	<1	<1

OC Pesticides in Soil [AN420] Tested: 29/7/2020 (continued)

PARAMETER	UOM	LOR	BH3.2	BH4.1	BH4.2	BH5.1	BH5.2
			SOIL - 24/7/2020 SE209231.006	SOIL - 24/7/2020 SE209231.007	SOIL - 24/7/2020 SE209231.008	SOIL - 24/7/2020 SE209231.009	SOIL - 24/7/2020 SE209231.010
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lindane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Delta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
p,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Ketone	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Isodrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total CLP OC Pesticides	mg/kg	1	<1	<1	<1	<1	<1

OC Pesticides in Soil [AN420] Tested: 29/7/2020 (continued)

PARAMETER	UOM	LOR	D1	D2	Pit 1	Pit 2	Pit 3
			SOIL - 24/7/2020 SE209231.011	SOIL - 24/7/2020 SE209231.012	SOIL - 24/7/2020 SE209231.013	SOIL - 24/7/2020 SE209231.014	SOIL - 24/7/2020 SE209231.015
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lindane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Delta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
p,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Ketone	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Isodrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total CLP OC Pesticides	mg/kg	1	<1	<1	<1	<1	<1

OC Pesticides in Soil [AN420] Tested: 29/7/2020 (continued)

PARAMETER	UOM	LOR	Pit 4	Pit 5	Pit 6	Pit 7	Pit 8
			SOIL - 24/7/2020 SE209231.016	SOIL - 24/7/2020 SE209231.017	SOIL - 24/7/2020 SE209231.018	SOIL - 24/7/2020 SE209231.019	SOIL - 24/7/2020 SE209231.020
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lindane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Delta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	0.2	<0.2	<0.2	0.3	<0.2	<0.2
Endrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
p,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Ketone	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Isodrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total CLP OC Pesticides	mg/kg	1	<1	<1	<1	<1	<1

OC Pesticides in Soil [AN420] Tested: 29/7/2020 (continued)

PARAMETER	UOM	LOR	Pit 9	Pit 10	Pit 11	Pit 12	Pit 13
			SOIL - 24/7/2020 SE209231.021	SOIL - 24/7/2020 SE209231.022	SOIL - 24/7/2020 SE209231.023	SOIL - 24/7/2020 SE209231.024	SOIL - 24/7/2020 SE209231.025
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Lindane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Delta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDE	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Endrin	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
o,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
o,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
p,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDT	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Ketone	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Isodrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total CLP OC Pesticides	mg/kg	1	<1	<1	<1	<1	<1

OC Pesticides in Soil [AN420] Tested: 29/7/2020 (continued)

PARAMETER	UOM	LOR	Pit 14	Pit 15
			SOIL - 24/7/2020 SE209231.026	SOIL - 24/7/2020 SE209231.027
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1
Alpha BHC	mg/kg	0.1	<0.1	<0.1
Lindane	mg/kg	0.1	<0.1	<0.1
Heptachlor	mg/kg	0.1	<0.1	<0.1
Aldrin	mg/kg	0.1	<0.1	<0.1
Beta BHC	mg/kg	0.1	<0.1	<0.1
Delta BHC	mg/kg	0.1	<0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1
o,p'-DDE	mg/kg	0.1	<0.1	<0.1
Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2
Gamma Chlordane	mg/kg	0.1	<0.1	<0.1
Alpha Chlordane	mg/kg	0.1	<0.1	<0.1
trans-Nonachlor	mg/kg	0.1	<0.1	<0.1
p,p'-DDE	mg/kg	0.1	<0.1	<0.1
Dieldrin	mg/kg	0.2	<0.2	<0.2
Endrin	mg/kg	0.2	<0.2	<0.2
o,p'-DDD	mg/kg	0.1	<0.1	<0.1
o,p'-DDT	mg/kg	0.1	<0.1	<0.1
Beta Endosulfan	mg/kg	0.2	<0.2	<0.2
p,p'-DDD	mg/kg	0.1	<0.1	<0.1
p,p'-DDT	mg/kg	0.1	<0.1	<0.1
Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1
Methoxychlor	mg/kg	0.1	<0.1	<0.1
Endrin Ketone	mg/kg	0.1	<0.1	<0.1
Isodrin	mg/kg	0.1	<0.1	<0.1
Mirex	mg/kg	0.1	<0.1	<0.1
Total CLP OC Pesticides	mg/kg	1	<1	<1

OP Pesticides in Soil [AN420] Tested: 29/7/2020

PARAMETER	UOM	LOR	BH1.1	BH1.2	BH2.1	BH2.2	BH3.1
			SOIL	SOIL	SOIL	SOIL	SOIL
			24/7/2020 SE209231.001	24/7/2020 SE209231.002	24/7/2020 SE209231.003	24/7/2020 SE209231.004	24/7/2020 SE209231.005
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	<1.7	<1.7	<1.7

PARAMETER	UOM	LOR	BH3.2	BH4.1	BH4.2	BH5.1	BH5.2
			SOIL	SOIL	SOIL	SOIL	SOIL
			24/7/2020 SE209231.006	24/7/2020 SE209231.007	24/7/2020 SE209231.008	24/7/2020 SE209231.009	24/7/2020 SE209231.010
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	<1.7	<1.7	<1.7

PARAMETER	UOM	LOR	D1	D2	Pit 1	Pit 2	Pit 3
			SOIL	SOIL	SOIL	SOIL	SOIL
			24/7/2020 SE209231.011	24/7/2020 SE209231.012	24/7/2020 SE209231.013	24/7/2020 SE209231.014	24/7/2020 SE209231.015
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	<1.7	<1.7	<1.7

OP Pesticides in Soil [AN420] Tested: 29/7/2020 (continued)

PARAMETER	UOM	LOR	Pit 4	Pit 5	Pit 6	Pit 7	Pit 8
			SOIL	SOIL	SOIL	SOIL	SOIL
			- 24/7/2020 SE209231.016	- 24/7/2020 SE209231.017	- 24/7/2020 SE209231.018	- 24/7/2020 SE209231.019	- 24/7/2020 SE209231.020
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	<1.7	<1.7	<1.7

PARAMETER	UOM	LOR	Pit 9	Pit 10	Pit 11	Pit 12	Pit 13
			SOIL	SOIL	SOIL	SOIL	SOIL
			- 24/7/2020 SE209231.021	- 24/7/2020 SE209231.022	- 24/7/2020 SE209231.023	- 24/7/2020 SE209231.024	- 24/7/2020 SE209231.025
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	<1.7	<1.7	<1.7

PARAMETER	UOM	LOR	Pit 14	Pit 15
			SOIL	SOIL
			- 24/7/2020 SE209231.026	- 24/7/2020 SE209231.027
Dichlorvos	mg/kg	0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2
Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7

PCBs in Soil [AN420] Tested: 29/7/2020

PARAMETER	UOM	LOR	Pit 1	Pit 2	Pit 3	Pit 4	Pit 5
			SOIL	SOIL	SOIL	SOIL	SOIL
			- 24/7/2020 SE209231.013	- 24/7/2020 SE209231.014	- 24/7/2020 SE209231.015	- 24/7/2020 SE209231.016	- 24/7/2020 SE209231.017
Arochlor 1016	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1221	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1232	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1242	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1248	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1254	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1260	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1262	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1268	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PCBs (Arochlors)	mg/kg	1	<1	<1	<1	<1	<1

PARAMETER	UOM	LOR	Pit 6	Pit 7	Pit 8	Pit 9	Pit 10
			SOIL	SOIL	SOIL	SOIL	SOIL
			- 24/7/2020 SE209231.018	- 24/7/2020 SE209231.019	- 24/7/2020 SE209231.020	- 24/7/2020 SE209231.021	- 24/7/2020 SE209231.022
Arochlor 1016	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1221	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1232	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1242	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1248	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1254	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1260	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1262	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1268	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PCBs (Arochlors)	mg/kg	1	<1	<1	<1	<1	<1

PARAMETER	UOM	LOR	Pit 11	Pit 12	Pit 13	Pit 14	Pit 15
			SOIL	SOIL	SOIL	SOIL	SOIL
			- 24/7/2020 SE209231.023	- 24/7/2020 SE209231.024	- 24/7/2020 SE209231.025	- 24/7/2020 SE209231.026	- 24/7/2020 SE209231.027
Arochlor 1016	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1221	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1232	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1242	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1248	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1254	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1260	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1262	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arochlor 1268	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PCBs (Arochlors)	mg/kg	1	<1	<1	<1	<1	<1

Pesticides / Herbicides in Soils by LC-MS/MS MA-1569.SL.01 [MA1569] Tested: 3/8/2020

PARAMETER	UOM	LOR	BH1.1	BH1.2	BH2.1	BH2.2	BH3.1
			SOIL	SOIL	SOIL	SOIL	SOIL
			24/7/2020 SE209231.001	24/7/2020 SE209231.002	24/7/2020 SE209231.003	24/7/2020 SE209231.004	24/7/2020 SE209231.005
4-Chlorophenoxy acetic acid (4-CPA)*	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-D [(2,4-Dichlorophenoxy) acetic acid]*	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2,4-DB*	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,6-D*	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoxynil*	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Clopyralid*	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dicamba*	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Dichloroprop / Dichlorprop-P*	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Dinoseb*	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fluroxypyr*	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
loxynil*	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
mecoprop*	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MCPA*	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MCPB*	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Picloram*	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Triclopyr*	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2,4,5-T*	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2,4,5-TP*	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,6-Trichlorophenoxy acetic acid*	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5

PARAMETER	UOM	LOR	BH3.2	BH4.1	BH4.2	BH5.1	BH5.2
			SOIL	SOIL	SOIL	SOIL	SOIL
			24/7/2020 SE209231.006	24/7/2020 SE209231.007	24/7/2020 SE209231.008	24/7/2020 SE209231.009	24/7/2020 SE209231.010
4-Chlorophenoxy acetic acid (4-CPA)*	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,4-D [(2,4-Dichlorophenoxy) acetic acid]*	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2,4-DB*	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,6-D*	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoxynil*	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Clopyralid*	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dicamba*	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Dichloroprop / Dichlorprop-P*	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Dinoseb*	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fluroxypyr*	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
loxynil*	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
mecoprop*	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MCPA*	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MCPB*	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Picloram*	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Triclopyr*	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2,4,5-T*	mg/kg	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2,4,5-TP*	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2,4,6-Trichlorophenoxy acetic acid*	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Pesticides / Herbicides in Soils by LC-MS/MS MA-1569.SL.01 [MA1569] Tested: 3/8/2020 (continued)

PARAMETER	UOM	LOR	D1	D2
			SOIL - 24/7/2020 SE209231.011	SOIL - 24/7/2020 SE209231.012
4-Chlorophenoxy acetic acid (4-CPA)*	mg/kg	0.5	<0.5	<0.5
2,4-D [(2,4-Dichlorophenoxy) acetic acid]*	mg/kg	0.01	<0.01	<0.01
2,4-DB*	mg/kg	0.5	<0.5	<0.5
2,6-D*	mg/kg	0.5	<0.5	<0.5
Bromoxynil*	mg/kg	0.5	<0.5	<0.5
Clopyralid*	mg/kg	0.5	<0.5	<0.5
Dicamba*	mg/kg	0.01	<0.01	<0.01
Dichloroprop / Dichlorprop-P*	mg/kg	0.01	<0.01	<0.01
Dinoseb*	mg/kg	0.5	<0.5	<0.5
Fluroxypyr*	mg/kg	0.5	<0.5	<0.5
Ioxynil*	mg/kg	0.5	<0.5	<0.5
mecoprop*	mg/kg	0.01	<0.01	<0.01
MCPA*	mg/kg	0.01	<0.01	<0.01
MCPB*	mg/kg	0.01	<0.01	<0.01
Picloram*	mg/kg	0.01	<0.01	<0.01
Triclopyr*	mg/kg	0.01	<0.01	<0.01
2,4,5-T*	mg/kg	0.01	<0.01	<0.01
2,4,5-TP*	mg/kg	0.5	<0.5	<0.5
2,4,6-Trichlorophenoxy acetic acid*	mg/kg	0.5	<0.5	<0.5

Total Phenolics in Soil [AN289] Tested: 30/7/2020

			Pit 1	Pit 2	Pit 3	Pit 4	Pit 5
			SOIL -	SOIL -	SOIL -	SOIL -	SOIL -
			24/7/2020	24/7/2020	24/7/2020	24/7/2020	24/7/2020
PARAMETER	UOM	LOR	SE209231.013	SE209231.014	SE209231.015	SE209231.016	SE209231.017
Total Phenols	mg/kg	0.1	<0.1	0.5	<0.1	<0.1	<0.1

			Pit 6	Pit 7	Pit 8	Pit 9	Pit 10
			SOIL -	SOIL -	SOIL -	SOIL -	SOIL -
			24/7/2020	24/7/2020	24/7/2020	24/7/2020	24/7/2020
PARAMETER	UOM	LOR	SE209231.018	SE209231.019	SE209231.020	SE209231.021	SE209231.022
Total Phenols	mg/kg	0.1	0.1	<0.1	0.1	0.2	<0.1

			Pit 11	Pit 12	Pit 13	Pit 14	Pit 15
			SOIL -	SOIL -	SOIL -	SOIL -	SOIL -
			24/7/2020	24/7/2020	24/7/2020	24/7/2020	24/7/2020
PARAMETER	UOM	LOR	SE209231.023	SE209231.024	SE209231.025	SE209231.026	SE209231.027
Total Phenols	mg/kg	0.1	<0.1	0.2	<0.1	<0.1	0.1

Soluble Anions (1:5) in Soil by Ion Chromatography [AN245] Tested: 31/7/2020

PARAMETER	UOM	LOR	BH1.1	BH1.2	BH2.1	BH2.2	BH3.1
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			24/7/2020	24/7/2020	24/7/2020	24/7/2020	24/7/2020
			SE209231.001	SE209231.002	SE209231.003	SE209231.004	SE209231.005
Nitrate Nitrogen	mg/kg	0.025	2.9	6.7	1.2	1.7	22

PARAMETER	UOM	LOR	BH3.2	BH4.1	BH4.2	BH5.1	BH5.2
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			24/7/2020	24/7/2020	24/7/2020	24/7/2020	24/7/2020
			SE209231.006	SE209231.007	SE209231.008	SE209231.009	SE209231.010
Nitrate Nitrogen	mg/kg	0.025	12	2.7	2.1	4.4	1.6

PARAMETER	UOM	LOR	D1	D2
			SOIL	SOIL
			-	-
			24/7/2020	24/7/2020
			SE209231.011	SE209231.012
Nitrate Nitrogen	mg/kg	0.025	1.6	1.3

Total Phosphorus by Kjeldahl Digestion DA in Soil [AN279/AN293(Sydney only)] Tested: 29/7/2020

PARAMETER	UOM	LOR	BH1.1	BH1.2	BH2.1	BH2.2	BH3.1
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			24/7/2020	24/7/2020	24/7/2020	24/7/2020	24/7/2020
			SE209231.001	SE209231.002	SE209231.003	SE209231.004	SE209231.005
Total Phosphorus (Kjeldahl Digestion)	mg/kg	40	220	240	230	220	320

PARAMETER	UOM	LOR	BH3.2	BH4.1	BH4.2	BH5.1	BH5.2
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			24/7/2020	24/7/2020	24/7/2020	24/7/2020	24/7/2020
			SE209231.006	SE209231.007	SE209231.008	SE209231.009	SE209231.010
Total Phosphorus (Kjeldahl Digestion)	mg/kg	40	220	300	260	310	260

PARAMETER	UOM	LOR	D1	D2
			SOIL	SOIL
			-	-
			24/7/2020	24/7/2020
			SE209231.011	SE209231.012
Total Phosphorus (Kjeldahl Digestion)	mg/kg	40	280	260

pH in soil (1:5) [AN101] Tested: 30/7/2020

PARAMETER	UOM	LOR	Pit 1	Pit 10	Pit 12
			SOIL - 24/7/2020 SE209231.013	SOIL - 24/7/2020 SE209231.022	SOIL - 24/7/2020 SE209231.024
pH	pH Units	0.1	7.3	7.2	5.6

Exchangeable Cations and Cation Exchange Capacity (CEC/ESP/SAR) [AN122] Tested: 29/7/2020

PARAMETER	UOM	LOR	Pit 1	Pit 10	Pit 12
			SOIL - 24/7/2020 SE209231.013	SOIL - 24/7/2020 SE209231.022	SOIL - 24/7/2020 SE209231.024
Exchangeable Sodium, Na	mg/kg	2	40	300	350
Exchangeable Sodium, Na	meq/100g	0.01	0.18	1.3	1.5
Exchangeable Sodium Percentage*	%	0.1	1.5	10.7	10.9
Exchangeable Potassium, K	mg/kg	2	710	170	320
Exchangeable Potassium, K	meq/100g	0.01	1.8	0.45	0.82
Exchangeable Potassium Percentage*	%	0.1	15.0	3.7	5.9
Exchangeable Calcium, Ca	mg/kg	2	1500	1300	730
Exchangeable Calcium, Ca	meq/100g	0.01	7.4	6.7	3.6
Exchangeable Calcium Percentage*	%	0.1	61.7	54.5	26.3
Exchangeable Magnesium, Mg	mg/kg	2	320	460	960
Exchangeable Magnesium, Mg	meq/100g	0.02	2.6	3.8	7.9
Exchangeable Magnesium Percentage*	%	0.1	21.8	31.1	56.9
Cation Exchange Capacity	meq/100g	0.02	12	12	14

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 29/7/2020

PARAMETER	UOM	LOR	BH1.1	BH1.2	BH2.1	BH2.2	BH3.1
			SOIL	SOIL	SOIL	SOIL	SOIL
			24/7/2020 SE209231.001	24/7/2020 SE209231.002	24/7/2020 SE209231.003	24/7/2020 SE209231.004	24/7/2020 SE209231.005
Arsenic, As	mg/kg	1	2	2	2	2	2
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	6.6	6.3	6.6	6.1	5.5
Copper, Cu	mg/kg	0.5	6.1	6.2	6.7	6.1	5.2
Lead, Pb	mg/kg	1	7	7	8	8	7
Nickel, Ni	mg/kg	0.5	5.2	5.0	4.9	4.8	4.1
Zinc, Zn	mg/kg	2	25	23	25	28	19

PARAMETER	UOM	LOR	BH3.2	BH4.1	BH4.2	BH5.1	BH5.2
			SOIL	SOIL	SOIL	SOIL	SOIL
			24/7/2020 SE209231.006	24/7/2020 SE209231.007	24/7/2020 SE209231.008	24/7/2020 SE209231.009	24/7/2020 SE209231.010
Arsenic, As	mg/kg	1	2	3	2	2	3
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	5.3	6.9	6.3	7.5	9.1
Copper, Cu	mg/kg	0.5	5.1	6.5	5.8	6.3	6.6
Lead, Pb	mg/kg	1	6	9	7	8	8
Nickel, Ni	mg/kg	0.5	3.9	5.2	4.8	5.5	5.8
Zinc, Zn	mg/kg	2	18	23	21	19	19

PARAMETER	UOM	LOR	D1	D2	Pit 1	Pit 2	Pit 3
			SOIL	SOIL	SOIL	SOIL	SOIL
			24/7/2020 SE209231.011	24/7/2020 SE209231.012	24/7/2020 SE209231.013	24/7/2020 SE209231.014	24/7/2020 SE209231.015
Arsenic, As	mg/kg	1	3	3	6	4	11
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	7.1	9.4	15	6.9	5.6
Copper, Cu	mg/kg	0.5	6.7	6.5	19	35	33
Lead, Pb	mg/kg	1	8	8	18	19	15
Nickel, Ni	mg/kg	0.5	5.8	5.9	15	10	18
Zinc, Zn	mg/kg	2	22	19	55	170	73

PARAMETER	UOM	LOR	Pit 4	Pit 5	Pit 6	Pit 7	Pit 8
			SOIL	SOIL	SOIL	SOIL	SOIL
			24/7/2020 SE209231.016	24/7/2020 SE209231.017	24/7/2020 SE209231.018	24/7/2020 SE209231.019	24/7/2020 SE209231.020
Arsenic, As	mg/kg	1	7	6	4	4	5
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	10	12	11	3.5	11
Copper, Cu	mg/kg	0.5	23	22	11	27	23
Lead, Pb	mg/kg	1	21	15	16	16	15
Nickel, Ni	mg/kg	0.5	14	11	4.6	4.0	11
Zinc, Zn	mg/kg	2	57	41	26	22	48

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 29/7/2020

PARAMETER	UOM	LOR	Pit 9	Pit 10	Pit 11	Pit 12	Pit 13
			SOIL	SOIL	SOIL	SOIL	SOIL
			- 24/7/2020 SE209231.021	- 24/7/2020 SE209231.022	- 24/7/2020 SE209231.023	- 24/7/2020 SE209231.024	- 24/7/2020 SE209231.025
Arsenic, As	mg/kg	1	5	5	5	9	5
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	8.1	11	9.4	13	14
Copper, Cu	mg/kg	0.5	9.0	35	13	24	24
Lead, Pb	mg/kg	1	12	17	17	14	14
Nickel, Ni	mg/kg	0.5	7.2	10	8.0	11	24
Zinc, Zn	mg/kg	2	38	75	49	53	39

PARAMETER	UOM	LOR	Pit 14	Pit 15
			SOIL	SOIL
			- 24/7/2020 SE209231.026	- 24/7/2020 SE209231.027
Arsenic, As	mg/kg	1	5	4
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	9.3	13
Copper, Cu	mg/kg	0.5	12	21
Lead, Pb	mg/kg	1	16	17
Nickel, Ni	mg/kg	0.5	7.5	6.4
Zinc, Zn	mg/kg	2	54	35

Mercury in Soil [AN312] Tested: 29/7/2020

PARAMETER	UOM	LOR	BH1.1	BH1.2	BH2.1	BH2.2	BH3.1
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			24/7/2020	24/7/2020	24/7/2020	24/7/2020	24/7/2020
			SE209231.001	SE209231.002	SE209231.003	SE209231.004	SE209231.005
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH3.2	BH4.1	BH4.2	BH5.1	BH5.2
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			24/7/2020	24/7/2020	24/7/2020	24/7/2020	24/7/2020
			SE209231.006	SE209231.007	SE209231.008	SE209231.009	SE209231.010
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	D1	D2	Pit 1	Pit 2	Pit 3
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			24/7/2020	24/7/2020	24/7/2020	24/7/2020	24/7/2020
			SE209231.011	SE209231.012	SE209231.013	SE209231.014	SE209231.015
Mercury	mg/kg	0.05	<0.05	<0.05	0.13	<0.05	0.10

PARAMETER	UOM	LOR	Pit 4	Pit 5	Pit 6	Pit 7	Pit 8
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			24/7/2020	24/7/2020	24/7/2020	24/7/2020	24/7/2020
			SE209231.016	SE209231.017	SE209231.018	SE209231.019	SE209231.020
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	Pit 9	Pit 10	Pit 11	Pit 12	Pit 13
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			24/7/2020	24/7/2020	24/7/2020	24/7/2020	24/7/2020
			SE209231.021	SE209231.022	SE209231.023	SE209231.024	SE209231.025
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	Pit 14	Pit 15
			SOIL	SOIL
			-	-
			24/7/2020	24/7/2020
			SE209231.026	SE209231.027
Mercury	mg/kg	0.05	<0.05	<0.05

Moisture Content [AN002] Tested: 29/7/2020

			BH1.1	BH1.2	BH2.1	BH2.2	BH3.1
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			24/7/2020	24/7/2020	24/7/2020	24/7/2020	24/7/2020
PARAMETER	UOM	LOR	SE209231.001	SE209231.002	SE209231.003	SE209231.004	SE209231.005
% Moisture	%w/w	1	10.2	9.9	10.5	10.1	11.2

			BH3.2	BH4.1	BH4.2	BH5.1	BH5.2
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			24/7/2020	24/7/2020	24/7/2020	24/7/2020	24/7/2020
PARAMETER	UOM	LOR	SE209231.006	SE209231.007	SE209231.008	SE209231.009	SE209231.010
% Moisture	%w/w	1	8.1	11.4	9.4	11.3	11.1

			D1	D2	Pit 1	Pit 2	Pit 3
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			24/7/2020	24/7/2020	24/7/2020	24/7/2020	24/7/2020
PARAMETER	UOM	LOR	SE209231.011	SE209231.012	SE209231.013	SE209231.014	SE209231.015
% Moisture	%w/w	1	10.4	10.7	14.1	24.9	13.2

			Pit 4	Pit 5	Pit 6	Pit 7	Pit 8
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			24/7/2020	24/7/2020	24/7/2020	24/7/2020	24/7/2020
PARAMETER	UOM	LOR	SE209231.016	SE209231.017	SE209231.018	SE209231.019	SE209231.020
% Moisture	%w/w	1	19.1	14.1	9.7	17.3	18.3

			Pit 9	Pit 10	Pit 11	Pit 12	Pit 13
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			24/7/2020	24/7/2020	24/7/2020	24/7/2020	24/7/2020
PARAMETER	UOM	LOR	SE209231.021	SE209231.022	SE209231.023	SE209231.024	SE209231.025
% Moisture	%w/w	1	14.1	7.2	9.2	18.5	10.8

			Pit 14	Pit 15
			SOIL	SOIL
			-	-
			24/7/2020	24/7/2020
PARAMETER	UOM	LOR	SE209231.026	SE209231.027
% Moisture	%w/w	1	18.4	14.6

Fibre Identification in soil [AN602] Tested: 30/7/2020

PARAMETER	UOM	LOR	BH1.1	BH1.2	BH2.1	BH2.2	BH3.1
			SOIL	SOIL	SOIL	SOIL	SOIL
			24/7/2020 SE209231.001	24/7/2020 SE209231.002	24/7/2020 SE209231.003	24/7/2020 SE209231.004	24/7/2020 SE209231.005
Asbestos Detected	No unit	-	No	No	No	No	No
Estimated Fibres*	%w/w	0.01	<0.01	<0.01	<0.01	<0.01	<0.01

PARAMETER	UOM	LOR	BH3.2	BH4.1	BH4.2	BH5.1	BH5.2
			SOIL	SOIL	SOIL	SOIL	SOIL
			24/7/2020 SE209231.006	24/7/2020 SE209231.007	24/7/2020 SE209231.008	24/7/2020 SE209231.009	24/7/2020 SE209231.010
Asbestos Detected	No unit	-	No	No	No	No	No
Estimated Fibres*	%w/w	0.01	<0.01	<0.01	<0.01	<0.01	<0.01

PARAMETER	UOM	LOR	D1	D2	Pit 1	Pit 2	Pit 3
			SOIL	SOIL	SOIL	SOIL	SOIL
			24/7/2020 SE209231.011	24/7/2020 SE209231.012	24/7/2020 SE209231.013	24/7/2020 SE209231.014	24/7/2020 SE209231.015
Asbestos Detected	No unit	-	No	No	No	No	No
Estimated Fibres*	%w/w	0.01	<0.01	<0.01	<0.01	<0.01	<0.01

PARAMETER	UOM	LOR	Pit 4	Pit 5	Pit 6	Pit 7	Pit 8
			SOIL	SOIL	SOIL	SOIL	SOIL
			24/7/2020 SE209231.016	24/7/2020 SE209231.017	24/7/2020 SE209231.018	24/7/2020 SE209231.019	24/7/2020 SE209231.020
Asbestos Detected	No unit	-	No	No	No	No	No
Estimated Fibres*	%w/w	0.01	<0.01	<0.01	<0.01	<0.01	<0.01

PARAMETER	UOM	LOR	Pit 9	Pit 10	Pit 11	Pit 12	Pit 13
			SOIL	SOIL	SOIL	SOIL	SOIL
			24/7/2020 SE209231.021	24/7/2020 SE209231.022	24/7/2020 SE209231.023	24/7/2020 SE209231.024	24/7/2020 SE209231.025
Asbestos Detected	No unit	-	No	No	No	No	No
Estimated Fibres*	%w/w	0.01	<0.01	<0.01	<0.01	<0.01	<0.01

PARAMETER	UOM	LOR	Pit 14	Pit 15
			SOIL	SOIL
			24/7/2020 SE209231.026	24/7/2020 SE209231.027
Asbestos Detected	No unit	-	No	No
Estimated Fibres*	%w/w	0.01	<0.01	<0.01

VOCs in Water [AN433] Tested: 29/7/2020

PARAMETER	UOM	LOR	Well1	Dam1	Dam2
			WATER - 24/7/2020 SE209231.028	WATER - 24/7/2020 SE209231.029	WATER - 24/7/2020 SE209231.030
Benzene	µg/L	0.5	<0.5	<0.5	<0.5
Toluene	µg/L	0.5	0.6	1.0	1.2
Ethylbenzene	µg/L	0.5	<0.5	<0.5	<0.5
m/p-xylene	µg/L	1	<1	<1	<1
o-xylene	µg/L	0.5	<0.5	<0.5	<0.5
Total Xylenes	µg/L	1.5	<1.5	<1.5	<1.5
Total BTEX	µg/L	3	<3	<3	<3
Naphthalene	µg/L	0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane (CFC-12)	µg/L	5	<5	<5	<5
Chloromethane	µg/L	5	<5	<5	<5
Vinyl chloride (Chloroethene)	µg/L	0.3	<0.3	<0.3	<0.3
Bromomethane	µg/L	10	<10	<10	<10
Chloroethane	µg/L	5	<5	<5	<5
Trichlorofluoromethane	µg/L	1	<1	<1	<1
Acetone (2-propanone)	µg/L	10	<10	<10	<10
Iodomethane	µg/L	5	<5	<5	<5
1,1-dichloroethene	µg/L	0.5	<0.5	<0.5	<0.5
Acrylonitrile	µg/L	0.5	<0.5	<0.5	<0.5
Dichloromethane (Methylene chloride)	µg/L	5	<5	<5	<5
Allyl chloride	µg/L	2	<2	<2	<2
Carbon disulfide	µg/L	2	<2	<2	<2
trans-1,2-dichloroethene	µg/L	0.5	<0.5	<0.5	<0.5
MtBE (Methyl-tert-butyl ether)	µg/L	2	<2	<2	<2
1,1-dichloroethane	µg/L	0.5	<0.5	<0.5	<0.5
Vinyl acetate	µg/L	10	<10	<10	<10
MEK (2-butanone)	µg/L	10	<10	<10	<10
cis-1,2-dichloroethene	µg/L	0.5	<0.5	<0.5	<0.5
Bromochloromethane	µg/L	0.5	<0.5	<0.5	<0.5
Chloroform (THM)	µg/L	0.5	0.7	<0.5	<0.5
2,2-dichloropropane	µg/L	0.5	<0.5	<0.5	<0.5
1,2-dichloroethane	µg/L	0.5	<0.5	<0.5	<0.5
1,1,1-trichloroethane	µg/L	0.5	<0.5	<0.5	<0.5
1,1-dichloropropene	µg/L	0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	µg/L	0.5	<0.5	<0.5	<0.5
Dibromomethane	µg/L	0.5	<0.5	<0.5	<0.5
1,2-dichloropropane	µg/L	0.5	<0.5	<0.5	<0.5
Trichloroethene (Trichloroethylene,TCE)	µg/L	0.5	<0.5	<0.5	<0.5
2-nitropropane	µg/L	100	<100	<100	<100
Bromodichloromethane (THM)	µg/L	0.5	<0.5	<0.5	<0.5
MIBK (4-methyl-2-pentanone)	µg/L	5	<5	<5	<5
cis-1,3-dichloropropene	µg/L	0.5	<0.5	<0.5	<0.5
trans-1,3-dichloropropene	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2-trichloroethane	µg/L	0.5	<0.5	<0.5	<0.5
1,3-dichloropropane	µg/L	0.5	<0.5	<0.5	<0.5
Dibromochloromethane (THM)	µg/L	0.5	<0.5	<0.5	<0.5
2-hexanone (MBK)	µg/L	5	<5	<5	<5
1,2-dibromoethane (EDB)	µg/L	0.5	<0.5	<0.5	<0.5
Tetrachloroethene (Perchloroethylene,PCE)	µg/L	0.5	<0.5	<0.5	<0.5
1,1,1,2-tetrachloroethane	µg/L	0.5	<0.5	<0.5	<0.5
Chlorobenzene	µg/L	0.5	<0.5	<0.5	<0.5
Bromoform (THM)	µg/L	0.5	<0.5	<0.5	<0.5
cis-1,4-dichloro-2-butene	µg/L	1	<1	<1	<1
Styrene (Vinyl benzene)	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2,2-tetrachloroethane	µg/L	0.5	<0.5	<0.5	<0.5
1,2,3-trichloropropane	µg/L	0.5	<0.5	<0.5	<0.5
trans-1,4-dichloro-2-butene	µg/L	1	<1	<1	<1

VOCs in Water [AN433] Tested: 29/7/2020 (continued)

PARAMETER	UOM	LOR	Well1	Dam1	Dam2
			WATER - 24/7/2020 SE209231.028	WATER - 24/7/2020 SE209231.029	WATER - 24/7/2020 SE209231.030
Isopropylbenzene (Cumene)	µg/L	0.5	<0.5	<0.5	<0.5
Bromobenzene	µg/L	0.5	<0.5	<0.5	<0.5
n-propylbenzene	µg/L	0.5	<0.5	<0.5	<0.5
2-chlorotoluene	µg/L	0.5	<0.5	<0.5	<0.5
4-chlorotoluene	µg/L	0.5	<0.5	<0.5	<0.5
1,3,5-trimethylbenzene	µg/L	0.5	<0.5	<0.5	<0.5
tert-butylbenzene	µg/L	0.5	<0.5	<0.5	<0.5
1,2,4-trimethylbenzene	µg/L	0.5	<0.5	<0.5	<0.5
sec-butylbenzene	µg/L	0.5	<0.5	<0.5	<0.5
1,3-dichlorobenzene	µg/L	0.5	<0.5	<0.5	<0.5
1,4-dichlorobenzene	µg/L	0.3	<0.3	<0.3	<0.3
p-isopropyltoluene	µg/L	0.5	<0.5	<0.5	<0.5
1,2-dichlorobenzene	µg/L	0.5	<0.5	<0.5	<0.5
n-butylbenzene	µg/L	0.5	<0.5	<0.5	<0.5
1,2-dibromo-3-chloropropane	µg/L	0.5	<0.5	<0.5	<0.5
1,2,4-trichlorobenzene	µg/L	0.5	<0.5	<0.5	<0.5
Hexachlorobutadiene	µg/L	0.5	<0.5	<0.5	<0.5
1,2,3-trichlorobenzene	µg/L	0.5	<0.5	<0.5	<0.5
Total VOC	µg/L	10	<10	<10	<10

Volatile Petroleum Hydrocarbons in Water [AN433] Tested: 29/7/2020

PARAMETER	UOM	LOR	Well1	Dam1	Dam2
			WATER - 24/7/2020 SE209231.028	WATER - 24/7/2020 SE209231.029	WATER - 24/7/2020 SE209231.030
TRH C6-C9	µg/L	40	<40	<40	<40
Benzene (F0)	µg/L	0.5	<0.5	<0.5	<0.5
TRH C6-C10	µg/L	50	<50	<50	<50
TRH C6-C10 minus BTEX (F1)	µg/L	50	<50	<50	<50

TRH (Total Recoverable Hydrocarbons) in Water [AN403] Tested: 29/7/2020

PARAMETER	UOM	LOR	Well1	Dam1	Dam2
			WATER - 24/7/2020 SE209231.028	WATER - 24/7/2020 SE209231.029	WATER - 24/7/2020 SE209231.030
TRH C10-C14	µg/L	50	<50	<50	<50
TRH C15-C28	µg/L	200	<200	<200	250
TRH C29-C36	µg/L	200	<200	<200	<200
TRH C37-C40	µg/L	200	<200	<200	<200
TRH >C10-C16	µg/L	60	<60	<60	<60
TRH >C10-C16 - Naphthalene (F2)	µg/L	60	<60	<60	<60
TRH >C16-C34 (F3)	µg/L	500	<500	<500	<500
TRH >C34-C40 (F4)	µg/L	500	<500	<500	<500
TRH C10-C40	µg/L	320	<320	<320	<320

PAH (Polynuclear Aromatic Hydrocarbons) in Water [AN420] Tested: 29/7/2020

PARAMETER	UOM	LOR	Well1	Dam1	Dam2
			WATER - 24/7/2020 SE209231.028	WATER - 24/7/2020 SE209231.029	WATER - 24/7/2020 SE209231.030
Naphthalene	µg/L	0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	µg/L	0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	µg/L	0.1	<0.1	<0.1	<0.1
Acenaphthylene	µg/L	0.1	<0.1	<0.1	<0.1
Acenaphthene	µg/L	0.1	<0.1	<0.1	<0.1
Fluorene	µg/L	0.1	<0.1	<0.1	<0.1
Phenanthrene	µg/L	0.1	<0.1	<0.1	<0.1
Anthracene	µg/L	0.1	<0.1	<0.1	<0.1
Fluoranthene	µg/L	0.1	<0.1	<0.1	<0.1
Pyrene	µg/L	0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	µg/L	0.1	<0.1	<0.1	<0.1
Chrysene	µg/L	0.1	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	µg/L	0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	µg/L	0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	µg/L	0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	µg/L	0.1	<0.1	<0.1	<0.1
Dibenzo(ah)anthracene	µg/L	0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	µg/L	0.1	<0.1	<0.1	<0.1
Total PAH (18)	µg/L	1	<1	<1	<1

OC Pesticides in Water [AN420] Tested: 29/7/2020

PARAMETER	UOM	LOR	Well1	Dam1	Dam2
			WATER - 24/7/2020 SE209231.028	WATER - 24/7/2020 SE209231.029	WATER - 24/7/2020 SE209231.030
Alpha BHC	µg/L	0.1	<0.1	<0.1	<0.1
Hexachlorobenzene (HCB)	µg/L	0.1	<0.1	<0.1	<0.1
Beta BHC	µg/L	0.1	<0.1	<0.1	<0.1
Lindane (gamma BHC)	µg/L	0.1	<0.1	<0.1	<0.1
Delta BHC	µg/L	0.1	<0.1	<0.1	<0.1
Heptachlor	µg/L	0.1	<0.1	<0.1	<0.1
Aldrin	µg/L	0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	µg/L	0.1	<0.1	<0.1	<0.1
Gamma Chlordane	µg/L	0.1	<0.1	<0.1	<0.1
Alpha Chlordane	µg/L	0.1	<0.1	<0.1	<0.1
Alpha Endosulfan	µg/L	0.1	<0.1	<0.1	<0.1
o,p'-DDE	µg/L	0.1	<0.1	<0.1	<0.1
p,p'-DDE	µg/L	0.1	<0.1	<0.1	<0.1
Dieldrin	µg/L	0.1	<0.1	<0.1	<0.1
Endrin	µg/L	0.1	<0.1	<0.1	<0.1
Beta Endosulfan	µg/L	0.1	<0.1	<0.1	<0.1
o,p'-DDD	µg/L	0.1	<0.1	<0.1	<0.1
p,p'-DDD	µg/L	0.1	<0.1	<0.1	<0.1
Endosulfan sulphate	µg/L	0.1	<0.1	<0.1	<0.1
o,p'-DDT	µg/L	0.1	<0.1	<0.1	<0.1
p,p'-DDT	µg/L	0.1	<0.1	<0.1	<0.1
Endrin ketone	µg/L	0.1	<0.1	<0.1	<0.1
Methoxychlor	µg/L	0.1	<0.1	<0.1	<0.1
trans-Nonachlor	µg/L	0.1	<0.1	<0.1	<0.1
Endrin aldehyde	µg/L	0.1	<0.1	<0.1	<0.1
Isodrin	µg/L	0.1	<0.1	<0.1	<0.1
Mirex	µg/L	0.1	<0.1	<0.1	<0.1

OP Pesticides in Water [AN420] Tested: 29/7/2020

PARAMETER	UOM	LOR	Well1	Dam1	Dam2
			WATER - 24/7/2020 SE209231.028	WATER - 24/7/2020 SE209231.029	WATER - 24/7/2020 SE209231.030
Dichlorvos	µg/L	0.5	<0.5	<0.5	<0.5
Dimethoate	µg/L	0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	µg/L	0.5	<0.5	<0.5	<0.5
Fenitrothion	µg/L	0.2	<0.2	<0.2	<0.2
Malathion	µg/L	0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	µg/L	0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	µg/L	0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	µg/L	0.2	<0.2	<0.2	<0.2
Methidathion	µg/L	0.5	<0.5	<0.5	<0.5
Ethion	µg/L	0.2	<0.2	<0.2	<0.2
Azinphos-methyl	µg/L	0.2	<0.2	<0.2	<0.2

PCBs in Water [AN420] Tested: 29/7/2020

PARAMETER	UOM	LOR	Well1	Dam1	Dam2
			WATER - 24/7/2020 SE209231.028	WATER - 24/7/2020 SE209231.029	WATER - 24/7/2020 SE209231.030
Arochlor 1016	µg/L	1	<1	<1	<1
Arochlor 1221	µg/L	1	<1	<1	<1
Arochlor 1232	µg/L	1	<1	<1	<1
Arochlor 1242	µg/L	1	<1	<1	<1
Arochlor 1248	µg/L	1	<1	<1	<1
Arochlor 1254	µg/L	1	<1	<1	<1
Arochlor 1260	µg/L	1	<1	<1	<1
Arochlor 1262	µg/L	1	<1	<1	<1
Arochlor 1268	µg/L	1	<1	<1	<1
Total Arochlors*	µg/L	5	<5	<5	<5

Pesticides / Herbicides in waters by HPLC-MS MA-1569.WW.01 [MA1569] Tested: 3/8/2020

PARAMETER	UOM	LOR	Well1	Dam1	Dam2
			WATER - 24/7/2020 SE209231.028	WATER - 24/7/2020 SE209231.029	WATER - 24/7/2020 SE209231.030
2,4,5-T*	µg/L	0.5	<0.5	<0.5	<0.5
2,4,5-TP*	µg/L	0.5	<0.5	<0.5	<0.5
2,4,6-T*	µg/L	0.5	<0.5	<0.5	<0.5
2,4-D [(2,4-Dichlorophenoxy) acetic acid]*	µg/L	0.5	<0.5	<0.5	<0.5
24-DB*	µg/L	0.5	<0.5	<0.5	<0.5
2,6-D [(2,6-Dichlorophenoxy) acetic acid]*	µg/L	0.5	<0.5	<0.5	<0.5
4-CPA*	µg/L	1	<1	<1	<1
Bromoxynil*	µg/L	1	<1	<1	<1
Clopyralid*	µg/L	0.5	<0.5	<0.5	<0.5
Dicamba*	µg/L	0.5	<0.5	<0.5	<0.5
Dichloroprop / Dichlorprop-P*	µg/L	0.5	<0.5	<0.5	<0.5
Dinoseb*	µg/L	0.5	<0.5	<0.5	<0.5
Fluroxypyr*	µg/L	0.5	<0.5	<0.5	<0.5
loxynil*	µg/L	1	<1	<1	<1
MCPA*	µg/L	0.5	<0.5	<0.5	<0.5
MCPB*	µg/L	1	<1	<1	<1
mecoprop*	µg/L	0.5	<0.5	<0.5	<0.5
Picloram*	µg/L	1	<1	<1	<1
Triclopyr*	µg/L	0.5	<0.5	<0.5	<0.5

Total Phenolics in Water [AN289] Tested: 31/7/2020

PARAMETER	UOM	LOR	Well1	Dam1	Dam2
			WATER - 24/7/2020 SE209231.028	WATER - 24/7/2020 SE209231.029	WATER - 24/7/2020 SE209231.030
Total Phenols	mg/L	0.01	<0.01	0.02	0.02

Anions by Ion Chromatography in Water [AN245] Tested: 31/7/2020

PARAMETER	UOM	LOR	Well1	Dam1	Dam2
			WATER - 24/7/2020 SE209231.028	WATER - 24/7/2020 SE209231.029	WATER - 24/7/2020 SE209231.030
Nitrate Nitrogen, NO3-N	mg/L	0.005	78	0.22	0.16

Total Phosphorus by Kjeldahl Digestion DA in Water [AN279/AN293(Sydney only)] Tested: 29/7/2020

PARAMETER	UOM	LOR	Well1	Dam1	Dam2
			WATER - 24/7/2020 SE209231.028	WATER - 24/7/2020 SE209231.029	WATER - 24/7/2020 SE209231.030
Total Phosphorus (Kjeldahl Digestion) as P	mg/L	0.02	0.41	0.88	12

Trace Metals (Dissolved) in Water by ICPMS [AN318] Tested: 29/7/2020

PARAMETER	UOM	LOR	Well1	Dam1	Dam2
			WATER - 24/7/2020 SE209231.028	WATER - 24/7/2020 SE209231.029	WATER - 24/7/2020 SE209231.030
Arsenic, As	µg/L	1	<1	<1	7
Cadmium, Cd	µg/L	0.1	<0.1	<0.1	<0.1
Chromium, Cr	µg/L	1	<1	<1	<1
Copper, Cu	µg/L	1	1	1	2
Lead, Pb	µg/L	1	<1	<1	<1
Nickel, Ni	µg/L	1	1	2	6
Zinc, Zn	µg/L	5	15	6	<5

Mercury (dissolved) in Water [AN311(Perth)/AN312] Tested: 30/7/2020

PARAMETER	UOM	LOR	Well1	Dam1	Dam2
			WATER - 24/7/2020 SE209231.028	WATER - 24/7/2020 SE209231.029	WATER - 24/7/2020 SE209231.030
Mercury	mg/L	0.0001	<0.0001	<0.0001	<0.0001

METHOD

METHODOLOGY SUMMARY

- AN002** The test is carried out by drying (at either 40°C or 105°C) a known mass of sample in a weighed evaporating basin. After fully dry the sample is re-weighed. Samples such as sludge and sediment having high percentages of moisture will take some time in a drying oven for complete removal of water.
- AN020** Unpreserved water sample is filtered through a 0.45µm membrane filter and acidified with nitric acid similar to APHA3030B.
- AN040/AN320** A portion of sample is digested with nitric acid to decompose organic matter and hydrochloric acid to complete the digestion of metals. The digest is then analysed by ICP OES with metals results reported on the dried sample basis. Based on USEPA method 200.8 and 6010C.
- AN040** A portion of sample is digested with Nitric acid to decompose organic matter and Hydrochloric acid to complete the digestion of metals and then filtered for analysis by ASS or ICP as per USEPA Method 200.8.
- AN101** pH in Soil Sludge Sediment and Water: pH is measured electrometrically using a combination electrode and is calibrated against 3 buffers purchased commercially. For soils, sediments and sludges, an extract with water (or 0.01M CaCl₂) is made at a ratio of 1:5 and the pH determined and reported on the extract. Reference APHA 4500-H+.
- AN122** Exchangeable Cations, CEC and ESP: Soil sample is extracted in 1M Ammonium Acetate at pH=7 (or 1M Ammonium Chloride at pH=7) with cations (Na, K, Ca & Mg) then determined by ICP OES/ICP MS and reported as Exchangeable Cations. For saline soils, these results can be corrected for water soluble cations and reported as Exchangeable cations in meq/100g or soil can be pre-treated (aqueous ethanol/aqueous glycerol) prior to extraction. Cation Exchange Capacity (CEC) is the sum of the exchangeable cations in meq/100g.
- AN122** The Exchangeable Sodium Percentage (ESP) is calculated as the exchangeable sodium divided by the CEC (all in meq/100g) times 100.
ESP can be used to categorise the sodicity of the soil as below :
- | | |
|-----------|----------------|
| ESP < 6% | non-sodic |
| ESP 6-15% | sodic |
| ESP >15% | strongly sodic |
- Method is referenced to Rayment and Lyons, 2011, sections 15D3 and 15N1.-
- AN245** Anions by Ion Chromatography: A water sample is injected into an eluent stream that passes through the ion chromatographic system where the anions of interest ie Br, Cl, NO₂, NO₃ and SO₄ are separated on their relative affinities for the active sites on the column packing material. Changes to the conductivity and the UV-visible absorbance of the eluent enable identification and quantitation of the anions based on their retention time and peak height or area. APHA 4110 B
- AN279/AN293(Sydney)** The sample is digested with Sulphuric acid, K₂SO₄ and CuSO₄. All forms of phosphorus are converted into orthophosphate. The digest is cooled and placed on the discrete analyser for colorimetric analysis.
- AN289** Analysis of Total Phenols in Soil Sediment and Water: Steam distillable phenols react with 4-aminoantipyrine at pH 7.9±0.1 in the presence of potassium ferricyanide to form a coloured antipyrine dye analysed by Discrete Analyser. Reference APHA 5530 B/D.
- AN311(Perth)/AN312** Mercury by Cold Vapour AAS in Waters: Mercury ions are reduced by stannous chloride reagent in acidic solution to elemental mercury. This mercury vapour is purged by nitrogen into a cold cell in an atomic absorption spectrometer or mercury analyser. Quantification is made by comparing absorbances to those of the calibration standards. Reference APHA 3112/3500.
- AN312** Mercury by Cold Vapour AAS in Soils: After digestion with nitric acid, hydrogen peroxide and hydrochloric acid, mercury ions are reduced by stannous chloride reagent in acidic solution to elemental mercury. This mercury vapour is purged by nitrogen into a cold cell in an atomic absorption spectrometer or mercury analyser. Quantification is made by comparing absorbances to those of the calibration standards. Reference APHA 3112/3500
- AN318** Determination of elements at trace level in waters by ICP-MS technique,, referenced to USEPA 6020B and USEPA 200.8 (5.4).
- AN403** Total Recoverable Hydrocarbons: Determination of Hydrocarbons by gas chromatography after a solvent extraction. Detection is by flame ionisation detector (FID) that produces an electronic signal in proportion to the combustible matter passing through it. Total Recoverable Hydrocarbons (TRH) are routinely reported as four alkane groupings based on the carbon chain length of the compounds: C6-C9, C10-C14, C15-C28 and C29-C36 and in recognition of the NEPM 1999 (2013), >C10-C16 (F2), >C16-C34 (F3) and >C34-C40 (F4). F2 is reported directly and also corrected by subtracting Naphthalene (from VOC method AN433) where available.
- AN403** Additionally, the volatile C6-C9 fraction may be determined by a purge and trap technique and GC/MS because of the potential for volatiles loss. Total Recoverable Hydrocarbons - Silica (TRH-Si) follows the same method of analysis after silica gel cleanup of the solvent extract. Aliphatic/Aromatic Speciation follows the same method of analysis after fractionation of the solvent extract over silica with differential polarity of the eluent solvents .

AN403	<p>The GC/FID method is not well suited to the analysis of refined high boiling point materials (ie lubricating oils or greases) but is particularly suited for measuring diesel, kerosene and petrol if care to control volatility is taken. This method will detect naturally occurring hydrocarbons, lipids, animal fats, phenols and PAHs if they are present at sufficient levels, dependent on the use of specific cleanup/fractionation techniques. Reference USEPA 3510B, 8015B.</p>
AN420	<p>(SVOCs) including OC, OP, PCB, Herbicides, PAH, Phthalates and Speciated Phenols (etc) in soils, sediments and waters are determined by GCMS/ECD technique following appropriate solvent extraction process (Based on USEPA 3500C and 8270D).</p>
AN420	<p>SVOC Compounds: Semi-Volatile Organic Compounds (SVOCs) including OC, OP, PCB, Herbicides, PAH, Phthalates and Speciated Phenols in soils, sediments and waters are determined by GCMS/ECD technique following appropriate solvent extraction process (Based on USEPA 3500C and 8270D).</p>
AN433	<p>VOCs and C6-C9 Hydrocarbons by GC-MS P&T: VOC's are volatile organic compounds. The sample is presented to a gas chromatograph via a purge and trap (P&T) concentrator and autosampler and is detected with a Mass Spectrometer (MSD). Solid samples are initially extracted with methanol whilst liquid samples are processed directly. References: USEPA 5030B, 8020A, 8260.</p>
AN602	<p>Qualitative identification of chrysotile, amosite and crocidolite in bulk samples by polarised light microscopy (PLM) in conjunction with dispersion staining (DS). AS4964 provides the basis for this document. Unequivocal identification of the asbestos minerals present is made by obtaining sufficient diagnostic 'clues', which provide a reasonable degree of certainty, dispersion staining is a mandatory 'clue' for positive identification. If sufficient 'clues' are absent, then positive identification of asbestos is not possible. This procedure requires removal of suspect fibres/bundles from the sample which cannot be returned.</p>
AN602	<p>Fibres/material that cannot be unequivocally identified as one of the three asbestos forms, will be reported as unknown mineral fibres (umf) The fibres detected may or may not be asbestos fibres.</p>
AN602	<p>AS4964.2004 Method for the Qualitative Identification of Asbestos in Bulk Samples, Section 8.4, Trace Analysis Criteria, Note 4 states:"Depending upon sample condition and fibre type, the detection limit of this technique has been found to lie generally in the range of 1 in 1,000 to 1 in 10,000 parts by weight, equivalent to 1 to 0.1 g/kg."</p>
AN602	<p>The sample can be reported "no asbestos found at the reporting limit of 0.1 g/kg" (<0.01%w/w) where AN602 section 4.5 of this method has been followed, and if-</p> <ul style="list-style-type: none"> (a) no trace asbestos fibres have been detected (i.e. no 'respirable' fibres): (b) the estimated weight of non-respirable asbestos fibre bundles and/or the estimated weight of asbestos in asbestos-containing materials are found to be less than 0.1g/kg: and (c) these non-respirable asbestos fibre bundles and/or the asbestos containing materials are only visible under stereo-microscope viewing conditions.
MA1569	<p>This method is intended for the analysis of a diverse range of pesticides and herbicides by Liquid Chromatography using a Tandem Mass Spectrometry detector (LC-MS/MS). Due to the diverse nature of the analytes covered in this method each analyte requires its own analytical acquisition method thus the sample is run multiple times according to the analyte list requested. Water samples are filtered and filtrates are directly injected onto LC-MS/MS using selective ion monitoring.</p>
MA-1569	<p>This method is intended for the analysis of a diverse range of pesticides and herbicides by Liquid Chromatography using a Tandem Mass Spectrometry detector (LC-MS/MS). Due to the diverse nature of the analytes covered in this method each analyte requires its own analytical acquisition method thus the sample is run multiple times according to the analyte list requested. Soil and solid samples are extracted with ACN and extracts are filtered then directly injected onto LC-MS/MS using selective ion monitoring.</p>

FOOTNOTES

*	NATA accreditation does not cover the performance of this service.	-	Not analysed.	UOM	Unit of Measure.
**	Indicative data, theoretical holding time exceeded.	NVL	Not validated.	LOR	Limit of Reporting.
		IS	Insufficient sample for analysis.	↑↓	Raised/lowered Limit of Reporting.
		LNR	Sample listed, but not received.		

Unless it is reported that sampling has been performed by SGS, the samples have been analysed as received. Solid samples expressed on a dry weight basis.

Where "Total" analyte groups are reported (for example, Total PAHs, Total OC Pesticides) the total will be calculated as the sum of the individual analytes, with those analytes that are reported as <LOR being assumed to be zero. The summed (Total) limit of reporting is calculated by summing the individual analyte LORs and dividing by two. For example, where 16 individual analytes are being summed and each has an LOR of 0.1 mg/kg, the "Totals" LOR will be 1.6 / 2 (0.8 mg/kg). Where only 2 analytes are being summed, the " Total" LOR will be the sum of those two LORs.

Some totals may not appear to add up because the total is rounded after adding up the raw values.

If reported, measurement uncertainty follow the ± sign after the analytical result and is expressed as the expanded uncertainty calculated using a coverage factor of 2, providing a level of confidence of approximately 95%, unless stated otherwise in the comments section of this report.

Results reported for samples tested under test methods with codes starting with ARS-SOP, radionuclide or gross radioactivity concentrations are expressed in becquerel (Bq) per unit of mass or volume or per wipe as stated on the report. Becquerel is the SI unit for activity and equals one nuclear transformation per second.

Note that in terms of units of radioactivity:

- a. 1 Bq is equivalent to 27 pCi
- b. 37 MBq is equivalent to 1 mCi

For results reported for samples tested under test methods with codes starting with ARS-SOP, less than (<) values indicate the detection limit for each radionuclide or parameter for the measurement system used. The respective detection limits have been calculated in accordance with ISO 11929.

The QC and MU criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: www.sgs.com.au/en-gb/environment-health-and-safety.

This document is issued by the Company under its General Conditions of Service accessible at www.sgs.com/en/Terms-and-Conditions.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client only. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law .

This report must not be reproduced, except in full.

APPENDIX C

Property Report



Property Report

1290 GREENDALE ROAD WALLACIA 2745



Property Details

Address: 1290 GREENDALE ROAD WALLACIA 2745
 Lot/Section /Plan No: 1/-/DP776645
 Council: LIVERPOOL CITY COUNCIL

Summary of planning controls

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

Local Environmental Plans	Liverpool Local Environmental Plan 2008 (pub. 24-10-2014)
Land Zoning	RU1 - Primary Production: (pub. 20-6-2014) W1 - Natural Waterways: (pub. 29-8-2008)
Height Of Building	NA
Floor Space Ratio	NA
Minimum Lot Size	40 ha
Heritage	NA
Land Reservation Acquisition	NA
Foreshore Building Line	Foreshore Building Line Land Below Foreshore Building Line
Airport Noise	20 - 25
Environmentally Sensitive Land	Environmentally Significant Land
Scenic Protection Land	Local significance

Detailed planning information

State Environmental Planning Policies which apply to this property

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

- State Environmental Planning Policy (Affordable Rental Housing) 2009: Land Application (pub. 31-7-2009)

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

- State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004: Land Application (pub. 25-6-2004)
- State Environmental Planning Policy (Concurrences) 2018: Land Application (pub. 21-12-2018)
- State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017: Land Application (pub. 1-9-2017)
- State Environmental Planning Policy (Exempt and Complying Development Codes) 2008: Land Application (pub. 12-12-2008)
- State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004: Land Application (pub. 31-3-2004)
- State Environmental Planning Policy (Infrastructure) 2007: Land Application (pub. 21-12-2007)
- State Environmental Planning Policy (Koala Habitat Protection) 2019: Land Application (pub. 20-12-2019)
- State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007: Land Application (pub. 16-2-2007)
- State Environmental Planning Policy (Miscellaneous Consent Provisions) 2007: Land Application (pub. 28-9-2007)
- State Environmental Planning Policy (Primary Production and Rural Development) 2019: Land Application (pub. 28-2-2019)
- State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017: Subject Land (pub. 25-8-2017)
- State Environmental Planning Policy No 19—Bushland in Urban Areas: Land Application (pub. 24-10-1986)
- State Environmental Planning Policy No 1—Development Standards: Land Application (pub. 17-10-1980)
- State Environmental Planning Policy No 21—Caravan Parks: Land Application (pub. 24-4-1992)
- State Environmental Planning Policy No 33—Hazardous and Offensive Development: Land Application (pub. 13-3-1992)
- State Environmental Planning Policy No 36—Manufactured Home Estates: Land Application (pub. 16-7-1993)
- State Environmental Planning Policy No 44—Koala Habitat Protection: Land Application (pub. 6-1-1995)
- State Environmental Planning Policy No 50—Canal Estate Development: Land Application (pub. 10-11-1997)
- State Environmental Planning Policy No 55—Remediation of Land: Land Application (pub. 28-8-1998)
- State Environmental Planning Policy No 64—Advertising and Signage: Land Application (pub. 16-3-2001)
- State Environmental Planning Policy No 65—Design Quality of Residential Apartment Development: Land Application (pub. 26-7-2002)

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

Property Report

1290 GREENDALE ROAD WALLACIA 2745

- State Environmental Planning Policy No 70—Affordable Housing (Revised Schemes): Land Application (pub. 1-5-2002)
- Sydney Regional Environmental Plan No 20—Hawkesbury-Nepean River (No 2—1997): Land Application (pub. 7-11-1997)
- Sydney Regional Environmental Plan No 20—Hawkesbury-Nepean River (No 2—1997): Sub Catchment Boundaries (pub. 7-11-1997)

Other matters affecting the property

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

Bushfire Prone Land

Vegetation Buffer

Vegetation Category

Local Aboriginal Land Council

GANDANGARA

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

APPENDIX D

TRACE Environmental PSI

Preliminary Site Investigation

1290 Greendale Road, Wallacia, NSW





Preliminary Site Investigation

1290 Greendale Road, Wallacia, NSW

Prepared for:

MKD Architects

Revision	Date	Author	Approver	Issued
Draft	14 July 2020	AW	KH	14 July 2020
Rev0	23 July 2020	AW	KH	23 July 2020

Author	Reviewed and Approved
 <hr/> <p>Aaron Walker Principal Environmental Engineer B.Sc (Env) B.Eng (Chem) M.Eng (Env Mgt)</p>	 <hr/> <p>Ken Henderson Principal Environmental Scientist B.Sc. (Hons Geology) EIANZ CEnvP (SC) #SC40922</p>

Ref. No.:	99.72
Disclaimer:	THIS DOCUMENT IS SUBJECT TO LIMITATIONS NOTED

Table of Contents

Executive Summary	iv
1 Introduction	1
1.1 Objectives.....	1
1.2 Scope of Works	1
1.3 Statutory and Regulatory Framework	2
2 Site Description and Setting	4
2.1 Site Identification	4
2.2 Site Description and Adjoining Land Uses	4
2.3 Surrounding Land Use	6
2.4 Geology and Hydrogeology.....	7
2.5 Registered Groundwater Bore Search	7
2.6 Surface Water Bodies	7
2.7 Anecdotal Evidence.....	8
3 Site History and Background	9
3.1 Current & Historical Titles	9
3.2 Historical Aerial Photograph and Map Review.....	10
3.3 Contaminated Land Record Review	11
3.4 Other Potentially Contaminating Activities	11
3.5 Relevant Planning Information	11
3.6 Acid Sulfate Soils	12
3.7 Saline Soils.....	12
3.8 Historical Business Directories.....	12
3.9 Ecological Considerations	12
3.9.1 Remnant Vegetation.....	12
3.9.2 Ramsar Wetlands	13
3.9.3 Groundwater & In-flow Dependent Ecosystems	13
3.9.4 NSW BioNet Atlas	13
3.10 Dial Before You Dig Search	13
4 Preliminary Conceptual Site Model	14
4.1 Potential Areas of Environmental Concern	14
4.2 Preliminary CSM Discussion and Summary	15
5 Conclusions and Recommendations	17
5.1 Summary and Conclusions	17
5.2 Recommendations	17
6 References	18

7 Limitations..... 19

Figures

Title	Figure
Locality Plan	1
Site Plan and Features	2

Appendices

Title	Appendix
Site Photographs	A
Lotsearch Report	B
Utility Plans	C
Title Search Results.....	D
Planning Certificate.....	E
Proposed Development Masterplan	F
EPA Records Search.....	G

Executive Summary

MKD Architects engaged TRACE Environmental to undertake a Preliminary Site Investigation (PSI) for the property located at 1290 Greendale Road, Wallacia, NSW ('the site'), referenced as Lot 1 in DP 776645. This report is required to support a DA lodgement with Liverpool City Council for the proposed development of the site into a cemetery.

The objective of this assessment is to determine if the site has previously been used for potentially contaminating activities which may have resulted in potential site contamination.

The scope of works undertaken for this PSI included conducting database searches and review of historical information relating to the site (including certificates of title, local council records/planning certificates, NSW EPA registers, state government records, historical business directories and historical aerial photographs) and conducting an inspection of the site to identify potential sources of contamination.

Based on the findings of this assessment, the following summary and conclusions are provided:

- The site has been used for agricultural land use purposes since at least approximately the 1950s. The site currently comprises a homestead with a garage, sheds, a former dairy shed, silos, two dams, cattle grazing areas and various paddocks with crops;
- The following areas of environmental concern were identified at the site:
 - Fill material (either site-sourced re-worked fill or fill from off-site sources) for road construction;
 - Potential hazardous building materials in the building structures; and
 - Historical petroleum storage in above ground storage tanks (ASTs) at unsealed and unbunded areas, chemical storage areas associated with agriculture (e.g. petroleum products, herbicides, fungicides, pesticides etc.) and the potential use of herbicides/pesticides in agricultural fields.
- The site is in a moderate sensitivity environmental setting based on the preliminary CSM considering on-site and nearby environmental receptors.

Based on the results of the PSI, it is recommended to undertake a Detailed Site Investigation (DSI) and a hazardous material building survey at the site. In the event that the soil is excavated and requires off-site disposal during redevelopment, the soil should be tested and classified in accordance with NSW EPA guidelines prior to disposal, and any imported material brought onto the site for any purpose must be validated as being suitable for the intended land use.

1 Introduction

MKD Architects engaged TRACE Environmental to undertake a Preliminary Site Investigation (PSI) for the property located at 1290 Greendale Road, Wallacia, NSW ('the site'), referenced as Lot 1 in Deposited Plan (DP) 776645. The site comprises (but not limited to) a rural property with a homestead, a garage, various sheds, silos, driveways, roads, agricultural machinery, paddocks and dams.

It is understood this report is required to support a DA lodgement with Liverpool City Council for the proposed development of the site into a cemetery.

This assessment was completed under the National Environment Protection Measure (*Assessment of Site Contamination*) Measure, Amendment 2013 (NEPM) and relevant NSW Environment Protection Authority (EPA) Guidelines.

The Locality Plan is presented in **Figure 1** and the Site Plan showing the site and main features is presented in **Figure 2**. Photographs of the site are presented in **Appendix A**.

1.1 Objectives

The objectives of the PSI are to:

- Assess the site condition relative to present and historical land uses;
- Identify any current or historical potentially contaminating activities;
- If applicable, identify the potential types and nature of contamination;
- If applicable, identify potential human and ecological receptors; and
- Provide conclusions and recommendations regarding the suitability of the site for the proposed development and identify any further investigation for potential site contamination, if considered warranted.

1.2 Scope of Works

The following scope of works was undertaken to meet the objectives described above, and in compliance with the NEPM and relevant NSW EPA guidelines:

- Conduct database searches and review of historical information relating to the site:
 - Information held by the client, including previous investigations undertaken at the site (if any);
 - Available historical aerial photographs (**Appendix B**);
 - Historical business directories for the site and surrounds (**Appendix B**);
 - Available utility plans (**Appendix C**);
 - NSW EPA administered environment management and contaminated land registers (**Appendix B and G**);

- Registered groundwater bore database for groundwater bores in the vicinity of the site, to assist in gaining an understanding of the local and regional hydrogeology (**Appendix B**);
- Acid Sulfate Soils (ASS) and dryland salinity risk maps (**Appendix B**);
- Available geological and hydrogeological information (**Appendix B**);
- Historical and current title searches (**Appendix D**);
- Council Planning Certificates (**Appendix E**);
- Conduct an inspection of the site to identify potential sources of contamination and evaluate the general condition of the site concerning potential contamination;
- Develop an initial conceptual site model (CSM) of the site, outlining potential contamination sources, and exposure pathways and receptors which may be impacted, and undertake a preliminary environmental risk assessment;
- If required, outline any recommendations for further investigation that may be warranted to assess for potential contamination at the site based on the results of this assessment; and
- Provide this PSI report including recommendations.

