eiaustralia

Contamination | Remediation | Geotechnical

JADARA PLANNING



Preliminary Site Investigation / Limited Sampling

21 Barham Place, Horsley NSW

E26578.E01_Rev0
17 December 2024

Document Control

Report Title: Preliminary Site Investigation; 21 Barham Place, Horsley NSW

Report No: E26578.E01_Rev0

Copies	Recipient
1 Soft Copy (PDF – Secured, issued by email)	Jadara Planning 6 Craig Avenue, **LEUMEAH NSW 2560**
1 Original (Saved to Digital Archives)	EI Australia Pty Ltd Suite 126, Level 1, 1 Burelli Street, **WOLLONGONG NSW 2500**

Author	Technical Reviewer
	
Sean Nolan Environmental Scientist	**Malcolm Dale** Senior Principal – Contaminated Land CEnvP (SC Specialist) Cert.No: SC40038

Revision	Details	Date	Amended By
0	Original	17 December 2024	-

© 2024 EI Australia (EI) ABN: 42 909 129 957

This report is protected by copyright law and may only be reproduced, in electronic or hard copy format, if it is copied and distributed in full and with prior written permission by EI.

EXECUTIVE SUMMARY

Background and Scope

EI Australia (EI) was engaged by Jadara Planning ('the client') to conduct a Preliminary Site Investigation of the property located at 21 Barham Place, Horsley NSW ('the site').

The site is located within the local government area (LGA) of Wollongong City Council. It covers an area of approximately 2,250m^2 and encompasses a small section of the land parcel identified as Lot 203 in Deposited Plan (DP) 1290802, which has a total area of approximately 40 hectares (ha). At the time of this investigation, the site was vacant, grassed over land surrounded by low-density residential properties (north, south and west) and vacant rural farmland (east).

The proposed development would involve the rezoning and sub-division of the site into four lots including four residential buildings. No architectural drawings were provided to EI at the time of investigation. The scope of works included a desktop study and a limited intrusive investigation comprising four boreholes, followed by multiple level soil sampling of both fill and natural soils for laboratory analysis.

The aim of this investigation was to appraise the environmental condition (potential contamination) and determine the contamination status of the land, in support of planning proposal for the potential rezoning of the site.

This investigation also enables the future developer (if any) to meet obligations under the *Contaminated Land Management Act 1997* and *State Environmental Planning Policy (Resilience and Hazards) 2021*, in particular the requirements for the assessment and management of contaminated soil in a residential land use scenario.

Objectives

The objectives of this investigation were to:

- Provide a qualitative assessment of the environmental condition of the site, by appraising the potential for contamination on the basis of field observations, historical land uses and other documentary evidence;
- Provide a preliminary quantitative assessment of the environmental conditions of the site, by means of limited intrusive sampling and laboratory analysis for the relevant potential contaminants;
- Provide a conclusion about the suitability of the site for its proposed use; and
- Make recommendations for the appropriate management and/or further assessment of any impacted soils, should site contamination be confirmed.

Findings

The key findings of this PSI were as follows:

- The portion investigated comprised a small area (approximately 2,250 m^2) on the western boundary of the overall land parcel legally identified as Lot 203 in DP1290802, which covers approximately 40 ha.
- The site was a vacant, grassed over lot bordered by the Horsley residential estate to the north, west and south, and vacant farmland to the east.
- A review of geological maps for the area indicated that the site is underlain by quaternary alluvial terrace deposits, and the remainder of Lot 203 in DP1290802 overlies quaternary alluvial floodplain deposits.

- Based on the available historical information the site has been likely vacant and/or used for agricultural farmland purposes from 1881 (at least) up until the 1990's. The Horsley residential estate which bordered the northern, western, and southern boundaries of the site was developed in the late 1990's. The current site layout has not significantly changed since.
- The site and surrounding lands within close proximity (≤500m radius) were free of statutory notices and licensing agreements issued under the *Contaminated Land Management Act 1997* and *Protection of the Environment Operations Act 1997*. The site, or any sites within close proximity (≤500m), was not included on the *List of NSW Contaminated Sites Notified to the EPA*.
- A database search of the site reported that potentially contaminating activities such as mechanical / automotive services, manufacturing, dry cleaners, and storage depots have historically been situated in an industrial area on Hamilton Street in Dapto.
    - It is concluded that this industrial area is a low risk of (migrating) contamination to the site, considering the distance (>500m) to the site.
- No evidence of an underground storage tank (UST) was observed on site.
- Soil sampling and analysis was conducted at four borehole locations using a hand auger (BH101-BH104). The limited intrusive soil assessment revealed the following:
    - The sub-surface conditions of the site were generalised as a layer of silty clay, gravelly clay and clayey sand filling (0.0m to 1.0m thickness), overlying natural (alluvial) silty clay. Significant gravel inclusions were present within the fill material assessed, and refusal on gravels was met at boreholes BH101, BH103, and BH104.
    - No olfactory indicator of contamination (i.e. suspicious odour) was detected within any of the examined soil samples.
    - No soil staining, ash, slag, or coal wash was observed in any of the examined soils.
    - An assessment of the soil concentrations against NEPC (2013) human health investigation levels (HIL-A/HSL-A&B) and ecological investigation/screening levels (EIL/ESL) indicated all samples meeting the adopted criteria.
    - The site history and site observations made during this investigated suggested that the risk of asbestos contamination and was low. This was supported by the laboratory results reporting no detections of asbestos in all of the samples analysed. No fragments of potential ACM was observed on any accessible ground surfaces.
- The identified uncertainties and data gaps including the number of sampling locations and depth of samples are unlikely to alter the site characterisation and conclusions regarding the proposed rezoning.

Conclusion and Recommendations

Based on the findings of this PSI, and with consideration of EI's *Statement of Limitations* (**Section 11**), it was concluded that there is a low potential of widespread contamination to exist on site. EI considers that the site is suitable for the proposed residential subdivision, provided that the recommendations below are implemented:

- All soils designated for off-site disposal should be managed in accordance with NSW EPA (2014) *Waste Classification Guidelines*.
- Any material being imported to the site should be validated as suitable for the intended (residential) use, in accordance with NSW EPA guidelines. In particular, imported filling / landscaping material must be certified as meeting the VENM classification.

TABLE OF CONTENTS

		Page Number
	EXECUTIVE SUMMARY	**iii**
1.	**INTRODUCTION**	**1**
1.1.	Background and Purpose	1
1.2.	Proposed Development	1
1.3.	Project Objectives	1
1.4.	Scope of Works	2
1.5.	Regulatory Framework	2
2.	**SITE DESCRIPTION**	**4**
2.1.	Property Identification, Location and Physical Setting	4
2.2.	Local Land Use	5
2.3.	Regional Setting	5
2.4.	Groundwater Bore Records and Local Groundwater Use	6
2.5.	Site Inspection	6
3.	**SITE HISTORY AND SEARCHES**	**7**
3.1.	Database Search	7
3.2.	Land Title Records	8
3.3.	Historical Aerial Photography Review	9
3.4.	Council Information	10
3.5.	NSW EPA Online Records	11
4.	**CONCEPTUAL SITE MODEL**	**12**
4.1.	Summary of Site History	12
4.2.	Potential Contamination Sources	12
4.3.	Potential Contaminants	12
4.4.	Qualitative Risk Assessment	14
4.5.	Identified Receptors	14
5.	**METHODOLOGY**	**16**
5.1.	Sampling, Analytical and Quality Plan	16
5.2.	Data Quality Objectives	16
5.3.	Data Quality Indicators	19
5.4.	Sampling Rationale	19
5.5.	Assessment Criteria	20
5.6.	Soil Sampling Methodology	20
6.	**DATA QUALITY ASSESSMENT**	**22**
7.	**RESULTS**	**23**
7.1.	Soil	23

8. SITE CHARACTERISATION 25
8.1. Subsurface Conditions 25
8.2. Soil Impacts 25
8.3. Groundwater Impacts 25
8.4. Asbestos Risk 25
8.5. Limitations, Uncertainties and Data Gaps 26

9. CONCLUSIONS 27

10. RECOMMENDATIONS 29

11. STATEMENT OF LIMITATIONS 30

REFERENCES 31

ABBREVIATIONS 33

Schedule of Tables

Table 2-1 Site Identification Details 4
Table 2-2 Local Sensitive Receptors 5
Table 2-3 Regional Setting Information 5
Table 3-1 Database Search Information Summary 7
Table 3-2 Summary of Property Ownership 9
Table 3-3 Summary of Aerial Photograph Observations 9
Table 4-1 Potential for PFAS Contamination 12
Table 4-2 Potential for Contamination by an Emerging or Controlled Chemical 13
Table 4-3 Assessment of Potential Contamination Risk 14
Table 4-4 Preliminary Conceptual Site Model 15
Table 5-1 Summary of Project Data Quality Objectives 17
Table 5-2 Data Quality Indicators 19
Table 5-3 Adopted Investigation Levels for Soil 20
Table 5-4 Summary of Soil Sampling Methodology 21
Table 6-1 Quality Assurance Process 22
Table 7-1 Generalised Sub-Surface Profile 23
Table 7-2 Summary of Soil Analytical Results 24

Schedule of Figures (in-text)

Figure 2-1 Geological Setting (DPIRD, 2024) 6
Figure 3-1 Cadastral Site Area 8

Appendices

APPENDIX A – FIGURES

APPENDIX B – TABLES

APPENDIX C – PROPOSED DEVELOPMENT PLANS

APPENDIX D – BOREHOLE LOGS

APPENDIX E – SITE PHOTOGRAPHS

APPENDIX F – LAND TITLES

APPENDIX G – DATABASE SEARCH REPORT

APPENDIX H – COUNCIL SEARCH

APPENDIX I – CHAIN OF CUSTODY AND SAMPLE RECEIPT DOCUMENTATION

APPENDIX J – LABORATORY ANALYTICAL REPORTS

APPENDIX K – QA/QC ASSESSMENT

APPENDIX L – LABORATORY QA/QC AND DQOS

1. INTRODUCTION

1.1. Background and Purpose

EI Australia (EI) was engaged by Jadara Planning ('the client') to conduct a Preliminary Site Investigation (PSI) of the property located at 21 Barham Place, Horsley NSW ('the site').

The site is located within the local government area (LGA) of Wollongong City Council (**Figure A.1**, **Appendix A**). It covers an area of approximately 2,250 m^2 (**Figure A.2**, **Appendix A)** and is a small section of the overall land parcel identified as Lot 203 in Deposited Plan (DP) 1290802, which covers approximately 40 hectares (ha). At the time of this investigation, the site was vacant, grassed over land and surrounded by low-density residential properties (north, south and west) and vacant rural farmland (east).

The aim of this investigation was to assess the environmental condition (potential contamination) and determine the contamination status of the land, in support of a planning proposal to rezone the site. The remaining part of the 40 ha site was not investigated.

This PSI also enables a future developer (if any) to meet obligations under the *Contaminated Land Management Act 1997* and *State Environmental Planning Policy (Resilience and Hazards) 2021*, in particular the requirements for the assessment and management of contaminated soil in a residential land use scenario.

1.2. Proposed Development

Based on the information provided, the proposed development would include the rezoning and sub-division of the portion of land into four lots for four future residential buildings. No architectural drawings are available at the stage.

The following survey plan (**Appendix C**) was provided and entitled:

- CEH (2024) *Contour Survey of 21 Barham Place, Horsley*, prepared by CEH Consulting Pty Ltd, Drawing Reference: D224170A, dated 3 May 2024.

1.3. Project Objectives

The objectives of this investigation were to:

- Provide a qualitative assessment of the environmental conditions of the site, by appraising the potential for contamination on the basis of field observations, historical land uses and other documentary evidence;
- Provide a quantitative assessment of the environmental conditions of the site, by means of limited intrusive sampling and laboratory analysis for the relevant potential contaminants, and
- Make recommendations for further investigations and appropriate management of any impacted soils and/or groundwater, should site contamination be confirmed.

1.4. Scope of Works

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

Desktop Study

- Review of relevant topographical, geological and soil landscape maps for the project area;
- A search for groundwater bore records within close vicinity (500m radius) of the site;
- Review of site history, based on aerial photographs and property files archived by Wollongong City Council;
- A land titles search;
- A search of available databases (by Land Insight Pty Ltd);
- Searches of public registers maintained by the NSW Environment Protection Authority (NSW EPA) for statutory notices and licensing agreements issued under the *Contaminated Land Management Act 1997* and *Protection of the Environment Operations Act 1997*;
- A search of the *List of NSW Contaminated Sites Notified to the EPA*;
- Preparation of an existing conceptual site model (CSM); and
- Data interpretation and reporting.

Fieldwork and Laboratory Analysis

- Review of existing underground services on-site, utilising *Before-You-Dig* plans;
- A site inspection;
- Drilling of test boreholes (using a hand auger) at four locations (BH101 to BH104), distributed in a systematic grid across the site;
- Multiple level sampling of fill and natural soils at each of the boreholes;
- Laboratory analysis of selected soil samples for the potential contaminants, as determined by the conceptual site model (CSM) and by field observations.

Data Analysis and Reporting

This report documents the desk study findings, the CSM, data quality objectives, sampling methodologies and laboratory analytical results. It also provides a record of observations made during the site walkover inspections and test bore construction logs. It discusses the results in regards to potential risks to human health and the environment and it concludes with a statement concerning the suitability of the site for future redevelopment works, and if any additional investigations should be conducted prior to the future development.

The report was reviewed by an accredited site contamination specialist (CEnvP SC Specialist) under the Environment Institute of Australia and New Zealand (EIANZ) scheme.

1.5. Regulatory Framework

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

- *Contaminated Land Management Act 1997* (the CLM Act 1997);
- *Protection of the Environment Operations Act 1997* (the POEO Act 1997);
- *Environmental Planning and Assessment Act 1979* (the EP&A Act 1979);
- *State Environmental Planning Policy (Resilience and Hazards) 2021*;
- NSW EPA (2017) *Guidelines for the NSW Site Auditor Scheme;*

- NSW EPA (2020) *Consultants Reporting on Contaminated Land: Contaminated Land Guidelines*;
- NSW EPA (2022a) *Sampling Design Part 1 – Application*;
- NEPC (2013) *National Environmental Protection (Assessment of Site Contamination) Amendment Measure 1999; and*
- *Wollongong Local Environmental Plan 2009.*

2. SITE DESCRIPTION

2.1. Property Identification, Location and Physical Setting

The site identification details and associated information are presented in **Table 2-1**. As previously stated, the site comprises a small portion of land on the western boundary of Lot 203 in DP1290802. The site locality and assessment area are illustrated in **Figures A.1** and **A.2**, **Appendix A**.

Table 2-1 Site Identification Details

Attribute	Description
Street Address	21 Barham Place, Horsley NSW
Location and Description	The site was bound by: ▪ North: Low density residential properties, followed by vacant farmland and Robbins Creek; ▪ East: Vacant land (the remainder of Lot 203 DP 1290802), followed by Mullet Creek; ▪ South: Low density residential properties, followed by vacant farmland; ▪ West: Barham Place, followed by low density residential properties.
Geographical Coordinates	North-eastern corner of site (GDA2020-MGA56): Easting: 296991.943 Northing: 6181920.539 (Source: http://maps.six.nsw.gov.au)
Site Area	Approximately 2,250 m^2 (**Figure A.2**, **Appendix A**) (Source: http://maps.six.nsw.gov.au)
Lot and DP	Part of Lot 203 in DP1290802
State Survey Marks	Five state survey marks are situated within close proximity (<150 m) to the site: ▪ SS98028:on the northern side of Barham Place (approximately 25 m north); ▪ SS98027: on the southern side of Barham Place (approximately 40 m south); ▪ SS89080F: on the intersection between Barlyn Court and Sunnybank Crescent (approximately 85 m west); ▪ SS98025: on the western side of 54 Sunnybank Crescent (approximately 108 m south-west); and ▪ SS89090: on the western side of 30 Sunnybank Crescent (approximately 134 m north-west). (Source: http://maps.six.nsw.gov.au)
LGA	Wollongong City Council
Current Zoning	RE2: Private Recreation (*Wollongong Local Environmental Plan 2009*)

2.2. Local Land Use

The investigated portion of the site is situated within an area of mixed use. The local sensitive receptors within close proximity (<500m) to the site are identified in **Table 2-2.**

Table 2-2 Local Sensitive Receptors

Direction	Land Use Description	Sensitive Receptor (and distance from site)
North	Residential properties Robbins Creek	Residents (immediately adjacent) Ecological receptors (230 m north)
South	Residential properties Mullet Creek	Residents (immediately adjacent) Ecological receptors (400 m south)
East	Mullet Creek	Ecological receptors (470 m east)
West	Residential properties	Residents (30 m west)

2.3. Regional Setting

The topography, geology and soil landscape information is summarised in **Table 2-3**.

Table 2-3 Regional Setting Information

Attribute	Description
Topography	The site is sloping is generally flat with an elevation of approximately 10.5m AHD. The eastern site boundary slopes down to flood prone vacant land (the remainder of Lot 203) to an elevation of approximately 8m AHD (CEH, 2024).
Drainage	The site is covered with grass and exposed soils. It is expected that drainage will be in the form of surface run-off consistent with the site topography, and surface infiltration.
Geology	The Geological Survey of NSW Wollongong - Port Hacking 1:100,000 Geological Series Sheet 9029-9129, indicates the site is underlain by quartz and lithic “fluvial” sand, silt, and clay. Similarly, the seamless geological map (NSW Geoscience, 2024) indicates that the site overlies quaternary alluvial terrace deposits (Q_at), and the remainder of Lot 203 DP1290802 overlies quaternary alluvial floodplain deposits (Q_af) (see **Figure 2-1** below).
Soil Landscape	The NSW Government Department of Planning, Industry, and Environment *eSPADE v2.0* website indicates that the site overlies the *Fairy Meadow – Swamp Landscape (fa).*This landscape is characterised by alluvial plains, floodplains, valley flats and terraces below the Illawarra Escarpment. Slopes are >5% and local relief is >20m and almost completely cleared low forest and woodland. Soils are described as friable alluvial loams and siliceous sands on the upper floodplains with dark brown sands and heavy clays on lower alluvial flats.
Acid Sulfate Soil (ASS) Risk	The site is classified as ‘Class 5’ within the *Wollongong Local Environmental Plan 2009* - Acid Sulfate Soil Planning Map (Sheet CL1_013). Class 5 areas require consent only for ‘works within 500 metres of adjacent Class 1, 2, 3 or 4 land that is below 5 mAHD and by which the water table is likely to be lowered below 1 mAHD on adjacent Class 1, 2, 3, or 4 land’. Furthermore, the *Wollongong Acid Sulfate Soil Risk Map* (1:25,000 scale; DLWC, 1997), indicates the subject land lies within an area of *No Known Occurrence.* Given the information above, it was concluded that the potential for the presence of ASS is low and further investigations are not considered warranted.
Nearest Surface Water Features	Robbins Creek (230m north) and Mullet Creek (400m south-east) diverge towards Lake Illawarra, located approximately 4km east of the site.
Groundwater Flow Direction	Groundwater flow direction in the area was inferred to be east towards Mullet Creek and ultimately Lake Illawarra.

Figure 2-1 Geological Setting (DPIRD, 2024)



2.4. Groundwater Bore Records and Local Groundwater Use

An online search for groundwater bores registered with WaterNSW was conducted on 15 November 2024 (Ref. https://realtimedata.waternsw.com.au/water.stm). There were no registered bores located within a 500m radius of the site. Some monitoring bores are located in the car wrecker across Mullet Creek but unlikely to be influenced by the site.

No beneficial use of groundwater was identified for the area; however, groundwater migrating from site is predicted to discharge into Mullet Creek and then into Lake Illawarra, which would then be exposed to recreational users of the water body.

2.5. Site Inspection

Observations were recorded during a site walkover on the 18 November 2024. These observations are summarised below and photographs taken during the inspection are presented in **Appendix E**.

- The site was a vacant, grassed over lot bordered by residential properties to the north, east and south, and vacant farmland (flood prone land) to the east including the remainder of Lot 203 (**Photograph 1-6**).
- The site has no discernible slope; however the eastern site boundary slopes down approximately 2m to flood prone vacant land (**Photograph 4 and 5**).
- A creek was observed to the north (Robbins Creek) and to the south (Mullet Creek). Water was observed within the creeks (**Photograph 5**).
- Permanent residential fencing was noted on the north-eastern and southern boundaries of the site. The eastern boundary was comprised of barbed wire fencing and a gate on the south-eastern corner was observed (**Photograph 4**).
- The grass on site was observed to be generally un-kept. The vegetation did not appear to be distressed, indicating that phytotoxicity is not currently an issue for local soils.
- No evidence of an underground storage tank (UST) was observed on site.
- Drainage pits were noted on Barham Pl road to the south of the site (**Photograph 6**).
- No olfactory indicator of contamination (i.e. suspicious odour) was detected within any of the soil samples examined.

3. Site History and Searches

3.1. Database Search

An environmental risk and planning report (Land Insight, 2024) was reviewed as part of this investigation, which included historical business directories, as well as searches of various environmental resources and plans archived by statutory authorities (**Appendix G**). A summary of the findings is detailed in **Table 3-1**.

Note: The database search was completed for the entirety of Lot 203 in DP1290802. Since the site is only a small portion located on the western boundary, distances to some of the contaminating activities listed in the Land Insight (2024) report are closer and do not reflect the actual distance to the site. This has been accounted for in **Table 3-1** below.

Table 3-1 Database Search Information Summary

Aspect	Details
Former Gasworks	There was no record of (former) gasworks within a 1km radius of the site.
Waste Management	There was no record of National Waste Management facilities within a 1km radius of the site.
Retail Fuel Outlets	No service stations were identified within a 1km radius of the site.
PFAS Investigation and Management Programs	The site was not recognised as a PFAS assessment area. There were no records of PFAS Investigation programs within a 1km radius of the site.
Defence Sites	No Australian Department of Defence Sites were within a 1km radius of the site.
Significantly Contaminated Land	One site was identified in the List of NSW contaminated sites notified to EPA within a 1 km radius of the site: ▪ RailCorp Dapto, 12-14 Hamilton Street, Dapto (688 m south-east); The site's contamination is not regulated under the CLM Act. The distance to this site indicates a low health and/or environmental risk to site receptors.
Licenced Activities	Four (former) organisations with licensed activities under the POEO Act 1997 were recorded within 1km radius of the site: ▪ South Coast Equipment Pty Ltd, licensed for concrete works (480 m south).
Potentially Contaminating Activities / Businesses	The following potentially contaminating activities are operating within a 1 km radius of the site: ▪ Bruce Budden's Automotive (Mechanical & Automotive) – 631 m south-east; ▪ Equine Supreme Accessories (Depot / Storage Yard) – 678 m south-east; ▪ Col's Glass Service (Manufacturing and Industrial) – 700 m south-east; ▪ Innovative Handrails / Gutters (Manufacturing and Industrial) – 718 m south-east; ▪ Evershine Car Detailing (Mechanical & Automotive) – 737 m south-east; ▪ Dapto Move and Store (Depot / Storage Yard) – 755 m south; ▪ Iron Ladies (Dry Cleaners) – 743 m south-east; ▪ HSR Accident Repairs (Mechanical & Automotive) – 803 m south; ▪ KRS Design (Manufacturing and Industrial) – 844 m south; ▪ Mountain Range Nursery (Agricultural Industries) – 855 m north-east. No potentially contaminating activities or business were listed for the site. The distance to the aforementioned sites indicates a low health and/or environmental risk

Aspect	Details
	to site receptors.
Heritage	No Commonwealth heritage list items were listed within a 1km radius of the site. One National Heritage items was listed on the site: ▪ Sydney Cultural Crescent Rock Art. Two State and Local Heritage item was listed within a 1km radius of the site: ▪ Reed Park entrance gates (former) (855 m south); and ▪ Dapto Railway Station (925 m south-east).
Mining	There was no mining subsidence districts listed within a 1km radius of the site.
Other Datasets	▪ With respect to the National ASS register, the site was classified as having "low probability of occurrence". The State and Local ASS register list the site as 'Class 5'. The majority of Lot 203 in DP1290802 is classified as 'Class 4'. ▪ No dryland salinity assessment data was recorded for the site or for its surroundings. ▪ Radon was recorded at low levels (7 Bq/m^3). ▪ The site is not within a bushfire prone area. However, the site was within a 500m distance (to the north-west) to Vegetation Category 1 which is considered to be the highest risk for bushfire. ▪ The site is within a flood prone land. ▪ The site has very low landslip erosion risk. ▪ The site has low water erosion risk. ▪ The side has moderate wind erosion risk.

3.2. Land Title Records

A historical land titles search was conducted through InfoTrack Pty Ltd ('Infotrack'). Copies of relevant documents from this search are presented in **Appendix F**. The cadastral extent of the site is outlined in **Figure 3-1** below (highlighted in yellow). A summary of the property ownerships is presented in **Table 3-2**.

Figure 3-1 Cadastral Site Area

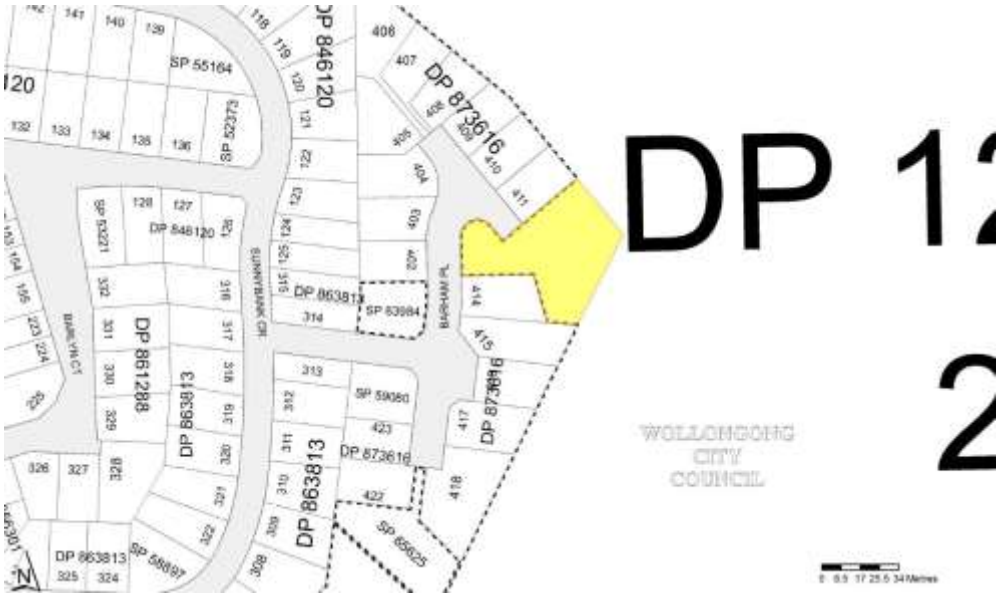


Table 3-2 Summary of Property Ownership

Period of Ownership	Registered Proprietor(s)
Part of Lot 203 DP 1290302	
1881 to 1932	John Lindsay (Farmer)
1932 to 1961	Harold Thornbury Lindsay (Farmer) Thomas Hilton Lindsay (Farmer)
1961 to 1961	Thomas Hilton Lindsay (Farmer)
1961 to 1965	Mary Estelle Lindsay (Spinster) Olive Lindsay (Spinster) Hilda Florence Lindsay (Spinster) Thomas Hilton Lindsay (Farmer)
1965 to 1966	Edith Evelyn Lindsay (Widow) Geoffrey Hilton Lindsay (Dairy Farmer) Olive Lindsay (Spinster)
1967 to 2023	Hunter Investments (Sydney) Pty Ltd (now Barlyn Pty Ltd)
2023 to Date	# Fras Dakhil Jerew

Note 1 # denotes current registered proprietor

The land titles information for the site indicates that the site was likely used as rural farmland up until 1966. Registered ownership of the land was then transferred to Hunter Investments Pty Ltd (now Barlyn Pty Ltd) and then again in 2023 to the current owner. No potentially contaminating occupations (other than farming) were listed.

3.3. Historical Aerial Photography Review

The historical aerial photographs reviewed as part of this PSI included:

- 1949, 1963, 1975, 1984, 1994, 1997, 2002, 2008, 2010, 2014, 2018, 2021 and 2024 (Land Insight, 2024)

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

Table 3-3 Summary of Aerial Photograph Observations

Year	Description of Site and Surroundings	Adjacent Land Use
1949	The site appeared to be a vacant agricultural farmland.	**North** – Vacant, agricultural farmland, followed by Robbins Creek and the Wongawilli Colliery train line. **East** – Vacant, agricultural farmland; **South** – Vacant, agricultural farmland; **West** – Vacant land, followed by a rural residential property with multiple structures.
1963	The site was largely unchanged from the 1949 image.	**North** – No significant change in imagery; **East** – No significant change in imagery; **South** – No significant change in imagery; **West** – Evidence of road filling leading north to the Colliery train line.
1975	The site was largely unchanged from the 1963 image.	**North** – No significant change in imagery; **East** – No significant change in imagery; **South** – No significant change in imagery;

Year	Description of Site and Surroundings	Adjacent Land Use
		West – No significant change in imagery.
1984	The site was largely unchanged from the 1975 image.	**North** – No significant change in imagery; **East** – No significant change in imagery; **South** – No significant change in imagery; **West** – No significant change in imagery.
1994	The site was largely unchanged from the 1984 image.	**North** – No significant change in imagery; **East** – No significant change in imagery; **South** – No significant change in imagery; **West** – No significant change in imagery.
1997	The site is undergoing earthworks for the Horsley residential development.	**North** – Earthworks for residential development; **East** – A dirt road is observed to lead to a potential quarry area (potential material used for filling); **South** Earthworks for residential development; **West** – Residential development undergoing construction with new houses.
2002	The site appears to be a vacant and grassed over.	**North** – Residential buildings have been constructed. **East** – Dirt road no longer visible and quarry area is grassed over. **South** – Residential buildings have been constructed; **West** – Residential buildings have been constructed.
2008	The site was largely unchanged from the 2002 image.	**North** – No significant change in imagery; **East** – No significant change in imagery; **South** – Residential building constructed on neighbouring property; **West** – No significant change in imagery.
2010 - 2014	The site was largely unchanged from the 2008 image.	**North** – No significant change in imagery; **East** – No significant change in imagery; **South** – No significant change in imagery; **West** – No significant change in imagery.

3.4. Council Information

An application to access records held by Wollongong City Council was initiated on 13 November 2024. A response from council was received on 19 October 2023, with records of Development Applications, sub-division plans, and two Statements of Environmental Effects (SEE) prepared for previous sub-divisions and boundary adjustments for former lots comprising the current Lot 203 DP1290802 (**Appendix I**).

The SEE prepared by CEH Consulting Pty Ltd (**Appendix I**) referred to a PSI (not provided to EI) completed previously for the consolidation of former Lot 428 DP873616 into Lot 3 DP1280810, which is located to the south-east of Lot 203 DP1290802 and the site. The SEE reported that the PSI found the site to be suitable for the proposed sub-division from a contaminated land perspective.

No contaminating activities were identified in the information made available to EI at the time of writing this report. Should any pertinent findings be received, this report is to be updated and reissued.

3.5. NSW EPA Online Records

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

Record of Notices Under Section 58 of CLM Act 1997

An on-line search of the contaminated land public record was conducted on 13 November 2024. The contaminated land public record is a searchable database of:

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

The search confirmed that neither the sites, nor the surrounding lands within close proximity (≤500m), were subject to any regulatory notices relevant to the above legislations.

List of NSW Contaminated Sites Notified to EPA

A search through the *List of NSW Contaminated Sites Notified to the EPA* under Section 60 of the CLM Act 1997 was conducted on 13 November 2024. This list is maintained by the NSW EPA and includes properties on which contamination has been identified, but not deemed to be impacted significantly enough to warrant regulation.

The search confirmed that the site or any sites within close proximity (≤500m) had not been notified as contaminated to the NSW EPA.

POEO Public Register

A search of the *Protection of the Environment Operations Act 1997* public register was conducted on 13 November 2024. This public register contains records related to environmental protection licences, applications, notices, audits, pollution studies and reduction programs.

The search confirmed that neither the site, nor the surrounding lands within close proximity (≤500m), was subject to any licensing agreements / notices / programs relevant to this legislation.

4. CONCEPTUAL SITE MODEL

In accordance with NEPC (2013) *Schedule B2 - Guideline on Site Characterisation*, EI developed a conceptual site model (CSM) assessing plausible pollutant linkages between potential contamination sources, migration pathways and receptors. The CSM provides a framework for identifying data gaps in the existing site characterisation and future site assessments. Potential contamination sources, exposure pathways and receptors that were considered relevant for this assessment are summarised along with a qualitative assessment of the potential risks posed by complete exposure pathways.

4.1. Summary of Site History

Based on the available historical information (**Section 3**), as well as the observations made during the site inspection (**Section 2.5**), the site has been likely vacant and/or used for agricultural farmland purposes up until the 1990's. The Horsley residential estate which bordered the northern, western, and southern boundaries of the site was developed in the late 1990's. The site has since remained vacant, with no evidence of any structures being constructed.

4.2. Potential Contamination Sources

The potential contamination sources were as follows:

- Use of fill for levelling purposes across the site (including coal wash from the nearby Wongawilli Colliery private railway);
- Former on-site agricultural activities, including the application of fertilisers and/or pesticides;
- Leaks from vehicles; and
- Off-site migration from unknown sources.

4.3. Potential Contaminants

Per or poly-fluoroalkyl substances (PFAS)

NSW EPA (2017) requires that PFAS are considered when investigating land contamination. An assessment of the probability for PFAS occurrence is provided in **Table 4-1.** This was based on considerations outlined in the *PFAS National Environmental Management Plan* (HEPA, 2020) and the EnRisk (2016) decision tree.

Table 4-1 Potential for PFAS Contamination

Preliminary Screening	Probability of Occurrence[1]
Is the past or present site activity listed in HEPA (2020)[2] as being an activity associated with PFAS contamination? If so, list activity.	L
Is the past or present off-site activity up-gradient or adjacent to the site listed in HEPA (2020)[2] as being an activity associated with PFAS contamination? If so, list activity.	L
Did fire training involving the use of suppressants occur on-site between 1970 and 2010?	L
Did fire training occur up-gradient of or adjacent to the site between 1970 and 2010?[3]	L
Have "fuel" fires ever occurred on-site between 1970 and 2010? e.g. ignition of fuel (solvent, petrol, diesel, kero) tanks	L

Preliminary Screening	Probability of Occurrence[1]
Have PFAS been used in manufacturing or stored on-site?[4]	L
Could PFAS have been imported to the site in fill material from a site with activity listed in HEPA (2020)?	L
Could PFAS-contaminated groundwater or run-off have migrated on to the site?	L
Is the site or adjacent sites listed in the NSW EPA PFAS Investigation Program?[5]	L
If the probability is medium or high in any of the rows, does the site analytical suite need to be optimised to include sampling and testing for PFAS in soil (including ASLP testing) and waters?	No

Note 1 Probability: L – low (documentation has been reviewed and there is no recorded instance or compelling rationale), M – moderate (documentation has been reviewed and there is potential for an instance with compelling rationale); H – high (all documentation has been reviewed and there is strong evidence of a recorded instance).
Note 2 Activities listed in Appendix B of the HEPA (2020). Further information, refer to https://www.oecd.org/env/ehs/risk-management/PFC_FINAL-Web.pdf.
Note 3 Runoff from up-gradient PFAS use may impact surface water, soil, sediment and groundwater.
Note 4 PFAS is used wide range of industrial processes and consumer products, including in the manufacture of non-stick cookware, specialised garments and textiles, Scotchguard™ and similar products (used to protect fabric, furniture, leather and carpets from oils and stains), metal plating and in some types of fire-fighting foam (https://www.nicnas.gov.au/chemical-information/factsheets/chemical-name/perfluorinated-chemicals-pfas).
Note 5 https://www.epa.nsw.gov.au/your-environment/contaminated-land/pfas-investigation-program

Emerging chemicals

The NSW EPA uses Chemical Control Orders (CCOs) as a primary legislative tool under the *Environmentally Hazardous Chemicals Act 1985* to manage chemicals of concern and limit their potential impact on the environment. Considerations for chemicals controlled by CCOs, and other potential emerging chemicals, are outlined in **Table 4-2**. In this instance, the potential for an emerging chemical of concern to be present on-site was deemed low, with the exceptions of pesticides (in near-surface fill).

Table 4-2 Potential for Contamination by an Emerging or Controlled Chemical

Chemicals of Concern (CCO or emerging)	Decision
Were aluminium smelter wastes used or stored on site (CCO, 1986)?	No
Do dioxin contaminated wastes (CCO, 1986) have the potential to impact the site? [1]	No
Were organotin products (CCO, 1989) used or stored on site? [2]	No
Were polychlorinated biphenyls (PCBs) used or PCB wastes (CCO, 1997) stored on-site? [3]	No
Were scheduled chemical or wastes (CCO, 2004) used or stored? [4]	Pesticides might have been applied for historical agricultural purposes
Are other emerging chemicals suspected? [5]	No
If Yes to any questions, has site sampling suite been optimised to include sampling for these chemicals of concern?	Yes

Note 1 From burning of certain chemicals, smelting or chemical manufacturing or fire on or near the site.
Note 2 From anti-fouling paints used or removed at boat and ship yards and marinas.
Note 3 From older transformer oils and electrical capacitors
Note 4 Twenty-four mostly organochlorine pesticides and industrial by-products
Note 5 Other chemicals considered as emerging (e.g. 1,4 dioxane; associated with some CVOC).

Potential Contaminants

The potential contaminants at the site were considered to be:

- Priority Metals (PM) - arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc;
- Total Recoverable Hydrocarbons (TRHs);
- The monocyclic aromatic hydrocarbons benzene, toluene, ethylbenzene, xylenes (BTEX);
- Polycyclic Aromatic Hydrocarbons (PAHs);
- Organochlorine and Organophosphorus Pesticides (OCPs / OPPs);
- Volatile Organic Compounds (VOCS);
- Coal wash rejects;
- Asbestos.

4.4. Qualitative Risk Assessment

An assessment of the potential contamination risks for the site is outlined in **Table 4-3**.

Table 4-3 Assessment of Potential Contamination Risk

Potential Source	Impacted Medium	COPC	Risk of Contamination
Localised Fill	Near surface soil	PM, TRH, BTEX, PAH, OCP/OPP, and asbestos	**Moderate** Extensive fill operation occurred on site and within the housing estate during the 1990's. Potential for coal wash within fill due to close proximity to Wongawilli Colliery private railway.
Application of pesticides	Near surface soil	PM (arsenic and copper), OCP and OPP	**Low** If present, pesticides are expected to be limited to shallow soils.
Leakage from vehicles	Near surface soil	PM, TRH, BTEX	**Low** Aerial imagery showed cars parked on site for adjacent residential properties. If present, likely limited to shallow fill soils.
Migration from off-site sources	Surface water Groundwater	PM, TRH, BTEX, PAH, VOC, Phenols	**Low** No contaminating activities were identified within a 500m radius of the site. Potential contaminates may be transported with surface water during extreme flooding events from via Mullet Creek but considered low risk.

4.5. Identified Receptors

The following potential receptors of site contamination were identified:

- Current and future site users / occupiers;
- On-site construction workers (during future redevelopment);
- Users of the adjacent land during future demolition / construction works;
- Down-gradient ecological receptors (Mullet Creek and Lake Illawarra).

Given the qualitative risk assessment summarised in **Section 4.4**, the risk to these receptors were considered to be low to moderate. Refer to **Table 4-4** for an overview of the preliminary CSM, identifying the potential contamination sources, exposure pathways and human and environmental receptors.

Table 4-4 Preliminary Conceptual Site Model

Potential Source	Impacted Media	Contaminants of Potential Concern	Transport mechanism	Exposure pathway	Potential receptor	Source-Pathway-Receptor (SPR) Linkage
Localised Filling Application of pesticides Leakage from vehicles Migration from off-site sources	Soil	PM, TRH, BTEX, PAH, OCP, OPP, and asbestos	Disturbance of surface and subsurface soils during site redevelopment, future site maintenance and future use of the site post redevelopment	Ingestion Dermal contact Inhalation of particulates	Current and future site users Demolition / construction workers Adjacent site users Future intrusive workers	**Potentially complete.** However, the use of personal protective equipment (PPE) is mandatory for construction workers.
			Atmospheric dispersion from soil to outdoor and indoor air spaces			
			Volatilisation of contamination from soil and diffusion to indoor air spaces.	Inhalation of vapours		
		PM, TRH, BTEX, PAH, OCP, OPP	Roots absorption of bioavailable compounds from impacted soils.	Biota uptake	Ecological receptors in areas of exposed soil/landscaping	**Potentially complete.** Uncertainty of location of proposed buildings and landscaping areas.
	Groundwater	PM, TRH, BTEX, PAH	Volatilisation of contamination from groundwater to indoor or outdoor air spaces (onsite and offsite)	Inhalation of vapours	Current and future site users Demolition / construction workers Adjacent site users Future intrusive workers	**Potentially complete.** However, the use of personal protective equipment (PPE) is mandatory for construction workers.
			Disturbance of surface soils during site redevelopment, future site maintenance and future use of the site post redevelopment	Ingestion Dermal contact	Demolition / construction workers Future intrusive workers	
			Migration of dissolved phase impacts in groundwater via diffusion and advection	Biota uptake	Lake Illawarra	**Potentially complete.** Mullet Creek is east of the site which ultimately connects to Lake Illawarra.

5. METHODOLOGY

5.1. Sampling, Analytical and Quality Plan

The sampling, analytical and quality plan (SAQP) ensures that the data collected during environmental works are representative and provided a robust basis for assessment decisions. The SAQP for this investigation included the following:

- Data quality objectives (DQOs), including a summary of the objectives of this investigation;
- Investigation methodology, including the media to be sampled, details of analytes and parameters to be monitored and a description of the rationale for intended sampling points;
- Sampling procedures (including sample handling, preservation and storage);
- Field screening methods;
- Laboratory analysis methods; and
- Analytical quality assurance / quality control (QA/QC).

5.2. Data Quality Objectives

In accordance with the NEPC (2013) *Schedule B2 Guideline on Site Characterisation*, the USEPA (2006) *Data Quality Assessment* and NSW EPA (2017) *Guidelines for the NSW Site Auditor Scheme*, DQOs were developed by the EI investigation team, following the NEPM- / NSW EPA- endorsed, seven step process (**Table 5-1**). In doing so, the appropriate levels of data quantity and quality needed for the specific requirements of the project were established.

Table 5-1 Summary of Project Data Quality Objectives

DQO Step	Details
1. State the Problem Summarise the contamination problem that will require new environmental data, and identify the resources available to resolve the problem; develop a conceptual site model.	The site is designated for residential redevelopment (**Section 1.2**). The site was assessed against the NEPC (2013) land use setting of residential (HIL-A). The site history review (**Section 3**) and CSM showed that there was potential for contamination. The site required a preliminary understanding involving a desktop study and limited intrusive soil investigation into the nature and degree of any soil contamination; in support of planning proposal for the potential rezoning of the site and to enable the developer to meet its obligations under State Environmental Planning Policy 2021 and the Co*ntaminated Land Management Act 1997*.
2. Identify the Goal of the Study (Identify the decisions) Identify the decisions that need to be made on the contamination problem and the new environmental data required to make them.	Based on the objectives outlined in **Section 1.3**, the decisions for this PSI concerned the following questions: ▪ Has the nature, extent and source of any soil and/or groundwater impacts onsite been defined? ▪ What impact do the local geological conditions have on the fate and transport of any contaminants that may be present? ▪ Does the level of impact coupled with the fate and transport of potential contaminants represent an unacceptable risk to identified human and/or environmental receptors on- or off- site? ▪ Does the collected data provide sufficient information to allow the selection and design of an appropriate remedial strategy, if necessary? ▪ If the data does not provide sufficient information, what data gaps require closure to enable the suitability of the site to be determined, or selection and design of an appropriate remedial strategy?
3. Identify Information Inputs (Identify inputs to decision) Identify the information needed to support any decision and specify which inputs require new environmental measurements.	Inputs to the decision making process included: ▪ The proposed development plans and land use; ▪ National and NSW EPA guidelines endorsed under the *NSW Contaminated Land Management Act 1997*; ▪ Observations obtained from an intrusive investigation in locations and to depths deemed appropriate for assessment purposes; and ▪ Laboratory analysis of selected samples for the potential contaminants. At the end of the PSI, a decision had to be made regarding whether the environmental conditions were suitable for the proposed redevelopment, or if additional assessment / remedial works were required to make the site suitable.
4. Define the Boundaries of the Study Specify the spatial and temporal aspects of the environmental media that the data must represent to support decision.	**Lateral** – The investigation was conducted within the cadastral boundaries of the site. **Vertical** – From the ground surface, down to the deepest depth of borehole drilling. **Temporal** – Results were valid on the day of data / sample collection and remain valid as long as no changes occur on site or contamination (if present) does not migrate on site or on to the site from off-site sources.
5. Develop the Analytic Approach (Develop a decision rule) To define the parameter of interest, specify the action level, and integrate previous DQO outputs into a single statement that describes a logical basis for choosing from alternative actions.	The decision rules for the investigation were: ▪ If the concentrations of contaminants in the soil and/or groundwater data exceed the adopted criteria, then assess the need to further investigate the extent of impacts onsite. Decision criteria for QA/QC measures are defined by the Data Quality Indicators (DQI) in **Table 5-2**.

DQO Step	Details
6. Specify Performance or Acceptance Criteria (Specify limits on decision errors) Specify the decision-maker's acceptable limits on decision errors, which are used to establish performance goals for limiting uncertainties in the data.	Specific limits for this project were in accordance with National and NSW EPA guidance, and appropriate indicators of data quality and standard procedures for field sampling and handling. This included the following points to quantify tolerable limits: ▪ The null hypothesis for the investigation was that the 95% Upper Confidence Limits (UCL) of the average concentration of contaminants of concern exceed relevant land use criteria across the site. ▪ Acceptance of site suitability was based on the probability that: ‣ The 95% UCL of the average concentration of the data set satisfied the given site criteria (thus, a limit on the decision error was 5% that a conclusive statement may be incorrect); ‣ The standard deviation of the data set was less than 50% of the relevant criteria; and ‣ No single result exceeded the criteria by 250% or more. ▪ Soil and groundwater concentrations for the potential chemicals that were below investigation criteria made or approved by the NSW EPA were treated as acceptable and indicative of suitability for the proposed land use(s). ▪ If contaminant concentrations exceeded the adopted criteria, further investigation was considered prudent. If no contamination was detected, no further action was required.
7. Develop the Detailed Plan for Obtaining Data (Optimise the design for obtaining data) Identify the most resource-effective sampling and analysis design for general data that are expected to satisfy the DQOs.	▪ In order to identify the most resource-effective sampling and analysis design and satisfy the DQOs: ▪ Soil sampling was limited to 4 locations using a generally systematic grid pattern across accessible parts of the site. ▪ An upper soil profile sample was collected at each borehole location and tested for the potential contaminates, to assess the conditions of the fill layer, and impacts from activities at ground level. ▪ Further discrete, deeper or natural samples were analysed for primary metals, TRH, BTEX and PAH. Samples were selected on field observations (including visual and olfactory evidence), giving consideration to the subsurface stratigraphy. ▪ Review of the results was undertaken to determine if further sampling was warranted. During the PSI, written instructions were issued to guide field personnel in the required fieldwork activities. All field works were performed in accordance with NSW EPA guidelines and industry standard procedures.

5.3. Data Quality Indicators

To ensure that the investigation data were of an acceptable quality, they were assessed against the quality indicators outlined in **Table 5-2**. Assessment of data quality is presented in **Section 6** and **Appendix K**.

Table 5-2 Data Quality Indicators

QA/QC Component	Data Quality Indicator(s)
Precision A quantitative measure of the variability (or reproducibility) of data	Data precision was assessed by reviewing the performance of blind field duplicate sample sets, through calculation of relative percentage differences (RPD). Precision was deemed acceptable if RPDs were found dominantly to be less than 30%. RPDs that exceeded this range were considered acceptable where: ▪ Results were less than 10 times the limits of reporting (LOR); ▪ Results were less than 20 times the LOR and the RPD was less than 50%; or ▪ Heterogeneous materials or volatile compounds were encountered.
Accuracy A quantitative measure of the closeness of reported data to the "true" value	Data accuracy was assessed through the analysis of: ▪ Split field duplicate sample sets; ▪ Field / method blanks, analysed for the analytes targeted in the primary samples; ▪ Matrix spike sample sets; and ▪ Laboratory control samples.
Representativeness The confidence (expressed qualitatively) that data are representative of each medium present onsite	To ensure the data produced by the laboratory were representative of conditions encountered in the field, the following measures were taken: ▪ Blank samples run in parallel with field samples, to confirm there were no unacceptable instances of laboratory artefacts; ▪ Review of RPDs for field and laboratory duplicates to provide an indication that the samples were generally homogeneous, with no unacceptable instances of significant sample matrix heterogeneities; and ▪ The appropriateness of collection methodologies, handling, storage and preservation techniques was assessed to ensure/confirm there was minimal opportunity for sample interference or degradation (i.e. volatile loss during transport due to incorrect preservation / transport methods).
Completeness A measure of the amount of useable data from a data collection activity	Analytical data sets were considered complete upon confirmation that: ▪ SOPs for sampling protocols were adhered to; and ▪ All chain of custody (COC) documentation was properly completed. It could then be determined whether the generated data were sufficient for the purposes of the land use assessment.
Comparability The confidence that data are equivalent for each sampling event	Given that several data sets from separate sampling episodes were required, issues of comparability were reduced through adherence to standard procedures and regulator-endorsed or published guidelines and standards on each data gathering activity. In addition the data were collected by experienced samplers and NATA-accredited laboratory methodologies will be employed.

5.4. Sampling Rationale

With reference to the CSM describe in **Section 4** and DQOs, the soil sampling and analytical plans were in accordance with the following rationale:

- Multiple level (fill and natural) soil sampling at four boreholes, located across accessible parts of the site in order to characterise *in situ* materials. The number of boreholes and depth was considered to provide a preliminary overview of the potential contamination at the site.
- Laboratory analysis of representative soil samples for the potential contaminants.

5.5. Assessment Criteria

The assessment criteria adopted for this PSI were selected from available published guidelines that are endorsed by national or state regulatory authorities, with due consideration of the exposure scenario that is expected for the site, the likely exposure pathways, and the identified potential receptors. The adopted assessment criteria are outlined in **Table 5-3**.

For the purposes of this PSI, the adopted soil assessment criteria are referred to as the *Soil Investigation Levels* (SILs).

Table 5-3 Adopted Investigation Levels for Soil

Medium	Guidelines	Rationale
Soil	NEPC (2013) HILs, HSLs, EILs, ESLs and Management Limits	**Soil Health-based Investigation Levels (HILs)** NEPC (2013) *HIL-A* thresholds for residential setting with garden/accessible soils, also includes childcare centres, preschools and primary schools. **Soil Health-based Screening Levels (HSLs)** NEPC (2013) *HSL-A&B* thresholds for vapour intrusion in low to high density residential (to assess potential human health impacts from residual vapours resulting from petroleum, BTEX and naphthalene). **Asbestos Health Based Screening Levels:** For asbestos in soil, the following criteria are applicable: ▪ No visible asbestos on soil surface in all areas of the site; ▪ Bonded ACM - HSL-A; ▪ Friable Asbestos: 0.001% w/w in all areas of the site; **Ecological Investigation Levels (EILs) / Ecological Screening Levels (ESLs)** EILs/ESLs for commercial urban residential and open public spaces were adopted, to assess the potential impact to proposed landscaping areas, where plants could be exposed to soils and where precipitation may result in subsurface infiltration and resulting leaching of soil impacts to groundwater. EILs were calculated from Ecological Investigation Level Calculation Spreadsheet developed by CSIRO for the National Environment Protection Council for a high traffic NSW suburb and NEPC (2013) Schedule B1 Guideline on Investigation Levels for Soil by the addition of site specific Added Contaminant Limit (ACL) and the Ambient Background Concentration (ABC) for a high traffic NSW suburb. The adopted ESL criteria were based on fine grained criteria. **Management Limits for Petroleum Hydrocarbons** Where the HSLs and ESLs for petroleum hydrocarbons were exceeded, sample results were also assessed against the NEPC (2013) *Management Limits* for the F1-F4 TRH fractions, to assess propensity for phase-separated hydrocarbons (PSH), fire and explosive hazards and adverse effects on buried infrastructure.
	CRC CARE (2017) high reliability ecological criteria	**High reliability ecological criterion for Benzo(α)pyrene** The CRC Care (2017) high reliability ecological guideline for benzo(α)pyrene in urban residential and public open space settings are not endorsed by NSW EPA. However, the criteria will be adopted as appropriate to assess for protection of terrestrial ecosystems.

5.6. Soil Sampling Methodology

The soil sampling works conducted at the site are described in **Table 5-4**. Sampling locations are illustrated in **Figure A.3**, **Appendix A**.

Table 5-4 Summary of Soil Sampling Methodology

Activity/Item	Details
Fieldwork	Conducted on 18 November 2024, comprising 4 borehole locations across accessible parts of the site. Prior to drilling, locations were surveyed by a contracted services locator, with assistance from *Before-You-Dig* plans.
Drilling Method	All four test bores were drilled using a hand auger. Borehole logs are presented in **Appendix D**.
Soil Logging	Drilled / examined soils were logged in the field in accordance with Australian Standard AS1726-2017. Soil was evaluated on a qualitative basis for visual and olfactory signs of contamination. Soil descriptions are included in the borehole logs (**Appendix D**).
Soil Sampling	Soil samples were collected by dry grab method from the hand auger (the sampler wearing dedicated nitrile gloves) and placed into laboratory-supplied, acid-washed, solvent-rinsed glass jars and zip-lock, plastic bags (the latter for asbestos samples). Blind and split field duplicates for QA assessment were prepared by collecting a bulk amount of soil and dividing (post mixing) into three separate glass jars.
Decontamination	Nitrile sampling gloves were replaced between each sampling location. The augers were cleaned of all residual soil between each borehole location by washing with a mixture of Alconox and potable water (1/20) until free of all residual materials, then rinsed with water.
Management of Soil Cuttings	Soil cuttings were used to backfill the completed boreholes.
Sample Preservation and Transport	Sealed sample containers were stored in an insulated chilled chest (with frozen ice packs), whilst on-site and in transit to the contracted laboratories. Chilled sample chests were transported to the primary laboratory (SGS Australia Pty Ltd (SGS)) using chain-of-custody (COC) procedures. Signed COC certificates and sample receipt advice (SRA) were provided by SGS for confirmation purposes (**Appendix I**). Split (inter-laboratory) soil field duplicates were submitted to Envirolab Services Pty Ltd (Envirolab; the secondary laboratory) under strict COC conditions. Signed COC certificates and SRA were provided by Envirolab for confirmation purposes (**Appendix I**).
Laboratory Analysis and Quality Control	Soil samples were analysed by SGS and Envirolab for the potential contaminants. All samples were analysed within the required holding period, as documented in the corresponding laboratory reports (**Appendix J** and **Appendix L**). In addition to the split (inter-laboratory) field duplicates (analysed by Envirolab), QC testing comprised one blind (intra-laboratory) field duplicate, an equipment rinsate blank, a laboratory-prepared trip spike soil sample and a laboratory-prepared trip blank soil sample.

6. DATA QUALITY ASSESSMENT

The assessment of data quality is defined as the scientific and statistical evaluation of environmental results to determine if they meet the objectives of the project (USEPA, 2006). For this PSI, data quality assessment involved an evaluation of the compliance of the field (sampling) and laboratory procedures with established protocols, as well as the accuracy and precision of the associated results from the quality control measures. The findings are summarised in **Table 6-1** and discussed in detail in **Appendix K**.

In summary, the overall quality of the analytical data from this PSI was considered to be of an acceptable standard for interpretive use and preparation of an updated CSM.

Table 6-1 Quality Assurance Process

Stage	Control	Conformance [Yes, Part, No]	Report Section(s)
Preliminaries	DQOs and DQIs established	Yes	See **Sections 5.2** and **5.3**
Field Work	Suitable documentation of fieldwork observations including borehole logs	Yes	See **Appendix D**
Sampling Plan	Use of relevant and appropriate sampling plan (density, type, and location)	Yes	See **Section 5.4** for a preliminary overview
	All media sampled and duplicates collected	Yes	See **Appendix I**
	Use of approved and appropriate sampling methods	Yes	See **Section 5.6**
	Selection of soil samples according to field PID readings (where VOCs are present)	No	N/A
	Preservation and storage of samples upon collection and during transport to laboratory	Yes	See **Section 5.6**
	Appropriate field rinsate and trip blanks taken	Yes	See **Appendix I**
	Completed field and analytical laboratory sample COC procedures and documentation	Yes	See **Appendix I**
Laboratory	Sample holding times within acceptable limits	Yes	See **Appendices J, K, L**
	Use of appropriate analytical procedures and NATA-accredited laboratories	Yes	See **Appendices J, K, L**
	LOR low enough to meet adopted criteria	Yes	See **Appendices J, K, L**
	Laboratory blanks	Yes	See **Appendices J, K, L**
	Laboratory duplicates	Yes	See **Appendices J, K, L**
	Matrix spikes	Yes	See **Appendices J, K, L**
	Surrogates	Yes	See **Appendices J, K, L**
	Analytical results for replicated samples, including field and laboratory duplicates, expressed as RPD	Yes	See **Appendices J, K, L**
	Checking for the occurrence of apparently unusual or anomalous results (e.g. laboratory results that appear to be inconsistent with field observations or measurements)	Yes	See **Appendices B, D, J**
Reporting	Report reviewed by senior staff to assess project meets NSW EPA guidelines and objectives	Yes	See **Document Control**

7. RESULTS

7.1. Soil

Sub-Surface Conditions

Based on the borehole logs, the sub-surface conditions of the site were generalised as a layer of silty clay topsoil filling (0.0 to 0.1m thickness), gravelly clay and clayey sand filling (0.1m to 1.0m thickness), overlying natural (alluvial) silty clay. Significant gravel inclusions were present within the fill material assessed, and refusal on gravels was met at boreholes BH101, BH103, and BH104. The potential for ASS to be present on the site was considered to be very low.

More details encountered during the soil investigation by EI are provided in **Table 7-1** and borehole logs are presented in **Appendix D**.

Table 7-1 Generalised Sub-Surface Profile

Layer	Description	Minimum - Maximum Depth (mBGL)
Topsoil	Silty CLAY; medium plasticity, dark brown, with angular to sub-angular gravels, rootlets, trace fine to medium-grained sands, concrete.	0.0 – 0.3
Fill	Gravelly CLAY; low plasticity, brown to yellow, with angular to sub-angular gravels, trace concrete and bitumen.	0.2 – 1.0
	Clayey SAND; fine to medium-grained, dark brown to black, with angular gravels.	0.1 – 0.2
	SAND; fine to medium-grained, yellow, with large sub-angular sandstone gravels.	0.0 – 0.4+
Natural/Alluvial Soils	Silty CLAY; medium plasticity, grey, mottled red	1.0 – 1.2+

Note 1 '+' refers to boreholes where refusal was met or target depth was reached.

Field Observations and PID Results

Soil samples were collected from the test bores at various depths to describe lithology summarised in **Table 7-1**. All examined soils were evaluated on a qualitative basis for odour and visual signs of contamination (e.g. hydrocarbon odours, oil staining, petrochemical filming, asbestos fragments, ash, and charcoal), with the following observations noted:

- No soil staining was observed in any of the examined soils.
- No fragments of potential ACM was observed in examined soil samples.
- No ash, slag, coal wash, or fibre cement sheeting were observed in examined soil samples.
- No evidence of actual or potential ASSs was encountered in any of the examined soils.
- PID concentrations were low in all samples examined (maximum 0.2 ppm).

Laboratory Analytical Results

A summary of the laboratory results for the analysed (representative) soil samples is presented in **Table 7-2**. More detailed tabulation is presented in **Table B.1**, **Appendix B**.

All results were found to comply with the adopted SILs applicable to the proposed land use settings (residential).

Table 7-2 Summary of Soil Analytical Results

Number of Primary Samples	Analyte	Minimum Concentration (mg/kg)	Maximum Concentration (mg/kg)	Samples Exceeding SILs
Priority Metals (total)				
6	Arsenic	2	8	None
6	Cadmium	<0.3	<0.3	None
6	Chromium	5	11	None
6	Copper	8.4	22	None
6	Lead	8	42	None
6	Mercury	<0.05	0.08	None
6	Nickel	1.8	5.2	None
6	Zinc	8.7	87	None
PAHs				
6	Naphthalene	<0.1	<0.1	None
6	Benzo(α)pyrene	<0.1	<0.1	None
6	Carcinogenic PAHs (as B(α)P TEQ)	<0.3	<0.3	None
6	Total PAHs	<0.8	<0.8	None
BTEX and TRHs				
6	Benzene	<0.1	<0.1	None
6	Toluene	<0.1	<0.1	None
6	Ethyl benzene	<0.1	<0.1	None
6	Total Xylenes	<0.3	<0.3	None
6	F1 – TRHs	<25	<25	None
6	F2 – TRHs	<25	<25	None
6	F3 – TRHs	<90	<90	None
6	F4 – TRHs	<120	<120	None
Pesticides				
5	Total OCPs	<1	<1	None
5	Total OPPs	<1.7	<1.7	None
PCB				
5	Total PCBs	<1	<1	None
Asbestos				
5	Asbestos	No Asbestos Detected	No Asbestos Detected	None

8. SITE CHARACTERISATION

8.1. Subsurface Conditions

Based on the borehole logs (**Appendix D**), sub-surface conditions of the site were generalised as a layer of silty clay, gravelly clay and clayey sand filling (0.0m to 1.0m thickness), overlying natural (alluvial) silty clay. Significant gravel inclusions were present within the fill material assessed, and refusal on gravels was met at boreholes BH101, BH103, and BH104.

8.2. Soil Impacts

Laboratory analytical results for the representative fill and natural soil samples were compared to adopted soil investigation levels.

Human Health

All boreholes were assessed against the adopted HIL-A/HSL-A&B criteria, with all analytes reporting concentrations below the human health criteria.

Ecological

All boreholes were assessed against the adopted EIL/ESL criteria, with all analytes reporting concentrations below the adopted ecological criteria.

Results are summarised in **Table 7-2** and **Table B.1**, **Appendix B.**

8.3. Groundwater Impacts

No groundwater was assessed as part of this PSI. Regionally, groundwater below the site is likely to present in the nearby alluvial sediments and within deeper bedrock within fractures, joints and bedding planes. Beneficial use of groundwater, such as for drinking, recreational or irrigation purposes, was not identified in the vicinity of the site (i.e. no water supply bores are present within 500m of the site), however some shallow water may be present in the alluvial soils near the creeks.

While potential flooding of Mullet Creek may include migration of potential contaminated water from unknown upstream sources, the site is unlikely to be impacted and is considered a low risk to the site receptors.

Future developments are likely to be individual or medium density housing and unlikely to require any dewatering to enable construction.

8.4. Asbestos Risk

Asbestos was not identified in any of the samples analysed and no fragments of potential ACM was observed on any accessible ground surfaces. Laboratory analysis reported no detections of asbestos at the laboratory LOR (0.01 %w/w). The site history and site observations made during this investigation suggests that the risk of asbestos contamination and was low.

8.5. Limitations, Uncertainties and Data Gaps

Uncertainties and data gaps remaining for the site were considered to be:

- The soil investigation was limited to samples collected from a hand auger and refusal was met in gravelly fill at BH101, BH103 and BH104. Sampling of natural soils was not undertaken at these boreholes;
- The number of soil sampling locations for this PSI was also limited to four locations. For a site area of 0.225 ha, a minimum number of nine sampling locations is required by the NSW EPA (2022a); and
- Groundwater was not investigated during this PSI.

Based on the site history searches, field observations, and results of the intrusive soil sampling, it is concluded that the overall contamination risk is low, and the limited intrusive investigation provided sufficient coverage of the site. The aforementioned uncertainties and data gaps are not considered to impact upon the site suitability of the proposed development and further investigations are not warranted.

9. Conclusions

The property identified as 21 Barham Place, Horsley NSW was the subject of a Preliminary Site Investigation with limited sampling, conducted in order to assess the nature and degree of on-site contamination. The key findings of this PSI were as follows:

- The portion investigated comprised a small area (approximately 2,250 m^2) on the western boundary of the overall land parcel legally identified as Lot 203 in DP1290802, which covers approximately 40 ha.
- The site was a vacant, grassed over lot bordered by the Horsley residential estate to the north, west and south, and vacant farmland to the east.
- A review of geological maps for the area indicated that the site is underlain by quaternary alluvial terrace deposits, and the remainder of Lot 203 in DP1290802 overlies quaternary alluvial floodplain deposits.
- Based on the available historical information the site has been likely vacant and/or used for agricultural farmland purposes from 1881 (at least) up until the 1990's. The Horsley residential estate which bordered the northern, western, and southern boundaries of the site was developed in the late 1990's. The current site layout has not significantly changed since.
- The site and surrounding lands within close proximity (≤500m radius) were free of statutory notices and licensing agreements issued under the *Contaminated Land Management Act 1997* and *Protection of the Environment Operations Act 1997*. The site, or any sites within close proximity (≤500m), was not included on the *List of NSW Contaminated Sites Notified to the EPA*.
- A database search of the site reported that potentially contaminating activities such as mechanical / automotive services, manufacturing, dry cleaners, and storage depots have historically been situated in an industrial area on Hamilton Street in Dapto.
    - It is concluded that this industrial area is a low risk of (migrating) contamination to the site, considering the distance (>500m) to the site.
- No evidence of an underground storage tank (UST) was observed on site.
- Soil sampling and analysis was conducted at four borehole locations using a hand auger (BH101-BH104). The limited intrusive soil assessment revealed the following:
    - The sub-surface conditions of the site were generalised as a layer of silty clay, gravelly clay and clayey sand filling (0.0m to 1.0m thickness), overlying natural (alluvial) silty clay. Significant gravel inclusions were present within the fill material assessed, and refusal on gravels was met at boreholes BH101, BH103, and BH104.
    - No olfactory indicator of contamination (i.e. suspicious odour) was detected within any of the examined soil samples.
    - No soil staining, ash, slag, or coal wash was observed in any of the examined soils.
    - An assessment of the soil concentrations against NEPC (2013) human health investigation levels (HIL-A/HSL-A&B) and ecological investigation/screening levels (EIL/ESL) indicated all samples meeting the adopted criteria.
    - The site history and site observations made during this investigated suggested that the risk of asbestos contamination and was low. This was supported by the laboratory

results reporting no detections of asbestos in all of the samples analysed. No fragments of potential ACM was observed on any accessible ground surfaces.

- The identified uncertainties and data gaps including the number of sampling locations and depth of samples are unlikely to alter the site characterisation and conclusions regarding the proposed rezoning.

Based on the findings of this PSI, and with consideration of EI's *Statement of Limitations* (**Section 11**), it was concluded that there is a low potential of widespread contamination to exist on site. EI considers that the site is suitable for the proposed residential subdivision, provided that the recommendations described in **Section 10** are implemented.

10. Recommendations

EI provides the following recommendations in relation to any future redevelopment of the site:

- All soils designated for off-site disposal should be managed in accordance with NSW EPA (2014) *Waste Classification Guidelines*, with the analytical suite to include the identified potential contaminates listed in **Section 4.2**.
- Once appropriately classified, all waste materials are to be transported to NSW EPA-licensed waste facilities by the appointed waste contractor(s). All tipping dockets supplied by the landfill companies are to be retained, to confirm the appropriate (lawful) disposal of wastes.
- Any material being imported to the site should be validated as suitable for the intended (residential) use, in accordance with NSW EPA guidelines. In particular, imported filling / landscaping material must be certified as meeting the VENM classification.

11. Statement of Limitations

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

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

The findings presented in this report are the result of discrete and specific sampling methodologies used in accordance with best industry practices and standards. Due to the site-specific nature of soil sampling from point locations, it is considered likely that all variations in subsurface conditions across a site cannot be fully defined, no matter how comprehensive the field program.

While normal assessments of data reliability have been made, EI assumes no responsibility or liability for errors in any data obtained from regulatory agencies (e.g. Council, NSW EPA), statements from sources outside of EI, or developments resulting from situations outside the scope of works of this project.

Despite all reasonable care and diligence, the ground conditions encountered and concentrations of contaminants measured may not be representative of conditions between the locations sampled and investigated. In addition, site characteristics may change at any time in response to variations in natural conditions, chemical reactions and other events (e.g. groundwater movement and or spillages of contaminating substances). These changes may occur subsequent to EI's investigation.

EI's assessment is necessarily based upon the results of the site investigation and the restricted program of surface and subsurface sampling, screening and chemical testing which was set out in the project proposal. Neither EI, nor any other reputable consultant, can provide unqualified warranties nor does EI assume any liability for site conditions not observed or accessible during the time of the investigations.

This report was prepared for Jadara Planning and no responsibility is accepted for use of any part of this report in any other context or for any other purpose or by other third parties. This report does not purport to provide legal advice.

This report and associated documents remain the property of EI subject to payment of all fees due for this assessment. The report shall not be reproduced except in full and with prior written permission by EI.

REFERENCES

ANZECC/ARMCANZ (2000) *Australian and New Zealand Guidelines for Fresh and Marine Water Quality*, Australian and New Zealand Environment and Conservation Council and Agriculture and Resource Management Council of Australia and New Zealand, October 2000.

ANZG (2018) *Australian and New Zealand Guidelines for Fresh and Marine Water Quality*, Australian and New Zealand Governments and Australian State and Territory Governments, Canberra ACT, Australia, August 2018.