1.3 Statutory and Regulatory Framework

Field activities and reporting were carried out following the following guidelines and regulations:

- *Contaminated Land Management Act 1997*;
- NEPC (2013) National Environment Protection (*Assessment of Site Contamination*) Measure (NEPM). National Environment Protection Council (NEPC) 1999, Amendment 2013;
- NSW Department of Infrastructure, Planning and Natural Resources, *Salinity Potential in Western Sydney* 2002;
- NSW Department of Urban Affairs and Planning (1998) *Managing Land Contamination: Planning Guidelines: SEPP 55 Remediation of Land*, 1998;
- NSW EPA (1995) *Contaminated Sites Sampling Design Guidelines*. NSW EPA, September 1995;
- NSW EPA (2014) *Waste Classification Guidelines. Part 1: Classifying Waste*. NSW EPA, November 2014;
- NSW EPA (2015) *Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act*. NSW EPA, September 2015;
- NSW EPA (2017) *Guidelines for the NSW Site Auditor Scheme (3rd Edition)*. NSW EPA, October 2017;
- NSW EPA (2020) *Consultants Reporting on Contaminated Land: Contaminated Land Guidelines*. NSW EPA, April 2020;
- NSW Government (2019) *Code of Practice: How to Safely Remove Asbestos*, August 2019;

- NSW Government (2019) *Code of Practice: How to Manage and Control Asbestos in the Workplace*, August 2019;
- Standards Australia (1999), Australian Standard AS 4482.2-1999 - *Guide to the sampling and investigation of potentially contaminated soil. Part 2: Volatile substances*. Standards Australia, Homebush, NSW; and
- Standards Australia (2005), Australian Standard AS 4482.1-2005 – *Guide to the investigation and sampling of sites with potentially contaminated soil. Part 1: Non-volatile and semi-volatile compounds*. Standards Australia, Homebush, NSW.

2 Site Description and Setting

2.1 Site Identification

The site is located at 1290 Greendale Road, Wallacia NSW. The site comprises a total area of approximately 738,129 m² and is referred to as Lot 1 in DP 776645. The site boundaries are shown in **Figure 2**. Details of the site are included in **Table 2-1**.

Table 2-1: Site Identification Details

ID Element	Description
Site Address	1290 Greendale Road, Wallacia, NSW, 2745
Lot/DP	Lot 1 in DP 776645
Site Owners	Soukutsu Pty Ltd
Site Area (approx.)	738,129 m ²
Site Coordinates (approx.)	-33.898561°, 150.641304°**
Site Elevation (approx.)	40 mAHD***
Local Council	Liverpool City Council
Zoning	RU1 – Primary Production

*Refer Lotsearch report¹ (**Appendix B**)

**Approximate centre of site

***Metres above Australian Height Datum

2.2 Site Description and Adjoining Land Uses

A site inspection was completed by TRACE Environmental personnel on 23 June 2020. Photographs taken during the site visit are included in **Appendix A** and the general site layout is presented in **Figure 2**. Details of the site, as observed during the inspection and gathered from other sources detailed in this report, are outlined in **Table 2-2**.

Table 2-2: Site Description

Category	Findings
Current Users, Occupiers and Features	<p>The site is currently owned by Soukutsu Pty Ltd and used for agricultural land use purposes with cattle and growing of crops (feedstock for cattle/stock). Current titles are included in Appendix D.</p> <p>The site is accessible from Greendale Road via three gates: the main gate in the north-east corner of the property, leading to the main homestead, another gate leading to the dairy shed, in the approximate centre of the eastern boundary and another gate in the south-east corner of the property.</p> <p>The driveways are unsealed with sand, gravel and rock surface.</p>

¹ Lotsearch (2020) *Report for 1290 Greendale Park Road, Wallacia, NSW 2745*, 24 June 2020.

Category	Findings
	<p>A site inspection has been carried out on 23 June 2020, with photographs provided in Appendix A. The following observations were noted during the inspection:</p> <ul style="list-style-type: none"> • A main residence/homestead is located in the north-east corner, with a nearby garage and sheds to the west. A fire pit was also noted near the homestead. The residence appears to be constructed from weatherboard/gyprock, with sheds generally constructed of brick, timber frames and/or sheet metal; • A dairy shed with milking facilities and silos are located near the central eastern portion of the site; • Two farm dams were observed on the site. The dams were being used by birds, and no hydrocarbon or chemical sheen, odours or otherwise were observed; • A large storage tank is located near the southern boundary (which is understood to store natural fertiliser); • The site has been sectioned into various paddocks covered with crops, grass, vegetation (trees, shrubs and weeds). The paddocks were used by cattle for grazing or were in the process of ploughing for future planting of crops; • Power is supplied by the main electrical grid from Greendale Road; • The banks of Duncan Creek and the Nepean River had riparian vegetation present (trees, shrubs, grass and weeds); • The site has on-site rain collection and septic tanks; • No rubbish piles (dumped or otherwise) were observed; • Fill materials, including sand, gravel and rocky materials (either site-sourced re-worked fill or fill from off-site sources) appear to have been used for access driveways, roads and other trails; • The remainder of the site appears to comprise natural materials at surface; • Two above ground storage tanks (ASTs) were observed within sheds in the north-east portion of the site (near the homestead), noting one had a dispenser likely associated with fuel refilling activities. The ASTs were unbunded; • Various farm machinery was observed including tractors and ploughs; • Storage containers/cans of pesticides, herbicides, cleaning chemicals, acaricides, degreasers, paints, disinfectants, petrol, lubricating oil, grease, diesel, paints, VOCs (WD-40 and carburettor cleaners), fertilisers and acids were identified within the garage and various other sheds; • Hand tools, batteries, generators and car parts were observed in various sheds; • Feedstock for cattle in bags were observed, including grains; and • Stacked/stockpiled tiles, pavers, feedstock and waste bins (with feedstock bags) were observed near the homestead in the north-eastern portion of the site.
<p>Future Use and Users/Occupiers</p>	<p>The site is proposed to be redeveloped into a cemetery. The main features of the proposed development include a chapel, crematorium, cremation walls, mausoleum, footpaths, tombs, vaults and inground burial plots. Proposed development plans are included in Appendix F.</p> <p>Future site users include workers and visitors to the site. Maintenance workers would be expected to visit the site periodically. Construction workers would also be expected to visit the site during the redevelopment.</p>
<p>Chemicals, raw materials, intermediate products storage and use</p>	<p>Chemicals associated with agricultural land use (e.g. pesticides, fertilisers, herbicides, cleaning chemicals, lubricants, degreasers, petrol, diesel, oil etc) have been observed in the garage and the various sheds. An AST on an elevated platform in an unsealed and unbunded area with dispenser was observed in one of the sheds. Another disused AST with unknown use/contents was observed in the same shed (located in the north-eastern portion of the site).</p>

Category	Findings
Waste Management	Household waste and wastes associated with agricultural land use (e.g. empty feed bags) were observed in a waste skip bin and in the sheds. It is noted that no waste/rubbish stockpiles were noted on the site.
Underground Services/Utilities	TRACE Environmental conducted a Dial Before You Dig (DBYD) search on 22 June 2020 which shows the approximate locations of underground services in the vicinity of the site (refer to Section 3.10 for additional detail). An on-site utility plan also provided by the client indicates there are underground irrigation lines and eight hydrants which service paddocks in the western and southern portions of the site. A holding tank is also located in the southern portion of the site (as discussed above), which is understood to be used to store natural liquid fertiliser (as advised by a representative of the land owner, refer to Section 2.7 for additional detail). Underground services/utility plans are provided in Appendix C .
Reported spills, chemical losses, discharges to land/water and/or incidents/accidents	No evidence of spills, chemical losses, discharges to land/water and/or incidents/accidents was observed during the site inspection. No staining or odours associated with chemical spills were observed. However, pesticides, herbicides and various other contaminants appear to have been used in the past (as discussed above). Potential losses and spills during fuel refilling activities (including potentially from the ASTs) may have also occurred in the past.
Surface covering/Vegetation	The majority of the site is grassland used for cattle grazing, paddocks for agricultural crops, and scattered shrubs and trees. Other areas of denser vegetation exist along the banks of Duncans Creek and the Nepean River, as well as in patches at various other portions of the site. Vegetation did not appear to be showing any significant signs of plant stress or dieback that may potentially be related to contaminated land issues.
Electrical transformers/power generation	No electrical transformers were observed on the site. The site is connected to the electric grid by above ground powerlines from Greendale Road. Small generators were also observed in the dairy shed.
Topography and infilling	The site's highest elevation is in the north-eastern corner (close to the homestead) at approximately 76mAHD. The site slopes towards the Nepean River at the western site boundary, with the riverbank at an elevation of approximately 30mAHD. It appears that fill consisting of sand, gravels and rocks was used for the construction of driveway/road access areas (which may be reworked natural sourced from the site or imported materials). The remainder of the site appears to feature the natural topography, except for some small mounds of soil observed at some locations of the site during the inspection.
Surface drainage	Surface water is present in two dams within the eastern portion of the site (refer to Figure 2). Precipitation would be expected to infiltrate into the soil, with groundwater and excess surface runoff expected to flow in a general westerly direction into Duncans Creek or the Nepean River. Rainwater from the roof of the on-site residence also collects into two tanks.

2.3 Surrounding Land Use

At the time of the inspection, the surrounding land use of the site included:

- North: agricultural land use;
- East: Greendale Road with commercial (Shock Treatment Motorcycle Repair Shop) and agricultural land use beyond;
- South: agricultural land use; and
- West: the Nepean River with agricultural, recreational, bushland and residential land uses beyond.

2.4 Geology and Hydrogeology

The geological unit identified underlying the site comprises shale, carbonaceous claystone, claystone, laminate, fine to medium-grained lithic sandstone, with rare coal and tuff of the Middle Triassic Bringelly Shale unit of the Wianamatta group. The majority of the Bringelly Shale on-site is overlain by Quaternary fine-grained sand, silt and clay.

The on-site natural soil units are classified as Kurosols and Sodosols. Kurosols dominate the western portion of the site and are associated with undulating ridge tops, slopes and valleys. The central and eastern portions of the site are dominated by a Sodosol, associated with river terraces and flood-plains. Geological and pedological figures are provided in the Lotsearch report in **Appendix B**.

The hydrogeology map provided in the Lotsearch report (Commonwealth of Australia, Bureau of Meteorology) indicates that the aquifers on-site are porous, extensive aquifers of low to moderate productivity. Based on topography, groundwater beneath the site is expected to flow in a western direction towards Duncans Creek and the Nepean River (refer to **Section 2.6** for additional detail of surface water bodies in the site area). Figures showing the hydrogeological features on and around the site are provided in Lotsearch report in **Appendix B**.

At the time of the site inspection (23 June 2020), a separate geotechnical investigation was also being conducted at the site by other consultants. As part of the geotechnical investigation, TRACE Environmental was advised that six 50mm groundwater monitoring wells had been installed at the site, with the monitoring wells installed to depths ranging between approximately 2 and 17mbgs. Groundwater was encountered in one monitoring well only at a depth of approximately 6.25mbgs. Refer below for details for other registered groundwater bores located near the site.

2.5 Registered Groundwater Bore Search

A search of the NSW Department of Primary Industries Office of Water database was conducted by Lotsearch and identified 33 registered boreholes within 2 km of the site. The registered bores within 2km of the site have domestic, stock, farming, industrial, monitoring/test, town water supply and irrigation purposes. The two closest bores are located 395 and 421m to the west of the site (across the Nepean River) with domestic, farming and/or stock purposes.

Based on distance and direction, no registered bores within 2km of the site are considered as potential receptors of potential contamination sourced from the site (if any). A figure and summary of well data (including construction and depth to water details) for the registered bores are provided in the Lotsearch report (**Appendix B**).

2.6 Surface Water Bodies

Two dams were noted on the site during the inspection. Numerous dams are also located on various agricultural properties within 500m of the site. Duncans Creek also travels through the site from the eastern to the northern boundary. The Nepean River is also present at the western site boundary. It is noted that Duncans Creek discharges into the Nepean River approximately 1.4 km north of the site. Based on the locations of Duncans Creek and the Nepean River, these surface waterways are considered to be potential receptors of groundwater or surface water contamination sourced from the site (if any).

2.7 Anecdotal Evidence

During the site inspection, an interview was also conducted with a representative of the landlord ('Sam'). The following is noted from the interview:

- The site is currently leased, and used for cattle grazing and growing of crops (including feedstock for cattle);
- A former dairy shed is located in the central eastern portion of the site (no longer in use);
- A holding tank in the southern portion of the site is used for storage of natural fertiliser;
- Farm machinery is currently refilled by a vehicle with a small holding tank of petroleum hydrocarbons;
- The site is serviced by on-site rain collection and filtering for use in the homestead;
- Sewage is also treated with on-site septic tanks;
- Water is pumped from the Nepean River for use on the site;
- There are no know sheep or cattle dips at the site (e.g. for the treatment of parasites);
- There are no known waste stockpiles (dumped or otherwise) on the site; and
- The main residence is constructed from weatherboard/gyprock.

3 Site History and Background

Historical information was obtained for the site from several sources as presented in **Table 3-1**. The results of the site historical and background information are further discussed in the following sections.

Table 3-1: Historical and Background Information Search

Source	Location	Comments
Planning and Zoning Information	Lotsearch Report Planning Certificate	A copy of the Lotsearch report is in Appendix B , the planning certificate is included in Appendix E and discussed in Section 3.5 .
Historical Land Owners	Title Search	A copy of the InfoTrack Owners Title Search is provided in Appendix D and is summarised in Table 3-2 (Section 3.1) .
Historical Aerial Photographs	Lotsearch Report	A summary of the photographs is provided in Table 3-3 (Section 3.2) . Aerial photographs are provided in the Lotsearch report in Appendix B .
Contaminated Land Registers	Lotsearch Report and EPA databases	Provided in Section 3.3 .
ASS Search	Lotsearch Report	Summary provided in Section 3.6 .
Historical Business Directories	Lotsearch Report	Discussed in Section 3.8 , and a summary in the Lotsearch report in Appendix B .
Heritage Database	Lotsearch Report Planning Certificate	Results are discussed in Section 3.5 , with the findings also summarised in the Lotsearch report in Appendix B .
Utilities	DBYD search	Results discussed in Section 3.10 , with plans provided in Appendix C .
Saline Soils	Lotsearch Report	Results discussed in Section 3.7 .

3.1 Current & Historical Titles

A summary of current & historical titles held on the site is provided in **Table 3-2**. Title records are attached in **Appendix D**.

Table 3-2: Current and Historical Titles

Date of Acquisition and Term Held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and Sale
28.12.1928 (1928 to 1952)	Greendale Limited	Book 1544 No. 706 Now Vol 4510 Fol 150
22.08.1952	Surrender to the Crown	
05.09.1952 (1952 to 1971)	Leslie King Wines	Crown Tenure Closer Settlement Lease 1952/2 Penrith Then Crown Tenure Settlement Purchase 1970/1 Penrith Now Vol 11444 Fol 153
02.09.1971 (1971 to 1979)	Dennis Edwynne Robinson (Billiard Room Proprietor)	Vol 11444 Fol 153
12.12.1979 (1979 to 2000)	Thelma May Robinson (Home Duties) Now Thelma May Verran	Vol 11444 Fol 153 Now 1/776645

Date of Acquisition and Term Held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and Sale
19.06.2000 (2000 to 2018)	Paul Galea Mary Galea	1/776645
20.08.2018 (2018 to <u>current</u>)	Soukutsu Pty Ltd	1/776645

3.2 Historical Aerial Photograph and Map Review

Historical maps have been provided for the years 1929, 1942, 1975 and 2015. Historical aerial imagery of the site for the years 1949, 1955, 1961, 1965, 1970, 1978, 1982, 1986, 1991, 1994, 2009, 2015 and 2020 was obtained by Lotsearch. A summary of the photographs is provided in **Table 3-3**. Historical maps aerial photographs are provided in **Appendix B**.

Table 3-3: Historical Aerial Photograph Review

Aerial Photographs	Description
1949 (Black and White)	The site appears to be cleared of the majority of native vegetation, with remnant (i.e. native) shrubs/trees concentrated to the north-east, southern and creek/riverbank riparian areas of the site (at similar locations to the most recent aerial, refer below). Greendale Road appears to be an unsealed road/track.
1955 (Black and White)	A domestic dwelling and a shed appear to have been constructed in the north-east portion of the site. Regular patterns and tracks on the ground surface in the western part of the property suggests farming activities are occurring on the site. A residential dwelling has been erected across Greendale Road, opposite the main site gate.
1961 (Black and White)	Similar to the 1955 aerial photograph, although it appears a dam has been constructed in the fields in the western part of the site.
1965 (Black & White)	The site is generally consistent with the 1961 aerial photograph.
1970 (Black & White)	No significant changes occurred compared to the 1965 aerial.
1978 (Black & White)	Similar to the 1970 aerial photograph, although the dairy shed at the central-eastern boundary has been constructed, including two silos and an access road from Greendale Road.
1982 (Colour)	Similar to the 1978 aerial photograph, although a shed has been added directly south of the dairy shed silos.
1986 (Colour)	The site is generally consistent with the 1982 aerial photograph.
1991 (Colour)	Sheds and garages have been constructed directly east of the homestead. Some trees south of the homestead have been cleared and a large dam has been constructed.
1994 (Colour)	A large shed has been constructed on the northern neighbouring property, close to the property boundary. The site itself is generally consistent with the 1991 aerial photograph.
2009 (Colour)	The site is generally consistent with the 1994 aerial photograph.
2015 (Colour)	The site itself is generally consistent with the 2009 aerial photograph, although another dam has been constructed at the site.
2020 (Colour)	The site is generally consistent with the 2020 aerial photograph.

3.3 Contaminated Land Record Review

A search of the NSW EPA Contaminated Land Records and the list of NSW contaminated sites notified to EPA was conducted by Lotsearch. No notices or declarations were listed for the site or within 1,000m radius. Former licenced activities under the *Protection of the Environment Operations (POEO) Act 1997* include the application of herbicides at waterways throughout the area/NSW. The site is not part of the NSW EPA, Department of Defence and Airservices Australia (per- and polyfluoroalkyl substances) PFAS investigation/management programs. The search results are provided in the Lotsearch report provided in **Appendix B**.

The NSW EPA environmental register for contaminated land records was also accessed online by TRACE Environmental on 9 July 2020 (<http://www.epa.nsw.gov.au/prclmapp/searchregister.aspx>). No notices or declarations under Section 58 of the *Contaminated Land Management (CLM) Act 1997* were listed for the site. A search of the List of NSW Contaminated Sites Notified to the EPA did not list the site. In addition, a search of the public register under Section 308 of the *POEO Act 1997* was also conducted by TRACE Environmental on 9 July 2020 (<http://www.epa.nsw.gov.au/prpoeoapp/>), and did not identify any licences referring to the site. The search results are provided in **Appendix G**.

3.4 Other Potentially Contaminating Activities

According to the Lotsearch report provided in **Appendix B**, no potentially contaminating activities have been carried out on-site or in a 1,000m radius.

3.5 Relevant Planning Information

Pursuant to the Planning Certificates for the site (dated 22 June 2020, **Appendix E**), under Section 10.7 of the *Environmental Planning and Assessment Act (EP&A Act) 1979*, the following information has been provided:

- The Land Use Zone is RU1 Primary Production under the Liverpool Local Environment Plan (LEP) 2008;
- The land does not include or comprise critical habitat, and is not located in a conservation area;
- An item of environmental heritage is not situated on the site;
- The site is not affected by Sections 38 or 39 of the *Coastal Protection Act 1979*;
- The land is not proclaimed to a mine subsidence district within the meaning of Section 15 of the *Mine Subsidence Compensation Act 1961*;
- The site is not affected by any road widening or road alignment under Division 2 of Part 3 of the *Roads Act 1993*;
- The site is within a flood planning area and subject to flood planning controls;
- The land is not biodiversity certified land (under the meaning of Part 8 of the *Biodiversity Conservation Act 2016*);
- The site is located on bushfire prone land;

- The subject property is identified as containing environmentally significant land under Liverpool LEP 2008;
- The site is not significantly contaminated land within the meaning of the *CLM Act 1997*. In addition, the site is not subject to a management order, approved voluntary management proposal, ongoing maintenance order or site audit statement within the meaning of the *CLM Act 1997*; and
- The land has potential contaminated land risk under the Liverpool Development Control Plan (DCP) 2008, which list agricultural/horticultural activities as potentially contaminating.

It is noted that the land does not contain an item of heritage as per the planning certificate (**Appendix E**); however, the site is part of the Wara-n'hayara Plateau Area, a 150,000ha area listed in the National Heritage List (NHL) (as place not included in NHL) as per the Lotsearch report (**Appendix B**).

3.6 Acid Sulfate Soils

A review of the Atlas of Australian Acid Sulfate Soils Data Source (as referenced by Lotsearch), shows the site to have a low to extremely low probability of occurrence for ASS. The ASS mapping is provided in the Lotsearch report in **Appendix B**. The Liverpool Council Planning Certificate (**Appendix E**) also outlines that the site is not subject to an ASS hazard/risk policy.

3.7 Saline Soils

Saline soils are produced when salts stored in the soil profile are mobilised by the movement of water through evaporation or accumulation. These processes can cause an increase in salt levels to the extent that vegetation and building materials such as concrete and steel are affected. Highly saline soils can be aggressive to building foundations and/or preclude the establishment of some types of vegetation. Therefore, it is important to determine the potential of saline soils at a redevelopment site.

A review of the Dryland Salinity Potential of Western Sydney identified an area of moderate salinity potential on-site. The National Land and Water Resources Audit (Dryland Salinity) identified a high salinity hazard or risk. Both reviews are included in the Lotsearch report in **Appendix B**. No evidence of vegetation dieback, scalding or salt efflorescence was noted in the on-site areas of vegetation during the site inspection conducted on 23 June 2020.

3.8 Historical Business Directories

A search of historical business directories for the years 1950 to 1991 was conducted for the site by Lotsearch (**Appendix B**). No records for on-site businesses were found.

3.9 Ecological Considerations

As referenced in the Lotsearch Report (**Appendix B**), the following ecological considerations were noted for the site:

3.9.1 Remnant Vegetation

Various remnant vegetation types potentially exist on-site (and in a 1,000m radius), including Shale Sandstone Transition Forest, Riparian Forest, and various other woodland types.

Patches of vegetation were noted at various portions of the site during the inspection, with riparian vegetation also located adjacent Duncan Creek and the Nepean River. It is noted that vegetation on the site was not showing any visible signs of stress or dieback that may potentially be related to contaminated land issues.

3.9.2 Ramsar Wetlands

No Ramsar wetlands exist on-site or within a 1,000 m radius.

3.9.3 Groundwater & In-flow Dependent Ecosystems

According to the Bureau of Meteorology (BOM) Groundwater and In-flow Dependent Ecosystems Atlas' (as referenced in the Lotsearch Report in **Appendix B**), vegetation and river groundwater and in-flow dependent ecosystems are present on and near the site:

- Deeply dissected sandstone plateaus, containing groundwater and inflow dependent vegetation and river ecosystems; and
- Undulating to low hilly country, mainly on shale, containing groundwater and inflow dependent vegetation.

3.9.4 NSW BioNet Atlas

A large range of species that have a NSW or federal conservation status, a NSW sensitivity status or are listed under a migratory species agreement are found within 10km of the site, as referenced in the NSW BioNet Atlas (see details in the Lotsearch Report in **Appendix B**), including amphibia, birds, gastropoda, mammals, reptiles and plants, including the critically endangered Regent Honeyeater and Swift Parrot, and various other endangered and vulnerable species.

3.10 Dial Before You Dig Search

A DBYD search was undertaken by TRACE Environmental on 22 June 2020. Telstra, Sydney Water, Endeavour Energy and Liverpool City Council were contacted by the DBYD service. Telstra provides services to the site from Greendale Road. Other providers returned 'no underground assets' notifications. It is noted that the site is connected to the electric grid by above ground powerlines. Utility plans obtained by the DBYD search are provided in **Appendix C**.

4 Preliminary Conceptual Site Model

The environmental risk assessment process is based on a contaminant (source) — exposure pathway — receptor methodology. This relationship allows an assessment of potential environmental risk to be determined, following the current national guidelines.

Central to the requirements for the assessment of risk is the development of an initial CSM, identifying each contaminant source and the associated receptor exposures.

4.1 Potential Areas of Environmental Concern

Based on the information sourced in this PSI, a preliminary CSM has been developed and is outlined in **Table 4-1**.

Table 4-1 Conceptual Site Model

Item	Description
Site History/Contaminant Sources	<p>The site comprises a rural agricultural property with a homestead, dairy milking shed and other buildings/sheds/silos/tanks associated with agricultural activities dating back from at least the 1950s. Historical land uses of the site and surrounding properties include agricultural, residential, commercial and recreational. Remnant bushland is also present on and near the site.</p> <p>Potential contaminant sources at the site include:</p> <ul style="list-style-type: none"> ▪ Potential contamination from historic activities associated with agricultural land use including fuel storage and handing, storage and use of pesticides, herbicides, acaricides, degreasers, paints, petroleum derived oils/grease, acids, fertilisers, cleaning and other chemicals (also refer to discussion in Section 2.2); ▪ The potential use of herbicides/pesticides in agricultural fields; ▪ Cattle and other stock dip points for treatment of parasites (although no evidence of dip points were observed in historical aerial photographs or during the site inspection); ▪ Runoffs in surface flows from surrounding properties impacted with pesticides, herbicides etc; ▪ Fill materials (potentially imported) utilised during the construction of access driveways, roads and other tracks; and ▪ Hazardous building materials in the on-site structures, such as asbestos fibre cement.
Site Current and Future Use	The site is currently used for agriculture (cattle stock and crops). In the future, the site may be redeveloped into a cemetery subject to receipt of required government approvals.
Site Geology	Triassic Bringelly Shale unit of the Wianamatta group and Quaternary fine-grained sand, silts and clays. The on-site natural soils are mapped as Kurosols and Sodosols.
Site Hydrogeology	Porous, extensive aquifers of low to moderate productivity. Based on topography, groundwater beneath the site is expected to flow in a general westerly direction towards Duncans Creek and the Nepean River.
COPCs – Soil	COPCs associated with historical and current land uses, fill materials, chemical storage/use and hazardous building materials, including asbestos, total petroleum hydrocarbons (TPH)/total recoverable hydrocarbons (TRH), benzene, toluene, ethylbenzene, xylenes and naphthalene (BTEXN), polycyclic aromatic hydrocarbons (PAHs), organochlorine pesticides (OCP), organophosphorus pesticides (OPP), polychlorinated biphenyls (PCB), herbicides, phenols, heavy metals, oil and grease, fungicides, fertilisers and volatile organic compounds (VOCs).

Item	Description
COPCs – Soil Vapour	ASTs were observed on the site which are a potential source of volatile contaminants. Although it is considered unlikely, it cannot be ruled out that vapour issues arising from potential subsurface impact are present.
Extent of Impacts - Soil	Based on the site inspection, potential sources of contamination such as ASTs and potential historical use of chemicals were identified on the site. Potential historical importation of fill material is another source of potential impact at the site. It is unknown if a hazardous material survey has been carried out at the site to date. Hazardous building materials (e.g. asbestos or lead-based paint) potentially exist and are potential sources of site contamination (if any).
Potential Human Receptors	Current human receptors include residents, farm workers and visitors. Future potential human receptors include construction workers during redevelopment, future on-site workers and visitors of the proposed cemetery. Maintenance workers would be expected to visit the site periodically.
Potential Environmental Receptors	The nearest surface water body is Duncans Creek (which crosses the site), and the Nepean River at the western boundary. Based on topography, groundwater beneath the site is expected to flow west towards the Nepean River. Sensitive environmental receptors include groundwater and other inflow-dependent ecosystems, remnant native vegetation and threatened species that may inhabit or visit the site.

4.2 Preliminary CSM Discussion and Summary

Based on the findings of the historical data review, the site appears to have been used for agricultural purposes since at least the 1950s. The surrounding land has also been used for agricultural, residential, commercial and recreational land uses. Remnant bushland is also location on and near the site.

Following review of the site history and conducting a site inspection, the following potential areas of environmental concern were identified at the site:

- Fill material (possibly imported) for road construction;
- Historical petroleum storage in ASTs at unsealed and unbunded areas;
- Chemical storage areas associated with agriculture (e.g. petroleum products, herbicides, fungicides, pesticides etc.); and
- Potential use of herbicides/pesticides in agricultural fields.

Refer to **Figure 2** for key site features.

Based on recent site observations, no evidence of odours or staining of soils were observed, or vegetation affected by plant stress or dieback that may be associated with contaminated land issues. In addition, considering the current and historical site use (i.e. residential and agricultural), and the proposed land use (public cemetery) the potential risk of exposure to site users and/or the environment to impacted soil and/or groundwater (if present at the site) is considered low at present. However, based on the observations made during the site inspection and the findings of the site historical land use review, historical impacts to soil (and/or groundwater) is a possibility. It is also noted that the general environmental sensitivity of the site is considered

to be moderate due to the presence of remnant (i.e. native) vegetation and groundwater and inflow-dependent ecosystems (i.e. Duncan Creek and the Nepean River), and as such the potential for the referenced areas of concern to impact these ecosystems should be considered.

Given the identification of potential contaminant sources at the site (including fill materials and petroleum/chemical storage and use), further environmental investigation should be conducted to confirm the contamination status of the site. This should include conducting a search of the SafeWork NSW dangerous goods records (noting the presence of ASTs and multiple chemical storage areas at the site), and the collection of environmental samples for laboratory analysis for the relevant COPCs (refer recommendations for further details).

5 Conclusions and Recommendations

5.1 Summary and Conclusions

Based on the site history review and site observations as conducted during this PSI, the following summary and conclusions are provided:

- The site has been used for agricultural land use purposes since at least approximately the 1950s. The site currently comprises a homestead with a garage, sheds, a former dairy shed, silos, two dams, cattle grazing areas and various paddocks with crops;
- The following potential areas of environmental concern were identified at the site:
 - Fill material (either site-sourced re-worked fill or fill from off-site sources) for road construction;
 - Potential hazardous building materials in the building structures; and
 - Historical petroleum storage in ASTs at unsealed and unbunded areas, chemical storage areas associated with agriculture (e.g. petroleum products, herbicides, fungicides, pesticides etc.) and the potential use of herbicides/pesticides in agricultural fields.
- The site is in a moderate sensitivity environmental setting based on the preliminary CSM considering on-site and nearby environmental receptors.

5.2 Recommendations

Based on the results of the PSI, it is recommended that a Detailed Site Investigation (DSI) is undertaken at the site to confirm whether the current or historical activities at the site, and in the surrounding vicinity of the site, have resulted in contamination of the subsurface, and to determine what measures (if any) are required to ensure the site is suitable for the proposed development.

TRACE Environmental also provides the following additional recommendations:

- Based on the age of the buildings at the site, a hazardous material building survey should be conducted prior to demolition works being undertaken;
- In the event that soil is excavated and requires off-site disposal during redevelopment, the soil should be tested and classified in accordance with NSW EPA guidelines prior to disposal; and
- Any imported material brought onto the site for any purpose must be validated as being suitable for the intended land use.

6 References

- Acid Sulfate Soil Management Advisory Committee (ASSMAC) (1998) *Acid Sulfate Soil Manual, NSW*, August 1998.
- *Contaminated Land Management Act 1997*.
- Lotsearch (2020) *Report for 1290 Greendale Park Road, Wallacia, NSW 2745*, 24 June 2020.
- National Environment Protection (*Assessment of Site Contamination*) Measure (NEPM). National Environment Protection Council (NEPC) 1999, Amendment 2013.
- NSW Department of Infrastructure, Planning and Natural Resources, *Salinity Potential in Western Sydney* 2002.
- NSW Department of Urban Affairs and Planning (1998), *Managing Land Contamination: Planning Guidelines: SEPP 55 Remediation of Land*, 1998.
- NSW EPA (1995) *Contaminated Sites Sampling Design Guidelines*. NSW EPA, September 1995.
- NSW EPA (2014) *Waste Classification Guidelines. Part 1: Classifying Waste*. NSW EPA, November 2014.
- NSW EPA (2015) *Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act*. NSW EPA, September 2015.
- NSW EPA (2017) *Guidelines for the NSW Site Auditor Scheme (3rd Edition)*. NSW EPA, October 2017.
- NSW EPA (2020) *Consultants Reporting on Contaminated Land: Contaminated Land Guidelines*. NSW EPA, April 2020.
- NSW Government (2019) *Code of Practice: How to Safely Remove Asbestos*, August 2019.
- NSW Government (2019) *Code of Practice: How to Manage and Control Asbestos in the Workplace*, August 2019.
- Standards Australia (1999), Australian Standard AS 4482.2-1999 - *Guide to the sampling and investigation of potentially contaminated soil. Part 2: Volatile substances*. Standards Australia, Homebush, NSW.
- Standards Australia (2005), Australian Standard AS 4482.1-2005 – *Guide to the investigation and sampling of sites with potentially contaminated soil. Part 1: Non-volatile and semi-volatile compounds*. Standards Australia, Homebush, NSW.

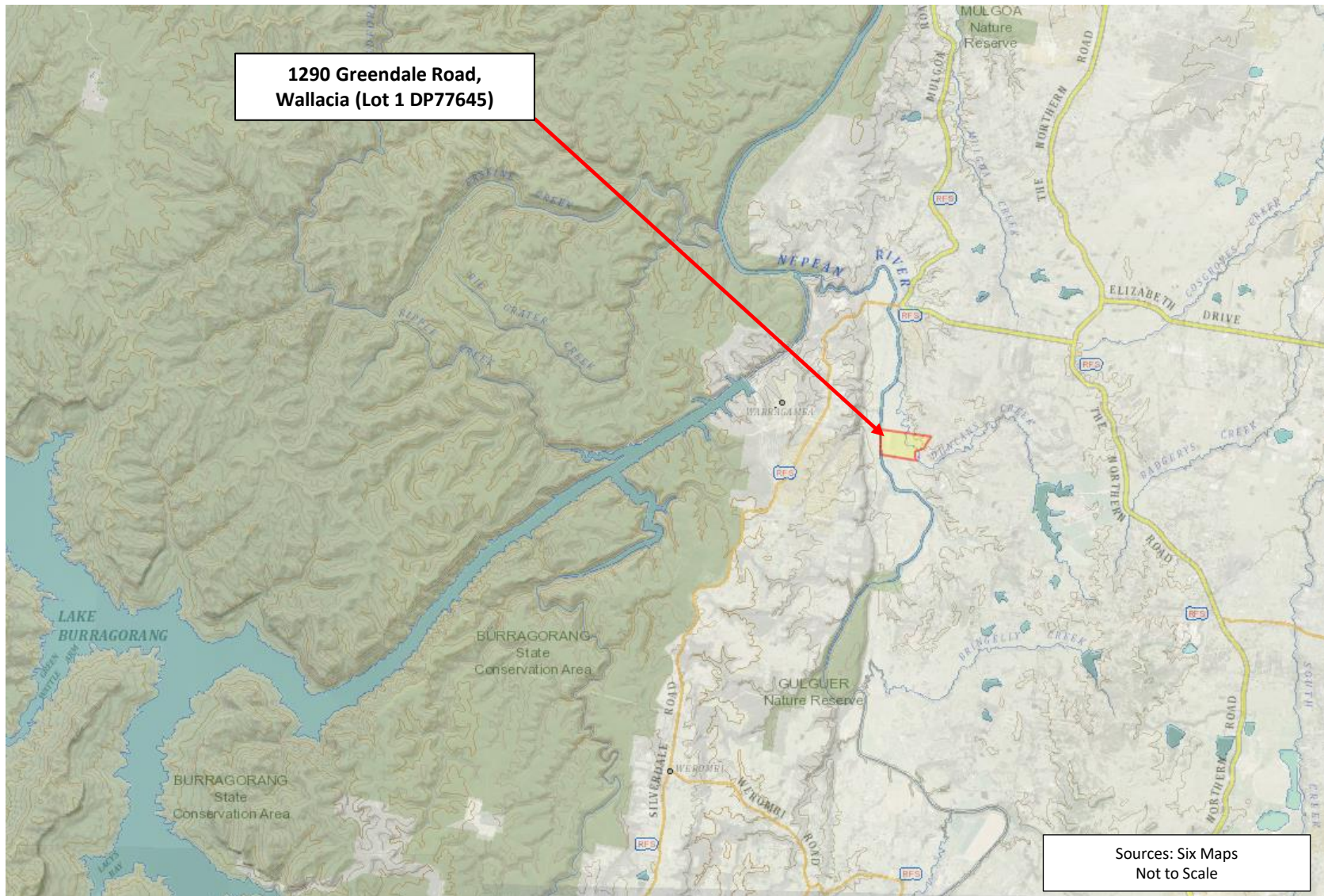
7 Limitations

This report has been prepared for MKD Architects and for the specific purpose to which it refers. No responsibility is accepted to any third party and neither the whole of the report or any part or reference thereto may be published in any document, statement or circular nor in any communication with third parties without our prior written approval of the form and context in which it will appear.

TRACE Environmental has used a degree of skill and care ordinarily exercised by reputable members of our profession practising in the same or similar locality. The conclusions presented in this report are relevant to the conditions of the site and the state of legislation currently enacted as at the date of this report. We do not make any representation or warranty that the conclusions in this report were applicable in the future as there may be changes in the condition of the site, applicable legislation or other factors that would affect the conclusions contained in this report.

This report and the information contained in it is the intellectual property of TRACE Environmental. MKD Architects is granted an exclusive licence for the use of the report for the purpose described in the report.

Figures



Project: **99.72**

Figure: **1**

Title: **Locality Plan**

Address: **1290 Greendale Road, Wallacia NSW**



Approximate Site Boundary

Source: MetroMap (Image Date: 5/04/2020). Not to Scale



Project: **99.72**

Title: **Site Plan & Features**

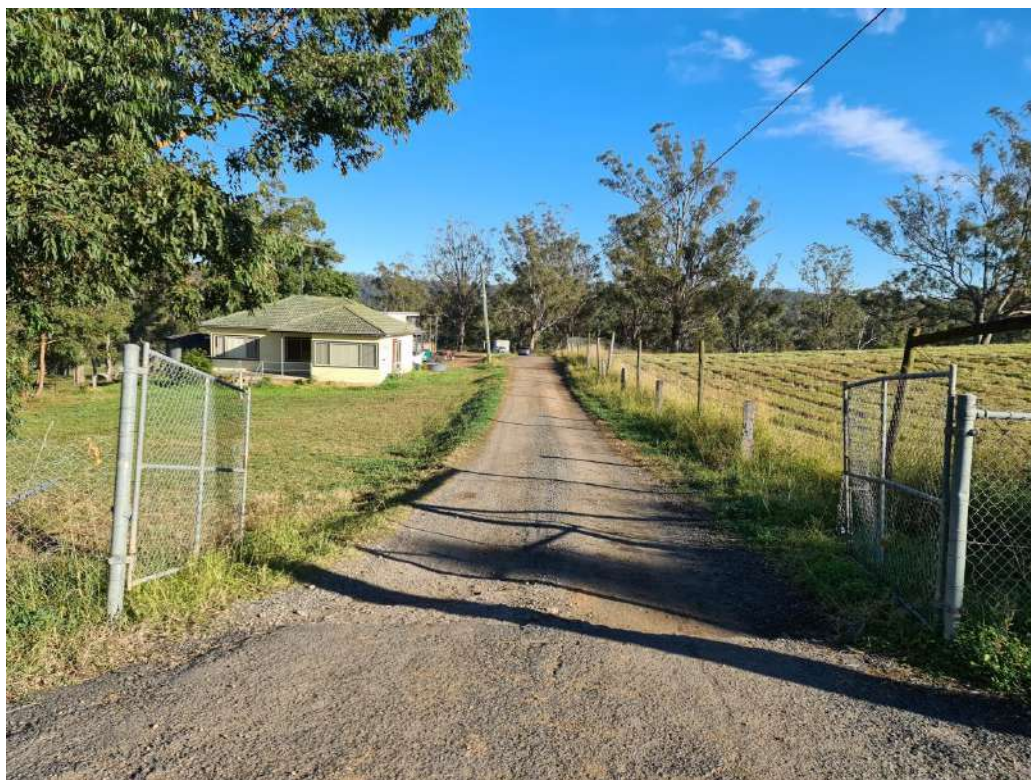
Figure: **2**

Address: **1290 Greendale Road, Wallacia NSW**

Appendix A

Site

Photographs



Photograph 1: Main entrance with Homestead. Looking west.



Photograph 2: Fuse Box (Homestead)



Photograph 3: 50 mm PVC riser of a newly constructed well. Looking northwest



Photograph 4: Rainwater tanks at main building. Looking south.



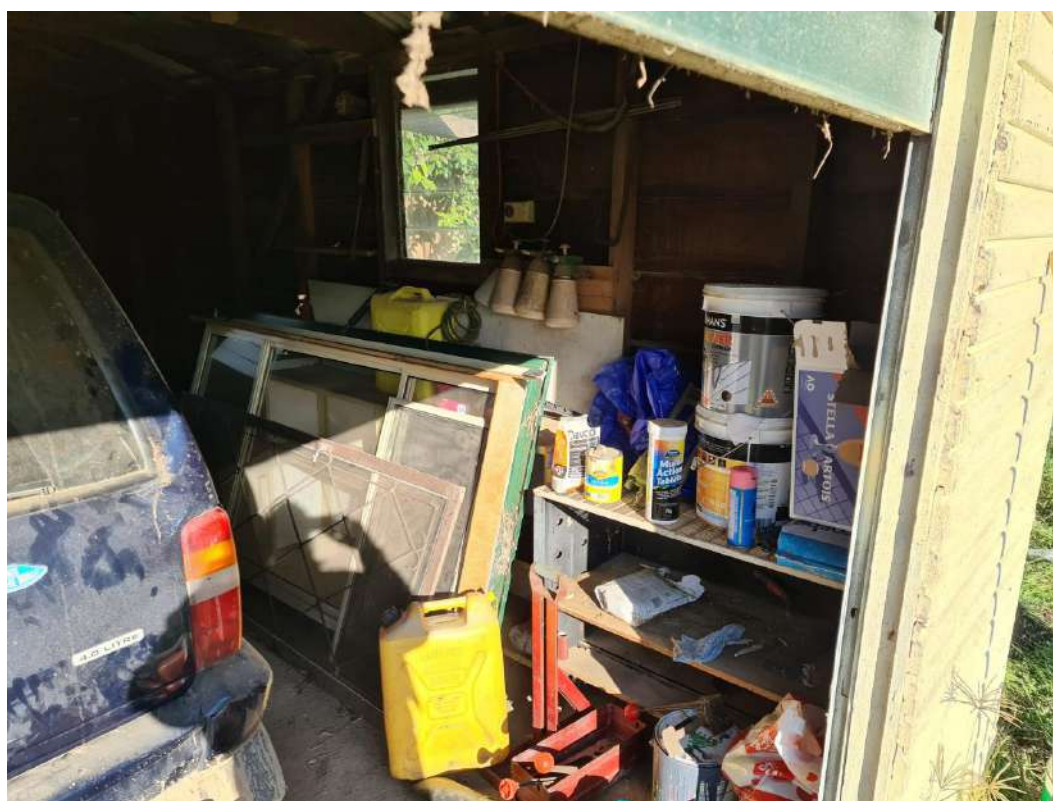
Photograph 5: Septic System. Looking south.



Photograph 6: Main House. Crawl space.



**Photograph 7: View of garage and sheds west of homestead.
Looking south.**



Photograph 8: Inside garage.



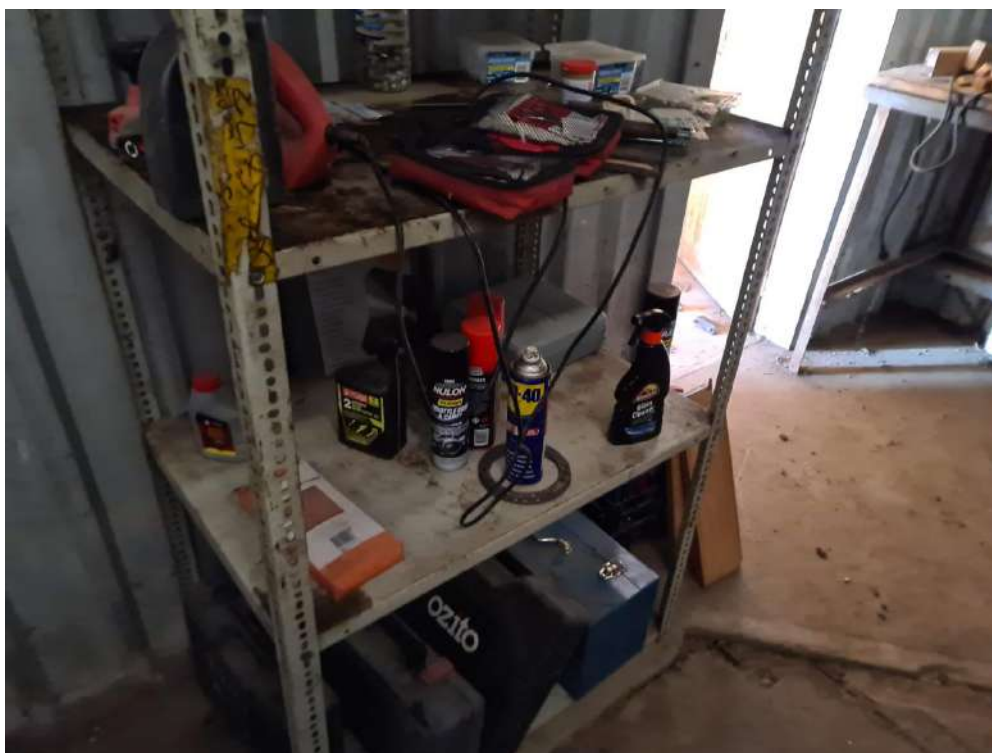
Photograph 9: Oil/grease can in front of shed.



Photograph 10: Fire pit and skip bin.



**Photograph 11: Rubbish container and storage outside of sheds.
Looking south.**



Photograph 12: Shed Interior. Various chemicals.



Photograph 13: AST tank with apparent fuel dispenser.



Photograph 14: Another AST tank.



Photograph 15: Cargo container (storage)



Photograph 16: Open shed. Farm equipment, fertilizer and seed storage.



**Photograph 17: Agriculture shed and unsealed driveways.
Looking northwest.**



Photograph 18: Paddocks and dam beyond. Looking west.



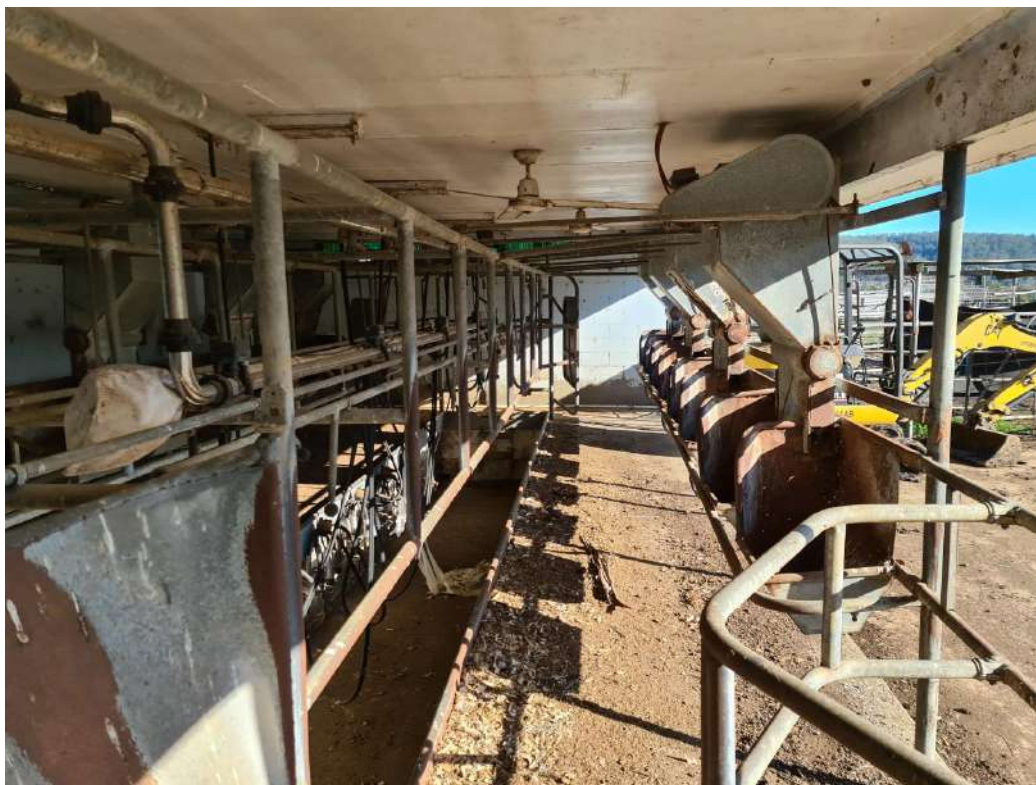
Photograph 19: Main dam and dairy shed beyond. Looking south.



Photograph 20: Dam pump system



Photograph 21: Dairy shed (right) and agricultural shed. Looking south.



Photograph 22: Dairy shed interior



Photograph 23: Milk pumps.



Photograph 24: Chemicals in dairy shed. Acaricide (front) and Blu Gard (teat spray) (back).



Photograph 25: Dairy Shed: sanitiser storage



Photograph 26: Outside the dairy shed. Looking west.



Photograph 27: 50 mm PVC riser of newly constructed groundwater monitoring well.



Photograph 28: Brick and metal diary sheds. Looking south.



Photograph 29: Interior of brick shed. Disused pump equipment in cage.



Photograph 30: Control panel.



Photograph 31: Interior of disused silo.



Photograph 32: Interior of disused metal silo.



Photograph 33: Duncans Creek looking north.



Photograph 34: Western part of the property. Looking west.



Photograph 35: Soil mounds looking east.



Photograph 36: Field with active crops. Looking northwest.



Photograph 37: Bank of the Nepean River. Looking south.



Photograph 38: Cattle grazing on property. Looking north-west



Photograph 39: Remnant vegetation in southern portion of property. Looking south.



Photograph 40: Fields in western portion of site. Looking north.

Appendix B

Lotsearch Report



LOTSEARCH

LOTSEARCH ENVIRO PROFESSIONAL

Date: 24 Jun 2020 10:02:29

Reference: LS013067 EP

Address: 1290 Greendale Park Road, Wallacia, NSW 2745

Disclaimer:

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

Dataset Listing

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

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features Onsite	No. Features within 100m	No. Features within Buffer
Cadastre Boundaries	NSW Department of Finance, Services & Innovation	06/04/2020	06/04/2020	Quarterly	-	-	-	-
Topographic Data	NSW Department of Finance, Services & Innovation	25/06/2019	25/06/2019	As required	-	-	-	-
List of NSW contaminated sites notified to EPA	Environment Protection Authority	15/06/2020	15/06/2020	Monthly	1000	0	0	0
Contaminated Land Records of Notice	Environment Protection Authority	25/05/2020	25/05/2020	Monthly	1000	0	0	0
Former Gasworks	Environment Protection Authority	22/06/2020	11/10/2017	Monthly	1000	0	0	0
National Waste Management Facilities Database	Geoscience Australia	15/05/2020	07/03/2017	Quarterly	1000	0	0	0
National Liquid Fuel Facilities	Geoscience Australia	05/02/2020	13/07/2012	Quarterly	1000	0	0	0
EPA PFAS Investigation Program	Environment Protection Authority	25/05/2020	25/05/2020	Monthly	2000	0	0	0
Defence PFAS Investigation & Management Program - Investigation Sites	Department of Defence	12/02/2020	12/02/2020	Monthly	2000	0	0	0
Defence PFAS Investigation & Management Program - Management Sites	Department of Defence	12/02/2020	12/02/2020	Monthly	2000	0	0	0
Airservices Australia National PFAS Management Program	Airservices Australia	25/05/2020	23/04/2020	Monthly	2000	0	0	0
Defence 3 Year Regional Contamination Investigation Program	Department of Defence	05/06/2020	05/06/2020	Monthly	2000	0	0	0
EPA Other Sites with Contamination Issues	Environment Protection Authority	04/02/2020	13/12/2018	Annually	1000	0	0	0
Licensed Activities under the POEO Act 1997	Environment Protection Authority	15/06/2020	15/06/2020	Monthly	1000	0	0	0
Delicensed POEO Activities still regulated by the EPA	Environment Protection Authority	15/06/2020	15/06/2020	Monthly	1000	0	0	0
Former POEO Licensed Activities now revoked or surrendered	Environment Protection Authority	15/06/2020	15/06/2020	Monthly	1000	5	5	6
UBD Business Directories (Premise & Intersection Matches)	Hardie Grant			Not required	150	0	0	0
UBD Business Directories (Road & Area Matches)	Hardie Grant			Not required	150	-	2	2
UBD Business Directory Dry Cleaners & Motor Garages/Service Stations (Premise & Intersection Matches)	Hardie Grant			Not required	500	0	0	0
UBD Business Directory Dry Cleaners & Motor Garages/Service Stations (Road & Area Matches)	Hardie Grant			Not required	500	-	0	0
Points of Interest	NSW Department of Finance, Services & Innovation	30/03/2020	30/03/2020	Quarterly	1000	0	0	6
Tanks (Areas)	NSW Department of Customer Service - Spatial Services	30/03/2020	30/03/2020	Quarterly	1000	0	0	0
Tanks (Points)	NSW Department of Customer Service - Spatial Services	30/03/2020	30/03/2020	Quarterly	1000	0	0	0
Major Easements	NSW Department of Finance, Services & Innovation	30/03/2020	30/03/2020	Quarterly	1000	0	0	0
State Forest	Forestry Corporation of NSW	18/01/2018	18/01/2018	As required	1000	0	0	0
NSW National Parks and Wildlife Service Reserves	NSW Office of Environment & Heritage	21/01/2020	30/09/2019	Annually	1000	0	0	0
Hydrogeology Map of Australia	Commonwealth of Australia (Geoscience Australia)	08/10/2014	17/03/2000	As required	1000	1	1	1
Botany Groundwater Management Zones	NSW Department of Planning, Industry and Environment	15/03/2018	01/10/2005	As required	1000	0	0	0

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features Onsite	No. Features within 100m	No. Features within Buffer
Groundwater Boreholes	NSW Dept. of Primary Industries - Water NSW; Commonwealth of Australia (Bureau of Meteorology)	24/07/2018	23/07/2018	Annually	2000	0	0	33
Geological Units 1:100,000	NSW Department of Planning, Industry and Environment	20/08/2014		None planned	1000	2	-	5
Geological Structures 1:100,000	NSW Department of Planning, Industry and Environment	20/08/2014		None planned	1000	0	-	2
Naturally Occurring Asbestos Potential	NSW Dept. of Industry, Resources & Energy	04/12/2015	24/09/2015	Unknown	1000	0	0	0
Atlas of Australian Soils	Australian Bureau of Agriculture and Resource Economics and Sciences (ABARES)	19/05/2017	17/02/2011	As required	1000	2	2	3
Soil Landscapes	NSW Department of Planning, Industry and Environment	12/08/2014		None planned	1000	3	-	7
Environmental Planning Instrument Acid Sulfate Soils	NSW Department of Planning, Industry and Environment	11/06/2020	01/05/2020	Monthly	500	0	-	-
Atlas of Australian Acid Sulfate Soils	CSIRO	19/01/2017	21/02/2013	As required	1000	2	2	2
Dryland Salinity - National Assessment	National Land and Water Resources Audit	18/07/2014	12/05/2013	None planned	1000	1	1	1
Dryland Salinity Potential of Western Sydney	NSW Department of Planning, Industry and Environment	12/05/2017	01/01/2002	None planned	1000	2	2	4
Mining Subsidence Districts	NSW Department of Customer Service - Subsidence Advisory NSW	30/03/2020	30/03/2020	Quarterly	1000	0	0	0
Environmental Planning Instrument SEPP State Significant Precincts	NSW Department of Planning, Industry and Environment	11/06/2020	07/12/2018	Monthly	1000	0	0	0
Environmental Planning Instrument Land Zoning	NSW Department of Planning, Industry and Environment	11/06/2020	05/06/2020	Monthly	1000	1	3	9
Commonwealth Heritage List	Australian Government Department of the Agriculture, Water and the Environment	18/05/2020	20/11/2019	Quarterly	1000	0	0	0
National Heritage List	Australian Government Department of the Agriculture, Water and the Environment	18/05/2020	20/11/2019	Quarterly	1000	1	1	1
State Heritage Register - Curtilages	NSW Department of Planning, Industry and Environment	12/02/2020	09/11/2018	Quarterly	1000	0	0	0
Environmental Planning Instrument Heritage	NSW Department of Planning, Industry and Environment	11/06/2020	05/06/2020	Monthly	1000	0	0	5
Bush Fire Prone Land	NSW Rural Fire Service	04/02/2020	14/12/2019	Quarterly	1000	2	2	3
Remnant Vegetation of the Cumberland Plain	NSW Office of Environment & Heritage	07/10/2014	04/08/2011	Unknown	1000	10	11	20
Ramsar Wetlands of Australia	Department of the Agriculture, Water and the Environment	08/10/2014	24/06/2011	As required	1000	0	0	0
Groundwater Dependent Ecosystems	Bureau of Meteorology	14/08/2017	15/05/2017	Unknown	1000	3	5	6
Inflow Dependent Ecosystems Likelihood	Bureau of Meteorology	14/08/2017	15/05/2017	Unknown	1000	3	5	8
NSW BioNet Species Sightings	NSW Office of Environment & Heritage	22/06/2020	22/06/2020	Weekly	10000	-	-	-

Site Diagram

1290 Greendale Park Road, Wallacia, NSW 2745



<p>Legend</p> <ul style="list-style-type: none"> Site Boundary Internal Parcel Boundaries 	<p>Total Area: 738129m²</p> <p>Total Perimeter: 3793m</p> <p>Disclaimers:</p> <p>Measurements are approximate only and may have been simplified or smaller lengths removed for readability.</p> <p>Parcels that make up a small percentage of the total site area have not been labelled for increased legibility.</p>	<p>Scale:</p> <p>0 25 50 100 150 200 250 Meters</p> <hr/> <p>Data Sources: Aerial Imagery © Aerometrex Pty Ltd</p> <hr/> <table border="1" style="width: 100%;"> <tr> <td style="width: 50%;">Coordinate System: GDA 1994 MGA Zone 56</td> <td style="width: 50%;">Date: 24 June 2020</td> </tr> </table>	Coordinate System: GDA 1994 MGA Zone 56	Date: 24 June 2020
Coordinate System: GDA 1994 MGA Zone 56	Date: 24 June 2020			

Contaminated Land

1290 Greendale Park Road, Wallacia, NSW 2745

List of NSW contaminated sites notified to EPA

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

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

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

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

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

Contaminated Land

1290 Greendale Park Road, Wallacia, NSW 2745

Contaminated Land: Records of Notice

Record of Notices within the dataset buffer:

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

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

Former Gasworks

Former Gasworks within the dataset buffer:

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

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

Waste Management & Liquid Fuel Facilities

1290 Greendale Park Road, Wallacia, NSW 2745

National Waste Management Site Database

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

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

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

National Liquid Fuel Facilities

National Liquid Fuel Facilities within the dataset buffer:

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

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

PFAS Investigation & Management Programs

1290 Greendale Park Road, Wallacia, NSW 2745

EPA PFAS Investigation Program

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

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

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

Defence PFAS Investigation Program

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

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

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

Defence PFAS Management Program

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

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

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

Airservices Australia National PFAS Management Program

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

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

Airservices Australia National PFAS Management Program Data Custodian: Airservices Australia

Defence Sites

1290 Greendale Park Road, Wallacia, NSW 2745

Defence 3 Year Regional Contamination Investigation Program

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

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

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

EPA Other Sites with Contamination Issues

1290 Greendale Park Road, Wallacia, NSW 2745

EPA Other Sites with Contamination Issues

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

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

Sites within the dataset buffer:

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

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

EPA Activities

1290 Greendale Park Road, Wallacia, NSW 2745

Licensed Activities under the POEO Act 1997

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

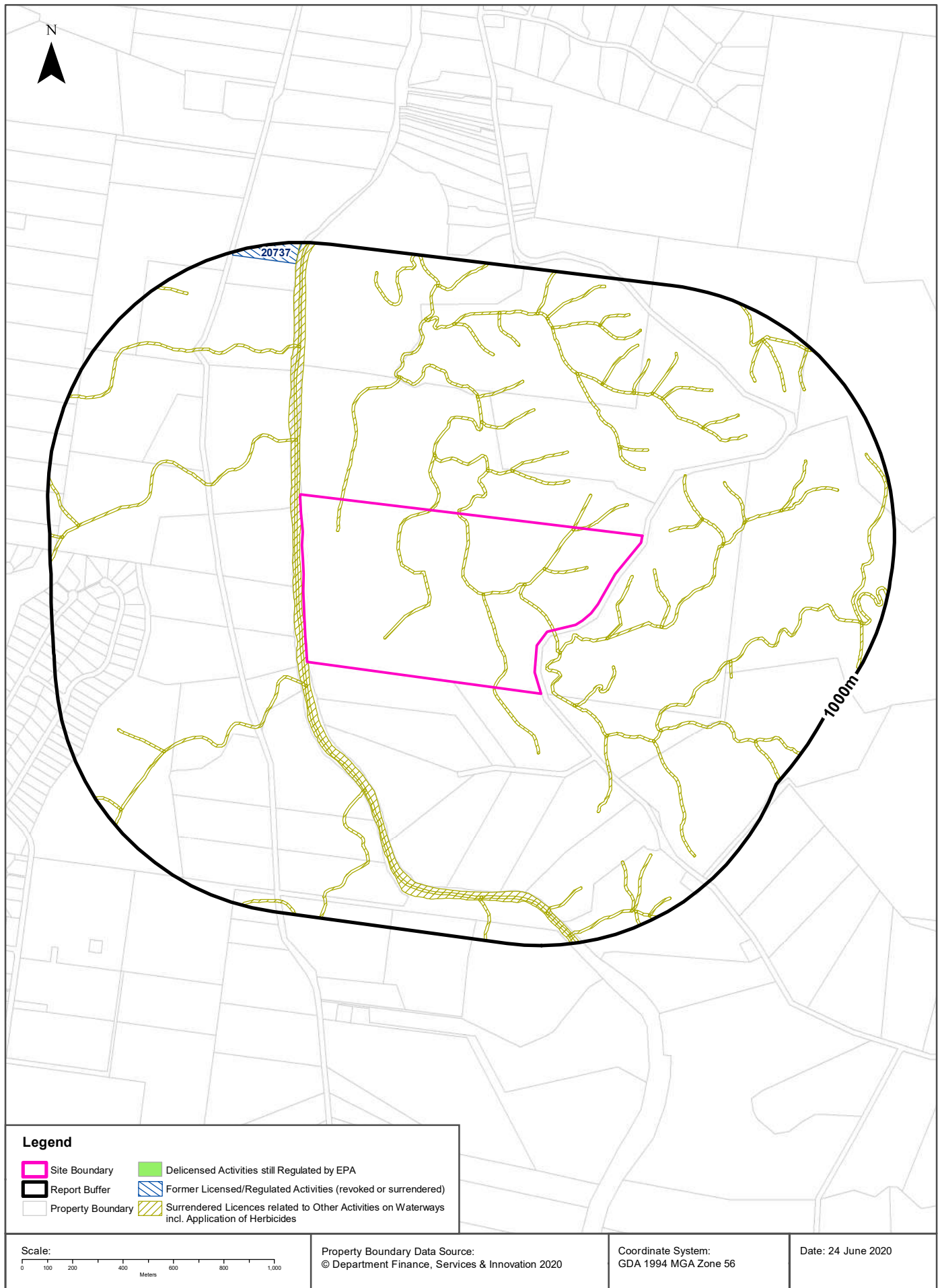
EPL	Organisation	Name	Address	Suburb	Activity	Loc Conf	Distance	Direction
N/A	No records in buffer							

POEO Licence Data Source: Environment Protection Authority

© State of New South Wales through the Environment Protection Authority

Delicensed & Former Licensed EPA Activities

1290 Greendale Park Road, Wallacia, NSW 2745



EPA Activities

1290 Greendale Park Road, Wallacia, NSW 2745

Delicensed Activities still regulated by the EPA

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

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

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

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

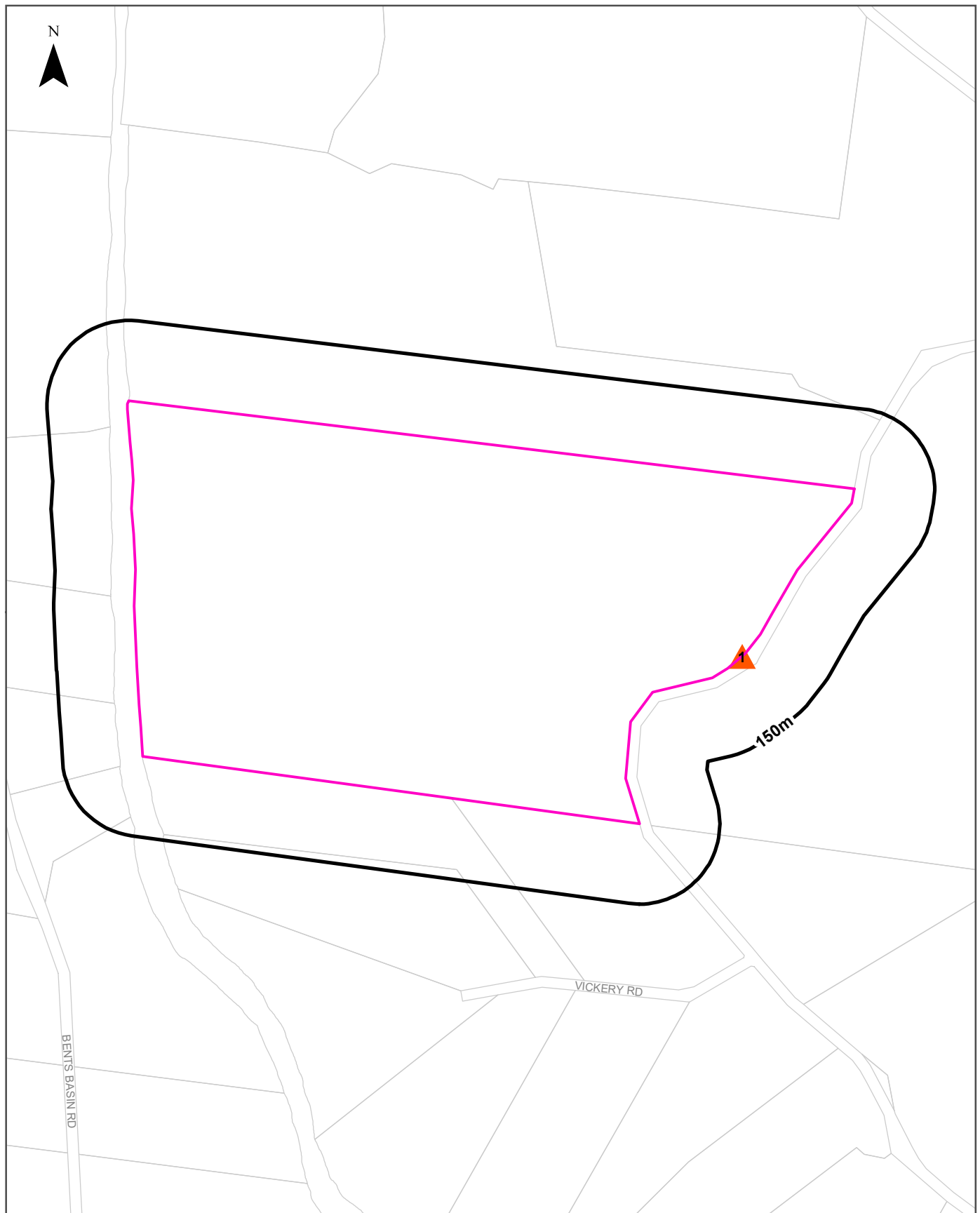
Former Licensed activities under the Protection of the Environment Operations Act 1997, now revoked or surrendered, within the dataset buffer:

Licence No	Organisation	Location	Status	Issued Date	Activity	Loc Conf	Distance	Direction
4390	WOLLONDILLY SHIRE COUNCIL	WATERWAYS OF WOLLONDILLY SHIRE COUNCIL	Surrendered	07/09/2000	Other Activities	Network of Features	0m	Onsite
4653	LUHRMANN ENVIRONMENT MANAGEMENT PTY LTD	WATERWAYS THROUGHOUT NSW	Surrendered	06/09/2000	Other Activities / Non Scheduled Activity - Application of Herbicides	Network of Features	0m	Onsite
4838	Robert Orchard	Various Waterways throughout New South Wales - SYDNEY NSW 2000	Surrendered	07/09/2000	Other Activities / Non Scheduled Activity - Application of Herbicides	Network of Features	0m	Onsite
5176	LIVERPOOL CITY COUNCIL	WATERWAYS OF LIVERPOOL CITY	Surrendered	17/04/2001	Other Activities / Non Scheduled Activity - Application of Herbicides	Network of Features	0m	Onsite
6630	SYDNEY WEED & PEST MANAGEMENT PTY LTD	WATERWAYS THROUGHOUT NSW - PROSPECT, NSW, 2148	Surrendered	09/11/2000	Other Activities / Non Scheduled Activity - Application of Herbicides	Network of Features	0m	Onsite
20737	Wallacia Soils Pty Limited	, 205 Bents Basin Road, WALLACIA, NSW 2745,	Surrendered	06/04/2017	Recovery of general waste; Waste storage - other types of waste	Premise Match	915m	North West

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

Historical Business Directories

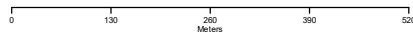
1290 Greendale Park Road, Wallacia, NSW 2745



Legend

- Site Boundary
- Buffer 150m
- Property Boundary
- Business directory records mapped to a specific premise
- Business directory records mapped to a road intersection
- Business directory records mapped to a road corridor
- Business directory records mapped to a general area

Scale:



Coordinate System:
GDA 1994 MGA Zone 56

Date: 24 June 2020

Data Sources: Reproduced with permission of UBD and Hardie Grant Media Pty Ltd DD 01/08/2018
Property Boundaries © NSW Department Finance, Services & Innovation 2020

Historical Business Directories

1290 Greendale Park Road, Wallacia, NSW 2745

Business Directory Records 1950-1991 Premise or Road Intersection Matches

Universal Business Directory records from years 1991, 1986, 1982, 1970, 1961 & 1950, mapped to a premise or road intersection within the dataset buffer:

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

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

Business Directory Records 1950-1991 Road or Area Matches

Universal Business Directory records from years 1991, 1986, 1982, 1970, 1961 & 1950, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published:

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
1	HOMES & INSTITUTIONS	Hopewood Health Centre, Greendale Rd. Wallacia	536990	1970	Road Match	0m
	HOSPITALS &/OR HEALTH CENTRES	Hopewood Health Centre, Greendale Rd. Wallacia	536991	1970	Road Match	0m

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

Historical Business Directories

1290 Greendale Park Road, Wallacia, NSW 2745

Dry Cleaners, Motor Garages & Service Stations 1948-1993 Premise or Road Intersection Matches

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

Note: The Universal Business Directories were published between 1948 and 1993. Dry Cleaners, Motor Garages & Service Stations have been extracted from all of these directories except the following years 1951, 1955, 1957, 1960, 1963, 1973, 1974, 1977, 1987.