CRC CARE (2017) *Risk-Based Management and Remediation Guidance for Benzo(a)pyrene*, CRC CARE Technical Report No.39, CRC for Contamination Assessment and Remediation of the Environment, Newcastle, Australia, January 2017.

DEC (2007) *Guidelines for the Assessment and Management of Groundwater Contamination*, New South Wales Department of Environment and Conservation, DEC 2007/144, June 2007.

DMR (1985) Wollongong – Port Hacking 1:100,000 Geological Series Sheet 9029-9129 (Edition 1) *Geological Survey of New South Wales*, Department of Mineral Resources.

EnRISK (2016) *Proposed Decision Tree for Prioritising Sites Potentially Contaminated with PFAS,* prepared for the NSW EPA by Environmental Risk Sciences Pty Ltd, February 2016.

HEPA (2020) *PFAS National Environmental Management Plan*, National Chemicals Working Group of the Heads of the EPAs Australia and New Zealand (HEPA), January 2020.

Murphy CL (1997) *Acid Sulfate Soil Risk*, Department of Land and Water Conservation, Sydney, Second Edition, supplied by the Sydney South Coast, Geographical Information Systems Unit.

NEPC (2013) *Schedule B1 Guideline on Investigation Levels for Soil and Groundwater*, *Schedule B2 Guideline on Site Characterisation* and *Schedule B4 Guideline on Site-Specific Health Risk Assessments*, from the *National Environment Protection (Assessment of Site Contamination) Amendment Measure*, National Environment Protection Council, April 2013.

NSW Geoscience (2024) *Geoscience Minview* (accessed Nov 2024), NSW Department of Primary Industries and Regional Development, Map retrieved from https://minview.geoscience.nsw.gov.au/.

NSW (2021) *State Environmental Planning Policy (Resilience and Hazards) (2021) (formerly SEPP 55 – Remediation of Land)*, last modified 2 March 2022.

NSW EPA (2014) *Waste Classification Guidelines - Part 1: Classifying Waste*, Environment Protection Authority of New South Wales, EPA 2014/0796, November 2014.

NSW EPA (2017) *Guidelines for the NSW Site Auditor Scheme* (3rd Edition), Environment Protection Authority of New South Wales, EPA 2017P0269, October 2017.

NSW EPA (2020a) *Consultants Reporting on Contaminated Land: Contaminated Land Guidelines*, Environment Protection Authority of New South Wales, EPA 2020P2233, April 2020.

NSW EPA (2022a) *Sampling Design Part 1 - Application: Contaminated Land Guidelines*, Environment Protection Authority of New South Wales, EPA 2022P3915, August 2022.

NSW EPA (2022b) *Sampling Design Part 2 – Interpretation: Contaminated Land Guidelines*, Environment Protection Authority of New South Wales, EPA 2022P3916, August 2022.

Standards Australia (2017) *Australian Standard AS1726-2017 Geotechnical Site Investigations*, Standards Australia 2017.

USEPA (2000a) *Guidance for the Data Quality Objectives Process - EPA QA/G-4*, United States Environmental Protection Agency, EPA/600/R-96/055, August 2000.

USEPA (2000b) *Data Quality Objectives Process for Hazardous Waste Site Investigations - EPA QA/G-4HW*, United States Environmental Protection Agency, EPA/600/R-00/007, January 2000.

USEPA (2006) *Data Quality Assessment: A Reviewers Guide - EPA QA/G-9R*, United States Environmental Protection Agency, Office of Environmental Information, EPA/240/B-06/002, February 2006.

WADOH (2009) *Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia,* Published by the Western Australian Department of Health, May 2009 (later versions of these guidelines are not endorsed by the NSW EPA).

Wollongong Development Control Plan 2009 (DCP 2009). Retrieved from https://www.wollongong.nsw.gov.au

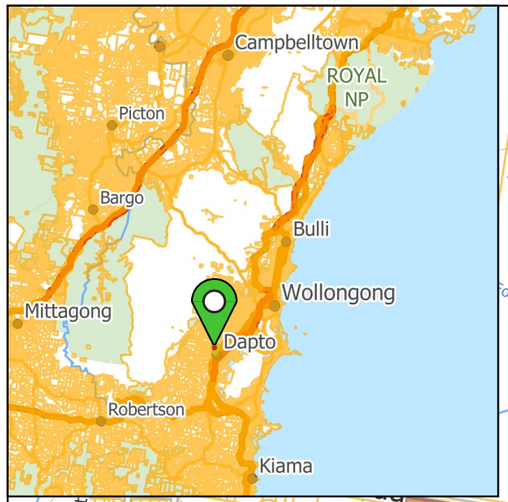
Wollongong Local Environmental Plan 2009 (LEP 2009). Retrieved from https://www.legislation.nsw.gov.au

Abbreviations

ABC	Ambient Background Concentration
ACL	Added Contaminant Limit
ACM	Asbestos-Containing Materials
ASS	Acid Sulfate Soils
AST	Above-ground Storage Tanks
B(α)P	Benzo(α)Pyrene (a PAH compound)
BH	Borehole
BTEX	Benzene, Toluene, Ethylbenzene, Xylene
CCO	Chemical Control Order
CLM	Contaminated Land Management
COC	Chain of Custody
CSM	Conceptual Site Model
DA	Development Application
DO	Dissolved Oxygen
DP	Deposited Plan
DQI	Data Quality Indicators
DQO	Data Quality Objectives
EC	Electrical Conductivity
EIL	Ecological Investigation Level
EPA	Environment Protection Authority (of New South Wales)
ESL	Ecological Screening Level
F1	C_6-C_{10} TRH (less the sum of BTEX concentrations)
F2	>C_{10}-C_{16} TRH (less the concentration of naphthalene)
F3	>C_{16}-C_{34} TRH
F4	>C_{34}-C_{40} TRH
FCS	Fibre Cement Sheeting
GIL	Groundwater Investigation Level
GME	Groundwater Monitoring Event
HDPE	High Density Polyethylene
HIL	Health-based Investigation Level
HSL	Health-based Screening Level
km	Kilometres
L	Litres
LGA	Local Government Area
LOR	Limit of Reporting (limit of reporting for respective laboratory method)
m	Metres
mAHD	meters Australian Height Datum
mBGL	meters Below Ground Level
µg/L	Micrograms per Litre
mg/L	Milligrams per Litre
mV	Millivolts
N/A	Not Applicable
NATA	National Association of Testing Authorities, Australia
NEPC	National Environment Protection Council
NEPM	National Environment Protection Measure
OCP	Organochlorine Pesticides
OPP	Organophosphate Pesticides
PAH	Polycyclic Aromatic Hydrocarbons
PCB	Polychlorinated Biphenyls
PFAS	Per- and Poly-Fluoroalkyl Substances

PID	Photo-Ionisation Detector
PM	Priority Metals
POEO	Protection of the Environment Operations
PQL	Practical Quantitation Limit (limit of detection for respective laboratory method)
PSH	Phase-Separated Hydrocarbons
QA/QC	Quality Assurance / Quality Control
Redox	Reduction-Oxidation Potential
RPD	Relative Percentage Difference
SAQP	Sampling, Analytical and Quality Plan
SEPP	State Environmental Planning Policy
SIL	Soil Investigation Level
SOP	Standard Operating Procedure
SRA	Sample Receipt Advice (document confirming laboratory receipt of samples)
SWL	Standing Water Level
TEQ	Toxicity Equivalent Quotient
TRH	Total Recoverable Hydrocarbons (non-specific analysis of organic compounds)
UCL	Upper Confidence Limit (of the mean)
UPSS	Underground Petroleum Storage System
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank
VOC	Volatile Organic Compounds (specific organic compounds which are volatile)
WHSEP	Work, Health, Safety and Environment Plan

Appendix A – Figures



0 190 380 570 760 m

LEGEND. Note: All locations are approximate

Site boundary Lot 203 DP1290802

eiaustralia
Practical Solutions for Built Environments
Suite 6.01, 55 Miller Street, PYRMONT 2009
Ph (02) 9516 0722 Fax (02) 9518 5088

Drawn:	S.N.
Approved:	M.D.
Date:	26/11/2024

Jadara Planning

Preliminary Site Investigation with Limited Sampling

21 Barham Place, Horsley NSW

Site Locality

Figure: A.1

Project: E26578.E01



Map Source:
DCS NSW Imagery

LEGEND. Note: all locations are approximate

Site Boundary | Lot Boundary | Elevation Contour (mAHD)

eiaustralia
Practical Solutions for Built Environments
Suite 6.01, 55 Miller Street, PYRMONT 2009
Ph (02) 9516 0722 Fax (02) 9518 5088

Drawn:	S.N.
Approved:	
Date:	13/11/2024

Jadara Planning Pty Ltd

Preliminary Site Investigation

21 Barham Place, Horsley

Site / Lot Plan

Figure:
A.2

Project: E26578.E01



Map Source:
DCS NSW Imagery

LEGEND. Note: all locations are approximate

Site boundary Borehole locations

eiaustralia
Practical Solutions for Built Environments
Suite 6.01, 55 Miller Street, PYRMONT 2009
Ph (02) 9516 0722 Fax (02) 9518 5088

Drawn:	S.N.
Approved:	M.D.
Date:	26/11/2024

Jadara Planning Pty Ltd

Preliminary Site Investigation

21 Barham Place, Horsley

Borehole Location Plan

Figure:
A.3

Project: E26578.E01

Appendix B – Tables

Table B.1 – Summary of Analytical Results

E26578 - Horsley

Sample ID	Sampling Date	Priority Metals								PAHs				BTEX				TRHs				Pesticides		PCBs	Asbestos
		As	Cd	Cr#	Cu	Pb	Hg	Ni	Zn	Carcinogenic PAHs (as B(α)P TEQ)	Benzo(α)pyrene	Total PAHs	Naphthalene	Benzene	Toluene	Ethylbenzene	Total Xylenes	F1	F2	F3	F4	OCPs	OPPs		Presence / Absence
Fill																									
BH101_0.0-0.1	18/11/2024	4	<0.3	9.9	10	11	<0.05	3.5	18	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<50	<90	<120	<1	<1.7	<1	Absent
BH101_0.5-0.6		2	<0.3	6.4	15	10	<0.05	2.5	17	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<50	<90	<120	<1	<1.7	<1	Absent
BH102_0.1-0.2		3	<0.3	11	9.2	13	<0.05	4.1	24	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<50	<90	<120	<1	<1.7	<1	Absent
BH103_0.1-0.2		8	<0.3	7.1	15	10	<0.05	5.2	48	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<50	<90	<120	<1	<1.7	<1	Absent
BH104_0.1-0.2		4	<0.3	5	22	42	0.08	5.2	87	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<50	<90	<120	<1	<1.7	<1	Absent
Natural																									
BH102_1.1-1.2	18/11/2024	3	<0.3	8.6	8.4	8	<0.05	1.8	8.7	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<50	<90	<120	<1	<1.7	<1	Absent
Statistical Analysis																									
Minimum concentration		2	<0.3	5	8.4	8	<0.05	1.8	8.7	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<50	<90	<120	NA	NA	NA	NC
Maximum concentration		8	<0.3	11	22	42	0.08	5.2	87	<0.3	<0.1	<0.8	<0.1	<0.1	<0.1	<0.1	<0.3	<25	<50	<90	<120	NA	NA	NA	NC
95% UCL		NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
NEPC (2013) Criteria																									
HIL A - Residential		100	20	100 Cr(VI)	6,000	300	40	400	7,400	3		300										240		1	
HSL A & B - Residential Soil texture classification – Sand		Source depths (0 m to <1 m. BGL)											3	0.5	160	55	40	45	110						
		Source depths (1 m to <2 m. BGL)											NL	0.5	220	NL	60	70	240						
		Source depths (2 m to <4 m. BGL)											NL	0.5	310	NL	95	110	440						
		Source depths (4 m + BGL)											NL	0.5	540	NL	170	200	NL						
HSL A & B - Residential Soil texture classification – Clay		Source depths (0 m to <1 m. BGL)											5	0.7	480	NL	110	50	280						
		Source depths (1 m to <2 m. BGL)											NL	1	NL	NL	310	90	NL						
		Source depths (2 m to <4 m. BGL)											NL	2	NL	NL	NL	150	NL						
		Source depths (4 m + BGL)											NL	3	NL	NL	NL	290	NL						
EILs / ESLs - Urban Residential and Public Open Space		100		410	130	1100		45	310		33		170	50	85	125	45	180	120	1,300	5,600	180			
Management Limits – *Residential*																		700	1,000	2,500	10,000				
Asbestos contamination HSL - A Bonded ACM (%w/w)																									0.01
Asbestos contamination HSL - A Friable Asbestos (%w/w)																									0.001

Notes:

Exceeds EILs/ESLs

Exceeds adopted HIL/HSL

Results are recorded in mg/kg

HIL A	NEPM 2013 'HIL A' - Health Investigation Level - residential with garden/accessible soil, also includes children's day care centres, preschools and primary schools.
HSL A&B	NEPM Health Screening Level 'HSL A&B' - Low-High Density Residential.
NA	Not Analysed
NL	Not Limiting' If the derived soil vapour limit exceeds the soil concentration at which the pore water phase cannot dissolve any more of the individual chemical
ND	Not Detected' i.e. all concentrations of the compounds within the analyte group were found to be below the laboratory limits of detection.
NC	Not calculated
1	As strata comprises both sand and clay, both assessment criteria values were applied.
2	The ecological criteria for benzo(α)pyrene was sourced from CRC Care (2017) Technical Report No. 39 Risk-based management and remediation guidance for benzo(a)pyrene.
3	EILs/ESLs were derived using assumed conservative added Contamination Limits (pH = 5.5 / CEC = 5.5) plus Added Background Concentrations (old suburb / high traffic).
*	TRH >C10-C16 fraction.
F1	To obtain F1 subtract the sum of BTEX concentrations from the C6-C10 fraction.
F2	To obtain F2 subtract naphthalene from the >C10-C16 fraction.
F3	(>C16-C34)
F4	(>C34-C40)

eiaustralia

Appendix C – Proposed Development Plans



CEH Consulting Pty Ltd.
A . B . N . 81 056 544 604
CONSULTING LAND, ENGINEERING AND MINING SURVEYORS, TOWN PLANNERS
' THE LINK ' 44 BAAN BAAN STREET DAPTO NSW 2530
PHONE 02 42 614366 msmith@cehconsulting.com.au FAX 02 42 615243

CONTOUR SURVEY

OF 21 BARHAM PLACE HORSLEY

DATE	03/05/2024	REVISION	DATE	COMMENTS
SURVEYOR	LC			
DRAWN	MS			
CHECKED	MS			
SURVEY FILE				

DRG. No.
D224170A
SCALE 1:400@A3
Sheet 1 of 1 Sheets

Appendix D – Borehole Logs

BOREHOLE LOG

BH ID: BH101

Location	21 Barham Place, Horsley NSW	**Started**	18 November 2024		
Client	Jadara Planning	**Completed**	18 November 2024		
Job No.	E26578.E01	**Logged By**	SN	**Date**	18 November 2024
Sheets	1 of 1	**Review By**		**Date**	
Drilling Contractor	-	**Surface RL**	-	**Latitude**	-
Plant	-	**Inclination**	90°	**Longitude**	-

METHOD	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	SAMPLE RECOVERY	DEPTH (m)	GRAPHIC LOG	RL (m AHD)	MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY / REL. DENSITY	MATERIAL ORIGIN & OBSERVATIONS
HA	GWNE	BH101_0.00-0.10 PID = 0.1 PPM		0.00			TOPSOIL: Silty CLAY: medium plasticity, dark brown, with rootlets, No odour	M		TOPSOIL
				0.20			FILL: Gravelly CLAY: medium plasticity, brown-yellow, with angular to sub-angular gravels, trace concrete, bitumen, No odour	D		FILL
		BH101_0.50-0.60 PID = 0.1 PPM					Terminated at 0.60m. Refusal on gravels.			
				1						
				2						
				3						
				4						
				5						
				6						
				7						
				8						
				9						
				10						

BOREHOLE LOG

BH ID: BH102

Location	21 Barham Place, Horsley NSW		**Started**	18 November 2024	
Client	Jadara Planning		**Completed**	18 November 2024	
Job No.	E26578.E01		**Logged By**	SN	**Date** 18 November 2024
Sheets	1 of 1		**Review By**		**Date**
Drilling Contractor	-	**Surface RL** -	**Latitude**	-	
Plant	-	**Inclination** 90°	**Longitude**	-	

METHOD	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	SAMPLE RECOVERY	DEPTH (m)	GRAPHIC LOG	RL (m AHD)	MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY / REL. DENSITY	MATERIAL ORIGIN & OBSERVATIONS
HA	GWNE	BH102_0.10-0.20 PID = 0.0 PPM		0.00			TOPSOIL: Silty CLAY: medium plasticity, dark brown, with rootlets, No odour	M		TOPSOIL
				0.30			FILL: Gravelly CLAY: low plasticity, orange brown, mottled grey, trace angular to sub-angular gravels, No odour			FILL
		BH102_1.10-1.20		1.00			Silty CLAY: medium to high plasticity, orange brown, mottled grey, No odour			ALLUVIAL SOIL
							Terminated at 1.20m. Target Depth Reached.			

This log should be read in conjunction with EI Australia's accompanying explanatory notes.

BOREHOLE LOG

BH ID: BH103

Location	21 Barham Place, Horsley NSW	**Started**	18 November 2024
Client	Jadara Planning	**Completed**	18 November 2024
Job No.	E26578.E01	**Logged By**	SN **Date** 18 November 2024
Sheets	1 of 1	**Review By**	**Date**
Drilling Contractor	-	**Surface RL**	- **Latitude** -
Plant	-	**Inclination**	90° **Longitude** -

METHOD	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	SAMPLE RECOVERY	DEPTH (m)	GRAPHIC LOG	RL (m AHD)	MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY / REL. DENSITY	MATERIAL ORIGIN & OBSERVATIONS
HA	GWNE	BH103_0.10-0.20 PID = 0.1 PPM		0 0.00 0.10			TOPSOIL: Silty CLAY: medium plasticity, dark brown, with rootlets, trace angular to sub-angular gravels, No odour FILL: Clayey SAND: yellow brown, with sub-angular sandstone gravels, No odour Terminated at 0.30m. Refusal on gravels.	M		TOPSOIL FILL
				1						
				2						
				3						
				4						
				5						
				6						
				7						
				8						
				9						
				10						

BOREHOLE LOG

BH ID: BH104

Location	21 Barham Place, Horsley NSW		**Started**	18 November 2024	
Client	Jadara Planning		**Completed**	18 November 2024	
Job No.	E26578.E01		**Logged By**	SN	**Date** 18 November 2024
Sheets	1 of 1		**Review By**		**Date**
Drilling Contractor	-	**Surface RL** -	**Latitude**	-	
Plant	-	**Inclination** 90°	**Longitude**	-	

METHOD	GROUND WATER LEVELS	SAMPLES & FIELD TESTS	SAMPLE RECOVERY	DEPTH (m)	GRAPHIC LOG	RL (m AHD)	MATERIAL DESCRIPTION	MOISTURE CONDITION	CONSISTENCY / REL. DENSITY	MATERIAL ORIGIN & OBSERVATIONS
HA	GWNE	BH104_0.10-0.20 PID = 0.2 PPM		0.00 0.10 0.20			TOPSOIL: Silty CLAY: medium plasticity, brown, with rootlets, angular to sub-angular gravels, fine to medium-grained yellow sands, No odour FILL: Clayey SAND: fine to medium grained, dark brown, with angular to sub-angular gravels, No odour FILL: SAND: yellow brown, with sub-angular sandstone gravels, No odour Terminated at 0.40m. Refusal on gravels.	M		TOPSOIL FILL FILL

This log should be read in conjunction with EI Australia's accompanying explanatory notes.

Appendix E – Site Photographs



Photograph 1: Image of the site, looking south-west (dated 18 November 2024).



Photograph 2: Image of the site, looking north-west (dated 18 November 2024).



Photograph 3: Image of the site from the western boundary, looking east (dated 18 November 2024).



Photograph 4: Image of the farmland area (remainder of Lot 203) to the south-west side of the site (dated 18 November 2024).



Photograph 5: Image of the farmland area (remainder of Lot 203) to the north-west side of the site, with Robbins Creek in background (dated 18 November 2024).



Photograph 6: Image of the residential properties to the north-west of the site (dated 18 November 2024).



Photograph 7: Image of the silty clay topsoil fill at borehole BH101 (dated 18 November 2024).



Photograph 8: Image of the gravelly clay fill at borehole BH101 (dated 18 November 2024).



Photograph 9: Image of the clayey sand fill at borehole BH104 (dated 18 November 2024).



Photograph 10: Image of the soil profile at borehole BH104 (dated 18 November 2024).

Appendix F – Land Titles

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

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

Summary of Owners Report

Re: - 21 Barham Place, Horsley NSW

Description: - Part of Lot 203 D.P. 1290802

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
30.05.1881 (1881 to 1932)	John Lindsay (Farmer) (And his decease estate)	Book 237 No. 830
02.12.1932 (1932 to 1961)	Harold Thornbury Lindsay (Farmer) (1/2 Share) Thomas Hilton Lindsay (Farmer) (1/2 Share)	Book 1652 No. 71 Now Volume 6801 Folios 128 & 129
28.07.1961 (1961 to 1961)	Thomas Hilton Lindsay (Farmer) (Section 94 Application not investigated)	Volume 6801 Folios 128 & 129
03.11.1961 (1961 to 1965)	Mary Estelle Lindsay (Spinster) (1/8 Share) Olive Lindsay (Spinster) (1/8 Share) Hilda Florence Lindsay (Spinster) (1/8 Share) Thomas Hilton Lindsay (Farmer) (5/8 Share)	Volume 6801 Folios 128 & 129 Now Volume 9889 Folios 29A, B, & C
05.08.1965 & 23.12.1965 (1965 to 1966)	Various Transfers and deceased estate documents were registered making various changes to the share structure. Edith Evelyn Lindsay (Widow) (2/8 Share) Geoffrey Hilton Lindsay (Dairy Farmer) (2/8 Share) Olive Lindsay (Spinster) (4/8 Share)	Volume 9889 Folios 29A, B, & C Now Volume 10415 Folio 215
31.01.1967 (1967 to 2023)	Hunter Investments (Sydney) Pty Limited Now Barlyn Pty Limited	Volume 10415 Folio 215 Then 1/230057 10/840183 229/856301 412 & 413/873616 2/1280810 Now 203/1290802
19.10.2023 (2023 to date)	# Fras Dakhil Jerew	203/1290802

# Denotes Current Registered Proprietor

Leases: -

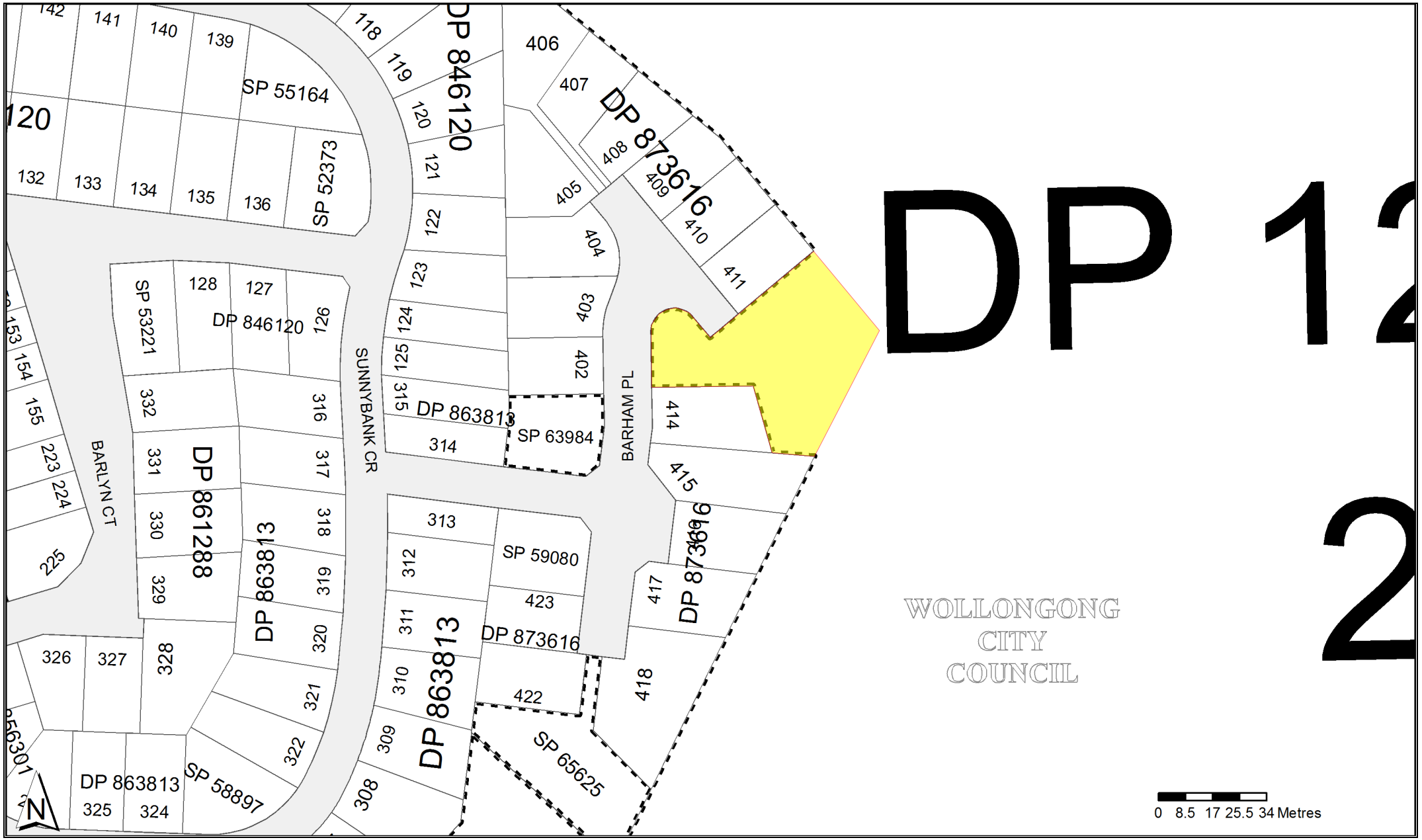
- 14.08.2020 (AQ308581) – not shown on the current title.

Easements: - NIL affecting subject part of Lot 203 D.P. 1290802.

Yours Sincerely
Mark Groll
27 November 2024

Cadastral Records Enquiry Report : Lot 414 DP 873616

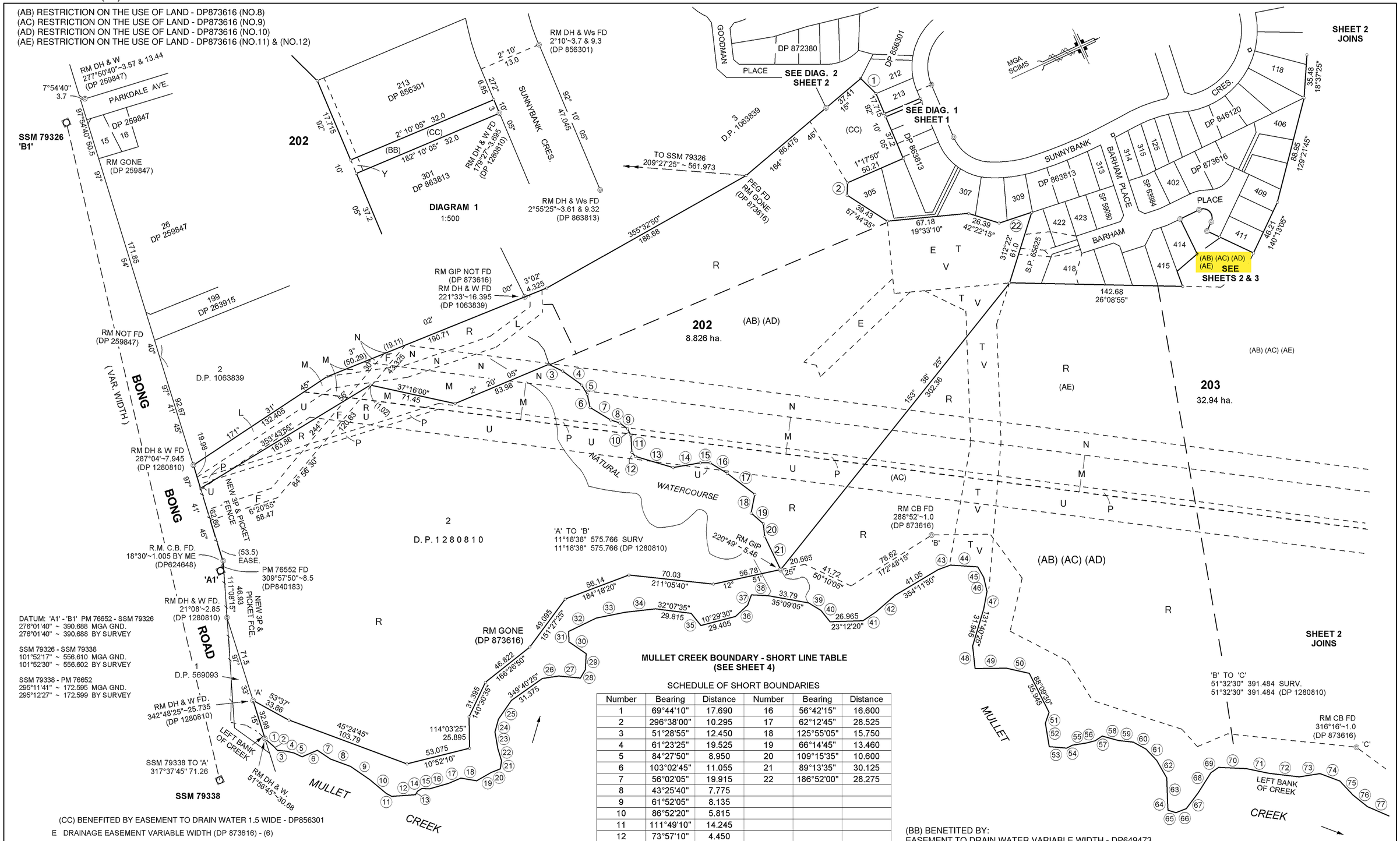
Locality : HORSLEY
Parish : KEMBLA
LGA : WOLLONGONG
County : CAMDEN



Report Generated 9:32:40 AM, 27 November, 2024
Copyright © Crown in right of New South Wales, 2017

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

(AB) RESTRICTION ON THE USE OF LAND - DP873616 (NO.8)
(AC) RESTRICTION ON THE USE OF LAND - DP873616 (NO.9)
(AD) RESTRICTION ON THE USE OF LAND - DP873616 (NO.10)
(AE) RESTRICTION ON THE USE OF LAND - DP873616 (NO.11) & (NO.12)



DATUM: 'A1' - 'B1' PM 76652 - SSM 79326
276°01'40" ~ 390.688 MGA GND.
276°01'40" ~ 390.688 BY SURVEY

SSM 79326 - SSM 79338
101°52'17" ~ 556.610 MGA GND.
101°52'30" ~ 556.602 BY SURVEY

SSM 79338 - PM 76652
295°11'41" ~ 172.595 MGA GND.
295°12'27" ~ 172.599 BY SURVEY

MULLET CREEK BOUNDARY - SHORT LINE TABLE
(SEE SHEET 4)

SCHEDULE OF SHORT BOUNDARIES

Number	Bearing	Distance	Number	Bearing	Distance
1	69°44'10"	17.690	16	56°42'15"	16.600
2	296°38'00"	10.295	17	62°12'45"	28.525
3	51°28'55"	12.450	18	125°55'05"	15.750
4	61°23'25"	19.525	19	66°14'45"	13.460
5	84°27'50"	8.950	20	109°15'35"	10.600
6	103°02'45"	11.055	21	89°13'35"	30.125
7	56°02'05"	19.915	22	186°52'00"	28.275
8	43°25'40"	7.775			
9	61°52'05"	8.135			
10	86°52'20"	5.815			
11	111°49'10"	14.245			
12	73°57'10"	4.450			
13	41°20'30"	32.460			
14	15°11'40"	22.63			
15	25°02'00"	8.170			

(CC) BENEFITED BY EASEMENT TO DRAIN WATER 1.5 WIDE - DP856301

E DRAINAGE EASEMENT VARIABLE WIDTH (DP 873616) - (6)

F EASEMENT FOR OVERHEAD POWER LINE 9 WIDE (DP 1280810)

L RIGHT OF WAY 10.06 WIDE (CONV BK 1719 No 334)
M EASEMENT FOR TRANSMISSION LINE 30.48 WIDE (G.G. 19.11.1943 FOLIOS 2015 & 2016)
N EASEMENT FOR TRANSMISSION LINE 18.29 WIDE (J5361)
P EASEMENT FOR THE CONSTRUCTION AND MAINTENANCE OF WATER SUPPLY WORKS 4.57 WIDE (L460432)
R RESTRICTION ON THE USE OF LAND (DP873616) - (5)
T EASEMENT TO DRAIN WATER VARIABLE WIDTH (DP 649474)
U EASEMENT FOR PIPELINE 20 WIDE (DP 1016609) (8351968)
V EASEMENT FOR ACCESS VARIABLE WIDTH (DP 649474)
Y EASEMENT TO DRAIN WATER 1.5 WIDE (DP 856301)

(BB) BENETITED BY:
EASEMENT TO DRAIN WATER VARIABLE WIDTH - DP649473
EASEMENT FOR ACCESS VARIABLE WIDTH - DP649473
EASEMENT TO DRAIN WATER VARIABLE WIDTH - DP649474
EASEMENT FOR ACCESS VARIABLE WIDTH DP649474
EASEMENT TO DRAIN WATER 1.5 WIDE DP846120

Surveyor : BRUCE ERNEST SMITH Date of Survey : 15th Nov. 2022 Surveyor's Ref : D220303-2	**PLAN OF SUBDIVISION OF LOT 1 AND LOT 3 IN DP 1280810 AND LOT 426 IN DP 873616**	LGA: WOLLONGONG Locality : HORSLEY Subdivision No: SC-2022/137 Lengths are in metres. Reduction Ratio 1:2000	Registered 31/01/2023	DP1290802

00 10 20 30 40 50 Table of mm 90 100 110 120 130 140

Req:R462474 /Doc:DP 1290802 P /Rev:31-Jan-2023 /NSW LRS /Prt:27-Nov-2024 09:46 /Seq:1 of 6
© Office of the Registrar-General /Src:InfoTrack /Ref:203/1290802

Req:R462474 /Doc:DP 1290802 P /Rev:31-Jan-2023 /NSW LRS /Prt:27-Nov-2024 09:46 /Seq:2 of 6
© Office of the Registrar-General /Src:InfoTrack /Ref:203/1290802

M EASEMENT FOR TRANSMISSION LINE 30.48 WIDE (G.G. 19.11.1943 FOLIOS 2015 & 2016)
N EASEMENT FOR TRANSMISSION LINE 18.29 WIDE (J5361)
P EASEMENT FOR THE CONSTRUCTION AND MAINTENANCE OF WATER SUPPLY WORKS 4.57 WIDE (L4604320)
Q EASEMENT TO DRAIN WATER VARIABLE WIDTH (DP 649473)
R RESTRICTION ON THE USE OF LAND (DP873616) - (5)
S EASEMENT FOR ACCESS VARIABLE WIDTH (DP 649473)
T EASEMENT TO DRAIN WATER VARIABLE WIDTH (DP 649474)
V EASEMENT FOR ACCESS VARIABLE WIDTH (DP 649474)
Y EASEMENT TO DRAIN WATER 1.5 WIDE (DP 649474)

MGA SCIMS

'E' TO 'F'
276°46'55" 713.504 SURV.
277°54'50" 713.534 (DP873616)

D.P. 212322
RM GIP FD 256°40'~0.5 (DP 873616)
98° 14' 58.08
98° 190°33'50" 21.43 21' (9.71) (91.08) 50"
M M P

DIAGRAM 4
1:1000

RM GONE (DP 873616) (0.77) RAILWAY
98° 21' 50" 102.77 98° 21' 15"

DIAGRAM 3
N.T.S.

RM GIP FD 278°25'~1.02 (DP 212322)
'F' 278°25' 58.515
1 D.P. 212322
Pt. 417 DP 1274097
278° 19' 30" 201.195
278° 44' 181.41
1 D.P. 212322
00" 97.35
98° 274.74
RM GIP FD 256°40'~0.5 (DP 873616)
RM GIP FD 8°14'~0.455 (DP 212322)
'E' 98°14'00" 58.08
21' 50" (91.08)
SEE DIAGRAM 4
98° 102.77 21' 15"
SEE DIAGRAM 3
'D' 35 D.P. 751278
RM GIP 59°29'~9.68
43.62 BANK OF CK.

419
PUBLIC RESERVE
D.P. 873616

RM GIP FD 271°56'~1.435 (DP 1280810)
58°52'55" 33.725
307°16'30" 46.535
257°17'45" 41.785
305°53'40" 67.79
294°56' 35.01
282°48'40" 64.18
234°59'25" 34.83
199°05'25" 92.47
241°09'20" 44.525
RM GIP FD 355°45'~0.98 (DP 1280810)
RM GIP FD 211°26'~1.275 (DP 1280810)
194°07'50" 57.895
95°09'30" 20.585
88°52' 39.0
18°52' 4.925
2°44' 20.0
103°35' 59.33
118°37'25" 35.48
129°21'45" 88.95
140°13'05" 46.21
301°59'10" 33.285
14°01'50" 35.635
280° 30' 10" 14.77
116 118 406 409 411
DP 846120
DP 873616
BARHAM
SUNNYBANK
SSM 89081 FD
148.745 283°00'50"
RM DH & Ws FD 10°30'10"~3.68 & 9.275 (DP 846120)
SSM 89090 FD
CRES.
SEE SHEET 3
125 315 314 402 SP 63984
BARHAM PLACE
313 SP 59080 424 422 418 415 414
DP 863813
PLACE
309 SP 65625
142.68 26°08'55"
152°36'25" 302.36
202

420
D.P. 873616

203
32.94 ha.

R
(AE)
Q S
N M P

'C' TO 'D'
33°06'25" 344.805 SURV.
33°06'25" 344.805 (DP 1280810)

RM CB FD 316°16'~1.0 (DP 873616)
'C'
SEE SHEET 1 LEFT BANK OF CREEK
MULLET CREEK
51°56'10" 31.045
CREEK
MULLET
SHEET 1 JOINS

MGA SCIMS

518
CH. 15°52'10"~11.95 R. 37.5
281°55'50" 4.945
69°44'10" 17.69
RM DH & Ws FD 295°02'10"~4.895 & 11.14 (DP 872380)
SSM 83752
PLACE
161°15'50" 16.075
37.41 15"
27.58 88° 52'
46'
227°39'25" 114.265
DP 872380
25°02'10" 71.41 (11 WIDE, 14.5 WIDE & VAR.)
514
SSM 83769
RM DH & W FD 125°38'~5.375 (DP 1063839)
86.475 164°
3 D.P. 1063839
GOODMAN
RM DH & Ws FD 295°02'10"~4.935 & 9.98 (DP 872380)

DIAGRAM 2
1:1000

(AE) RESTRICTION ON THE USE OF LAND - DP873616 (NO.11) & (NO.12)

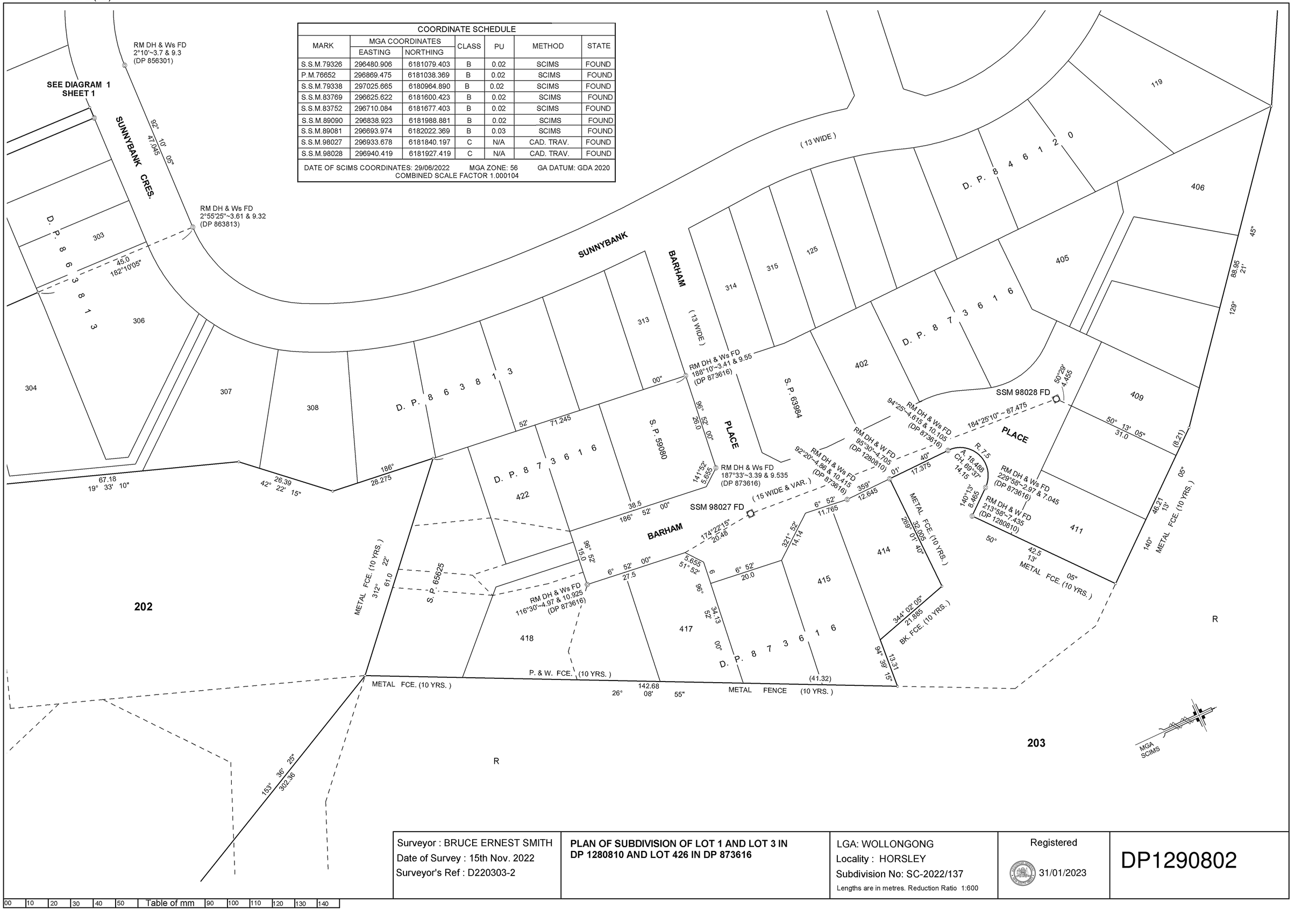
Surveyor : BRUCE ERNEST SMITH Date of Survey : 15th Nov. 2022 Surveyor's Ref : D220303-2	**PLAN OF SUBDIVISION OF LOT 1 AND LOT 3 IN DP 1280810 AND LOT 426 IN DP 873616**	LGA: WOLLONGONG Locality : HORSLEY Subdivision No: SC-2022/137 Lengths are in metres. Reduction Ratio 1:2000	Registered 31/01/2023	DP1290802

00 10 20 30 40 50 Table of mm 90 100 110 120 130 140

Req:R462474 /Doc:DP 1290802 P /Rev:31-Jan-2023 /NSW LRS /Prt:27-Nov-2024 09:46 /Seq:3 of 6
© Office of the Registrar-General /Src:InfoTrack /Ref:203/1290802

COORDINATE SCHEDULE						
MARK	MGA COORDINATES		CLASS	PU	METHOD	STATE
	EASTING	NORTHING				
S.S.M.79326	296480.906	6181079.403	B	0.02	SCIMS	FOUND
P.M.76652	296869.475	6181038.369	B	0.02	SCIMS	FOUND
S.S.M.79338	297025.665	6180964.890	B	0.02	SCIMS	FOUND
S.S.M.83769	296625.622	6181600.423	B	0.02	SCIMS	FOUND
S.S.M.83752	296710.084	6181677.403	B	0.02	SCIMS	FOUND
S.S.M.89090	296838.923	6181988.881	B	0.02	SCIMS	FOUND
S.S.M.89081	296693.974	6182022.369	B	0.03	SCIMS	FOUND
S.S.M.98027	296933.678	6181840.197	C	N/A	CAD. TRAV.	FOUND
S.S.M.98028	296940.419	6181927.419	C	N/A	CAD. TRAV.	FOUND

DATE OF SCIMS COORDINATES: 29/06/2022 MGA ZONE: 56 GA DATUM: GDA 2020
COMBINED SCALE FACTOR 1.000104



Surveyor : BRUCE ERNEST SMITH Date of Survey : 15th Nov. 2022 Surveyor's Ref : D220303-2	**PLAN OF SUBDIVISION OF LOT 1 AND LOT 3 IN DP 1280810 AND LOT 426 IN DP 873616**	LGA: WOLLONGONG Locality : HORSLEY Subdivision No: SC-2022/137 Lengths are in metres. Reduction Ratio 1:600	Registered 31/01/2023	DP1290802

00 10 20 30 40 50 Table of mm 90 100 110 120 130 140

MULLET CREEK BOUNDARY - SHORT LINE TABLE (SEE SHEET 1)

Number	Bearing	Distance	Number	Bearing	Distance
1	66°52'40"	9.525	41	351°01'10"	13.33
2	71°42'40"	4.705	42	344°07'15"	20.81
3	30°20'10"	7.21	43	4°51'40"	10.775
4	37°44'15"	6.865	44	28°39'10"	22.625
5	50°43'00"	7.285	45	85°03'10"	10.035
6	1°21'50"	13.605	46	101°29'40"	11.795
7	58°33'15"	12.97	47	125°38'30"	14.65
8	45°13'05"	17.695	48	108°43'45"	18.9
9	59°42'15"	19.23	49	23°58'05"	25.835
10	65°01'35"	17.665	50	38°05'25"	19.29
11	51°53'50"	5.38	51	134°23'30"	9.325
12	20°58'45"	19.355	52	105°10'20"	19.785
13	325°14'35"	3.34	53	29°46'25"	14.065
14	353°02'15"	4.195	54	359°04'10"	5.19
15	26°58'05"	6.31	55	15°50'25"	11.925
16	9°11'00"	16.555	56	10°16'10"	7.415
17	1°15'50"	10.83	57	350°46'05"	7.085
18	35°00'20"	13.205	58	40°57'45"	14.055
19	355°23'30"	14.02	59	30°46'10"	12.16
20	3°31'00"	7.88	60	53°52'15"	12.13
21	302°49'40"	6.795	61	71°36'55"	12.85
22	278°03'35"	10.485	62	85°02'45"	16.615
23	285°19'10"	13.985	63	113°21'25"	19.525
24	310°23'35"	10.83	64	111°42'35"	7.07
25	329°31'35"	18.765	65	42°17'55"	6.765
26	16°56'00"	13.77	66	3°15'45"	9.185
27	30°09'45"	17.75	67	332°01'30"	16.28
28	325°34'30"	8.035	68	327°32'05"	19.77
29	298°06'20"	13.27	69	349°33'10"	7.335
30	239°29'15"	17.315	70	27°31'50"	23.26
31	294°13'10"	8.35	71	36°45'55"	19.19
32	358°53'00"	25.215	72	31°46'30"	24.7
33	13°49'45"	23.935	73	15°48'50"	17.51
34	18°30'25"	25.585	74	45°25'00"	17.465
35	76°39'35"	12.645	75	72°26'20"	16.035
36	341°48'45"	13.875	76	63°20'50"	15.12
37	315°40'20"	8.895	77	48°26'35"	19.37
38	27°37'15"	13.735			
39	55°53'15"	12.185			
40	76°38'15"	11.83			

MULLET CREEK BOUNDARY - SHORT LINE TABLE (SEE SHEET 2)

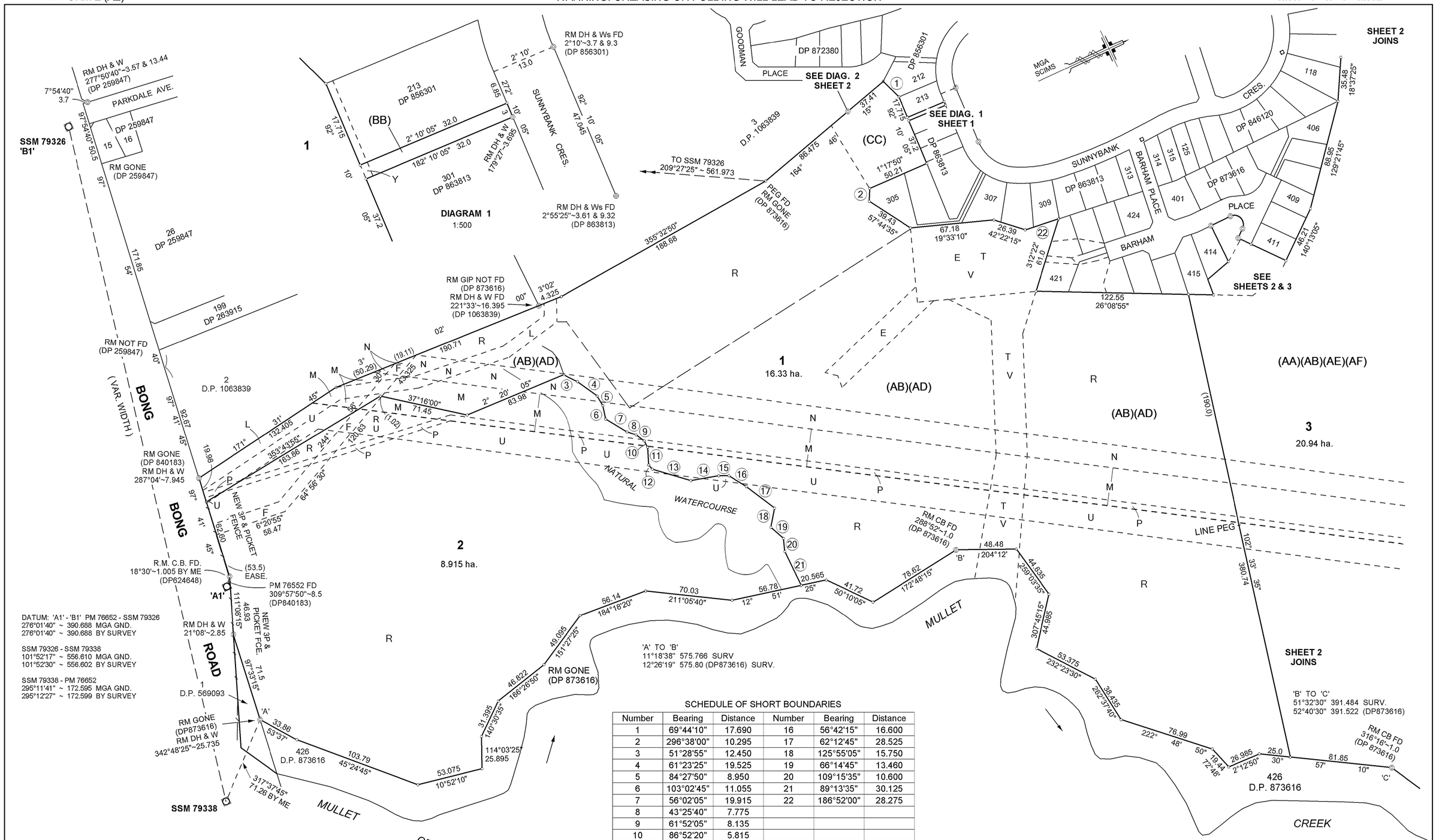
Number	Bearing	Distance	Number	Bearing	Distance
74	45°25'00"	17.465	111	8°14'50"	14.545
75	72°26'20"	16.035	112	6°11'55"	10.93
76	63°20'50"	15.12	113	34°55'55"	13.205
77	48°26'35"	19.37	114	49°43'00"	18.94
78	67°53'15"	13.1	115	27°20'45"	9.01
79	96°45'20"	19.035	116	10°31'15"	9.37
80	112°43'40"	19.43	117	4°19'10"	14.46
81	75°15'20"	4.19	118	329°40'40"	9.39
82	49°15'25"	7.525	119	0°15'15"	9.73
83	358°07'55"	8.735	120	30°05'35"	4.21
84	349°09'35"	6.99			
85	345°38'35"	13.95			
86	354°37'40"	9.025			
87	25°12'15"	11.25			
88	39°20'55"	7.655			
89	86°40'50"	9.225			
90	100°25'10"	16.15			
91	117°30'00"	16.7			
92	159°00'05"	5.67			
93	137°33'15"	3.73			
94	88°59'00"	11.0			
95	62°24'35"	3.11			
96	15°07'20"	8.475			
97	280°49'40"	5.485			
98	27°30'20"	8.415			
99	12°25'50"	10.59			
100	54°04'05"	13.815			
101	47°32'35"	18.83			
102	33°02'25"	7.425			
103	0°59'15"	4.825			
104	321°14'30"	4.71			
105	293°55'50"	12.335			
106	258°31'05"	11.62			
107	318°57'30"	16.925			
108	347°53'20"	8.15			
109	11°33'50"	11.785			
110	355°23'20"	25.315			

Surveyor : BRUCE ERNEST SMITH Date of Survey : 15th Nov. 2022 Surveyor's Ref : D220303-2	**PLAN OF SUBDIVISION OF LOT 1 AND LOT 3 IN DP 1280810 AND LOT 426 IN DP 873616**	LGA: WOLLONGONG Locality : HORSLEY Subdivision No: SC-2022/137 Lengths are in metres. Reduction Ratio 1:2000	Registered 31/01/2023	DP1290802

00 10 20 30 40 50 Table of mm 90 100 110 120 130 140

Req:R462474 /Doc:DP 1290802 P /Rev:31-Jan-2023 /NSW LRS /Prt:27-Nov-2024 09:46 /Seq:4 of 6
© Office of the Registrar-General /Src:InfoTrack /Ref:203/1290802

Req:R462395 /Doc:DP 1280810 P /Rev:24-Feb-2022 /NSW LRS /Prt:27-Nov-2024 09:40 /Seq:1 of 5
© Office of the Registrar-General /Src:InfoTrack /Ref:21 Barham Place, Horsley



DATUM: 'A1' - 'B1' PM 76652 - SSM 79326
276°01'40" ~ 390.688 MGA GND.
276°01'40" ~ 390.688 BY SURVEY

SSM 79326 - SSM 79338
101°52'17" ~ 556.610 MGA GND.
101°52'30" ~ 556.602 BY SURVEY

SSM 79338 - PM 76652
295°11'41" ~ 172.595 MGA GND.
295°12'27" ~ 172.599 BY SURVEY

SCHEDULE OF SHORT BOUNDARIES

Number	Bearing	Distance	Number	Bearing	Distance
1	69°44'10"	17.690	16	56°42'15"	16.600
2	296°38'00"	10.295	17	62°12'45"	28.525
3	51°28'55"	12.450	18	125°55'05"	15.750
4	61°23'25"	19.525	19	66°14'45"	13.460
5	84°27'50"	8.950	20	109°15'35"	10.600
6	103°02'45"	11.055	21	89°13'35"	30.125
7	56°02'05"	19.915	22	186°52'00"	28.275
8	43°25'40"	7.775			
9	61°52'05"	8.135			
10	86°52'20"	5.815			
11	111°49'10"	14.245			
12	73°57'10"	4.450			
13	41°20'30"	32.460			
14	15°11'40"	22.63			
15	25°02'00"	8.170			

E DRAINAGE EASEMENT VARIABLE WIDTH (DP 873616) - (6)

F EASEMENT FOR OVERHEAD POWER LINE 9 WIDE

L RIGHT OF WAY 10.06 WIDE (CONV BK 1719 No 334)
M EASEMENT FOR TRANSMISSION LINE 30.48 WIDE (G.G. 19.11.1943 FOLIOS 2015 & 2016)
N EASEMENT FOR TRANSMISSION LINE 18.29 WIDE (J5361)
P EASEMENT FOR THE CONSTRUCTION AND MAINTENANCE OF WATER SUPPLY WORKS 4.57 WIDE (L460432)
R RESTRICTION ON THE USE OF LAND (DP873616) - (5)
T EASEMENT TO DRAIN WATER VARIABLE WIDTH (DP 649474)
U EASEMENT FOR PIPELINE 20 WIDE (DP 1016609) (8351968)
V EASEMENT FOR ACCESS VARIABLE WIDTH (DP 649474)
Y EASEMENT TO DRAIN WATER 1.5 WIDE (DP 856301)
Z RESTRICTION ON THE USE OF LAND (DP873616) - (13)

(BB) BENEFITED BY:
EASEMENT TO DRAIN WATER VARIABLE WIDTH (DP649473)
EASEMENT FOR ACCESS VARIABLE WIDTH (DP649473)
EASEMENT TO DRAIN WATER VARIABLE WIDTH (DP649474)
EASEMENT FOR ACCESS VARIABLE WIDTH (DP649474)
EASEMENT TO DRAIN WATER 1.5 WIDE (DP846120)
(CC) BENEFITED BY: EASEMENT TO DRAIN WATER 1.5 WIDE (DP856301)

(AA) RESTRICTION(S) ON THE USE OF LAND (NO.5)(DP873616)
(AB) RESTRICTION(S) ON THE USE OF LAND (NO.8)(DP873616)
(AD) RESTRICTION(S) ON THE USE OF LAND (NO.10)(DP873616)
(AE) RESTRICTION(S) ON THE USE OF LAND (NO.11)(DP873616)
(AF) RESTRICTION(S) ON THE USE OF LAND (NO.12)(DP873616)

Surveyor : BRUCE ERNEST SMITH Date of Survey : 29th Sept. 2021 Surveyor's Ref : D220303	**PLAN OF SUBDIVISION OF LOT 412, LOT 413 AND LOT 425 IN DP 873616**	LGA: WOLLONGONG Locality : HORSLEY Subdivision No: SC-2021/130 Lengths are in metres. Reduction Ratio 1:2000	Registered 24/02/2022	DP1280810

00 10 20 30 40 50 Table of mm 90 100 110 120 130 140

Req:R462395 /Doc:DP 1280810 P /Rev:24-Feb-2022 /NSW LRS /Prt:27-Nov-2024 09:40 /Seq:2 of 5
© Office of the Registrar-General /Src:InfoTrack /Ref:21 Barham Place, Horsley

M EASEMENT FOR TRANSMISSION LINE 30.48 WIDE (G.G. 19.11.1943 FOLIOS 2015 & 2016)
N EASEMENT FOR TRANSMISSION LINE 18.29 WIDE (J5361)
P EASEMENT FOR THE CONSTRUCTION AND MAINTENANCE OF WATER SUPPLY WORKS 4.57 WIDE (L4604320)
Q EASEMENT TO DRAIN WATER VARIABLE WIDTH (DP 649473)
R RESTRICTION ON THE USE OF LAND (DP873616) - (5)
S EASEMENT FOR ACCESS VARIABLE WIDTH (DP 649473)
T EASEMENT TO DRAIN WATER VARIABLE WIDTH (DP 649474)
U EASEMENT FOR PIPELINE 20 WIDE (DP 1016609) (8351968)
V EASEMENT FOR ACCESS VARIABLE WIDTH (DP 649474)
Y EASEMENT TO DRAIN WATER 1.5 WIDE (DP 856301)
Z RESTRICTION ON THE USE OF LAND (DP873616) - (13)

MGA SCIMS

'E1' TO 'F1'
276°46'55" 713.504 SURV.
277°54'50" 713.534 (DP873616)

RM GIP FD 256°40'~0.5 (DP 873616)
D.P. 212322
98° 14' 58.08
98° 190° 33' 50" 21.43
21' (9.71) (91.08) 50"
M M P U

DIAGRAM 4
1:1000

RM GONE (DP 873616) (0.77) RAILWAY
98° 21' 50" 102.77 98° 21' 15"

DIAGRAM 3
N.T.S.

RM GIP FD 278°25'~1.02 (DP 212322)
'F1' 278°25' 58.515
278° 19' 30" 201.195
278° 181.41
44' 00" 97.35
98° 274.74
RM GIP FD 256°40'~0.5 (DP 873616)
'E1' 98°14'00" 58.08
RM GIP FD 8°14'~0.455 (DP 212322)
21' 50" (91.08)
98° 102.77
21' 15" 'D' (35.1)
RM GONE (DP 873616)
165°38'45" 44.015

1 D.P. 212322
Pt. 417 DP 1274097
1 D.P. 212322
419
PUBLIC RESERVE
D.P. 873616

241°09'20" 44.525
RM GIP 355°45'~0.98
199°05'25" 92.47

SEE DIAGRAM 4
SEE DIAGRAM 3

RM GIP 271°56'~1.435
58°52'55" 33.725
307°16'30" 46.535
257°17'45" 41.785
305°53'40" 67.79
294°56' 35.01
282°48'40" 64.18
234°59'25" 34.83
RM GIP 211°26'~1.275
194°07'50" 57.895
95°09'30" 20.585
88°52' 39.0
18°52' 4.925
2°44' 20.0
103°35' 59.33
118°37'25" 35.48
129°21'45" 88.95
140°13'05" 46.21
14°01'50" 35.635
116 118 406 409 411
301°59'10" 33.285
280° 30' 10" 14.77
SSM 89090 FD
RM DH & Ws FD 10°30'10"~3.68 & 9.275 (DP 846120)
SUNNYBANK
SSM 89081 FD
148.745 283°00'50"
DP 846120
DP 873616
125 315 314 401
BARHAM PLACE
313 424
DP 863813
309 421
414 415
SEE SHEET 3
CRES.
BARHAM
PLACE

R
Q S
N M U P
3
20.94 ha.
R
R

'C' TO 'D'
33°06'25" 344.805 SURV.
34°13'55" 344.805 (DP873616)

220°33'40" 77.04
426 D.P. 873616
MULLET CREEK
168° 53' 40" 104.91
60.51 265°32'15"
45.6 25°57'40"
25.83 79°49'15"
72.365 61°34'55"
RM CB FD 316°16'~1.0 (DP 873616)
'C' 10" 81.85 57' 30" 25.0
26.985 2°12'50"
19.44 72°48'
50' 76.99 48' 222°
38.435 262°37'40"
426 D.P. 873616
MULLET CREEK

(190.0) 102° 33' 35" 380.74
LINE PEG

SHEET 1 JOINS

MGA SCIMS

518 281°55'50" 4.945
CH. 15°52'10"~11.95 R. 37.5
53°22'50" 18.26
RM SPIKE FD 40°36'45"~0.45 (DP 230057')
69°44'10" 17.69
SSM 83752
RM DH & Ws FD 295°02'10"~4.895 & 11.14 (DP 872380)
PLACE
16°15'50" 16.075
37.41 15'
227°39'25" 114.265
DP 872380
25°02'10" ~71.41 (11 WIDE, 14.5 WIDE & VAR.)
27.58 88° 52'
RM DH & W FD 125°38'~5.375 (DP 1063839)
46'
86.475 164°
SSM 83769
514
GOODMAN
3 D.P. 1063839
RM DH & Ws FD 295°02'10"~4.935 & 9.98 (DP 872380)

DIAGRAM 2
1:1000

Surveyor : BRUCE ERNEST SMITH
Date of Survey : 29th Sept. 2021
Surveyor's Ref : D220303

PLAN OF SUBDIVISION OF LOT 412, LOT 413 AND LOT 425 IN DP 873616

LGA: WOLLONGONG
Locality : HORSLEY
Subdivision No: SC-2021/130
Lengths are in metres. Reduction Ratio 1:2000

Registered
24/02/2022

DP1280810

00 10 20 30 40 50 Table of mm 90 100 110 120 130 140

Req:R462395 /Doc:DP 1280810 P /Rev:24-Feb-2022 /NSW LRS /Prt:27-Nov-2024 09:40 /Seq:3 of 5
© Office of the Registrar-General /Src:InfoTrack /Ref:21 Barham Place, Horsley

COORDINATE SCHEDULE						
MARK	MGA COORDINATES		CLASS	PU	METHOD	STATE
	EASTING	NORTHING				
S.S.M.79326	296480.903	6181079.394	B	N/A	SCIMS	FOUND
P.M.76652	296869.473	6181038.361	B	N/A	SCIMS	FOUND
S.S.M.79338	297025.665	6180964.880	B	N/A	SCIMS	FOUND
S.S.M.83769	296625.622	6181600.418	B	N/A	SCIMS	FOUND
S.S.M.83752	296710.084	6181677.401	B	0.02	SCIMS	FOUND
S.S.M.89090	296838.924	6181988.877	B	N/A	SCIMS	FOUND
S.S.M.89081	296693.974	6182022.361	B	N/A	SCIMS	FOUND
S.S.M.98027	296933.678	6181840.197	C	N/A	CAD. TRAV.	FOUND
S.S.M.98028	296940.419	6181927.419	C	N/A	CAD. TRAV.	FOUND

DATE OF SCIMS COORDINATES: 29/09/2021 MGA ZONE: 56 GA DATUM: GDA 2020
COMBINED SCALE FACTOR 1.000104

SEE DIAGRAM 1 SHEET 1

RM DH & Ws FD 2°10'~3.7 & 9.3 (DP 856301)

RM DH & Ws FD 2°55'25"~3.61 & 9.32 (DP 863813)

SUNNYBANK CRES.

92° 10' 05" 47.045

D. P. 863813

303 306 304 307 308

45.0 182°10'05"

67.18 19° 33' 10"

26.39 42° 22' 15"

186° 28.275

SUNNYBANK (13 WIDE)

BARHAM (13 WIDE)

PLACE

314 315 125 313 424 401 119 406 405 409 411 414 415 421 418 417

D. P. 846120

D. P. 873616

RM DH & Ws FD 188°10'~3.41 & 9.55 (DP 873616)

00" 52' 96° 26.0

52' 71.245

RM DH & Ws FD 187°33'~3.39 & 9.535 (DP 873616)

141°52' 5.655

186° 52' 00" 38.5

SSM 98028 FD

50°29' 4.455

RM DH & Ws FD 94°25'~4.615 & 10.105 (DP 873616)

184°25'10" 87.475

RM DH & W 95°30'~4.705

RM DH & Ws FD 92°20'~4.86 & 10.415 (DP 873616)

01' 40" 17.375

R 7.5 A 18.488 CH 89°37' 14.15

140°13' 8.465

RM DH & Ws FD 229°58'~2.97 & 7.045 (DP 873616)

RM DH & W 213°58'~7.435

50° 13' 05" 31.0 (8.21)

46.21 13' 05"

140° METAL FCE. (10 YRS.)

50° 42.5 13' 05" METAL FCE. (10 YRS.)

359° 12.645

6° 52' 11.765

321° 52' 14.14

269° 01' 40" 32.005

344° 02' 05" 21.585 BK. FCE. (10 YRS.)

94° 39' 15" 13.31

(21.19)

20.13 26°08'55" METAL FCE. (10 YRS.)

102° 33' 35" 380.74

174°22'15" 20.48

SSM 98027 FD (15 WIDE & VAR.)

BARHAM

6° 52' 00" 27.5

6° 52' 20.0

96° 15.0

51° 52' 5.655

RM DH & Ws FD 116°30'~4.97 & 10.925 (DP 873616)

96° 52' 34.13

00"

METAL FCE. (10 YRS.) 312° 22' 61.0

P. & W. FCE. (10 YRS.)

METAL FCE. (10 YRS.) 122.55 26° 08' 55" METAL FCE. (10 YRS.)

R 1

R 3

MGA SCIMS

00 10 20 30 40 50 Table of mm 90 100 110 120 130 140

Surveyor : BRUCE ERNEST SMITH Date of Survey : 29th Sept. 2021 Surveyor's Ref : D220303	**PLAN OF SUBDIVISION OF LOT 412, LOT 413 AND LOT 425 IN DP 873616**	LGA: WOLLONGONG Locality : HORSLEY Subdivision No:SC-2021/130 Lengths are in metres. Reduction Ratio 1:600	Registered 24/02/2022	DP1280810

Req:R462395 /Doc:DP 1280810 P /Rev:24-Feb-2022 /NSW LRS /Prt:27-Nov-2
© Office of the Registrar-General /Src:InfoTrack /Ref:21 Barham Place

PLAN FORM 6 (2019)	DEPOSITED PLAN ADMINISTRATION SHEET	Sheet 1 of 2 sheet(s)

Office Use Only

Registered: 24/02/2022

Title System: TORRENS

Office Use Only

DP1280810

PLAN OF SUBDIVISION OF LOT 412, LOT 413 AND LOT 425 IN DP 873616

LGA: WOLLONGONG

Locality: HORSLEY

Parish: KEMBLA

County: CAMDEN

Survey Certificate

I, BRUCE ERNEST SMITH

of CEH Consulting Pty Ltd
ABN 81 056 544 604

a surveyor registered under the *Surveying and Spatial Information Act 2002*, certify that:

*(a) The land shown in the plan was surveyed in accordance with the *Surveying and Spatial Information Regulation 2017*, is accurate and the survey was completed on 29/09/2021

~~*(b) The part of the land shown in the plan (*being/*excluding ** .....~~
~~.....)~~
~~was surveyed in accordance with the *Surveying and Spatial Information Regulation 2017*, the part surveyed is accurate and the survey was completed on, ... the part not surveyed was compiled in accordance with that Regulation, or~~

~~*(c) The land shown in this plan was compiled in accordance with the *Surveying and Spatial Information Regulation 2017*.~~

Datum Line: ~~"X" - "Y"~~ 'A1' – 'B1'

Type: *Urban/~~*Rural~~

The terrain is *Level-Undulating / ~~*Steep-Mountainous~~.