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

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

Dry Cleaners, Motor Garages & Service Stations 1948-1993 Road or Area Matches

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

Note: The Universal Business Directories were published between 1948 and 1993. Dry Cleaners, Motor Garages & Service Stations have been extracted from all of these directories except the following years 1951, 1955, 1957, 1960, 1963, 1973, 1974, 1977, 1987.

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



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

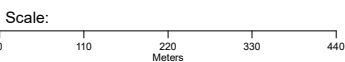
Aerial Imagery 2020

1290 Greendale Park Road, Wallacia, NSW 2745



Legend

-  Site Boundary
-  Buffer 150m



Data Sources: Aerial Imagery © Aerometrex Pty Ltd

Coordinate System:
GDA 1994 MGA Zone 56



Date: 24 June 2020

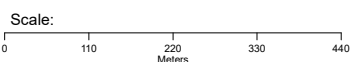
Aerial Imagery 2015

1290 Greendale Park Road, Wallacia, NSW 2745



Legend

-  Site Boundary
-  Buffer 150m



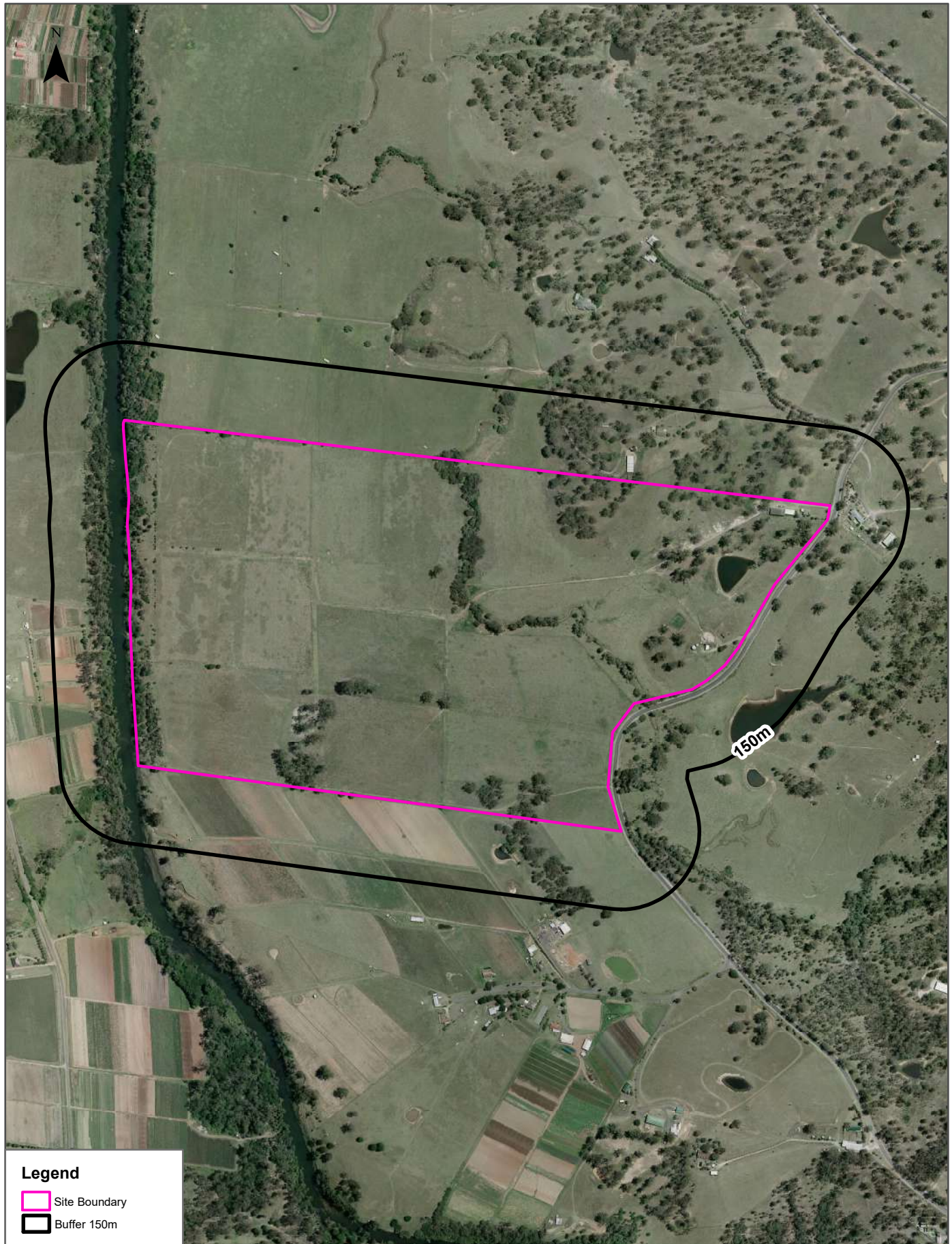
Data Sources: Aerial Imagery © Aerometrex Pty Ltd

Coordinate System:
GDA 1994 MGA Zone 56



Date: 24 June 2020

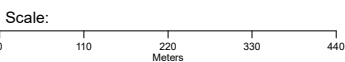
Aerial Imagery 2009

1290 Greendale Park Road, Wallacia, NSW 2745



Legend

-  Site Boundary
-  Buffer 150m



Data Sources: Aerial Imagery © Aerometrex Pty Ltd

Coordinate System:
GDA 1994 MGA Zone 56



Date: 24 June 2020

Aerial Imagery 1994

1290 Greendale Park Road, Wallacia, NSW 2745



Legend

-  Site Boundary
-  Buffer 150m

Scale:
0 110 220 330 440
Meters

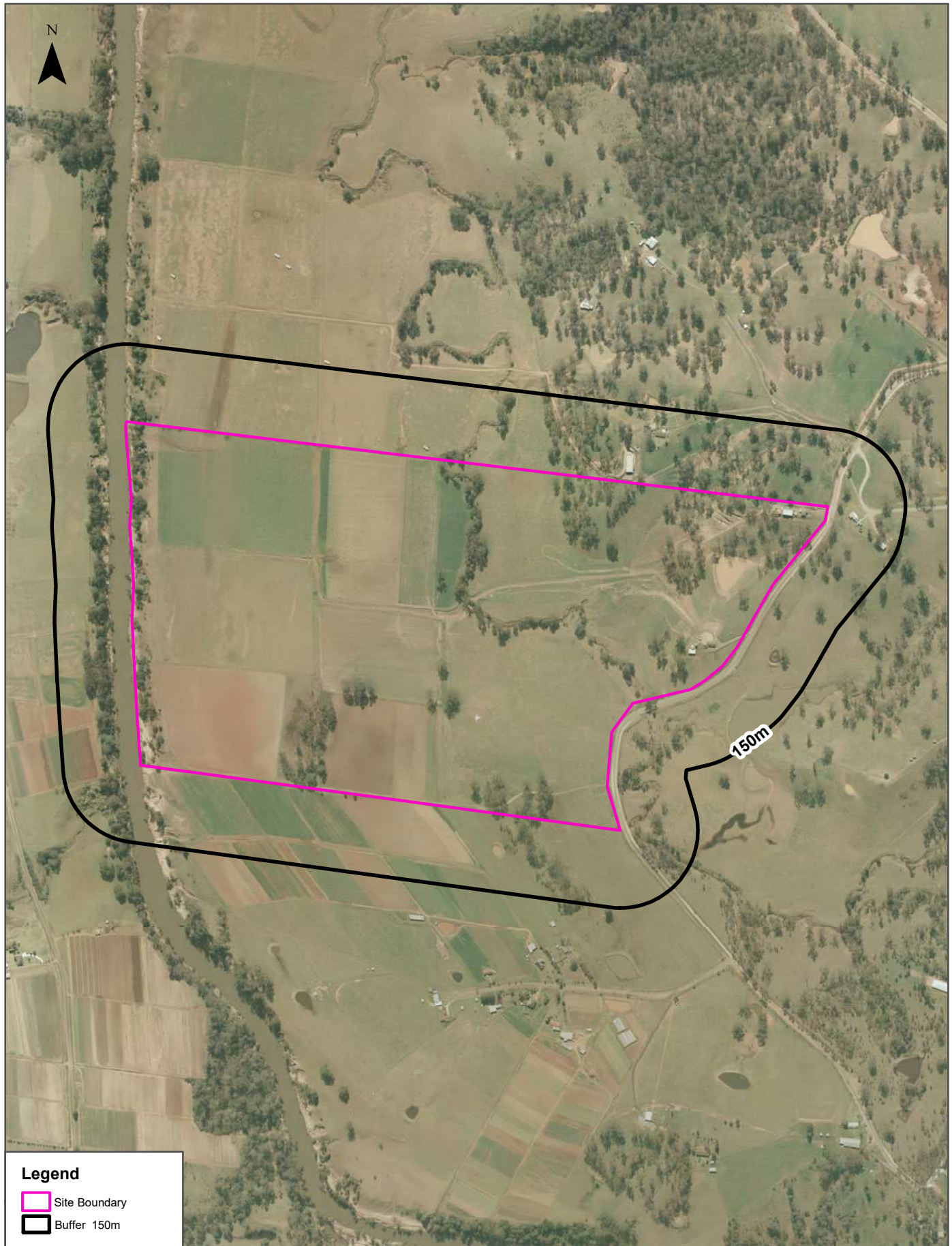
Data Source Aerial Imagery:
© NSW Department Finance, Services & Innovation

Coordinate System:
GDA 1994 MGA Zone 56



Date: 22 June 2020

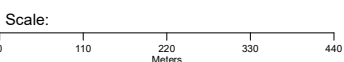
Aerial Imagery 1991

1290 Greendale Park Road, Wallacia, NSW 2745



Legend

-  Site Boundary
-  Buffer 150m



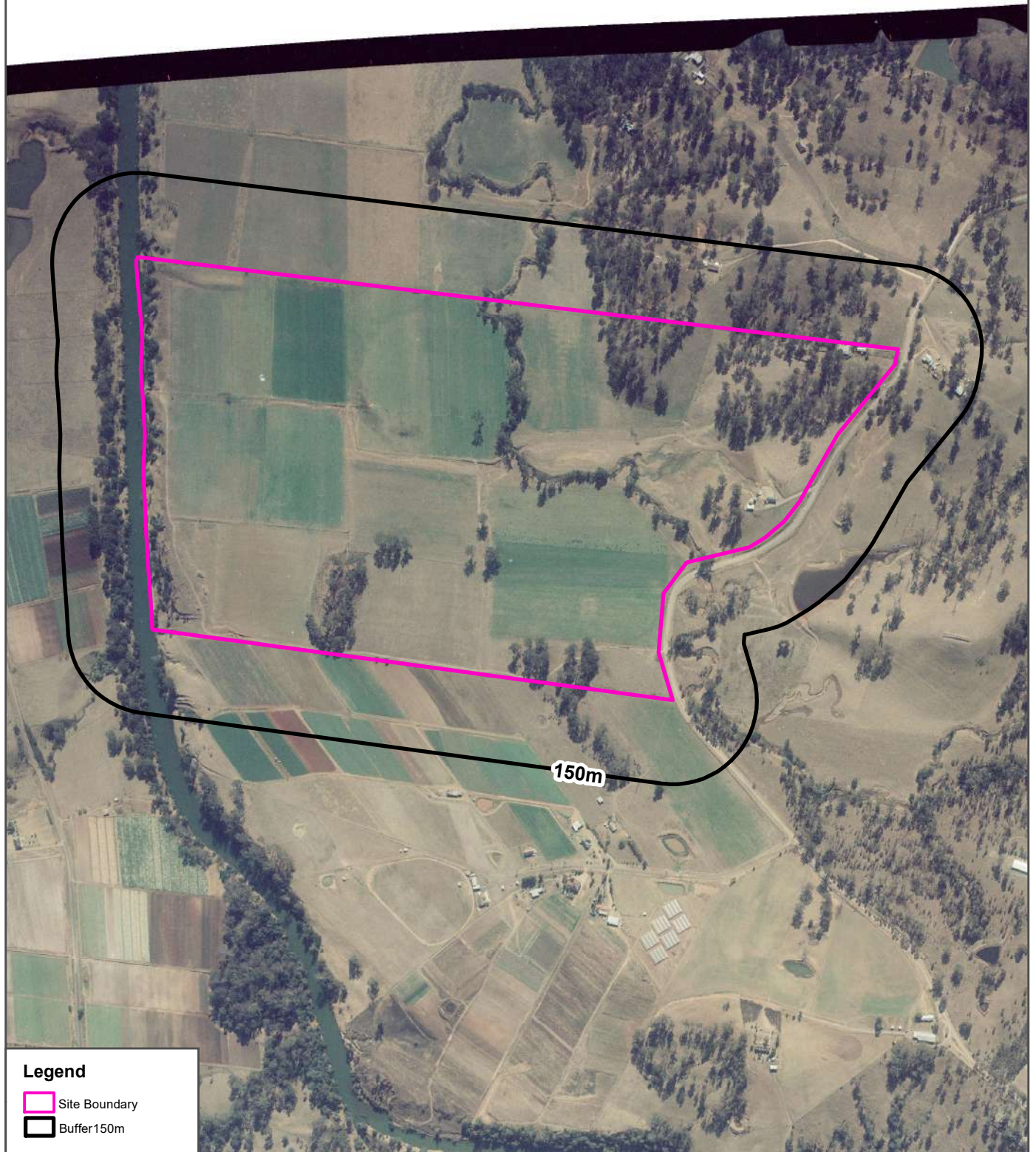
Data Sources: Aerial Imagery © Department of Finance, Services & Innovation

Coordinate System: GDA 1994 MGA Zone 56



Date: 24 June 2020

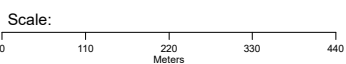
Aerial Imagery 1986

1290 Greendale Park Road, Wallacia, NSW 2745



Legend

-  Site Boundary
-  Buffer150m



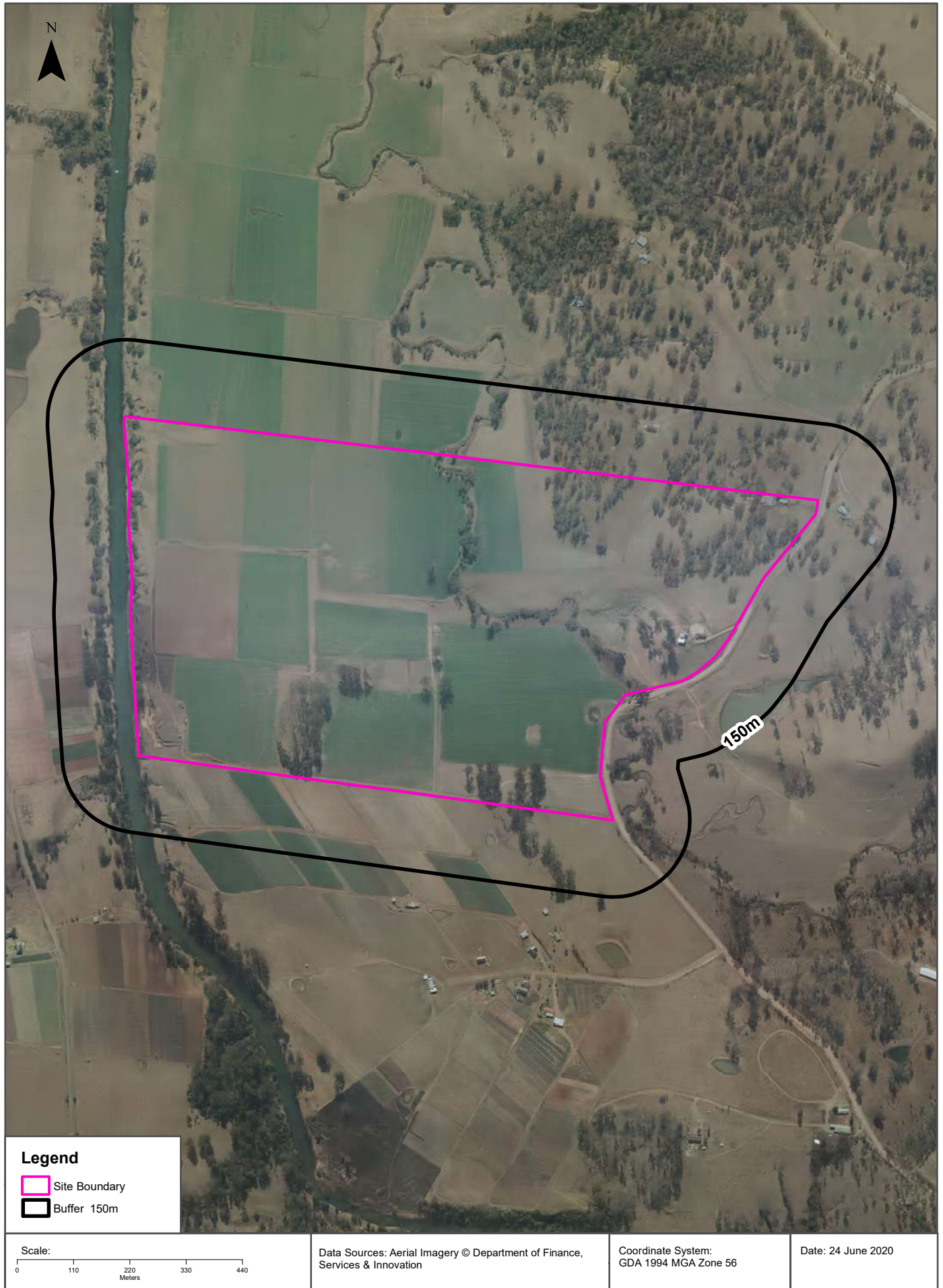
Data Source Aerial Imagery:
© NSW Department Finance, Services & Innovation

Coordinate System:
GDA 1994 MGA Zone 56

Date: 22 June 2020

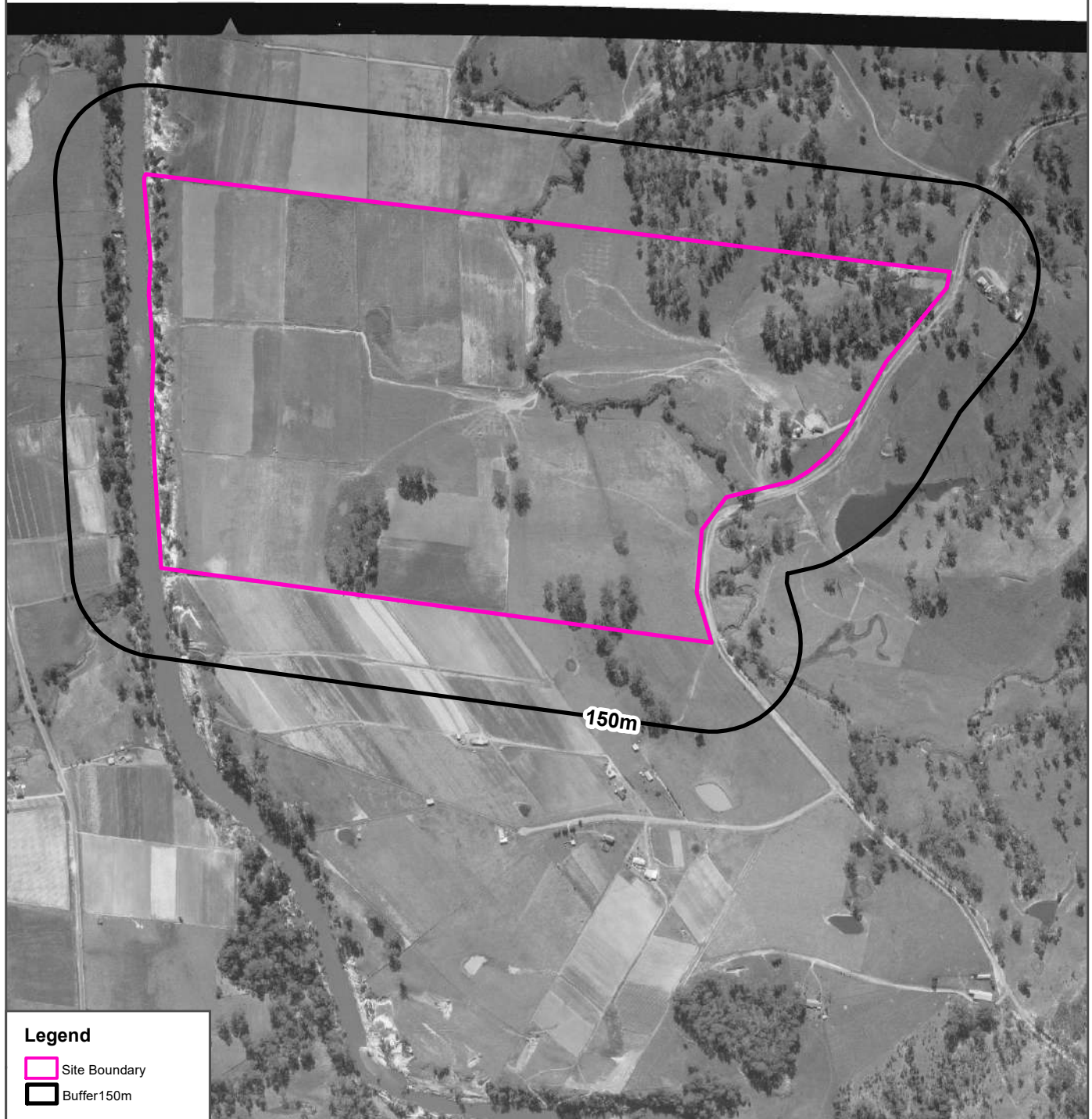
Aerial Imagery 1982

1290 Greendale Park Road, Wallacia, NSW 2745





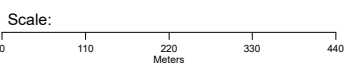
Aerial Imagery 1978

1290 Greendale Park Road, Wallacia, NSW 2745



Legend

-  Site Boundary
-  Buffer150m



Data Source Aerial Imagery:
© NSW Department Finance, Services & Innovation

Coordinate System:
GDA 1994 MGA Zone 56


Date: 22 June 2020

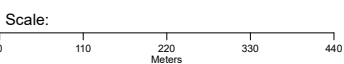
Aerial Imagery 1970

1290 Greendale Park Road, Wallacia, NSW 2745



Legend

-  Site Boundary
-  Buffer 150m



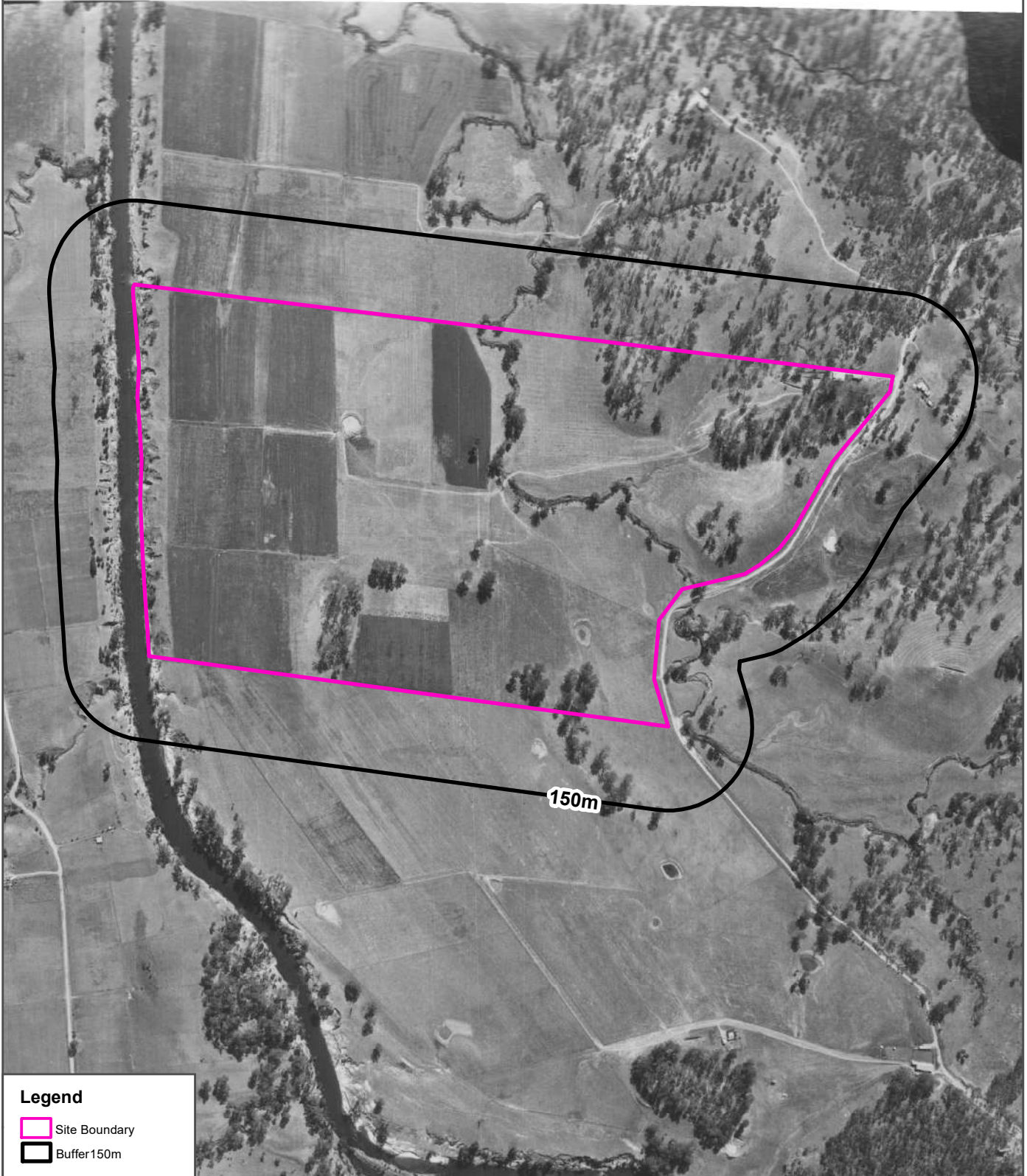
Data Sources: Aerial Imagery © Department of Finance, Services & Innovation

Coordinate System:
GDA 1994 MGA Zone 56



Date: 24 June 2020

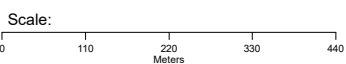
Aerial Imagery 1965

1290 Greendale Park Road, Wallacia, NSW 2745



Legend

-  Site Boundary
-  Buffer150m



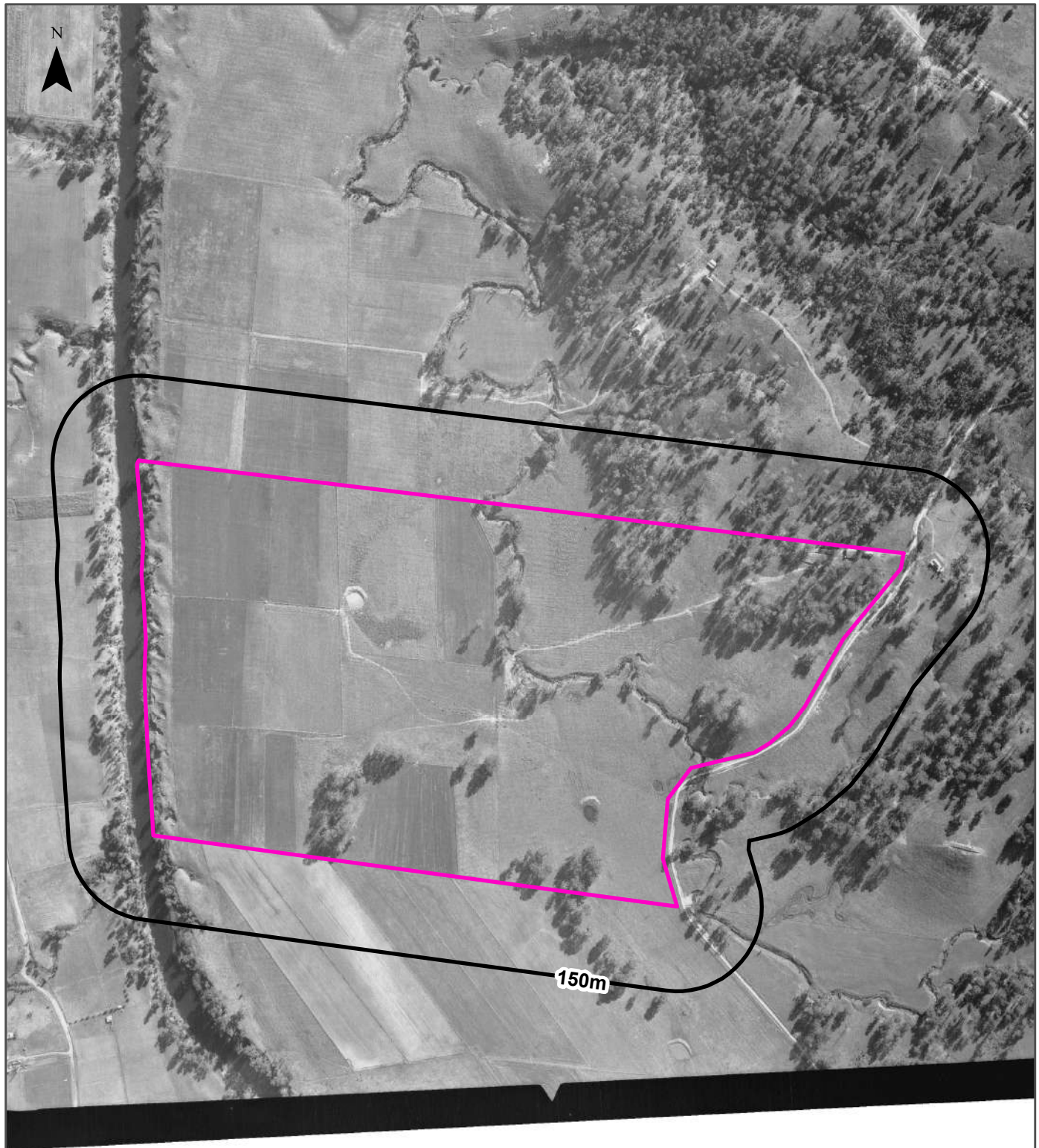
Data Source Aerial Imagery:
© NSW Department Finance, Services & Innovation

Coordinate System:
GDA 1994 MGA Zone 56



Date: 22 June 2020

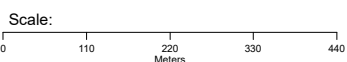
Aerial Imagery 1961

1290 Greendale Park Road, Wallacia, NSW 2745



Legend

-  Site Boundary
-  Buffer150m



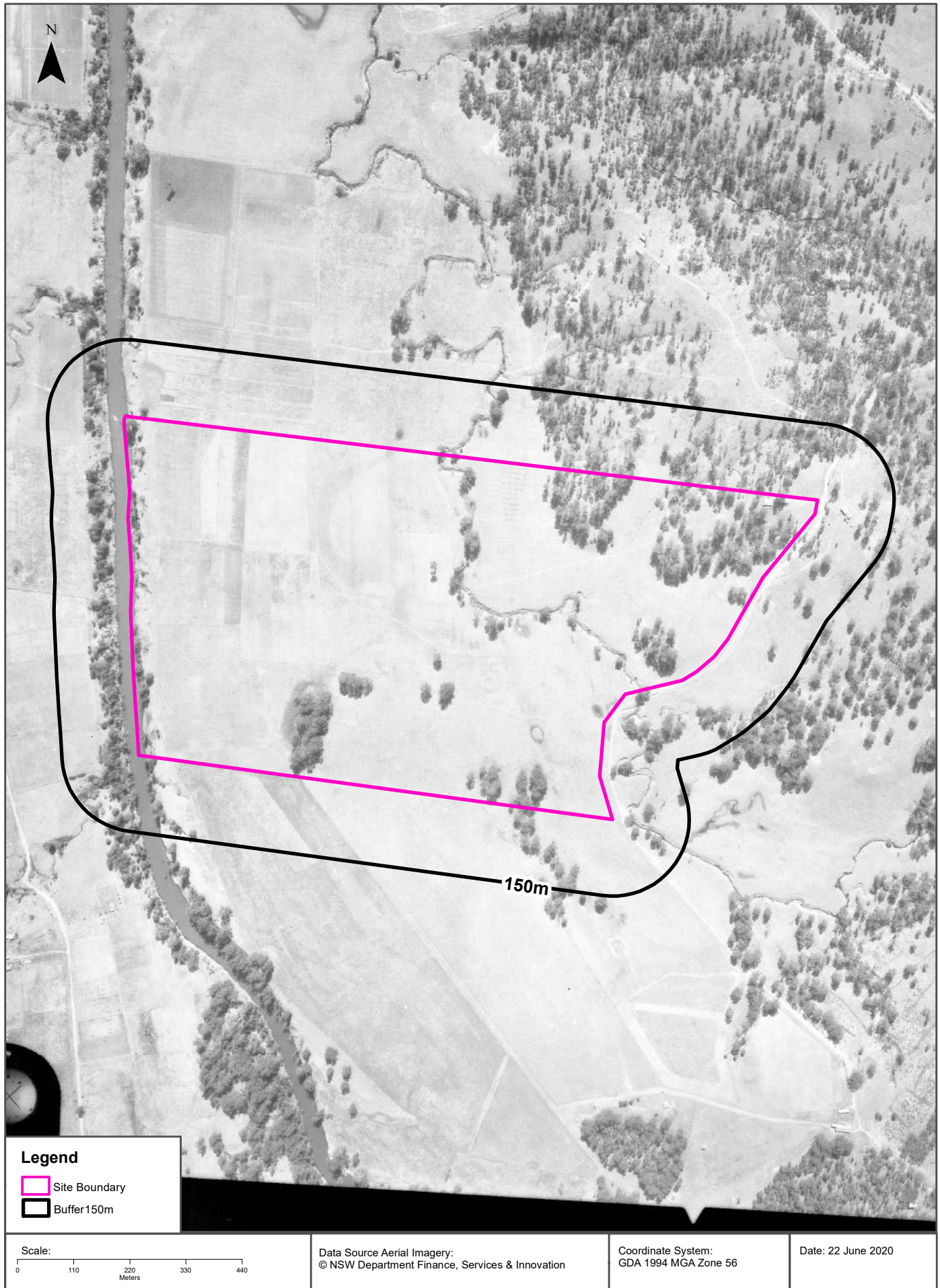
Data Source Aerial Imagery:
© NSW Department Finance, Services & Innovation

Coordinate System:
GDA 1994 MGA Zone 56

Date: 22 June 2020

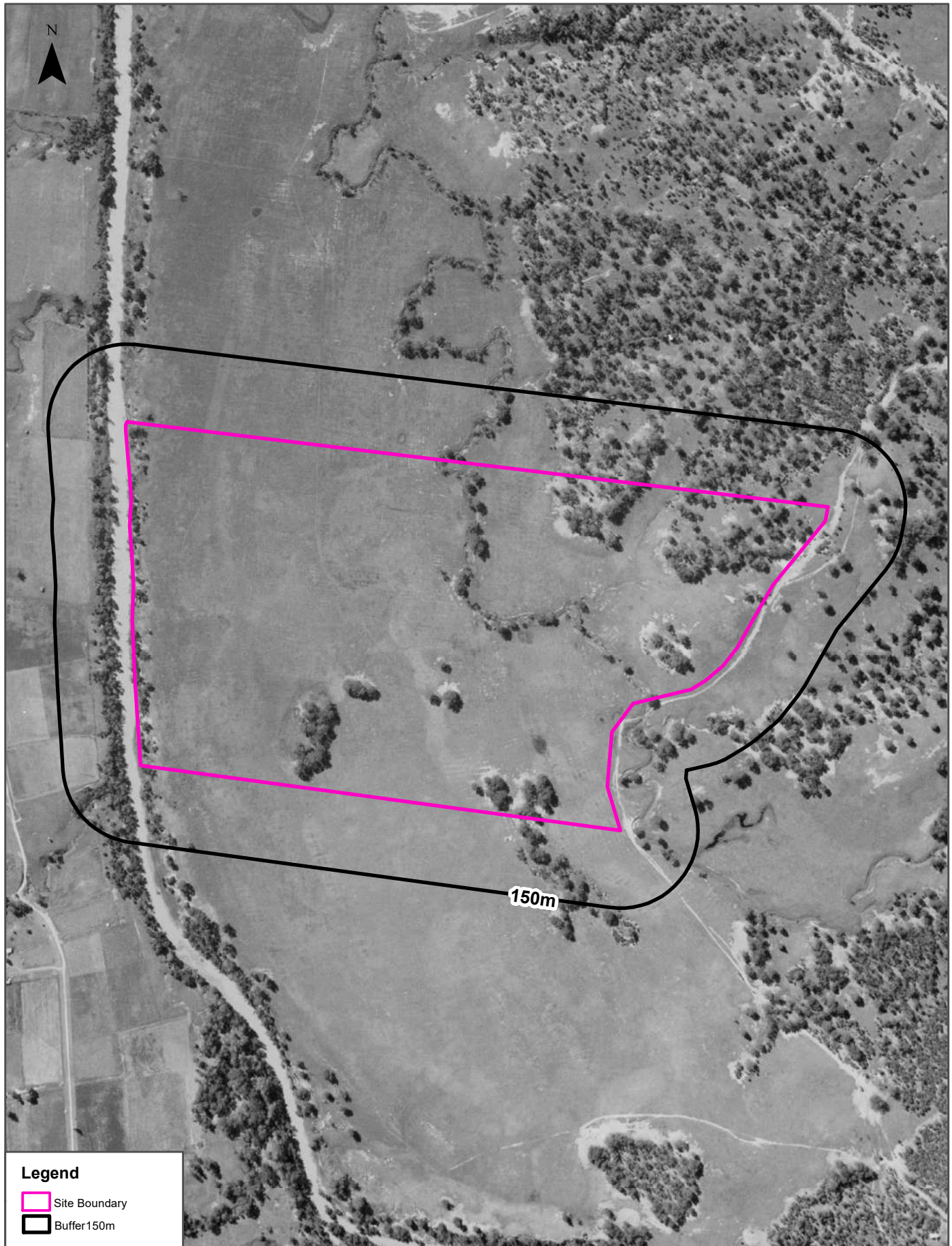
Aerial Imagery 1955

1290 Greendale Park Road, Wallacia, NSW 2745



Aerial Imagery 1949

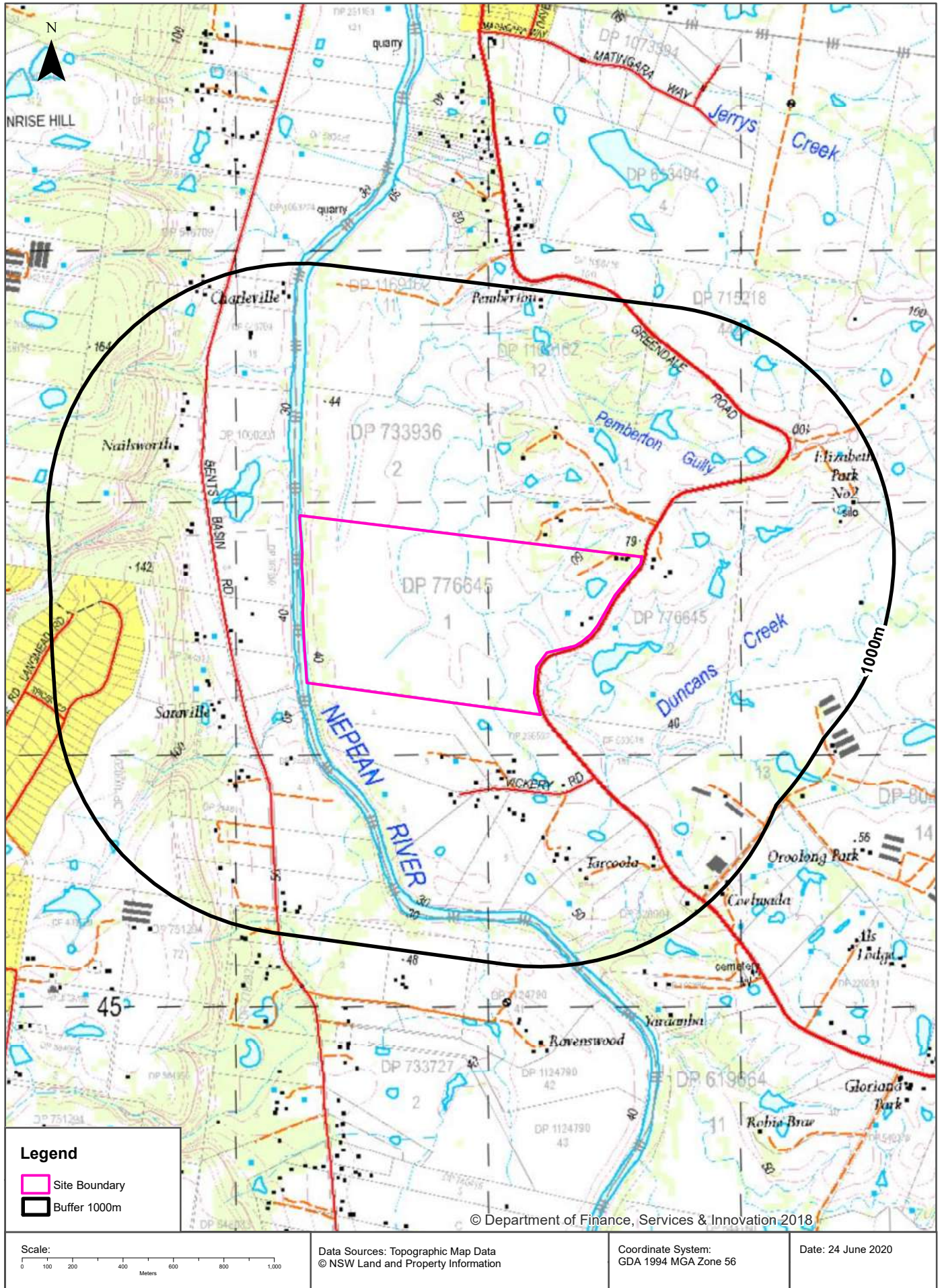
1290 Greendale Park Road, Wallacia, NSW 2745



<p>Scale:</p> <p>0 110 220 330 440 Meters</p>	<p>Data Source Aerial Imagery: © NSW Department Finance, Services & Innovation</p>	<p>Coordinate System: GDA 1994 MGA Zone 56</p>	<p>Date: 22 June 2020</p>
---	--	--	---------------------------

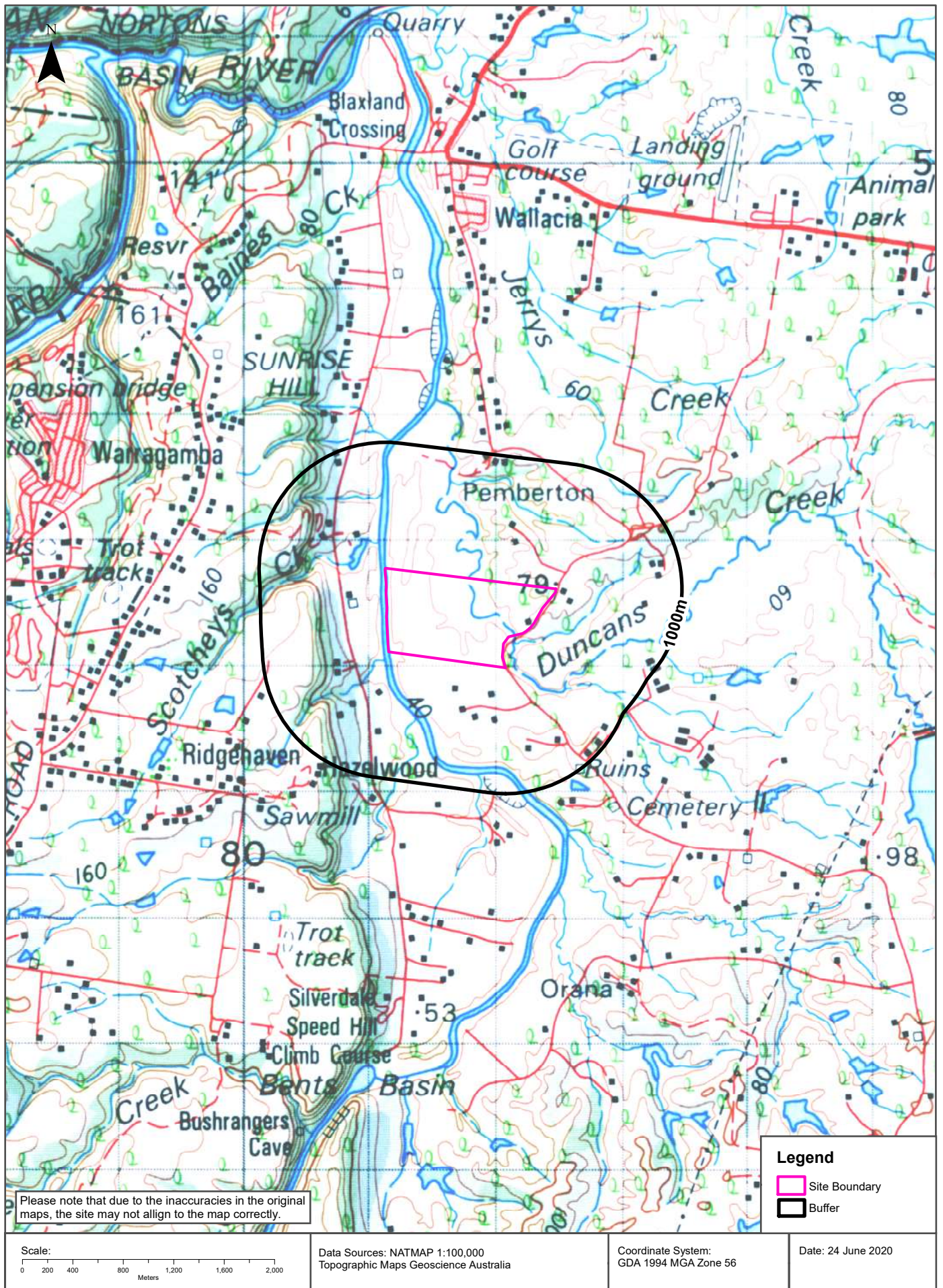
Topographic Map 2015

1290 Greendale Park Road, Wallacia, NSW 2745



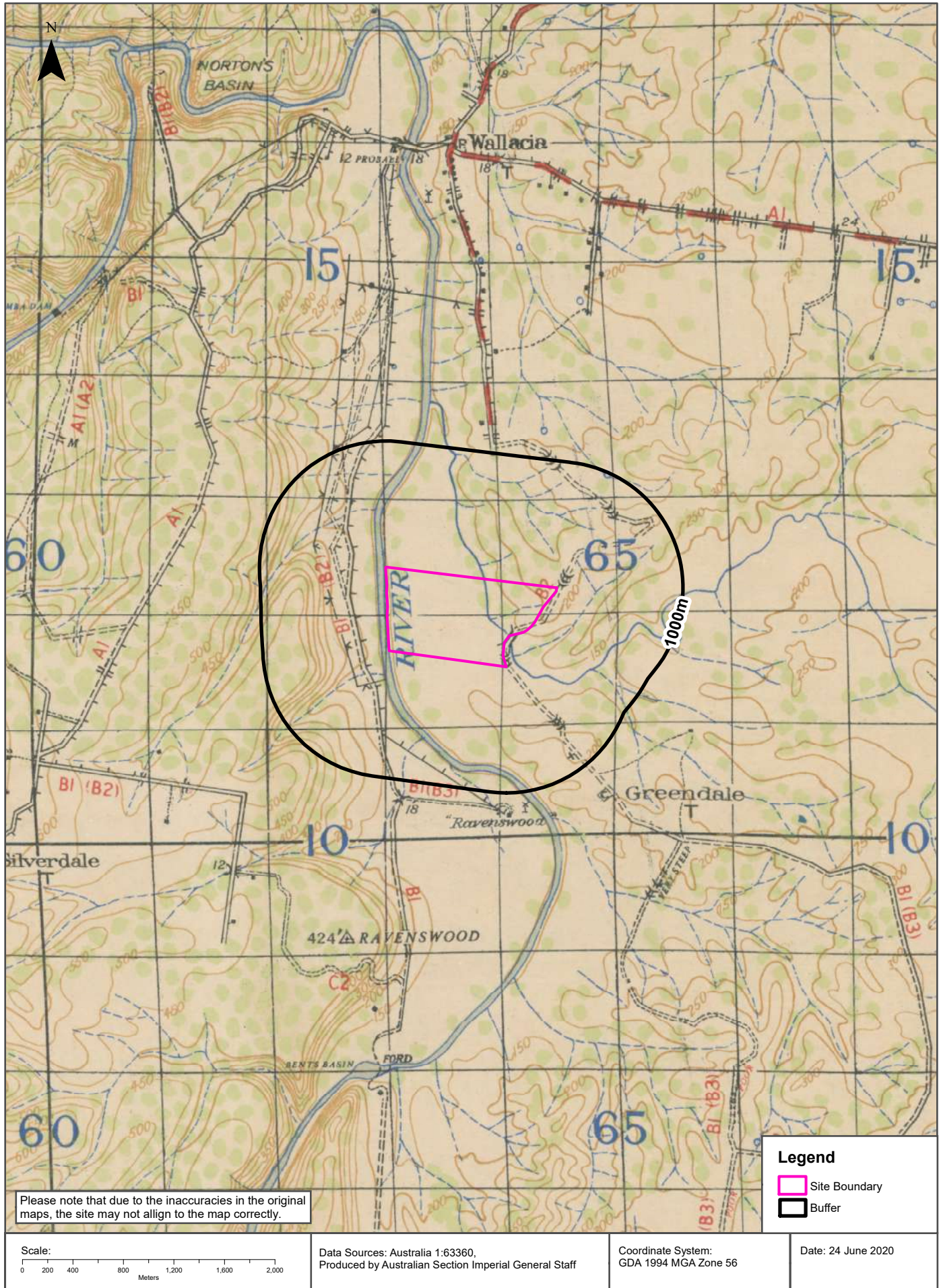
Historical Map 1975

1290 Greendale Park Road, Wallacia, NSW 2745



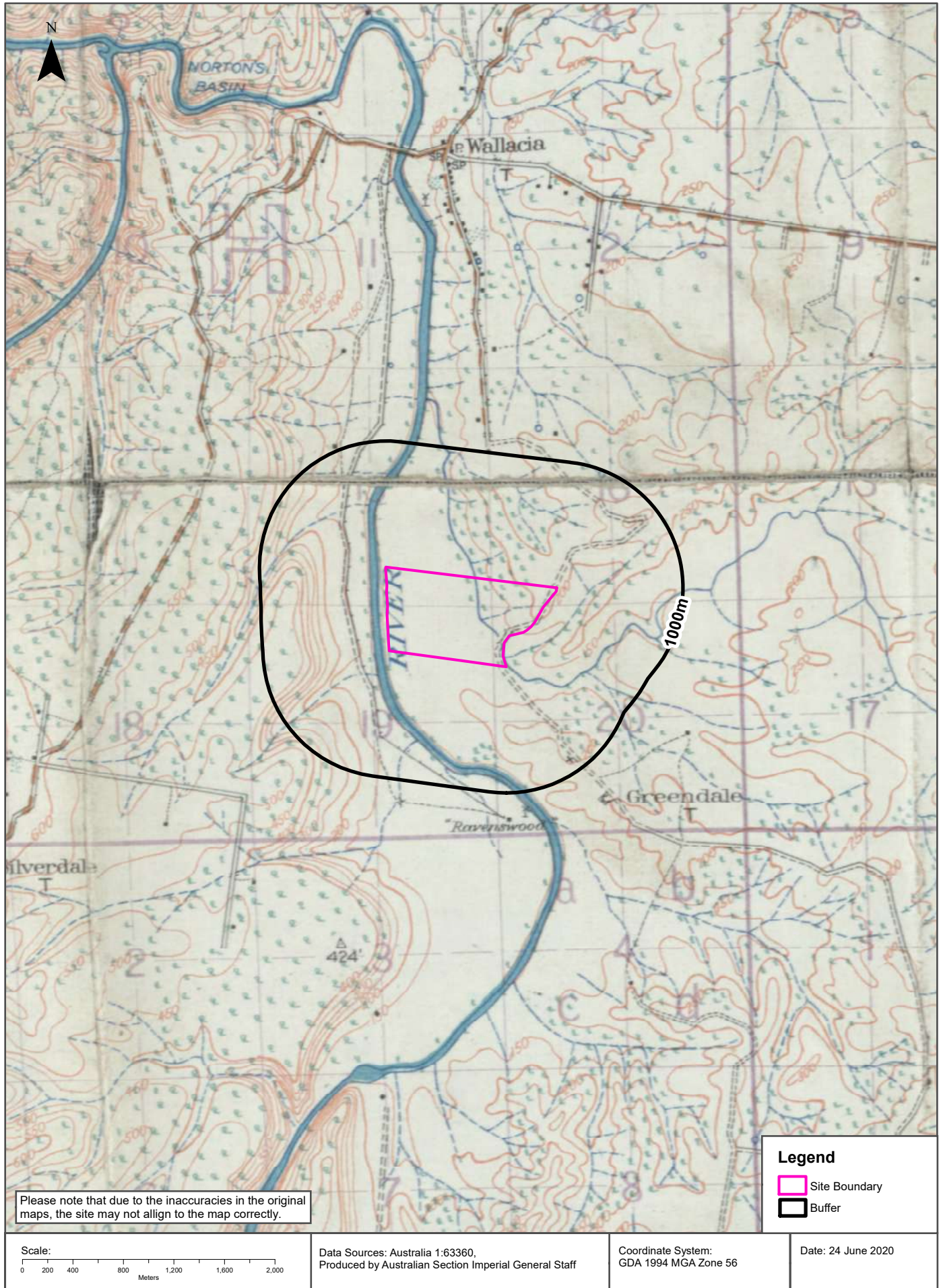
Historical Map c.1942

1290 Greendale Park Road, Wallacia, NSW 2745



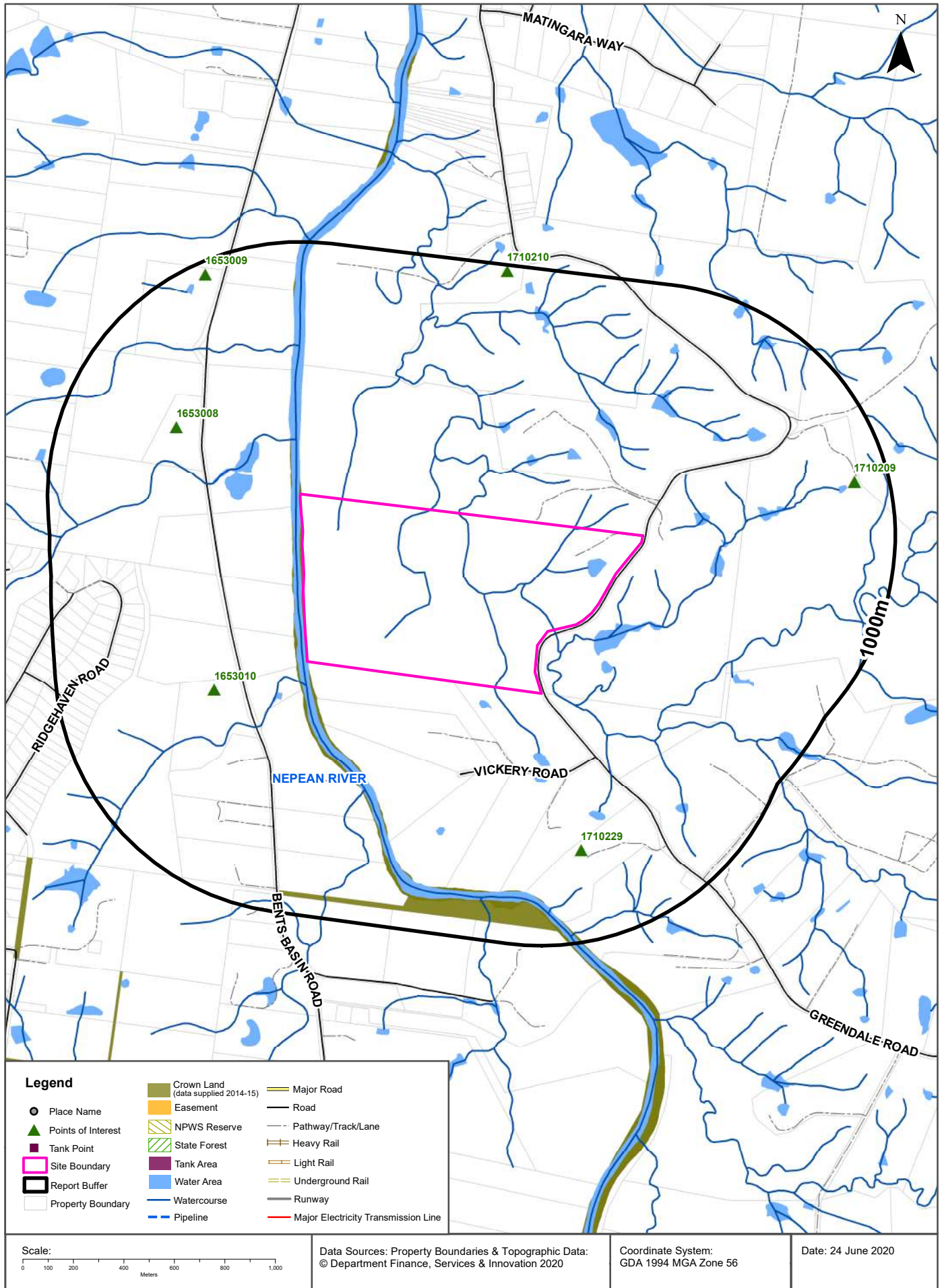
Historical Map c.1929

1290 Greendale Park Road, Wallacia, NSW 2745



Topographic Features

1290 Greendale Park Road, Wallacia, NSW 2745



Topographic Features

1290 Greendale Park Road, Wallacia, NSW 2745

Points of Interest

What Points of Interest exist within the dataset buffer?

Map Id	Feature Type	Label	Distance	Direction
1653010	Homestead	SARAVILLE	385m	South West
1653008	Homestead	NAILSWORTH	558m	North West
1710229	Homestead	TARCOOLA	640m	South East
1710209	Homestead	ELIZABETH PARK NO2	862m	East
1653009	Homestead	CHARLEVILLE	949m	North West
1710210	Homestead	PEMBERTON	976m	North

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

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

Topographic Features

1290 Greendale Park Road, Wallacia, NSW 2745

Tanks (Areas)

What are the Tank Areas located within the dataset buffer?

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

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

Tanks (Points)

What are the Tank Points located within the dataset buffer?

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

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

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

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

Major Easements

What Major Easements exist within the dataset buffer?

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

Map Id	Easement Class	Easement Type	Easement Width	Distance	Direction
N/A	No records in buffer				

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

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

Topographic Features

1290 Greendale Park Road, Wallacia, NSW 2745

State Forest

What State Forest exist within the dataset buffer?

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

State Forest Data Source: © NSW Department of Finance, Services & Innovation (2018)
Creative Commons 3.0 © Commonwealth of Australia <http://creativecommons.org/licenses/by/3.0/au/deed.en>

National Parks and Wildlife Service Reserves

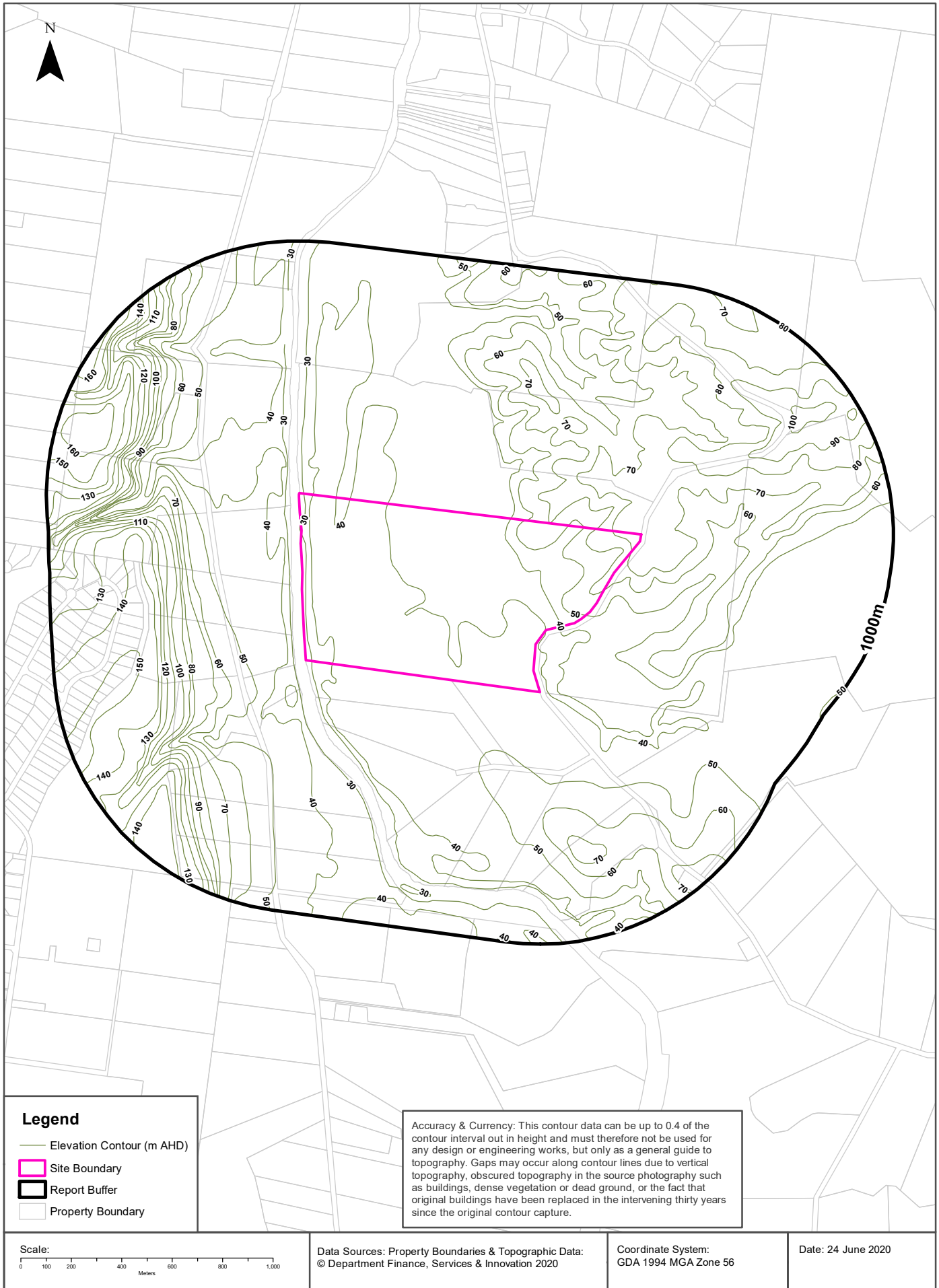
What NPWS Reserves exist within the dataset buffer?

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

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

Elevation Contours (m AHD)

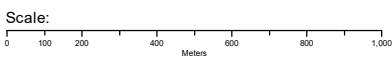
1290 Greendale Park Road, Wallacia, NSW 2745



Legend

- Elevation Contour (m AHD)
- Site Boundary
- Report Buffer
- Property Boundary

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



Data Sources: Property Boundaries & Topographic Data:
© Department Finance, Services & Innovation 2020

Coordinate System:
GDA 1994 MGA Zone 56

Date: 24 June 2020

Hydrogeology & Groundwater

1290 Greendale Park Road, Wallacia, NSW 2745

Hydrogeology

Description of aquifers on-site:

Description
Porous, extensive aquifers of low to moderate productivity

Description of aquifers within the dataset buffer:

Description
Porous, extensive aquifers of low to moderate productivity

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

Botany Groundwater Management Zones

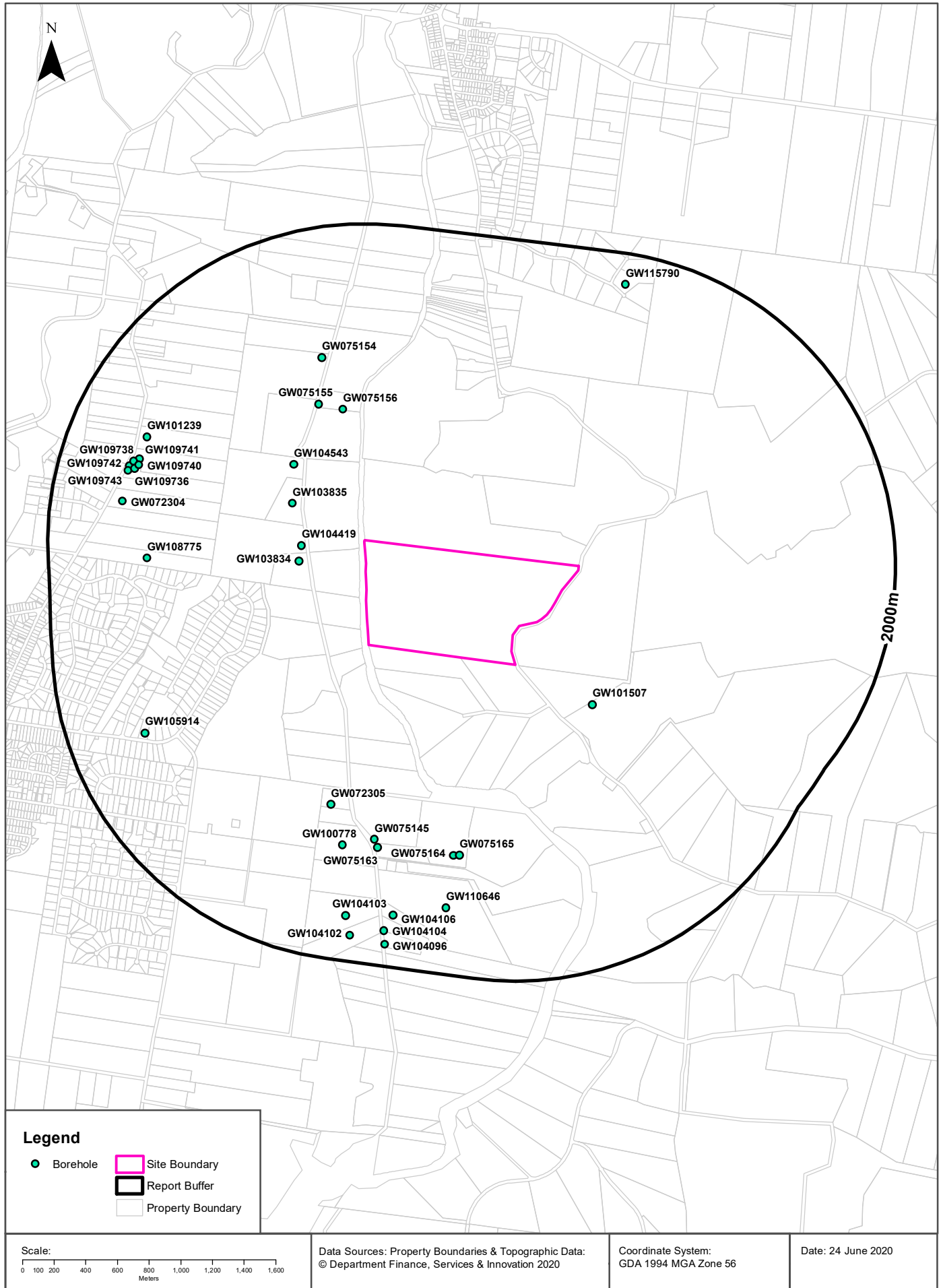
Groundwater management zones relating to the Botany Sand Beds aquifer within the dataset buffer:

Management Zone No.	Restriction	Distance	Direction
N/A	No records in buffer		

Botany Groundwater Management Zones Data Source : NSW Department of Primary Industries

Groundwater Boreholes

1290 Greendale Park Road, Wallacia, NSW 2745



Hydrogeology & Groundwater

1290 Greendale Park Road, Wallacia, NSW 2745

Groundwater Boreholes

Boreholes within the dataset buffer:

GW No.	Licence No	Work Type	Owner Type	Authorised Purpose	Intended Purpose	Name	Complete Date	Final Depth (m)	Drilled Depth (m)	Salinity (mg/L)	SWL (m bgl)	Yield (L/s)	Elev (AHD)	Dist	Dir
GW104 419	10BL160 801, 10WA11 0820	Bore	Private	Domestic, Stock	Domestic, Stock		26/05/1998	79.00	79.00		18.00	1.700		395m	West
GW103 834	10BL158 592, 10WA11 0479	Bore	Private	Domestic, Farming, Stock	Domestic, Farming, Stock		28/05/1998	48.80	49.00		9.00	5.000		421m	West
GW103 835	10BL158 593, 10WA11 0480	Bore	Private	Domestic, Farming, Stock	Domestic, Farming, Stock		30/04/1998	48.80	49.00		9.00	5.000		508m	North West
GW101 507	10BL158 134, 10WA10 9359	Bore	Private	Industrial	Industrial		04/07/1997	114.00	114.00	1220	18.00	1.000		549m	South East
GW104 543	10BL160 818, 10WA11 0823	Bore	Private	Domestic, Stock	Domestic, Stock		09/06/1998	42.70	42.70		6.00	7.000		653m	North West
GW075 156	10BL600 401, 10CA11 7211, 10CA11 7212, 10CA11 7213, 10CA11 7219, 10WM00 0003	Bore	Other Govt	Monitoring Bore, Town Water Supply	Monitoring Bore		09/10/2007	16.00	16.00					837m	North West
GW075 155	10BL600 402, 10CA11 7211, 10CA11 7212, 10CA11 7213, 10CA11 7219, 10WM00 0003	Bore	Other Govt	Test Bore, Town Water Supply	Test Bore, Town Water Supply		13/07/2006	276.00	276.00					905m	North West
GW072 305		Bore open thru rock	Private		Domestic, Stock			32.00	32.00	Good				1037m	South West
GW075 154	10BL600 402, 10CA11 7211, 10CA11 7212, 10CA11 7213, 10CA11 7219, 10WM00 0003	Bore	Other Govt	Test Bore, Town Water Supply	Test Bore, Town Water Supply		17/07/2006	258.00	258.00			20.00		1183m	North West

GW No.	Licence No	Work Type	Owner Type	Authorised Purpose	Intended Purpose	Name	Complete Date	Final Depth (m)	Drilled Depth (m)	Salinity (mg/L)	SWL (m bgl)	Yield (L/s)	Elev (AHD)	Dist	Dir
GW075 145	10CA11 7211, 10CA11 7212, 10CA11 7213, 10CA11 7219, 10WM00 0003	Bore	Other Govt	Town Water Supply	Monitoring Bore		14/06/2007	8.00	8.00					1214m	South
GW075 165	10CA11 7211, 10CA11 7212, 10CA11 7213, 10CA11 7219, 10WM00 0003	Bore	Other Govt	Town Water Supply	Monitoring Bore		27/07/2007	18.00	18.00			0.200		1240m	South
GW075 164	10CA11 7211, 10CA11 7212, 10CA11 7213, 10CA11 7219, 10WM00 0003	Bore	Other Govt	Town Water Supply	Test Bore, Town Water Supply		30/07/2007	300.00	300.00			27.000		1248m	South
GW075 163	10CA11 7211, 10CA11 7212, 10CA11 7213, 10CA11 7219, 10WM00 0003	Bore	Other Govt	Town Water Supply	Test Bore, Town Water Supply		27/07/2007	300.00	300.00			16.300		1262m	South
GW100 778	10BL158 077, 10WA11 0427	Bore	Private	Domestic, Stock	Domestic, Stock		15/07/1997	36.50	36.50	Good	21.30	1.260		1276m	South West
GW108 775	10BL601 041, 10WA11 1383	Bore	Private	Domestic, Stock	Domestic, Stock		17/04/2008	180.00	180.00	210	120.00	2.700		1375m	West
GW109 740	10BL163 467	Bore	Private	Monitoring Bore	Monitoring Bore		11/08/2003	7.30	7.30		2.10			1501m	North West
GW109 741	10BL163 467	Bore	Private	Monitoring Bore	Monitoring Bore		11/08/2003	7.00	7.00		2.50			1513m	North West
GW105 914	10BL161 585, 10WA11 0962	Bore		Domestic, Stock	Domestic, Stock		01/03/2003	177.00	177.00	600	54.00	1.700		1519m	South West
GW101 239	10BL158 334, 10WA11 0456	Bore	Private	Domestic, Stock	Domestic, Stock		03/02/1998	180.00	180.00	134	114.00	2.200		1520m	North West
GW109 736	10BL163 467	Bore	Private	Monitoring Bore	Monitoring Bore		11/08/2003	9.00	9.00		2.00			1521m	West
GW109 737	10BL163 467	Bore	Private	Monitoring Bore	Monitoring Bore		11/08/2003	7.00	7.00		2.30			1526m	North West
GW109 738	10BL163 467	Bore	Private	Monitoring Bore	Monitoring Bore		11/08/2003	7.00	7.00		2.50			1539m	North West
GW072 304	10BL156 349, 10WA11 0319	Bore	Private	Domestic, Stock	Domestic		16/12/1994	162.50	162.50	0-500 ppm				1546m	West
GW109 739	10BL163 467	Bore	Private	Monitoring Bore	Monitoring Bore		11/08/2003	7.00	7.00		1.80			1546m	West
GW109 742	10BL163 467	Bore	Private	Monitoring Bore	Monitoring Bore		11/08/2003	6.90	6.90		2.50			1556m	West
GW109 743	10BL163 467	Bore	Private	Monitoring Bore	Monitoring Bore		11/08/2003	7.00	7.00		2.20			1557m	West

GW No.	Licence No	Work Type	Owner Type	Authorised Purpose	Intended Purpose	Name	Complete Date	Final Depth (m)	Drilled Depth (m)	Salinity (mg/L)	SWL (m bgl)	Yield (L/s)	Elev (AHD)	Dist	Dir
GW110646	10BL601871, 10BL602306, 10CA112272	Bore	Private	Irrigation, Test Bore	Irrigation		24/09/2007	234.00	234.00	0.83	22.00	5.300		1580m	South
GW104106	10BL160380, 10WA110726	Bore		Domestic, Stock	Domestic, Stock		03/12/2001	24.00	24.00	2200				1672m	South
GW104103	10BL160377, 10WA110723	Bore		Domestic, Stock	Domestic, Stock		29/11/2001	102.50	102.50	1180				1714m	South
GW104104	10BL160379, 10WA110725	Bore		Domestic, Stock	Domestic, Stock		06/12/2001	27.50	27.50	2100				1778m	South
GW115790					Domestic, Stock		29/07/2017	179.00			22.00			1803m	North East
GW104102	10BL160378, 10WA110724	Bore		Domestic, Stock	Domestic, Stock		30/11/2001	120.50	120.50	1500				1836m	South
GW104096	10BL160396, 10WA110728	Bore		Domestic, Stock	Domestic, Stock		07/12/2001	102.50	102.50	1100				1864m	South

Borehole Data Source : NSW Department of Primary Industries - Office of Water / Water Administration Ministerial Corporation for all bores prefixed with GW. All other bores © Commonwealth of Australia (Bureau of Meteorology) 2015. Creative Commons 3.0 © Commonwealth of Australia <http://creativecommons.org/licenses/by/3.0/au/deed.en>

Hydrogeology & Groundwater

1290 Greendale Park Road, Wallacia, NSW 2745

Driller's Logs

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

Groundwater No	Drillers Log	Distance	Direction
GW104419	0.00m-2.00m SAND/CLAY 2.00m-8.00m BROWN SHALE 8.00m-34.00m GREY SHALE 34.00m-62.00m SANDSTONE 62.00m-68.00m GREY SHALE 68.00m-79.00m SANDSTONE	395m	West
GW103834	0.00m-1.50m DIRT/CLAY 1.50m-4.00m BROWN SHALE 4.00m-5.50m FIRM SHALE 5.50m-30.50m BLUE SHALE 30.50m-49.00m SANDSTONE	421m	West
GW103835	0.00m-5.00m SAND AND SANDSTONE 5.00m-11.00m CLAY 11.00m-17.00m BROWN SHALE 17.00m-35.00m BLUE SHALE 35.00m-49.00m SANDSTONE	508m	North West
GW101507	0.00m-0.30m CLAYEY LOAM 0.30m-3.50m RED CLAY 3.50m-6.50m CLAY, MOIST, LIGHT GREY 6.50m-51.50m SHALE 51.50m-60.00m SANDSTONE, GREY F.G. CEMENTED 60.00m-62.00m SANDSTONE, DK.GREY F.G. CEMENTED 62.00m-65.00m SANDSTONE, LT GREY F.G. CEMENTED 65.00m-70.00m SANDSTONE,LT GREY. COARSE OPEN GRAIN 70.00m-72.00m SANDSTONE, LT GREY, COARSE GRAIN 72.00m-72.50m SANDSTONE, LY GREY, QUARTZ MATRIX 72.50m-74.50m SANDSTONE, GREY,COARSE GRAIN 74.50m-76.50m SANDSTONE, LT GREY, COARSE OPEN GRAIN 76.50m-86.00m SANDSTONE,LT GREY,C.G. SLIGHT QUARTZ 86.00m-87.50m SANDSTONE, GREY,QUARTZ MATRIX 87.50m-92.50m SANDSTONE,GREY, COARSE GRAIN 92.50m-93.50m SANDSTONE,LT GREY,QUARTZ MATRIX 93.50m-96.70m SANDSTONE,LT. GREY, COARSE OPEN GRAIN 96.70m-99.30m SANDSTONE,LT. GREY, COARSE GRAIN 99.30m-100.60m SANDSTONE, LT. GREY. QUARTZ MATRIX 100.60m-103.00m SANDSTONE,LT. GREY.COARSE GRAIN 103.00m-108.00m SANDSTONE, GREY. COARSE GRAIN 108.00m-111.00m ??? MUDSTONE 111.00m-112.00m BURNT SANDSTONE 112.00m-114.00m SANDSTONE, GREY. COARSE GRAIN	549m	South East
GW104543	0.00m-14.00m CLAY/SAND 14.00m-26.00m GREY SHALE 26.00m-42.70m SANDSTONE	653m	North West
GW075156	0.00m-11.00m Clay 11.00m-16.00m Sand, grey	837m	North West
GW075155	0.00m-24.00m Clay & Sandy Clay 24.00m-57.00m Sandstone 57.00m-58.00m Shale 58.00m-138.00m Sandstone 138.00m-141.00m Shale 141.00m-180.00m Sandstone 180.00m-186.00m Shale 186.00m-225.00m Sandstone 225.00m-227.00m Shale 227.00m-273.00m Sandstone 273.00m-276.00m Shale	905m	North West
GW072305	0.00m-15.90m Reddish Clay 15.90m-19.90m Black Hard Shale 19.90m-32.00m White Sandstone	1037m	South West

Groundwater No	Drillers Log	Distance	Direction
GW075154	0.00m-17.00m Clay, red 17.00m-25.00m Shale 25.00m-48.00m Sandstone, fine 48.00m-78.00m Sandstone, coarse 78.00m-90.00m Shale 90.00m-204.00m Sandstone, coarse 204.00m-210.00m Shale 210.00m-234.00m Sandstone, coarse 234.00m-240.00m Shale 240.00m-258.00m Basement	1183m	North West
GW075145	0.00m-1.00m Sandy Clay Loam, topsoil, red brown 1.00m-3.00m Clay, some silt & some fine sand <5% 3.00m-4.00m Clay, some red & grey mottled, but light brown 4.00m-5.00m Clay, some grey, but light brown 5.00m-6.00m Clay, light brown, some light grey 6.00m-7.00m Clay, fine sand, light brown, some red Clay 7.00m-8.00m Clay, mottled red & grey, some yellow, no Sand	1214m	South
GW075165	0.00m-16.00m Clay 16.00m-18.00m Shale	1240m	South
GW075164	0.00m-16.00m Clay 16.00m-21.00m Shale, weathered 21.00m-35.00m Shale 35.00m-48.00m Sandstone/Shale 48.00m-80.00m Clay/Sandstone 80.00m-261.00m Sandstone, fine-medium, white grey 261.00m-280.00m Sandstone, Claystone, Shale 280.00m-282.00m Claystone 282.00m-300.00m Sandstone/Claystone	1248m	South
GW075163	0.00m-16.00m Clay 16.00m-26.00m Shale 26.00m-34.00m Sandstone 34.00m-50.00m Sandstone, grey 50.00m-99.00m Sandstone, fine-medium, grey 99.00m-102.00m Shale 102.00m-229.00m Sandstone, fine-medium, grey 229.00m-237.00m Mudstone, black-grey 237.00m-251.00m Sandstone 251.00m-259.00m Claystone, red-grey 259.00m-269.00m Sandstone 269.00m-278.00m Claystone 278.00m-279.00m Sandstone 279.00m-288.00m Claystone 288.00m-293.00m Sandstone 293.00m-300.00m Claystone	1262m	South
GW100778	0.00m-0.30m TOP SOIL 0.30m-21.30m CLAY 21.30m-33.50m SHALE 33.50m-36.50m SANDSTONE	1276m	South West
GW108775	0.00m-8.00m SHALE 8.00m-30.00m SANDSTONE 30.00m-33.00m SHALE 33.00m-174.00m SANDSTONE 174.00m-177.00m SHALE 177.00m-180.00m SANDSTONE	1375m	West
GW109740	0.00m-1.00m FILL,SILTY CLAY, SANDY 1.00m-7.30m WEATHERED SHALE	1501m	North West
GW109741	0.00m-2.00m FILL,GRAVELLY CLAYEY SILT 2.00m-7.00m WEATHERED SHALE	1513m	North West
GW105914	0.00m-8.00m CLAY/BROWN SHALE 8.00m-31.00m SHALE/SANDSTONE 31.00m-137.00m SANDSTONE 137.00m-139.00m SHALE 139.00m-177.00m SANDSTONE	1519m	South West

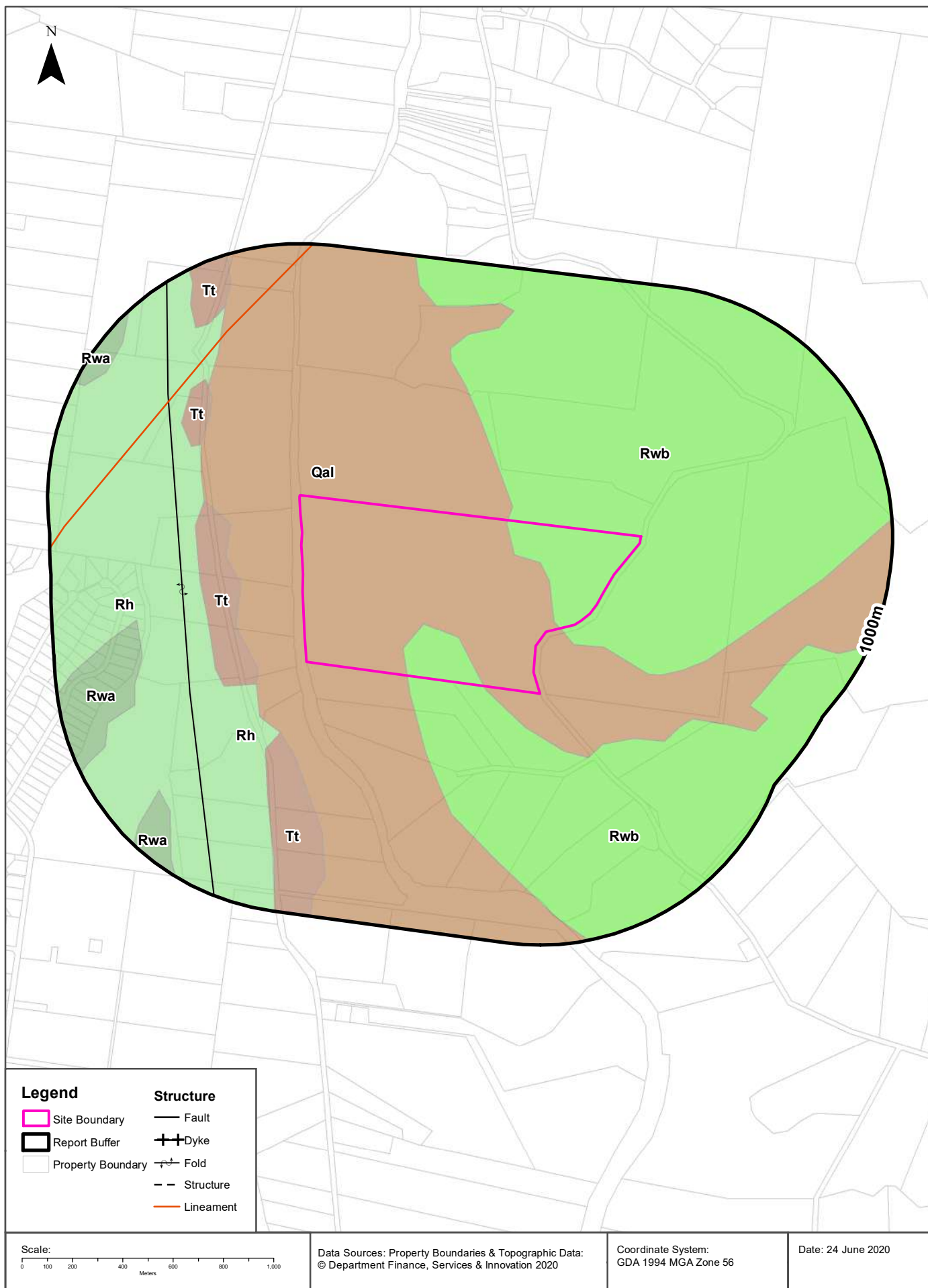
Groundwater No	Drillers Log	Distance	Direction
GW101239	0.00m-2.50m clay loam overburden 2.50m-14.60m brown, coarse grained sandstone 14.60m-15.20m sandstone/clay 15.20m-39.50m sandstone, medium grained, brown 39.50m-41.00m sandstone, coarse grain, light brown 41.00m-47.00m quartz 47.00m-51.00m ironstone 51.00m-52.50m quartz and clay 52.50m-54.00m sandstone and clay 54.00m-69.00m sandstone, medium grained, grey 69.00m-70.50m sandstone and quartz 70.50m-88.50m sandstone, medium grained, red 88.50m-97.20m quartz 97.20m-106.20m sandstone and quartz matrix 106.20m-113.00m sandstone, medium grain, light grey 113.00m-116.20m quartz 116.20m-118.00m sandstone, finegrained, grey 118.00m-124.50m sandstone, fine grained, dark grey 124.50m-127.00m sandstone and quartz 127.00m-136.50m quartz (water bearing) 136.50m-137.50m sandstone, medium grained, grey 137.50m-146.00m sandstone, finegrained, dark grey 146.00m-151.50m sandstone, medium grained, light grey 151.50m-154.50m quartz (water bearing) 154.50m-161.00m quartz and sandstone (water bearing) 161.00m-161.60m quartz sand 161.60m-180.00m sandstone and fine quartz	1520m	North West
GW109736	0.00m-1.50m FILL.SILTY CLAY, GRAVEL 1.50m-7.00m WEATHERED SHALE 7.00m-9.00m SANDSTONE	1521m	West
GW109737	0.00m-1.50m FILL.SILTY CLAY 1.50m-7.00m WEATHERED SHALE	1526m	North West
GW109738	0.00m-2.00m FILL, SILTY CLAY, SANDY CLAY 2.00m-7.00m WEATHERED SHALE	1539m	North West
GW072304	0.00m-0.40m Topsoil 0.40m-2.80m Red Clay 2.80m-23.10m Soft Brown Sandstone 23.10m-44.30m L/grey Med Grain S/stone Clay Matrix 44.30m-45.80m Grey M/grain S/stone Quartz Matrix 45.80m-88.30m Light Grey Med Grain Sdsn 88.30m-90.20m Quartz 90.20m-96.00m Light Grey Med Grain Sdsn 96.00m-96.70m Shale/quartz Cross Bed 96.70m-106.60m Hard Dark Grey Shale 106.60m-114.60m Light Grey Med Grain S/stone 114.60m-126.20m Quartz 126.20m-129.90m Light Grey Med Grained S/stone 129.90m-133.80m Quartz 133.80m-141.60m Light Grey Med Grained S/stone 141.60m-141.90m Quartz 141.90m-153.30m Light Grey Med Grain S/stone 153.30m-154.10m Quartz 154.10m-158.20m Light Grey Med Grain S/stone 158.20m-158.50m Fractured Zone 158.50m-162.50m Light Grey Med Grain S/stone	1546m	West
GW109739	0.00m-1.00m FILL, SILTY CLAY 1.00m-7.00m WEATHERED SHALE	1546m	West
GW109742	0.00m-0.20m TOPSOIL 0.20m-3.00m SILTY CLAY 3.00m-6.90m WEATHERED SHALE	1556m	West
GW109743	0.00m-0.50m FILL, CLAY, SAND 0.50m-3.00m SILTY CLAY 3.00m-7.00m WEATHERED SHALE	1557m	West
GW110646	0.00m-18.00m CLAY 18.00m-42.00m SHALE 42.00m-96.00m FINE GREY SANDSTONE 96.00m-98.00m SHALE 98.00m-114.00m SANDSTONE FINE GREY 114.00m-121.00m SHALE 121.00m-228.00m SANDSTONE COARSE GREY 228.00m-234.00m BASEMENT	1580m	South
GW104106	0.00m-2.00m BROWN SHALE-SOFT 2.00m-4.00m RED CLAY 4.00m-18.00m GREY CLAY 18.00m-24.00m SAND AND IRONSTONE ROCKS	1672m	South

Groundwater No	Drillers Log	Distance	Direction
GW104103	0.00m-3.00m BROWN SHALE 3.00m-8.00m RED CLAY STIFF 8.00m-12.00m GREY CLAY STIFF 12.00m-15.00m SHALE BROWN 15.00m-29.00m SHALE BLUE 29.00m-33.50m SILTSTONE 33.50m-37.00m SANDSTONE GREY 37.00m-40.00m SHALE BLUE 40.00m-44.00m SANDSTONE GREY 44.00m-46.00m SANDSTONE WHITE 46.00m-47.50m SANDSTONE GREY 47.50m-47.80m SANDSTONE QUARTZ 47.80m-68.00m SANDSTONE GREY 68.00m-72.50m SANDSTONE QUARTZ FRACT. 72.50m-86.00m SANDSTONE GREY 86.00m-90.00m SANDSTONE DARK BROWN 90.00m-96.00m SANDSTONE GREY 96.00m-96.50m SANDSTONE WHITE 96.50m-97.00m SANDSTONE GREY 97.00m-98.00m SANDSTONE QUARTZ 98.00m-102.50m SANDSTONE GREY	1714m	South
GW104104	0.00m-1.00m BROWN SHALE 1.00m-3.00m RED CLAY 3.00m-17.00m GREY CLAY 17.00m-20.00m YELLOW SAND 20.00m-21.00m GREY SHALE 21.00m-27.50m BLUE SHALE	1778m	South
GW104102	0.00m-3.00m BROWN SHALE 3.00m-6.00m RED CLAY 6.00m-13.00m GREY CLAY 13.00m-17.00m SHALE SOFT 17.00m-25.00m SHALE GREY 25.00m-35.00m SHALE BLUE 35.00m-39.00m SILTSTONE 39.00m-43.00m SANDSTONE DARK GREY 43.00m-51.00m SANDSTONE GREY 51.00m-56.00m SANDSTONE QUARTZ 56.00m-63.00m SANDSTONE GREY 63.00m-66.00m SANDSTONE QUARTZ 66.00m-73.00m SANDSTONE GREY 73.00m-76.00m SANDSTONE QUARTZ 76.00m-78.50m SANDSTONE D.G. FRACT. 78.50m-80.00m SANDSTONE GREY 80.00m-80.20m SANDSTONE VERY FRACTURED 80.20m-104.00m SANDSTONE GREY 104.00m-107.50m SANDSTONE BROWN 107.50m-113.00m SANDSTONE GREY 113.00m-115.00m SANDSTONE QUARTZ 115.00m-120.50m SANDSTONE GREY	1836m	South
GW104096	0.00m-0.50m BROWN SHALE 0.50m-3.00m RED CLAY 3.00m-18.00m GREY CLAY 18.00m-22.00m SANDY CLAY 22.00m-35.50m BLUE SHALE 35.50m-41.00m SANDSTONE GREY 41.00m-42.00m SANDSTONE FRACTURED 42.00m-43.00m SANDSTONE DARK GREY 43.00m-50.00m SANDSTONE GREY 50.00m-56.00m SANDSTONE QUARTZ 56.00m-62.50m SANDSTONE GREY 62.50m-66.00m SANDSTONE QUARTZ 66.00m-68.00m SANDSTONE GREY 68.00m-69.00m SANDSTONE GREY 69.00m-76.00m SANDSTONE WHITE-QUARTZ 76.00m-81.00m SANDSTONE GREY 81.00m-81.50m SANDSTONE D.G. FRACTURED 81.50m-88.50m SANDSTONE GREY 88.50m-90.00m SANDSTONE QUARTZ 90.00m-102.50m SANDSTONE GREY	1864m	South

Drill Log Data Source: NSW Department of Primary Industries - Office of Water / Water Administration Ministerial Corp
Creative Commons 3.0 © Commonwealth of Australia <http://creativecommons.org/licenses/by/3.0/au/deed.en>

Geology 1:100,000

1290 Greendale Park Road, Wallacia, NSW 2745



Geology

1290 Greendale Park Road, Wallacia, NSW 2745

Geological Units

What are the Geological Units onsite?

Symbol	Description	Unit Name	Group	Sub Group	Age	Dom Lith	Map Sheet	Dataset
Qal	Fine-grained sand, silt and clay				Quaternary		Penrith	1:100,000
Rwb	Shale, carbonaceous claystone, claystone, laminate, fine to medium-grained lithic sandstone, rare coal and tuff	Bringelly Shale	Wianamatta Group (undifferentiated)		Middle Triassic		Penrith	1:100,000

What are the Geological Units within the dataset buffer?

Symbol	Description	Unit Name	Group	Sub Group	Age	Dom Lith	Map Sheet	Dataset
Qal	Fine-grained sand, silt and clay				Quaternary		Penrith	1:100,000
Rh	Medium to very coarse-grained quartz sandstone, minor laminated mudstone and siltstone leases	Hawkesbury Sandstone			Middle Triassic		Penrith	1:100,000
Rwa	Dark-grey to black claystone-siltstone and fine sandstone -siltstone laminate	Ashfield Shale	Wianamatta Group (undifferentiated)		Middle Triassic		Penrith	1:100,000
Rwb	Shale, carbonaceous claystone, claystone, laminate, fine to medium-grained lithic sandstone, rare coal and tuff	Bringelly Shale	Wianamatta Group (undifferentiated)		Middle Triassic		Penrith	1:100,000
Tt	Talus breccia				Tertiary		Penrith	1:100,000

Geological Structures

What are the Geological Structures onsite?

Feature	Name	Description	Map Sheet	Dataset
No features				1:100,000

What are the Geological Structures within the dataset buffer?

Feature	Name	Description	Map Sheet	Dataset
Fold	Lapstone Monocline	Fold, position accurate	Penrith	1:100,000
Lineament			Penrith	1:100,000

Geological Data Source : NSW Department of Industry, Resources & Energy
 © State of New South Wales through the NSW Department of Industry, Resources & Energy

Naturally Occurring Asbestos Potential

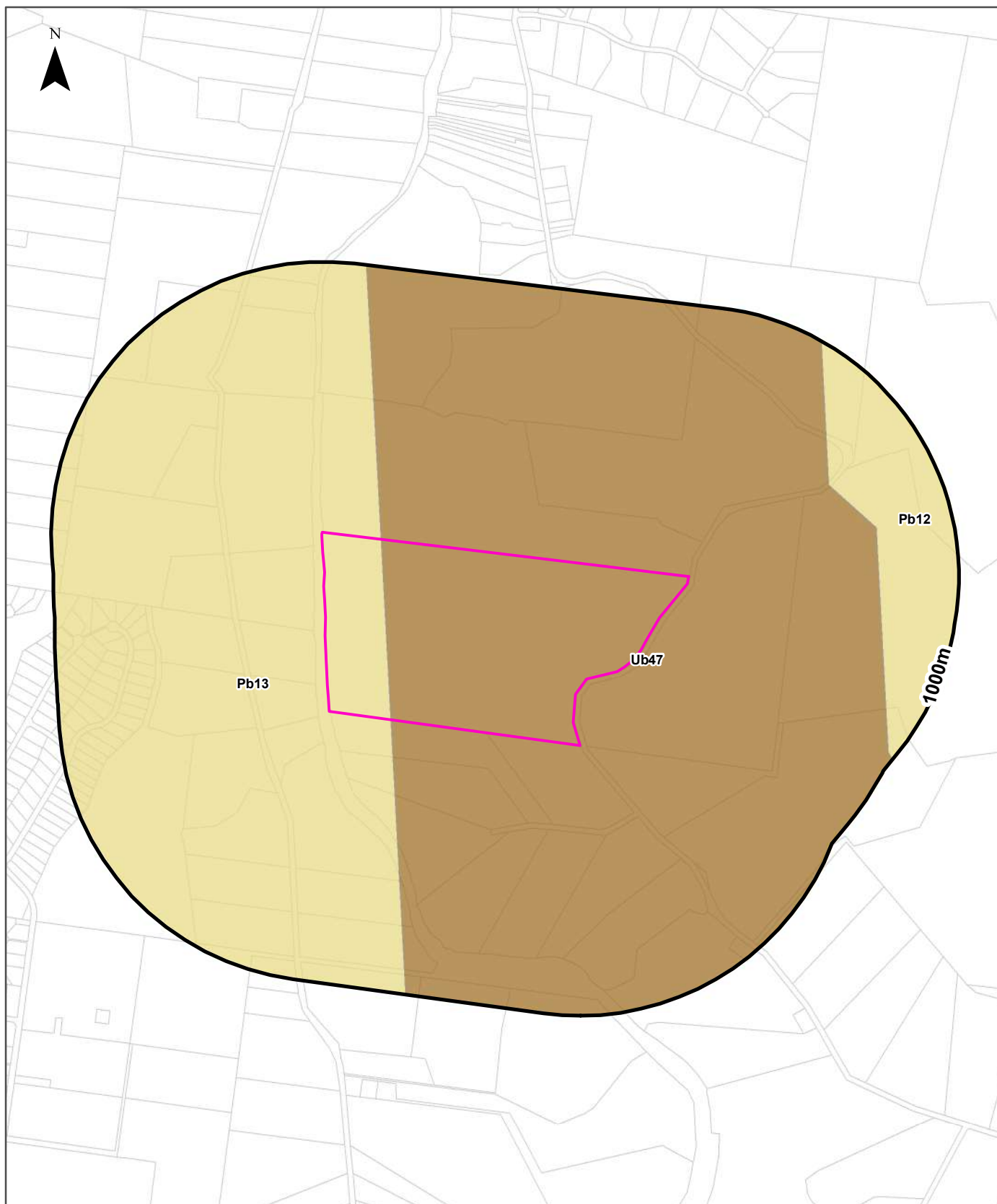
1290 Greendale Park Road, Wallacia, NSW 2745

Naturally Occurring Asbestos Potential

Naturally Occurring Asbestos Potential within the dataset buffer:

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

Mining Subsidence District Data Source: © State of New South Wales through NSW Department of Industry, Resources & Energy



Legend		Australian Soil Classification Orders					
Site Boundary	Anthrosol	Dermosol	Kandosol	Podosol	Tenosol	No Data	
Report Buffer	Calcarosol	Ferrosol	Kurosol	Rudosol	Vertosol		
Property Boundary	Chromosol	Hydrosol	Organosol	Sodosol	Lake		

<p>Scale:</p>	<p>Data Sources: Property Boundaries & Topographic Data: © Department Finance, Services & Innovation 2020</p>	<p>Coordinate System: GDA 1994 MGA Zone 56</p>	<p>Date: 24 June 2020</p>
---------------	---	--	---------------------------

Soils

1290 Greendale Park Road, Wallacia, NSW 2745

Atlas of Australian Soils

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

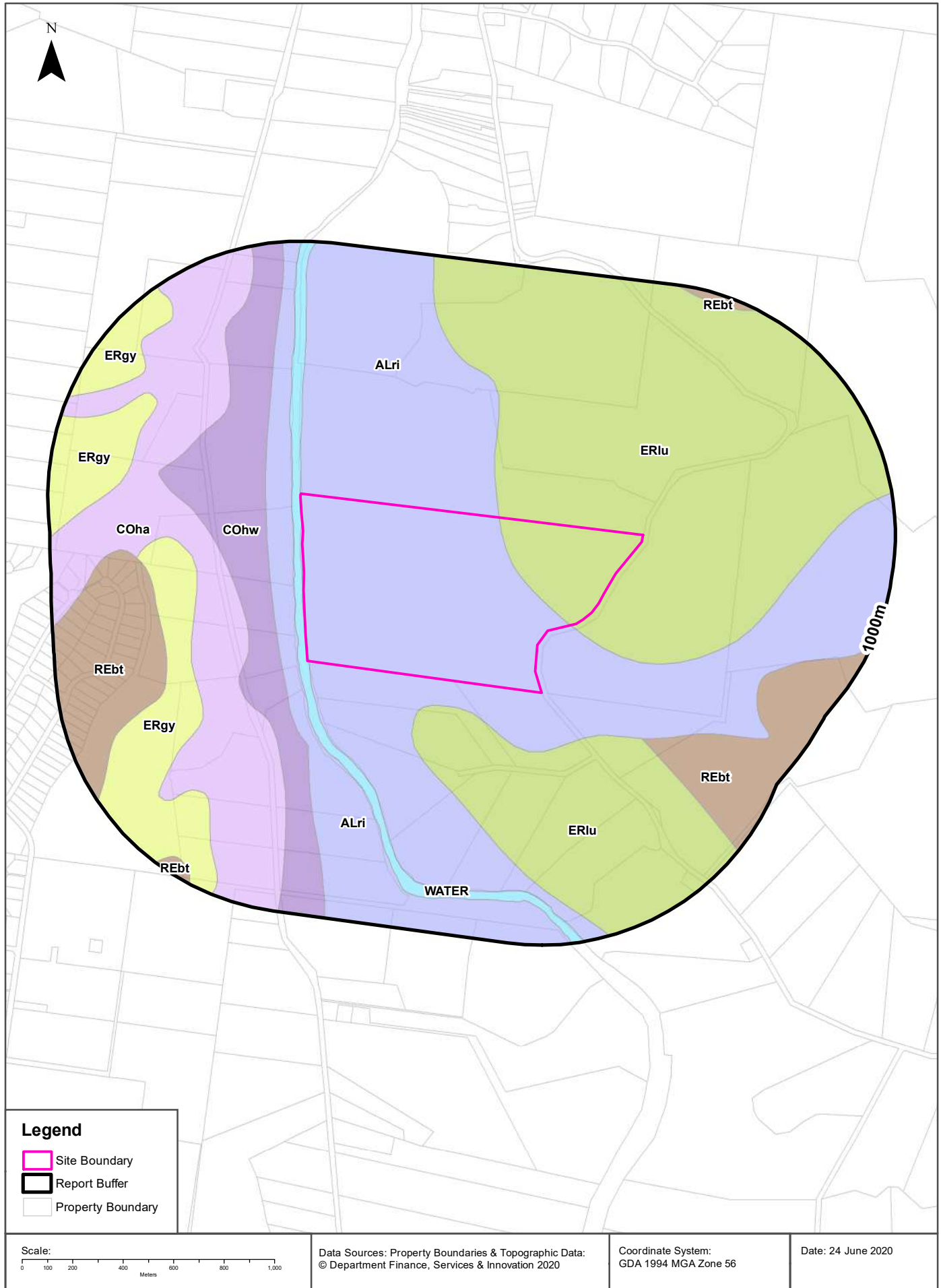
Map Unit Code	Soil Order	Map Unit Description	Distance
Pb13	Kurosol	Ridge and valley country of gently undulating ridge tops and steep side slopes often with slumping, also rounded hilly to steep hilly areas and relatively narrow valleys: chief soils are hard acidic red soils (Dr2.21) with hard acidic yellow mottled soils (Dy3.41); in places some ironstone gravels occur in both these soils. Associated are hard neutral and alkaline red soils (Dr2.22 and Dr2.23) in saddles and some mid-slope positions; (Dy3.42 and Dy3.43) soils, usually in depressions; and small areas of undescribed soils in wet soaks and valley areas. Small areas of other soils are likely throughout.	0m
Ub47	Sodosol	River terraces and flood-plains: main high terrace of hard neutral and alkaline yellow mottled soils (Dy3.42 and Dy3.43) grading to (Gn3.9) soils, and possibly some (Uf6.4) soils in depressions. Associated are: levees of the main terrace possibly of (Gn2.15 and Gn2.18) soils with sandy rises possibly of (Um4.31) soils--data are inconclusive; younger terraces of (Um6.11) and possibly other (Um) soils; and present flood-plains of (Um1) and (Uc1) soils. The unit has similarities to both units X9 and Gb6.	0m
Pb12	Kurosol	Gently rolling to rounded hilly country with some steep slopes and broad valleys: chief soils are hard acidic red soils (Dr2.21) with hard neutral and acidic yellow mottled soils (Dy3.42 and Dy3.41) on lower slopes and in valleys. Associated are small areas of various soils including (Gn3.54) on some ridges, (Dr3.31) on some slopes; (Dr2.23) in saddles and some mid-slope positions, and some low-lying swampy areas of (Uf6) soils and (Uc1.2) soils with peaty surfaces. Small areas of other soils such as (Db1.2) are likely throughout.	617m

Atlas of Australian Soils Data Source: CSIRO

Creative Commons 4.0 © Commonwealth of Australia <http://creativecommons.org/licenses/by/4.0/au/deed.en>

Soil Landscapes

1290 Greendale Park Road, Wallacia, NSW 2745



Soils

1290 Greendale Park Road, Wallacia, NSW 2745

Soil Landscapes

What are the onsite Soil Landscapes?

Soil Code	Name	Group	Process	Map Sheet	Scale
ALri	RICHMOND		ALLUVIAL	Penrith	1:100,000
ERlu	LUDDENHAM		EROSIONAL	Penrith	1:100,000
WATER	WATER		WATER	Penrith	1:100,000

What are the Soil Landscapes within the dataset buffer?

Soil Code	Name	Group	Process	Map Sheet	Scale
ALri	RICHMOND		ALLUVIAL	Penrith	1:100,000
COha	HAWKESBURY		COLLUVIAL	Penrith	1:100,000
COhw	HAZELWOOD		COLLUVIAL	Penrith	1:100,000
ERgy	GYMEA		EROSIONAL	Penrith	1:100,000
ERlu	LUDDENHAM		EROSIONAL	Penrith	1:100,000
REbt	BLACKTOWN		RESIDUAL	Penrith	1:100,000
WATER	WATER		WATER	Penrith	1:100,000

Soils Landscapes Data Source : NSW Office of Environment and Heritage

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

Acid Sulfate Soils

1290 Greendale Park Road, Wallacia, NSW 2745

Environmental Planning Instrument - Acid Sulfate Soils

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

Soil Class	Description	EPI Name
N/A		

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

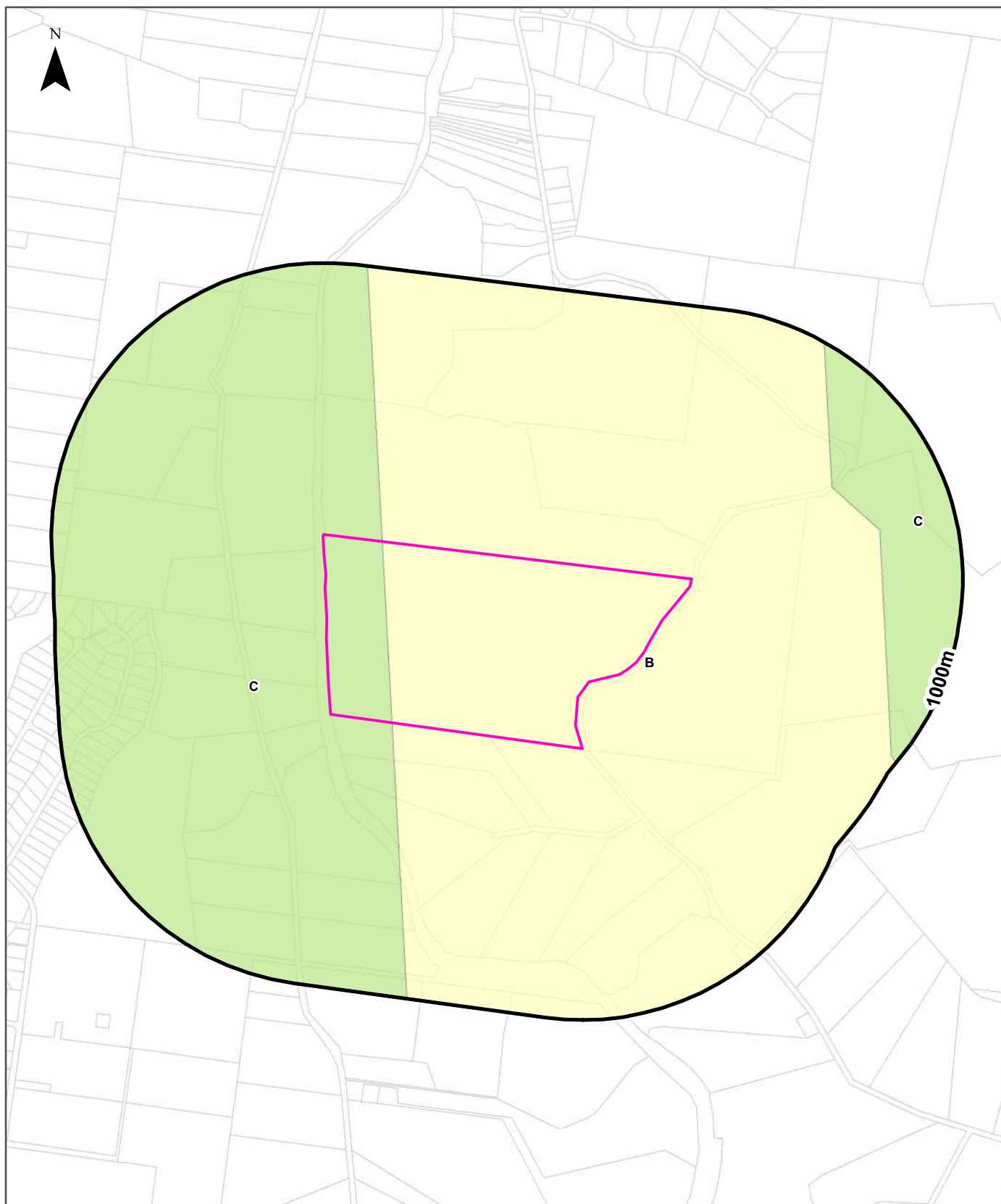
Soil Class	Description	EPI Name	Distance	Direction
N/A				

NSW Crown Copyright - Planning and Environment

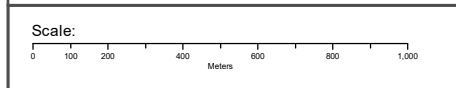
Creative Commons 4.0 © Commonwealth of Australia <https://creativecommons.org/licenses/by/4.0/>

Atlas of Australian Acid Sulfate Soils

1290 Greendale Park Road, Wallacia, NSW 2745



Legend			
Site Boundary	Probability of occurrence of Acid Sulfate Soils		
Report Buffer	A. High (>70%)	C. Extremely Low (1-5%)	No Data
Property Boundary	B. Low (6-70%)	D. No Chance (0%)	



Data Sources: Property Boundaries & Topographic Data:
© Department Finance, Services & Innovation 2020

Coordinate System:
GDA 1994 MGA Zone 56

Date: 24 June 2020

Acid Sulfate Soils

1290 Greendale Park Road, Wallacia, NSW 2745

Atlas of Australian Acid Sulfate Soils

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

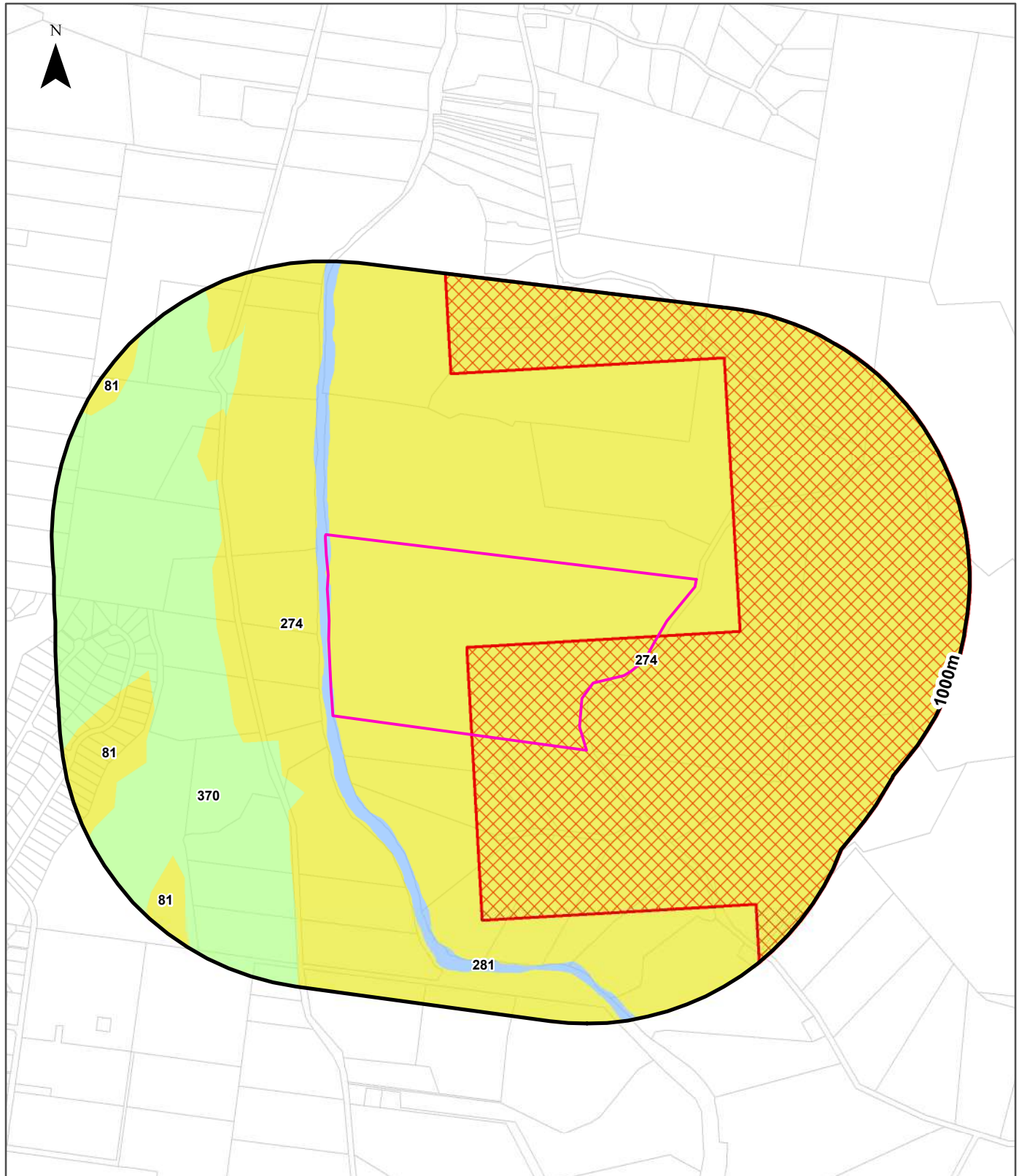
Class	Description	Distance
B	Low Probability of occurrence. 6-70% chance of occurrence.	0m
C	Extremely low probability of occurrence. 1-5% chance of occurrence with occurrences in small localised areas.	0m

Atlas of Australian Acid Sulfate Soils Data Source: CSIRO

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

Dryland Salinity

1290 Greendale Park Road, Wallacia, NSW 2745



Legend	Dryland Salinity - National Assessment	Salinity Potential of Western Sydney
Site Boundary	Delineated risk area but no high hazard or risk rating for either 2000, 2020, 2050	Area of Known Salinity
Report Buffer	High hazard or risk in 2050 only	Area of High Salinity Potential
Property Boundary	High hazard or risk defined for 2050, but no assessment made for 2000 or 2020	Area of Moderate Salinity Potential
	High hazard or risk in 2020 and 2050. 2020 not defined as high hazard	Area of Very Low Salinity Potential
	High hazard or risk defined for all years: 2000, 2020, 2050	Area of Water

<p>Scale:</p>	<p>Data Sources: Property Boundaries & Topographic Data: © Department Finance, Services & Innovation 2020</p>	<p>Coordinate System: GDA 1994 MGA Zone 56</p>	<p>Date: 24 June 2020</p>
---------------	---	--	---------------------------

Dryland Salinity

1290 Greendale Park Road, Wallacia, NSW 2745

Dryland Salinity - National Assessment

Is there Dryland Salinity - National Assessment data onsite?

Yes

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

Yes

What Dryland Salinity assessments are given?

Assessment 2000	Assessment 2020	Assessment 2050	Distance	Direction
High hazard or risk	High hazard or risk	High hazard or risk	0m	Onsite

Dryland Salinity Data Source : National Land and Water Resources Audit

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

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

Dryland Salinity Potential of Western Sydney

Dryland Salinity Potential of Western Sydney within the dataset buffer?

Feature Id	Classification	Description	Distance	Direction
274	MODERATE	Area of Moderate Salinity Potential	0m	Onsite
281	WATER	Area of Water	0m	Onsite
370	LOW	Area of Very Low Salinity Potential	221m	South East
81	MODERATE	Area of Moderate Salinity Potential	652m	South West

Dryland Salinity Potential of Western Sydney Data Source : NSW Office of Environment and Heritage

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

Mining Subsidence Districts

1290 Greendale Park Road, Wallacia, NSW 2745

Mining Subsidence Districts

Mining Subsidence Districts within the dataset buffer:

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

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

State Environmental Planning Policy

1290 Greendale Park Road, Wallacia, NSW 2745

State Significant Precincts

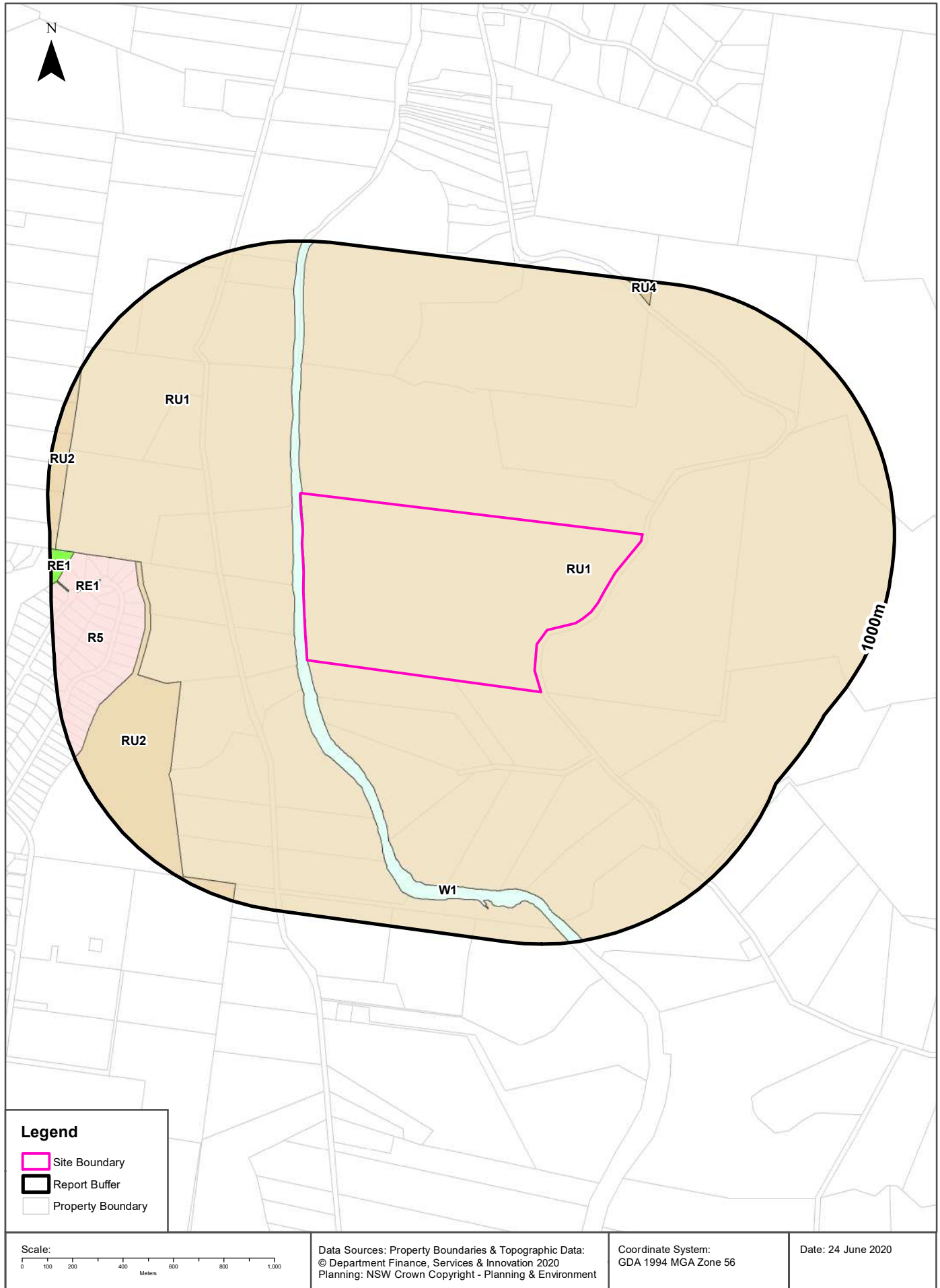
What SEPP State Significant Precincts exist within the dataset buffer?

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

State Environment Planning Policy Data Source: NSW Crown Copyright - Planning & Environment
Creative Commons 4.0 © Commonwealth of Australia <https://creativecommons.org/licenses/by/4.0/>

EPI Planning Zones

1290 Greendale Park Road, Wallacia, NSW 2745



Environmental Planning Instrument

1290 Greendale Park Road, Wallacia, NSW 2745

Land Zoning

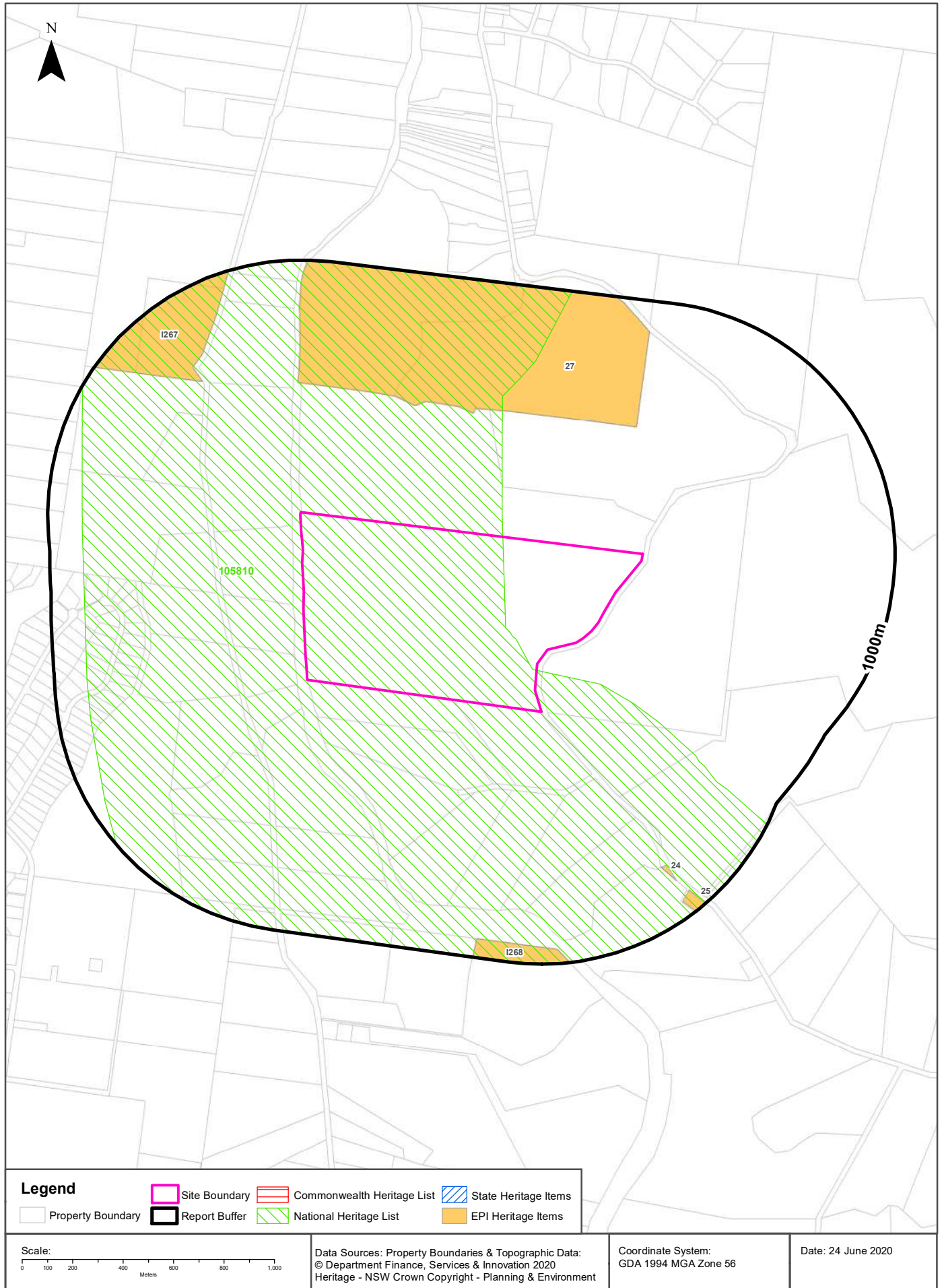
What EPI Land Zones exist within the dataset buffer?