Signature: ..... Dated: 25/10/2021

Surveyor Identification No: 1994

Surveyor registered under
the *Surveying and Spatial Information Act 2002*

*Strike out inappropriate words.

**Specify the land actually surveyed or specify any land shown in the plan that is not the subject of the survey.

~~Crown Lands NSW/Western Lands Office Approval~~

~~I, ... (Authorised Officer) in approving this plan certify that all necessary approvals in regard to the allocation of the land shown herein have been given.~~

~~Signature: .....~~

~~Date: .....~~

~~File Number: .....~~

~~Office: .....~~

Subdivision Certificate

I, Aleks Radicevic

*Authorised Person/~~*General Manager/*Accredited Certifier~~, certify that the provisions of s.6.15 of the *Environmental Planning and Assessment Act 1979* have been satisfied in relation to the proposed subdivision, new road or reserve set out herein.

Signature: .....

Accreditation number: .....

Consent Authority THE COUNCIL OF THE CITY OF WOLLONGONG

Date of endorsement: 20/12/2021

Subdivision Certificate number: SC-2021/130

File number: DA-2021/437

*Strike through if inapplicable.

Plans used in the preparation of survey/compilation.

DP 873616, DP 624648, DP 840183, DP 1063839, DP 856301, DP 863813, DP 872380, DP 873616, DP 846120, DP 212322, DP 1274097

Statements of intention to dedicate public roads, create public reserves and drainage reserves, acquire/resume land.

Surveyor's Reference: D220303

Signatures, Seals and Section 88B Statements should appear on PLAN FORM 6A

Req:R462395 /Doc:DP 1280810 P /Rev:24-Feb-2022 /NSW LRS /Prt:27-Nov-2
© Office of the Registrar-General /Src:InfoTrack /Ref:21 Barham Place

PLAN FORM 6A (2017) **DEPOSITED PLAN ADMINISTRATION SHEET** Sheet 2 of 2 sheet(s)

Office Use Only

Registered: 24/02/2022

Office Use Only

DP1280810

PLAN OF SUBDIVISION OF LOT 412, LOT 413 AND LOT 425 IN DP 873616

Subdivision Certificate number: SC-2021/130

Date of Endorsement: 20/12/2021

This sheet is for the provision of the following information as required:

- A schedule of lots and addresses - See 60(c) *SSI Regulation 2017*
- *Statements of intention to create and release affecting interests* in accordance with section 88B *Conveyancing Act 1919*
- Signatures and seals- see 195D *Conveyancing Act 1919*
- Any information which cannot fit in the appropriate panel of sheet 1 of the administration sheets.

Lot No.	House No.	Street Name	Street Type	Locality
1	78	SUNNYBANK	CRESCENT	HORSLEY
2	34	BONG BONG	ROAD	HORSLEY
3	21	BARHAM	PLACE	HORSLEY

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

1. EASEMENT FOR OVERHEAD POWER LINE 9 WIDE (F)

PURSUANT TO SECTION 88B OF THE CONVEYANCING ACT 1919, IT IS INTENDED TO RELEASE:

1. RIGHT OF CARRIAGEWAY 10.06 WIDE (DP873616) (7)

BARLYN PTY LTD
ACN 000 476 291

ROBYN MARGARET KRAUSS
Director

CHRISTOPHER BARHAM
Director

ANTHONY BARHAM
Director

LEE BARHAM
Director

ROBERT JOHN KRAUSS

ROBYN MARGARET KRAUSS

If space is insufficient use additional annexure sheet

Surveyor's Reference: D220303

InfoTrack

PLAN FORM 2

Plan Drawing only to appear in this space

×OFFICE USE ONLY

DP 873616

SIGNATURES AND SEALS ONLY

The Common Seal of Bailey Pty Ltd was affixed in the presence of:

Director

Director

R. J. Thomas

Witness

Registered 9.12.1997

C.A. No. 6501 OF 27.11.1997

Title System: TORRENS

Purpose: SUBDIVISION

Ref. Map: W 7377 – ~~3846~~ 3,61 & 62

Last Plan: DP856301

PLAN OF SUBDIVISION OF LOTS 228 & 229 IN D.P. 856301

Lengths are in metres. Reduction Ratio 1: 4000

LGA WOLLONGONG

Locality: WEST DAPTO

Parish: KEMBLA

County: CAMDEN

This is sheet 1 of my plan in 4 sheets (Delete if inapplicable)

I, DAVID ANTHONY LOFBERG of K.F. WILLIAMS & ASSOCS. P/L P.O. BOX 1477, WOLLONGONG 2500 a surveyor registered under the Surveyors Act, 1929, hereby certify that the survey represented in this plan is accurate, has been made in accordance with the Survey Practice Regulation 1990 and was completed on 10TH NOVEMBER 1997

Signature ..... Surveyor registered under Surveyors Act, 1929

DATUM LINE OF AZIMUTH 'X'–'Y'

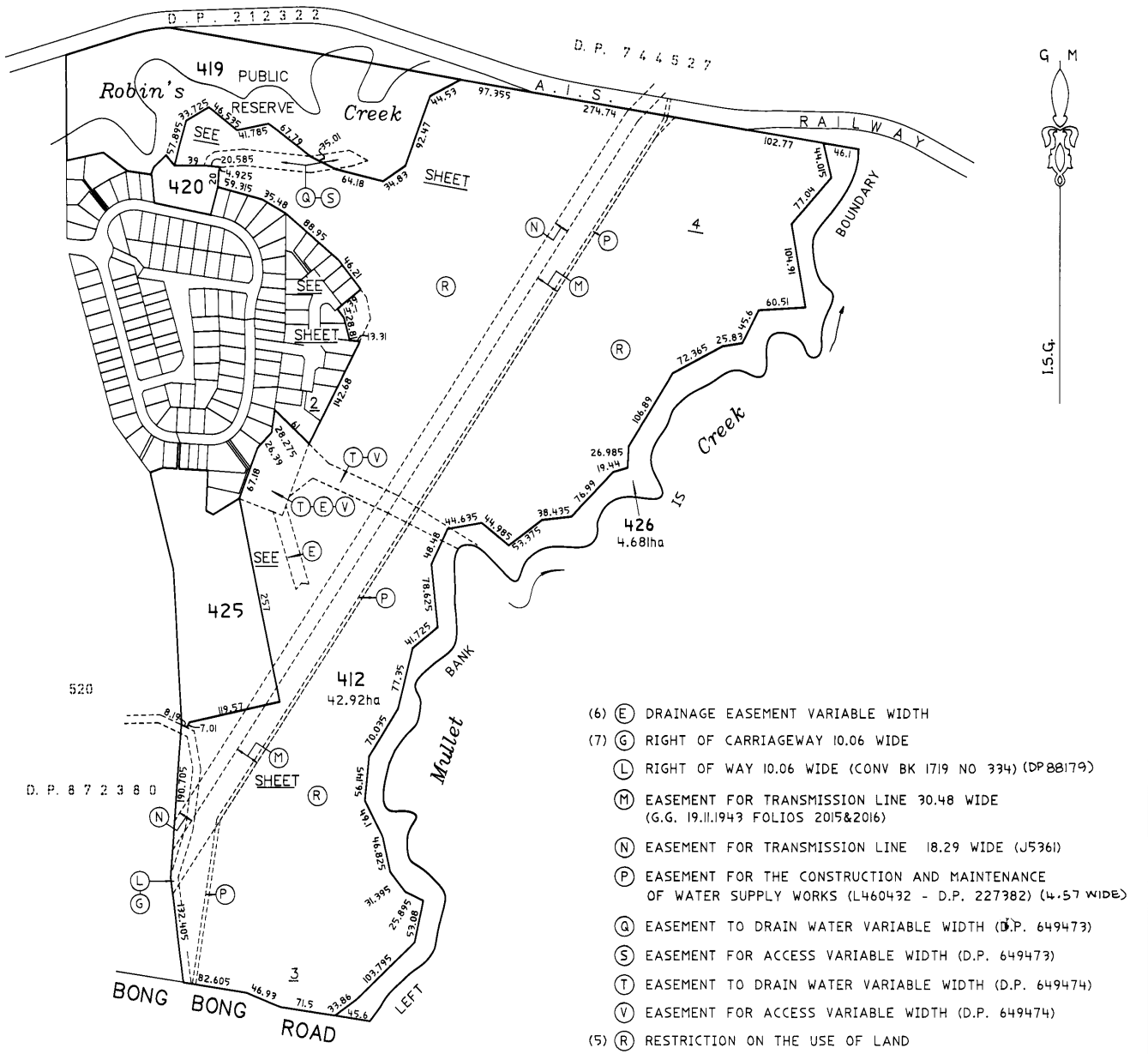
ACN 008 664 417

Plans used in preparation of survey/compilation.

D.P.230057	D.P.865288	D.P.856301
D.P.624648	D.P.854650	D.P.88179
D.P.744527	D.P.858754	D.P.861288
D.P.161785	D.P.227382	D.P.840183
D.P.846120	D.P.212322	D.P.649473

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

SEE SHEET 2



(6) (E) DRAINAGE EASEMENT VARIABLE WIDTH

(7) (G) RIGHT OF CARRIAGEWAY 10.06 WIDE

(L) RIGHT OF WAY 10.06 WIDE (CONV BK 1719 NO 334) (DP88179)

(M) EASEMENT FOR TRANSMISSION LINE 30.48 WIDE (G.G. 19.11.1943 FOLIOS 2015&2016)

(N) EASEMENT FOR TRANSMISSION LINE 18.29 WIDE (J5361)

(P) EASEMENT FOR THE CONSTRUCTION AND MAINTENANCE OF WATER SUPPLY WORKS (L460432 - D.P. 227382) (4.57 WIDE)

(Q) EASEMENT TO DRAIN WATER VARIABLE WIDTH (D.P. 649473)

(S) EASEMENT FOR ACCESS VARIABLE WIDTH (D.P. 649473)

(T) EASEMENT TO DRAIN WATER VARIABLE WIDTH (D.P. 649474)

(V) EASEMENT FOR ACCESS VARIABLE WIDTH (D.P. 649474)

(5) (R) RESTRICTION ON THE USE OF LAND

Crown Lands Office Approval

PLAN APPROVED ..... Authorised Officer

Land District .....

Paper No. .....

Field Book ..... pages .....

Council Certificate

I hereby certify that -

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

× (b) the requirements of †Part 3 Division 2 of the Water Board Act 1987 or † Part 5 Division 7 of the Hunter Water Board (Corporitisation) Act 1991

have been complied with by the applicant in relation to the proposed SUBDIVISION (Insert "new road", "subdivision" or "consolidated lot") set out herein

Subdivision No. 6501

Date 27-11-97

(Signature) .....

General Manager/Authorised Person

Council File No. P57268 E.7721

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

† Delete if inapplicable

SURVEYOR'S REFERENCE: J00928/797/BARHAM4

WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION

Req:R462310 /Doc:DP 0873616 P /Rev:11-Dec-1997 /NSW LRS /Pgs:ALL /Prt:27-Nov-2024 09:33 /Seq:1 of 4
© Office of the Registrar-General /Src:InfoTrack /Ref:21 Barham Place? Horsley

DP 873616

PLAN FORM 3 To be used in conjunction with Plan Form 2

WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION

OFFICE USE ONLY

DP 873616

Registered 9.12.1997

This is sheet 2 of my plan in 4 sheets dated 10TH NOVEMBER 1997

Surveyor registered under Surveyors Act 1929

This is sheet 2 of the plan of 4 sheets covered by my Certificate No. G501 of 27-11-97

General Manager/Authorised Person

For use where space is insufficient in any panel on Plan Form 2.

PURSUANT TO SEC 88B OF THE CONVEYANCING ACT 1919, IT IS INTENDED TO CREATE:

(1) EASEMENT TO DRAIN WATER VARIABLE WIDTH
(2) RIGHT OF CARRIAGEWAY VARIABLE WIDTH
(3) EASEMENT FOR SERVICES VARIABLE WIDTH
(4) EASEMENT FOR UNDERGROUND CABLES VARIABLE WIDTH
(5) RESTRICTION ON THE USE OF LAND
(6) DRAINAGE EASEMENT VARIABLE WIDTH
(7) RIGHT OF CARRIAGEWAY 10.06 WIDE
(8) RESTRICTION ON THE USE OF LAND
(9) RESTRICTION ON THE USE OF LAND
(10) RESTRICTION ON THE USE OF LAND
(11) RESTRICTION ON THE USE OF LAND
(12) RESTRICTION ON THE USE OF LAND
(13) RESTRICTION ON THE USE OF LAND

AS SET OUT IN THE ACCOMPANYING INSTRUMENT AND ENDORSED WITH COUNCIL'S CERTIFICATE.

IT IS INTENDED TO DEDICATE BARHAM PLACE TO THE PUBLIC AS ROAD

IT IS INTENDED TO CREATE LOT 419 AS PUBLIC RESERVE.

Reduction Ratio 1: 500

(1) (A) EASEMENT TO DRAIN WATER VARIABLE WIDTH
(2) (B) RIGHT OF CARRIAGEWAY VARIABLE WIDTH
(3) (C) EASEMENT FOR SERVICES VARIABLE WIDTH
(4) (D) EASEMENT FOR UNDERGROUND CABLES VARIABLE WIDTH
(5) (R) RESTRICTION ON THE USE OF LAND
(6) (E) DRAINAGE EASEMENT VARIABLE WIDTH
(13) (Z) RESTRICTION ON THE USE OF LAND

Plan Drawing only to appear in this space

SURVEYOR'S REFERENCE: J00928/797/BARHAM4

Req:R462310 /Doc:DP 0873616 P /Rev:11-Dec-1997 /NSW LRS /Pgs:ALL /Prt:27-Nov-2024 09:33 /Seq:2 of 4
© Office of the Registrar-General /Src:InfoTrack /Ref:21 Barham Place? Horsley

PLAN FORM 3 — To be used in conjunction with Plan Form 2 — WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION — xOFFICE USE ONLY

DP 873616

Registered 9.12.1997

This is sheet 3 of my plan in 4 sheets dated 10TH NOVEMBER 1997

Surveyor registered under Surveyors Act 1929

This is sheet 3 of the plan of 4 sheets covered by my Certificate No. G501 of 27-11-97

General Manager/Authorised Person

For use where space is insufficient in any panel on Plan Form 2.

SCHEDULE OF I.S.G. CO-ORDINATES

SURVEY PRACTICE REGULATION 1996–CLAUSE 32 (2)					
MARK	EASTING	NORTHING	ZONE	ACC	
PM 76652	280 396.9	1181 751.733	56/1	2	
SSM 79338	280 551.581	1181 675.19	56/1	2	
TS 10111	271 849.651	1167 224.308	56/1	4	
SOURCE: DEPT OF C.A.L.M. S.C.I.M.S. 15-7-97 MEAN SEA LEVEL / SCALE CORRECTION ADOPTED 0.99994					

I.S.G.

425
3.219ha

412

426
4.681ha

R.M.D.H.&W.FD. 284°49'-17.06 (D.P.840183)

(1.46 EMTS)

R.M.GONE PEG FD
R.M.BOLT 292°55'-9.63

SEE DIAGRAM

BARLYN COURT

SUNNYBANK CRESCENT

D.P. 863813

SEE SHEET 2

ROAD BONG BONG

'Y' T.S. 10111 KNIGHT'S HILL 'X'

PM 76652 FD 311°08'-8.5 TO BEND

P.M.C.B.FD 17°49'-1.01 (D.P.624648)

TO SSM 98027 PLC'D

SSM 79338 FD

R.M.D.H.&W. 351°08'45"-23.91

R.M.NAIL IN CONC 248°09'-13.275

P.M.C.B. 290°-1

Natural Watercourse

BANK

TRAVERSE

LEFT

Mullet

IS

Creek

BOUNDARY

SEE SHEET 2

(*) BENEFITED BY:
EASEMENT FOR ACCESS VAR. WIDTH - DP649474
EASEMENT TO DRAIN WATER VAR. WIDTH - DP649474
EASEMENT TO DRAIN WATER VAR. WIDTH - DP649473
EASEMENT FOR ACCESS VAR. WIDTH - DP649473
EASEMENT TO DRAIN WATER 1.5 WIDE - DP846120

(6) (E) DRAINAGE EASEMENT VARIABLE WIDTH
(7) (G) RIGHT OF CARRIAGEWAY 10.06 WIDE
(L) RIGHT OF WAY 10.06 WIDE (CONV BK 1719 NO 334)
(M) EASEMENT FOR TRANSMISSION LINE 30.48 WIDE (G.G. 19.11.1943 FOLIOS 2015&2016)
(N) EASEMENT FOR TRANSMISSION LINE 18.29 WIDE (J536I)
(P) EASEMENT FOR THE CONSTRUCTION AND MAINTENANCE OF WATER SUPPLY WORKS 4.57 WIDE (L460432 - D.P. 227382)
(5) (R) RESTRICTION ON THE USE OF LAND
(T) EASEMENT TO DRAIN WATER VARIABLE WIDTH (D.P. 649474)
(V) EASEMENT FOR ACCESS VARIABLE WIDTH (D.P. 649474)
(Y) EASEMENT TO DRAIN WATER 1.5 WIDE (D.P. 856301)
(13) (Z) RESTRICTION ON THE USE OF LAND

DIAGRAM 1:1000

SSM 96292 FD
SSM 98026 FD
D.P. 856301
D.P. 213
D.P. 325
D.P. 301
D.P. 302
D.P. 303
D.P. 324
D.P. 306
D.P. 323
D.P. 863813
SUNNYBANK CRES

Reduction Ratio 1: 2000

Plan Drawing only to appear in this space

SURVEYOR'S REFERENCE J00928/797/BARHAM4

Req:R462310 /Doc:DP 0873616 P /Rev:11-Dec-1997 /NSW LRS /Pgs:ALL /Prt:27-Nov-2024 09:33 /Seq:3 of 4
© Office of the Registrar-General /Src:InfoTrack /Ref:21 Barham Place? Horsley

PLAN FORM 3 To be used in conjunction with Plan Form 2

WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION

*OFFICE USE ONLY

DP 873616

Registered 9-12-1997

This is sheet 1 of my plan in 4 sheets dated 10TH NOVEMBER 1997

Surveyor registered under Surveyors Act 1929

This is sheet A of the plan of A sheets covered by my Certificate No. 6501 of 27-11-97

General Manager/Authorised Person

For use where space is insufficient in any panel on Plan Form 2.

Reduction Ratio 1: 2000

(M) EASEMENT FOR TRANSMISSION LINE 30.48 WIDE (G.G. 19.11.1943 FOLIOS 2015&2016)

(N) EASEMENT FOR TRANSMISSION LINE 18.29 WIDE (J5361)

(P) EASEMENT FOR THE CONSTRUCTION AND MAINTENANCE OF WATER SUPPLY WORKS 4.57 WIDE (L460432 - D.P. 227382)

(Q) EASEMENT TO DRAIN WATER VARIABLE WIDTH (D.P. 649473)

(S) EASEMENT FOR ACCESS VARIABLE WIDTH (D.P. 649473)

(5) (R) RESTRICTION ON USE OF LAND

226
D. P. 261623

R.M.G.I.P.FD. 279°39'-1.02 (D.P.212322)

R.M.G.I.P. 178°06' 16.835

PUBLIC

Robin's

419
6.058ha

A.I.S.

PT PH 35 D.P. 212322

RESERVE

Creek

SUNNYBANK

BARLYN COURT CRESCENT

SEE DIAGRAM A

SEE SHEET 2

412

SEE DIAGRAM C

SEE DIAGRAM B

I.S.G.

R A I L W A Y

DIAGRAM B
N.T.S.

DIAGRAM C
1:1000

DIAGRAM A
1:1000

420
4567m²

R.M.D.H.&W. 80°05'-10.03

SSM 89090 FD

(13 WIDE)

BOUNDARY

Creek

426
4.681ha

TRAVERSE

P.M.C.B. 317°24'-1

LEFT BANK

Mullet

Plan Drawing only to appear in this space

SURVEYOR'S REFERENCE J00928/797/BARHAM4

Req:R462310 /Doc:DP 0873616 P /Rev:11-Dec-1997 /NSW LRS /Pgs:ALL /Prt:27-Nov-2024 09:33 /Seq:4 of 4
© Office of the Registrar-General /Src:InfoTrack /Ref:21 Barham Place? Horsley

Req:R462474 /Doc:DP 1290802 P /Rev:31-Jan-2023 /NSW LRS /Prt:27-Nov-2
© Office of the Registrar-General /Src:InfoTrack /Ref:203/1290802

PLAN FORM 6 (2019)	**DEPOSITED PLAN ADMINISTRATION SHEET**	Sheet 1 of 2 sheet(s)

Registered: 31/01/2023 — Office Use Only

Title System: TORRENS

Office Use Only

DP1290802

PLAN OF SUBDIVISION OF LOT 1 and LOT 3 IN DP 1280810 AND LOT 426 IN DP 873616

LGA: WOLLONGONG

Locality: HORSLEY

Parish: KEMBLA

County: CAMDEN

Survey Certificate

I, BRUCE ERNEST SMITH

of CEH Consulting Pty Ltd
ABN 81 056 544 604

a surveyor registered under the *Surveying and Spatial Information Act 2002*, certify that:

*(a) The land shown in the plan was surveyed in accordance with the *Surveying and Spatial Information Regulation 2017*, is accurate and the survey was completed on 15/11/2022

~~*(b) The part of the land shown in the plan (*being/*excluding ** .....~~
~~.....)~~
~~was surveyed in accordance with the *Surveying and Spatial Information Regulation 2017*, the part surveyed is accurate and the survey was completed on, ... the part not surveyed was compiled in accordance with that Regulation, or~~

~~*(c) The land shown in this plan was compiled in accordance with the *Surveying and Spatial Information Regulation 2017*.~~

Datum Line: 'A1' – 'B1'

Type: *Urban/~~*Rural~~

The terrain is *Level-Undulating / ~~*Steep-Mountainous~~.

Signature: ..... Dated: 18/11/2022
Surveyor Identification No: 1994
Surveyor registered under
the *Surveying and Spatial Information Act 2002*

*Strike out inappropriate words.

**Specify the land actually surveyed or specify any land shown in the plan that is not the subject of the survey.

~~Crown Lands NSW/Western Lands Office Approval~~

~~I, ... (Authorised Officer) in approving this plan certify that all necessary approvals in regard to the allocation of the land shown herein have been given.~~

~~Signature: .....~~

~~Date: .....~~

~~File Number: .....~~

~~Office: .....~~

Subdivision Certificate

I, Aleks Radicevic

*Authorised Person/~~*General Manager/*Accredited Certifier~~, certify that the provisions of s.6.15 of the *Environmental Planning and Assessment Act 1979* have been satisfied in relation to the proposed subdivision, new road or reserve set out herein.

Signature: .....

Accreditation number: [redacted]

Consent Authority THE COUNCIL OF THE CITY OF WOLLONGONG

Date of endorsement: 19/12/2022

Subdivision Certificate number: SC-2022/137

File number: DA-2022/589

*Strike through if inapplicable.

Plans used in the preparation of survey/compilation.

DP 873616, DP 624648, DP 840183, DP 1063839,
DP 856301, DP 863813, DP 872380, DP 873616,
DP 846120, DP 212322, DP 1274097, DP 1280810

Statements of intention to dedicate public roads, create public reserves and drainage reserves, acquire/resume land.

Surveyor's Reference: D220303-2

Signatures, Seals and Section 88B Statements should appear on PLAN FORM 6A

Document Set ID: 23848404
Version: 1, Version Date: 30/11/2022

Req:R462474 /Doc:DP 1290802 P /Rev:31-Jan-2023 /NSW LRS /Prt:27-Nov-2
© Office of the Registrar-General /Src:InfoTrack /Ref:203/1290802

PLAN FORM 6A (2017) **DEPOSITED PLAN ADMINISTRATION SHEET** Sheet 2 of 2 sheet(s)

Registered: 31/01/2023 Office Use Only

Office Use Only

DP1290802

PLAN OF SUBDIVISION OF LOT 1 AND LOT 3 IN DP 1280810 AND LOT 426 IN DP 873616

Subdivision Certificate number: SC-2022/137

Date of Endorsement: 19/12/2022

This sheet is for the provision of the following information as required:

- A schedule of lots and addresses - See 60(c) *SSI Regulation 2017*
- Statements of intention to create and release affecting interests in accordance with section 88B *Conveyancing Act 1919*
- Signatures and seals- see 195D *Conveyancing Act 1919*
- Any information which cannot fit in the appropriate panel of sheet 1 of the administration sheets.

Lot No.	House No.	Street Name	Street Type	Locality
202	78	SUNNYBANK	CRESCENT	HORSLEY
203	21	BARHAM	PLACE	HORSLEY

BARLYN PTY LTD
ACN 000 476 291

ROBYN MARGARET KRAUSS
Director

CHRISTOPHER BARHAM
Director

ANTHONY BARHAM
Director

LEE BARHAM
Director

ROBERT JOHN KRAUSS

ROBYN MARGARET KRAUSS

If space is insufficient use additional annexure sheet

Surveyor's Reference: D220303-2

Document Set ID: 23848404
Version: 1, Version Date: 30/11/2022

Req:R462606 /Doc:CT 09889-029 CT /Rev:21-Dec-2010 /NSW LRS /Pgs:ALL /Prt:27-Nov-2024 09:57 /Seq:1 of 14
© Office of the Registrar-General /Src:InfoTrack /Ref:21 Barham Place? Horsley

09889029

G. 2

NEW SOUTH WALES

[redacted]IFICATE OF TITLE

[redacted]ERTY ACT, 1900, as amended.

Appln. No. 38179.
Prior Title Vol. 6801 Fol. 120.
128

LB.

Vol. 9889 Fol. 29 A
CANCELLED
1st Edition issued 15.12.1964.

H956157.

Fol. 29 A
9889
(Page 1) Vol.

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

Witness

Registrar General.

ESTATE AND LAND REFERRED TO

Estate in Fee Simple in three undivided one eighth shares in Lot 1 in Deposited Plan 32373 in the City of Greater Wollongong, Parish of Kembla and County of Camden, being parts of Portion 54 granted to Augusta Brooks and Elizabeth Weston, on 13.1.1842.

Registrar General.

FIRST SCHEDULE (continued overleaf)

~~MARY ESTELLE LINDSAY, OLIVE DORIS LINDSAY and HILDA FLORENCE LINDSAY, all of Dapto, Spinsters as Tenants in Common.~~

Registrar General.

SECOND SCHEDULE (continued overleaf)

1. Reservations and conditions, if any, contained in the Crown Grant above referred to.
2. Easement for Transmission Line created by notification in Government Gazette, of 19.11.1943. Fols. 2015 & 2016 affecting the piece of land 151½ links wide and hatched black 151½ links wide shown in the plan hereon.
3. Right of Way created by Deed Book 1719 No. 334 affecting the piece of land hatched black in the plan hereon.
4. Easement for Transmission Line created by Resumption No. J5361 affecting the piece of land 60 feet wide and hatched black 60 feet wide shown in the plan hereon.

Registrar General.

20935:862(21)

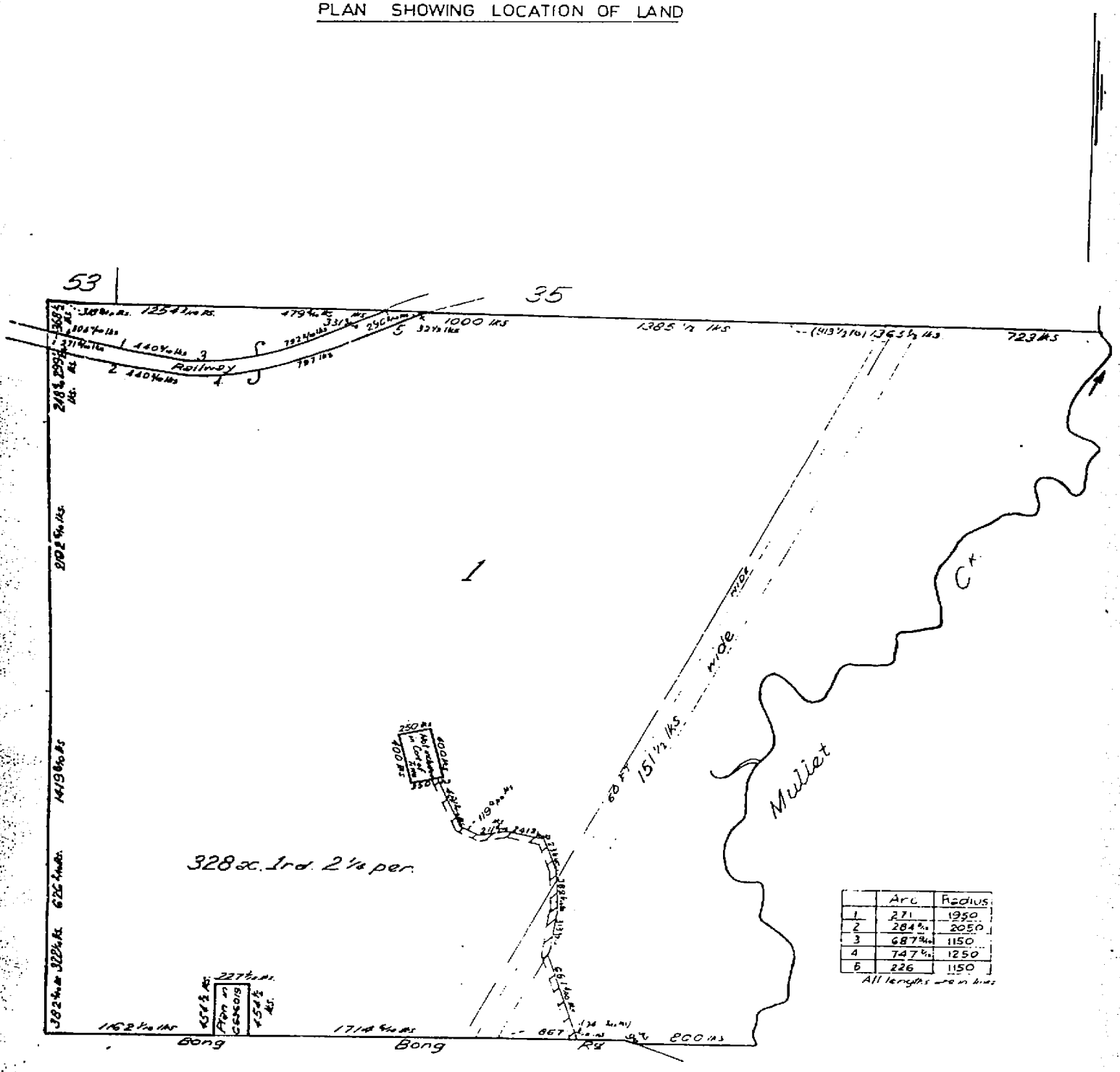
PERSONS ARE CAUTIONED AGAINST ALTERING OR ADDING TO THIS CERTIFICATE OR ANY NOTIFICATION HEREON

WARNING: THIS DOCUMENT MUST NOT BE REMOVED FROM THE LAND TITLES OFFICE

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

Req:R462606 /Doc:CT 09889-029 CT /Rev:21-Dec-2010 /NSW LRS /Pgs:ALL /Prt:27-Nov-2024 09:57 /Seq:2 of 14
© Office of the Registrar-General /Src:InfoTrack /Ref:21 Barham Place? Horsley

PLAN SHOWING LOCATION OF LAND



Scale 8 chains to one inch

H956157 JB.
James.

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	ENTERED	Signature of Registrar General
Olive Doris Lindsay Spinster	Transmission	J945091	14.1.1965	5.8.1965	
This deed is cancelled as to the subdivided roads					
New Certificates of Title have issued on 15.11.1966					
for lots in Unregistered Plan No 230057 as follows:					
Lots 1 and 2 Vol [illegible] Fol [illegible] respectively.					
REGISTRAR GENERAL					

SECOND SCHEDULE (continued)

INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	PARTICULARS	ENTERED	Signature of Registrar General	CANCELLATION
			The interest of the Council of the City of Greater Wollongong in the addition to existing road shown on D.P. 230057.	22.9.1966		

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

Req:R462606 /Doc:CT 09889-029 CT /Rev:21-Dec-2010 /NSW LRS /Pgs:ALL /Prt:27-Nov-2024 09:57 /Seq:3 of 14
© Office of the Registrar-General /Src:InfoTrack /Ref:21 Barham Place? Horsley

Req:R462606 /Doc:CT 09889-029 CT /Rev:21-Dec-2010 /NSW LRS /Pgs:ALL /Prt:27-Nov-2024 09:57 /Seq:4 of 14
© Office of the Registrar-General /Src:InfoTrack /Ref:21 Barham Place? Horsley

Vol. 9889 Fol 29 A

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT			ENTERED	Signature of Registrar General
	NATURE	NUMBER	DATE		

SECOND SCHEDULE (continued)

INSTRUMENT			PARTICULARS	ENTERED	Signature of Registrar General	CANCELLATION		
NATURE	NUMBER	DATE						

(Page 4 of 4 pages)

Req:R462606 /Doc:CT 09889-029 CT /Rev:21-Dec-2010 /NSW LRS /Pgs:ALL /Prt:27-Nov-2024 09:57 /Seq:5 of 14
© Office of the Registrar-General /Src:InfoTrack /Ref:21 Barham Place? Horsley

G. 2

NEW SOUTH WALES

CERTIFICATE OF TITLE

REAL PROPERTY ACT, 1900, as amended.

TORRENS TITLE

Register Book

Application No.38179
Prior Title Vol.6801 Fol.128

Vol. 9889 Fol. 29 B

CANCELLED
1st Edition issued 15-12-1964

J791069

Vol 9889 Fol 29 B

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

Witness

Registrar General.

(Page 1) Vol

ESTATE AND LAND REFERRED TO

Estate in Fee Simple in an undivided one eighth share in Lot 1 in Deposited Plan 32373 in the City of Greater Wollongong Parish of Kembla and County of Camden being part of Portion 54 granted to Augusta Brooks and Elizabeth Weston on 13-1-1842.

Registrar General.

FIRST SCHEDULE (continued overleaf)

~~THOMAS HILTON LINDSAY, of Dapto, Farmer.~~

Registrar General.

SECOND SCHEDULE (continued overleaf)

1. Reservations and conditions, if any, contained in the Crown Grant above referred to.
2. Easement for Transmission Line created by notification in Government Gazette of 19-11-1943 Folios 2015 and 2016 affecting the piece of land 151½ links wide and 151½ links wide hatched black shown in the plan hereon.
3. Right of Way created by Deed Book 1719 No.334 affecting the piece of land hatched black in the plan hereon.
4. ~~Caveat No.H840444 by the Registrar General. Entered 28-7-1961.~~ Withdrawn J945092.
5. Easement for Transmission Line created by Resumption No.J5361 affecting the piece of land 60 feet wide and hatched black 60 feet wide shown in the plan hereon.

Registrar General.