Zone	Description	Purpose	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
RU1	Primary Production		Liverpool Local Environmental Plan 2008	20/06/2014	20/06/2014	08/05/2020	Amendment No 27	0m	Onsite
W1	Natural Waterways		Liverpool Local Environmental Plan 2008	29/08/2008	29/08/2008	08/05/2020		0m	South
RU1	Primary Production		Wollondilly Local Environmental Plan 2011	23/02/2011	23/02/2011	03/04/2020		34m	West
RU2	Rural Landscape		Wollondilly Local Environmental Plan 2011	23/02/2011	23/02/2011	03/04/2020		510m	South West
R5	Large Lot Residential		Wollondilly Local Environmental Plan 2011	23/02/2011	23/02/2011	03/04/2020		630m	South West
RE1	Public Recreation		Wollondilly Local Environmental Plan 2011	23/02/2011	23/02/2011	03/04/2020		807m	West
RU4	Primary Production Small Lots		Liverpool Local Environmental Plan 2008	29/08/2008	29/08/2008	08/05/2020		905m	North
RE1	Public Recreation		Wollondilly Local Environmental Plan 2011	23/02/2011	23/02/2011	03/04/2020		906m	West
RU2	Rural Landscape		Wollondilly Local Environmental Plan 2011	03/04/2020	03/04/2020	03/04/2020	Amendment No 36	931m	North West

Environmental Planning Instrument Data Source: NSW Crown Copyright - Planning & Environment
Creative Commons 4.0 © Commonwealth of Australia <https://creativecommons.org/licenses/by/4.0/>

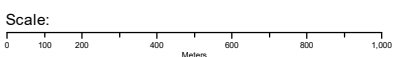
Heritage Items

1290 Greendale Park Road, Wallacia, NSW 2745



Legend

- Property Boundary
- Site Boundary
- Commonwealth Heritage List
- State Heritage Items
- Report Buffer
- National Heritage List
- EPI Heritage Items



Data Sources: Property Boundaries & Topographic Data:
© Department Finance, Services & Innovation 2020
Heritage - NSW Crown Copyright - Planning & Environment

Coordinate System:
GDA 1994 MGA Zone 56

Date: 24 June 2020

Heritage

1290 Greendale Park Road, Wallacia, NSW 2745

Commonwealth Heritage List

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

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

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

National Heritage List

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

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

Place Id	Name	Address	Place File No	Class	Status	Register Date	Distance	Direction
105810	Wara-n'hayara Plateau Area - part	Mount Kiera Rd, Wollongong NSW	1/11/092/0064	Indigenous	Place not included in NHL		0m	Onsite

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

State Heritage Register - Curtilages

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

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

Heritage Data Source: NSW Crown Copyright - Office of Environment & Heritage
Creative Commons 4.0 © Commonwealth of Australia <https://creativecommons.org/licenses/by/4.0/>

Environmental Planning Instrument - Heritage

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

Map Id	Name	Classification	Significance	EPI Name	Published Date	Commenced Date	Currency Date	Distance	Direction
27	Remnants of former farm homestead ('Pemberton')	Item - General	Local	Liverpool Local Environmental Plan 2008	29/08/2008	29/08/2008	08/04/2016	473m	North
1267	Charleville	Item - General	Local	Wollondilly Local Environmental Plan 2011	23/02/2011	23/02/2011	21/12/2018	649m	North West

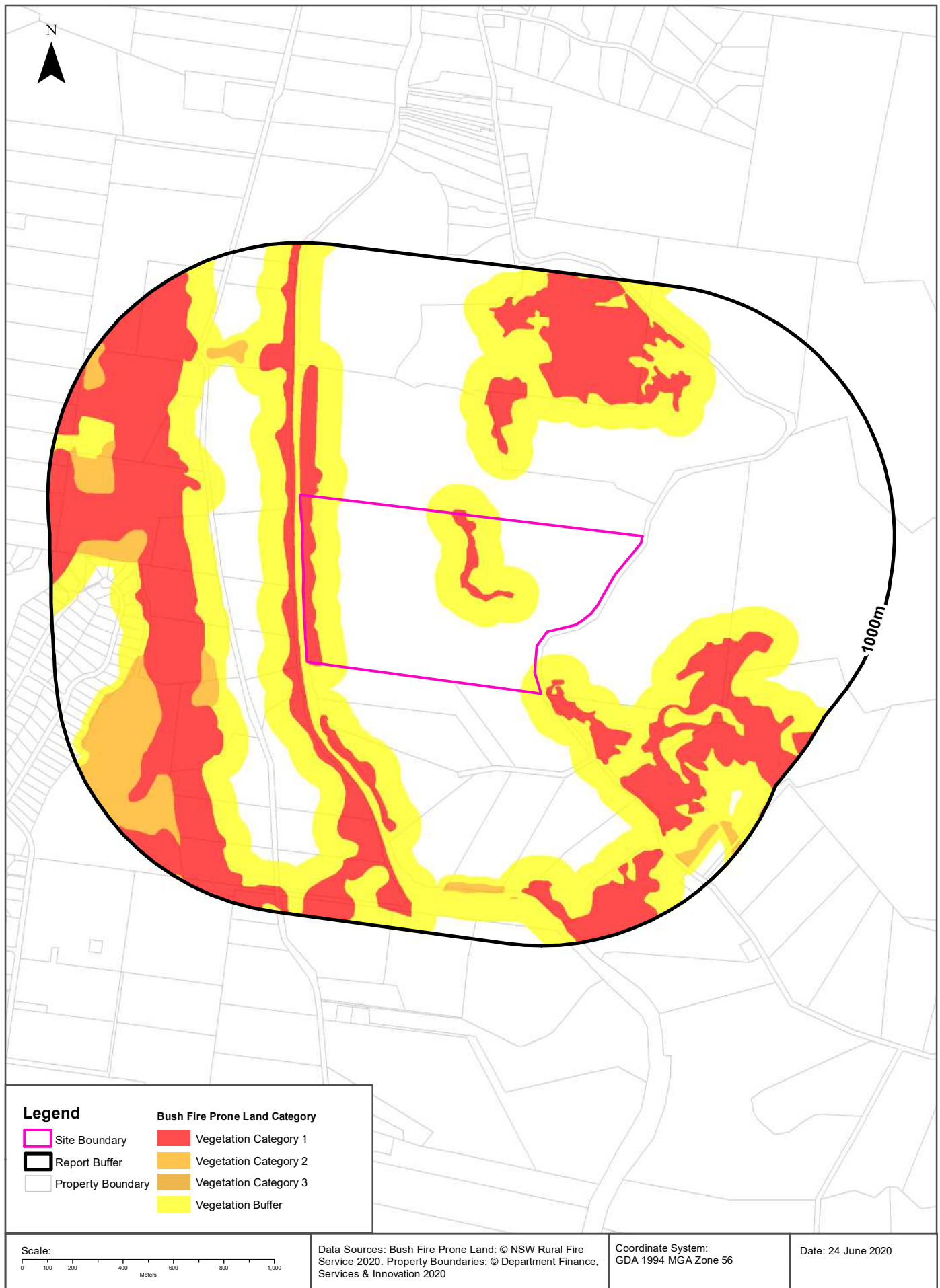
Map Id	Name	Classification	Significance	EPI Name	Published Date	Commenced Date	Currency Date	Distance	Direction
24	Shadforth Monument (former pioneer's monument)	Item - General	Local	Liverpool Local Environmental Plan 2008	26/08/2011	26/08/2011	08/04/2016	774m	South East
25	Private dwelling (former St Mark's Anglican Church Group, including church cemetery)	Item - General	State	Liverpool Local Environmental Plan 2008	29/08/2008	29/08/2008	08/04/2016	915m	South East
I268	Ravenswood	Item - General	Local	Wollondilly Local Environmental Plan 2011	23/02/2011	23/02/2011	21/12/2018	924m	South

Heritage Data Source: NSW Crown Copyright - Planning & Environment

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

Natural Hazards - Bush Fire Prone Land

1290 Greendale Park Road, Wallacia, NSW 2745



Natural Hazards

1290 Greendale Park Road, Wallacia, NSW 2745

Bush Fire Prone Land

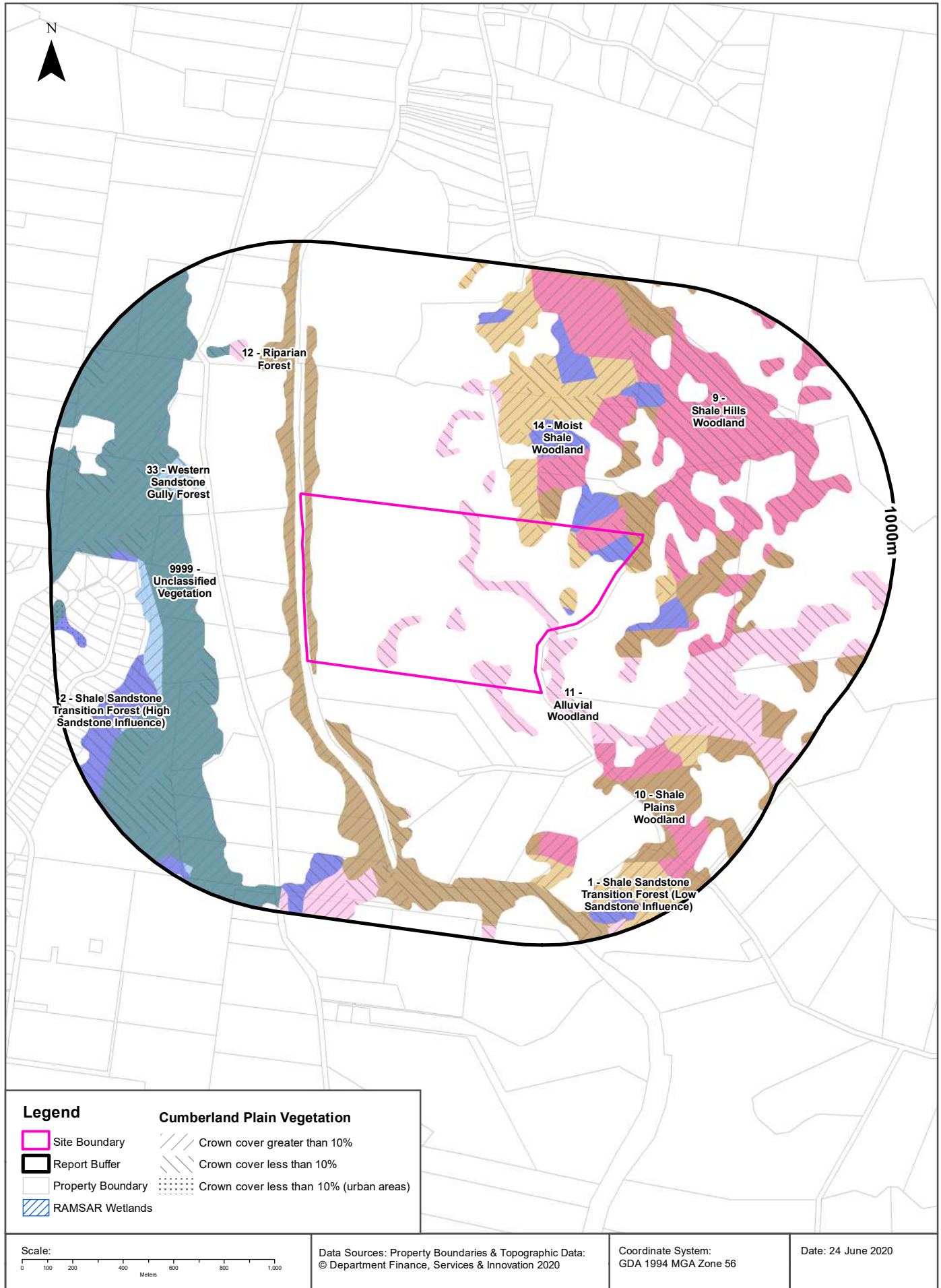
What are the nearest Bush Fire Prone Land Categories that exist within the dataset buffer?

Bush Fire Prone Land Category	Distance	Direction
Vegetation Buffer	0m	Onsite
Vegetation Category 1	0m	Onsite
Vegetation Category 2	361m	West

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

Ecological Constraints - Remnant Vegetation of the Cumberland Plain

1290 Greendale Park Road, Wallacia, NSW 2745



Ecological Constraints

1290 Greendale Park Road, Wallacia, NSW 2745

Remnant Vegetation of the Cumberland Plain

What remnant vegetation of the Cumberland Plain exists within the dataset buffer?

Description	Crown Cover	Distance	Direction
1 - Shale Sandstone Transition Forest (Low Sandstone Influence)	Crown cover greater than 10%	0m	Onsite
12 - Riparian Forest	Crown cover greater than 10%	0m	Onsite
14 - Moist Shale Woodland	Crown cover greater than 10%	0m	Onsite
9 - Shale Hills Woodland	Crown cover greater than 10%	0m	Onsite
1 - Shale Sandstone Transition Forest (Low Sandstone Influence)	Crown cover less than 10%	0m	Onsite
10 - Shale Plains Woodland	Crown cover less than 10%	0m	Onsite
11 - Alluvial Woodland	Crown cover less than 10%	0m	Onsite
14 - Moist Shale Woodland	Crown cover less than 10%	0m	Onsite
2 - Shale Sandstone Transition Forest (High Sandstone Influence)	Crown cover less than 10%	0m	Onsite
9 - Shale Hills Woodland	Crown cover less than 10%	0m	Onsite
10 - Shale Plains Woodland	Crown cover greater than 10%	81m	North East
2 - Shale Sandstone Transition Forest (High Sandstone Influence)	Crown cover greater than 10%	214m	East
12 - Riparian Forest	Crown cover less than 10%	219m	South
11 - Alluvial Woodland	Crown cover greater than 10%	240m	South East
9999 - Unclassified Vegetation	Crown cover less than 10%	362m	West
33 - Western Sandstone Gully Forest	Crown cover greater than 10%	397m	West
9999 - Unclassified Vegetation	Crown cover greater than 10%	399m	West
33 - Western Sandstone Gully Forest	Crown cover less than 10%	454m	North West
2 - Shale Sandstone Transition Forest (High Sandstone Influence)	Crown cover less than 10% (urban areas)	869m	West
9999 - Unclassified Vegetation	Crown cover less than 10% (urban areas)	944m	West

Remnant Vegetation of the Cumberland Plain : NSW Office of Environment and Heritage
Creative Commons 3.0 © Commonwealth of Australia <http://creativecommons.org/licenses/by/3.0/au/deed.en>

Ramsar Wetlands

What Ramsar Wetland areas exist within the dataset buffer?

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

Ramsar Wetlands Data Source: © Commonwealth of Australia - Department of Environment

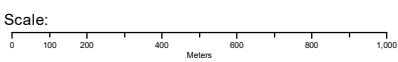
Ecological Constraints - Groundwater Dependent Ecosystems Atlas

1290 Greendale Park Road, Wallacia, NSW 2745



Legend

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



Data Sources: Property Boundaries & Topographic Data:
© Department Finance, Services & Innovation 2020

Coordinate System:
GDA 1994 MGA Zone 56

Date: 24 June 2020

Ecological Constraints

1290 Greendale Park Road, Wallacia, NSW 2745

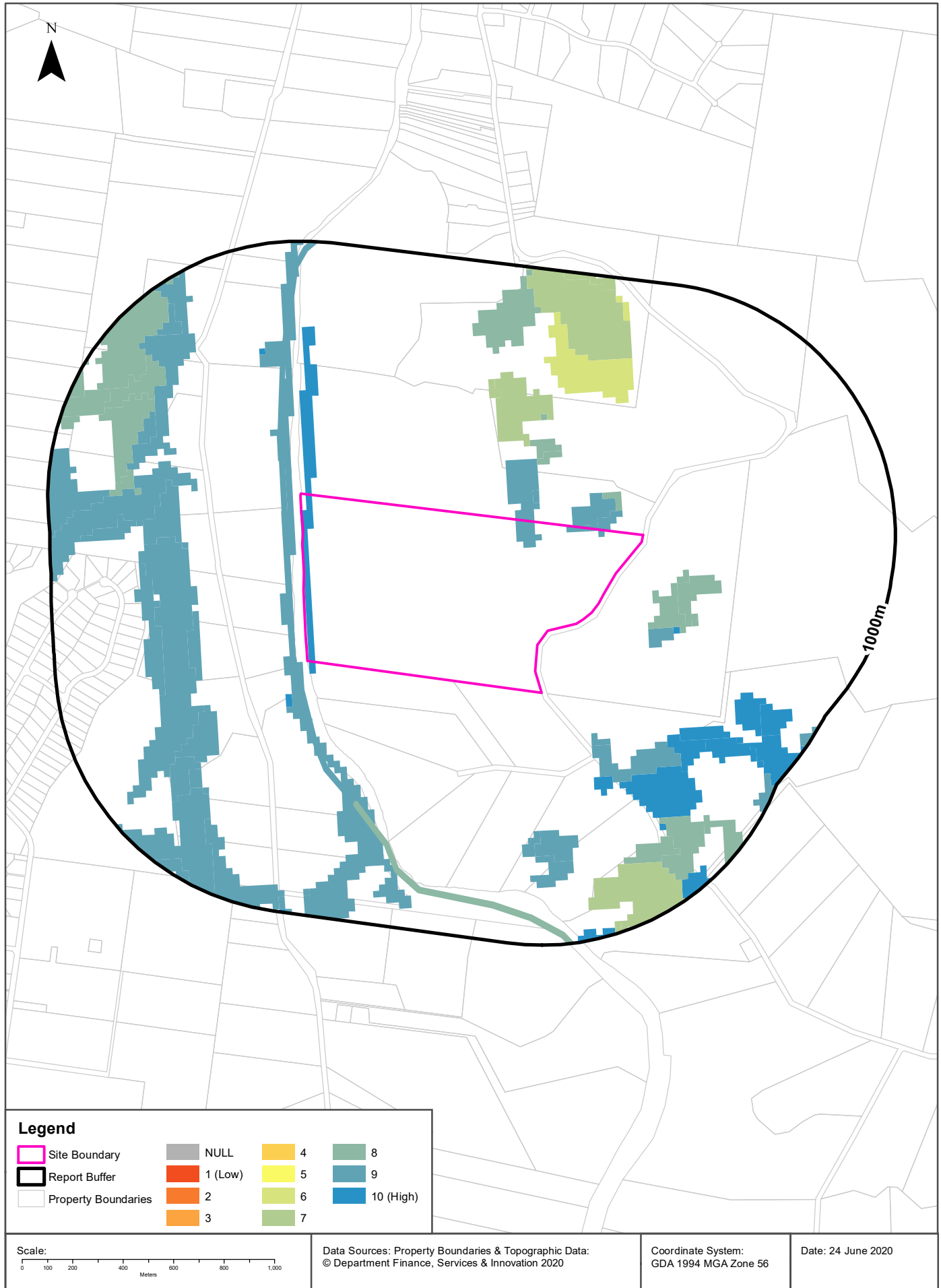
Groundwater Dependent Ecosystems Atlas

Type	GDE Potential	Geomorphology	Ecosystem Type	Aquifer Geology	Distance
Terrestrial	High potential GDE - from national assessment	Deeply dissected sandstone plateaus.	Vegetation	Consolidated sedimentary	0m
Terrestrial	High potential GDE - from national assessment	Deeply dissected sandstone plateaus.	Vegetation	Unconsolidated sedimentary	0m
Terrestrial	High potential GDE - from national assessment	Undulating to low hilly country, mainly on shale.	Vegetation	Consolidated sedimentary	0m
Aquatic	High potential GDE - from national assessment	Deeply dissected sandstone plateaus.	River		39m
Terrestrial	Low potential GDE - from national assessment	Deeply dissected sandstone plateaus.	Vegetation	Consolidated sedimentary	72m
Terrestrial	Moderate potential GDE - from national assessment	Deeply dissected sandstone plateaus.	Vegetation	Consolidated sedimentary	289m

Groundwater Dependent Ecosystems Atlas Data Source: The Bureau of Meteorology
 Creative Commons 3.0 © Commonwealth of Australia <http://creativecommons.org/licenses/by/3.0/au/deed.en>

Ecological Constraints - Inflow Dependent Ecosystems Likelihood

1290 Greendale Park Road, Wallacia, NSW 2745



Ecological Constraints

1290 Greendale Park Road, Wallacia, NSW 2745

Inflow Dependent Ecosystems Likelihood

Type	IDE Likelihood	Geomorphology	Ecosystem Type	Aquifer Geology	Distance
Terrestrial	9	Deeply dissected sandstone plateaus.	Vegetation	Consolidated sedimentary	0m
Terrestrial	9	Undulating to low hilly country, mainly on shale.	Vegetation	Consolidated sedimentary	0m
Terrestrial	10	Deeply dissected sandstone plateaus.	Vegetation	Unconsolidated sedimentary	0m
Aquatic	9	Deeply dissected sandstone plateaus.	River		39m
Terrestrial	8	Undulating to low hilly country, mainly on shale.	Vegetation	Consolidated sedimentary	81m
Terrestrial	7	Deeply dissected sandstone plateaus.	Vegetation	Consolidated sedimentary	289m
Terrestrial	6	Undulating to low hilly country, mainly on shale.	Vegetation	Consolidated sedimentary	503m
Aquatic	8	Deeply dissected sandstone plateaus.	River		522m

Inflow Dependent Ecosystems Likelihood Data Source: The Bureau of Meteorology
 Creative Commons 3.0 © Commonwealth of Australia <http://creativecommons.org/licenses/by/3.0/au/deed.en>

Ecological Constraints

1290 Greendale Park Road, Wallacia, NSW 2745

NSW BioNet Atlas

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

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Animalia	Amphibia	Heleioporus australiacus	Giant Burrowing Frog	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Amphibia	Litoria aurea	Green and Golden Bell Frog	Endangered	Not Sensitive	Vulnerable	
Animalia	Amphibia	Pseudophryne australis	Red-crowned Toadlet	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Anthochaera phrygia	Regent Honeyeater	Critically Endangered	Not Sensitive	Critically Endangered	
Animalia	Aves	Apus pacificus	Fork-tailed Swift	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Ardea ibis	Cattle Egret	Not Listed	Not Sensitive	Not Listed	CAMBA;JAMBA
Animalia	Aves	Artamus cyanopterus cyanopterus	Dusky Woodswallow	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Callocephalon fimbriatum	Gang-gang Cockatoo	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Calyptrorhynchus lathamii	Glossy Black-Cockatoo	Vulnerable	Category 2	Not Listed	
Animalia	Aves	Chthonicola sagittata	Speckled Warbler	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Daphoenositta chrysoptera	Varied Sittella	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Ephippiorhynchus asiaticus	Black-necked Stork	Endangered	Not Sensitive	Not Listed	
Animalia	Aves	Gallinago hardwickii	Latham's Snipe	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Glossopsitta pusilla	Little Lorikeet	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Haliaeetus leucogaster	White-bellied Sea-Eagle	Vulnerable	Not Sensitive	Not Listed	CAMBA
Animalia	Aves	Hieraaetus morphnoides	Little Eagle	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Hirundapus caudacutus	White-throated Needletail	Not Listed	Not Sensitive	Vulnerable	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Ixobrychus flavicollis	Black Bittern	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Lathamus discolor	Swift Parrot	Endangered	Category 3	Critically Endangered	
Animalia	Aves	Limosa limosa	Black-tailed Godwit	Vulnerable	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Lophochroa leadbeateri	Major Mitchell's Cockatoo	Vulnerable	Category 2	Not Listed	
Animalia	Aves	Lophoictinia isura	Square-tailed Kite	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Melanodryas cucullata cucullata	Hooded Robin (south-eastern form)	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Melithreptus gularis gularis	Black-chinned Honeyeater (eastern subspecies)	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Merops ornatus	Rainbow Bee-eater	Not Listed	Not Sensitive	Not Listed	JAMBA
Animalia	Aves	Ninox connivens	Barking Owl	Vulnerable	Category 3	Not Listed	

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Animalia	Aves	<i>Ninox strenua</i>	Powerful Owl	Vulnerable	Category 3	Not Listed	
Animalia	Aves	<i>Petroica boodang</i>	Scarlet Robin	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	<i>Petroica phoenicea</i>	Flame Robin	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	<i>Pezoporus wallicus wallicus</i>	Eastern Ground Parrot	Vulnerable	Category 3	Not Listed	
Animalia	Aves	<i>Stagonopleura guttata</i>	Diamond Firetail	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	<i>Stictonetta naevosa</i>	Freckled Duck	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	<i>Tyto novaehollandiae</i>	Masked Owl	Vulnerable	Category 3	Not Listed	
Animalia	Aves	<i>Tyto tenebricosa</i>	Sooty Owl	Vulnerable	Category 3	Not Listed	
Animalia	Gastropoda	<i>Meridolum corneovirens</i>	Cumberland Plain Land Snail	Endangered	Not Sensitive	Not Listed	
Animalia	Gastropoda	<i>Pommerhelix duralensis</i>	Dural Land Snail	Endangered	Not Sensitive	Endangered	
Animalia	Mammalia	<i>Chalinolobus dwyeri</i>	Large-eared Pied Bat	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Mammalia	<i>Dasyurus viverrinus</i>	Eastern Quoll	Endangered	Not Sensitive	Endangered	
Animalia	Mammalia	<i>Macropus dorsalis</i>	Black-striped Wallaby	Endangered	Not Sensitive	Not Listed	
Animalia	Mammalia	<i>Micronomus norfolkensis</i>	Eastern Coastal Free-tailed Bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	<i>Miniopterus australis</i>	Little Bent-winged Bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	<i>Miniopterus orianae oceanensis</i>	Large Bent-winged Bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	<i>Myotis macropus</i>	Southern Myotis	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	<i>Petauroides volans</i>	Greater Glider	Not Listed	Not Sensitive	Vulnerable	
Animalia	Mammalia	<i>Petaurus australis</i>	Yellow-bellied Glider	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	<i>Petrogale penicillata</i>	Brush-tailed Rock-wallaby	Endangered	Not Sensitive	Vulnerable	
Animalia	Mammalia	<i>Phascolarctos cinereus</i>	Koala	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Mammalia	<i>Pteropus poliocephalus</i>	Grey-headed Flying-fox	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Mammalia	<i>Saccolaimus flaviventris</i>	Yellow-bellied Sheath-tail-bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	<i>Scoteanax rueppellii</i>	Greater Broad-nosed Bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	<i>Vespadelus trougtoni</i>	Eastern Cave Bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Reptilia	<i>Chelonia mydas</i>	Green Turtle	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Reptilia	<i>Suta flagellum</i>	Little Whip Snake	Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	<i>Ancistrachne maidenii</i>		Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	<i>Dillwynia tenuifolia</i>		Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	<i>Epacris purpurascens</i> var. <i>purpurascens</i>		Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	<i>Eucalyptus benthamii</i>	Camden White Gum	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	<i>Grevillea juniperina</i> subsp. <i>juniperina</i>	Juniper-leaved Grevillea	Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	<i>Macadamia integrifolia</i>	Macadamia Nut	Not Listed	Not Sensitive	Vulnerable	

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Plantae	Flora	<i>Marsdenia viridiflora</i> subsp. <i>viridiflora</i>	Native Pear	Endangered Population	Not Sensitive	Not Listed	
Plantae	Flora	<i>Micromyrtus minutiflora</i>		Endangered	Not Sensitive	Vulnerable	
Plantae	Flora	<i>Pimelea spicata</i>	Spiked Rice-flower	Endangered	Not Sensitive	Endangered	
Plantae	Flora	<i>Pomaderris queenslandica</i>	Scant Pomaderris	Endangered	Not Sensitive	Not Listed	
Plantae	Flora	<i>Pultenaea parviflora</i>		Endangered	Not Sensitive	Vulnerable	
Plantae	Flora	<i>Rhodamnia rubescens</i>	Scrub Turpentine	Critically Endangered	Not Sensitive	Not Listed	

Data does not include NSW category 1 sensitive species.

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

Location Confidences

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

LC Code	Location Confidence
Premise match	Georeferenced to the site location / premise or part of site
General area or suburb match	Georeferenced with the confidence of the general/approximate area
Road match	Georeferenced to the road or rail
Road intersection	Georeferenced to the road intersection
Feature is a buffered point	Feature is a buffered point
Land adjacent to geocoded site	Land adjacent to Georeferenced Site
Network of features	Georeferenced to a network of features

USE OF REPORT - APPLICABLE TERMS

The following terms apply to any person (End User) who is given the Report by the person who purchased the Report from Lotsearch Pty Ltd (ABN: 89 600 168 018) (Lotsearch) or who otherwise has access to the Report (Terms). The contract terms that apply between Lotsearch and the purchaser of the Report are specified in the order form pursuant to which the Report was ordered and the terms set out below are of no effect as between Lotsearch and the purchaser of the Report.

1. End User acknowledges and agrees that:
 - (a) the Report is compiled from or using content (**Third Party Content**) which is comprised of:
 - (i) content provided to Lotsearch by third party content suppliers with whom Lotsearch has contractual arrangements or content which is freely available or methodologies licensed to Lotsearch by third parties with whom Lotsearch has contractual arrangements (**Third Party Content Suppliers**); and
 - (ii) content which is derived from content described in paragraph (i);
 - (b) Neither Lotsearch nor Third Party Content Suppliers takes any responsibility for or give any warranty in relation to the accuracy or completeness of any Third Party Content included in the Report including any contaminated land assessment or other assessment included as part of a Report;
 - (c) the Third Party Content Suppliers do not constitute an exhaustive set of all repositories or sources of information available in relation to the property which is the subject of the Report (**Property**) and accordingly neither Lotsearch nor Third Party Content Suppliers gives any warranty in relation to the accuracy or completeness of the Third Party Content incorporated into the report including any contaminated land assessment or other assessment included as part of a Report;
 - (d) Reports are generated at a point in time (as specified by the date/time stamp appearing on the Report) and accordingly the Report is based on the information available at that point in time and Lotsearch is not obliged to undertake any additional reporting to take into consideration any information that may become available between the point in time specified by the date/time stamp and the date on which the Report was provided by Lotsearch to the purchaser of the Report;
 - (e) Reports must be used or reproduced in their entirety and End User must not reproduce or make available to other persons only parts of the Report;
 - (f) Lotsearch has not undertaken any physical inspection of the property;
 - (g) neither Lotsearch nor Third Party Content Suppliers warrants that all land uses or features whether past or current are identified in the Report;
 - (h) the Report does not include any information relating to the actual state or condition of the Property;
 - (i) the Report should not be used or taken to indicate or exclude actual fitness or unfitness of Land or Property for any particular purpose
 - (j) the Report should not be relied upon for determining saleability or value or making any other decisions in relation to the Property and in particular should not be taken to be a rating or assessment of the desirability or market value of the property or its features; and
 - (k) the End User should undertake its own inspections of the Land or Property to satisfy itself that there are no defects or failures
2. The End User may not make the Report or any copies or extracts of the report or any part of it available to any other person. If End User wishes to provide the Report to any other person or make extracts or copies of the Report, it must contact the purchaser of the Report before doing so to ensure the proposed use is consistent with the contract terms between Lotsearch and the purchaser.
3. Neither Lotsearch (nor any of its officers, employees or agents) nor any of its Third Party Content Suppliers will have any liability to End User or any person to whom End User provides the Report and End User must not represent that Lotsearch or any of its Third Party Content Suppliers accepts liability to any such person or make any other representation to any such person on behalf of Lotsearch or any Third Party Content Supplier.
4. The End User hereby to the maximum extent permitted by law:
 - (a) acknowledges that the Lotsearch (nor any of its officers, employees or agents), nor any

- of its Third Party Content Supplier have any liability to it under or in connection with the Report or these Terms;
- (b) waives any right it may have to claim against Third Party Content Supplier in connection with the Report, or the negotiation of, entry into, performance of, or termination of these Terms; and
 - (c) releases each Third Party Content Supplier from any claim it may have otherwise had in connection with the Report, or the negotiation of, entry into, performance of, or termination of these Terms.
5. The End User acknowledges that any Third Party Supplier shall be entitled to plead the benefits conferred on it under clause 4, despite not being a party to these terms.
 6. End User must not remove any copyright notices, trade marks, digital rights management information, other embedded information, disclaimers or limitations from the Report or authorise any person to do so.
 7. End User acknowledges and agrees that Lotsearch and Third Party Content Suppliers retain ownership of all copyright, patent, design right (registered or unregistered), trade marks (registered or unregistered), database right or other data right, moral right or know how or any other intellectual property right in any Report or any other item, information or data included in or provided as part of a Report.
 8. To the extent permitted by law and subject to paragraph 9, all implied terms, representations and warranties whether statutory or otherwise relating to the subject matter of these Terms other than as expressly set out in these Terms are excluded.
 9. Subject to paragraph 6, Lotsearch excludes liability to End User for loss or damage of any kind, however caused, due to Lotsearch's negligence, breach of contract, breach of any law, in equity, under indemnities or otherwise, arising out of all acts, omissions and events whenever occurring.
 10. Lotsearch acknowledges that if, under applicable State, Territory or Commonwealth law, End User is a consumer certain rights may be conferred on End User which cannot be excluded, restricted or modified. If so, and if that law applies to Lotsearch, then, Lotsearch's liability is limited to the greater of an amount equal to the cost of resupplying the Report and the maximum extent permitted under applicable laws.
 11. Subject to paragraph 9, neither Lotsearch nor the End User is liable to the other for:
 - (a) any indirect, incidental, consequential, special or exemplary damages arising out of or in relation to the Report or these Terms; or
 - (b) any loss of profit, loss of revenue, loss of interest, loss of data, loss of goodwill or loss of business opportunities, business interruption arising directly or indirectly out of or in relation to the Report or these Terms,irrespective of how that liability arises including in contract or tort, liability under indemnity or for any other common law, equitable or statutory cause of action or otherwise.
 12. These Terms are subject to New South Wales law.

Appendix C

Utility Plans



Job No 19749826

Phone: 1100
www.1100.com.au

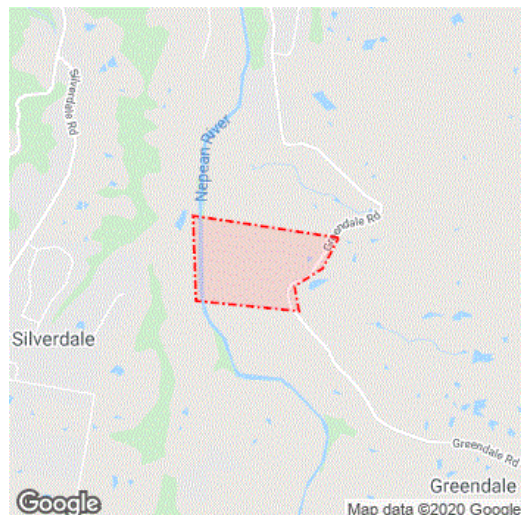
Caller Details

Contact: Mr Aaron Walker
Company: TRACE Environmental
Address: 1069 Castlereagh
Castlereagh NSW 2749

Caller Id: 1456796
Phone: 0410 465 961
Mobile: 0410 465 961
Fax: Not Supplied
Email: aaron@traceenviro.com

Dig Site and Enquiry Details

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



User Reference: Not Supplied
Working on Behalf of: Private
Enquiry Date: 22/06/2020
Start Date: 29/06/2020
End Date: 03/07/2020
Address: 1290 Greendale Road
Wallacia NSW 2745
Job Purpose: Excavation
Location of Workplace: Private Property
Onsite Activity: Vertical Boring
Location in Road: Not Supplied

- Check the location of the dig site is correct. If not submit a new enquiry.
- If the scope of works change, or plan validity dates expire, resubmit your enquiry.
- Do NOT dig without plans. Safe excavation is your responsibility. If you do not understand the plans or how to proceed safely, please contact the relevant asset owners.

Notes/Description of Works:

Your Responsibilities and Duty of Care

- The lodgement of an enquiry does not authorise the project to commence. You must obtain all necessary information from any and all likely impacted asset owners prior to excavation.
- If plans are not received within 2 working days, contact the asset owners directly & quote their Sequence No.
- ALWAYS perform an onsite inspection for the presence of assets. Should you require an onsite location, contact the asset owners directly. Please remember, plans do not detail the exact location of assets.
- Pothole to establish the exact location of all underground assets using a hand shovel, before using heavy machinery.
- Ensure you adhere to any State legislative requirements regarding Duty of Care and safe digging requirements.
- If you damage an underground asset you MUST advise the asset owner immediately.
- By using this service, you agree to Privacy Policy and the terms and disclaimers set out at www.1100.com.au
- For more information on safe excavation practices, visit www.1100.com.au

Asset Owner Details

The assets owners listed below have been requested to contact you with information about their asset locations within 2 working days. Additional time should be allowed for information issued by post. It is **your responsibility** to identify the presence of any underground assets in and around your proposed dig site. Please be aware, that not all asset owners are registered with the Dial Before You Dig service, so it is **your responsibility** to identify and contact any asset owners not listed here directly.

** Asset owners highlighted by asterisks ** require that you visit their offices to collect plans.

Asset owners highlighted with a hash require that you call them to discuss your enquiry or to obtain plans.

Seq. No.	Authority Name	Phone	Status
98922741	Endeavour Energy	0298534161	NOTIFIED
98922740	Liverpool City Council	1300362170	NOTIFIED
98922743	Sydney Water	132092	NOTIFIED
98922742	Telstra NSW, Central	1800653935	NOTIFIED

END OF UTILITIES LIST



Legend | Scale: 1:6773 | Overview

- | | | |
|-----------|-------------------------|--------------------------------|
| Bus Stops | Kerb and Gutter | Cadastre |
| Pits | Footpaths and Cycleways | Bridges |
| Headwalls | Pipes | Environmentally Sensitive Land |

DISCLAIMER: While reasonable measures have been taken to ensure the accuracy of the information contained in this plan response, neither Liverpool City Council or PelicanCorp shall have any liability whatsoever in relation to any loss, damage, cost or expense arising from the use of this plan response or the information contained in it or the completeness or accuracy of such information. Use of such information is subject to and constitutes acceptance of these terms.



WARNING

- **All electrical apparatus shall be regarded as live until proved de-energised.** Contact with live electrical apparatus will cause severe injury or death.
- In accordance with the *Electricity Supply Act 1995*, you are obliged to report any damage to Endeavour Energy Assets immediately by calling **131 003**.
- The customer must obtain a new set of plans from Endeavour Energy if work has not been started or completed within twenty (20) working days of the original plan issue date.
- The customer must contact Endeavour Energy if any of the plans provided have blank pages, as some underground asset information may be incomplete.
- Endeavour Energy underground earth grids may exist and their location **may not** be shown on plans. Persons excavating are expected to exercise all due care, especially in the vicinity of padmount substations, pole mounted substations, pole mounted switches, transmission poles and towers.
- Endeavour Energy plans **do not** show any underground customer service mains or information relating to service mains within private property.
- Asbestos or asbestos-containing material may be present on or near Endeavour Energy's underground assets.
- Organo-Chloride Pesticides (OCP) may be present in some sub-transmission trenches.
- All plans must be printed and made available at the worksite where excavation is to be undertaken. Plans must be reviewed and understood by the crew on site prior to commencing excavation.

INFORMATION PROVIDED BY ENDEAVOUR ENERGY

- Any plans provided pursuant to this service are intended to show the approximate location of underground assets relative to road boundaries, property fences and other structures at the time of installation.
- Depth of underground assets may vary significantly from information provided on plans as a result of changes to road, footpath or surface levels subsequent to installation.
- Such plans have been prepared solely for use by Endeavour Energy staff for design, construction and maintenance purposes.
- All enquiry details and results are kept in a register.

DISCLAIMER

Whilst Endeavour Energy has taken all reasonable steps to ensure that the information contained in the plans is as accurate as possible it will accept no liability for inaccuracies in the information shown on such plans.

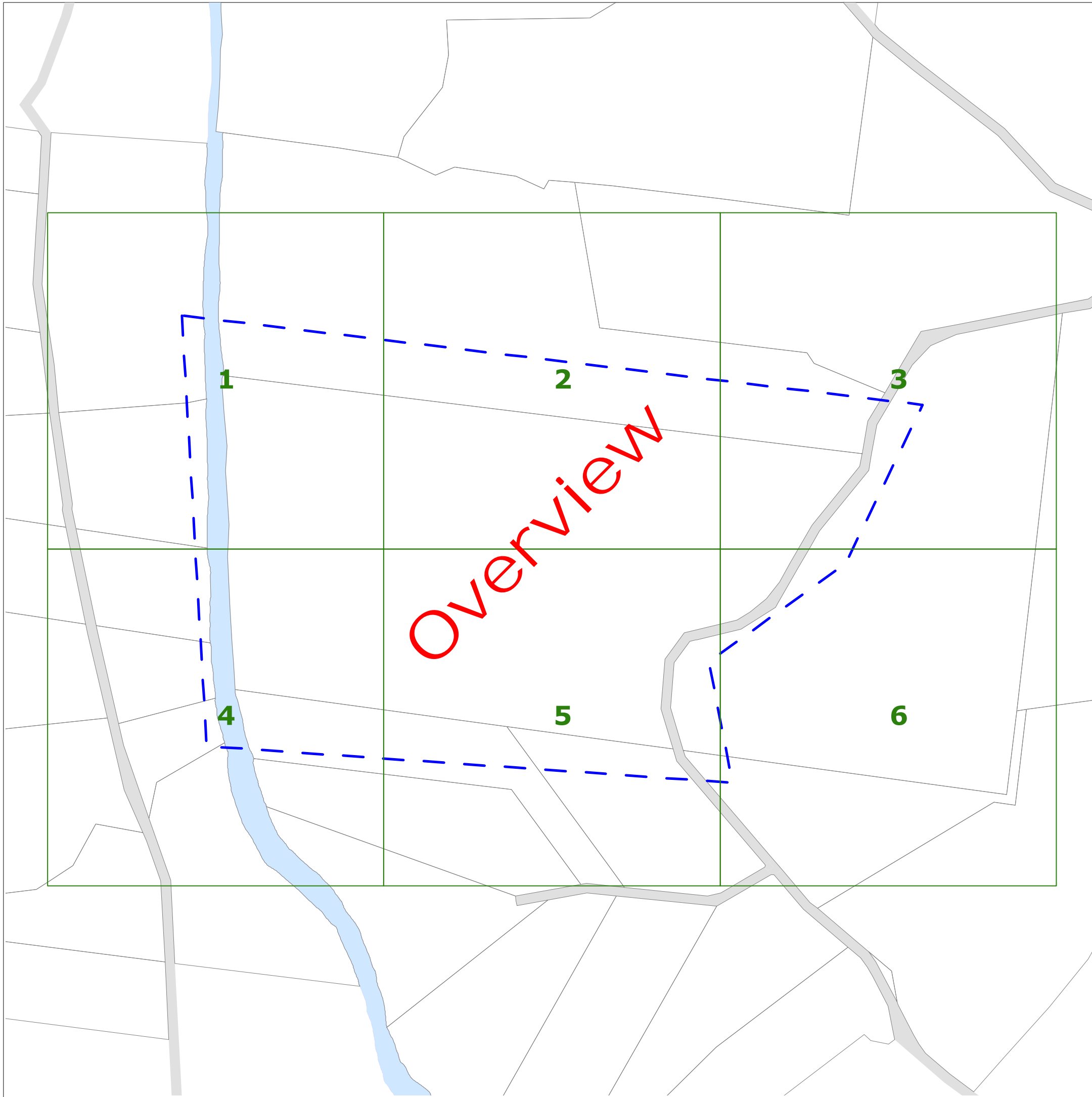
LEGEND

- or ■ Street light column
- ▭ Padmount substation
- ▭ or ▭ Overground pillar (O.G.Box)
- ▭ Underground pit
- ▬ Duct run
- ▬ Cable run
- ⊙ Typical duct section
- ▲ Asbestos warning



NOT TO SCALE

DBYD Sequence No.:	98922741
Issued Date:	22/06/2020



WARNING

- **All electrical apparatus shall be regarded as live until proved de-energised.** Contact with live electrical apparatus will cause severe injury or death.
- In accordance with the *Electricity Supply Act 1995*, you are obliged to report any damage to Endeavour Energy Assets immediately by calling **131 003**.
- The customer must obtain a new set of plans from Endeavour Energy if work has not been started or completed within twenty (20) working days of the original plan issue date.
- The customer must contact Endeavour Energy if any of the plans provided have blank pages, as some underground asset information may be incomplete.
- Endeavour Energy underground earth grids may exist and their location **may not** be shown on plans. Persons excavating are expected to exercise all due care, especially in the vicinity of padmount substations, pole mounted substations, pole mounted switches, transmission poles and towers.
- Endeavour Energy plans **do not** show any underground customer service mains or information relating to service mains within private property.
- Asbestos or asbestos-containing material may be present on or near Endeavour Energy's underground assets.
- Organo-Chloride Pesticides (OCP) may be present in some sub-transmission trenches.
- All plans must be printed and made available at the worksite where excavation is to be undertaken. Plans must be reviewed and understood by the crew on site prior to commencing excavation.

INFORMATION PROVIDED BY ENDEAVOUR ENERGY

- Any plans provided pursuant to this service are intended to show the approximate location of underground assets relative to road boundaries, property fences and other structures at the time of installation.
- Depth of underground assets may vary significantly from information provided on plans as a result of changes to road, footpath or surface levels subsequent to installation.
- Such plans have been prepared solely for use by Endeavour Energy staff for design, construction and maintenance purposes.
- All enquiry details and results are kept in a register.

DISCLAIMER

Whilst Endeavour Energy has taken all reasonable steps to ensure that the information contained in the plans is as accurate as possible it will accept no liability for inaccuracies in the information shown on such plans.

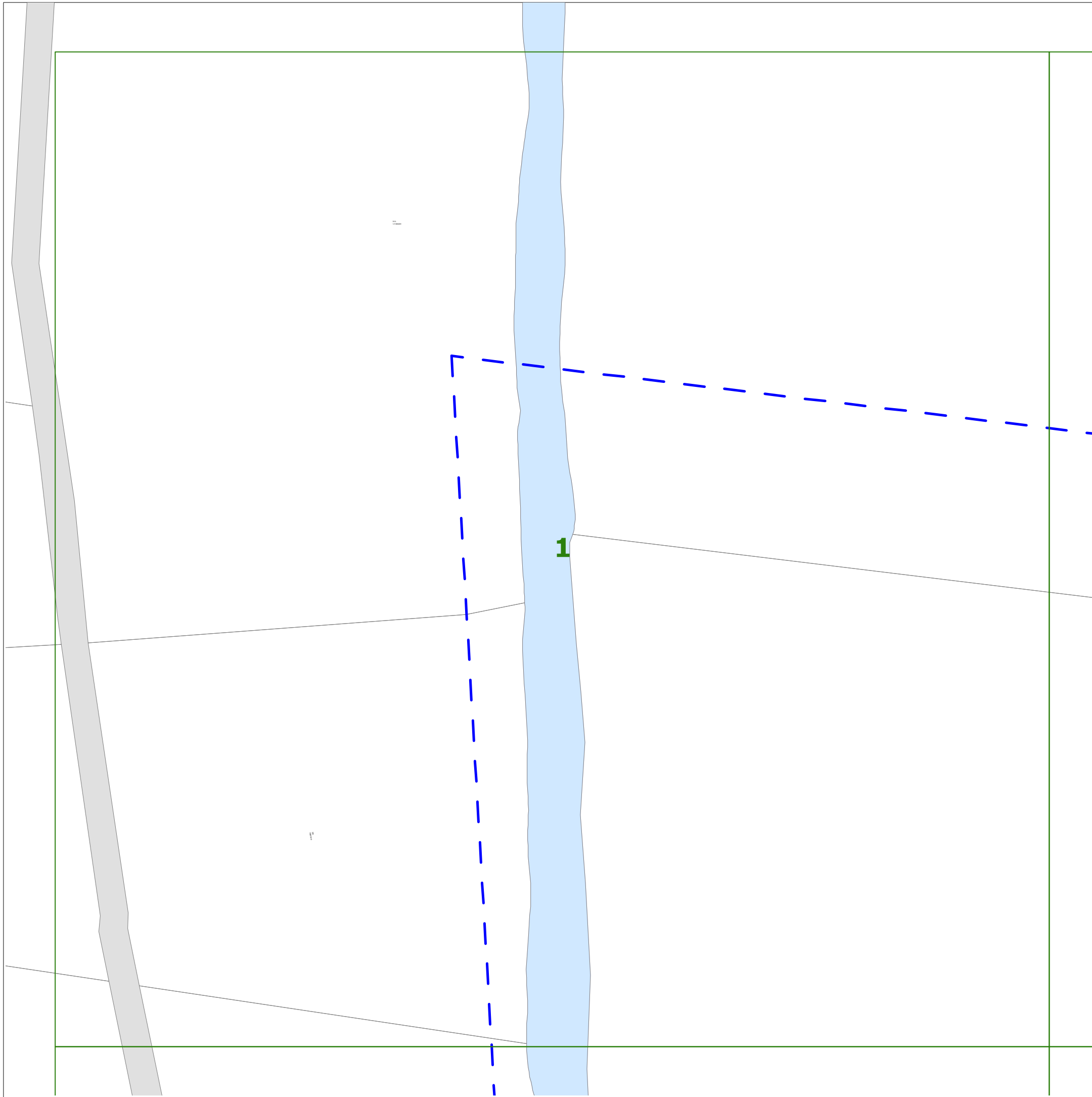
LEGEND

- or ■ Street light column
- ▭ Padmount substation
- or ■ Overground pillar (O.G.Box)
- ▭ Underground pit
- Duct run
- Cable run
- ⊙ Typical duct section
- ▲ Asbestos warning



NOT TO SCALE

DBYD Sequence No.:	98922741
Issued Date:	22/06/2020



WARNING

- **All electrical apparatus shall be regarded as live until proved de-energised.** Contact with live electrical apparatus will cause severe injury or death.
- In accordance with the *Electricity Supply Act 1995*, you are obliged to report any damage to Endeavour Energy Assets immediately by calling **131 003**.
- The customer must obtain a new set of plans from Endeavour Energy if work has not been started or completed within twenty (20) working days of the original plan issue date.
- The customer must contact Endeavour Energy if any of the plans provided have blank pages, as some underground asset information may be incomplete.
- Endeavour Energy underground earth grids may exist and their location **may not** be shown on plans. Persons excavating are expected to exercise all due care, especially in the vicinity of padmount substations, pole mounted substations, pole mounted switches, transmission poles and towers.
- Endeavour Energy plans **do not** show any underground customer service mains or information relating to service mains within private property.
- Asbestos or asbestos-containing material may be present on or near Endeavour Energy's underground assets.
- Organo-Chloride Pesticides (OCP) may be present in some sub-transmission trenches.
- All plans must be printed and made available at the worksite where excavation is to be undertaken. Plans must be reviewed and understood by the crew on site prior to commencing excavation.

INFORMATION PROVIDED BY ENDEAVOUR ENERGY

- Any plans provided pursuant to this service are intended to show the approximate location of underground assets relative to road boundaries, property fences and other structures at the time of installation.
- Depth of underground assets may vary significantly from information provided on plans as a result of changes to road, footpath or surface levels subsequent to installation.
- Such plans have been prepared solely for use by Endeavour Energy staff for design, construction and maintenance purposes.
- All enquiry details and results are kept in a register.

DISCLAIMER

Whilst Endeavour Energy has taken all reasonable steps to ensure that the information contained in the plans is as accurate as possible it will accept no liability for inaccuracies in the information shown on such plans.

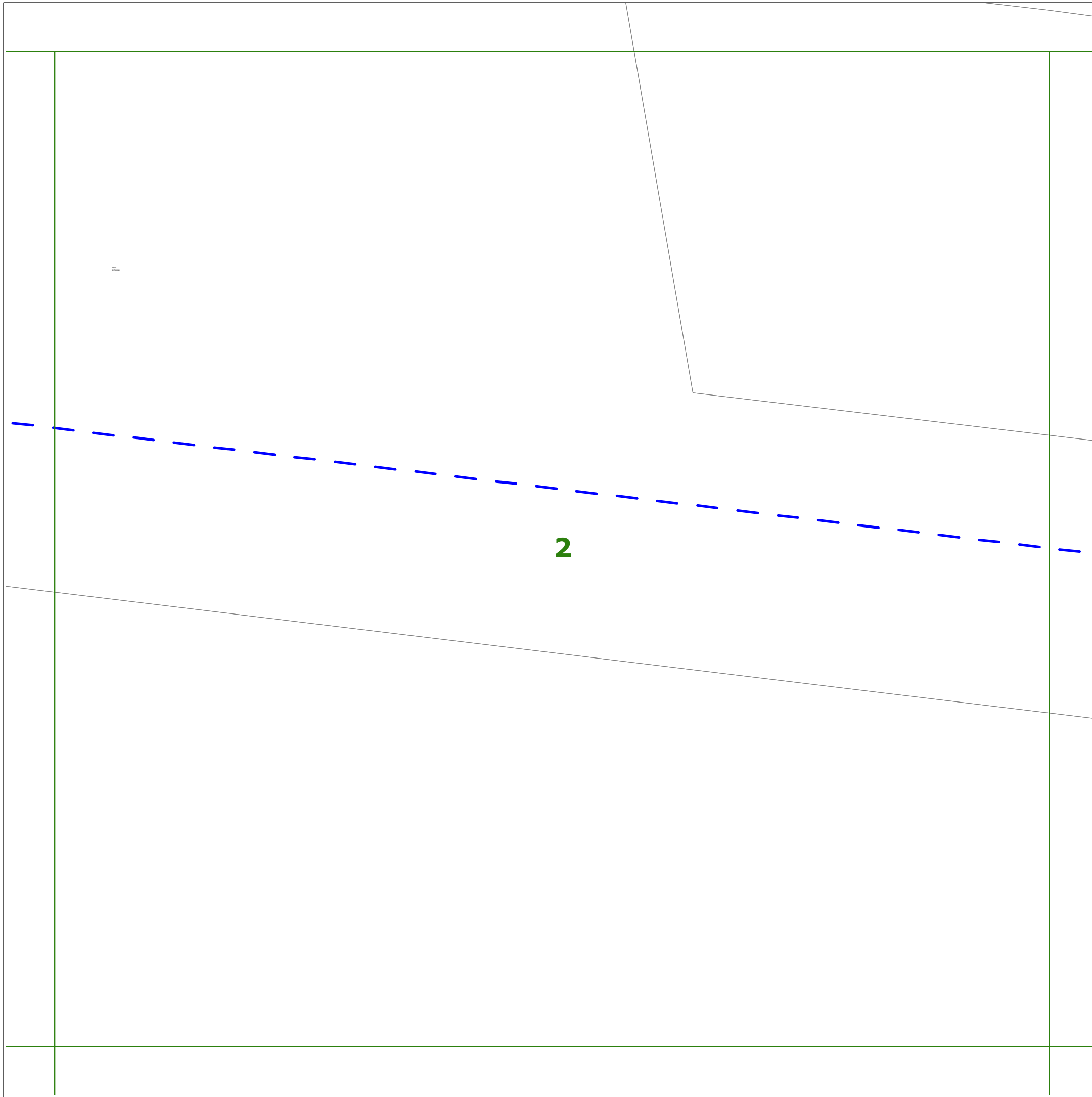
LEGEND

- or ■ Street light column
- ▭ Padmount substation
- or ■ Overground pillar (O.G.Box)
- ▭ Underground pit
- Duct run
- Cable run
- ⊙ Typical duct section
- ▲ Asbestos warning



NOT TO SCALE

DBYD Sequence No.:	98922741
Issued Date:	22/06/2020



WARNING

- **All electrical apparatus shall be regarded as live until proved de-energised.** Contact with live electrical apparatus will cause severe injury or death.
- In accordance with the *Electricity Supply Act 1995*, you are obliged to report any damage to Endeavour Energy Assets immediately by calling **131 003**.
- The customer must obtain a new set of plans from Endeavour Energy if work has not been started or completed within twenty (20) working days of the original plan issue date.
- The customer must contact Endeavour Energy if any of the plans provided have blank pages, as some underground asset information may be incomplete.
- Endeavour Energy underground earth grids may exist and their location **may not** be shown on plans. Persons excavating are expected to exercise all due care, especially in the vicinity of padmount substations, pole mounted substations, pole mounted switches, transmission poles and towers.
- Endeavour Energy plans **do not** show any underground customer service mains or information relating to service mains within private property.
- Asbestos or asbestos-containing material may be present on or near Endeavour Energy's underground assets.
- Organo-Chloride Pesticides (OCP) may be present in some sub-transmission trenches.
- All plans must be printed and made available at the worksite where excavation is to be undertaken. Plans must be reviewed and understood by the crew on site prior to commencing excavation.

INFORMATION PROVIDED BY ENDEAVOUR ENERGY

- Any plans provided pursuant to this service are intended to show the approximate location of underground assets relative to road boundaries, property fences and other structures at the time of installation.
- Depth of underground assets may vary significantly from information provided on plans as a result of changes to road, footpath or surface levels subsequent to installation.
- Such plans have been prepared solely for use by Endeavour Energy staff for design, construction and maintenance purposes.
- All enquiry details and results are kept in a register.

DISCLAIMER

Whilst Endeavour Energy has taken all reasonable steps to ensure that the information contained in the plans is as accurate as possible it will accept no liability for inaccuracies in the information shown on such plans.

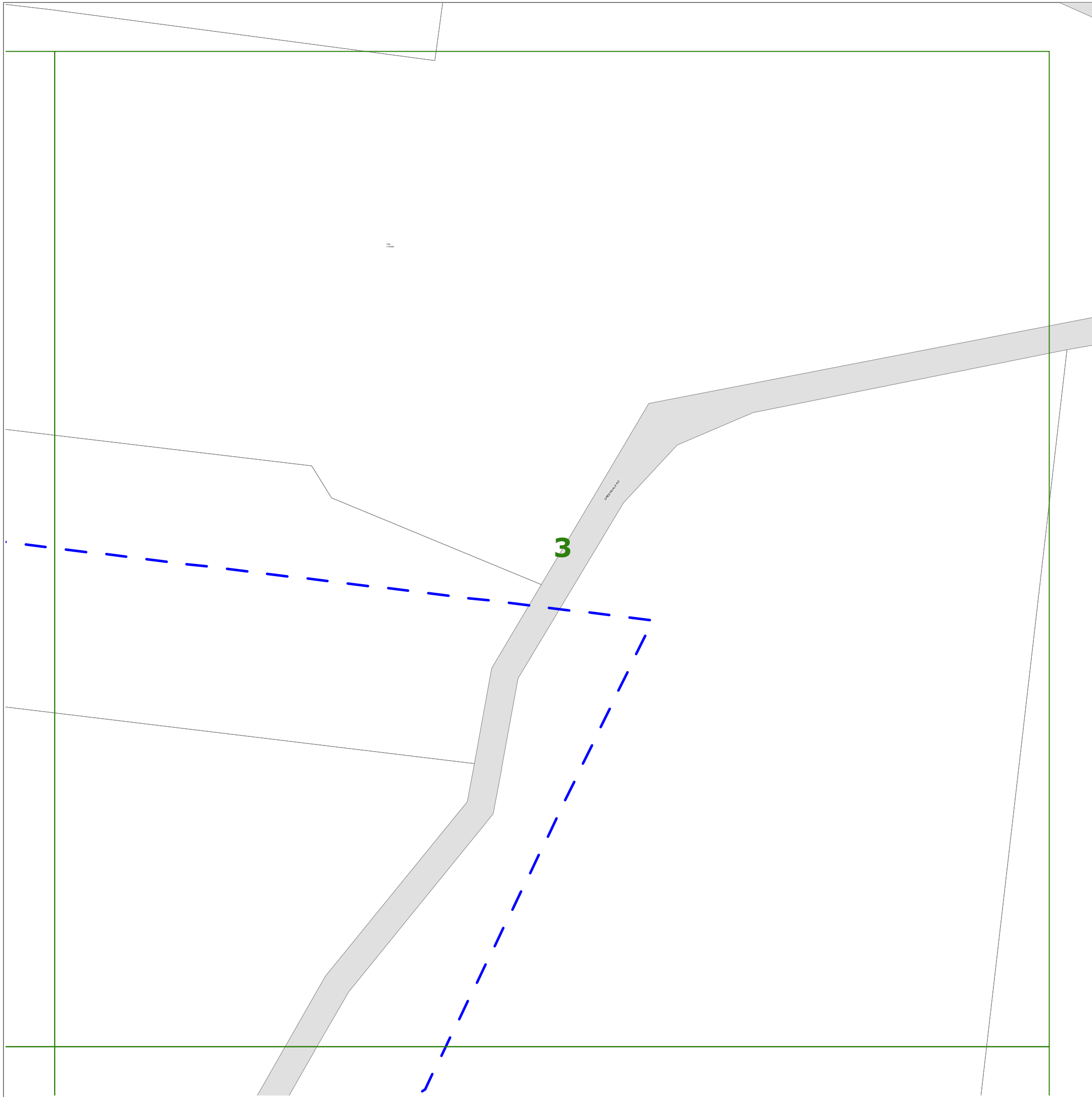
LEGEND

- or ■ Street light column
- ▭ Padmount substation
- or ■ Overground pillar (O.G.Box)
- ▭ Underground pit
- ▬ Duct run
- ▬ Cable run
- ⊙ Typical duct section
- ▲ Asbestos warning



NOT TO SCALE

DBYD Sequence No.:	98922741
Issued Date:	22/06/2020



WARNING

- **All electrical apparatus shall be regarded as live until proved de-energised.** Contact with live electrical apparatus will cause severe injury or death.
- In accordance with the *Electricity Supply Act 1995*, you are obliged to report any damage to Endeavour Energy Assets immediately by calling **131 003**.
- The customer must obtain a new set of plans from Endeavour Energy if work has not been started or completed within twenty (20) working days of the original plan issue date.
- The customer must contact Endeavour Energy if any of the plans provided have blank pages, as some underground asset information may be incomplete.
- Endeavour Energy underground earth grids may exist and their location **may not** be shown on plans. Persons excavating are expected to exercise all due care, especially in the vicinity of padmount substations, pole mounted substations, pole mounted switches, transmission poles and towers.
- Endeavour Energy plans **do not** show any underground customer service mains or information relating to service mains within private property.
- Asbestos or asbestos-containing material may be present on or near Endeavour Energy's underground assets.
- Organo-Chloride Pesticides (OCP) may be present in some sub-transmission trenches.
- All plans must be printed and made available at the worksite where excavation is to be undertaken. Plans must be reviewed and understood by the crew on site prior to commencing excavation.

INFORMATION PROVIDED BY ENDEAVOUR ENERGY

- Any plans provided pursuant to this service are intended to show the approximate location of underground assets relative to road boundaries, property fences and other structures at the time of installation.
- Depth of underground assets may vary significantly from information provided on plans as a result of changes to road, footpath or surface levels subsequent to installation.
- Such plans have been prepared solely for use by Endeavour Energy staff for design, construction and maintenance purposes.
- All enquiry details and results are kept in a register.

DISCLAIMER

Whilst Endeavour Energy has taken all reasonable steps to ensure that the information contained in the plans is as accurate as possible it will accept no liability for inaccuracies in the information shown on such plans.

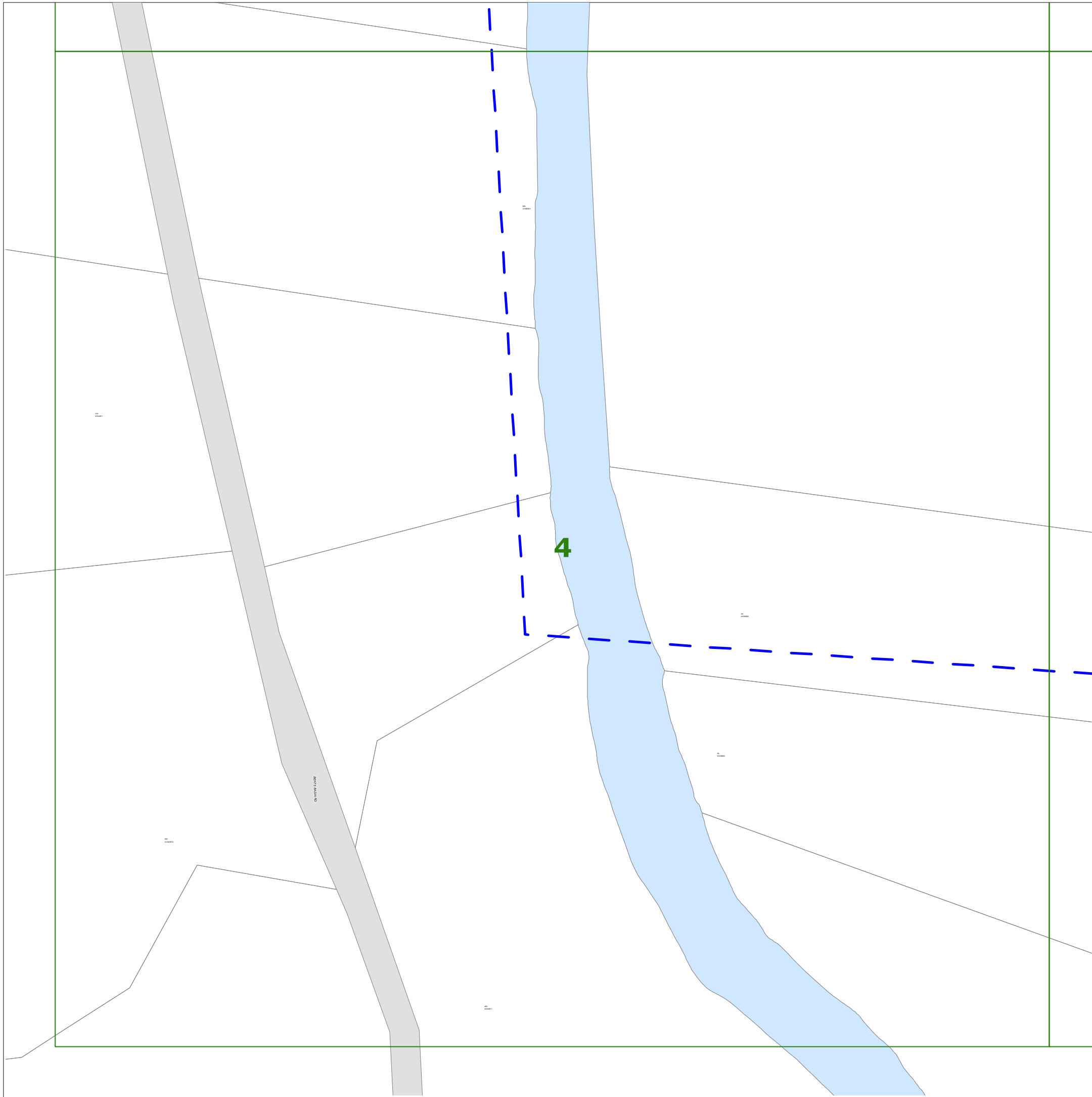
LEGEND

- OR ■ Street light column
- ▭ Padmount substation
- OR ■ Overground pillar (O.G.Box)
- ▭ Underground pit
- ▬ Duct run
- ▬ Cable run
- ⊙ Typical duct section
- ▲ Asbestos warning



NOT TO SCALE

DBYD Sequence No.:	98922741
Issued Date:	22/06/2020



WARNING

- **All electrical apparatus shall be regarded as live until proved de-energised.** Contact with live electrical apparatus will cause severe injury or death.
- In accordance with the *Electricity Supply Act 1995*, you are obliged to report any damage to Endeavour Energy Assets immediately by calling **131 003**.
- The customer must obtain a new set of plans from Endeavour Energy if work has not been started or completed within twenty (20) working days of the original plan issue date.
- The customer must contact Endeavour Energy if any of the plans provided have blank pages, as some underground asset information may be incomplete.
- Endeavour Energy underground earth grids may exist and their location **may not** be shown on plans. Persons excavating are expected to exercise all due care, especially in the vicinity of padmount substations, pole mounted substations, pole mounted switches, transmission poles and towers.
- Endeavour Energy plans **do not** show any underground customer service mains or information relating to service mains within private property.
- Asbestos or asbestos-containing material may be present on or near Endeavour Energy's underground assets.
- Organo-Chloride Pesticides (OCP) may be present in some sub-transmission trenches.
- All plans must be printed and made available at the worksite where excavation is to be undertaken. Plans must be reviewed and understood by the crew on site prior to commencing excavation.

INFORMATION PROVIDED BY ENDEAVOUR ENERGY

- Any plans provided pursuant to this service are intended to show the approximate location of underground assets relative to road boundaries, property fences and other structures at the time of installation.
- Depth of underground assets may vary significantly from information provided on plans as a result of changes to road, footpath or surface levels subsequent to installation.
- Such plans have been prepared solely for use by Endeavour Energy staff for design, construction and maintenance purposes.
- All enquiry details and results are kept in a register.

DISCLAIMER

Whilst Endeavour Energy has taken all reasonable steps to ensure that the information contained in the plans is as accurate as possible it will accept no liability for inaccuracies in the information shown on such plans.

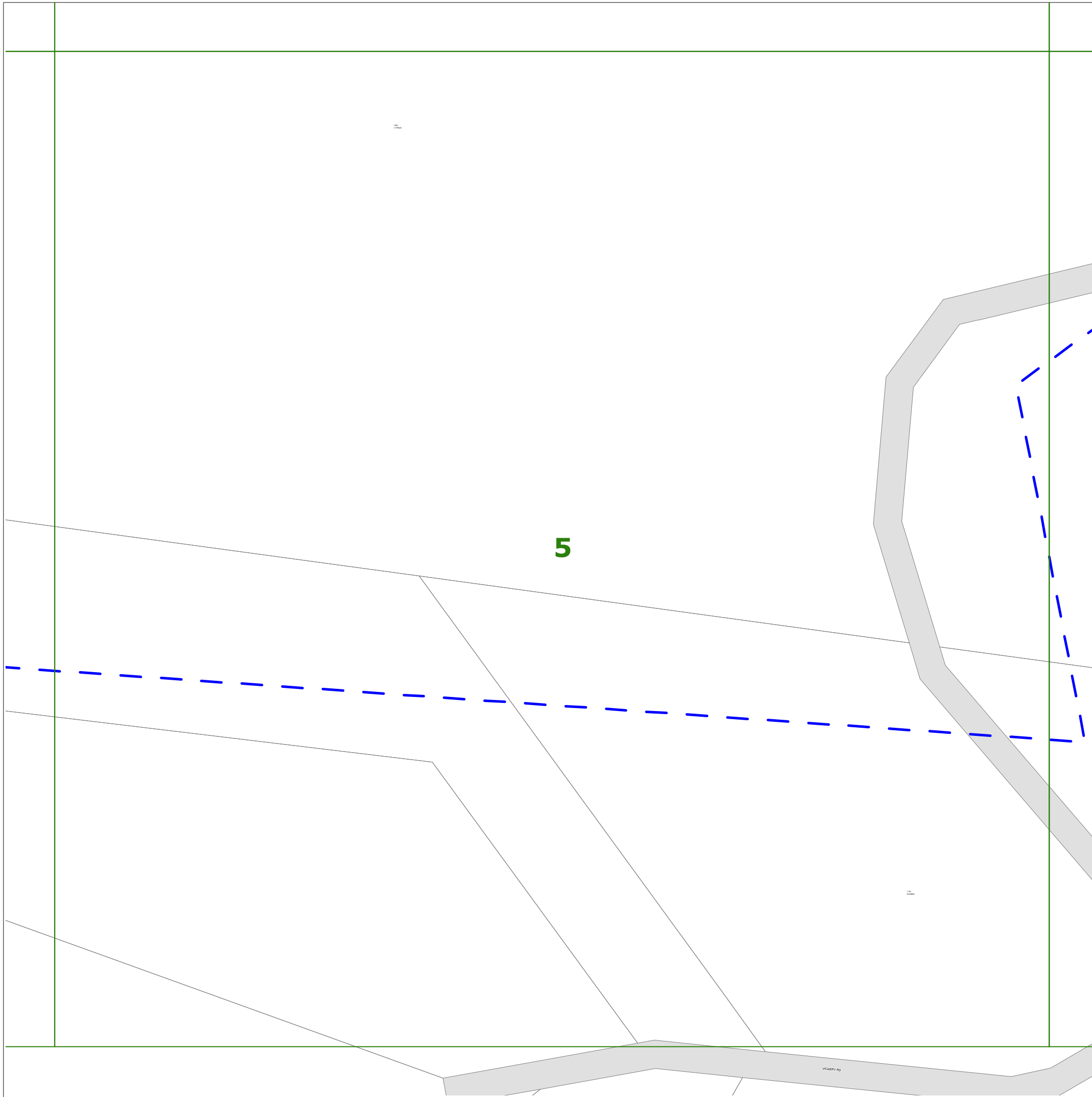
LEGEND

- OR ■ Street light column
- ▭ Padmount substation
- OR ■ Overground pillar (O.G.Box)
- ▭ Underground pit
- ▬ Duct run
- ▬ Cable run
- ⊙ Typical duct section
- ▲ Asbestos warning



NOT TO SCALE

DBYD Sequence No.:	98922741
Issued Date:	22/06/2020



WARNING

- **All electrical apparatus shall be regarded as live until proved de-energised.** Contact with live electrical apparatus will cause severe injury or death.
- In accordance with the *Electricity Supply Act 1995*, you are obliged to report any damage to Endeavour Energy Assets immediately by calling **131 003**.
- The customer must obtain a new set of plans from Endeavour Energy if work has not been started or completed within twenty (20) working days of the original plan issue date.
- The customer must contact Endeavour Energy if any of the plans provided have blank pages, as some underground asset information may be incomplete.
- Endeavour Energy underground earth grids may exist and their location **may not** be shown on plans. Persons excavating are expected to exercise all due care, especially in the vicinity of padmount substations, pole mounted substations, pole mounted switches, transmission poles and towers.
- Endeavour Energy plans **do not** show any underground customer service mains or information relating to service mains within private property.
- Asbestos or asbestos-containing material may be present on or near Endeavour Energy's underground assets.
- Organo-Chloride Pesticides (OCP) may be present in some sub-transmission trenches.
- All plans must be printed and made available at the worksite where excavation is to be undertaken. Plans must be reviewed and understood by the crew on site prior to commencing excavation.

INFORMATION PROVIDED BY ENDEAVOUR ENERGY

- Any plans provided pursuant to this service are intended to show the approximate location of underground assets relative to road boundaries, property fences and other structures at the time of installation.
- Depth of underground assets may vary significantly from information provided on plans as a result of changes to road, footpath or surface levels subsequent to installation.
- Such plans have been prepared solely for use by Endeavour Energy staff for design, construction and maintenance purposes.
- All enquiry details and results are kept in a register.

DISCLAIMER

Whilst Endeavour Energy has taken all reasonable steps to ensure that the information contained in the plans is as accurate as possible it will accept no liability for inaccuracies in the information shown on such plans.

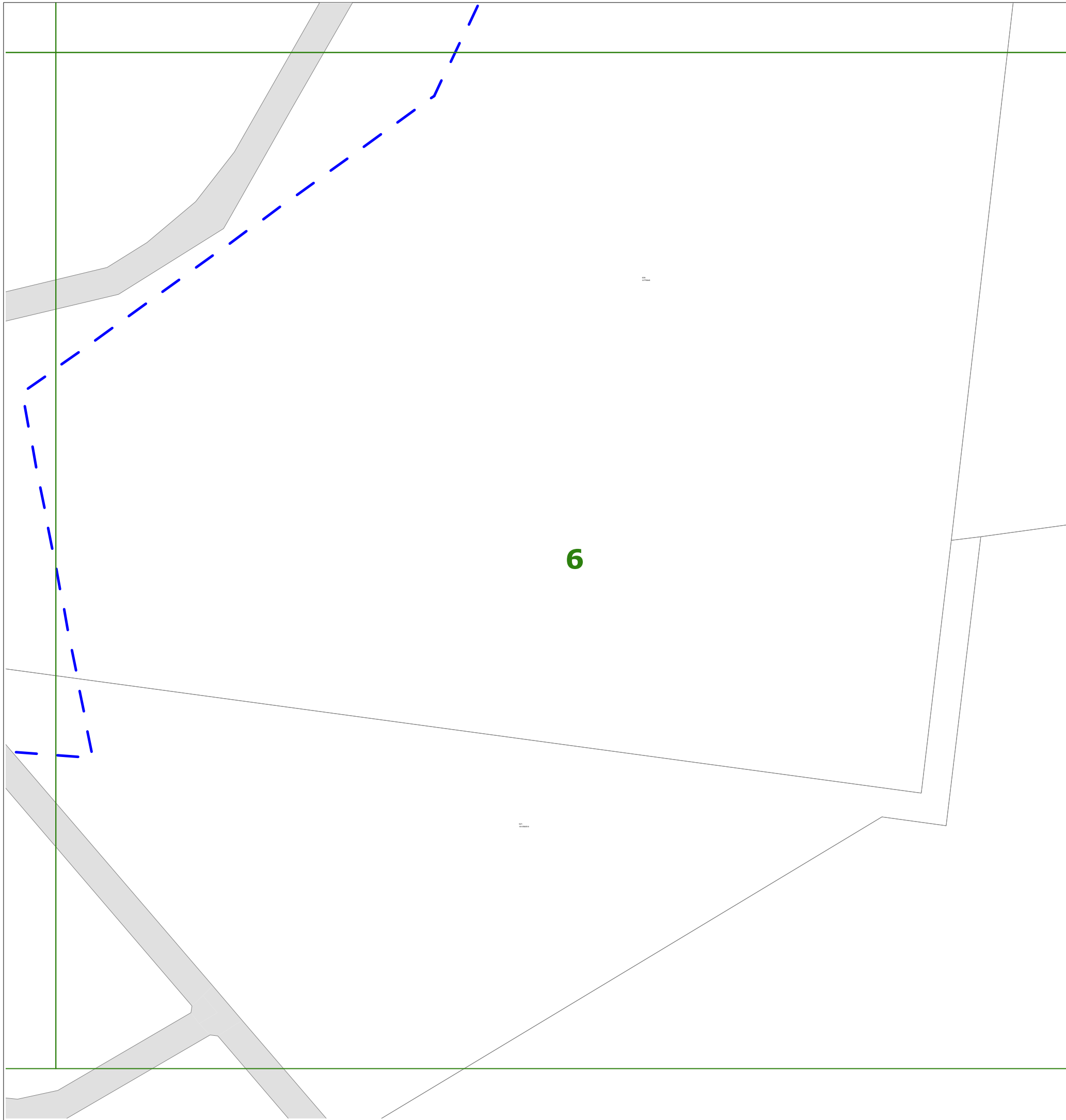
LEGEND

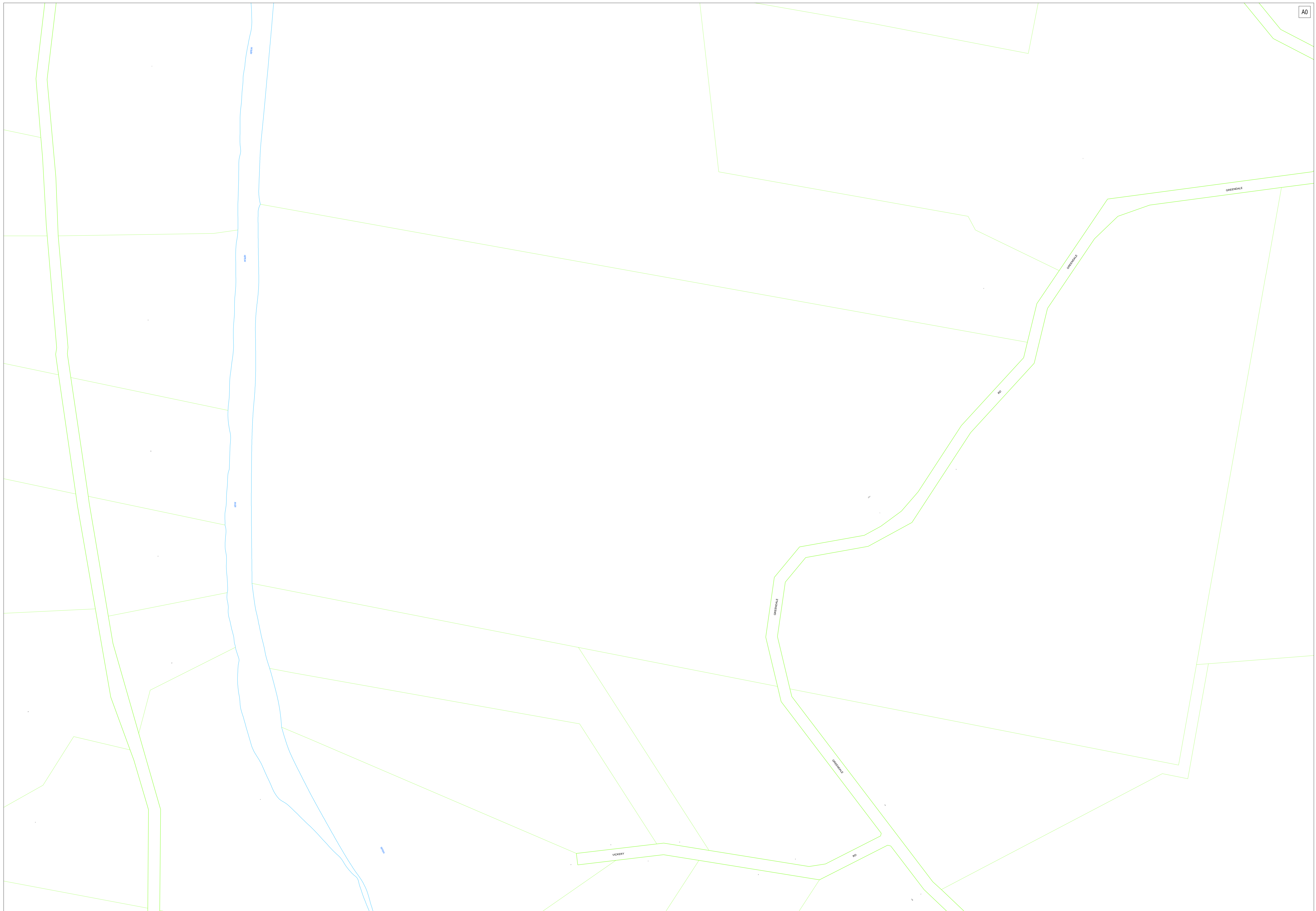
- or ■ Street light column
- ▭ Padmount substation
- or ■ Overground pillar (O.G.Box)
- ▭ Underground pit
- Duct run
- Cable run
- ⊙ Typical duct section
- ▲ Asbestos warning

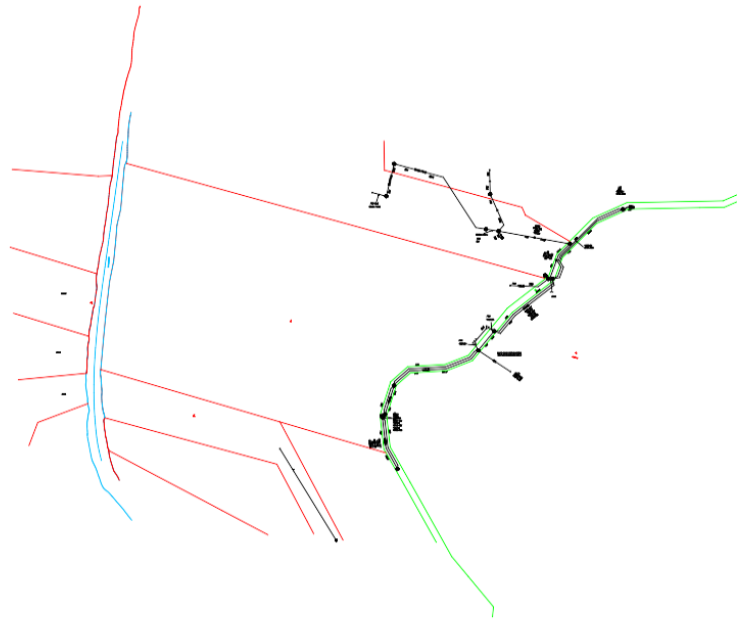


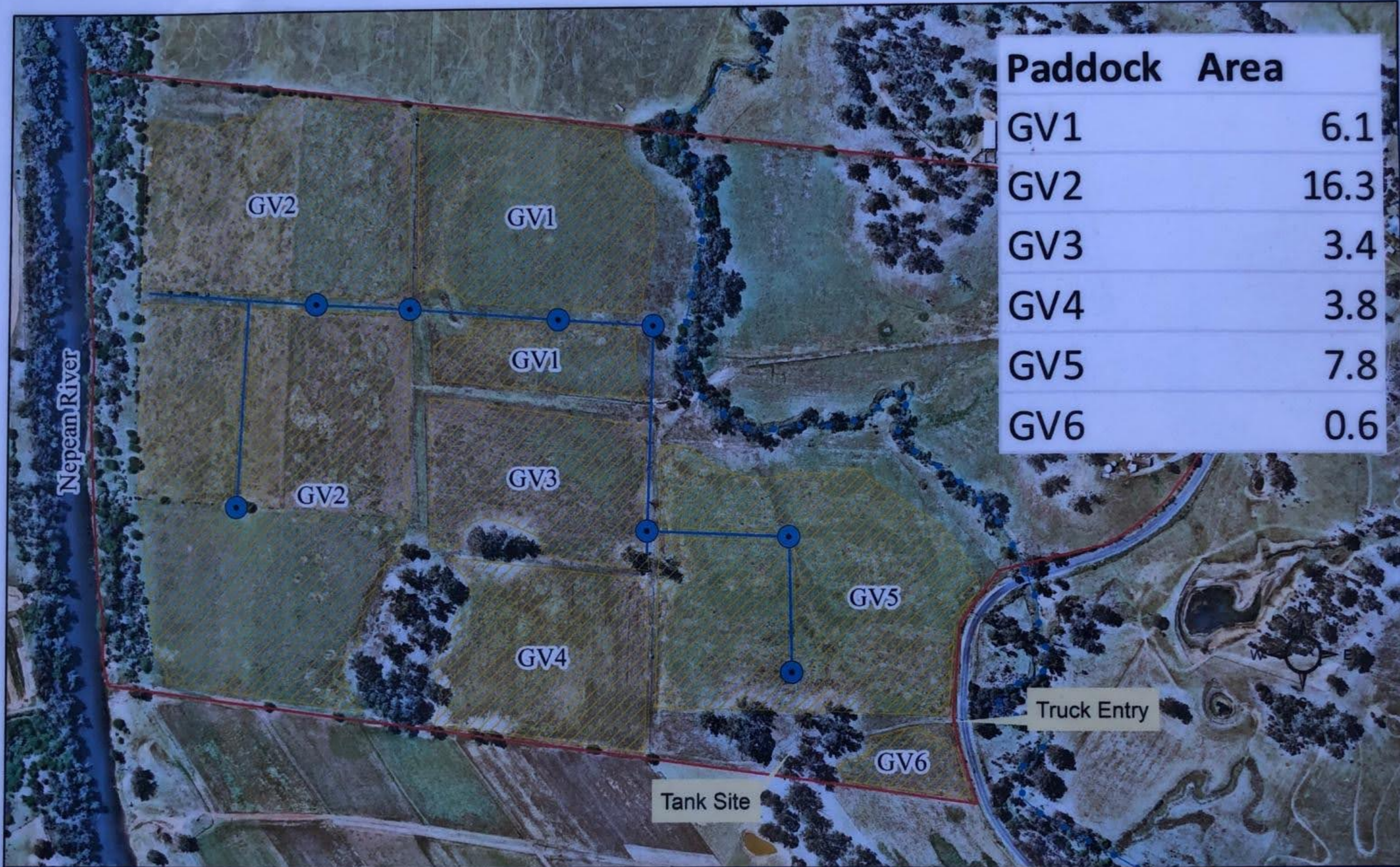
NOT TO SCALE

DBYD Sequence No.:	98922741
Issued Date:	22/06/2020







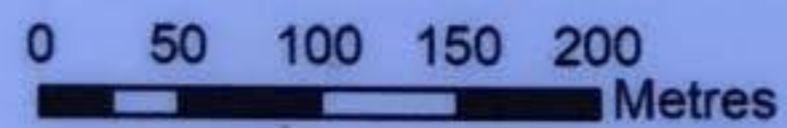


Paddock	Area
GV1	6.1
GV2	16.3
GV3	3.4
GV4	3.8
GV5	7.8
GV6	0.6

Glen View - 1290 Greendale Rd, Wallacia



Loop Organics
 P.O. Box 259
 Berry, NSW, 2535.
 Ph: (02) 4464 1800



Map Details

File name: Glen View Property
 Date: 08/05/2020
 Datum: WGS 1984
 Author: Luke Hams
 Projection: Mercator Auxiliary Sphere

Legend

- Hydrant
- Irrigation Line
- Glen View Paddocks
- Duncans Creek
- Property Boundary

Appendix D

Title Search Results



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

Address: - 1290 Greendale Park Road, Wallacia

Description: - Lot 1290 D.P. 776645

<u>Date of Acquisition and term held</u>	<u>Registered Proprietor(s) & Occupations where available</u>	<u>Reference to Title at Acquisition and sale</u>
28.12.1928 (1928 to 1952)	Greendale Limited	Book 1544 No. 706 Now Vol 4510 Fol 150
22.08.1952	Surrender to the Crown	
05.09.1952 (1952 to 1971)	Leslie King Wines	Crown Tenure Closer Settlement Lease 1952/2 Penrith Then Crown Tenure Settlement Purchase 1970/1 Penrith Now Vol 11444 Fol 153
02.09.1971 (1971 to 1979)	Dennis Edwynne Robinson (Billiard Room Proprietor)	Vol 11444 Fol 153
12.12.1979 (1979 to 2000)	Thelma May Robinson (Home Duties) Now Thelma May Verran	Vol 11444 Fol 153 Now 1/776645
19.06.2000 (2000 to 2018)	Paul Galea Mary Galea	1/776645
20.08.2018 (2018 to date)	# Soukutsu Pty Ltd	1/776645

Denotes current registered proprietor

Easements: -

- 26.07.1988 (D.P. 776645) Easement for Underground Water Supply and Pipeline 4 wide

Leases: -

- 24.06.1980 to Donald Moss Fisher (Farmer) & Alice Eileen Maria Fisher (Married Woman) – expires 30.06.1982
- 10.05.1995 (O 219199) – easement expired, not investigated
- 13.03.2000 (6635484) – easement expired, not investigated
- 06.12.2005 (AB 963737) – easement expired, not investigated
- 15.12.2010 (AF 766005) – easement expired, not investigated

Yours Sincerely,
Mark Groll
28 June 2020

PLAN FORM 2

SIGNATURE AND SEALS ONLY.

Wallacia

AS NOTICED UNDER GREENDALE RD. T. 603-110, WESTPAC BANKING CORPORATION HEREBY CONSENTS TO THE WITHIN PLAN OF SUBDIVISION.

DATE: 26/06/1988

WESPAC BANKING CORPORATION
 100 Market Street, Sydney, N.S.W. 2000
 Attention: Mr. J. J. ...
 Tel: 277 1111

Crown Lands Office Approval

PLAN APPROVED: Authorized Officer

Land District: ...
 Field Book: ...

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 348 of the Metropolitan Water, Sewerage and Drainage Act, 1954, as amended, if that District Water, Sewerage, and Drainage Act, 1954, as amended, have been complied with by the applicant in relation to the proposed SUBDIVISION.
 Date: 26/06/1988
 (Signature): ...
 Council File No.: 362-66

SCHEDULE OF EASEMENT BOUNDARIES

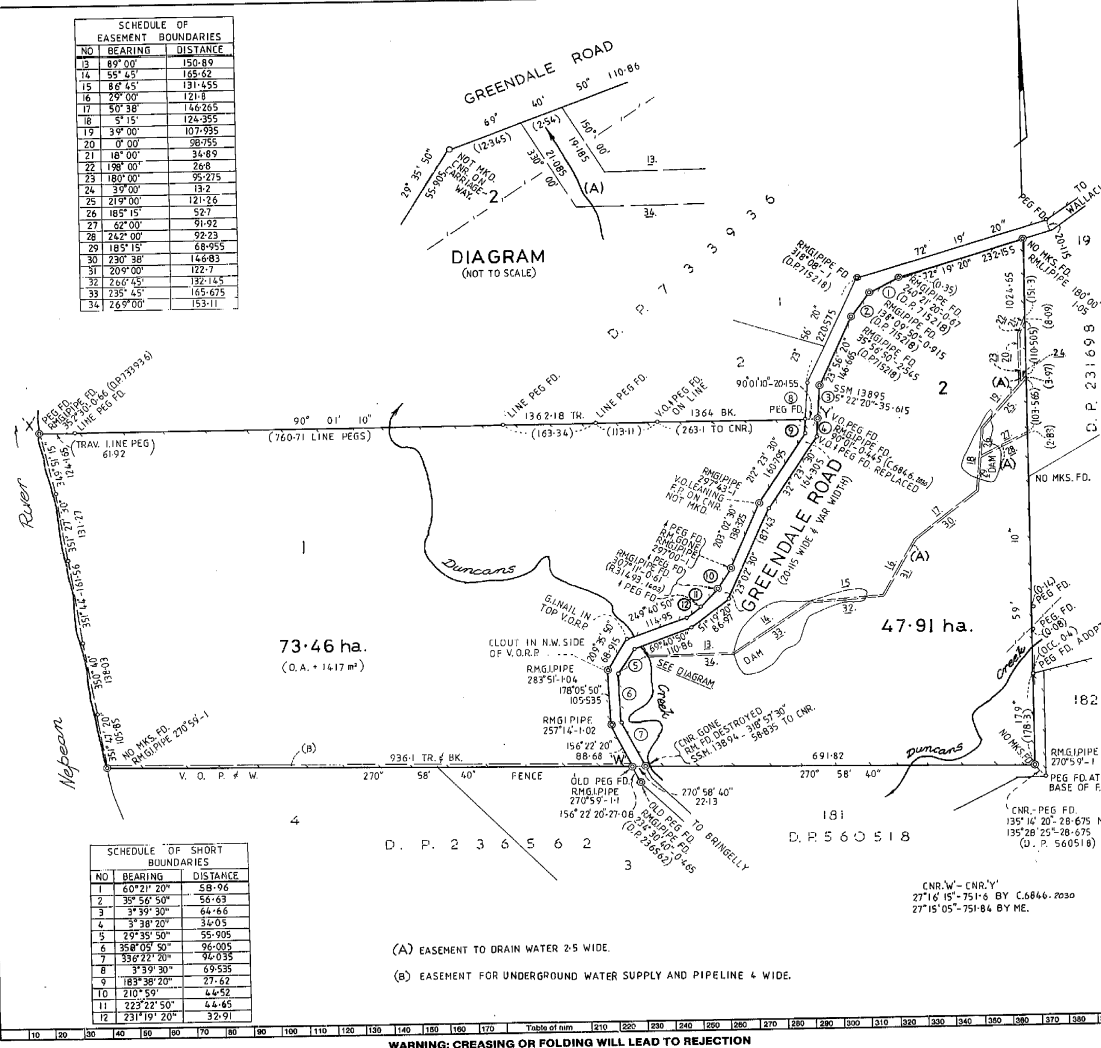
NO	BEARING	DISTANCE
13	89° 00'	150.89
14	55° 24'	165.52
15	8° 45'	131.455
16	29° 00'	121.8
17	50° 38'	146.265
18	9° 15'	124.355
19	3° 00'	107.955
20	0° 00'	98.755
21	18° 00'	34.89
22	198° 00'	2.6
23	180° 00'	99.215
24	30° 00'	13.2
25	219° 00'	121.735
26	185° 15'	52.7
27	62° 00'	91.92
28	242° 00'	92.23
29	185° 15'	69.955
30	730° 38'	14.683
31	209° 00'	122.7
32	260° 45'	132.145
33	738° 45'	165.675
34	269° 00'	153.11

SCHEDULE OF SHORT BOUNDARIES

NO	BEARING	DISTANCE
1	60° 21' 20"	58.96
2	35° 50' 50"	58.63
3	3° 39' 30"	64.66
4	3° 38' 20"	34.05
5	29° 35' 50"	55.905
6	258° 09' 50"	96.005
7	312° 22' 20"	26.035
8	3° 39' 30"	69.535
9	183° 38' 20"	27.62
10	210° 50'	44.52
11	223° 22' 50"	44.65
12	231° 19' 20"	32.91

Plan Drawing only to appear in this space

OFFICE USE ONLY



DP 776645

Registered: 26-7-1988

G.A. NO 1988 / 24 of 3-6-1988

Title System: TORRENCE

Purpose: SUBDIVISION

Ref. Map: PH CUMBERLAND 7
 U6445-4#7

Last Plan: C 6846 2050

PLAN OF SUBDIVISION OF PT. LOT 45 IN D.P.752016

Lengths are in metres. Reduction Ratio 1:5000

Mun./Shire: LIVERPOOL CITY

Locality: GREENDALE BRINGELLY

County: CUMBERLAND

This is sheet 4 of my plan in (Delete if inapplicable) sheets.

1. JOHN DAVID BLACK of R.O. BOX 51, JANNAL, 2276, is a surveyor registered under the Surveyors Act, 1929, as amended, hereby certifies that the survey represented in this plan is accurate and has been made in accordance with the Survey Practice Regulations, 1958 and any special requirements of the Department of Lands, and was completed on 30th OCTOBER, 1988.

Signature: [Signature]
 Surveyor registered under Surveyors Act, 1929, as amended. Datum Line of Assumed "X" - "Y" Mean Date of Survey.

Plans used in preparation of survey/compilation:
 C.6846.2050 D.P. 60518
 M.14361 Sy. D.P. 715218
 R.31493.1603 D.P. 733936
 D.P. 231698
 D.P. 236562

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

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

- EASEMENT TO DRAIN WATER 2.5 WIDE.
- EASEMENT FOR UNDERGROUND WATER SUPPLY AND PIPELINE 4 WIDE.

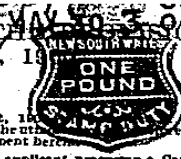
AS SET OUT IN THE ACCOMPANYING INSTRUMENT.

WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION

This negative is a photograph made as a permanent record of a document in the custody of the Registrar General this day 27th July, 1988

10 20 30 40 50 60 70 Table of mm 110 120 130 140

APPLICATION TO BRING LANDS UNDER THE PROVISIONS OF THE REAL PROPERTY ACT, 1900
 IN SIMPLE CASES



Fees: —
 Assurance ... 549-5
 Lodgment ... 10
 Certificate ... 15
 Advertising ... 110
 Office Copy Plan ... 5
 Total £ 58-9-5
 30 5/19



NOTICE.—Applicants are reminded that by virtue of the provisions of the Conveyancing Act, 1919, and the Real Property Act, 1900, that any applicant procuring a Certificate through any fraud, error, omission, misrepresentation, or misdescription will, notwithstanding any provision to the contrary, remain liable for damages to any person thereby prejudiced. And any person who fraudulently procures, or procures to be procured, or is privy to the fraudulent procurement of any Certificate of Title, is declared guilty of a felony not exceeding £500, or imprisonment not exceeding three years; and any Certificate thereby procured is rendered void as between all parties or privies to the fraud.

Here state the full name and surname of the applicant, with residence and occupation, in full.
 I am ...
 If there be any rights of way or other easements affecting the premises the particulars should be stated.
 If the space for description be insufficient, it may be completed by annexure, which must be identified as part of the declaration.
 The full true value should be stated.
 State whether the land is or is not under any tenancy or lease.
 Insert allotment with reference to the plan of the land on which the land is situated.
 Name of the land.

I, **WILLIAM GEORGE MATCHETT** of "Borambil" Redmyre Road Strathfield in the State of New South Wales Grazier the duly constituted Attorney of Greendale Limited whose registered Office is at Strathfield aforesaid do solemnly and sincerely declare that the said Greendale Limited is seized for an Estate in fee simple of the land delineated on the Plan annexed hereto and marked "A" situated in the Parish of Bringelly and Cook County of Cumberland and State of New South Wales comprising Five thousand three hundred and fifty (5350) acres being Portions 6 and 9 and part of Portions 2 5 7 8 10 and 11 in the Parish of Bringelly and also comprising Two hundred and eighty five (285) acres being part of Portion 14 Parish of Bringelly and part of Portion 6 Parish of Cook and also comprising Eight acres one rood thirtyeight perches (8 acs. 1 rd. 38 pchs.) being part of Portion 11 Parish of Bringelly aforesaid which land including all improvements is of the value of Twentysix thousand One hundred and forty five pounds (£26,145-0-0) (Valuer General's Valuation) and being the whole or part of the land hereinafter mentioned comprised in the following Crown Grants under the hand of the Governor of the Colony:—

Part or whole of Grant.	Date of Grant.	Area.	Grantee.	Parish.
Whole (Pn. 6 P ^h)	25th August 1812	700	George Thomas Palmer	Bringelly
Part Do. (Pn. 8 P ^h)	25th August 1812	550	Samuel Fowler	Do.
Whole Do. (Pn. 5 P ^h)	1st January 1811	500	Mary Birch	Do.
Part (Pn. 2 P ^h)	8th October 1816	1200	D'Arcy Wentworth	Do.
20-6-1816 Do. (Pn. 5 P ^h)	1st January 1811	700	William Gore	Do.
Do. (Pn. 7 P ^h)	20th June 1816-1500		John Piper	Do.
Do. (Pn. 10 P ^h)	20th June 1816-1000		D'Arcy Wentworth	Do.
Do. (Pn. 11 P ^h)	1st January 1811-1265		Ellis Bent	Do.
Do. (Pn. 14 P ^h)	10th June 1815-800		Ellis Bent	Do.
Do. (Pn. 6 P ^h)	22nd August 1812-700		Edward Smith Hall	Cook

And I further declare, that we verily believe there does not exist any lease or agreement for lease of the said land, for any term exceeding a tenancy for one year, or from year to year, 25th

Also, that there does not exist any mortgage, lien, writ of execution, charge or encumbrance, will or settlement, or any deed or writing, contract, or dealing (other than such lease or tenancy as aforesaid), giving any right, claim, or interest in or to the said land, or any part thereof, to any other person than Greendale Limited

Certs (3) of Title issued
 45207oc 149
 45207oc 151
 Greendale Limited's Estate or Interest therein, and that the said land is now in the occupation of Greendale Limited by the Company Overseer Harry Crystal who has the right of residence whilst in the Company's employ.

and that the owners and occupiers of adjacent lands are as follows:—

State whether on North, South, East, or West.	Name.	State whether owner or occupier.	Address.
North	R. Graham ✓	Owner & Occupier	Bringelly
	Miss Peterson ✓	Do.	Do.
	C. Kerridge ✓	Owner	St. Marys
	J. Vickery ✓	Occupier	Bringelly
	S. C. Green ✓	Owner	14 St. Thomas Street, Waverley.
	Mrs. A. Hayman ✓	Do.	9 Ocean Street, Bondi.
	J. P. Green ✓	Do.	Trellawarren, Dick Street, Henley.
	W. P. Welch ✓	Do.	Raglan Street, Mosman.
	Miss E. Allen ✓	Do.	37 Guilford Road, Mt. Lawley Western Australia.
	Mrs. E. Bray ✓	Owner & Occupier	Bringelly
	F. C. Emery ✓	Do.	Do.
	A. Booth ✓	Do.	Do.
	S. H. Wilmington ✓	Do.	Do.
	J. Lovat ✓	Do.	Do.
West	F. S. Leggo ✓	Do.	Bringelly.
	John Strang ✓	Do.	Castle Hill.
South	W. C. Wentworth ✓	Owner	C/- Norton Smith & Co., Solicitors, Hunter Street, Sydney.
	J. Auld ✓	Occupier	Bringelly.
	J. A. Vickery ✓	Do.	Do.
	J. T. & M. Holtz ✓	Do.	Do.
East	B. P. Pye ✓	Owner & Occupier	Do.
	C. Vickery ✓	Do.	Do.
	G. W. Vickery ✓	Do.	Do.
	George Maiden ✓	Do.	C/- Asher, Old & Jones, Solicitors, Sydney.

65193B

And ¹ we further declare, that the annexed Schedule, to which ^{my} signature ^{is} affixed, and which is to be taken as part of this Declaration contains a full and correct list of all settlements, deeds, documents, or instruments, maps, plans and papers relating to the land comprised in this application, so far as ^{we} have any means of ascertaining the same, distinguishing such as being in ^{my} possession or under control, are herewith lodged and indicating where or with whom, so far as known to ^{me} us, any others thereof are deposited; Also, there does not exist any fact or circumstance whatever material to the title, which is not hereby fully and fairly disclosed to the utmost extent of ^{my} our knowledge, information, and belief; and that there is not, to ^{my} our knowledge and belief, any action or suit pending affecting the said land, nor any person who has or claims any estate, right, title or interest therein, or in any part thereof, otherwise than by virtue and to the extent of some lease or tenancy hereby fully disclosed.

If there be any exception add the words "except as follows" and state necessary particulars.

If made in New South Wales this declaration must be attested by the Registrar-General or Deputy, or by a Notary Public, or by a Justice of the Peace, or Commissioner for Affidavits. If made outside the State it should be made according to the law of the State where made, before a person authorized by that law to take declarations. If the signature be by mark, the attestation must state that the document was read over to the declarant, and that he appeared fully to understand the contents. This applies also to the substituted direction, particularly if a different person be nominated to receive certificate.

And ¹ we make this solemn Declaration, conscientiously believing the same to be true.
 DATED at Sydney this twenty fourth day of May 1929.

(RULE UP ALL BLANKS BEFORE SIGNING.)

Made and subscribed by the abovesigned
 William George Hatchett
 this 24 day of May 1929
 in the presence of
 Garnet W. Henry J.P.

Signature of Applicant *W.G. Hatchett*

*Recd Plan
 (5350 acs)
 30/5/29*

To the Registrar General,—

¹ We WILLIAM GEORGE HATCHETT

the above declarant, do hereby apply to have the land described in

above declaration brought under the provisions of the Real Property Act, and request you to issue the Certificate of Title in the name of Greendale Limited.

DATED at Sydney this 24th day of May 1929.

Witness to Signature—

Garnet W. Henry

(Signature of Applicant) *W.G. Hatchett*

* N.B.—The Schedule below and Certificate indorsed on fourth page should be also signed.

In no case can any alterations, however trifling, be allowed to be made after the application has been once declared, unless all the parties re-sign and re-declare the same. If it is discovered that any alterations are necessary, the applicant may make a statutory declaration setting out in what manner he desires application to be altered, which declaration will then (unless the Registrar General considers that a fresh application ought to be made) be read as one with application.

(RULE UP ALL BLANKS BEFORE SIGNING.)

SCHEDULE REFERRED TO*

(TO BE SIGNED BY APPLICANT IMMEDIATELY BELOW THE LAST DOCUMENT SCHEDULED.)

To include not only Title Deeds, &c., but also Plan, if any, and Surveyor's Declaration verifying same.

* For the particulars which this Schedule must comprise, see concluding part of Declaration, to which particular attention is directed, as any omission or misstatement will render applicant liable to the penalties of false Declaration. Such of the Deeds and Documents as are in applicant's possession or control, must be deposited with the application. Counterpart Leases must be included, but these will be returned, if required. After the issue of the Certificate of Title, attested copies of unregistered documents may be required.

No.	Date.	Nature of Instrument.	Parties.	Registration.		When and by whom Lodged.
				Book.	No.	
DOCUMENTS IN POSSESSION OF APPLICANT.						
1	1928	Abstract of Title - Queensland Trustees Limited and F. A. Mayne to land at Bringelly				
2	25/8/1812	Crown Grant - under hand of Governor of the Colony to Samuel Fowler of 550 acres.				
3	25/8/1812	Attested copy Crown Grant to George Thomas Palmer under the hand of the Governor of the Colony to 700 acres in the District of Bringelly Registered Number 3 Page 36.				

Should any transaction affecting the land in this application be entered into or any alterations in the building or fences be made subsequent to the date of the application, but prior to the issue of the Certificate of Title, the Registrar General should be informed immediately, and all documents evidencing such transaction should be lodged.

SCHEDULE REFERRED TO - (Continued).

Date.	Nature of instrument	Parties.	When & by whom lodged.
22/6/1928	- Copy Decretal Order made in the Supreme Court of New South Wales in Equity in matter No. 5512 of 1929 Mayne & others v Queensland Trustees Limited & others.		
28/12/1928	- Conveyance - Queensland Trustees Limited and Francis Arabin Mayne Trustees of the Will of John Thomas Colburn Mayne the Younger and also as Trustee of the Will of John Thomas Colburn Mayne the Elder to Greendale Limited Registered Number 706 Book 1544.		
15/9/1928	- Statutory Declaration by Horace Ramsay Mayne.		
22/10/1928	- Statutory Declaration by Clifford Simeon Woodhouse.		
<u>DOCUMENTS IN POSSESSION OF MESSRS. P. V. McCULLOCH & BUGGY, SOLICITORS, SYDNEY.</u>			
10/6/1815	- Grant from the Crown to Ellis Bent of 800 acres situated in the District of Bringelly registered in the Secretary's office Page 90, No. 4 Register, Sydney, on 10th April 1817.		<i>P. V. McCulloch & Buggy</i> 28 AUG 1929
20/6/1816	- Grant from the Crown to William Gore of 700 acres in the District of Bringelly registered in the Secretary's Office Page 163 Number 4 Register Sydney on 11th September 1816.		
1/1/1811	- Copy Grant to Mary Birch of 500 acres situated in the District of Bringelly.		
5/10/1819	- Conveyance - John Birch to D'Arcy Wentworth.		
8/10/1816	- Grant from the Crown to D'Arcy Wentworth of 1200 acres in the District of Bringelly registered in the Secretary's Office Page 167 Number 4 Register on the 17th June 1817.		
16/6/1845	- Release and Disentailing Deed between William Charles Wentworth first part, George Wentworth and Ann Elizabeth his wife second part and Robert Downes third part Registered Number 280 Book 9.		
5/12/1851	- Disentailing Deed between William Charles Wentworth of the first part Gilbert Wright of the second part and William Charles Wentworth of the third part registered Number 389 Book 24.		
1/1/1811	- Copy Grant from the Crown to Ellis Bent of 1265 acres of land in the District of Bringelly to be known by the name of Moulsey Registered Number 3 Page 17.		
20/6/1816	- Copy Grant from the Crown to D'Arcy Wentworth of 1000 acres in the District of Bringelly Registered Number 4 Page 161.		
20/6/1816	- Copy Grant from the Crown to John Piper of 1500 acres in the District of Bringelly to be known as Bathurst Farm registered Number 4 Page 162.		
23/6/1902	- Conveyance - Fitzwilliam Wentworth to John Thomas Colburn Mayne of Moiety of the said Fitzwilliam Wentworth of 8515 acres situated in the District of Bringelly Number 1 Book 715.		<i>P. V. McCulloch & Buggy</i> 19.9.29.
22/11/1881	- Statutory Declaration by Samuel Jackson.		<i>P. V. McCulloch & Buggy</i> 28 AUG 1929.
7/12/1881	- Statutory Declaration by John Lawson.		
9/12/1881	- Statutory Declaration by Arthur Joseph Liddington.		
21/12/1881	- Statutory Declaration by Henry Tudor Shadforth.		
23/12/1881	- Statutory Declaration by Joseph Ward Lowe.		
7/2/1882	- Statutory Declaration by Charles Edward Jeanneret with the following three Leases annexed.		
1/1/1863	- Lease Sarah Keys to C. E. Jeanneret		
2/1/1864	- Lease William Charles Wentworth and Thomas Alexander Reddall to C. E. Jeanneret.		
1/1/1864	- Lease William Charles Wentworth and Thomas Alexander Reddall to C. E. Jeanneret.		

- (49) 5.3.1924 office copy of will of J.C. Mayne
- (50) 26.8.1924 " " " " J.C. Mayne
- (51) 19-11-28 Receipt for redemption of quitrent on grant to Felix Bent
dated 10/6/1815
- (52) ✓ " " " " " " to Felix Bent
dated 11/1/1811
- (53) ✓ " " " " " " to Mary Bent
dated 11/1/1811
- (54) ✓ " " " " " " to J. Piper
dated 20/6/1816
- (55) ✓ 25.11.1928 Transferred to P.30150 (an. 12/2/30) " " " " to Wacey
Wentworth dated 17/9/1819
- (56) ✓ " " " " " " quit rent on grant to Wacey
Wentworth on 20/6/1816.
- (57) 17-7-29 " " " " " " quit rent on grant to S. J. Palmer
dated 25/9/1812
- (58) ✓ " " " " " " on grant to P. Fowler
dated 25/9/1812
- (59) ✓ " " " " " " on grant to W. Gorey
dated 20/6/1816
- (60) ✓ " " " " " " on grant to Wacey
Wentworth dated 2/10/1816

P.M. McEulloch & Bragg 12/3/30

- (61) Rhine Rate notice No 1278
- (62) 13.5.1930 Statute of W.G. Matchett re addresses
- (63) 1928 Memo & articles of assocn. of Greendale Ltd
- (64) 22.3.1930 Letter, A.R. Parkinson to R.G.
- (65) 22.5.1930 Letter M. P. Lands to Garland, Peaborn & Abbott
- (66) 11.5.1928 Contract for sale to W.G. Matchett
- (67) 2.9.1929 Agreement for sale Greendale Ltd to J.B. Pye
- (68) Municipal Rate notice No 373
- (69) 8-12-1930 Plat decln by Wm Geo. Matchett re quires 38 43 44
- (70) 2-12-1930 Nomination in favour of John B. Pye
- (71) 2-12-1930 Letter, W.G. Matchett attorney for applicant company to J.B. Pye as to sale of part of land to be held Vicary & requesting name of separate certs of title
- (72) 2-9-1929 Agreement for sale, Greendale Ltd to J.B. Pye
- (73) 6-6-1930 " " " " J.B. Vicary
- (74) 18/9-1931 Plat decln by John B. Pye re bankruptcy
- (75) 10-12-1931 Letter from Messrs P.V. McEulloch & Bragg consenting to attention of certain documents
- (76) 15-12-1931 Plat decln by Wm G. Matchett
- (77) 24-12-1931 " " " " John B. Pye with annex A
- (78) 14-1-1932 Plat decln by Wm G. Abbott with annex A re contracts to Pye & Vicary

15 802/22/17

1430/32207

John B. Pye & Co. Solicitors & Conveyancers 14/1/1930

18219/31

113/4/15/2

113/4/15/2

113/4/15/2

SCHEDULE REFERRED TO—(continued).*

(TO BE SIGNED BY APPLICANT, IF UTILISED, IMMEDIATELY BELOW THE LAST DOCUMENT SCHEDULED.)

No.	Date.	Nature of Instrument.	Parties.	Registration.		When and by whom Lodged.
				Book.	No.	
28	17/2/1882	✓	Statutory Declaration by T. A. Reddall.			
29	16/5/1882	✓	Statutory Declaration of Thomas Alexander Reddall with the next mentioned Declaration annexed.			
30	23/3/1882	✓	Statutory Declaration of Thomas Verrier Alkin with the following annexures.			
31		✓	Certificate of Marriage John Reddall and Martha Wentworth.			
32		✓	Certificate of Birth of T. A. Reddall.			
33		✓	Certificate of Burial of G. T. Reddall.			
34	18/10/1881	✓	Disentailing Deed T. A. Reddall 1st part, T. Salter 2nd part, and T. A. Reddall 3rd part Registered Number 995 Book 233.			
35	21/3/1883	✓	Covenant to Produce Fitzwilliam Wentworth and T. A. Reddall.			
36	21/1/1884	✓	Conveyance, T. A. Reddall to J. T. C. Mayne registered Number 422 Book 282.			
37	11/10/1928	✓	Deed of Appointment of New Trustees between H. R. Mayne and anor. of the one part and Queensland Trustees Ltd. and Anor. of the other part registered Number 24 Book 1539.			
38	5/7/1827	✓	Office copy Will of D'Arcy Wentworth.			
39	9/12/1842	✓	Conveyance R. T. Platt of the 1st part, George Wentworth of the 2nd part, W. C. Wentworth of the 3rd part Registered Number 279 Book 9.			
40	23/5/1902	✓	Statutory Declaration by Fitzwilliam Wentworth.			
41	23/5/1902	✓	Deed of Covenant - Fitzwilliam Wentworth with J.G. Mayne.			
42	28/7/1902	✓	Indenture of Reconveyance - Bank of New South Wales to J. T. C. Mayne Registered Number 392 Book 725.			or any deed or writing, to the said land, or any part
43	19/7/1902	✓	Mortgage - J. T. C. Mayne to the Bank of New South Wales Registered Number 546 Book 716.			
44	5/1/1903	✓	Statutory Discharge of last mentioned Mortgage Registered Number 585 Book 751.			
45	22/3/1904	✓	Deed of Covenant made between Fitzwilliam Wentworth and John Thomas Colburn Mayne.			
<p>DOCUMENT IN THE POSSESSION OF E. S. DUNHILL, SOLICITOR, SYDNEY.</p>						
46	3/8/1861	✓	Disentailing Assurance between William Charles Wentworth and Sarah Wentworth 1st part, Fitzwilliam Wentworth 2nd part, and James Norton 3rd part, Registered Number 730 Book 80.			
<p>DOCUMENTS LODGED WITH PRIMARY APPLICATION NUMBER 28179 OF JOHN BRUCE PYE.</p>						
47	22/8/1812	✓	Crown Grant of 700 acres to Edward Smith Hall.			
		✓	Consents as regards boundaries between the subject land and the land in Primary Application Number 28179.			
<p><i>J. G. Dunhill</i></p>						
<p><i>Witness</i> <i>Garnet W. Henry J.P.</i></p>						
48	24/5/29	✓	Power of Attorney <i>Greendale Limited</i> to <i>J. G. Dunhill</i>			
<p><i>Dec 11/1929</i></p>						

McBulloch
Bugg

R. T. McCulloch
Bugg

McBulloch
Bugg

McCulloch
Bugg

McBulloch
Bugg

McBulloch
Bugg

MEMORANDUM whereby the undersigned states that he has no notice of the revocation of the Power of Attorney dated the *twenty fourth* day of May One thousand nine hundred and twenty nine from Greendale Limited to himself under the authority of which he has just signed the within Application.

SIGNED at Sydney the *twenty fourth* day of May in the year One thousand nine hundred and twenty nine.

SIGNED at the place and on the date) mentioned in the presence of:

H.G. Matchett

Garland M. Seaborn & Abbott

I certify that the within application is correct for the purposes of the Real Property Act, 1900.

† Section 117 requires that this Certificate be signed by Applicant or his Solicitor and contain the name of person (s) by or on behalf of whom the application is made; also, to damages recoverable by parties injured. If by Solicitor, he should insert— "And that I am the Solicitor of the within named Applicant," and should add his own address to his signature. The signature should be that of the Solicitor himself, and not of his firm.

(Signature) *H.G. Matchett*

(RULE UP ALL BLANKS BEFORE SIGNING, EXCEPT SPACE IN SCHEDULE BELOW APPLICANT'S SIGNATURE)

F E E S.

PAYMENT OF THESE MUST ACCOMPANY THE APPLICATION.

1st.—Where the Applicant is the Original Grantee from the Crown, and no transactions have been registered

Lodgment	£0 10 0
Certificate of Title	1 5 0
Add Assurance, ½d. in the £ on declared value
Office Copy of Plan (when a Plan is furnished)	0 5 0
Preparation of Plan (when a Plan is not furnished)	0 7 6

2nd.—Where the Applicant is not the Grantee from the Crown, or being the Grantee, the property has been dealt with by any Registered Instrument.

F E E S. —

Lodgment	£1 0 0
Certificate of Title	1 5 0
Office Copy of Plan (when a Plan is furnished)	0 5 0
Preparation of Plan (when a Plan is not furnished)	0 7 6
Advertisement	1 10 0
Assurance, ½d. in the £ on declared value

to whom all correspondence relating to this Application should be sent, with address, as under, viz. —

Name *Garland Seaborn & Abbott,*

Occupation *Solicitors,*

Post Town *9 Bligh Street, Sydney.*

War Service Land Settlement Greendale Promotion Estate

To cancel B270 & B466 D.R.s in part

PLAN OF PORTION 45
 PARISH BRINGELLY COUNTY CUMBERLAND
 LAND DISTRICT PENRITH LAND BOARD DISTRICT SYDNEY
 SHIRE MUNICIPALITY LIVERPOOL

PAPERS L.B. 51-2171
 W.S. 5214

A 101

NOTATION PLAN

Applied for under the Section of the Crown Lands Consolidation Act, 1913, by

Within an area Proclaimed on 16.9.1949 as liable to be acquired for Closer Settlement under Section 4, C.S. Amend Act 1907 (M^s 13269 Sy)

Part of C.T. Vol. 4520 fol. 150 to be acquired Partition of title survey ~~M^s 14267 Sy R~~ M^s 14322 Sy R

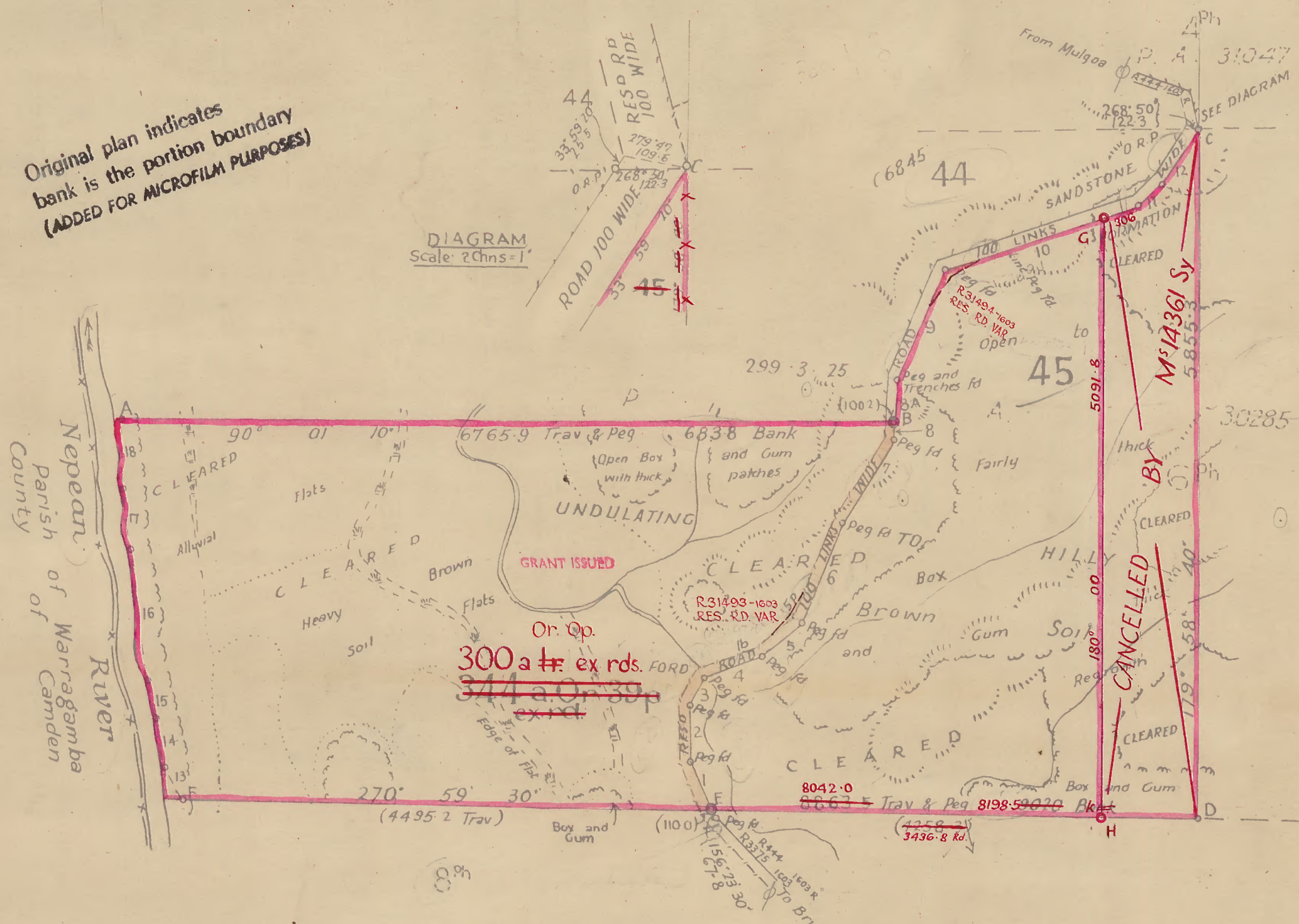
Vested in the Crown under Sec 9 DA C.S. Amend (Con^y) Act 1943 by Gaz 22-8-1952.

Area of acquired land ~~344 ac Or Op~~
 300 ac Ir Op

CSL 52-2 Leslie King Wines vested by Gaz 5-9-1952
 Ir. (in 2 pts) resumed for roads, R31493-1603 & R31494-1603, G. 12-9-69, Rds. 69-1244
 Now SP 70/1 Leslie King Wines Ten. 70/3244 Approved 18/6/70. Grant issued. D70.2261

Original plan indicates
 bank is the portion boundary
 (ADDED FOR MICROFILM PURPOSES)

DIAGRAM
 Scale 2 Chns = 1"



PLAN MICROFILMED

NO ADDITIONS OR AMENDMENTS TO BE MADE

Plan approved for 300a Ir exrd.

WS 5214 *last aided 20.8.52*

Metropolitan LBO.

REFERENCE MARKS

CORNER	BEARING	FROM	LINKS	N ^o ON TREE
A	223° 59'	Oak	118.2	44-45
B	90° 01'	G.I. Pipe	2.2	
C	204° 15'	Gum	121.4	44-45
D	252° 26'	Box	205.0	45
E	90° 31'	G.I. Pipe	2.0	
F	85° 04'	Oak	127.4	45
G	180° 00'	G.I. Pipe	10.0	Peg 45
H	360° 00'	G.I. Pipe	10.0	Peg 45

REFERENCE TO ROAD TRAVERSE

LINE	BEARING	DISTANCE
1	336° 23' 30"	467.3
2	358° 07'	477.1
3	29° 37'	277.8
4	69° 42'	550.9
5	51° 20' 30"	432.2
6	23° 03' 40"	931.4
7	32° 24' 40"	816.5
8	3° 39' 30"	169.2
8A	3° 39' 30"	321.3
9	23° 56' 20"	1033.3
10	72° 19' 20"	1770.6
11	16° 21' 20"	281.2
12	32° 58' 20"	567.1

REFERENCE TO RIVER TRAVERSE

LINE	BEARING	DISTANCE
13	327° 44' 20"	332.7
14	347° 32' 30"	424.3
15	347° 12' 00"	317.9
16	352° 25' 00"	1125.8
17	352° 04' 30"	524.8
18	0° 16' 00"	604.9

Offset Area + 3r. 28p
 Surround Area ~~344.429~~
 303.444 ac

I CERTIFY that this is a CORRECT COPY of the original plan of survey and of all notations thereon now relevant, I being the officer having the custody thereof.
J. Hall
 Officer-in-Charge, Land Board Office, Sydney, 31.7.1952.

Plan of portion 45 approved for 300a Or Op by dedn
 Rds. 69-1244
 HM

Frank M. Mason
 9.6.1970
 Authorised Officer

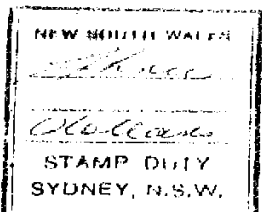
Frank M. Mason
 Surveyor registered under the Surveyors Act 1929
 and sincerely declare that the survey represented in this plan has been made by me in accordance with the Survey Practice Regulations 1952 and the special requirements of the Department of Lands was completed on the 28th February 1952 and the reference marks have been placed as shown thereon
 And I make this solemn declaration conscientiously believing the same to be true and by virtue of the provisions of the Oaths Act 1900
 Subscribed and declared before me at Sydney this 2nd day of April 1952
 Colin C. Burnside
 Justice of the Peace
 Transmitted to the District Surveyor with my letter of 2-4-52
 CHECKED & CHARTED R. M. Anderson 13.6.52
 EXAMINED AND PLAN APPROVED R. T. Hanks 16.6.52
 GENERAL DRAFTING BRANCH

AZIMUTH TAKEN FROM POR 44
 FIELD BOOK 2848 PAGES 1-40

NOTATION PLAN

SCALE 10 CHAINS TO AN INCH

CAT. N^o C6846 2030



New South Wales



11444153

No. 1970/2261

Vol. 11444 Fol. 153 Registered 25-11-1970



CANCELLED W

Registrar General

SETTLEMENT PURCHASE GRANT

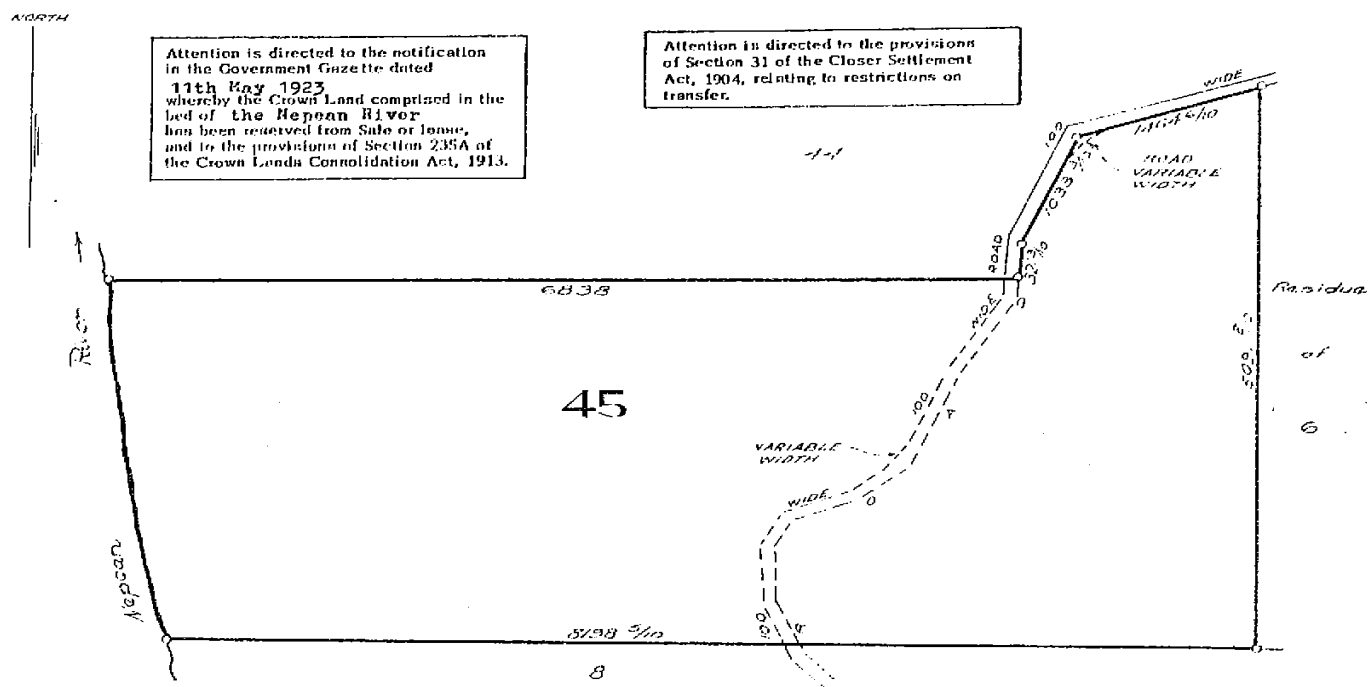
[UNDER THE CLOSER SETTLEMENT ACTS]

WE, HERMANN the SECOND, by the Grace of God of the United Kingdom, Australia and her other Realms and Territories Queen, Head of the Commonwealth, Defender of the Faith: To All to whom these Presents shall come, Greeting:--

S.P. 1970/1 PENRITH

Whereas LESLIE KING WINES of Greendale Road Wallacia

in Our State of New South Wales (hereinafter called the GRANTEE) is the holder of Settlement Purchase No.1970/1 in the Land District of Penrith described and intended to be hereby granted And Whereas the sum of fifteen thousand one hundred and fifty four dollars twenty six cents being the purchase money payable for the said Land has been duly paid into the Office of the Treasurer of Our said State And all things required by law to be done to entitle the GRANTEE to a grant of the fee simple of the said Land subject to the Reservations and Exceptions hereinafter contained have been done and performed Now Know Ye That for and in consideration of the said sum for and on Our behalf well and truly paid into the Treasury of Our said State before these Presents are issued and of all and singular the premises We HAVE GRANTED and for Us Our Heirs and Successors DO HEREBY GRANT unto the GRANTEE Subject to the Reservations and Exceptions hereinafter contained ALL THAT Piece or Parcel of Land in Our said State containing by admeasurement three hundred acres be the same more or less situated in the County of Cumberland and Parish of Bringelly Portion 45 as shown in plan catalogued No.C.6246-2030 in the Department of Lands excepting out of the said piece or parcel of land the roads shown in the plan hereon the areas of which are not included in the above stated area



Area: 300 acres

This area does not include the areas of the roads

As per Plan hereon With all the Rights and Appurtenances whatsoever thereto belonging To Hold unto the Grantee in fee simple and Successors all minerals which the said Land contains with full power and authority for Us Our Heirs and Successors and such person or persons as shall from time to time be authorised by Us or Them to enter upon the said Land and to search for mine dig and remove the said minerals And also all such parts and so much of the said Land as may hereafter be required for public ways in over and through the same to be set out by Our Governor for the time being of Our said State or some person by him authorised in that respect with full power for Us Our Heirs and Successors and for Our Governor as aforesaid by such person or persons as shall be by Us Them or him authorised in that behalf to make and conduct all such public ways And the right of full and free ingress egress and regress into out of and upon the said Land for the several purposes aforesaid or any of them In Testimony Whereof We have caused this Our Grant to be Sealed with the Seal of Our said State

Witness Our Governor of Our State of New South Wales and its Dependencies in the Commonwealth of Australia, at Sydney in Our said State, this eighteenth day of November in the nineteenth year of Our Reign and in the year of Our Lord one Thousand nine hundred and seventy

Handwritten signature

A. A. Butler

Governor

PERSONS ARE CAUTIONED AGAINST ALTERING OR ADDING TO THIS CERTIFICATE OR ANY NOTIFICATION HEREON

11444 Fol. 153

(Page 1) Vol.

WARNING: THIS DOCUMENT MUST NOT BE REMOVED FROM THE LAND TITLES OFFICE

SCHEDULE OF REGISTERED PROPRIETORS

REGISTERED PROPRIETOR

REGISTERED PROPRIETOR	INSTRUMENT			ENTERED	Signature of Registrar-General
	NATURE	NUMBER	DATE		
Thelma May Robinson of Enfield, Home Duties.	Transfer	142 555	29-9-1977	29-9-1977	[Signature]
Thelma May Verran. See T605476. Registered 29-6-1983	Transfer	R564023		12-12-1979	[Signature]
5973 776645 Registered 26-7-1988					
This folio is cancelled as to whole/parts upon creation of computer folios for lots 1, 2 in the above mentioned plan.					

SCHEDULE OF ENCUMBRANCES ETC.

NATURE	INSTRUMENT		PARTICULARS	ENTERED	Signature of Registrar-General	CANCELLATION	
	NUMBER	DATE					
Mortgage	M21870	2-9-1971	to Leslie King Jones of Wallacia Farmer	16-9-1971	[Signature]	Discharged	R564020
Mortgage	M21841	2-9-1971	to Bushon Pty Limited	16-9-1971	[Signature]	Discharged	R564021
Caveat	N329615	26-6-1973		10-7-1973	[Signature]	Withdrawn	R564017
Caveat	Q165718		by Thelma May Robinson	11-5-1977	[Signature]	Withdrawn	R564018
Caveat	Q177837		by Donald Moss Fisher and Alice Eileen Fisher	11-5-1977	[Signature]	Withdrawn	R564019
Mortgage	R564024		to Citicorp Australia Limited	12-12-1979	[Signature]	Discharged	T605475
Lease	R843937		to Donald Moss Fisher of Wallacia, Farmer and Alice Eileen Maria Fisher his wife as joint tenants. Expires 30-6-1982	24-6-1980	[Signature]	Expired	29-6-1983
R564024 Mortgage	S920696 Variation		Registered 22-2-1982		[Signature]	Cancelled	T605475
T584689	Mortgage		to St. George Building Society				
T605476	MORTGAGE		to Westpac Banking Corporation. Registered 29-6-1983		[Signature]		
			Registered pursuant to Section 883 Conveyancing Act 1915 by the Registrar on 26-7-1988				

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

Vol. 11444 Fol 153

(Page 2 of 2 pages)

Reg: R260933 / Doc: CT 1444-153 CT / Rev: 10-Jan-2011 / NSW IRS / Pgs: All / Prt: 28-Jun-2020 13:55 / Seq: 2 of 2
© Office of the Registrar-General / Src: INFOTRACK / Ref: Wallacia 1290 Greendale Park Rd

QUESTIONS
21770
R564024
- 18/11
- 19/11
- 20/11
- 21/11
- 23/11
- 24/11

CT 12 5-3
R564024
5920696
T605476
75/11
21/11



SEARCH DATE

28/6/2020 1:56PM

FOLIO: 1/776645

First Title(s): VOL 11444 FOL 153

Prior Title(s): VOL 11444 FOL 153

Recorded	Number	Type of Instrument	C.T. Issue
-----	-----	-----	-----
28/7/1988	DP776645	DEPOSITED PLAN	FOLIO CREATED EDITION 1
24/1/1991	Z472406	MORTGAGE	EDITION 2
10/5/1995	0219199	LEASE	EDITION 3
8/12/1998	5448745	DEPARTMENTAL DEALING	
7/4/1999	5728367	DISCHARGE OF MORTGAGE	
7/4/1999	5728368	MORTGAGE	EDITION 4
13/3/2000	6635484	LEASE	EDITION 5
19/6/2000	6868822	DISCHARGE OF MORTGAGE	
19/6/2000	6868823	TRANSFER	
19/6/2000	6868824	MORTGAGE	EDITION 6
9/8/2001	7838841	DISCHARGE OF MORTGAGE	
9/8/2001	7838842	MORTGAGE	EDITION 7
6/12/2005	AB963737	LEASE	EDITION 8
4/2/2010	AE906556	REJECTED - LEASE	
5/2/2010	AF217333	CAVEAT	
21/4/2010	AF444885	DEPARTMENTAL DEALING	EDITION 9
15/12/2010	AF766005	LEASE	EDITION 10
10/8/2011	AG423492	DEPARTMENTAL DEALING	
7/3/2013	AH248507	REJECTED - LEASE	
18/6/2013	AH807200	DEPARTMENTAL DEALING	
1/2/2016	AK183399	DEPARTMENTAL DEALING	
20/8/2018	AN594687	DISCHARGE OF MORTGAGE	

END OF PAGE 1 - CONTINUED OVER

SEARCH DATE

28/6/2020 1:56PM

FOLIO: 1/776645

PAGE 2

Recorded -----	Number -----	Type of Instrument -----	C.T. Issue -----
20/8/2018	AN594688	TRANSFER	EDITION 11

*** END OF SEARCH ***

Wallacia 1290 Greendale Park Rd

PRINTED ON 28/6/2020

InfoTrack an approved NSW Information Broker hereby certifies that the information contained in this document has been provided electronically by the Registrar General in accordance with Section 96B(2) of the Real Property Act 1900.