20935:862 (21)

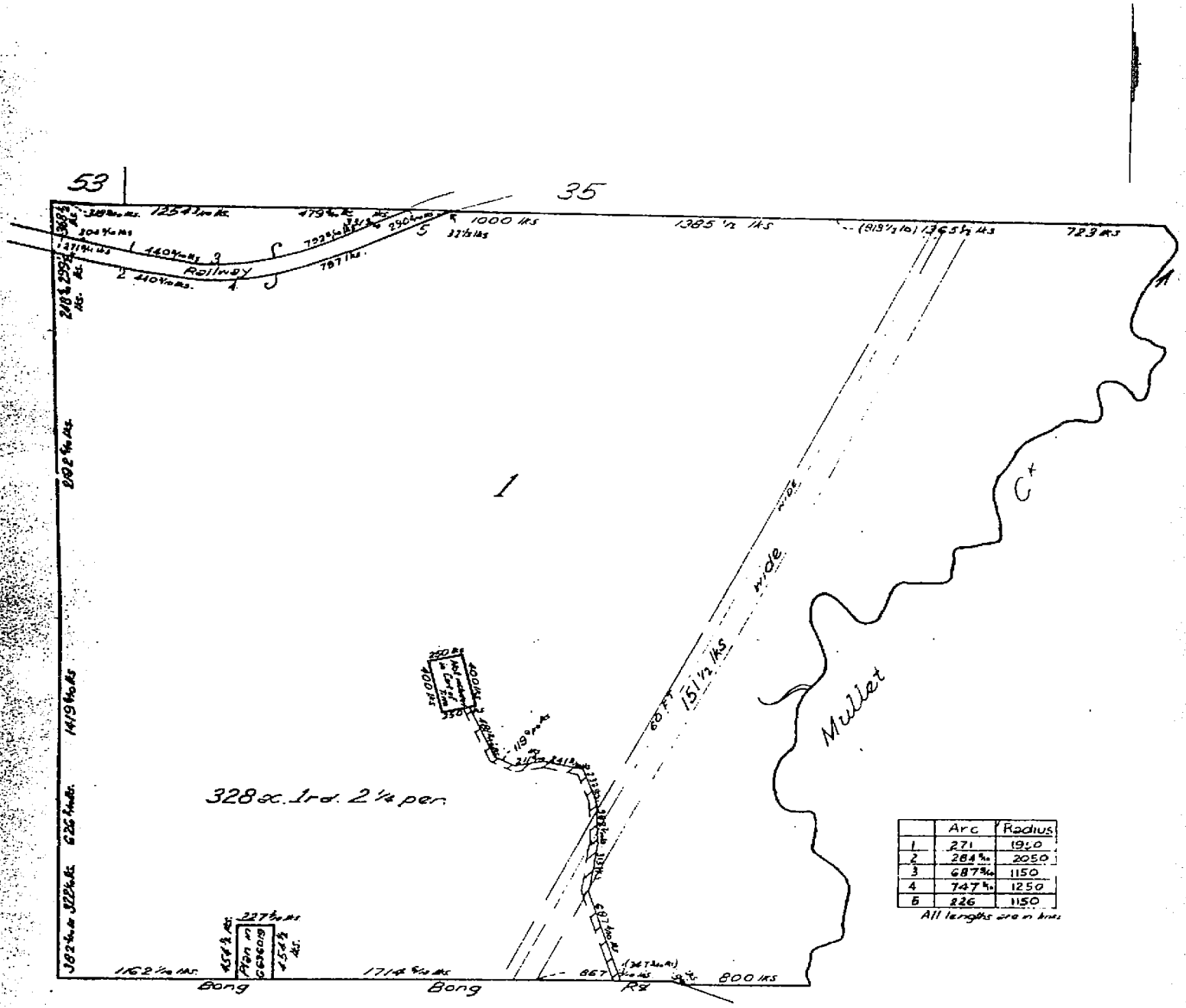
NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED.

PERSONS ARE CAUTIONED AGAINST ALTERING OR ADDING TO THIS CERTIFICATE OR ANY NOTIFICATION HEREON

WARNING: THIS DOCUMENT MUST NOT BE REMOVED FROM THE LAND TITLES OFFICE.

Req:R462606 /Doc:CT 09889-029 CT /Rev:21-Dec-2010 /NSW LRS /Pgs:ALL /Prt:27-Nov-2024 09:57 /Seq:6 of 14
© Office of the Registrar-General /Src:InfoTrack /Ref:21 Barham Place? Horsley

PLAN SHOWING LOCATION OF LAND



Scale 8 chains to one inch

J791069 18. Jurts.

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	ENTERED	Signature of Registrar General
~~Thomas Hilton Lindsay of Dapto Farmer as to one undivided one eighth share and Eric Stratford Lindsay of Dapto Storekeeper as to the remaining undivided seven eighth share as tenants in common~~	Transfer	J945092	25.5.1964	5.8.1965.	
~~Thomas Hilton Lindsay of Dapto Farmer as to one undivided one eighth share and Eric Stratford Olive Doris Lindsay of Dapto Spinster as tenants in common~~	Transfer	J945093	15.1.1965.	5.8.1965.	
This deed is cancelled as to the whole (of land)					
New Certificates of Title have issued on 12-12-1966					
for lots in Dapto Plan No. 230057 as follows:-					
Lots 1 and 2 Vol. 12465 Fol 215 & 216 respectively					

Jan Watson
REGISTRAR GENERAL

SECOND SCHEDULE (continued)

INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	PARTICULARS	ENTERED	Signature of Registrar General	CANCELLATION
			The interest of the Council of the City of Greater Wollongong in the addition to existing road shown on D.P. 230057.	22 9 1966		

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

DEL. REG'D GEN 19-10-65

D.P. 230057 (C.T.) 22/9

Req:R462606 /Doc:CT 09889-029 CT /Rev:21-Dec-2010 /NSW LRS /Pgs:ALL /Prt:27-Nov-2024 09:57 /Seq:7 of 14
© Office of the Registrar-General /Src:InfoTrack /Ref:21 Barham Place? Horsley

Req:R462606 /Doc:CT 09889-029 CT /Rev:21-Dec-2010 /NSW LRS /Pgs:ALL /Prt:27-Nov-2024 09:57 /Seq:8 of 14
© Office of the Registrar-General /Src:InfoTrack /Ref:21 Barham Place? Horsley

Vol. 9889 Fol 29 B

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT			ENTERED	Signature of Registrar General
	NATURE	NUMBER	DATE		

SECOND SCHEDULE (continued)

INSTRUMENT			PARTICULARS	ENTERED	Signature of Registrar General	CANCELLATION		
NATURE	NUMBER	DATE						

(Page 7 of 7 pages)

FORM No. 49 NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED

Req:R462606 /Doc:CT 09889-029 CT /Rev:21-Dec-2010 /NSW LRS /Pgs:ALL /Prt:27-Nov-2024 09:57 /Seq:9 of 14
© Office of the Registrar-General /Src:InfoTrack /Ref:21 Barham Place? Horsley

G. 2

NEW SOUTH WALES

Application No. 38179

Prior Title Volume 6801 Folio 129

CERTIFICATE OF TITLE

REAL PROPERTY ACT, 1900, as amended.

TORRENS TITLE

Register Book

Vol. 9889 Fol. 29C

CANCELLED

1st Edition issued

EII K159278

29C Fol. 9889 Vol. (Page 1)

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

Witness M.J. Hoffell

Registrar General.

ESTATE AND LAND REFERRED TO

Estate in Fee Simple in an undivided one half share in Lot 1 in Deposited Plan 32373 in the City of Greater Wollongong Parish of Kembla and County of Camden being part of Portion 54 granted to Augusta Brooks and Elizabeth Weston on 13-1-1842.

Registrar General.

FIRST SCHEDULE (continued overleaf)

EDITH EVELYN LINDSAY, Widow and GEOFFREY HILTON LINDSAY, Dairy Farmer, both of Dapto, as Joint Tenants.

Registrar General.

SECOND SCHEDULE (continued overleaf)

1. Reservations and conditions, if any, contained in the Crown Grant above referred to.
2. Easement for Transmission Line created by notification in Government Gazette of 19-11-1943 Folios 2015 and 2016 affecting the piece of land 151½ links wide and 151½ links wide hatched black in plan hereon.
3. Right of Way created by Deed Book 1719 No. 334 affecting the piece of land hatched black in plan hereon.
4. Easement for Transmission Line created by Resumption No.J5361 affecting the piece of land 60 feet wide and 60 feet wide hatched black in plan hereon.

Registrar General.

PERSONS ARE CAUTIONED AGAINST ALTERING OR ADDING TO THIS CERTIFICATE OR ANY NOTIFICATION HEREON

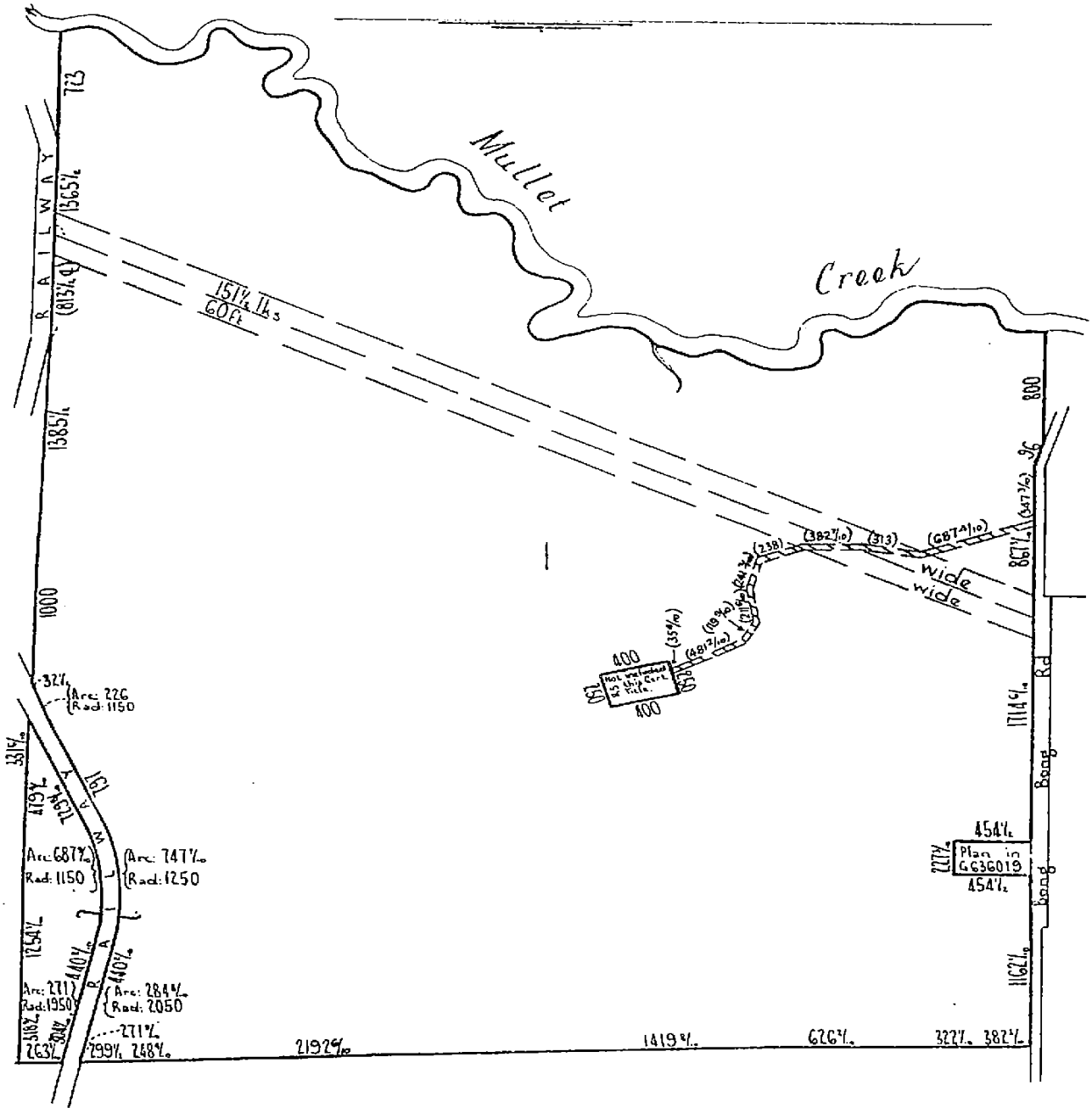
WARNING: THIS DOCUMENT MUST NOT BE REMOVED FROM THE LAND TITLES OFFICE.

20935: 862 (2)

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

Req:R462606 /Doc:CT 09889-029 CT /Rev:21-Dec-2010 /NSW LRS /Pgs:ALL /Prt:27-Nov-2024 09:57 /Seq:10 of 14
© Office of the Registrar-General /Src:InfoTrack /Ref:21 Barham Place? Horsley

PLAN SHOWING LOCATION OF LAND



Area 328a 1r 2¼p

Scale 8 chains to one inch

All lengths shown hereon are in links

K 159278

KTB

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	ENTERED	Signature of Registrar General
This deed is cancelled as to [illegible] New Certificates of Title have issued on 12-12-1966 for lots in Dedicated Plan No 230057 as follows: Lots 1 and 2 Vol. [illegible] Fol. [illegible] respectively. REGISTRAR GENERAL					

K159279
D.P. 230057
22/9/66

SECOND SCHEDULE (continued)

INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	PARTICULARS	ENTERED	Signature of Registrar General	CANCELLATION
Caveat	K159279	9-11-1965	By Registrar-General The interest of the Council of ~~Greater~~ the City of Greater Wollongong in the addition to existing road shown on D.P. 230057.	20-1-1966 22-9-1966		

06.

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

Req:R462606 /Doc:CT 09889-029 CT /Rev:21-Dec-2010 /NSW LRS /Pgs:ALL /Prt:27-Nov-2024 09:57 /Seq:11 of 14
© Office of the Registrar-General /Src:InfoTrack /Ref:21 Barham Place? Horsley

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT			ENTERED	Signature of Registrar General
	NATURE	NUMBER	DATE		

SECOND SCHEDULE (continued)

INSTRUMENT			PARTICULARS	ENTERED	Signature of Registrar General	CANCELLATION		
NATURE	NUMBER	DATE						

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

Req:R462606 /Doc:CT 09889-029 CT /Rev:21-Dec-2010 /NSW LRS /Pgs:ALL /Prt:27-Nov-2024 09:57 /Seq:12 of 14
© Office of the Registrar-General /Src:InfoTrack /Ref:21 Barham Place? Horsley

Req:R462606 /Doc:CT 09889-029 CT /Rev:21-Dec-2010 /NSW LRS /Pgs:ALL /Prt:27-Nov-2024 09:57 /Seq:13 of 14
© Office of the Registrar-General /Src:InfoTrack /Ref:21 Barham Place? Horsley

Vol. 9889 Fol. 29C

CANCELLED

For prior reference to Title see :

Vol. 6801 Fol. 129

CANCELLED

See new edition

REGISTRAR GENERAL

PERSONS ARE CAUTIONED AGAINST ALTERING OR ADDING TO THIS CERTIFICATE OR ANY NOTIFICATION HEREON

WARNING: THIS DOCUMENT MUST NOT BE REMOVED FROM THE LAND TITLES OFFICE.

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

Vol. Fol.

CANCELLED

See new edition

REGISTRAR GENERAL

Req:R462606 /Doc:CT 09889-029 CT /Rev:21-Dec-2010 /NSW LRS /Pgs:ALL /Prt:27-Nov-2024 09:57 /Seq:14 of 14
© Office of the Registrar-General /Src:InfoTrack /Ref:21 Barham Place? Horsley

Req:R462475 /Doc:CT 10415-215 CT /Rev:15-Feb-2011 /NSW LRS /Pgs:ALL /Prt:27-Nov-2024 09:46 /Seq:1 of 2
© Office of the Registrar-General /Src:InfoTrack /Ref:20371290802

10415215

[redacted]

CERTIFICATE OF TITLE

NEW SOUTH WALES — ERTY ACT, 1900, as amended.

Application No.38179

Prior Title Vol.9889 Fol. 29

Vol. 10415 Fol. 215

MA

Edition issued 12-10-1966

CANCELLED

(Page 1) Vol. 10415 Fol. 215

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

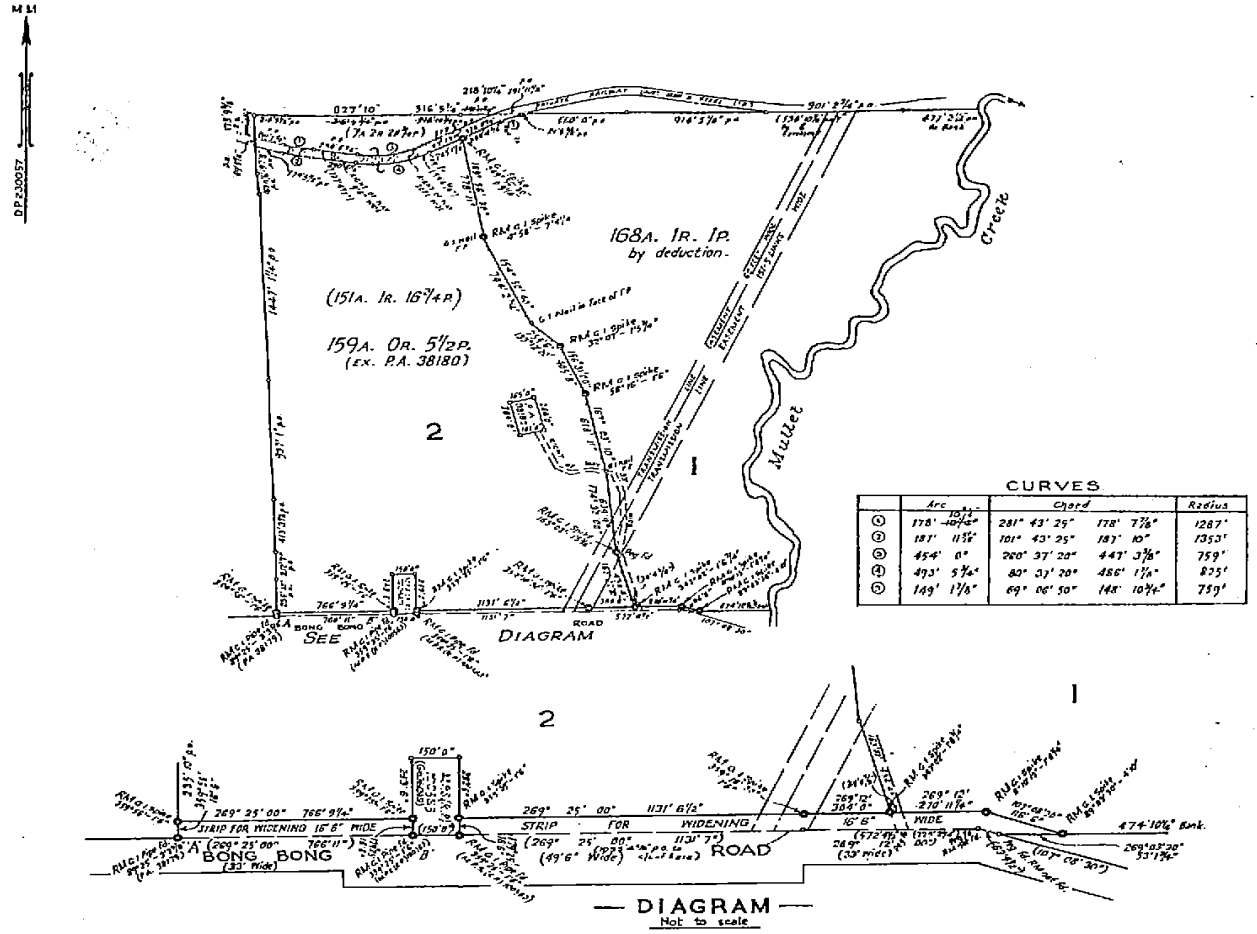
Witness B. O'Sullivan.

SEE AUTO FOLIO

Registrar General.

REGISTRAR GENERAL NEW SOUTH WALES

PLAN SHOWING LOCATION OF LAND



ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot 1 in Deposited Plan 230057 at Dapto in the City of Greater Wollongong Parish of Kembla and County of Camden.

FIRST SCHEDULE (continued overleaf)

~~OLIVE DORIS LINDSAY, of Dapto, Spinster, as to an undivided one half share~~
~~and~~
~~EDITH EVELYN LINDSAY, Widow, and GEOFFREY HILTON LINDSAY, Dairy Farmer, both of Dapto, as Joint Tenants as to the remaining undivided one half share~~
~~as Tenants in Common.~~

Registrar General.

SECOND SCHEDULE (continued overleaf)

1. Reservations and conditions, if any, contained in the Crown Grant above referred to.
2. Easement for Transmission Line created by notification in Government Gazette dated 19-11-1943 Folios 2015 and 2016 affecting the piece of land shown as "Transmission Line Easement 151.5 links wide" in the plan hereon.
3. Right of way created by Deed Book 1719 No.334 affecting the piece of land shown as "Right of Way 33' wide" in the plan hereon.
4. Easement for Transmission Line created by Notice of Resumption No.J536[illegible] affecting the piece of land shown as "Transmission Line easement 60 feet wide" in the plan hereon.
5. ~~Caveat No.K159279 by the Registrar General as regards the interest held by Edith Evelyn Lindsay and Geoffrey Hilton Lindsay. Entered 26-1-1966.~~ Withdrawn K530577

Registrar General.

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

RG 2/62

WARNING THIS DOCUMENT MUST NOT BE REMOVED FROM THE LAND TITLES OFFICE
PERSONS ARE CAUTIONED AGAINST ALTERING OR ADDING TO THIS CERTIFICATE OR ANY NOTIFICATION HEREON

PT 1 .17 V.C.N. Blight, Government Printer

Vol. 10415 Fol 215

FIRST SCHEDULE (continued)

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	ENTERED	Signature of Registrar-General
~~Hunter Investments (Sydney) Pty Limited~~	~~Transfer~~	~~K530577~~	~~7-12-1966~~	~~31-1-1967~~	
~~The name of the proprietor is now Barlyn Pty. Limited~~	~~Change of Name~~	~~L460432~~		~~7-1969~~	
~~The Council of the City of Wollongong~~ Barlyn Pty. Limited as to the whole excluding Lot 201 in D.P. 624648 and the Council of the City of Wollongong as to the residue by Transfer V193794. Registered 23-7-1984					

CANCELLED

SEE AUTO FOLIO

SECOND SCHEDULE (continued)

INSTRUMENT NATURE	INSTRUMENT NUMBER	INSTRUMENT DATE	PARTICULARS	ENTERED	Signature of Registrar-General	CANCELLATION		
* ~~Mortgage~~	~~K530578~~	~~7-12-1966~~	~~to Hunter Investments (Sydney) Pty Limited~~	~~31-1-1967~~		~~Discharged~~	~~N54861~~	
* ~~Caveat~~	~~K530577~~		~~Created by Transfer No K530577~~	~~31-1-1967~~				
Transfer	L460432P	26-3-1969	Easement for the Construction and Maintenance of Water Supply Works (more fully set out in the said instrument) affecting that part of the land within described shown as Proposed Easement 5 Feet Wide in D.P. 227382 (with consent of mortgagee)	4-7-1969				
~~Mortgage~~	~~N54862~~	~~15-12-1972~~	~~to Alliance Acceptance Co Limited~~	~~22-1-1973~~		~~Discharged~~	~~V198793~~	
~~V193794 Request. Lot 201 in D.P.624648 is now road. Registered 23-7-1984~~								
Mortgage	N54862P	15-12-1972	to Alliance Acceptance Co. Limited	22-1-1973				
N54862P Mortgage. V193793 Discharged as to part being Lot 201 in D.P.624648. Registered 23-7-1984.								
V193794 Transfer. Lot 201 in D.P.624648 is now road. Registered 23-7-1984.								

(Page 2 of 2 pages)

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

Req:R462475 /Doc:CT 10415-215 CT /Rev:15-Feb-2011 /NSW LRS /Pgs:ALL /Prt:27-Nov-2024 09:46 /Seq:2 of 2
© Office of the Registrar-General /Src:InfoTrack /Ref:20321290802

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE

27/11/2024 9:45AM

FOLIO: 1/230057

First Title(s): SEE PRIOR TITLE(S)
Prior Title(s): VOL 10415 FOL 215

Recorded	Number	Type of Instrument	C.T. Issue
5/6/1987		TITLE AUTOMATION PROJECT	LOT RECORDED FOLIO NOT CREATED
15/4/1988		CONVERTED TO COMPUTER FOLIO	FOLIO CREATED CT NOT ISSUED
20/12/1990	Z209907	DEPARTMENTAL DEALING	
5/6/1991	Z699901	DISCHARGE OF MORTGAGE	EDITION 1
22/4/1994	DP648937	DEPOSITED PLAN	EDITION 2
23/6/1994	DP840183	DEPOSITED PLAN	FOLIO CANCELLED RESIDUE REMAINS
16/8/1999	6095446	DEPARTMENTAL DEALING	

*** END OF SEARCH ***

Copyright © Office of the Registrar-General 2024

Received: 27/11/2024 09:45:52

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
27/11/2024 9:45AM

FOLIO: 10/840183

First Title(s): OLD SYSTEM
Prior Title(s): 1/230057

Recorded	Number	Type of Instrument	C.T. Issue
23/6/1994	DP840183	DEPOSITED PLAN	FOLIO CREATED EDITION 1
10/8/1994	DP649474	DEPOSITED PLAN	
2/12/1994	DP649473	DEPOSITED PLAN	EDITION 2
30/11/1995	O730836	DEPARTMENTAL DEALING	
17/1/1996	DP856301	DEPOSITED PLAN	FOLIO CANCELLED
16/8/1999	6095426	DEPARTMENTAL DEALING	

*** END OF SEARCH ***

Copyright © Office of the Registrar-General 2024

Received: 27/11/2024 09:45:53

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
27/11/2024 9:45AM

FOLIO: 229/856301

First Title(s): OLD SYSTEM
Prior Title(s): 10/840183

Recorded	Number	Type of Instrument	C.T. Issue
19/1/1996	DP856301	DEPOSITED PLAN	FOLIO CREATED EDITION 1
6/8/1996	2358685	REQUEST	
24/6/1997	3169064	CAVEAT	
30/9/1997	3451527	DEPARTMENTAL DEALING	
10/11/1997	3565477	DEPARTMENTAL DEALING	
8/12/1997	3644463	WITHDRAWAL OF CAVEAT	
9/12/1997	DP873616	DEPOSITED PLAN	FOLIO CANCELLED RESIDUE REMAINS

*** END OF SEARCH ***

Copyright © Office of the Registrar-General 2024

Received: 27/11/2024 09:45:57

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
27/11/2024 9:45AM

FOLIO: 412/873616

First Title(s): OLD SYSTEM
Prior Title(s): 229/856301

Recorded	Number	Type of Instrument	C.T. Issue
11/12/1997	DP873616	DEPOSITED PLAN	FOLIO CREATED EDITION 1
30/12/1997		AMENDMENT: CT DELIVEREE	
27/2/1998	DP267423	DEPOSITED PLAN	
27/7/1999	6029956	CAVEAT	
15/6/2001	DP1016609	DEPOSITED PLAN	
27/3/2002	8351967	WITHDRAWAL OF CAVEAT	
27/3/2002	8351968	REQUEST	
30/4/2008	AD913217	CAVEAT	
26/3/2010	AF393500	DEPARTMENTAL DEALING	
26/3/2010	AF354987	TRANSFER OF EASEMENT IN GROSS	
23/6/2011	AG307519	CAVEAT	
14/8/2012	AH173599	WITHDRAWAL OF CAVEAT	
14/8/2012	AH173600	WITHDRAWAL OF CAVEAT	
14/8/2020	AQ308581	LEASE	EDITION 2
24/2/2022	DP1280810	DEPOSITED PLAN	FOLIO CANCELLED

*** END OF SEARCH ***

Copyright © Office of the Registrar-General 2024

Received: 27/11/2024 09:45:59

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
27/11/2024 9:45AM

FOLIO: 413/873616

First Title(s): OLD SYSTEM
Prior Title(s): 229/856301

Recorded	Number	Type of Instrument	C.T. Issue
11/12/1997	DP873616	DEPOSITED PLAN	FOLIO CREATED EDITION 1
19/12/1997		AMENDMENT: CT DELIVEREE	
24/2/2022	DP1280810	DEPOSITED PLAN	FOLIO CANCELLED

*** END OF SEARCH ***

Copyright © Office of the Registrar-General 2024

Received: 27/11/2024 09:45:58

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
27/11/2024 9:45AM

FOLIO: 3/1280810

First Title(s): OLD SYSTEM
Prior Title(s): 412-413/873616

Recorded	Number	Type of Instrument	C.T. Issue
24/2/2022	DP1280810	DEPOSITED PLAN	FOLIO CREATED EDITION 1
11/1/2023	DP1276896	WITHDRAWN - PROPOSED PLAN	
11/1/2023	DP1290116	WITHDRAWN - PROPOSED PLAN	
31/1/2023	DP1290802	DEPOSITED PLAN	FOLIO CANCELLED

*** END OF SEARCH ***

Copyright © Office of the Registrar-General 2024

Received: 27/11/2024 09:45:59

LAND REGISTRY SERVICES Historical Search

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE

27/11/2024 9:46AM

FOLIO: 203/1290802

First Title(s): OLD SYSTEM
Prior Title(s): ~~426/873616~~ ~~1/1280810~~
3/1280810

Recorded	Number	Type of Instrument	C.T. Issue
31/1/2023	DP1290802	DEPOSITED PLAN	FOLIO CREATED EDITION 1
19/10/2023	AT532353	TRANSFER	
19/10/2023	AT532354	MORTGAGE	EDITION 2

*** END OF SEARCH ***

Copyright © Office of the Registrar-General 2024

Received: 27/11/2024 09:46:00

NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: 203/1290802

SEARCH DATE	TIME	EDITION NO	DATE
27/11/2024	9:45 AM	2	19/10/2023

LAND

LOT 203 IN DEPOSITED PLAN 1290802
AT HORSLEY
LOCAL GOVERNMENT AREA WOLLONGONG
PARISH OF KEMBLA COUNTY OF CAMDEN
TITLE DIAGRAM DP1290802

FIRST SCHEDULE

FRAS DAKHIL JEREW (T AT532353)

SECOND SCHEDULE (20 NOTIFICATIONS)

1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
2 K530577 COVENANT
3 NOTIFICATION IN GOVERNMENT GAZETTE DATED 19.11.1943 FOLIO 2015: EASEMENT FOR TRANSMISSION LINE 30.48 METRE(S) WIDE AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
2358685 EASEMENT NOW VESTED IN NEW SOUTH WALES ELECTRICITY TRANSMISSION AUTHORITY
AF354987 EASEMENT NOW VESTED IN INTEGRAL ENERGY AUSTRALIA
4 NOTIFICATION IN GOVERNMENT GAZETTE DATED 19.11.1943 FOLIO 2016: EASEMENT FOR TRANSMISSION LINE 30.48 METRE(S) WIDE AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
2358685 EASEMENT NOW VESTED IN NEW SOUTH WALES ELECTRICITY TRANSMISSION AUTHORITY
5 DP648937 RIGHT OF CARRIAGEWAY 18 METRE(S) WIDE APPURTENANT TO THE LAND ABOVE DESCRIBED
6 DP648937 EASEMENT FOR SERVICES 18 METRE(S) WIDE APPURTENANT TO THE LAND ABOVE DESCRIBED
7 J5361 EASEMENT FOR TRANSMISSION LINE 18.29 METRE(S) WIDE AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
Z209907 EASEMENT NOW VESTED IN ILLAWARRA COUNTY COUNCIL
8 L460432 EASEMENT FOR CONSTRUCTION AND MAINTENANCE OF WATER SUPPLY WORKS 4.57 METRE(S) WIDE AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
9 DP649473 EASEMENT TO DRAIN WATER VARIABLE WIDTH AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
10 DP649473 EASEMENT FOR ACCESS VARIABLE WIDTH AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
11 DP649474 EASEMENT TO DRAIN WATER VARIABLE WIDTH AFFECTING THE

END OF PAGE 1 - CONTINUED OVER

SECOND SCHEDULE (20 NOTIFICATIONS) (CONTINUED)

		PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
12	DP649474	EASEMENT FOR ACCESS VARIABLE WIDTH AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
13	DP873616	RESTRICTION(S) ON THE USE OF LAND REFERRED TO AND NUMBERED (5) IN THE S.88B INSTRUMENT AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
14	DP873616	RESTRICTION(S) ON THE USE OF LAND REFERRED TO AND NUMBERED (8) IN THE S.88B INSTRUMENT AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
15	DP873616	RESTRICTION(S) ON THE USE OF LAND REFERRED TO AND NUMBERED (9) IN THE S.88B INSTRUMENT AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
16	DP873616	RESTRICTION(S) ON THE USE OF LAND REFERRED TO AND NUMBERED (10) IN THE S.88B INSTRUMENT AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
17	DP873616	RESTRICTION(S) ON THE USE OF LAND REFERRED TO AND NUMBERED (11) IN THE S.88B INSTRUMENT AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
18	DP873616	RESTRICTION(S) ON THE USE OF LAND REFERRED TO AND NUMBERED (12) IN THE S.88B INSTRUMENT AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
19	8351968	EASEMENT FOR PIPELINE 20 METRE(S) WIDE AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
20	AT532354	MORTGAGE TO NATIONAL AUSTRALIA BANK LIMITED

NOTATIONS

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

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

Copyright © Office of the Registrar-General 2024

Received: 27/11/2024 09:45:39

Appendix G – Database Search Report



Land Insight

Due Diligence Insight Report

Barham Pl
Horsley, NSW

13 Nov 2024

Report nº:
LI-4467 DDR

Understanding your report

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

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

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

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

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

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

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

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

Report Summary

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

Index

1.1 SENSITIVE RECEPTORS Map 1.1 (200m Buffer) *3*

1.2a PLANNING CONTROLS Map 1.2a (500m Buffer) *3*
Zoning 3

1.2b PLANNING OVERLAYS Map 1.2b (500m Buffer) *4*
Environmental Planning Instruments 4
Other Planning Information 6

1.3 HERITAGE Map 1.3 (200m Buffer) *6*
State and Local Heritage Registers 6
Australian Heritage Database Register 6

1.4a SOIL AND LAND USE INFORMATION Map 1.4a (500m Buffer) *7*
Soil Landscape 7
Salinity 7
Radon 7

1.4b ACID SULFATE SOIL Map 1.4b (500m Buffer) *8*
State and Local Acid Sulfate Soil Registers 8
National Acid Sulfate Soil Register 8

1.5 GEOLOGY AND TOPOGRAPHY Map 1.5 (500m Buffer) *9*
Geology 9
Naturally Occurring Asbestos Potential (NOA) 10
Topography 10

2.1 GDE & HYDROGEOLOGY CONSTRAINTS Map 2.1 (2000m Buffer) *11*
Aquifer Type 11
Groundwater Protection Areas 11
Wetlands 11
Groundwater Dependent Ecosystems (GDE) - Aquatic (Surface) 11
Groundwater Dependent Ecosystems (GDE) - Terrestrial (Subsurface) 12
Groundwater Licences (Western Australia) 12
Groundwater Bores 12
Groundwater Bores Driller Lithology Details 13