FOLIO: 1/776645

SEARCH DATE	TIME	EDITION NO	DATE
28/6/2020	1:55 PM	11	20/8/2018

LAND

LOT 1 IN DEPOSITED PLAN 776645
AT GREENDALE
LOCAL GOVERNMENT AREA LIVERPOOL
PARISH OF BRINGELLY COUNTY OF CUMBERLAND
TITLE DIAGRAM DP776645

FIRST SCHEDULE

SOUKUTSU PTY. LTD. (T AN594688)

SECOND SCHEDULE (5 NOTIFICATIONS)

- RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
- LAND EXCLUDES MINERALS AND IS SUBJECT TO RIGHTS TO MINE -SEE CROWN GRANT
- LAND EXCLUDES PART OF THE LAND BEING THE CROWN LAND COMPRISED IN THE BED OF THE NEPEAN RIVER HAS BEEN RESERVED FROM SALE OR LEASE
- EASEMENT(S) AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM CREATED BY:
DP776645 -FOR UNDERGROUND WATER SUPPLY AND PIPELINE 4 WIDE
- AS TO BOUNDARIES TO RIVERS/LAKES - SEE SECTION 172 CROWN LANDS ACT 1989

NOTATIONS

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

Appendix E

Planning Certificate

**PLANNING CERTIFICATE UNDER SECTION 10.7
ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979**

Ref.: 26.11:93348
Ppty: 10897

Cert. No.: 6212

Applicant:
TRACE ENVIRONMENTAL
SHOP 2, 793-799 NEW CANTERBURY RD
DULWICH HILL NSW 2203

Receipt No.: 4618917
Receipt Amt.: 133.00
Date: 22-Jun-2020

The information in this certificate is provided pursuant to Section 10.7(2)&(5) of the Environmental Planning and Assessment Act (EP&A Act) 1979, as prescribed by Schedule 4 of the Environmental Planning and Assessment Regulation (EP&A Regulation) 2000. The information has been extracted from Council's records, as they existed at the date listed on the certificate. Please note that the accuracy of the information contained within the certificate may change after the date of this certificate due to changes in Legislation, planning controls or the environment of the land.

The information in this certificate is applicable to the land described below.

Legal Description: LOT 1 DP 776645

Street Address: COOMARA PARK, 1290 GREENDALE ROAD, WALLACIA NSW 2745

Note: Items marked with an asterisk () may be reliant upon information transmitted to Council by a third party public authority. The accuracy of this information cannot be verified by Council and may be out-of-date. If such information is vital for the proposed land use or development, applicants should instead verify the information with the appropriate authority.*

Note: Commonly Used Abbreviations:

*LEP: Local Environmental Plan
DCP: Development Control Plan
SEPP: State Environmental Planning Policy
EPI: Environmental Planning Instrument*

1. Names of relevant planning instruments and DCPs

(a) The name of each EPI that applies to the carrying out of development on the land is/are listed below:

LEPs:

Liverpool LEP 2008

SEPPs*:

SEPP No. 33 – Hazardous and Offensive Development
SEPP No. 50 – Canal Estate Development
SEPP No. 55 – Remediation of Land
SEPP No. 62 – Sustainable Aquaculture
SEPP No. 65 – Design Quality of Residential Flat Development
SEPP (Building Sustainability Index: BASIX) 2004
SEPP No. 70 – Affordable Housing (Revised Schemes)
SEPP (Infrastructure) 2007
SEPP (Mining, Petroleum Production and Extractive Industries) 2007
SEPP (Miscellaneous Consent Provisions) 2007
SEPP (State and Regional Development) 2011
SEPP (Education Establishments and Child Care Facilities) 2017
SEPP (Vegetation in Non-Rural Areas) 2017
SEPP (Exempt and Complying Development Codes) 2008
SEPP (Affordable Rental Housing) 2009
SEPP No 19 – Bushland in Urban Areas
SEPP No 21 – Caravan Parks
SEPP No 30 – Intensive Agriculture
SEPP Koala Habitat Protection
SEPP No 64 – Advertising and Signage

Deemed SEPPs*:

SREP No 20 – Hawkesbury – Nepean River (No. 2 – 1997)

(b) The name of each draft EPI, or Planning Proposal (which has been subject to community consultation).

Draft LEPs:

Draft Liverpool Local Environmental Plan 2008 (Amendment 82)

Draft SEPPs*:

Draft SEPP (Competition) 2010

(c) The name of each DCP that applies to the carrying out of development on the land.

Liverpool DCP 2008

2. Zoning and land use under relevant LEPs and /or SEPPs

This section contains information required under subclauses 2 and 2A of Schedule 4 of the EP&A Regulation 2000. Subclause 2 of the regulation requires Council to provide information with respect to zoning and land-use in areas zoned by, or proposed to be zoned by, a LEP. Subclause 2A of Schedule 4 of the regulation requires Council to provide information with respect to zoning and land-use in areas which are zoned by, or proposed to be zoned by, the SEPP (Sydney Region Growth Centres) 2006. The land use and zoning information under any EPI applying to the land is given below.

- (a) Name of zone, and the EPI from which the land zoning information is derived.

RU1 Primary Production - Liverpool LEP 2008

- (b) The purposes for which development may be carried out within the zone without the need for development consent

Environmental protection works; Extensive agriculture; Home-based child care; Home occupations

- (c) The purposes for which development may not be carried out within the zone except with development consent

Agriculture; Airstrips; Animal boarding or training establishments; Bed and breakfast accommodation; Building identification signs; Business identification signs; Cemeteries; Community facilities; Crematoria; Dual occupancies; Dwelling houses; Environmental facilities; Extractive industries; Farm buildings; Farm stay accommodation; Flood mitigation works; Forestry; Hazardous storage establishments; Health consulting rooms; Helipads; Heliports; Home businesses; Home industries; Landscaping material supplies; Offensive storage establishments; Open cut mining; Plant nurseries; Recreation areas; Recreation facilities (outdoor); Roads; Roadside stalls; Rural industries; Rural supplies; Rural workers' dwellings; Secondary dwellings; Veterinary hospitals; Water recreation structures

- (d) The purposes for which the instrument provides that development is prohibited within the zone

Any development not specified in item (b) or (c)

(e) If a dwelling house is a permitted use, are there any principal development standards applying to the land that fix minimum land dimensions for the erection of a dwelling house?

No

(f) Does the land include or comprise critical habitat?

No

(g) Is the land is in a conservation area (however described):

No

(h) Is there an item of environmental heritage (however described) situated on the land

No

3. Complying development

The information below outlines whether complying development is permitted on the land as per the provisions of clauses 1.17A (1) (c) to (e), (2), (3) and (4), 1.18(1) (c3) and 1.19 SEPP of the (Exempt and Complying Development Codes) 2008 only. The table does not specify whether any code applies to the land; applicants should read the full extent of the code with their building certifier, solicitor, or other professional to determine whether any code applies to the land.

The first column identifies the code(s). The second column describes the extent of the land in which exempt and complying development is permitted, as per the clauses above, for the code(s) given to the immediate left. The third column indicates the reason as to why exempt and complying development is prohibited on some or all of the land, and will be blank if such development is permitted on all of the land.

Code	Extent of the land for which development is permitted:	The reason(s) as to why development is prohibited:
------	--	--

Code	Extent of the land for which development is permitted:	The reason(s) as to why development is prohibited:
Housing Code, Rural Housing Code and Greenfield Housing Code	Part	Part of the land is identified as being within the foreshore area (Clause 1.19(1)(g) or Clause 1.19(5)(h)) Part of the land is identified as being environmentally sensitive land (Clause 1.17A(e))
Commercial and Industrial (New Buildings and Additions) Code	Part	Part of the land is identified as being within the foreshore area (Clause 1.19(1)(g) or Clause 1.19(5)(h)) Part of the land is identified as being environmentally sensitive land (Clause 1.17A(e))
General Development Code, Container Recycling Facilities Code, Fire Safety Code, Housing Alterations Code, Commercial and Industrial Alterations Code, Subdivisions Code, and Demolition Code	Part	Part of the land is identified as being environmentally sensitive land (Clause 1.17A(e))

Note: If council does not have sufficient information to ascertain the extent to which complying development may or may not be carried out on the land, a statement below will describe that a restriction applies to the land, but it may not apply to all of the land, and that council does not have sufficient information to ascertain the extent to which complying development may or may not be carried out on the land.

Nil

4. Coastal protection*



Has the Department of Finance, Services and Innovation notified Council of the land being affected by 38 or 39 of the Coastal Protection Act, 1979?

No

4A. Certain information relating to beaches and coasts*

(a) Has an order has been made under Part 4D of the Coastal Protection Act 1979 on the land (or on public land adjacent to that land)?

No

(b) Has Council been notified under section 55X of the Coastal Protection Act 1979 that temporary coastal protection works have been placed on the land (or on public land adjacent to that land), and if works have been so placed, is council is satisfied that the works have been removed and the land restored in accordance with that Act?

Not applicable

4B. Annual charges under Local Government Act 1993 for coastal protection services that relate to existing coastal protection works*

Has the owner (or any previous owner) of the land consented, in writing, that the land is subject to annual charges under section 496B of the Local Government Act 1993 for coastal protection services that relate to existing coastal protection works (within the meaning of section 553B of that Act)?

No

5. Mine subsidence*

Is the land a proclaimed to mine subsidence district within the meaning of section 15 of the Mine Subsidence Compensation Act 1961?

No

6. Road widening and road realignment

Is the land is affected by any road widening or road realignment under:

(a) Division 2 of Part 3 of the Roads Act 1993?*

No

(b) An EPI?

No

(c) A resolution of the council?

No

7. Council and other public authority policies on hazard risk restrictions

The following table lists hazard/risk policies that have been adopted by Council (or prepared by another public authority and subsequently adopted by Council). The right-most column indicates whether the land is subject to those policies.

Hazard/Risk	Adopted Policy	Does this hazard/risk policy apply to the land?
Landslip hazard	Nil	No
Bushfire hazard	Liverpool DCP 2008	Yes
	Liverpool Growth Centre Precincts DCP*	No
	Edmondson Park South DCP 2012	No
	Planning for Bushfire Protection (Rural Fire Services, 2006)* Pleasure Point Bushfire Management Plan	Yes No
Tidal inundation	Nil	No
Subsidence	Nil	No
Acid Sulphate Soils	Liverpool LEP 2008	No
	Liverpool DCP 2008	No
Potentially Contaminated Land	Liverpool DCP 2008	Yes, see section 10 of Part 1 of the Liverpool DCP 2008
	Liverpool Growth Centre Precincts DCP*	No
Potentially Saline Soils	Liverpool DCP 2008	Yes
	Liverpool Growth Centre Precincts DCP*	No

Note: Land for which a policy applies does not confirm that the land is affected by that hazard/risk. For example, all land for which the Liverpool DCP applies is subject to controls relating to contaminated land, as this policy contains triggers and procedures for identifying potential contamination. Applicants are encouraged to review the relevant policy, and other sections of this certificate, to determine what effect, if any, the policy may have on the land.

7A. Flood related development controls information



(a) For the purpose of residential accommodation (excluding group homes or seniors housing), is the land, or part of the land, within the flood planning area and subject to flood planning controls?

Yes

For details of these controls, please refer to the flooding section of the relevant DCP(s) as specified in Section 1(c) of this certificate.

(b) Is development on that land, or part of the land, for any other purpose subject to flood related development controls?

Yes

For details of these controls, please refer to the flooding section of the relevant DCP(s) as specified in Section 1(c) of this certificate.

Note: Words and expressions in this clause have the same meanings as in the instrument set out in the Schedule to the Standard Instrument (Local Environmental Plans) Order 2006.

8. Land reserved for acquisition

Does a LEP, draft LEP, SEPP or draft SEPP identify the acquisition of the land, or part of the land, by a public authority, as referred to in section 3.15 of the Act?

No

9. Contribution Plans

Liverpool Contributions Plan 2009

9A. Biodiversity certified land*

Is the land, or part of the land, biodiversity certified land (within the meaning of Part 8 of the Biodiversity Conservation Act 2016)?

No

10. Biobanking agreements*

Is the land subject to a bio-banking agreement under Part 6 of the Biodiversity Conservation Act 2016, as notified to Council by the Chief Executive of the Office of Environment and Heritage?

No

10A. Native vegetation clearing set asides

Does the land contain a set aside area under section 60ZC of the Local Land Services Act 2013?

No, Liverpool is excluded from section 60ZC of the Local Land Services Act 2013

11. Bushfire prone land

Is the land or part of the land, bushfire prone land as defined by the EP&A Act 1979?

Yes, part of the land is bushfire prone land

12. Property vegetation plans*

Is Council aware of the land being subject to a Property Vegetation Plan under the Native Vegetation Act 2003?

No, Liverpool is excluded from the operation of the Native Vegetation Act 2003

13. Orders under Trees (Disputes between Neighbours) Act 2006*

Does an order, made under the Trees (Disputes Between Neighbours) Act 2006 in relation to carrying out of work in relation to a tree on the land, apply?

No, Council has not been notified of an order

14. Directions under Part 3A*

Is there a direction (made by the Minister) that a provision of an EPI in relation to a development does not have effect?

No

15. Site compatibility certificates and conditions for seniors housing*

(a) Is there is a current site compatibility certificate (seniors housing), in respect of proposed development on the land?

No, Council has not been notified of an order.

16. Site compatibility certificates for infrastructure*

(a) Is there is a current site compatibility certificate (infrastructure), in respect of proposed development on the land?

No, Council has not been notified of an order

17. Site compatibility certificates and conditions for affordable rental housing*

Is there is a current site compatibility certificate (Affordable housing), in respect of proposed development on the land?

No, Council has not been notified of an order.

18. Paper subdivision information*

Does any development plan adopted by a relevant authority (or proposed plan subject to a consent ballot) apply to the land? If so the date of the subdivision order that applies to the land.

No

19. Site verification certificates*

Does a current site verification certificate, apply to the land?

No, Council is not aware of a site verification certificate

20. Loose-fill asbestos insulation *

Is a dwelling on the land listed on the register (maintained by the NSW Department of Fair Trading) as containing loose-fill asbestos insulation?

No

Note: despite any listing on the register, any buildings constructed before 1980 may contain loose-fill asbestos insulation or other asbestos products.

21. Affected building notices and building product rectification orders*

Is there any affected building notice (as in Part 4 of the Building Products (Safety) Act 2017) of which the council is aware that is in force in respect of the land?

No

Is there any building product rectification order (as in the Building Products (Safety) Act 2017) of which the council is aware that is in force in respect of the land and has not been fully complied with?

No

Is there any notice of intention to make a building product rectification order (as in the Building Products (Safety) Act 2017) of which the council is aware has been given in respect of the land and is outstanding?

No

22. Contaminated land

Is the land:

(a) Significantly contaminated land within the meaning of that Act?

No

(b) Subject to a management order within the meaning of that Act?

No

(c) Subject of an approved voluntary management proposal within the meaning of that Act?

No

(d) Subject to an ongoing maintenance order within the meaning of that Act?

No

(e) Subject of a site audit statement within the meaning of that Act? *

No

Note: in this clause 'the Act' refers to the Contaminated Land Management Act 1997.

**THE FOLLOWING INFORMATION IS PROVIDED PURSUANT TO SECTION 10.7(5) OF THE
ENVIRONMENTAL PLANNING AND ASSESSMENT ACT (EP&A ACT) 1979**

1. Controlled access road

Does the land have a boundary to a controlled access road?

No

2. Sewer Access and On-site Management

On-Site Sewerage Management System/s

Council's records indicate that the property may not be connected to Sydney Water's sewerage system.

If the property is not connected and emits any waste water (sewerage) it must have an On-Site Sewerage Management System that is operating satisfactorily. It is the ongoing responsibility of the current owner(s) of the property (at any given time) to ensure that any On-Site Sewerage Management System continually operate in compliance with the relevant provisions of the Local Government Act 1993, and the Protection of the Environment Operations Act 1997 (including regulations made there under).

It is recommended that any applicant intending to purchase the property make enquires to ascertain if the property has an On-Site Sewerage Management System and engage the services of a suitably qualified wastewater engineer or plumber to assess the condition and compliance status of those system(s).

The Onsite Sewage System for this property is now an "Aerated System" but if it fails at any time the onsite system will have to be turned into a pump out system where the effluent will be required to be removed off site by tanker.

3. Other Information in Relation to Water Restrictions

All/part of the property is identified as flood prone and is within the low risk flood category. Low Flood Risk Category means the outer extent of the floodplain (within the extent of the probable maximum flood) but not identified within either the High Flood Risk or the Medium Flood Risk Category. Refer to Section 1(c) of this certificate for the relevant DCP which contains controls relating to flood prone land.

Note: No flooding certificate will be provided if the property is only within the low risk flood category.

All/part of the property is identified as flood prone and is within the medium risk flood category. Medium Flood Risk Category means land below the 1% Annual Exceedance

Probability flood that is not subject to a high hydraulic hazard or where there are no significant evacuation difficulties. Refer to Section 1(c) of this certificate for the relevant DCP which contains controls relating to flood prone land.

4. Contaminated Land

Nil

5. Airport Noise Affectation*

The land is identified as being within an ANEF (Australian Noise Exposure Forecast) contour by Liverpool LEP 2008; as such, the development of the land may be restricted. The proximity of the land in relation to the future Western Sydney Airport may impact on the permissibility of residential development despite the current zoning under LEP 2008 due to potential noise impacts. Please contact Department of Infrastructure and Regional Development (<https://infrastructure.gov.au/>) for more information. The land is identified as being within an ANEF (Australian Noise Exposure Forecast) contour by draft SEPP (Western Sydney Aerotropolis) 2019; as such, the development of the land may be restricted.

6. Environmentally Significant Land

The subject property is identified as containing environmentally significant land under Liverpool LEP 2008.

7. Archaeological Management Plan

Nil

8. Western Sydney Long Term Strategic Corridors*

Has the NSW Government identified that the land may be traversed by, or located near, a future transport corridor as identified in the Western Sydney Long Term Strategic Corridors project?

No

For more information on the Western Sydney Long Term Strategic Corridors, visit:
<https://www.transport.nsw.gov.au/corridors>

9. Fifteenth Avenue Smart Transit Project

Not Applicable

10. Offensive Odour and Rural Land Uses

Nil



For further information, please contact
CALL CENTRE – 1300 36 2170

Kiersten Fishburn
Chief Executive Officer
Liverpool City Council

ANNEXURE TO SECTION 10.7(5) CERTIFICATE

Issue Date: 23/06/2020

Issue No: 2028307

File No: 2020/0230

Premises at Lot 1 DP 776645
Greendale Road Wallacia

Further to the advice contained in the Section 10.7(2) Certificate and on the basis of the latest information available to the Council:

1. the maximum calculated level of the probable maximum flood (PMF) in the vicinity of your property in metres AHD is **57.0**.
2. the maximum calculated level of the 1% annual exceedance probability flood (previously referred to as the 1 in 100 year) in the vicinity of your property in metres AHD is **46.1**.
3. the maximum calculated level of the 2% annual exceedance probability flood (previously referred to as the 1 in 50 year) in the vicinity of your property in metres AHD is **Not Available**.
4. the maximum calculated level of the 5% annual exceedance probability flood (previously referred to as the 1 in 20 year) in the vicinity of your property in metres AHD is **43.0**.

The Council does not possess accurate information on the natural surface levels of individual allotments or on constructed building levels, and these should be established by private survey to ascertain their relationship to the above flood levels.

Flood levels are obtained from **Upper Nepean River Flood Study - Sep 1995**

Name of Assessor: **W. Siripala**

Signature:



Appendix F

Proposed Development Masterplan



RIVER GARDENS

CEMETERY

CONTENTS

I. EXISTING CONDITIONS

- DA-1.01 - SITE LOCATION
- DA-1.02 - SITE PLAN + STREETSCAPE
- DA-1.03 - SITE SECTIONS + PHOTOS

II. FLOODING

- DA-2.01 - SITE FLOODING PLAN + SECTION
- DA-2.02 - SITE FLOODING ISOMETRICS

III. MASTERPLAN

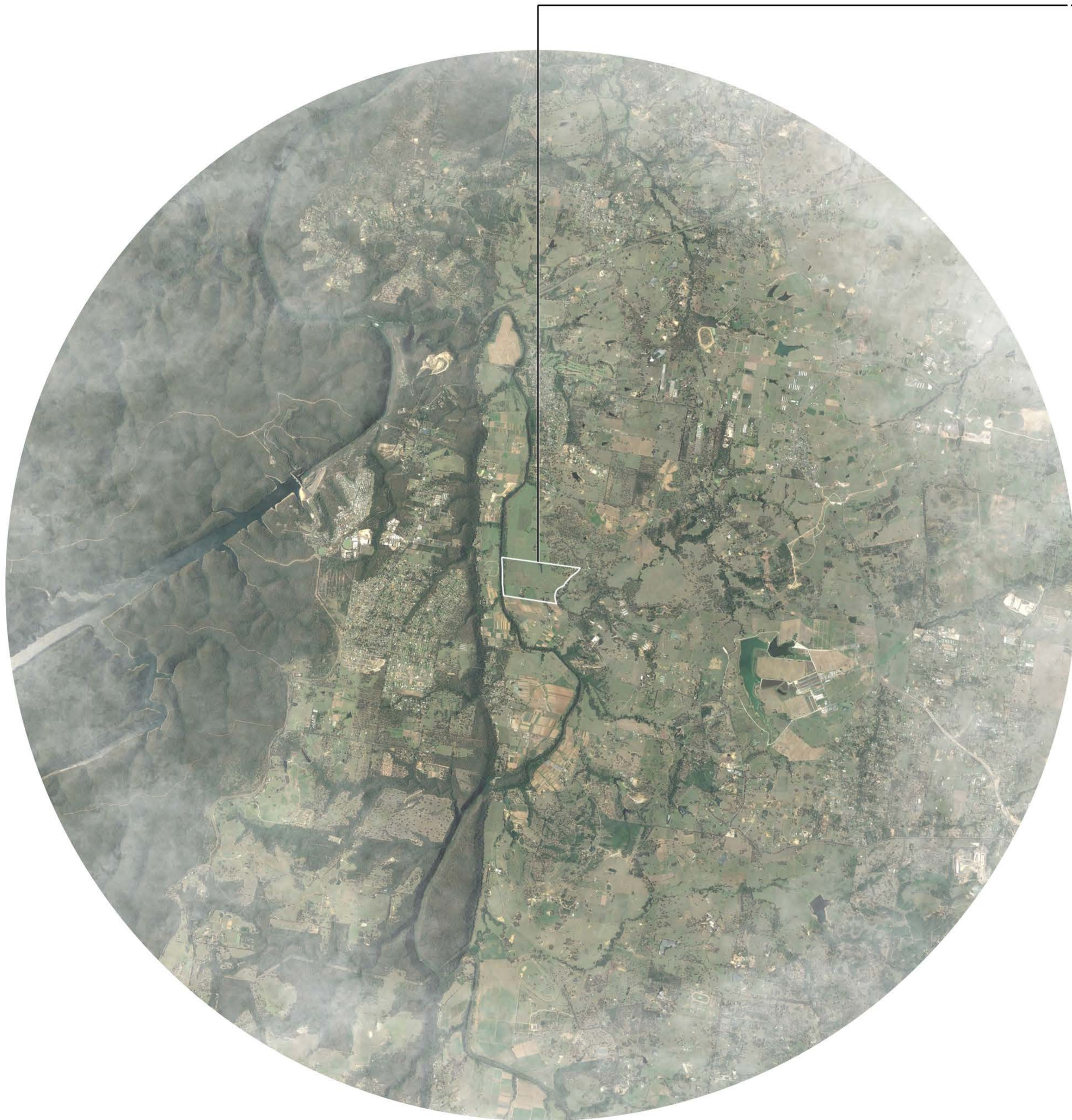
- DA-3.01 - PROPOSED SITE PLAN
- DA-3.02 - BUILDINGS LOCATION PLAN
- DA-3.03 - BURIAL TYPES LOCATION PLAN
- DA-3.04 - PROPOSED SITE SECTIONS

IV. BURIAL TYPES

- DA-4.01 - IN-GROUND & CREMATION WALL ISOMETRIC + PRECEDENTS
- DA-4.02 - MAUSOLEUM ISOMETRIC + PRECEDENTS
- DA-4.03 - MAUSOLEUM PLAN + SECTION



1290 GREENDALE PARK ROAD
WALLACIA



THIS DOCUMENT IS THE PROPERTY OF MKD ARCHITECTS. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED IN THE DOCUMENTATION. IT IS NOT TO BE REPRODUCED, COPIED, OR DISTRIBUTED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF MKD ARCHITECTS.



STREETSCAPE

V1



V2



V3



V4



V5



S1

NEPEAN RIVER



DUNCAN'S CREEK



GREENDALE PARK ROAD

639 GREENDALE PARK ROAD

S2

NEPEAN RIVER



DUNCAN'S CREEK

GREENDALE PARK ROAD

639 GREENDALE PARK ROAD

S3

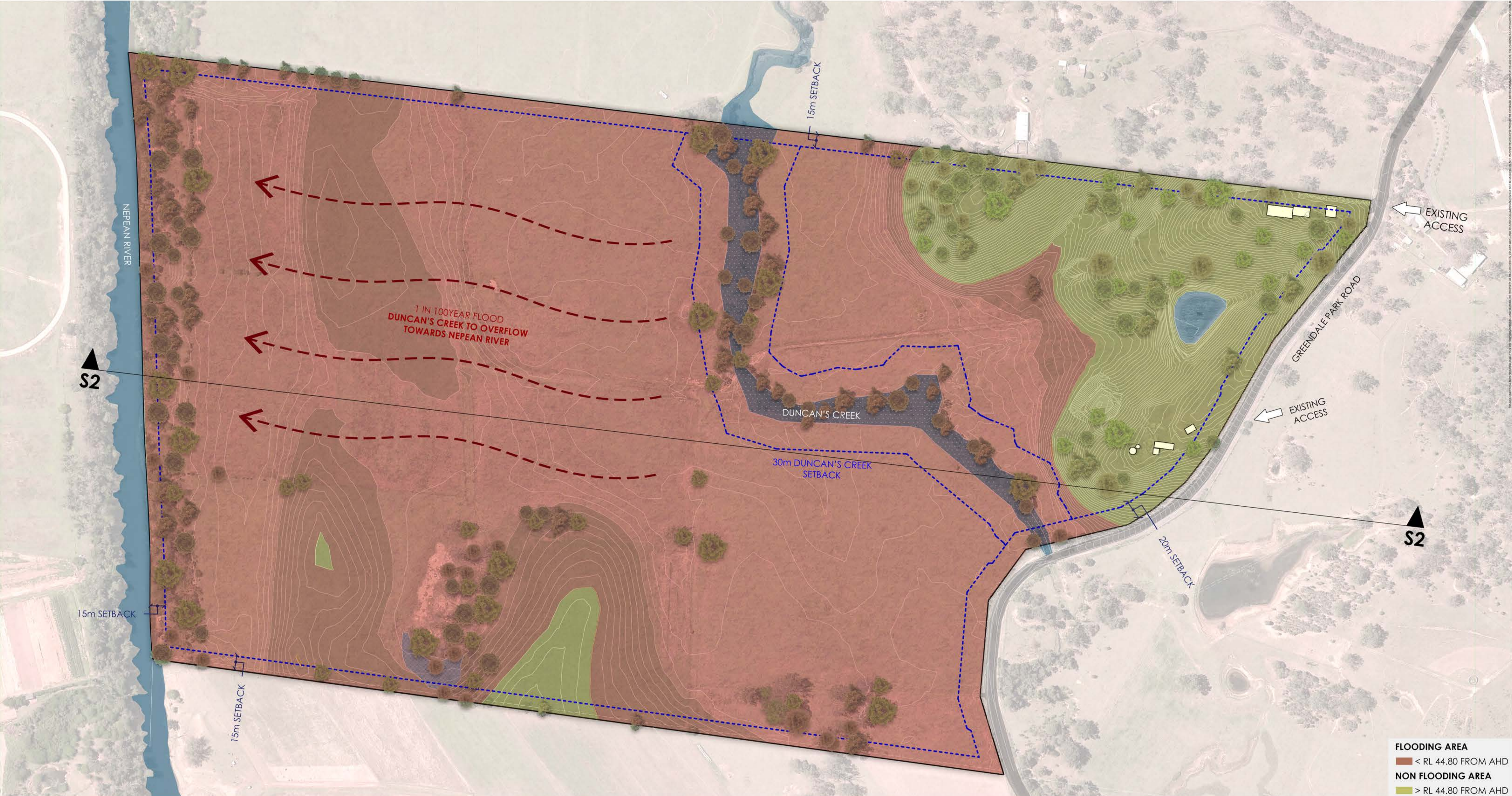
NEPEAN RIVER



GREENDALE PARK ROAD

639 GREENDALE PARK ROAD

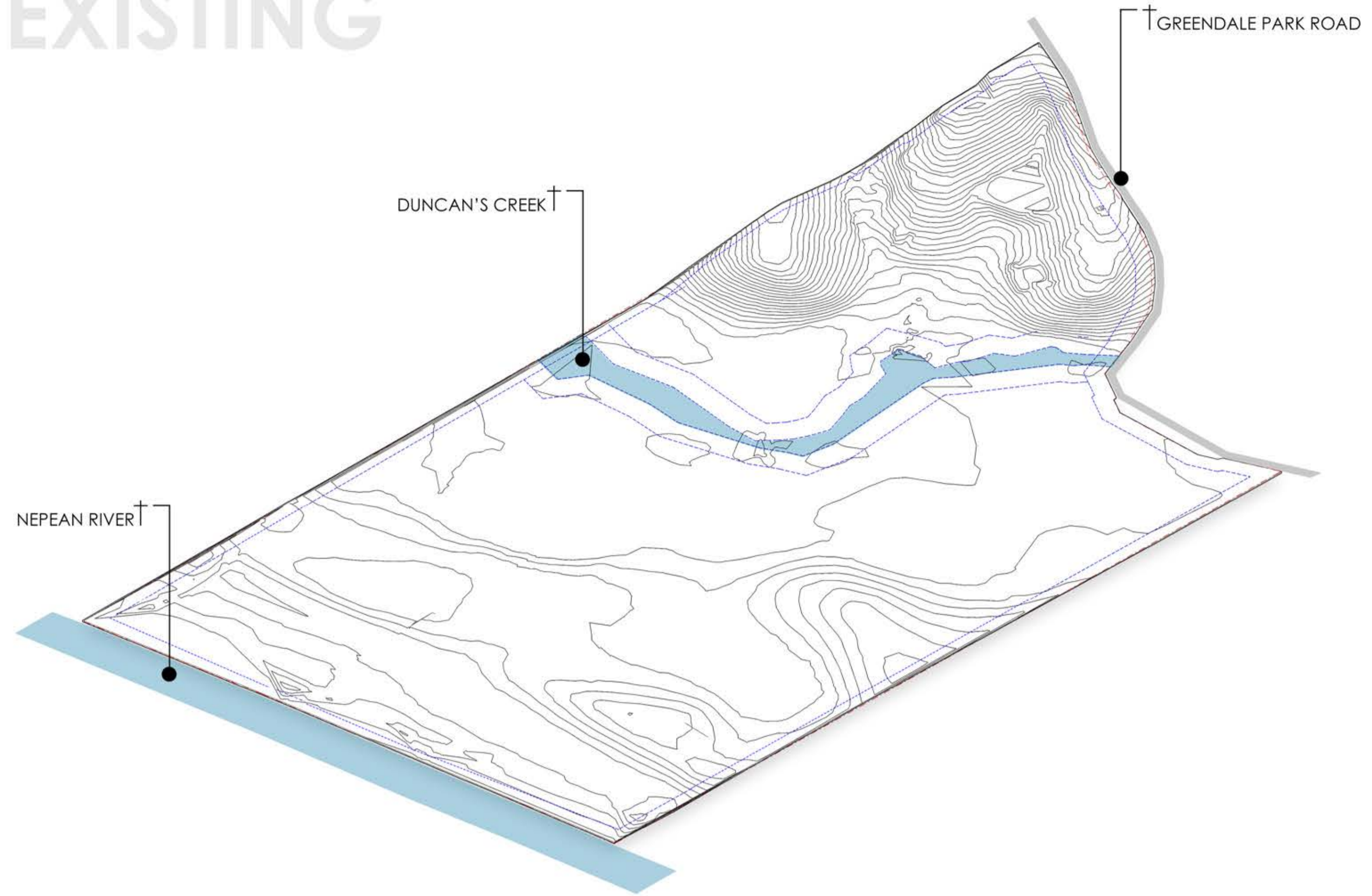
SITE FLOODING PLAN



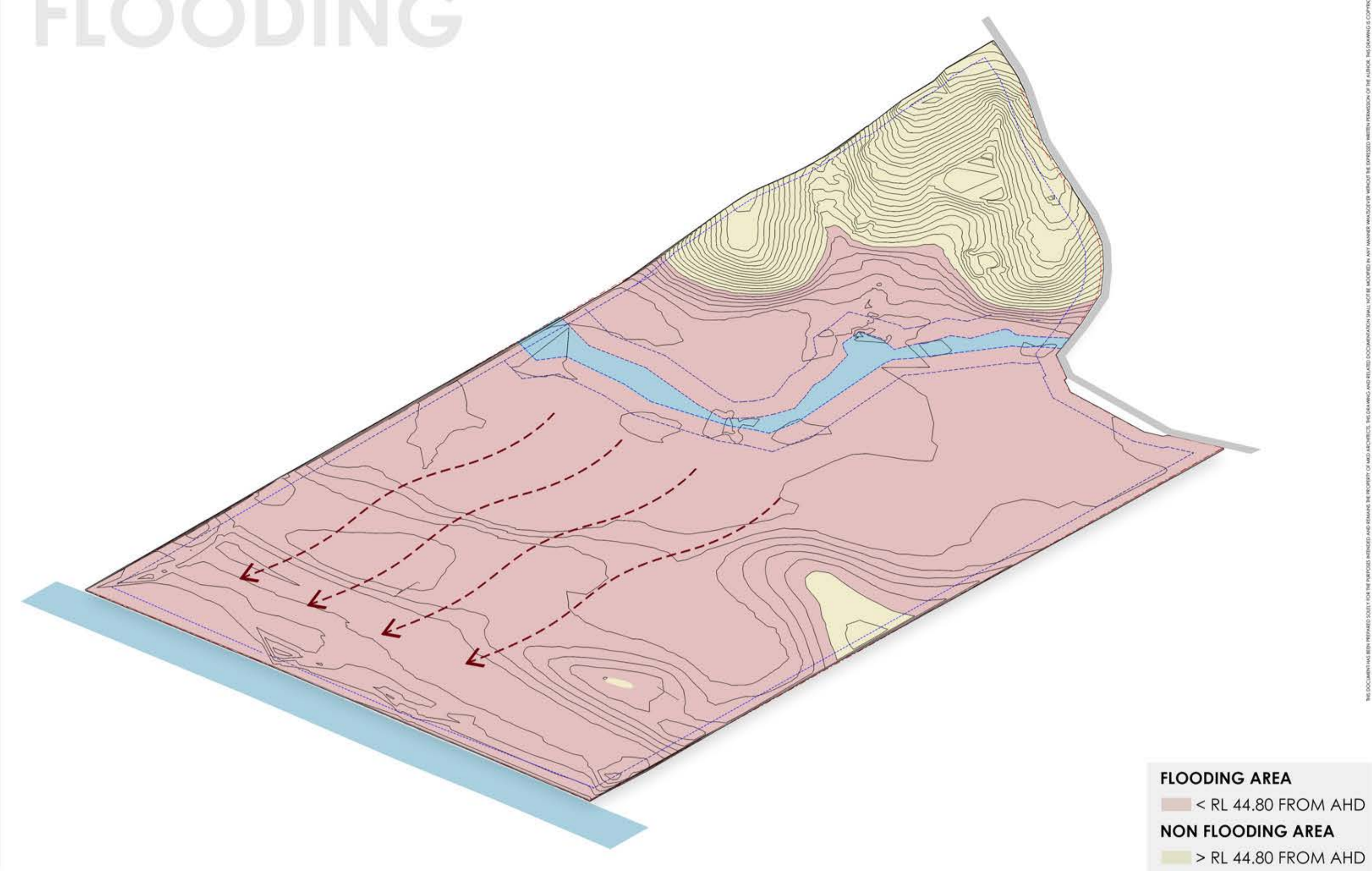
SITE FLOODING SECTION



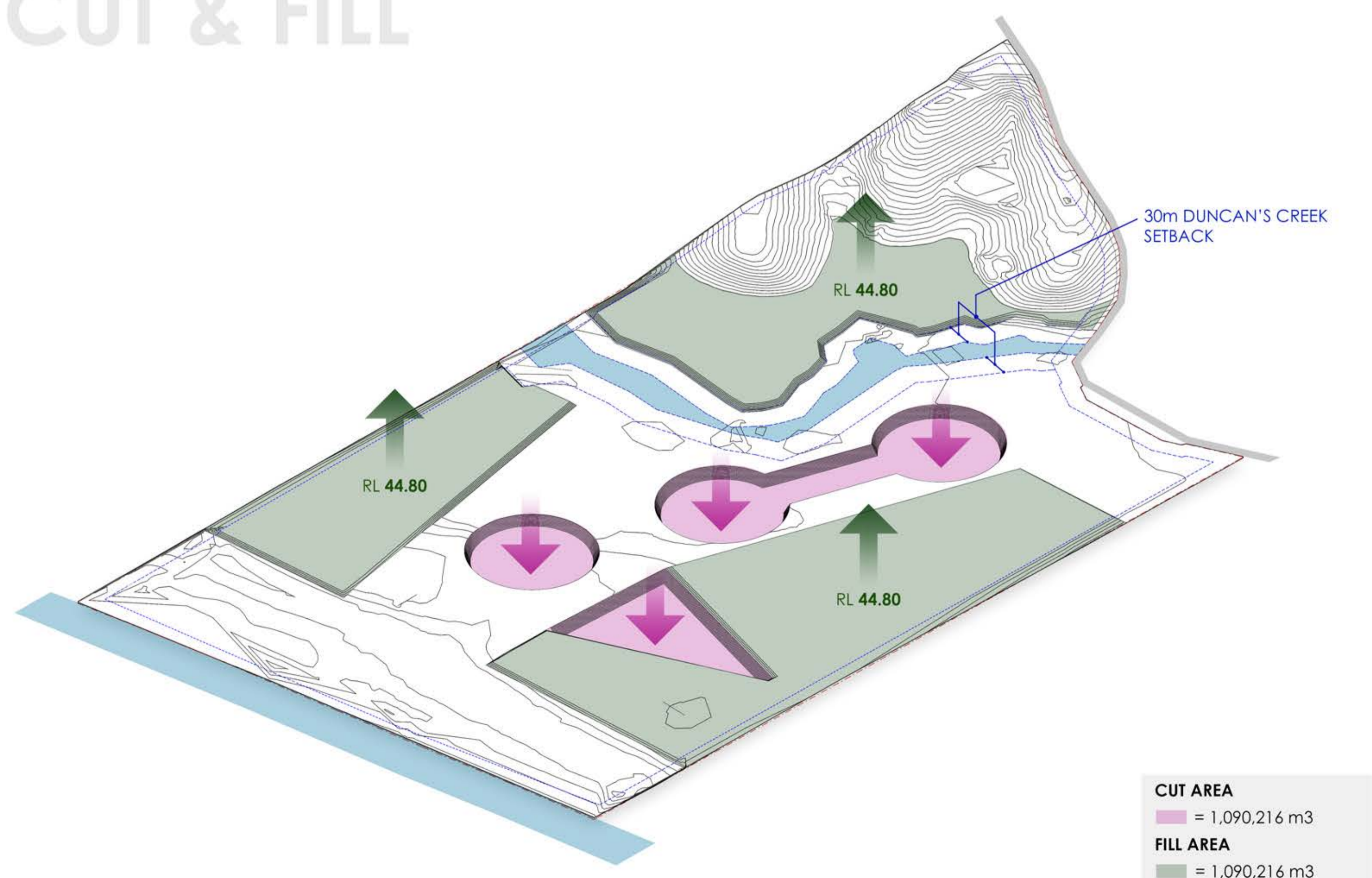
EXISTING



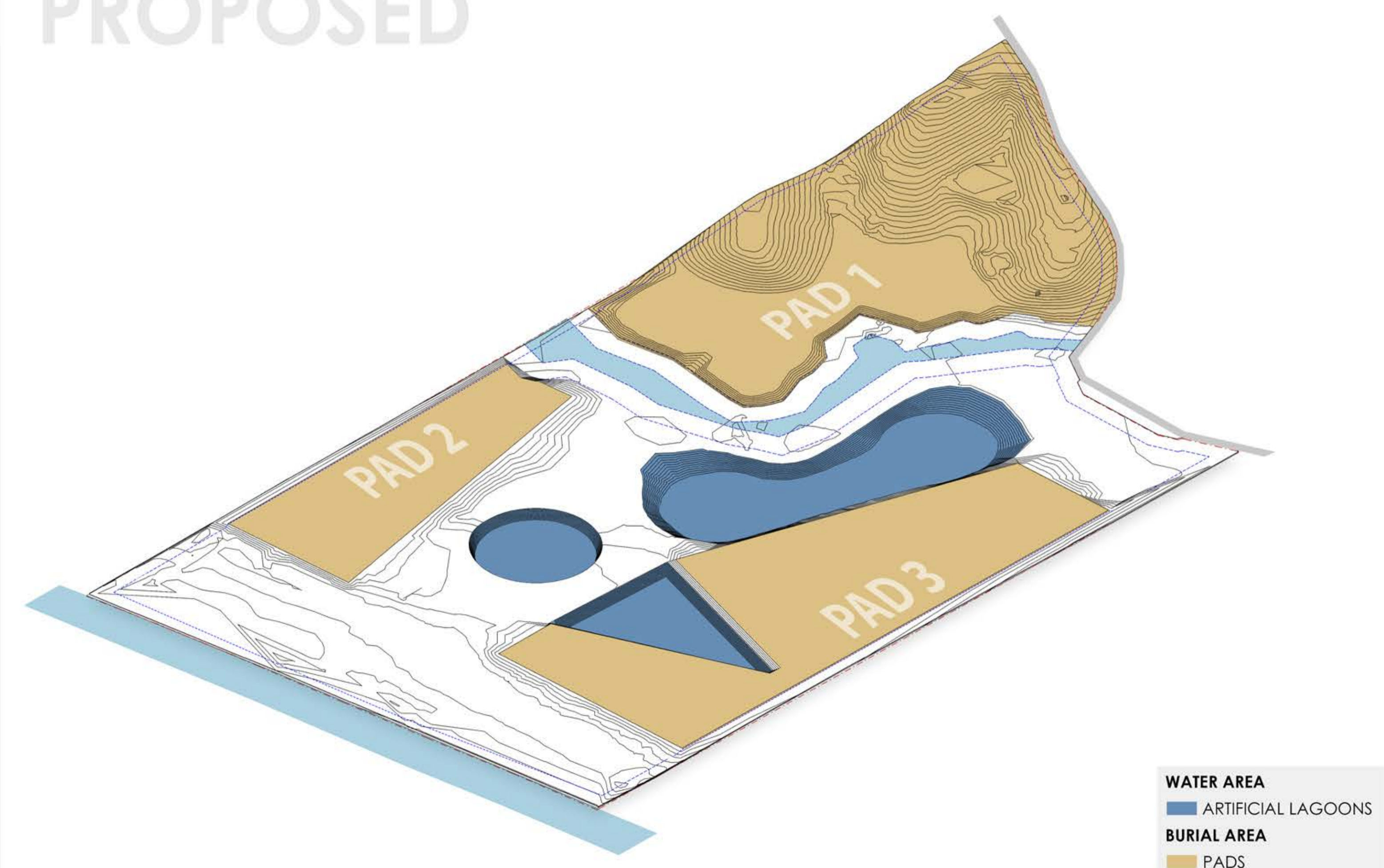
FLOODING



CUT & FILL

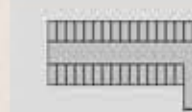





PROPOSED





TOTAL PAD AREA = 327,856m2

-  CAR PARK ISLE (32 CARS SPOTS)
-  8mts WIDE ROAD (2 WAYS TRAFFIC + 1 SIDE PEDESTRIAN WALKWAY + PARALLEL PARKING)
-  3mts WIDE PEDESTRIAN FOOTPATH
-  3mts WIDE PEDESTRIAN FOOTPATH (RAISED TO RL 44.80)



CHAPEL
 + 500ppl CAPACITY
 + HIGH POINT POSITION
 + CEMETERY VIEW
 + PROXIMITY TO THE SKY



ADMINISTRATION / WORKSHOP / MAINTENANCE
 + BLENDED IN NATURE
 + STEPPED FOLLOWING CONTOURS



FUNCTION ROOM / CAFE / FLORIST
 + 500ppl CAPACITY
 + ADAPTABLE OPEN PLAN
 + IN RELATION WITH NATURE



LOOKOUTS
 + INTEGRATE RIVER TO SITE
 + OPEN FLOOD PROOF STRUCTURE



CREMATORIUM
 + 500ppl CAPACITY
 + HIGH POINT POSITION
 + CEMETERY VIEW
 + PROXIMITY TO THE SKY



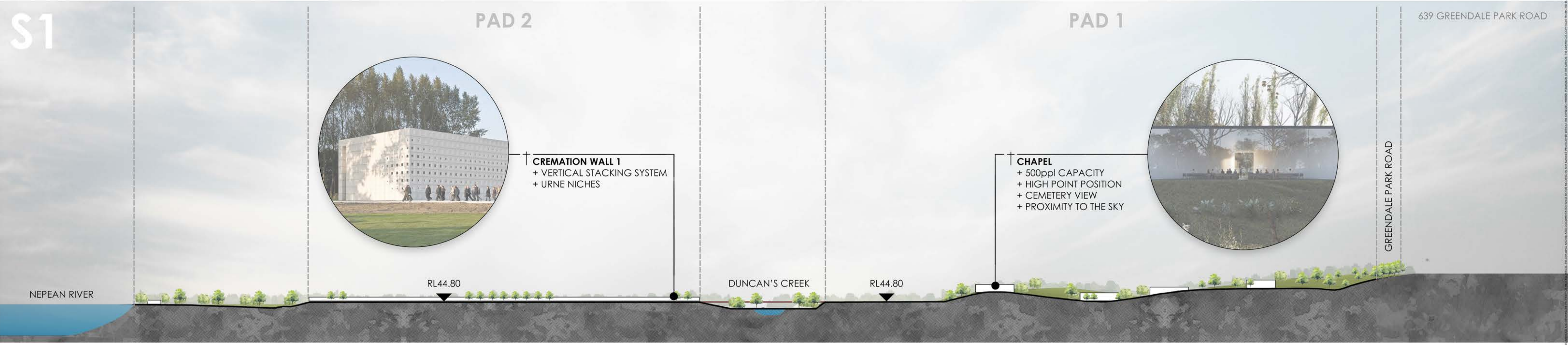
RECEPTION



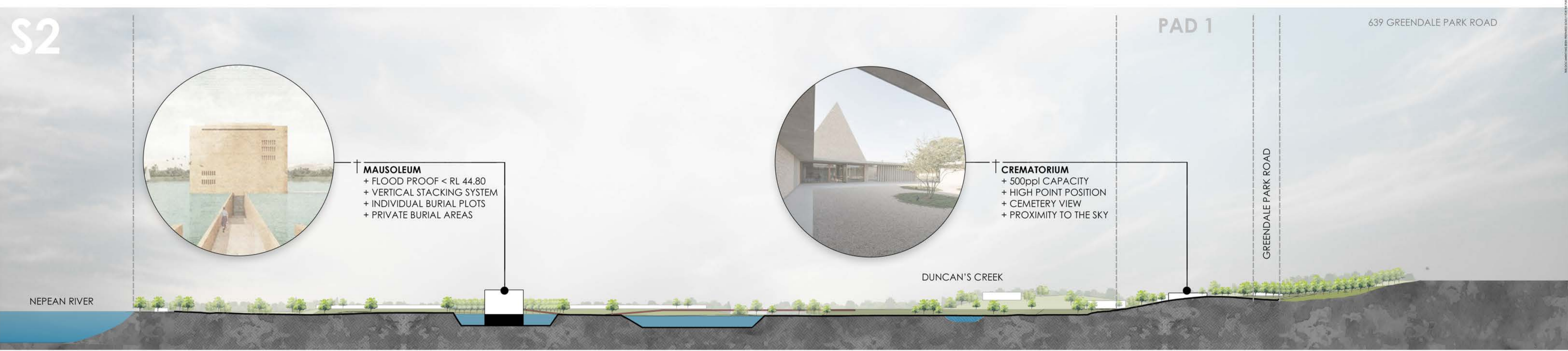
BURIAL PLOTS = 150,000 approx.

- INCLUDING:**
1. IN-GROUND PLOTS
 2. CREMATION WALL PLOTS
 3. MAUSOLEUM PLOTS

S1



S2



S3

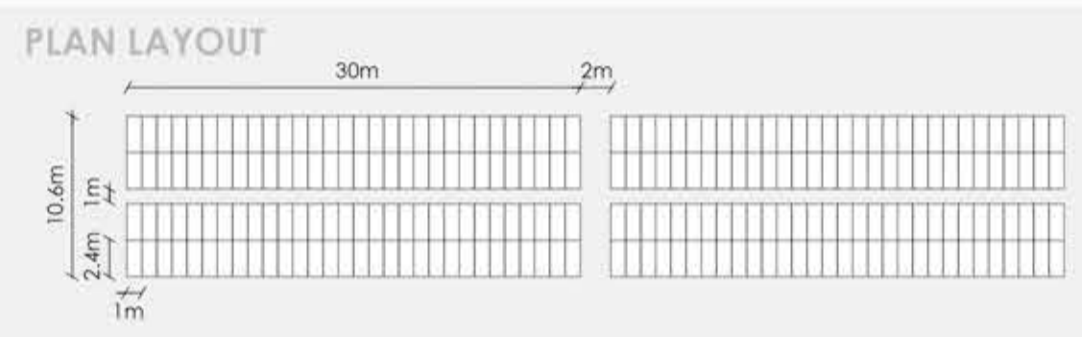


IN-GROUND

(TRADITIONAL - ISLAMIC - GREEN)

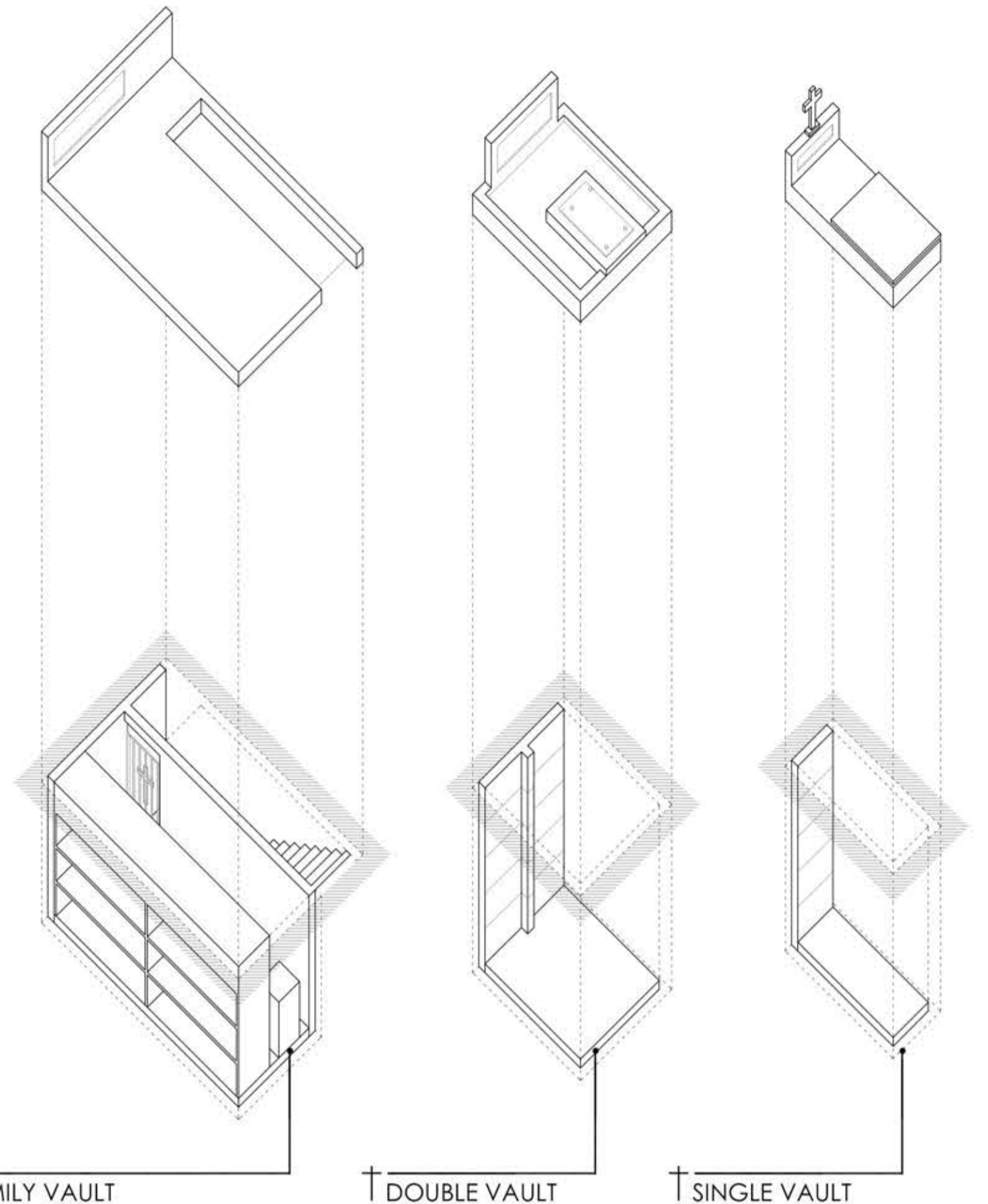


† SINGLE TOMB



PLAN LAYOUT

OTHER OPTIONS / VERTICAL STACKING SYSTEM

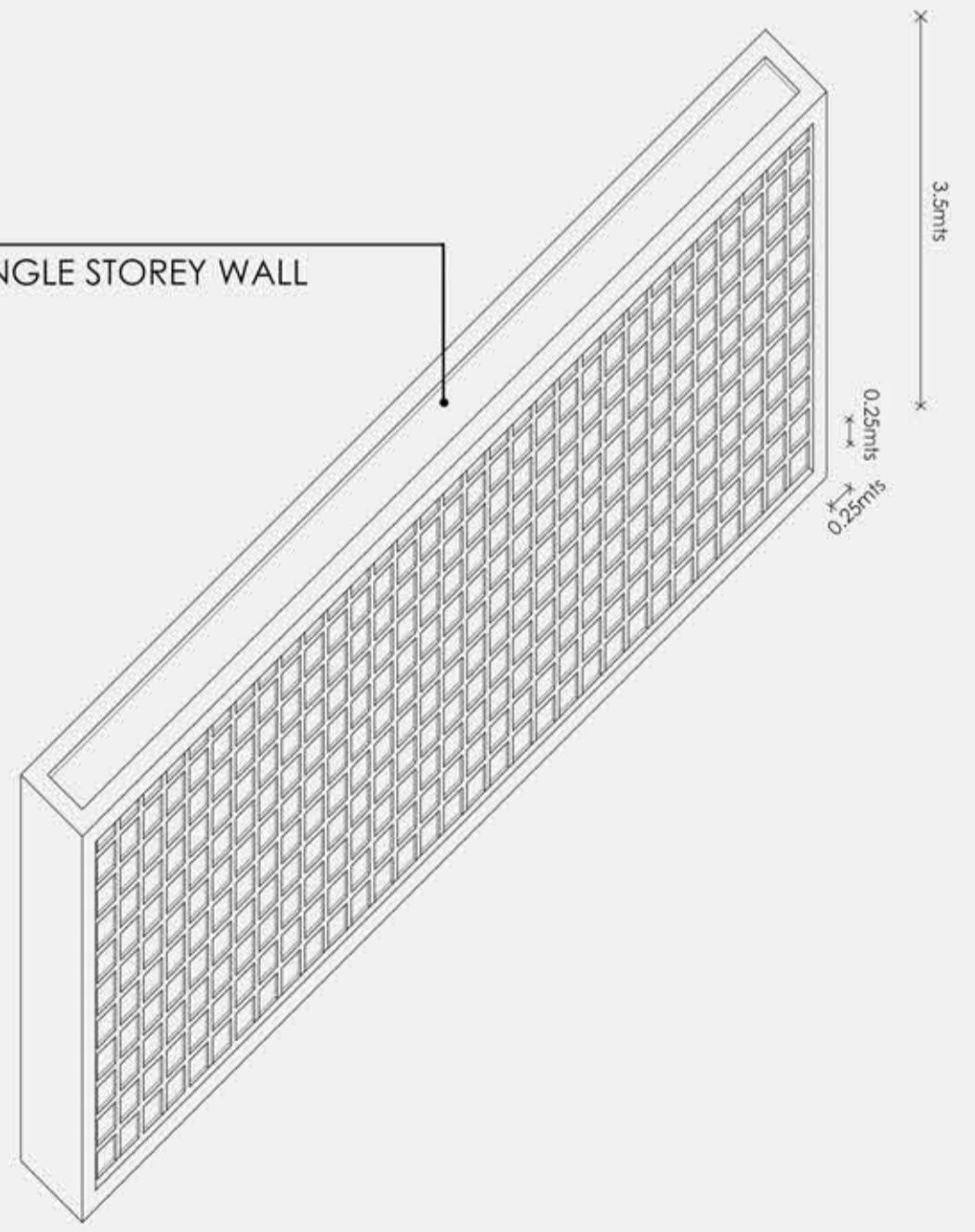


PRECEDENTS

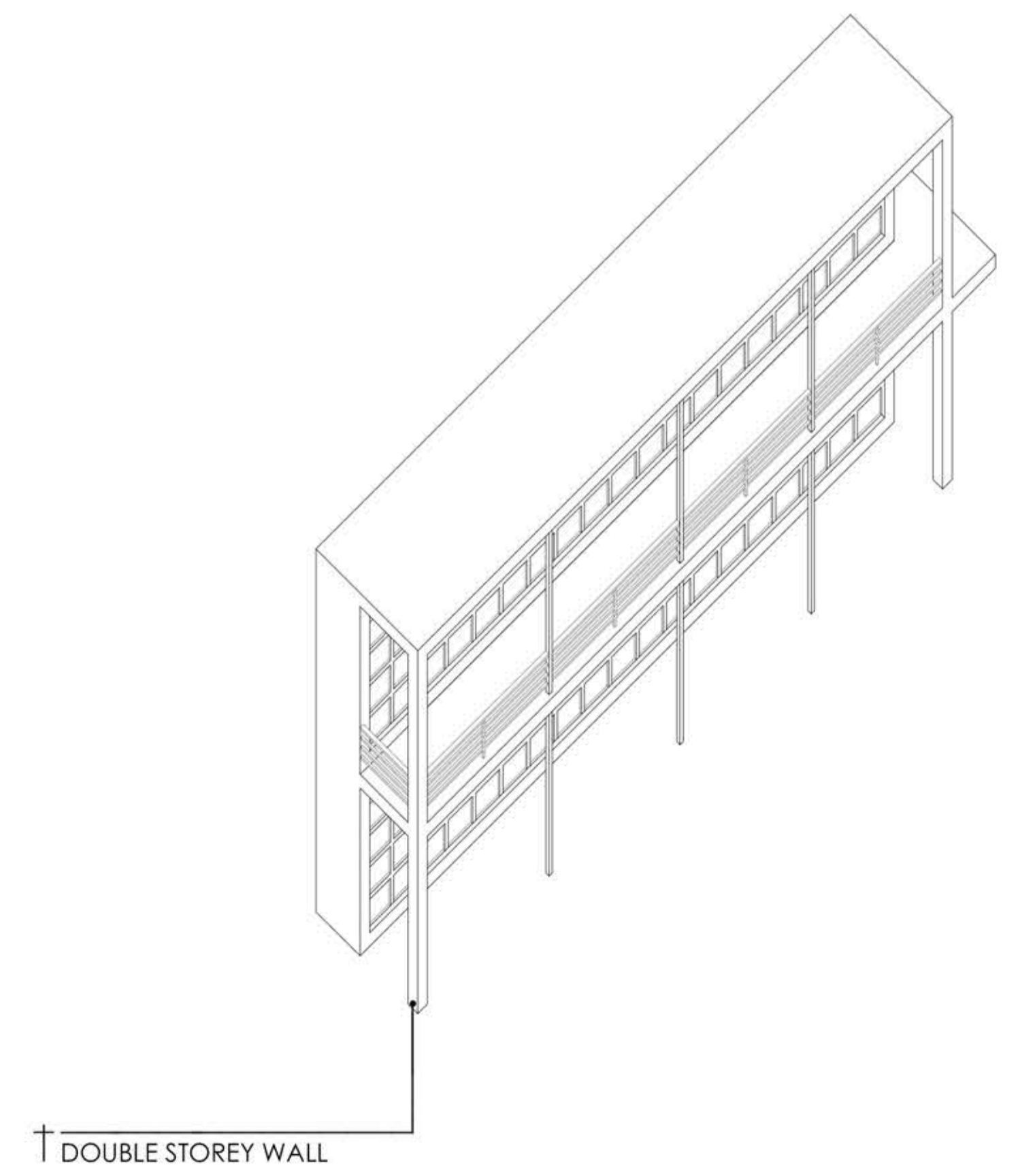


CREMATION WALL

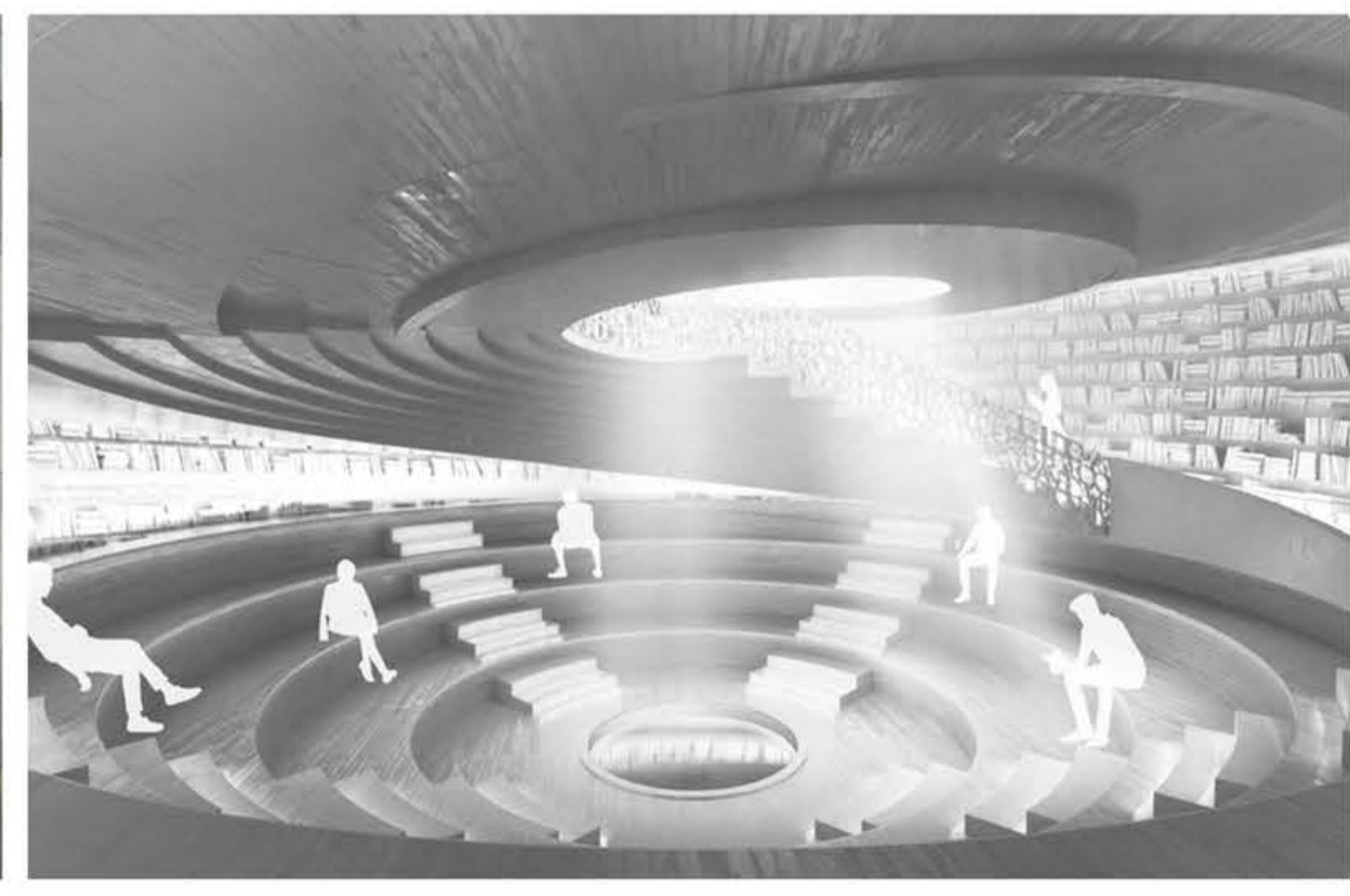
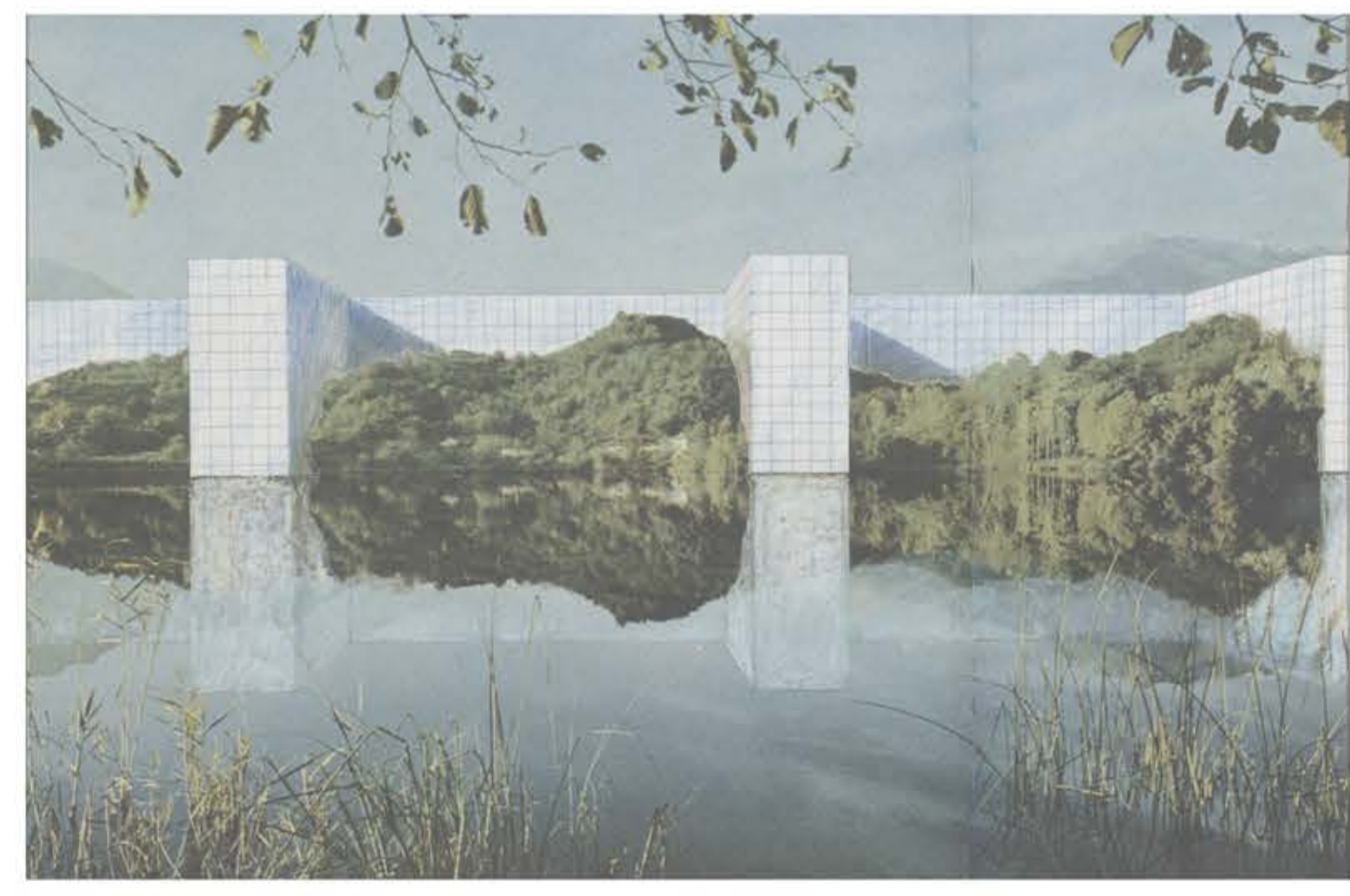
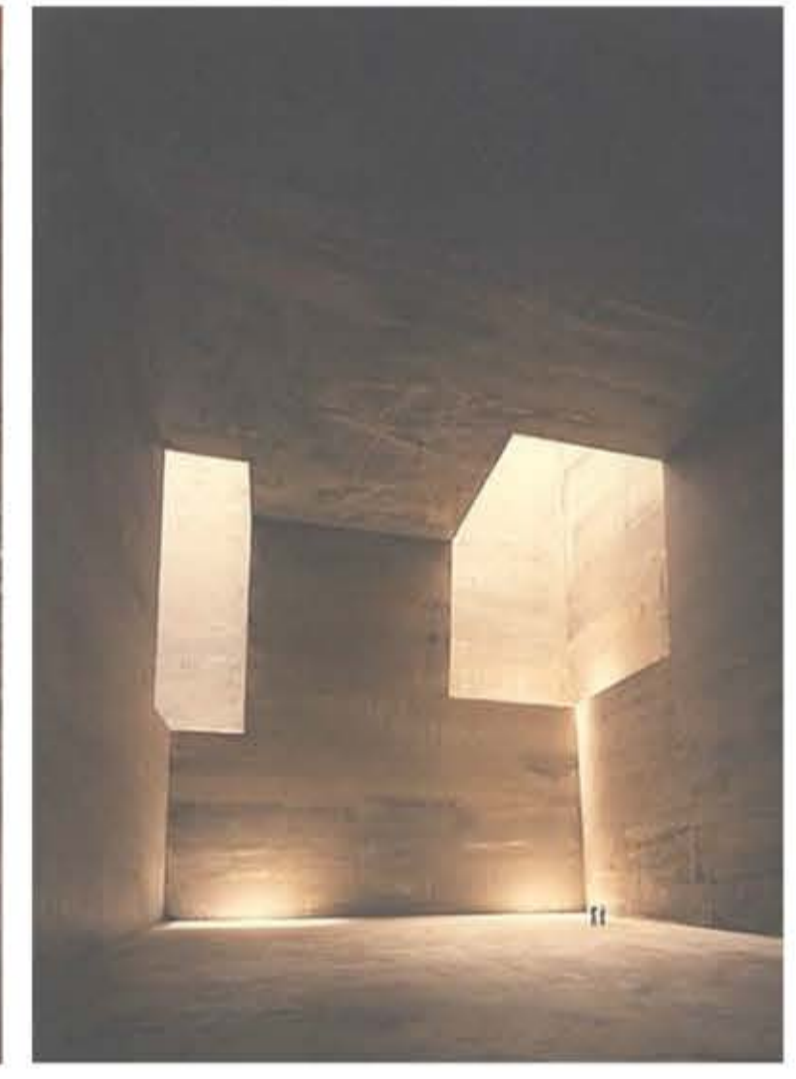
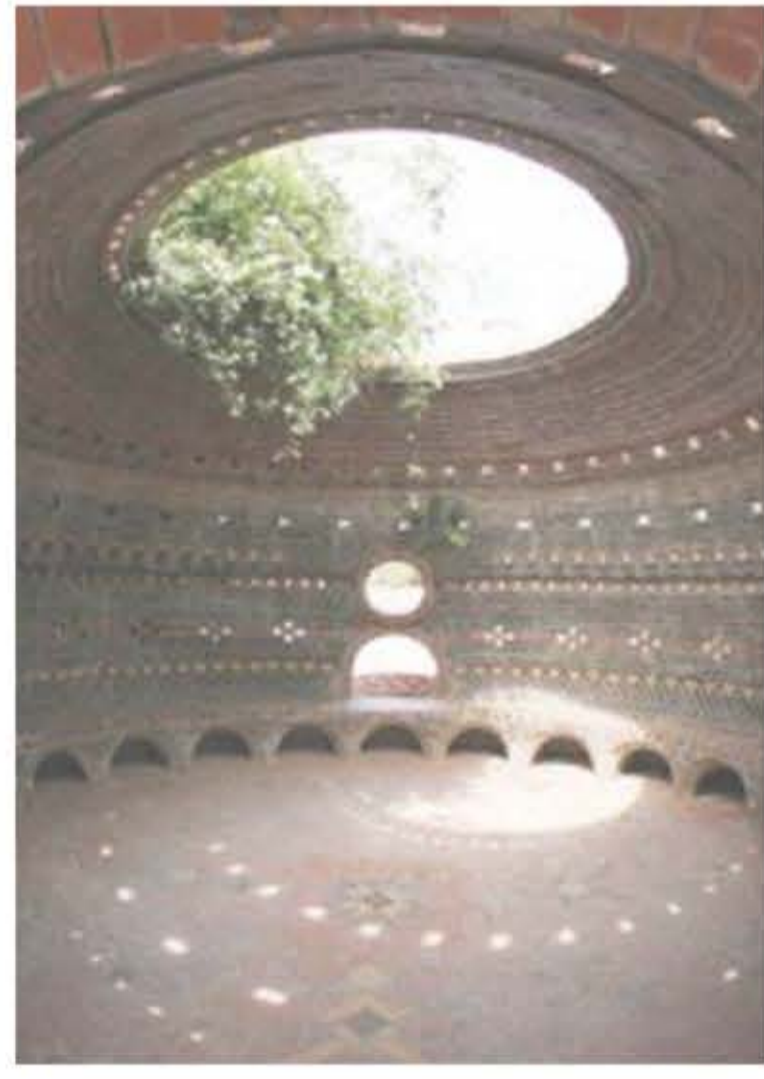
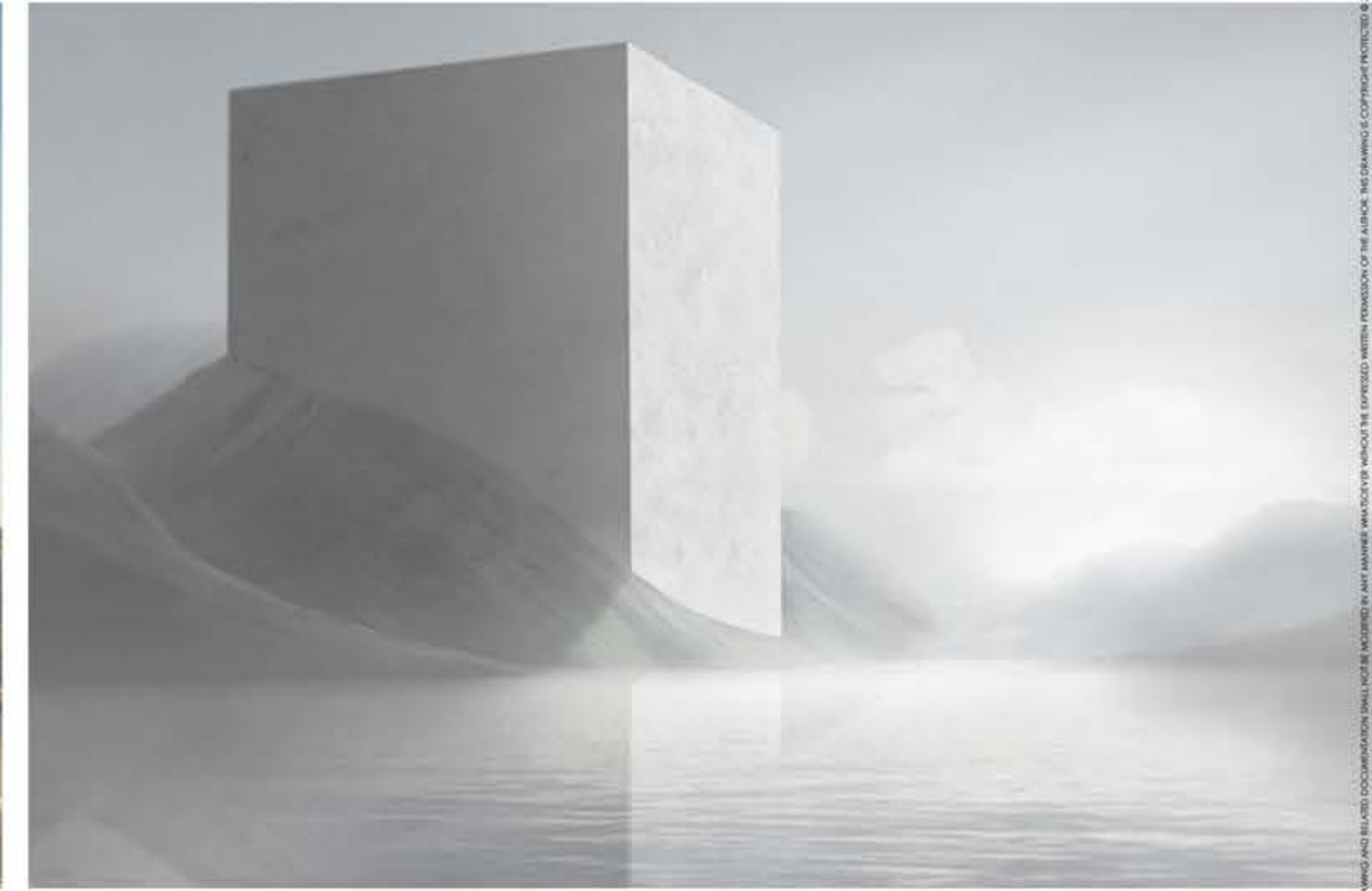
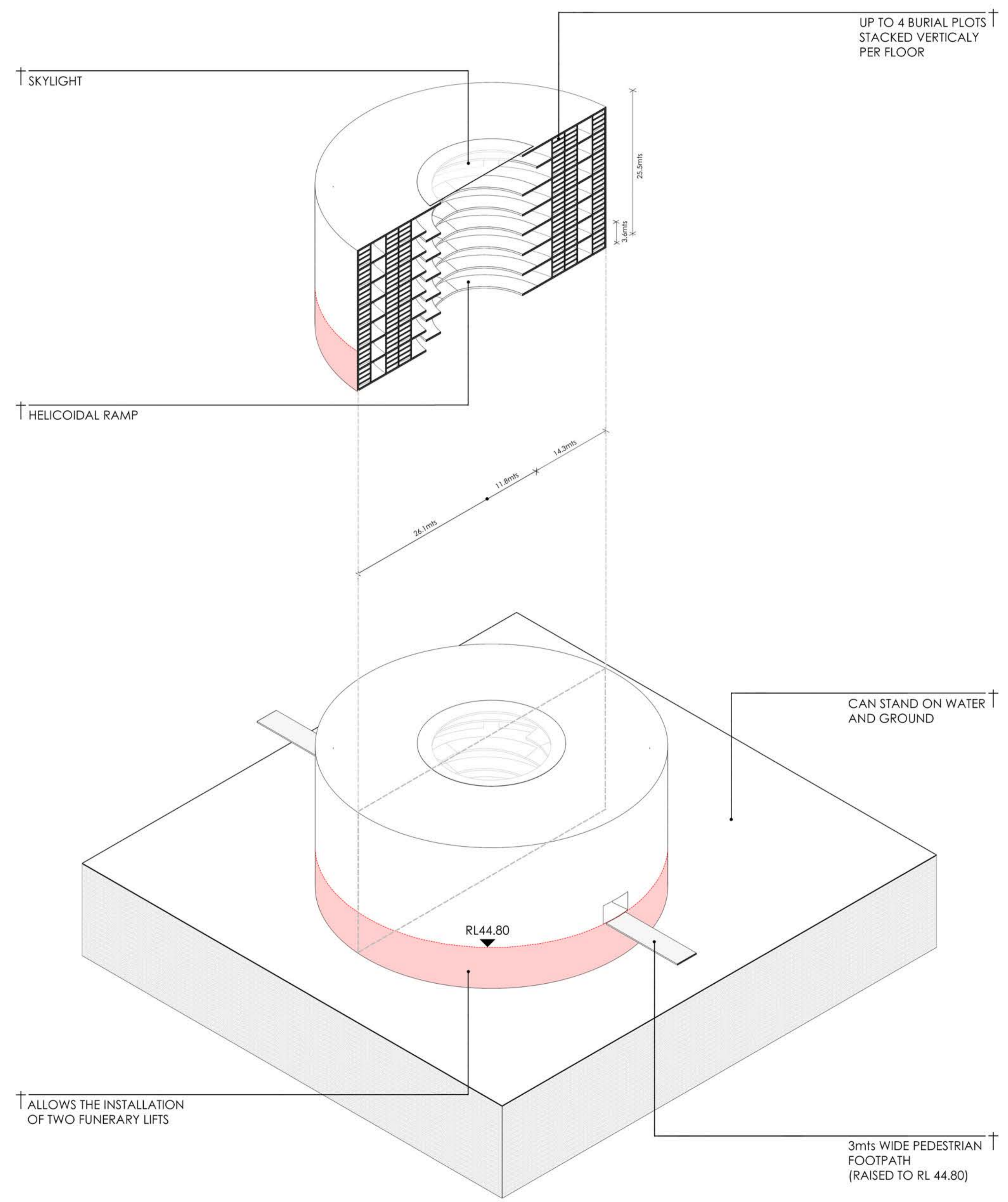
† SINGLE STOREY WALL

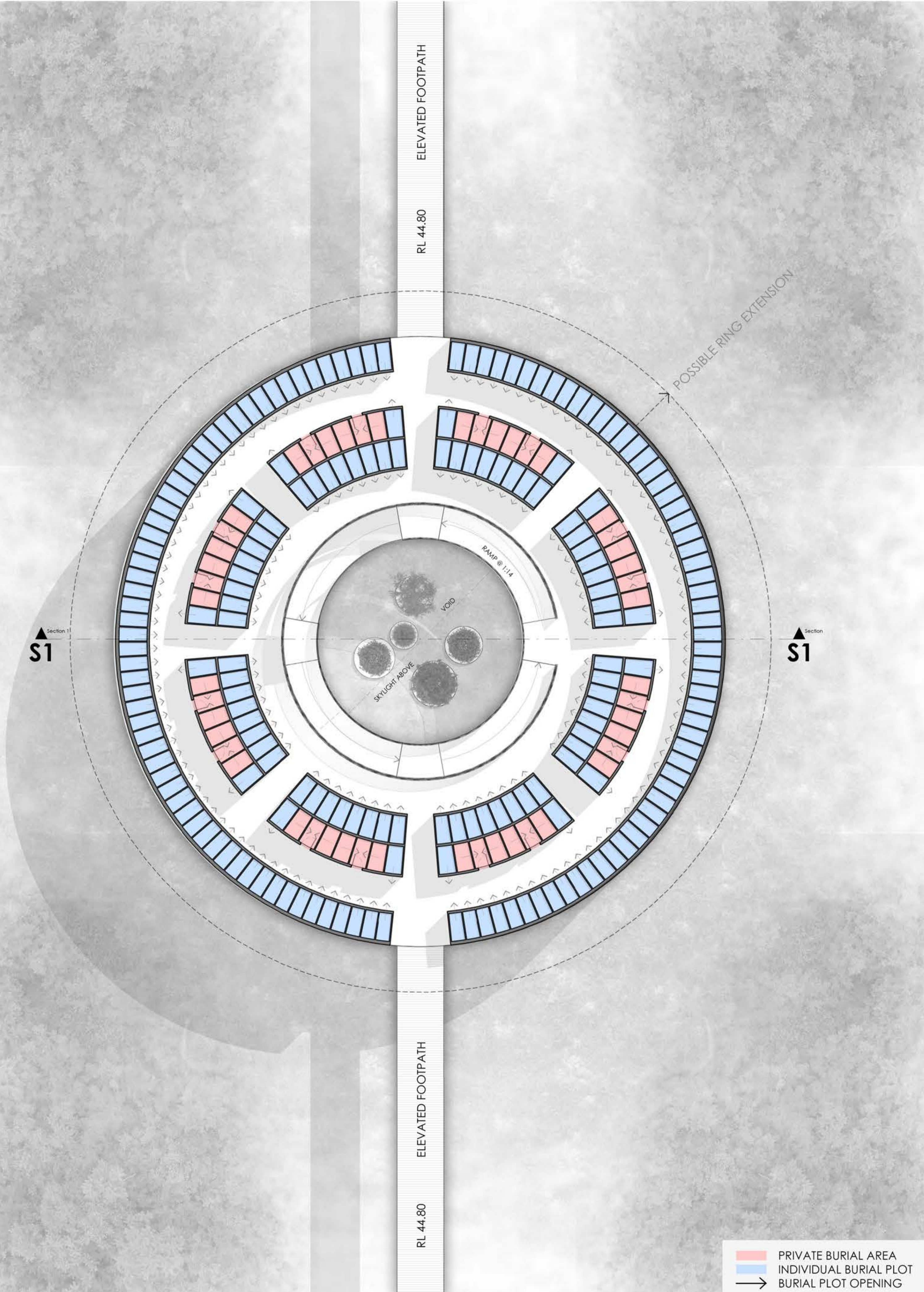


OTHER OPTION / VERTICAL STACKING SYSTEM

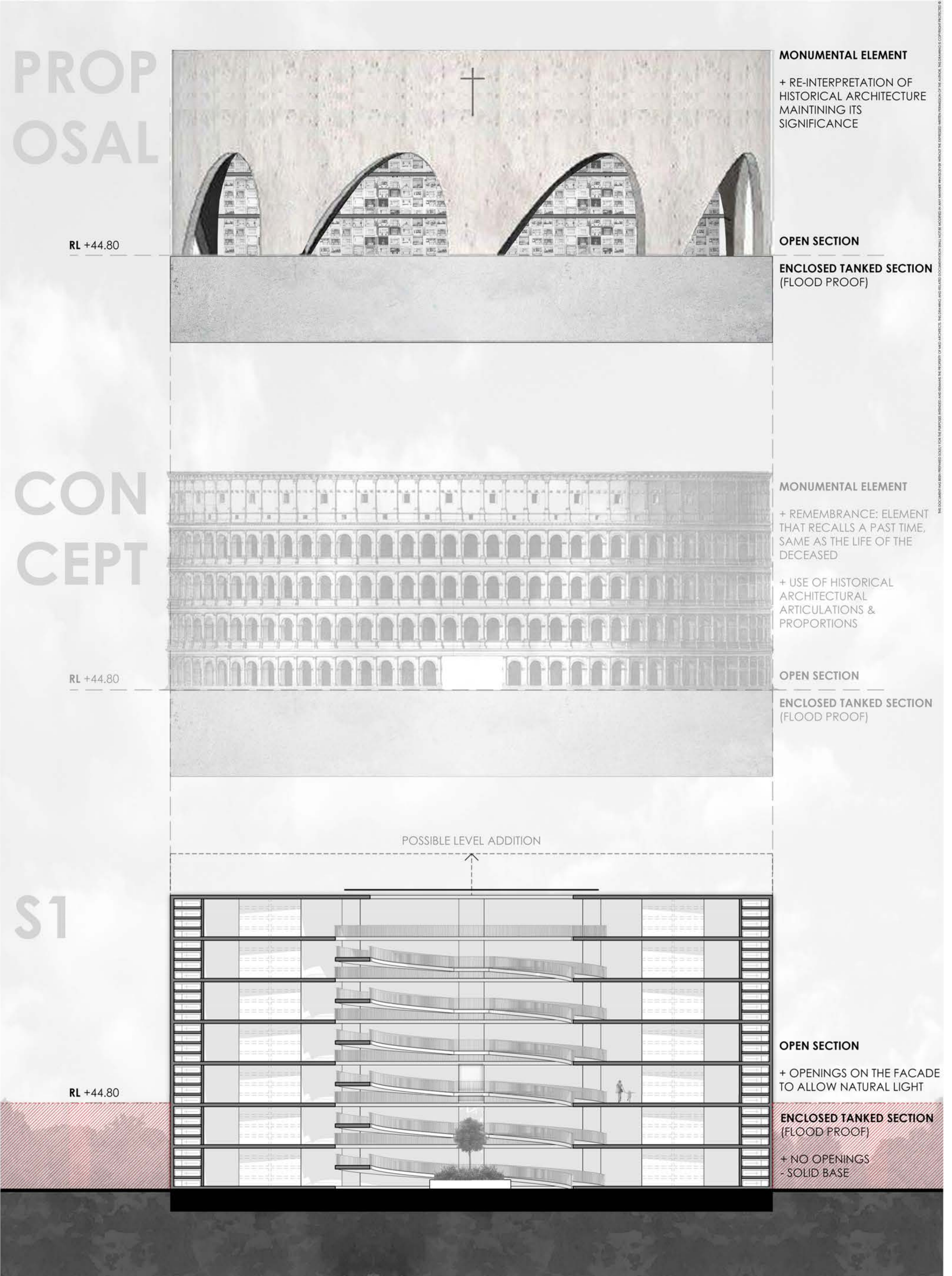


MAUSOLEUM





■ PRIVATE BURIAL AREA
■ INDIVIDUAL BURIAL PLOT
 → BURIAL PLOT OPENING



PROPOSAL

RL +44.80

CONCEPT

RL +44.80

S1

RL +44.80

MONUMENTAL ELEMENT
 + RE-INTERPRETATION OF HISTORICAL ARCHITECTURE MAINTAINING ITS SIGNIFICANCE

OPEN SECTION
ENCLOSED TANKED SECTION (FLOOD PROOF)

MONUMENTAL ELEMENT
 + REMEMBRANCE: ELEMENT THAT RECALLS A PAST TIME, SAME AS THE LIFE OF THE DECEASED

+ USE OF HISTORICAL ARCHITECTURAL ARTICULATIONS & PROPORTIONS

OPEN SECTION
ENCLOSED TANKED SECTION (FLOOD PROOF)

POSSIBLE LEVEL ADDITION

OPEN SECTION
 + OPENINGS ON THE FACADE TO ALLOW NATURAL LIGHT

ENCLOSED TANKED SECTION (FLOOD PROOF)
 + NO OPENINGS - SOLID BASE

Appendix G

EPA Records Search

Background

A strategy to systematically prioritise, assess and respond to notifications under Section 60 of the *Contaminated Land Management Act 1997* (CLM Act) has been developed by the EPA. This strategy acknowledges the EPA's obligations to make information available to the public under *Government Information (Public Access) Act 2009*.

When a site is notified to the EPA, it may be accompanied by detailed site reports where the owner has been proactive in addressing the contamination and its source. However, often there is minimal information on the nature or extent of the contamination.

After receiving a report, the first step is to confirm that the report does not relate to a pollution incident. The Protection of the Environment Operations Act 1997 (POEO Act) deals with pollution incidents, waste stockpiling or dumping. The EPA also has an incident management process to manage significant incidents (<https://www.epa.nsw.gov.au/reporting-and-incidents/incident-management>).

In many cases, the information indicates the contamination is securely immobilised within the site, such as under a building or carpark, and is not currently causing any significant risks for the community or environment. Such sites may still need to be cleaned up, but this can be done in conjunction with any subsequent building or redevelopment of the land. These sites do not require intervention under the CLM Act, and are dealt with through the planning and development consent process. In these cases, the EPA informs the local council or other planning authority, so that the information can be recorded and considered at the appropriate time (<https://www.epa.nsw.gov.au/your-environment/contaminated-land/managing-contaminated-land/role-of-planning-authorities>).

Where indications are that the contamination could cause actual harm to the environment or an unacceptable offsite impact (i.e. the land is 'significantly contaminated'), the EPA would apply the regulatory provisions of the CLM Act to have the responsible polluter and/or landowner investigate and remediate the site. If the reported contamination could present an immediate or long-term threat to human health NSW Health will be consulted. SafeWork NSW and Water NSW can also be consulted if there appear to be occupational health and safety risks or an impact on groundwater quality.

As such, the sites notified to the EPA and presented in the list of contaminated sites notified to the EPA are at various stages of the assessment and remediation process. Understanding the nature of the underlying contamination, its implications and implementing a remediation program where required, can take a considerable period of time. The list provides an indication, in relation to each nominated site, as to the management status of that particular site. Further detailed information may be available from the EPA or the person who notified the site.

The following questions and answers may assist those interested in this issue.

Frequently asked questions

Why does my land appear on the list of notified sites?

Your land may appear on the list because:

- the site owner and/or the polluter has notified the EPA under section 60 of the CLM Act
- the EPA has been notified via other means and is satisfied that the site is or was contaminated.

If a site is on the list, it does not necessarily mean the contamination is significant enough to regulate under the CLM Act.

Does the list contain all contaminated sites in NSW?

No. The list only contains contaminated sites that EPA is aware of. If a site is not on the list, it does not necessarily mean the site is not contaminated.

The EPA relies on responsible parties and the public to notify contaminated sites.

How are notified contaminated sites managed by the EPA?

There are different ways the EPA can manage notified contaminated sites. Options include:

- regulation under the CLM Act, POEO Act, or both
- notifying the relevant planning authority for management under the planning and development process
- managing the site under the Protection of the Environment Operation (Underground Petroleum Storage Systems) Regulation 2014.

There are specific cases where contamination is managed under a tailored program operated by another agency (for example, the Resources & Geoscience's Legacy Mines Program).

What should I do if I am a potential buyer of a site that appears on the list?

You should seek advice from the seller to understand the contamination issue. You may need to seek independent contamination or legal advice.

The information provided in the list is indicative only and a starting point for your own assessment. Land contamination from past site uses is common, mainly in urban environments. If the site is properly remediated or managed, it may not affect the intended future use of the site.

Who can I contact if I need more information about a site?

You can contact the Environment Line at any time by calling 131 555 or by emailing info@environment.nsw.gov.au.

List of NSW Contaminated Sites Notified to the EPA

Disclaimer

The EPA has taken all reasonable care to ensure that the information in the list of contaminated sites notified to the EPA (the list) is complete and correct. The EPA does not, however, warrant or represent that the list is free from errors or omissions or that it is exhaustive.

The EPA may, without notice, change any or all of the information in the list at any time.

You should obtain independent advice before you make any decision based on the information in the list.

The list is made available on the understanding that the EPA, its servants and agents, to the extent permitted by law, accept no responsibility for any damage, cost, loss or expense incurred by you as a result of:

1. any information in the list; or
2. any error, omission or misrepresentation in the list; or
3. any malfunction or failure to function of the list;
4. without limiting (2) or (3) above, any delay, failure or error in recording, displaying or updating information.

Site Status	Explanation
Under assessment	The contamination is being assessed by the EPA to determine whether regulation is required. The EPA may require further information to complete the assessment. For example, the completion of management actions regulated under the planning process or <i>Protection of the Environment Operations Act 1997</i> .
Under Preliminary Investigation Order	The EPA has issued a Preliminary Investigation Order under s10 of the <i>Contaminated Land Management Act 1997</i> , to obtain additional information needed to complete the assessment.

Regulation under CLM Act not required	The EPA has completed an assessment of the contamination and decided that regulation under the <i>Contaminated Land Management Act 1997</i> is not required.
Regulation being finalised	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation under the <i>Contaminated Land Management Act 1997</i> . A regulatory approach is being finalised.
Contamination currently regulated under CLM Act	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation under the Contaminated Land Management Act 1997 (CLM Act). Management of the contamination is regulated by the EPA under the CLM Act. Regulatory notices are available on the EPA's Contaminated Land Public Record.
Contamination currently regulated under POEO Act	Contamination is currently regulated under the Protection of the Environment Operations Act 1997 (POEO Act). The EPA as the appropriate regulatory authority reasonably suspects that a pollution incident is occurring/ has occurred and that it requires regulation under the POEO Act. The EPA may use environment protection notices, such as clean up notices, to require clean up action to be taken. Such regulatory notices are available on the POEO public register.
Contamination being managed via the planning process (EP&A Act)	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation. The contamination of this site is managed by the consent authority under the <i>Environmental Planning and Assessment Act 1979</i> (EP&A Act) planning approval process, with EPA involvement as necessary to ensure significant contamination is adequately addressed. The consent authority is typically a local council or the Department of Planning and Environment.
Contamination formerly regulated under the CLM Act	The EPA has determined that the contamination is no longer significant enough to warrant regulation under the <i>Contaminated Land Management Act 1997</i> (CLM Act). The contamination was addressed under the CLM Act.

Contamination formerly regulated under the POEO Act	The EPA has determined that the contamination is no longer significant enough to warrant regulation. The contamination was addressed under the <i>Protection of the Environment Operations Act 1997</i> (POEO Act).
Contamination was addressed via the planning process (EP&A Act)	The EPA has determined that the contamination is no longer significant enough to warrant regulation. The contamination was addressed by the appropriate consent authority via the planning process under the <i>Environmental Planning and Assessment Act 1979</i> (EP&A Act).
Ongoing maintenance required to manage residual contamination (CLM Act)	The EPA has determined that ongoing maintenance, under the <i>Contaminated Land Management Act 1997</i> (CLM Act), is required to manage the residual contamination. Regulatory notices under the CLM Act are available on the EPA's Contaminated Land Public Record.

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
URALLA	Caltex Service Station	103 Bridge STREET	Service Station	Regulation under CLM Act not required	-30.64524911	151.4934484
URALLA	Phoenix Foundry	44 Duke STREET	Metal Industry	Regulation under CLM Act not required	-30.65093272	151.5004479
URANQUINTY	Former Caltex Depot Kapooka (Wagga Wagga)	6876 Olympic (Uranquinty Rd) HIGHWAY	Service Station	Regulation under CLM Act not required	-35.15319793	147.3085469
URUNGA	Former Antimony Process plant	Hillside DRIVE	Chemical Industry	Contamination currently regulated under CLM Act	-30.50422942	153.0132011
VALENTINE	BP Express Service Station	855 Macquarie DRIVE	Service Station	Regulation under CLM Act not required	-33.00801109	151.6425806
VALENTINE	Valentine Public School	Tallawalla ROAD	Unclassified	Regulation under CLM Act not required	-33.0091613	151.6423231
VILLAWOOD	Nepotian (Former Toll) Site	110A Christina ROAD	Other Industry	Under preliminary investigation order	-33.87919117	150.9812193
VILLAWOOD	Former Defence Site	29 Biloela STREET	Landfill	Regulation under CLM Act not required	-33.88782978	150.9886275
VILLAWOOD	Former Siemens/Westinghouse	49 Miowera ROAD	Other Industry	Contamination formerly regulated under the CLM Act	-33.87641909	150.9836746
VILLAWOOD	Former Orica Crop Care	2 Christina ROAD	Chemical Industry	Contamination currently regulated under CLM Act	-33.880329	150.9896329
VILLAWOOD	PPG Industries	9 Birmingham AVENUE	Chemical Industry	Regulation under CLM Act not required	-33.87800757	150.9887929
VILLAWOOD	Former Electrical Component Manufacturer	66 Christina ROAD	Other Industry	Ongoing maintenance required to manage residual contamination (CLM Act)	-33.88018315	150.9838773
VILLAWOOD	Ettason Villawood Site	2A Birmingham AVENUE	Chemical Industry	Under preliminary investigation order	-33.878734	150.98259
VINEYARD	Shell Coles Express Service Station	731 Windsor ROAD	Service Station	Regulation under CLM Act not required	-33.65780463	150.8753245
WAGGA WAGGA	Caltex Service Station	170 Fitzmaurice STREET	Service Station	Regulation under CLM Act not required	-35.10289587	147.3679002
WAGGA WAGGA	Former BP Service Station	31 Bourke STREET	Service Station	Regulation under CLM Act not required	-35.12626628	147.3547199

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
WAGGA WAGGA	Caltex (former Mobil) Service Station	106 Edward STREET	Service Station	Regulation under CLM Act not required	-35.11910909	147.3682364
WAGGA WAGGA	Former Caltex Depot	60 Lake Albert DRIVE	Service Station	Regulation under CLM Act not required	-35.12316794	147.37724
WAGGA WAGGA	Former Mobil Depot Wagga Wagga	97-99 Coleman STREET	Other Petroleum	Regulation under CLM Act not required	-35.12173871	147.3576651
WAGGA WAGGA	Ashmont Autoport	Cnr Tobruk Street and Bardia STREET	Service Station	Regulation under CLM Act not required	-35.12517373	147.329919
WAGGA WAGGA	Former Caltex Service Station	343 Hammond AVENUE	Service Station	Regulation under CLM Act not required	-35.12420793	147.4157959
WAGGA WAGGA	Caltex Service Station	56 - 60 Docker St STREET	Service Station	Regulation under CLM Act not required	-35.11737947	147.3558145
WAGGA WAGGA	Former Iron Foundry	212-230 Hammond STREET	Metal Industry	Regulation under CLM Act not required	-35.12605478	147.4045461
WAGGA WAGGA	Coles Express Wagga Wagga	353-355 Edward STREET	Service Station	Regulation under CLM Act not required	-35.11606625	147.3509339
WAGGA WAGGA	Former Wiradjuri landfill	Narrung STREET	Landfill	Under assessment	-35.09628532	147.3619535
WAGGA WAGGA	Former Gasworks	54 Chaston STREET	Gasworks	Contamination currently regulated under CLM Act	-35.12262069	147.3482778
WAGGA WAGGA	Former Gasworks	Cnr Tarcutta Street and Cross STREET	Gasworks	Contamination currently regulated under CLM Act	-35.10871183	147.3737933
WAGGA WAGGA	BP Wagga Wagga	180 Edward STREET	Service Station	Regulation under CLM Act not required	-35.11850802	147.3639619
WAGGA WAGGA	Former Dry Cleaning Facility	183 Fitzmaurice STREET	Other Industry	Contamination currently regulated under CLM Act	-35.10209987	147.3683852
WAHROONGA	Coles Express Wahroonga	1601 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.71945571	151.1163002
WAHROONGA	7-Eleven Service Station	1579 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.71974617	151.1168106
WAITARA	Caltex Service Station	59-61 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.71064349	151.1024644

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
WALGETT	Former Shell Depot	Castlereagh HIGHWAY	Other Petroleum	Regulation under CLM Act not required	-30.00861179	148.1239938
WALLERAWANG	Wallerawang Power Station	1 Main STREET	Other Petroleum	Regulation under CLM Act not required	-33.40339296	150.0855101
WALLERAWANG	Lidsdale Coal Loading Facility	Main STREET	Other Industry	Regulation under CLM Act not required	-33.39996523	150.0737717
WALLSEND	Caltex Maryland Service Station Wallsend	41 Minmi ROAD	Service Station	Regulation under CLM Act not required	-32.88967866	151.6619253
WALLSEND	Coles Express Wallsend East	15 Thomas STREET	Service Station	Regulation under CLM Act not required	-32.90719444	151.6693426
WALLSEND	OneSteel Recycling	64-80 Sandgate ROAD	Metal Industry	Regulation under CLM Act not required	-32.89425477	151.6799648
WALLSEND	Ausgrid Wallsend Depot	Abbott STREET	Other Industry	Regulation under CLM Act not required	-32.90162796	151.6857267
WALLSEND	Cnr of Douglas Street and 111 Newcastle Road Wallsend	111 Newcastle ROAD	Metal Industry	Regulation under CLM Act not required	-32.90414175	151.6830784
WAMBERAL	Caltex Service Station	654 The Entrance ROAD	Service Station	Regulation under CLM Act not required	-33.42338668	151.4375685
WANGI WANGI	Myuna Colliery	Wangi Point ROAD	Other Industry	Regulation under CLM Act not required	-33.06139532	151.5697186
WARATAH	Waratah Area Health	Turton ROAD	Unclassified	Regulation under CLM Act not required	-32.90961233	151.7260867
WARATAH	Waratah former Gasworks	Turton and Georgetown ROADS	Gasworks	Regulation being finalised	-32.9057763	151.7270033
WARDELL	Nancy's Cattle Dip, Thurgates Lane, Wardell	Thurgates LANE	Cattle Dip	Regulation under CLM Act not required	-28.954176	153.427349
WARILLA	Woolworths Petrol Warilla	43 -57 Shellharbour ROAD	Service Station	Regulation under CLM Act not required	-34.5470966	150.863748
WARKWORTH	Emulsion Plant, Dyno Nobel Asia Pacific Pty Ltd	186 Long Point ROAD	Chemical Industry	Regulation under CLM Act not required	-32.5781708	151.0834387
WARKWORTH	United Colliery	Jerrys Plains ROAD	Other Industry	Regulation under CLM Act not required	-32.5654356	150.9916698

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
WARNERS BAY	Caltex Service Station	55 King STREET	Service Station	Regulation under CLM Act not required	-32.97418806	151.6476184
WARNERS BAY	7-Eleven (former Mobil) Service Station	393 Hillsborough ROAD	Service Station	Regulation under CLM Act not required	-32.9659363	151.6543264
WARNERS BAY	Historically Filled Land	41-43 Charles STREET	Unclassified	Regulation under CLM Act not required	-32.97340461	151.6464383
WARNERVALE	Former Timber Treatment Plant	Aldenham and Railway ROADS	Other Industry	Contamination formerly regulated under the CLM Act	-33.24732018	151.4469037
WARRAGAMBA	Warragamba Dam Viewing Platform	Eighteenth STREET	Unclassified	Regulation under CLM Act not required	-33.88546354	150.6024501
WARRAGAMBA	Megarrity's Creek Site	Weir ROAD	Unclassified	Regulation under CLM Act not required	-33.885049	150.597628
WARRAWONG	Caltex Service Station	75-77 King STREET	Service Station	Regulation under CLM Act not required	-34.49037817	150.888802
WARREN	Former Shell Depot	8 Dubbo STREET	Other Petroleum	Regulation under CLM Act not required	-31.69379262	147.8308088
WARREN	Caltex Warren Service Station	1 Coonamble ROAD	Service Station	Regulation under CLM Act not required	-31.69508383	147.8405578
WARREN	Former Mobil Warren Depot	16 Dubbo STREET	Other Petroleum	Contamination currently regulated under CLM Act	-31.6943058	147.8314606
WARWICK FARM	Warwick Farm Public School	95 Lawrence Hargrave ROAD	Unclassified	Regulation under CLM Act not required	-33.91050532	150.9302197
WATERLOO	Proposed Construction Site	2 John STREET	Other Industry	Regulation under CLM Act not required	-33.89989686	151.2010324
WATERLOO	Waverley Woollahra Process Plant	355 Botany ROAD	Other Industry	Regulation under CLM Act not required	-33.9063092	151.2042672
WATERLOO	Shell Coles Express Service Station	867-877 South Dowling STREET	Service Station	Regulation under CLM Act not required	-33.90179774	151.2143789
WATERLOO	Lawrence Dry Cleaners	887-893 Bourke STREET	Unclassified	Contamination currently regulated under CLM Act	-33.89897433	151.2101436
WATERLOO	Diversity Waterloo Blocks C & D and adjacent plaza / park	1, 9, 13, 13A, 13B and 23 Archibald Avenue, 20 Dunkerley Place and 850 Bourke STREET	Other Industry	Regulation under CLM Act not required	-33.90200158	151.2098496

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
WATERLOO	Iconic (Former Chubb Factory) Waterloo	830-838 Elizabeth STREET	Other Industry	Regulation under CLM Act not required	-33.90227718	151.2060305
WATERLOO	22-24 Archibald Avenue	22-24 Archibald AVENUE	Other Petroleum	Regulation under CLM Act not required	-33.90263766	151.2132105
WAUCHOPE	Expressway Spares UST	3 Sancrox ROAD	Other Petroleum	Regulation under CLM Act not required	-31.44163879	152.8231104
WAUCHOPE	Former Shell Depot	56-64 High STREET	Other Petroleum	Regulation under CLM Act not required	-31.45804845	152.7314151
WAUCHOPE	Wauchope Service Station	57 High STREET	Service Station	Regulation under CLM Act not required	-31.45737022	152.7305018
WAUCHOPE	Former Timber Treatment Site	Blackbutt DRIVE	Other Industry	Regulation under CLM Act not required	-31.46575645	152.7228555
WAUCHOPE	Shell Coles Express Service Station	64 High STREET	Service Station	Regulation under CLM Act not required	-31.45764495	152.7315975
WAUCHOPE	Wauchope Public Primary School	2 Waugh STREET	Unclassified	Regulation under CLM Act not required	-31.4556387	152.7295455
WAVERTON	SRA Land	95 Bay ROAD	Unclassified	Contamination formerly regulated under the CLM Act	-33.83716728	151.1969497
WAVERTON	Berry's Bay Woodley's Marina	1 Balls Head DRIVE	Other Industry	Contamination formerly regulated under the POEO Act	-33.84441851	151.1947433
WAVERTON	Oyster Cove AGL	2 King STREET	Gasworks	Ongoing maintenance required to manage residual contamination (CLM Act)	-33.83637995	151.193541
WEE JASPER	Wee Jasper Tavern	6499 Wee Jasper ROAD	Other Industry	Regulation under CLM Act not required	-35.110374	148.679405
WELLINGTON	Former Caltex Service Station	124-128 Lee STREET	Service Station	Regulation under CLM Act not required	-32.55082729	148.9411537
WELLINGTON	BP Wellington Service Station	35A Maxwell STREET	Service Station	Under assessment	-32.55835121	148.9447284
WELLINGTON	Woolworths Petrol Wellington	79 Lee STREET	Service Station	Regulation under CLM Act not required	-32.54874227	148.9408531
WENTWORTH	Caltex - Wentworth	110 Adams STREET	Service Station	Regulation under CLM Act not required	-34.1024927	141.9160539

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
WENTWORTH FALLS	Bodington Hospital	Bodington DRIVE	Unclassified	Contamination formerly regulated under the CLM Act	-33.73201608	150.3874102
WENTWORTH POINT	RMS Eastern Precinct	3-7 Burroway ROAD	Other Petroleum	Regulation under CLM Act not required	-33.8233882	151.0815668
WENTWORTH POINT	Former TNT Express	23 Bennelong PARKWAY	Other Petroleum	Regulation under CLM Act not required	-33.83115118	151.0726636
WENTWORTHVILLE	Former Workshop	2 Rawson Rd and 8 Barfil CRESCENT	Unclassified	Regulation under CLM Act not required	-33.81568808	150.9671853
WERRINGTON	Caltex Service Station	Cnr Dunheved Rd and Henry Lawson DRIVE	Service Station	Regulation under CLM Act not required	-33.74577725	150.7409877
WERRINGTON	Claremont Meadows Former landfill	Gipps STREET	Landfill	Regulation under CLM Act not required	-33.77341076	150.7557628
WERRINGTON COUNTY	7-Eleven Werrington	Lot 122 Dunheved ROAD	Service Station	Regulation under CLM Act not required	-33.74699408	150.7428609
WEST BALLINA	Caltex Big Prawn Service Station	Pacific HIGHWAY	Service Station	Contamination formerly regulated under the CLM Act	-28.86374913	153.5321482
WEST GOSFORD	Caltex Service Station	283 Manns ROAD	Service Station	Regulation under CLM Act not required	-33.41659727	151.325219
WEST GOSFORD	Caltex Service Station	69-71 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.42729985	151.3214621
WEST GOSFORD	Caltex Service Station	30a Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.42778813	151.3190581
WEST GOSFORD	Adcock Memorial Park	Central Coast HIGHWAY	Landfill	Contamination currently regulated under CLM Act	-33.42963075	151.3273331
WEST NOWRA	Endeavour Energy Nowra Field Service Centre	20 Depot ROAD	Other Industry	Regulation under CLM Act not required	-34.88993085	150.5878854
WEST PENNANT HILLS	7-Eleven (former Mobil) Service Station	552 Pennant Hills ROAD	Service Station	Regulation under CLM Act not required	-33.74686545	151.0508067
WEST RYDE	7-Eleven (former Mobil) Service Station	917 Victoria ROAD	Service Station	Regulation under CLM Act not required	-33.80921103	151.0932917
WEST RYDE	Pfizer Australia Pty Ltd	38-42 Wharf ROAD	Chemical Industry	Regulation under CLM Act not required	-33.81021085	151.0693631

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
WEST RYDE	Reckitt Benckiser	44 Wharf ROAD	Chemical Industry	Regulation under CLM Act not required	-33.81172205	151.0692752
WEST RYDE	JHM Property Development	2A Mellor STREET	Other Industry	Regulation under CLM Act not required	-33.81207534	151.094598
WEST TAMWORTH	Woolworths Petrol	119 Bridge STREET	Service Station	Regulation under CLM Act not required	-31.09358262	150.9167693
WEST WYALONG	Lowes Petroleum (Former BP) Depot West Wyalong	Compton (formerly known as Town Bypass/Railway Road) ROAD	Other Petroleum	Regulation under CLM Act not required	-33.93440247	147.2154596
WEST WYALONG	Caltex Depot	(Wyalong By-pass Rd) Lot 1-3 Showground ROAD	Service Station	Regulation under CLM Act not required	-33.92580863	147.1978504
WEST WYALONG	Former Mobil Depot	104 Compton ROAD	Other Petroleum	Regulation under CLM Act not required	-33.93449194	147.2147948
WESTON	Illegal Dumping Site	Corner Kline Street & First STREET	Unclassified	Regulation under CLM Act not required	-32.81367986	151.4551507
WETHERILL PARK	Former Fuel Storage Depot	200-212 Cowpasture ROAD	Other Petroleum	Regulation under CLM Act not required	-33.84568871	150.8764012
WETHERILL PARK	Sims Wetherill Park	35-37 Frank STREET	Metal Industry	Regulation under CLM Act not required	-33.84056122	150.9086265
WETHERILL PARK	Shell Coles Express Service Station	565 Polding STREET	Service Station	Regulation under CLM Act not required	-33.8569731	150.8992804
WETHERILL PARK	Cleanaway (Formerly Nationwide Oil) Wetherill Park	6 Davis ROAD	Other Industry	Regulation under CLM Act not required	-33.83770038	150.9045197
WETHERILL PARK	BOC Sydney Operations Centre	428-440 Victoria STREET	Chemical Industry	Regulation being finalised	-33.84375988	150.8960027
WETHERILL PARK	Camide Former Landfill	Newton ROAD	Landfill	Regulation under CLM Act not required	-33.83898879	150.8963813
WICKHAM	Caltex Terminal and "Building 33" on offsite adjacent land	156 Hannell Street and 33 Annie STREET	Other Petroleum	Contamination currently regulated under CLM Act	-32.9153413	151.7560062
WICKHAM	Former Warehouse	10 Dangar STREET	Unclassified	Regulation under CLM Act not required	-32.92383206	151.759761
WICKHAM	Former Factory	57 Annie STREET	Other Industry	Regulation under CLM Act not required	-32.91524827	151.7539893

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
WICKHAM	Railcorp Wickham	50 Railway STREET	Other Industry	Regulation under CLM Act not required	-32.9210433	151.7544687
WICKHAM	Fuchs Lubricants Wickham	2 Holland STREET	Other Industry	Under assessment	-32.9214709	151.7556928
WILBERFORCE	Former Drum Reconditioners	12-14 Box AVENUE	Other Industry	Contamination formerly regulated under the CLM Act	-33.5453884	150.8587934
WILBERFORCE	Former Solvent Recycling Site	13 Box AVENUE	Chemical Industry	Regulation under CLM Act not required	-33.54557427	150.8577006
WILEY PARK	Sydney Water Property	1B Hillcrest STREET	Other Industry	Regulation under CLM Act not required	-33.92391634	151.0676256
WILLIAMTOWN	Hunter Land Effluent Pond	38 Cabbage Tree ROAD	Other Industry	Regulation under CLM Act not required	-32.80750069	151.8310107
WILLOUGHBY	Shell Coles Express Service Station	616-626 Willoughby ROAD	Service Station	Regulation under CLM Act not required	-33.80593769	151.1988559
WILLOUGHBY	Caltex Service Station	157 Penhur STREET	Service Station	Regulation under CLM Act not required	-33.79793513	151.1981926
WILLOUGHBY	BP Express Tower	498 Willoughby STREET	Service Station	Contamination currently regulated under POEO Act	-33.81022918	151.199315
WILLOUGHBY EAST	Willoughby Bus Depot	Corner Ann Street and Stan STREET	Other Industry	Regulation under CLM Act not required	-33.7982569	151.2038993
WILTON	Condell Park Homestead	(Part Lot 17 DP 270536) Condell Park ROAD	Unclassified	Regulation under CLM Act not required	-34.21910141	150.6837962
WINDANG	Caltex Service Station	244-248 Windang ROAD	Service Station	Regulation under CLM Act not required	-34.5274434	150.8691161
WINDSOR	Former Caltex Service Station	46-52 Macquarie STREET	Service Station	Regulation under CLM Act not required	-33.60783315	150.8213428
WINDSOR	Former Caltex Windsor Depot and Service Station	48-50 Mileham STREET	Service Station	Regulation under CLM Act not required	-33.61538627	150.8157517
WINDSOR	Woolworths (former Caltex) Service Station	Cnr Macquarie Street & Baker STREET	Service Station	Regulation under CLM Act not required	-33.60569346	150.8232803
WINDSOR	Former Fire Station Windsor	19 Fitzgerald STREET	Other Industry	Under assessment	-33.6064873	150.8199089

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
WINGHAM	Former Caltex Service Station	1036-1038 Wingham ROAD	Service Station	Regulation under CLM Act not required	-31.86236594	152.3805752
WINGHAM	Bogas Service Station	Cnr Primrose Street and Isabella STREET	Service Station	Regulation under CLM Act not required	-31.86833656	152.3716346
WINMALEE	Prime Winmalee Service Station	281 Hawkesbury ROAD	Service Station	Regulation under CLM Act not required	-33.68223276	150.5997203
WIRLINGA	Former Liquid Waste Disposal Facility	704 Riverina ROAD	Unclassified	Regulation under CLM Act not required	-36.07103958	147.0193522
WOLLI CREEK	Former Ausgrid Substation 10061	13 Gertrude STREET	Other Industry	Regulation under CLM Act not required	-33.93364031	151.1543818
WOLLONGONG	Redevelopment site	33 - 39 Beatson STREET	Other Petroleum	Regulation under CLM Act not required	-34.43196083	150.8976661
WOLLONGONG	Caltex Service Station	9 Flinders STREET	Service Station	Regulation under CLM Act not required	-34.41505616	150.8932515
WOLLONGONG	Greenhouse Park	Springhill ROAD	Landfill	Contamination currently regulated under CLM Act	-34.44119949	150.8931764
WOLLONGONG	Former Wollongong Gasworks	120 and 122 Smith STREET	Gasworks	Regulation under CLM Act not required	-34.42030173	150.8906745
WOLLONGONG	Woolworths Service Station	425 Crown STREET	Service Station	Contamination currently regulated under CLM Act	-34.42637378	150.8799288
WOLLONGONG	Wollongong Harbour Central Spur	Off Endeavour DRIVE	Other Petroleum	Regulation under CLM Act not required	-34.42066879	150.906821
WOODBURN	Caltex Service Station	129 River STREET	Service Station	Regulation under CLM Act not required	-29.07206887	153.3409769
WOODBURN	Crown Reserve 88037 Woodburn	Pacific HIGHWAY	Landfill	Regulation under CLM Act not required	-29.06580577	153.3541886
WOOLGOOLGA	Caltex Woolgoolga Service Station	16 Bosworth ROAD	Service Station	Regulation under CLM Act not required	-30.12569561	153.1946006
WOOLGOOLGA	United Petroleum Service Station	58 Clarence STREET	Service Station	Under assessment	-30.11045544	153.1904609
WOOLLAHRA	Former Service Station	20 Wallis STREET	Service Station	Regulation under CLM Act not required	-33.8901965	151.2372752

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
WOOLLAHRA	Proposed Jewish Care Centre	7-21 Saber STREET	Unclassified	Regulation under CLM Act not required	-33.8904055	151.2480062
WOOLLAHRA	Caltex Woollahra Service Station	116 Old South Head ROAD	Service Station	Contamination formerly regulated under the CLM Act	-33.88959697	151.2553736
WOOLLOOMOOLOO	Former BP Service Station	2 Dowley STREET	Service Station	Contamination being managed via the planning process (EP&A Act)	-33.86940191	151.2218741
WOLOMIN	Woolomin Gold Rush Store	65 Nundle ROAD	Other Petroleum	Contamination formerly regulated under the CLM Act	-31.30415134	151.149729
WOOLOOWARE	Caltex Service Station	100 Woollooware ROAD	Service Station	Regulation under CLM Act not required	-34.05274635	151.1408413
WOOLOOWARE	Oyster Farm	Captain Cook DRIVE	Other Industry	Regulation under CLM Act not required	-34.03807914	151.1476055
WOONGARRAH	Former Warnervale Landfill	236-264 Hakone ROAD	Landfill	Regulation under CLM Act not required	-33.2376313	151.464362
WOOTTON	Former Chemical Spill Site	11859 Pacific HIGHWAY	Chemical Industry	Regulation under CLM Act not required	-32.28168548	152.3117819
WOY WOY	Mobil Former Woy Woy Service Station and adjacent land	177-181 Blackwall ROAD	Service Station	Contamination formerly regulated under the CLM Act	-33.49254403	151.3270829
WOY WOY	Barry Robertson Holden	231 Blackwall ROAD	Service Station	Regulation under CLM Act not required	-33.49621068	151.3285128
WOY WOY	Bogas Service Station	66 Memorial AVENUE	Service Station	Contamination currently regulated under CLM Act	-33.5069738	151.3315579
WOY WOY	Rogers Park	Dunban ROAD	Landfill	Regulation under CLM Act not required	-33.50009693	151.3181347
WOY WOY	Austin Butler Memorial Oval	Blackwall ROAD	Landfill	Regulation under CLM Act not required	-33.48626871	151.3276042
WOY WOY	James Browne Oval	Welcome STREET	Landfill	Regulation under CLM Act not required	-33.49756053	151.3234871
WYALONG	Caltex Service Station	50 Neeld (Newell Highway) STREET	Service Station	Regulation under CLM Act not required	-33.92665025	147.2446546
WYOMING	Caltex Service Station Wyoming	465 Pacific HIGHWAY	Service Station	Regulation under CLM Act not required	-33.40945391	151.3499812

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
WYONG	Wyong Bayer/Kemcon	16 Lucca ROAD	Chemical Industry	Contamination formerly regulated under the CLM Act	-33.26192339	151.4429446
WYONG	Caltex Service Station	M1 Pacific (Northbound) MOTORWAY	Service Station	Regulation under CLM Act not required	-33.25641477	151.4024821
WYONG	Caltex Service Station	M1 Pacific (Southbound) MOTORWAY	Service Station	Regulation under CLM Act not required	-33.25330747	151.4053862
WYONG	IXOM Facility	8 Pavitt CRESCENT	Other Industry	Regulation under CLM Act not required	-33.26379108	151.4485113
YAGOONA	Galserv Galvanising Services	117-153 Rookwood ROAD	Metal Industry	Contamination currently regulated under POEO Act	-33.89493085	151.0388013
YAGOONA	BP Service Station Potts Hill (Yagoona)	155 Rookwood ROAD	Service Station	Regulation under CLM Act not required	-33.89330525	151.0390969
YAGOONA	7-Eleven (former Mobil) Service Station	519 Hume HIGHWAY	Service Station	Regulation under CLM Act not required	-33.90760623	151.0207783
YAGOONA	Shell Coles Express Service Station	112 Rookwood ROAD	Service Station	Regulation under CLM Act not required	-33.89856213	151.0370458
YAGOONA	Sydney Water Corporation Potts Hill Complex	91 Brunner ROAD	Other Industry	Regulation under CLM Act not required	-33.89887589	151.0289165
YALLAH	Tallawarra Power Station site	Princes HIGHWAY	Unclassified	Ongoing maintenance required to manage residual contamination (CLM Act)	-34.52412143	150.8062159
YAMBA	Caltex Service Station	22 Treelands DRIVE	Service Station	Regulation under CLM Act not required	-29.42701701	153.3279204
YANCO	Former Service Station	14 Main AVENUE	Service Station	Contamination formerly regulated under the CLM Act	-34.60356494	146.4105016
YASS	Caltex Service Station	228 Comur STREET	Service Station	Regulation under CLM Act not required	-34.84440036	148.9140179
YASS	Caltex Service Station	1715 Yass Valley WAY	Service Station	Regulation under CLM Act not required	-34.80708856	148.8824228
YASS	Former Mobil Depot Yass and adjacent land	54-58 Laidlaw STREET	Service Station	Ongoing maintenance required to manage residual contamination (CLM Act)	-34.83252976	148.9068888
YASS	Former Gasworks	Dutton STREET	Gasworks	Contamination currently regulated under CLM Act	-34.83982614	148.9060029

[Home](#) [Contaminated land](#) [Record of notices](#)

Search results

Your search for: Suburb: WALLACIA

did not find any records in our database.

If a site does not appear on the record it may still be affected by contamination. For example:

- Contamination may be present but the site has not been regulated by the EPA under the Contaminated Land Management Act 1997 or the Environmentally Hazardous Chemicals Act 1985.
- The EPA may be regulating contamination at the site through a licence or notice under the Protection of the Environment Operations Act 1997 (POEO Act).
- Contamination at the site may be being managed under the [planning process](#).

More information about particular sites may be available from:

- The [POEO public register](#)
- The appropriate planning authority: for example, on a planning certificate issued by the local council under [section 149 of the Environmental Planning and Assessment Act](#).

See [What's in the record and What's not in the record](#).

If you want to know whether a specific site has been the subject of notices issued by the EPA under the CLM Act, we suggest that you search by Local Government Area only and carefully review the sites that are listed.

This public record provides information about sites regulated by the EPA under the Contaminated Land Management Act 1997, including sites currently and previously regulated under the Environmentally Hazardous Chemicals Act 1985. Your inquiry using the above search criteria has not matched any record of current or former regulation. You should consider searching again using different criteria. The fact that a site does not appear on the record does not necessarily mean that it is not affected by contamination. The site may have been notified to the EPA but not yet assessed, or contamination may be present but the site is not yet being regulated by the EPA. Further information about particular sites may be available from the appropriate planning authority, for example, on a planning certificate issued by the local council under section 149 of the Environmental Planning and Assessment Act. In addition the EPA may be regulating contamination at the site through a licence under the Protection of the Environment Operations Act 1997. You may wish to search the POEO public register. [POEO public register](#)


For

9 July 2020


business and industry 

For local government

Contact us

 131 555 (tel:131555)

 Online (<https://yoursay.epa.nsw.gov.au/epa-website-feedback>)

 info@epa.nsw.gov.au (mailto:info@epa.nsw.gov.au)



 [EPA Office Locations \(https://www.epa.nsw.gov.au/about-us/contact-us/locations\)](https://www.epa.nsw.gov.au/about-us/contact-us/locations)

[Accessibility \(https://www.epa.nsw.gov.au/about-us/contact-us/website-service-standards/help-index\)](https://www.epa.nsw.gov.au/about-us/contact-us/website-service-standards/help-index)

[Disclaimer \(https://www.epa.nsw.gov.au/about-us/contact-us/website-service-standards/disclaimer\)](https://www.epa.nsw.gov.au/about-us/contact-us/website-service-standards/disclaimer)

[Privacy \(https://www.epa.nsw.gov.au/about-us/contact-us/website-service-standards/privacy\)](https://www.epa.nsw.gov.au/about-us/contact-us/website-service-standards/privacy)

[Copyright \(https://www.epa.nsw.gov.au/about-us/contact-us/website-service-standards/copyright\)](https://www.epa.nsw.gov.au/about-us/contact-us/website-service-standards/copyright)

Find us on  <https://au.linkedin.com/company/nsw-environment-protection>  <https://www.youtube.com/watch?v=NSW-EPA>

Number	Name	Location	Type	Status	Issued date
1501707	BERNARD FUSSELL	665 Bents Basin Road, WALLACIA, NSW 2745	s.91 Clean Up Notice	Issued	11-Nov-11
3085769180	BERNARD FUSSELL	665 Bents Basin Road, WALLACIA, NSW 2745	Penalty Notice	Issued	22-Feb-13
3085772021	BERNARD FUSSELL	665 Bents Basin Road, WALLACIA, NSW 2745	Penalty Notice	Issued	5-Aug-13
1540640	DIB HANNA ABDALLAH HANNA	82 Park Road, WALLACIA, NSW 2745	s.91 Clean Up Notice	Issued	7-Sep-16
1516188	HENDRICK CORNELIS MAK	1600 Greendale Road, Wallacia , WALLACIA, NSW 2745	s.91 Clean Up Notice	Issued	12-Nov-13
3085774203	HENDRICK CORNELIS MAK	1600 Greendale Road, Wallacia , WALLACIA, NSW 2745	Penalty Notice	Issued	29-May-14
3085774212	HENDRICK CORNELIS MAK	1600 Greendale Road, Wallacia , WALLACIA, NSW 2745	Penalty Notice	Issued	29-May-14
1509036	Joseph and Karen Bugeja	470 Bents Basin Road, WALLACIA, NSW 2745	s.91 Clean Up Notice	Issued	25-Sep-12
1547011	USANNE JANE HARRIS	169 Park Road , WALLACIA, NSW 2745	s.91 Clean Up Notice	Issued	4-Jul-17
1547023	MICHAEL SUKKAR	1504 Mulgoa Road, WALLACIA, NSW 2745	s.91 Clean Up Notice	Issued	3-Feb-17
1547278	MICHAEL SUKKAR	147 Park Road, WALLACIA, NSW 2745	s.91 Clean Up Notice	Issued	3-Feb-17
1559839	MOUNIR EL EJEL	147 Park Road, WALLACIA, NSW 2745	s.91 Clean Up Notice	Issued	11-Apr-18
3173525850	MOUNIR EL EJEL	147 Park Road, WALLACIA, NSW 2745	Penalty Notice	Issued	18-Jun-18
1508170	ROB DORN	344 Park Road, WALLACIA, NSW 2745	s.91 Clean Up Notice	Issued	15-Aug-12
12235	SYDNEY WATER CORPORATION	including the STP at NORTONS BASIN ROAD, WALLACIA, NSW 2745	POEO licence	Issued	23-Dec-04
1044480	SYDNEY WATER CORPORATION	including the STP at NORTONS BASIN ROAD, WALLACIA, NSW 2745	s.58 Licence Variation	Issued	25-Oct-05
1061022	SYDNEY WATER CORPORATION	including the STP at NORTONS BASIN ROAD, WALLACIA, NSW 2745	s.58 Licence Variation	Issued	1-Aug-06
1074762	SYDNEY WATER CORPORATION	including the STP at NORTONS BASIN ROAD, WALLACIA, NSW 2745	s.58 Licence Variation	Issued	27-Jun-07
1081518	SYDNEY WATER CORPORATION	including the STP at NORTONS BASIN ROAD, WALLACIA, NSW 2745	s.58 Licence Variation	Issued	16-Sep-08
1092478	SYDNEY WATER CORPORATION	including the STP at NORTONS BASIN ROAD, WALLACIA, NSW 2745	s.58 Licence Variation	Issued	3-Nov-08
1116054	SYDNEY WATER CORPORATION	including the STP at NORTONS BASIN ROAD, WALLACIA, NSW 2745	s.58 Licence Variation	Issued	2-Jul-10
1129009	SYDNEY WATER CORPORATION	including the STP at NORTONS BASIN ROAD, WALLACIA, NSW 2745	s.58 Licence Variation	Issued	27-Jun-11
1504906	SYDNEY WATER CORPORATION	including the STP at NORTONS BASIN ROAD, WALLACIA, NSW 2745	s.58 Licence Variation	Issued	28-Jun-12
1512452	SYDNEY WATER CORPORATION	including the STP at NORTONS BASIN ROAD, WALLACIA, NSW 2745	Compliance Audit	Complete	27-Feb-13
1528931	SYDNEY WATER CORPORATION	including the STP at NORTONS BASIN ROAD, WALLACIA, NSW 2745	s.58 Licence Variation	Issued	23-Mar-15
1538209	SYDNEY WATER CORPORATION	including the STP at NORTONS BASIN ROAD, WALLACIA, NSW 2745	s.58 Licence Variation	Issued	19-Feb-16
1539419	SYDNEY WATER CORPORATION	including the STP at NORTONS BASIN ROAD, WALLACIA, NSW 2745	s.58 Licence Variation	Issued	7-Apr-16
1542297	SYDNEY WATER CORPORATION	including the STP at NORTONS BASIN ROAD, WALLACIA, NSW 2745	s.58 Licence Variation	Issued	27-Jul-16
1572516	SYDNEY WATER CORPORATION	including the STP at NORTONS BASIN ROAD, WALLACIA, NSW 2745	s.58 Licence Variation	Issued	30-Nov-18
1577329	SYDNEY WATER CORPORATION	including the STP at NORTONS BASIN ROAD, WALLACIA, NSW 2745	s.58 Licence Variation	Issued	25-Mar-19
1580211	SYDNEY WATER CORPORATION	including the STP at NORTONS BASIN ROAD, WALLACIA, NSW 2745	s.58 Licence Variation	Issued	1-Jul-19
1586319	SYDNEY WATER CORPORATION	including the STP at NORTONS BASIN ROAD, WALLACIA, NSW 2745	s.58 Licence Variation	Issued	4-Oct-19
1587680	SYDNEY WATER CORPORATION	including the STP at NORTONS BASIN ROAD, WALLACIA, NSW 2745	s.58 Licence Variation	Issued	31-Oct-19
1594027	SYDNEY WATER CORPORATION	including the STP at NORTONS BASIN ROAD, WALLACIA, NSW 2745	s.58 Licence Variation	Issued	16-Jun-20
4312	THE PROPRIETORS, STRATA PLAN NO 30514	GREENDALE ROAD, WALLACIA, NSW 2745	POEO licence	Surrendered	25-Oct-99
1021182	THE PROPRIETORS, STRATA PLAN NO 30514	GREENDALE ROAD, WALLACIA, NSW 2745	s.80 Surrender of a Licence	Issued	14-Nov-02
1543865	WALLACIA SOILS PTY LIMITED	205 BENTS BASIN ROAD, WALLACIA, NSW 2745	s.91 Clean Up Notice	Issued	19-Aug-16
20737	WALLACIA SOILS PTY LIMITED	205 BENTS BASIN ROAD, WALLACIA, NSW 2745	POEO licence	Surrendered	6-Apr-17
3085782756	WALLACIA SOILS PTY LIMITED	205 BENTS BASIN ROAD, WALLACIA, NSW 2745	Penalty Notice	Issued	27-Jun-17
1551413	WALLACIA SOILS PTY LIMITED	205 BENTS BASIN ROAD, WALLACIA, NSW 2745	s.58 Licence Variation	Issued	15-Jul-17
1557318	WALLACIA SOILS PTY LIMITED	205 BENTS BASIN ROAD, WALLACIA, NSW 2745	s.58 Licence Variation	Issued	13-Oct-17
1585118	WALLACIA SOILS PTY LIMITED	205 BENTS BASIN ROAD, WALLACIA, NSW 2745	s.80 Surrender of a Licence	Issued	31-Oct-19