2.2 GROUNDWATER AND OTHER BORES Map 2.2 (2000m Buffer) *14*
Groundwater Restricted Use Zones 14
Groundwater Salinity 14
Other Known Borehole Investigations (Coal Seam Gas (CSG), Petroleum Wells and Other Boreholes) 14

3.1 CONTAMINATED LAND PUBLIC REGISTER Map 3.1 (1000m Buffer) *16*
Contaminated Sites 16

3.2 LICENCES, APPROVALS & ASSESSMENTS Map 3.2 (1000m Buffer) *17*
Licences 17
Audits, PRSA 17
Clean Up, Penalty Notices and Orders 18

3.3a SITES REGULATED BY OTHER JURISDICTIONAL BODY Map 3.3a (2000m Buffer) *18*
Contaminated Legacy Areas 18
Defence, Military Sites and UXO Areas 18
Former Gasworks Sites 18
PFAS Sites 19

3.3b OTHER POTENTIAL HAZARD SOURCES Map 3.3b (500m Buffer) *19*
Mines and Quarries (current and historical) 19
Landfills (current and historical) 19
National Pollutant Inventory (NPI) 19

4.1 POTENTIALLY CONTAMINATING ACTIVITIES Map 4.1 (200m Buffer) *20*

Industries, businesses and activities that may cause contamination 20

4.2 HISTORICAL BUSINESS DIRECTORIES (not mapped) *22*

5.1 Fire Hazard Map 5.1 (500m Buffer) *30*
Bushfire Prone Areas 30
Bushfire History 30

5.2 Flood Hazard Map 5.2 (500m Buffer) *31*
Flood Planning Area 31
Other Flood Studies 31
Flood History 31

5.3 Erosion Hazard Map 5.3 (500m Buffer) *32*
Erosion Hazard 32

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



Section 1 Property Setting

1.1 SENSITIVE RECEPTORS

Map 1.1 (200m Buffer)

Sensitive receptor	Type	Distance (m)	Direction
ROBINS CREEK	Watercourse	0.0	Onsite
Watercourse	Water body	0.0	Onsite
Farm Dam Area	Water body	0.0	Onsite
MULLET CREEK	Watercourse	1.3	South-west
Reed Park	Parks	48.5	South
Karrara Park	Parks	139.7	West

1.2a PLANNING CONTROLS

Map 1.2a (500m Buffer)

Zoning

Zoning	Type	Details	Distance (m)	Direction
C3	Environmental Management	Wollongong Local Environmental Plan 2009	0.0	Onsite
RE2	Private Recreation	Wollongong Local Environmental Plan 2009	0.0	Onsite
R2	Low Density Residential	Wollongong Local Environmental Plan 2009	0.0	Onsite
SP2	Infrastructure	Wollongong Local Environmental Plan 2009	0.2	North
RE1	Public Recreation	Wollongong Local Environmental Plan 2009	0.4	West
E4	General Industrial	Wollongong Local Environmental Plan 2009	27.7	East
RU2	Rural Landscape	Wollongong Local Environmental Plan 2009	57.0	South-east

Zoning	Type	Details	Distance (m)	Direction
C2	Environmental Conservation	Wollongong Local Environmental Plan 2009	142.6	North
E1	Local Centre	Wollongong Local Environmental Plan 2009	210.7	South-east
R3	Medium Density Residential	Wollongong Local Environmental Plan 2009	247.2	East
E2	Commercial Centre	Wollongong Local Environmental Plan 2009	317.7	South-east
E3	Productivity Support	Wollongong Local Environmental Plan 2009	358.8	East
MU1	Mixed Use	Wollongong Local Environmental Plan 2009	457.5	East

1.2b PLANNING OVERLAYS

Map 1.2b (500m Buffer)

Environmental Planning Instruments

Name	Type	Details	Distance (m)	Direction
Buffer Area	Coal Seam Gas Exclusions	State Environmental Planning Policy (Resources and Energy) 2021	0.0	Onsite
Land Application	SEPP Land Application	State Environmental Planning Policy (Resilience and Hazards) 2021	0.0	Onsite
Land Application	SEPP Land Application	State Environmental Planning Policy (Resources and Energy) 2021	0.0	Onsite
Land Application	SEPP Land Application	State Environmental Planning Policy (Transport and Infrastructure) 2021	0.0	Onsite
Land Application	SEPP Land Application	State Environmental Planning Policy (Biodiversity and Conservation) 2021	0.0	Onsite
Land Application	SEPP Land Application	State Environmental Planning Policy No 65—Design Quality of Residential Apartment Development	0.0	Onsite
Included	Land Application	Wollongong Local Environmental Plan 2009	0.0	Onsite
9-9.9	Maximum Building Height (m)	Wollongong Local Environmental Plan 2009	0.0	Onsite
0.5-0.54	Maximum Floor Space Ratio (n:1)	Wollongong Local Environmental Plan 2009	0.0	Onsite
Class 4	Acid Sulfate Soils	Wollongong Local Environmental Plan 2009	0.0	Onsite
Urban Release Area	Urban Release Area	Wollongong Local Environmental Plan 2009	0.0	Onsite
Land Application	SEPP Land Application	State Environmental Planning Policy (Exempt and Complying Development Codes) 2008	0.0	Onsite
Class 5	Acid Sulfate Soils	Wollongong Local Environmental Plan 2009	0.0	Onsite
Riparian Land	Riparian Land	Wollongong Local Environmental Plan 2009	0.0	Onsite
40%	Minimum Water Use Standard (%)	State Environmental Planning Policy (Sustainable Buildings) 2022	0.0	Onsite
Land Application	SEPP Land Application	State Environmental Planning Policy (Industry and Employment) 2021	0.0	Onsite
Land Application	SEPP Land Application	State Environmental Planning Policy (Planning Systems) 2021	0.0	Onsite
Future Residential Growth Area	Coal Seam Gas Exclusions	State Environmental Planning Policy (Resources and Energy) 2021	0.0	Onsite
10-49.9	Minimum Lot Size (sq m)	Wollongong Local Environmental Plan 2009	0.0	Onsite

Name	Type	Details	Distance (m)	Direction
400-449	Minimum Lot Size (sq m)	Wollongong Local Environmental Plan 2009	0.0	Onsite
Land Within a Residential Zone	Coal Seam Gas Exclusions	State Environmental Planning Policy (Resources and Energy) 2021	0.0	Onsite
Land Within a Residential Zone, Future Residential Growth Area	Coal Seam Gas Exclusions	State Environmental Planning Policy (Resources and Energy) 2021	0.0	Onsite
Land Application	SEPP Land Application	State Environmental Planning Policy (Primary Production) 2021	0.0	Onsite
Allowable Clearing Area	Allowable Clearing	State Environmental Planning Policy (Biodiversity and Conservation) 2021	0.0	Onsite
Land Application	SEPP Land Application	State Environmental Planning Policy (Housing) 2021	0.0	Onsite
Subject Land	SEPP Land Application	State Environmental Planning Policy (Biodiversity and Conservation) 2021	0.0	Onsite
Future Residential Growth Area	Future Residential Growth Area	State Environmental Planning Policy (Resources and Energy) 2021	0.0	Onsite
Land Application	SEPP Land Application	State Environmental Planning Policy (Sustainable Buildings) 2022	0.0	Onsite
Flood Planning Area	Flood Prone Land	Wollongong Local Environmental Plan 2009	0.0	Onsite
Greenfield Housing Code Area	Greenfield Housing Code Area	State Environmental Planning Policy (Exempt and Complying Development Codes) 2008	1.2	South-west
Natural resource sensitivity - biodiversity	Natural resource sensitivity - biodiversity	Wollongong Local Environmental Plan 2009	10.8	West
900-999	Minimum Lot Size (sq m)	Wollongong Local Environmental Plan 2009	27.5	East
5-9.9	Minimum Lot Size (sq m)	Wollongong Local Environmental Plan 2009	57.4	South-east
Subject Land	SEPP Land Application	State Environmental Planning Policy (Resilience and Hazards) 2021	83.3	West
2-4.9	Minimum Lot Size (sq m)	Wollongong Local Environmental Plan 2009	99.4	South-east
250-299	Minimum Lot Size (sq m)	Wollongong Local Environmental Plan 2009	119.9	North
Local Open Space (E2)	Public Recreation	Wollongong Local Environmental Plan 2009	141.2	North
Item - General	Heritage	Wollongong Local Environmental Plan 2009	168.2	West
19-20.9	Maximum Building Height (m)	Wollongong Local Environmental Plan 2009	210.9	South-east
2.5-2.99	Maximum Floor Space Ratio (n:1)	Wollongong Local Environmental Plan 2009	210.9	South-east
Refer to Schedule 1	Additional Permitted Uses	Wollongong Local Environmental Plan 2009	210.9	South-east
11-11.9	Maximum Building Height (m)	Wollongong Local Environmental Plan 2009	246.8	East
1.2-1.29	Maximum Floor Space Ratio (n:1)	Wollongong Local Environmental Plan 2009	247.0	East
Local Road (SP2)	Infrastructure	Wollongong Local Environmental Plan 2009	264.2	East
30-34.9	Maximum Building Height (m)	Wollongong Local Environmental Plan 2009	318.4	South-east
Local Road (E3)	Local Road	Wollongong Local Environmental Plan 2009	319.2	North-east
Local Road (RU2)	Infrastructure	Wollongong Local Environmental Plan 2009	319.4	North-east

Name	Type	Details	Distance (m)	Direction
Local Road (R2)	Local Road	Wollongong Local Environmental Plan 2009	330.8	North
Local Road (IN2)	Local Road	Wollongong Local Environmental Plan 2009	351.7	North
Local Road (RE1)	Infrastructure	Wollongong Local Environmental Plan 2009	356.6	North
Class 3	Acid Sulfate Soils	Wollongong Local Environmental Plan 2009	360.3	North-east
Item - Landscape	Heritage	Wollongong Local Environmental Plan 2009	425.6	South-east
0.75-0.79	Maximum Floor Space Ratio (n:1)	Wollongong Local Environmental Plan 2009	425.7	North
13-14.9	Maximum Building Height (m)	Wollongong Local Environmental Plan 2009	425.7	North
Local Road (R3)	Local Road	Wollongong Local Environmental Plan 2009	452.1	North
2-2.49	Maximum Floor Space Ratio (n:1)	Wollongong Local Environmental Plan 2009	457.6	East

Other Planning Information

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

1.3 HERITAGE

Map 1.3 (200m Buffer)

State and Local Heritage Registers

Site ID	Site Name	Type	Details	Distance (m)	Direction
61018	"Reed Park" entrance gates (former)	Heritage Register	Item - General	167.9	West
6435	Dapto Railway Station	Heritage Register	Item - General	172.9	South-east

Australian Heritage Database Register

Site ID	Site Name	Type	Details	Distance (m)	Direction
106369	Sydney Cultural Crescent Rock Art	National Heritage List	Indigenous	0.0	Onsite

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

1.4a SOIL AND LAND USE INFORMATION

Map 1.4a (500m Buffer)

Soil Landscape

Code	Name	Soil Group	Description	Distance (m)	Direction
SWfa	Fairy Meadow	Swamp	Landscape—alluvial plains, floodplains, valleyflatsandterracesbelowthe Illawarra Escarpment. Relief <10 m. Slopes <5%. Almost completely cleared low open-forest and woodland. Soils—moderately deep (50–100 cm) Alluvial Loams (Um5.2) and Siliceous Sands (Uc1.21, Uc5.11) on terraces. Prairie Soils (Gn4.31) and Yellow Podzolic Soils (Dy5.41) occur on the drainage plains. Limitations—flood hazard, low wet bearing strength, highly permeable topsoils, high watertables.	0.0	Onsite
REgw	Gwynneville	Residual	Landscape—undulating to steep hills on Illawarra Coal Measures and Dapto Latite Member on the Coastal Plain. Local relief 10–70 m. Slopes 3–25%. Broad to narrow (250–850 m) rounded ridges and gently to steeply inclined slopes. Structural benches and occasional rock outcrop. Extensively cleared tall open-forest and open-forest. Soils—shallow (50–100 cm) Brown Podzolic Soils (Db3.11) and Xanthozems (Gn4.34) on upper slopes, Lithosols (Um1.43, Uc1.23) on simple slopes and shallow (<50 cm) Brown Earths (Uf6.13) on midslopes and lower slopes. Limitations—Extreme erosion hazard, steep slopes, mass movement hazard, local flooding. Reactive impermeable and low wet bearing strength clay subsoils.	382.1	South-east

Salinity

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

Radon

Radon Level (Bq/m³)	Distance (m)	Direction
7	0.0	Onsite

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

1.4b ACID SULFATE SOIL

Map 1.4b (500m Buffer)

State and Local Acid Sulfate Soil Registers

Name	Classification	Description	Distance (m)	Direction
Acid Sulfate Soils	Class 4	Class 4: Acid sulfate soils in a class 4 area are likely to be found beyond 2 metres below the natural ground surface. | Development consent requirement: Works more than 2 metres below the natural ground surface. Works by which the watertable is likely to be lowered more than 2 metres below the natural ground surface.	0.0	Onsite
Acid Sulfate Soils	Class 5	Class 5: Acid sulfate soils are not typically found in Class 5 areas. Areas classified as Class 5 are located within 500 metres on adjacent class 1,2,3 or 4 land. | Development consent requirement: Works within 500 metres of adjacent Class 1, 2a, 2b, 3 or 4 land that is below 5 metres Australian Height Datum and by which the watertable is likely to be lowered below 1 metre Australian Height Datum on adjacent Class 1, 2a, 2b, 3 or 4 land.	0.0	Onsite
Acid Sulfate Soils	Class 3	Class 3: Acid sulfate soils in a class 3 area are likely to be found beyond 1 metre below the natural ground surface. | Development consent requirement: Works more than 1 metre below the natural ground surface. Works by which the watertable is likely to be lowered more than 1 metre below the natural ground surface.	361.4	North-east

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

National Acid Sulfate Soil Register

Name	Classification	Description	Distance (m)	Direction
Atlas of Australian Acid Sulfate Soils	Low Probability of occurrence	Acid sulfate soil (subaqueous materials) generally below 3m from the surface.	0.0	Onsite
Atlas of Australian Acid Sulfate Soils	Low Probability of occurrence	Acid sulfate soil generally within upper 1m in wet / riparian areas.	0.0	Onsite
Atlas of Australian Acid Sulfate Soils	Extremely low probability of occurrence	Unclassified	0.0	Onsite
Atlas of Australian Acid Sulfate Soils	Low Probability of occurrence	Acid sulfate soil generally below 1m from the surface.	361.4	North-east
Atlas of Australian Acid Sulfate Soils	Low Probability of occurrence	Disturbed acid sulfate soil terrain	467.0	East

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

1.5 GEOLOGY AND TOPOGRAPHY

Map 1.5 (500m Buffer)

Geology

Map Sheet	Code	Formation	Age	Group	Dominant Lithology	Description	Distance (m)	Direction
Bowman 1971 - Map 1 to 21	QH_af	Alluvial floodplain deposits	Holocene (base) to Now (top)	Alluvium	Clastic sediment	Silt, very fine- to medium-grained lithic to quartz-rich sand, clay.	0.0	Onsite
Newcastle to Wollongong Coastal Quaternary Mapping	QH_af	Alluvial floodplain deposits	Holocene (base) to Now (top)	Alluvium	Clastic sediment	Silt, very fine- to medium-grained lithic to quartz-rich sand, clay.	0.0	Onsite
Newcastle to Wollongong Coastal Quaternary Mapping	Q_at	Alluvial terrace deposits	Quaternary (base) to Now (top)	Alluvium	Clastic sediment	Silt, clay, (fluvially-deposited) fine- to medium-grained quartz-lithic sand, polymictic gravel.	0.0	Onsite
Bowman 1971 - Map 1 to 21	Q_at	Alluvial terrace deposits	Quaternary (base) to Now (top)	Alluvium	Clastic sediment	Silt, clay, (fluvially-deposited) fine- to medium-grained quartz-lithic sand, polymictic gravel.	0.0	Onsite
Newcastle to Wollongong Coastal Quaternary Mapping	Q_af	Alluvial floodplain deposits	Quaternary (base) to Now (top)	Alluvium	Clastic sediment	Silt, very fine- to medium-grained lithic to quartz-rich sand, clay.	0.0	Onsite
Bowman 1971 - Map 1 to 21	Q_af	Alluvial floodplain deposits	Quaternary (base) to Now (top)	Alluvium	Clastic sediment	Silt, very fine- to medium-grained lithic to quartz-rich sand, clay.	0.0	Onsite
Newcastle to Wollongong Coastal Quaternary Mapping	Pshr	Broughton Formation	Capitanian (base) to Wuchiapingian (top)	Shoalhaven Group	Sandstone	Red-brown or green-grey, lithic to feldspathic sandstone (sporadically quartzose) with minor interbedded siltstone and polymictic pebble conglomerate, sporadic shelly fossils, varying degrees of bioturbation.	74.5	East
Bowman 1971 - Map 1 to 21	Pshr	Broughton Formation	Capitanian (base) to Wuchiapingian (top)	Shoalhaven Group	Sandstone	Red-brown or green-grey, lithic to feldspathic sandstone (sporadically quartzose) with minor interbedded siltstone and polymictic pebble conglomerate, sporadic shelly fossils, varying degrees of bioturbation.	74.5	East

Map Sheet	Code	Formation	Age	Group	Dominant Lithology	Description	Distance (m)	Direction
Newcastle to Wollongong Coastal Quaternary Mapping	P__ge	Gerringong Volcanics	Lopingian (base) to Lopingian (top)	Null	Latite	Grey, variably aphanitic to porphyritic with plagioclase laths, pyroxene phenocrysts to 5 mm, sporadic spherical white ?phenocrysts (?zeolite-filled vesicles), weakly developed columnar jointing.	117.4	North
Bowman 1971 - Map 1 to 21	P__ge	Gerringong Volcanics	Lopingian (base) to Lopingian (top)	Null	Latite	Grey, variably aphanitic to porphyritic with plagioclase laths, pyroxene phenocrysts to 5 mm, sporadic spherical white ?phenocrysts (?zeolite-filled vesicles), weakly developed columnar jointing.	117.4	North
Bowman 1971 - Map 1 to 21	QP_at	Alluvial terrace deposits	Quaternary (base) to Now (top)	Alluvium	Clastic sediment	Silt, clay, (fluvially-deposited) fine- to medium-grained quartz-lithic sand, polymictic gravel.	342.2	South-west
Newcastle to Wollongong Coastal Quaternary Mapping	QP_at	Alluvial terrace deposits	Quaternary (base) to Now (top)	Alluvium	Clastic sediment	Silt, clay, (fluvially-deposited) fine- to medium-grained quartz-lithic sand, polymictic gravel.	342.2	South-west

Naturally Occurring Asbestos Potential (NOA)

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

Topography

Topography (Onsite)	6 - 8 mAHD



Section 2 Hydrogeology and Geotechnical

2.1 GDE & HYDROGEOLOGY CONSTRAINTS

Map 2.1 (2000m Buffer)

Aquifer Type

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

Groundwater Protection Areas

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

Wetlands

Name	Description	Distance (m)	Direction
Dam	Dam	1638.6	North-west

Groundwater Dependent Ecosystems (GDE) - Aquatic (Surface)

Potential	Distance (m)	Direction
Not identified	-	-

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

Groundwater Dependent Ecosystems (GDE) - Terrestrial (Subsurface)

Potential	Distance (m)	Direction
High potential GDE - from regional studies	50.4	North-west
Moderate potential GDE - from regional studies	103.7	North
Low potential GDE - from regional studies	980.8	North

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

Groundwater Licences (Western Australia)

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

Groundwater Bores

Map ID	Groundwater Bore ID	Authorised Purpose	Completion Date	Drilled Depth (m)	Final Depth (m)	SWL (m)	Salinity (mg/l)	Yield (L/s)	Distance (m)	Direction
18	GW114710	Monitoring	09/11/2011	0.0	3.5	Null	Null	Null	231.9	East
19	GW114711	Monitoring	09/11/2011	0.0	3.5	Null	Null	Null	240.0	East
21	GW114713	Monitoring	09/11/2011	0.0	3.5	Null	Null	Null	270.6	East
20	GW114712	Monitoring	09/11/2011	0.0	3.5	Null	Null	Null	271.0	East
22	GW114714	Monitoring	09/11/2011	0.0	3.5	Null	Null	Null	291.5	South
14	GW110693	Monitoring	16/07/2009	12.0	12.0	6.0	Null	Null	701.3	South
11	GW110694	Monitoring	16/07/2009	20.0	20.0	18.0	Null	Null	702.4	South
12	GW110695	Monitoring	16/07/2009	10.0	10.0	5.0	Null	Null	717.2	South
13	GW110696	Monitoring	15/07/2009	11.0	11.0	7.0	Null	Null	733.2	South
9	GW107654	Recreation	09/02/2005	54.0	54.0	6.0	Fresh	0.1	796.9	South
8	GW013668	Water supply	01/01/1946	57.9	57.9	Null	Null	Null	874.7	West
5	GW028786	Water supply for livestock	01/05/1968	55.8	55.7	12.1	Null	9.1	945.9	North-west
10	GW108326	Recreation	01/01/2005	54.0	54.0	1.0	Brackish	4.4	999.2	East
1	GW013626	Water supply	01/08/1958	57.9	57.9	24.3	invalid code	0.8	1076.4	West
6	GW010779	Water supply	01/05/1954	30.5	30.4	9.7	3001-7000 ppm	0.5	1156.2	North
4	GW063653	Exploration or research	01/09/1988	20.5	20.5	Null	Null	0.8	1780.5	West
2	GW063653	Exploration or research	01/09/1988	20.5	20.5	Null	Null	0.8	1780.5	West
15	GW011918	Water supply	01/01/1952	Null	17.3	Null	Null	Null	1863.2	South-west
17	GW113734	Monitoring	21/07/2011	0.0	10.2	Null	Null	Null	1934.4	North
16	GW113733	Monitoring	25/07/2011	0.0	21.5	Null	Null	Null	1935.3	North

Map ID	Groundwater Bore ID	Authorised Purpose	Completion Date	Drilled Depth (m)	Final Depth (m)	SWL (m)	Salinity (mg/l)	Yield (L/s)	Distance (m)	Direction
3	GW063647	Exploration or research	01/05/1988	15.5	15.5	Null	Null	0.4	1949.6	West
7	GW063647	Exploration or research	01/05/1988	15.5	15.5	Null	Null	0.4	1949.6	West

Note: The use of the symbol "-" or "Null" indicates that no records were found.
SWL: Standing Water Level, the latest record is displayed. RWL: Rest Water Level, the latest record is displayed. TSS: Total Soluble Salts.

Groundwater Bores Driller Lithology Details

Groundwater Bore ID	From Depth – To Depth (m) Lithology	Distance (m)	Direction
GW114710	Null	231.9	East
GW114711	Null	240.0	East
GW114713	Null	270.6	East
GW114712	Null	271.0	East
GW114714	Null	291.5	South
GW110693	0m-0.2m Concrete 0.2m-1m Fill 1m-8m Sandstone yellow 8m-10.5m Sandstone grey brown 10.5m-12m Shale weathered grey	701.3	South
GW110694	0m-0.2m Concrete 0.2m-1m Fill 1m-13.5m Sandstone yellow 13.5m-18m Sandstone brown/grey 18m-20m Shale grey weathered	702.4	South
GW110695	0m-0.18m Concrete 0.18m-1m Fill 1m-7m Sandstone yellow 7m-9m Sandstone grey 9m-10m Shale weathered grey	717.2	South
GW110696	0m-0.17m Concrete 0.17m-1m Fill 1m-7m Yellow sandstone 7m-10m Grey dadrk brown sandstone 10m-11m Shale, weathered grey	733.2	South
GW107654	0m-1m Topsoil 1m-10m Landfill 10m-12.5m Grey clay 12.5m-26m Grey sandstone/shale bands 26m-38m Blue shale 38m-54m Grey sandstone	796.9	South
GW013668	0m-2.43m Clay yellow 2.43m-5.48m Shale sandy 5.48m-52.42m Rock volcanic 52.42m-57.91m Rock volcanic 52.42m-57.91m Shale	874.7	West
GW028786	0m-0.3m Made ground 0.3m-20.11m Clay gravel mixed 20.11m-30.17m Rock green basaltic water supply 30.17m-40.23m Basalt 40.23m-55.77m Sandstone grey water supply	945.9	North-west
GW108326	0m-0.2m Topsoil 0.2m-3m Sandy clay 3m-8m Puggy clay 8m-16m Coarse gravel 16m-30m Granite 30m-42m Blue shale 42m-54m Grey sandstone	999.2	East
GW013626	0m-2.43m Clay yellow 2.43m-5.48m Shale sandy 5.48m-44.5m Rock volcanic 44.5m-44.59m Quartz 44.59m-52.42m Rock volcanic	1076.4	West

Groundwater Bore ID	From Depth – To Depth (m) Lithology	Distance (m)	Direction
	52.42m-53.64m Shale water supply 53.64m-57.91m Shale rock volcanic		
GW010779	0m-10.06m Clay 10.06m-12.8m Rock decomposed water supply 12.8m-30.48m Sandstone marine water supply	1156.2	North
GW063653	0m-2.7m Clay black orange grey sandy plastic 0m-2.7m Sand fine 2.7m-8.5m Clay grey very plastic water supply 2.7m-8.5m Sand gravel 8.5m-9.5m Sand fine-medium some coarse gravel 9.5m-10.5m Sandstone fine slightly weathered 10.5m-14.5m Sandstone grey fine water supply 14.5m-20.5m Gravel red conglomeratic matrix 14.5m-20.5m Sandstone	1780.5	West
GW011918	Null	1863.2	South-west
GW113734	Null	1934.4	North
GW113733	Null	1935.3	North
GW063647	0m-1.5m Clay light brown silty sandy 1.5m-15.5m Sandstone grey fine some weathered water supply	1949.6	West

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

2.2 GROUNDWATER AND OTHER BORES

Map 2.2 (2000m Buffer)

Groundwater Restricted Use Zones

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

Groundwater Salinity

Class	Salinity Value	Source	Distance (m)	Direction
No Data	No Data	Sinclair Knight Merz	0.0	Onsite

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

Borehole ID	Purpose	Project	Client/ License	Date Drilled	Depth (m)	Distance (m)	Direction
GT0000741	Intrusive Investigation	A collection of NSW geotechnical reports as part of the NSW Government Geotechnical Report Database Project (GGRD).	Trenching, Soil Sample Analysis located at Dapto Police Station Foundation Investigation	01/01/1982	0.0	874.7	South-east
GT0001311	Intrusive Investigation	A collection of NSW geotechnical reports as part of the NSW Government Geotechnical Report Database Project (GGRD).	Review existing documentation, Site Inspection located at Horsley Primary School	01/01/2002	0.0	1171.0	West
GT0001310	Intrusive Investigation	A collection of NSW geotechnical reports as part of the NSW Government Geotechnical Report Database Project (GGRD).	Review existing documentation located at Horsley Primary School	01/01/1998	0.0	1171.2	West

Borehole ID	Purpose	Project	Client/ License	Date Drilled	Depth (m)	Distance (m)	Direction
GT0001451	Intrusive Investigation	A collection of NSW geotechnical reports as part of the NSW Government Geotechnical Report Database Project (GGRD).	Drilling, Standard Penetration Test (SPT) located at Kanahooka High School	01/01/2007	0.0	1299.8	South-east

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



Section 3 Environmental Registers, Licences and Incidents

3.1 CONTAMINATED LAND PUBLIC REGISTER

Map 3.1 (1000m Buffer)

Contaminated Sites

Register Type	Site Name	Address	Description	Details	Distance (m)	Direction
Sites Notified as Contaminated	RailCorp Dapto	(Rear of property) 12-14 Hamilton STREET DAPTO	Other Industry	Regulation under CLM Act not required	218.6	East
Sites Notified as Contaminated	7-Eleven Dapto	125 Princes HIGHWAY, DAPTO	Service Station	Regulation under CLM Act not required	693.5	South
Sites Notified as Contaminated	Caltex Service Station	342 Kanahooka ROAD BROWNSVILLE	Service Station	Regulation under CLM Act not required	946.0	East

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

Table 3.1.1 Contaminated Land Public Register		
State	**Regulatory Body**	**Information included in this search (by state)**
ACT	EPA (Environment Protection Authority)	Contaminated Land Search Register of Contaminated Sites * (on request)
NSW	EPA (Environment Protection Authority)	Sites Notified as Contaminated Records of Notices
NT	EPA (Environment Protection Authority)	Contaminated Land Audit Pollution Abatement Notice
QLD	DES (Department of Environment and Science)	Contaminated Land Search (Environmental Management and Contaminated Land Registers) * (per lot)
SA	EPA (Environment Protection Authority)	Site Contamination Index

Table 3.1.1 Contaminated Land Public Register		
		Assessment Areas
TAS	EPA (Environment Protection Authority)	Regulated Sites and Premises Lutana and Parts of Hobarts Eastern Shore
VIC	EPA (Environment Protection Authority)	Priority Sites Register Pollution Abatement Notice
WA	DWER (Department of Water and Environmental Regulation)	Contaminated Sites Database

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

3.2 LICENCES, APPROVALS & ASSESSMENTS

Map 3.2 (1000m Buffer)

Licences

Licence N°	Type	Licence holder	Location Name	Premise Address	Activity	Dist. (m)*	Direct
700	Delicensed	SOUTH COAST EQUIPMENT PTY LTD	SCE PREMIX - Dapto Plant	32 MARSHALL STREET, DAPTO NSW	Concrete works	480.3	South
2575	Surrendered	WOLLONGONG COAL LIMITED	NRE WONGAWILLI WASTE EMPLACEMENT	Jersey Farm Road, WONGAWILLI, NSW, 2530	Coal Washery Reject or Slag Landfilling	Not mapped	Not mapped
2575	Surrendered	WOLLONGONG COAL LIMITED	NRE WONGAWILLI WASTE EMPLACEMENT	Jersey Farm Road, WONGAWILLI, NSW, 2530	Miscellaneous licensed discharge to waters (at any time)	Not mapped	Not mapped
2575	Surrendered	WOLLONGONG COAL LIMITED	NRE WONGAWILLI WASTE EMPLACEMENT	Jersey Farm Road, WONGAWILLI, NSW, 2530	Coal Washery Reject or Slag Landfilling	Not mapped	Not mapped
13271	Surrendered	ROADS AND MARITIME SERVICES	ROADS AND MARITIME SERVICES	ROADS AND MARITIME SERVICES	Non-thermal treatment of general waste Waste storage - other types of waste	Not mapped	Not mapped

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

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

Audits, PRSA

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

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

Clean Up, Penalty Notices and Orders

N°	Type	Licence holder	Location Name	Premise Address	Details	Dist. (m)*	Direction
1562308	Clean Up Notice	WOLLONGONG RECYCLING (NSW) PTY LTD	<Null>	200 Princes Highway,	s.91 Clean Up Notice	707.6	South

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

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

3.3a SITES REGULATED BY OTHER JURISDICTIONAL BODY

Map 3.3a (2000m Buffer)

Contaminated Legacy Areas

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

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

Defence, Military Sites and UXO Areas

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

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

Former Gasworks Sites

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

PFAS Sites

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

3.3b OTHER POTENTIAL HAZARD SOURCES

Map 3.3b (500m Buffer)

Mines and Quarries (current and historical)

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

Landfills (current and historical)

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

National Pollutant Inventory (NPI)

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



Section 4 Potentially Contaminated Areas

4.1 POTENTIALLY CONTAMINATING ACTIVITIES

Map 4.1 (200m Buffer)

Industries, businesses and activities that may cause contamination

Map ID	Site name	Category	Description	Address	Status*	Dist. (m)*	Direction
4	Dapto Move and Store	Depots and Storage Yards	Furniture Storage & Removals	31B Hamilton St, Dapto NSW 2530	Current	20.3	East
6	Evershine Car Detailing	Mechanical and Automotive	Car Wreckers - Used/Recycled Parts	20 Hamilton St, Dapto NSW 2530	Current	68.6	North-east
10	Equine Supreme Accessories	Depots and Storage Yards	Saddlers & Riding Supplies	15 Hamilton St, Dapto NSW 2530	Current	87.7	North-east
3	KRS Design	Manufacturing and Industrial Facilities	Electronic Equipment - M/Factrs &/Or W/Salers	38 Hamilton St, Dapto NSW 2530	Current	97.1	South-east
7	HSR Accident Repairs	Mechanical and Automotive	Panel Beaters & Automotive Painting	30 Hamilton St, Dapto NSW 2530	Current	104.5	East
1	Iron Ladies	Dry Cleaners	Ironing Services	22 Hamilton St DAPTO2530NSW	Current	122.1	East
5	Bruce Budden's Automotive	Mechanical and Automotive	Brake & Clutch Services Including Mobile	9 Hamilton St DAPTO2530NSW	Current	134.6	East
9	Innovative Handrails & Gates	Manufacturing and Industrial Facilities	Balustrades Timber & Metal	18 Hamilton St, Dapto NSW 2530	Current	140.7	East
8	Mountain Range Nursery	Agricultural Industries	Nurseries - wholesale	29 Darkes Rd, Dapto NSW 2530	Current	144.4	East
2	Col's Glass Service	Manufacturing and Industrial Facilities	Shower Screens Supply & Installation	14 Hamilton St, Dapto NSW 2530	Current	162.7	East

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

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

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

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

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

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

4.2 HISTORICAL BUSINESS DIRECTORIES

(not mapped)

YEAR	Activity	Name	Address	Positional accuracy	Distance (m)	Direction
2015	Bathroom Accessories & Equipment - M/Factrs & W/Salers	B. & J. Vending	3 Moranga Ct Dapto NSW 2530	Address	50.7	South-east
2015	Transport & Transportation Service	Dapto Community Transport Project	93-105 Princes Hwy Dapto NSW 2530	Address	50.7	South-east
1990	Transport Services	McLaughlin Colin Transport	29 Hamilton,Dapto,NSW	Address	57.0	South-east
2005	Carriers--Heavy	Colmac Transport	29 Hamilton St,DAPTO,NSW,2530	Address	57.0	South-east
1970	Carriers - Light	Boys E N	25 Hamilton Street,Wollongong,NSW	Address	58.1	East
1990	Smallgoods Mfrs &/or Wholesalers	Link Continental Smallgoods	23 Hamilton,Dapto,NSW	Address	66.4	East
2005	Smallgoods W'salers & Mfrs	Link Continental Smallgoods	23 Hamilton St,DAPTO,NSW,2530	Address	66.4	East
1990	Panel Beaters &/or Painters	Goodwin Spray Painting	21 Hamilton,Dapto,NSW	Address	77.3	East
2005	Detectors--Electronic; Electrical Contractors	Gary Laneyrie Electrical Contractors	21 Hamilton St,DAPTO,NSW,2530	Address	77.3	East
1990	Steel Fabricators &/or Mfrs	Mile Engineering Co	19 Hamilton,Dapto,NSW	Address	89.5	East
2010	Steel Fabrication & M/factrs	Jss Fabrications (Nsw) Pty Ltd	19 Hamilton St DAPTO 2530 NSW	Address	89.5	East
1990	Engravers & Die Sinkers	Jimani Trophies & Engraving	17 Hamilton,Dapto,NSW	Address	104.5	East
2005	Pet Foods & Supplies; Saddlers & Riding Outfitters	Equine Supreme Accessories	17 Hamilton St,DAPTO,NSW,2530	Address	104.5	East
2015	Electronic Parts Assembly	KRS Design Australia	38 Hamilton St Dapto NSW 2530	Address	114.6	South-east
2015	Electronic Equipment - M/Factrs &/Or W/Salers	KRS Design	38 Hamilton St Dapto NSW 2530	Address	114.6	South-east
2005	Electronic Engineers; Electronic Parts Assembly Services	KRS Design Australia	38 Hamilton St,DAPTO,NSW,2530	Address	115.4	South-east
2005	Electronic Equipment--W'salers & Mfrs	KRS Design	38 Hamilton St,DAPTO,NSW,2530	Address	115.4	South-east
2010	Electrical Appliances & Products - M/factrs & W/salers	Bryring Pty Ltd	38 Hamilton St DAPTO 2530 NSW	Address	115.4	South-east
1990	Curtains-Mfrs &/or W'salers	Byron G J Agencies	36 Hamilton,Dapto,NSW	Address	116.9	East
2005	Smallgoods W'salers & Mfrs	M.D. & Son Smallgoods	36 Hamilton St,DAPTO,NSW,2530	Address	116.9	East

YEAR	Activity	Name	Address	Positional accuracy	Distance (m)	Direction
2015	Panel Beaters & Automotive Painting	HSR Accident Repairs	30 Hamilton St Dapto NSW 2530	Address	119.3	East
2010	Saddlers & Riding Supplies	Equine Supreme Accessories	15 Hamilton St DAPTO 2530 NSW	Address	120.8	North-east
2015	Saddlers & Riding Supplies	Equine Supreme Accessories	15 Hamilton St Dapto NSW 2530	Address	120.8	North-east
1990	Fork Lift Trucks	Listemore Pty. Ltd.	44 Hamilton Street,DApto,NSW	Address	120.9	South-east
1990	Materials Handling Equipment	Litemore Pty. Ltd.	44 Hamilton,Dapto,NSW	Address	120.9	South-east
2015	Furniture Storage & Removals	Southern City Storage	44 Hamilton St Dapto NSW 2530	Address	120.9	South-east
1990	Joinery	Steve's Joinery dapto	30 Hamilton,Dapto,NSW	Address	124.5	East
2005	Cabinet Makers; Kitchens, Renovations & Equipment	JKM Kitchens & Cabinets	30 Hamilton St,DAPTO,NSW,2530	Address	124.5	East
2010	Panel Beaters & Automotive Painting	Hsr Accident Repairs	30 Hamilton St DAPTO 2530 NSW	Address	124.5	East
2010	Balustrades Timber & Metal	Innovative Handrails & Gates	1/18 Hamilton St DAPTO 2530 NSW	Address	128.7	South-east
1990	Building Contractors	Frank Jerez	57 Bong Bong Road,Dapto,NSW	Address	129.2	South
1990	Building Contractors	Jerez F	57 Bong Bong Road,Dapto,NSW	Address	129.2	South
1990	Concrete Contractors	Illawarra Formwork	57 Bong Bong Road,Dapto,NSW	Address	129.2	South
1990	Staircases & Handrails	Koala Stairs	24 Bong Bong Road,Dapto,NSW	Address	131.5	South-east
1990	Steel Fabricators &/or Mfrs	Zooneveld A H	24 Bong Bong Road,Dapto,NSW	Address	131.5	South-east
1990	Gates &/or Fencing Materials	Koala Stairs	24 Bong Bong Road,Dapto,NSW	Address	131.5	South-east
2005	Staircases & Handrails; Gates	Koala Stairs	24 Bong Bong Rd,DAPTO,NSW,2530	Address	131.5	South-east
2005	Wrought Iron	Zonneveld A H	24 Bong Bong Rd,DAPTO,NSW,2530	Address	131.5	South-east
1990	Bathroom Renovations	Bond Geoff	111 Taft Avenue,Dapto,NSW	Address	132.2	South-east
1990	Electrical Contractors	Ringk John	65 Britana Avenue,Dapto,NSW	Address	132.2	South-east
1990	Photographers-General	Tapneil Tim	10 Rawson,Dapto,NSW	Address	132.2	South-east
1990	Plumbers & Gasfitters	Farrell R V	29 East Avenue,Dapto,NSW	Address	132.2	South-east
1990	Tile Layers - Wall & Floor	Bond Geoff	111 Taft Avenue,Dapto,NSW	Address	132.2	South-east
1990	Barbecues &/or Barbecues Equipment	Mountford J & D Installations	15 Boward Court,Dapto,NSW	Address	132.2	South-east
1990	Building Contractors	Shirron Homes	28 Jerramanta,Dapto,NSW	Address	132.2	South-east
1990	Building Contractors-	Design-A- Build	30 Pin,Dapto,NSW	Address	132.2	South-east

YEAR	Activity	Name	Address	Positional accuracy	Distance (m)	Direction
	Alterations & Repairs					
2005	Crane Hire	Neitner Bros	Lot 11 Hamilton St,DAPTO,NSW,2530	Address	138.0	North-east
2005	Crane Hire	Nietner Bros	Lot 11 Hamilton St,DAPTO,NSW,2530	Address	138.0	North-east
1990	Cabinet Makers	Rosewood Kitchens & Joinery	2 Burringbah,Dapto,NSW	Address	150.7	South
1990	Motor Engineers & Repairers	Dapto Carburettor Service	2 Burringbar,Dapto,NSW	Address	150.7	South
1990	Kitchen Renovations &/or Equipment	Rosewood Kitchens & Joinery	2 Burringbar Street,Dapto,NSW	Address	150.7	South
1990	Fuel Injection Equipment &/or Service	Dapto Carburettir Service	2 Burringbar,Dapto,NSW	Address	150.7	South
1990	Electric Motors and Generators - Repairs	Advance Electrical Services Pty. Ltd.	2 Burringbar,Dapto,NSW	Address	150.7	South
1990	Carburettors &/or Fuel Pumps-Epuipment &/or Service	Dapto Carburettor Service	2 Burringbar,Dapto,NSW	Address	150.7	South
1990	Motor Engineers & Repairers	Dapto Auto Tune	2 Burringbar Street,Dapto,NSW	Address	150.7	South
2005	Stock Feeds & Supplements	Daly Stockfeeds	Unit 2/ 4 Barringbah St,DAPTO,NSW,2530	Address	150.7	South
1990	Printers-General	B & K Printery Pty. Ltd.	22 Hamilton Street,Dapto,NSW	Address	151.2	East
2005	Electrical Contractors	Delia Electrical Services Pty Ltd	22 Hamilton St,DAPTO,NSW,2530	Address	151.2	East
2005	Electrical Contractors	Delia Electrical Services	22 Hamilton St,DAPTO,NSW,2530	Address	151.2	East
2005	Electrical Contractors	Dapto Electrical Services Pty Ltd	22 Hamilton St,DAPTO,NSW,2530	Address	151.2	East
2010	Dry Cleaning Services	Iron Ladies	22 Hamilton St DAPTO 2530 NSW	Address	151.2	East
2005	Car & Truck Cleaning Services; Rustproofing & Protective Services	Evershine Car Detailing	20 Hamilton St,DAPTO,NSW,2530	Address	161.4	East
2015	Balustrades Timber & Metal	Innovative Handrails & Gates	1/ 18 Hamilton St Dapto NSW 2530	Address	161.4	East
2015	Campervans Caravans & Motor Homes - Supplies & Equipment	Innovative Campers & Trailers	1/ 18 Hamilton St Dapto NSW 2530	Address	161.4	East
1990	Nurserymen - Wholesale	Dapto Gardens	1 Burringbar,Dapto,NSW	Address	170.6	South-east
1990	Nurserymen - Retail	Dapto Gardens	1 Burringbar Street,Dapto,NSW	Address	170.6	South-east
1990	Joinery	Tsermetals A	18 Hamilton,Dapto,NSW	Address	171.8	East
1990	Motor Engineers & Repairers	Peacock Bill Mechanical Repairs	16 Hamilton,Dapto,NSW	Address	171.8	East

YEAR	Activity	Name	Address	Positional accuracy	Distance (m)	Direction
1990	Kitchen Renovations &/or Equipment	D & J Kitchens	18 Hamilton,Dapto,NSW	Address	171.8	East
2005	Signs--Electronic	Hessel Kaan Signs	16 Hamilton St,DAPTO,NSW,2530	Address	171.8	East
2005	Spray Painting Services	JD Spray	U 1/ 18 Hamilton St,DAPTO,NSW,2530	Address	171.8	East
2005	Signs--Safety & Traffic; Signs--Neon & Illuminated; Signwriters	Hessel Kaan Signs & Neon Pty Ltd	16 Hamilton St,DAPTO,NSW,2530	Address	171.8	East
2015	Brake & Clutch Services Including Mobile	Bruce Budden's Automotive	9 Hamilton St Dapto NSW 2530	Address	174.9	North-east
2015	Batteries - Automotive & Marine	Dapto Batteries	9 Hamilton St Dapto NSW 2530	Address	174.9	North-east
2015	Engineers - Motor & Repairers	Bruce Buddens Auto	U1/ 9 Hamilton St Dapto NSW 2530	Address	174.9	North-east
1990	Panel Beaters &/or Painters	C.P.C. Smash Repairs	51 Bong Bong Road,Dapto,NSW	Address	177.6	South-east
1990	Motor Engineers & Repairers	Fennell Gavin Automotive	51 Bong Bong Road,Dapto,NSW	Address	177.6	South-east
1990	Brake &/or Clutch Services	Fennell Gavin Automotive	51 Bong Bong Road,Dapto,NSW	Address	177.6	South-east
1990	Balancing Equipment &/or Services	Fennel Gavin Automotive	51 Bong Bong Road,Dapto,NSW	Address	177.6	South-east
2015	Glass Merchants & Installation Service Glaziers	Col's Glass Service	14 Hamilton St Dapto NSW 2530	Address	183.9	East
1990	Motor Replacement Parts	Dapto Autp Spares	6 Burringbar,Dapto,NSW	Address	191.8	South
1990	Motor Wreckers	Dapto Auto Spares	6 Burringbar Street,Dapto,NSW	Address	191.8	South
1990	Air Tools & Accessories-Supply &/or Service	Rae Frank	14 Hamilton,Dapto,NSW	Address	197.4	East
1990	Abrasive Blasting	Rae Fran	14 Hamilton Street,Dapto,NSW	Address	197.4	East
2005	Shower Screens	Col's Glass Service, Dapto	14 Hamilton St,DAPTO,NSW,2530	Address	197.4	East
2005	Glass Merchants & Glaziers	Col's Glass Service	14 Hamilton St,DAPTO,NSW,2530	Address	197.4	East
2010	Glass Merchants & Installation Service Glaziers	Cols Glass Service	14 Hamilton St DAPTO 2530 NSW	Address	197.4	East
1990	Building Contractors	Wood Doug	Sheattles Road,Dapto,NSW	Street		South-east
2005	Building Contractors	Clarendon Homes (NSW) Pty Limited	Hycroft Blv,DAPTO,NSW,2530	Street		South-east
2015	Car Wreckers - Used/Recycled Parts	Dapto Pick- A- Part	Hamilton St Dapto NSW 2530	Street		East
1990	Truck & Bus Rental	Economy Car & Truck Rental	Dapto,NSW	Suburb		South-east

YEAR	Activity	Name	Address	Positional accuracy	Distance (m)	Direction
1990	Dry Cleaners	American Dry Cleaners	Dapto,NSW	Suburb		South-east
1990	Air Compressors &/or Service	Go Hire Princes Highway	Dapto,NSW	Suburb		South-east
2005	Excavating & Earth Moving Contractors	P.G. & L.J. Smith Plant Hire Pty Ltd, Dapto	DAPTO,NSW,2530	Suburb		South-east
2005	Worm Farms	Jj Worm Farm	DAPTO,NSW,2530	Suburb		South-east
2005	Concrete Contractors	Will The Concretor	DAPTO,NSW,2530	Suburb		South-east
2005	Cleaning Contractors--Commercial & Industrial	Wallaroo Industrial Cleaning Services	DAPTO,NSW,2530	Suburb		South-east
2005	Tile Layers--Wall & Floor	Paul Lenhart's Tiling	DAPTO,NSW,2530	Suburb		South-east
2005	Bathroom Renovations	P & M Tiling Contractors	DAPTO,NSW,2530	Suburb		South-east
2005	Gardeners; Lawn Cutting & Maintenance	Osieway Lawns & Grounds Services	DAPTO,NSW,2530	Suburb		South-east
2005	Tile Layers--Wall & Floor	T Mountford	DAPTO,NSW,2530	Suburb		South-east
2005	Roof Repairers & Cleaners; Tilers & Slaters--Roof	O'Briens Roofing Pty Ltd	DAPTO,NSW,2530	Suburb		South-east
2005	Electrical Contractors	N D & D Williams Electrical	DAPTO,NSW,2530	Suburb		South-east
2005	Plasterers--Plasterboard Fixers	J Delios	DAPTO,NSW,2530	Suburb		South-east
2005	Pet Shops' Suppliers	Pet Wize Pet Doors	DAPTO,NSW,2530	Suburb		South-east
2005	Signs--Safety & Traffic; Signwriters	Southside Signs	DAPTO,NSW,2530	Suburb		South-east
2005	Fruiterers & Greengrocers	Dapto Quality Fruits Pty Ltd	DAPTO,NSW,2530	Suburb		South-east
2005	Lawn Cutting & Maintenance	Southside Gardening	DAPTO,NSW,2530	Suburb		South-east
2005	Carpenters & Joiners	Darcy Phil	DAPTO,NSW,2530	Suburb		South-east
2005	Fencing Contractors; Lattice	Daris Fencing Pty Ltd	DAPTO,NSW,2530	Suburb		South-east
2005	Saddlers & Riding Outfitters	Dibden Geoff	DAPTO,NSW,2530	Suburb		South-east
2005	Furniture Removals & Storage	Duzz-All Removals	DAPTO,NSW,2530	Suburb		South-east
2005	Excavating & Earth Moving Contractors	Go-Flow Bobcat & Tipper Hire	DAPTO,NSW,2530	Suburb		South-east
2005	Concrete Contractors	Go-Flow Concreting	DAPTO,NSW,2530	Suburb		South-east
2005	Carpenters & Joiners	Greg's Carpentry	DAPTO,NSW,2530	Suburb		South-east
2005	Slashing Contractors; Lawn Cutting &	Howells Ground Care	DAPTO,NSW,2530	Suburb		South-east

YEAR	Activity	Name	Address	Positional accuracy	Distance (m)	Direction
	Maintenance; Weed Control Services; Farm Contracting Services					
2005	Carports & Pergolas; Patio Builders	Illawarra Carports & Patios	DAPTO,NSW,2530	Suburb		South-east
2005	Motor Replacement Parts; Locks & Locksmiths	South Coast Locksmiths	DAPTO,NSW,2530	Suburb		South-east
2005	Car & Truck Cleaning Services	South Coast Detailing Supplies	DAPTO,NSW,2530	Suburb		South-east
2005	Cleaning Contractors--Commercial & Industrial	Sandra Hoyn's Cleaning Service	DAPTO,NSW,2530	Suburb		South-east
2005	Bricklayers	Peter Black Bricklaying Pty Ltd	DAPTO,NSW,2530	Suburb		South-east
2005	Martial Arts & Self Defence Instruction & Supplies	Rhee Taekwondo	DAPTO,NSW,2530	Suburb		South-east
2005	Retaining Walls; Landscape Contractors & Designers	Taylor-Made Maintenance & Landscaping	DAPTO,NSW,2530	Suburb		South-east
2005	Photographers--Portrait & Wedding	Phillip Rust	DAPTO,NSW,2530	Suburb		South-east
2005	Tree Felling & Stump Removal	Universal Tree Felling	DAPTO,NSW,2530	Suburb		South-east
2005	Caravans & Camper-Trailers--Hire	A.C.A. Ravan Caravan Hire	DAPTO,NSW,2530	Suburb		South-east
2005	Roof Repairers & Cleaners; Roofing Materials; Guttering & Spouting	Coastal Guttering	DAPTO,NSW,2530	Suburb		South-east
2005	Carriers--Heavy	Crazy Horse Tip Trucks	DAPTO,NSW,2530	Suburb		South-east
2005	Tile Layers--Wall & Floor; Bathroom Renovations	Marty's Tiling	DAPTO,NSW,2530	Suburb		South-east
2005	Make-Up Artists & Supplies	Makeup & Beauty By Sarah	DAPTO,NSW,2530	Suburb		South-east
2005	Fruiterers & Greengrocers; Organic Products	M & N Organics	DAPTO,NSW,2530	Suburb		South-east
2005	Photographers--General; Photographers--Portrait & Wedding	King's Wedding Photography & Video	DAPTO,NSW,2530	Suburb		South-east

YEAR	Activity	Name	Address	Positional accuracy	Distance (m)	Direction
2005	Pest Control	Keira Pest Control Pty. Ltd.	DAPTO,NSW,2530	Suburb		South-east
2005	Hot Water Systems; Electrical Contractors	John McEwan Electrical	DAPTO,NSW,2530	Suburb		South-east
2005	Building Contractors	D'n'E Building	DAPTO,NSW,2530	Suburb		South-east
2005	Concrete Contractors; Paving--Concrete	J & M Concrete	DAPTO,NSW,2530	Suburb		South-east
2005	Bricklayers	Bond Bricklaying	DAPTO,NSW,2530	Suburb		South-east
2005	Excavating & Earth Moving Contractors; Building Excavations & Foundations	Avant Excavations	DAPTO,NSW,2530	Suburb		South-east
2005	Electrical Contractors; Home Maintenance & Repairs	Dads Army	DAPTO,NSW,2530	Suburb		South-east
2005	Wedding Arrangement Services & Supplies; Florists--Retail	Amazing Funky Flowers	DAPTO,NSW,2530	Suburb		South-east
2005	Sporting Goods--Retail & Repairs	Amaral Electronics	DAPTO,NSW,2530	Suburb		South-east
2005	Concrete Contractors	D,J,J'S Concreting	DAPTO,NSW,2530	Suburb		South-east
2005	Telephone Systems & Equipment; Telephones & Systems--Installation & Maintenance; Data Communications	Altel Communications	DAPTO,NSW,2530	Suburb		South-east
2005	Lawn Cutting & Maintenance; Home Maintenance & Repairs	Mick's Mend & Maintenance	DAPTO,NSW,2530	Suburb		South-east

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

Historical data positional accuracy and georeferencing results explanation		
Positional accuracy	**Georeferenced**	**Description**
Address	Located to the address level	*When street address and names fully match.*

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

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

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



Section 5 Natural Hazards

5.1 Fire Hazard

Map 5.1 (500m Buffer)

Bushfire Prone Areas

Category	Type	Details	Distance (m)	Direction
Bushfire Prone Area	Vegetation Buffer	Vegetation Buffer - Bush Fire Prone is an area of land that can support a bush fire or is likely to be subject to bush fire attack. Bush Fire Prone Land areas becomes the trigger for planning for bush fire protection.	74.6	West
Bushfire Prone Area	Vegetation Category 1	Bushfire Prone Area - Vegetation Category 1 is considered to be the highest risk for bush fire. Bush Fire Prone Areas becomes the trigger for planning for bush fire protection.	174.6	West

Bushfire History

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

5.2 Flood Hazard

Map 5.2 (500m Buffer)

Flood Planning Area

Type	Name	Details	Distance (m)	Direction
Flood Planning Area	Wollongong Local Environmental Plan 2009	Councils develop Flood Planning Areas (FPAs) as part of Flood Overlay mapping to guide future building and development in flood prone areas. The FPAs are designed to recognise the flood hazard for different flooding types.	0.0	Onsite

Other Flood Studies

Type	Name	Details	Distance (m)	Direction
Probable Maximum Flood (PMF)	Mullet Creek Flood Model Update - April 2018	The largest flood that could conceivably be expected to occur at a particular location, usually estimated from probable maximum precipitation. The PMF defines the maximum extent of flood prone land, that is, the floodplain. It is difficult to define a meaningful Annual Exceedance Probability for the PMF, but it is commonly assumed to be of the order of 104 to 107 (once in 10,000 to 10,000,000 years).	0.0	Onsite
Probable Maximum Flood (PMF)	Lake Illawarra Flood Study - July 2001	The largest flood that could conceivably be expected to occur at a particular location, usually estimated from probable maximum precipitation. The PMF defines the maximum extent of flood prone land, that is, the floodplain. It is difficult to define a meaningful Annual Exceedance Probability for the PMF, but it is commonly assumed to be of the order of 104 to 107 (once in 10,000 to 10,000,000 years).	457.3	North-east

Flood History

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

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

5.3 Erosion Hazard

Map 5.3 (500m Buffer)

Erosion Hazard

Category	Type	Details	Distance (m)	Direction
Landslip Erosion Risk	Very slight to negligible limitations	Very Low	0.0	Onsite
	Very severe limitations	Very High	382.1	South-east
Water Erosion Risk	Slight but significant limitations	Low	0.0	Onsite
	Moderate to severe limitations	Moderate	382.1	South-east
Wind Erosion Risk	Moderate limitations	Moderate	0.0	Onsite
	Moderate to severe limitations	Moderate	382.1	South-east

Land Insight

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



Appendix A

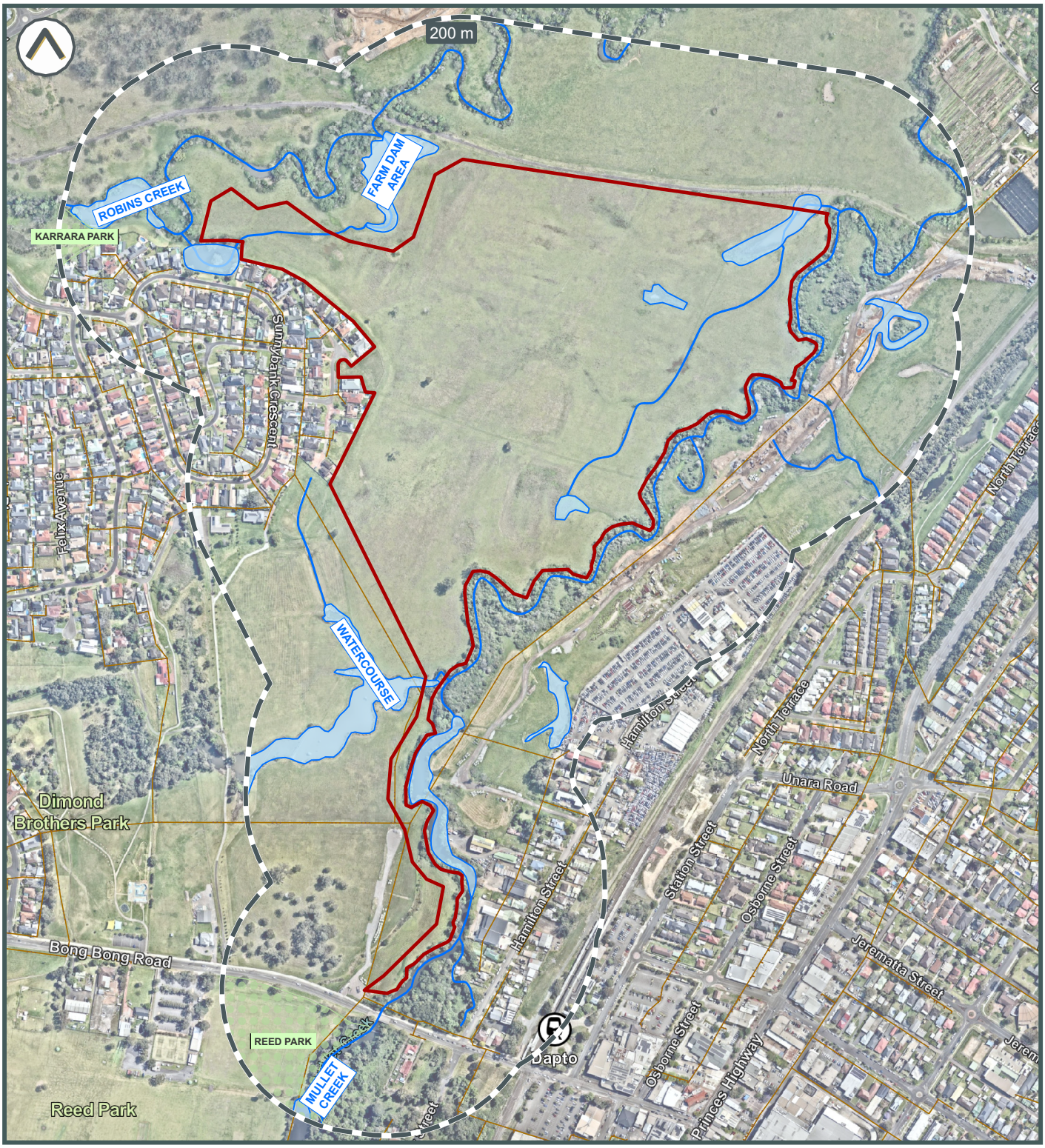
REPORT MAPS

Barham Pl
Horsley, NSW

PROPERTY SETTING

Subject Area and Sensitive Receptors

MAP 1.1



©2024 Land Insight (LI) www.landinsight.co | 13/11/2024 | Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area
Parks
Water Bodies
Sewer main

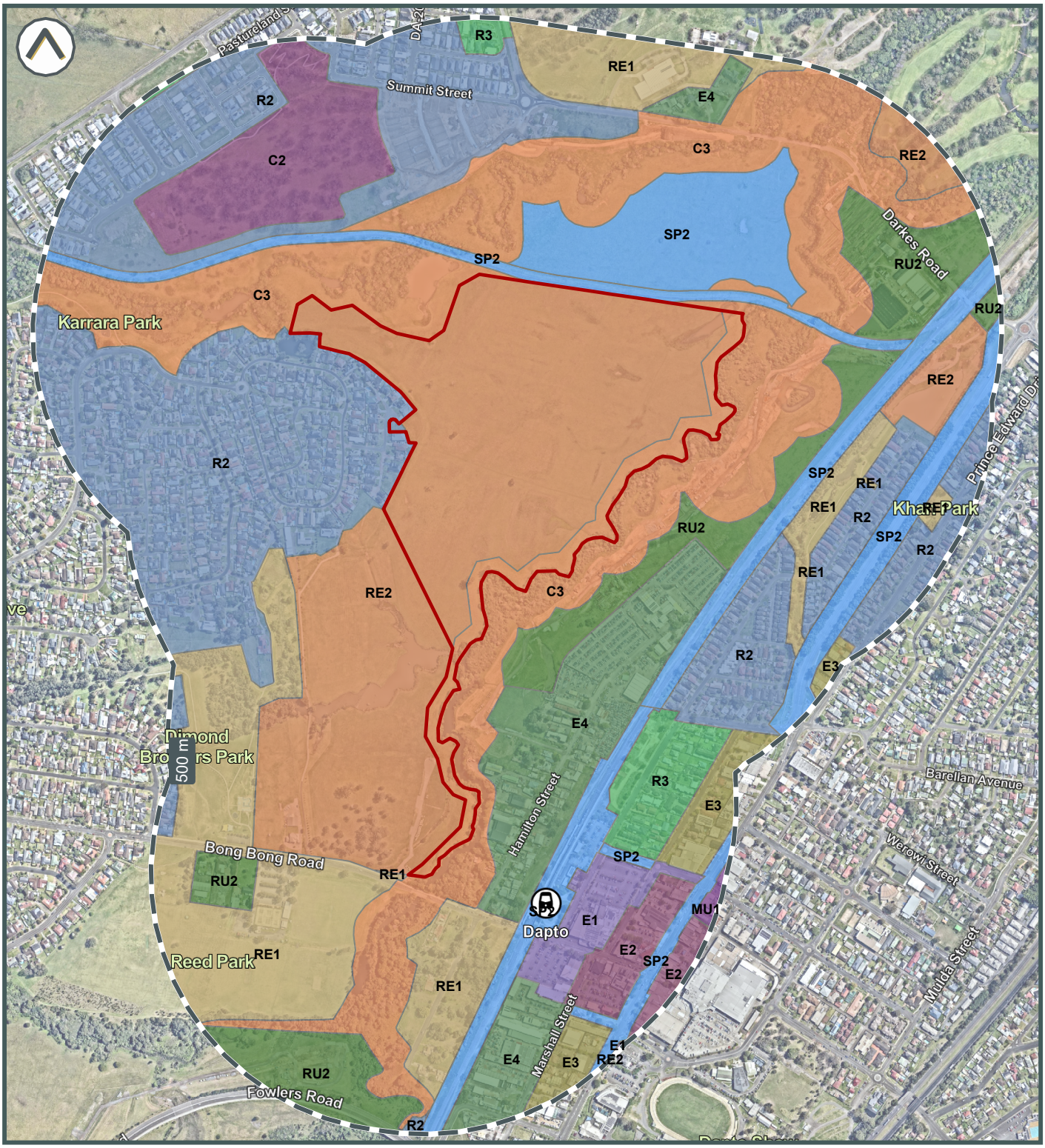
0 70 140 210 280 350m

Land Insight

Land Insight do no warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that this company shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

Zoning

MAP 1.2a



©2024 Land Insight (LI) www.landinsight.co | 13/11/2024 | Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

Zoning

- Commercial Centre
- Environmental Conservation
- Environmental Management
- General Industrial
- Infrastructure
- Local Centre
- Low Density Residential
- Medium Density Residential
- Mixed Use
- Private Recreation
- Productivity Support
- Public Recreation
- Rural Landscape

0 100 200 300 400 500m

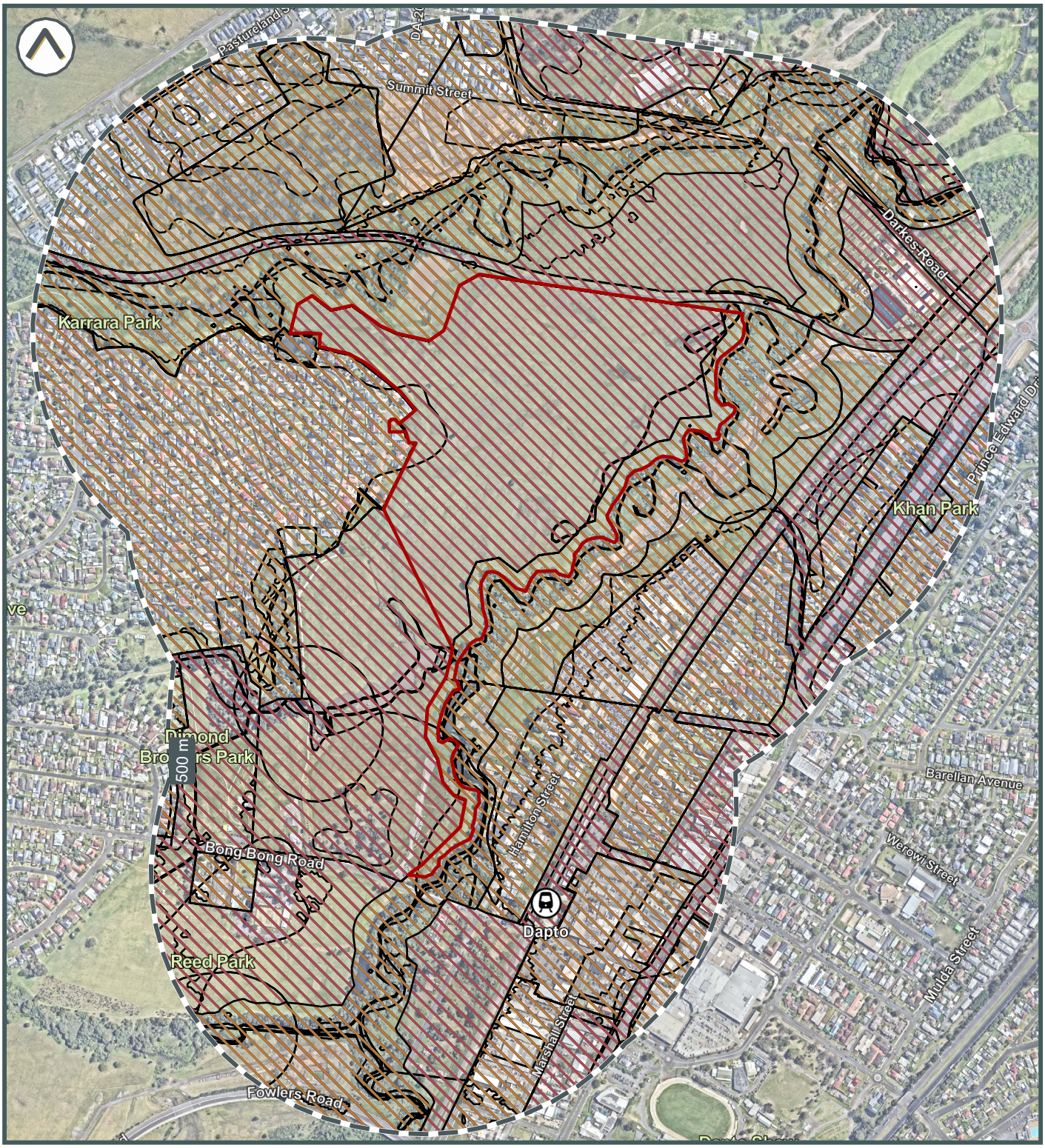
Land Insight

Land Insight do no warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that this company shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

PROPERTY SETTING

Planning Overlays

MAP 1.2b



©2024 Land Insight (LI) www.landinsight.co | R:\LI-4467 DDR Horsley NSW\Working\GIS\Project\LI-XXXXX XXX\ 13/11/2024 | Data source: Please refer to 'Digital Data Sources' in the Product Guide

- Subject area

Overlays

- Acid Sulfate Soils
- Additional Permitted Uses
- Allowable Clearing
- Coal Seam Gas Exclusions
- Flood Prone Land
- Future Residential Growth Area
- Greenfield Housing Code Area
- Heritage
- Infrastructure
- Land Application
- Local Road
- Maximum Building Height (m)
- Maximum Floor Space Ratio (n:1)
- Minimum Lot Size (sq m)
- Minimum Water Use Standard (%)
- Natural resource sensitivity – biodiversity
- Public Recreation
- Riparian Land
- SEPP Land Application
- Urban Release Area

0 100 200 300 400 500m

Land Insight

Land Insight do no warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that this company shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

Heritage

MAP 1.3



Subject area

National Heritage Database
National Heritage List

State and Local Heritage Registers
Heritage Register

0 70 140 210 280 350m

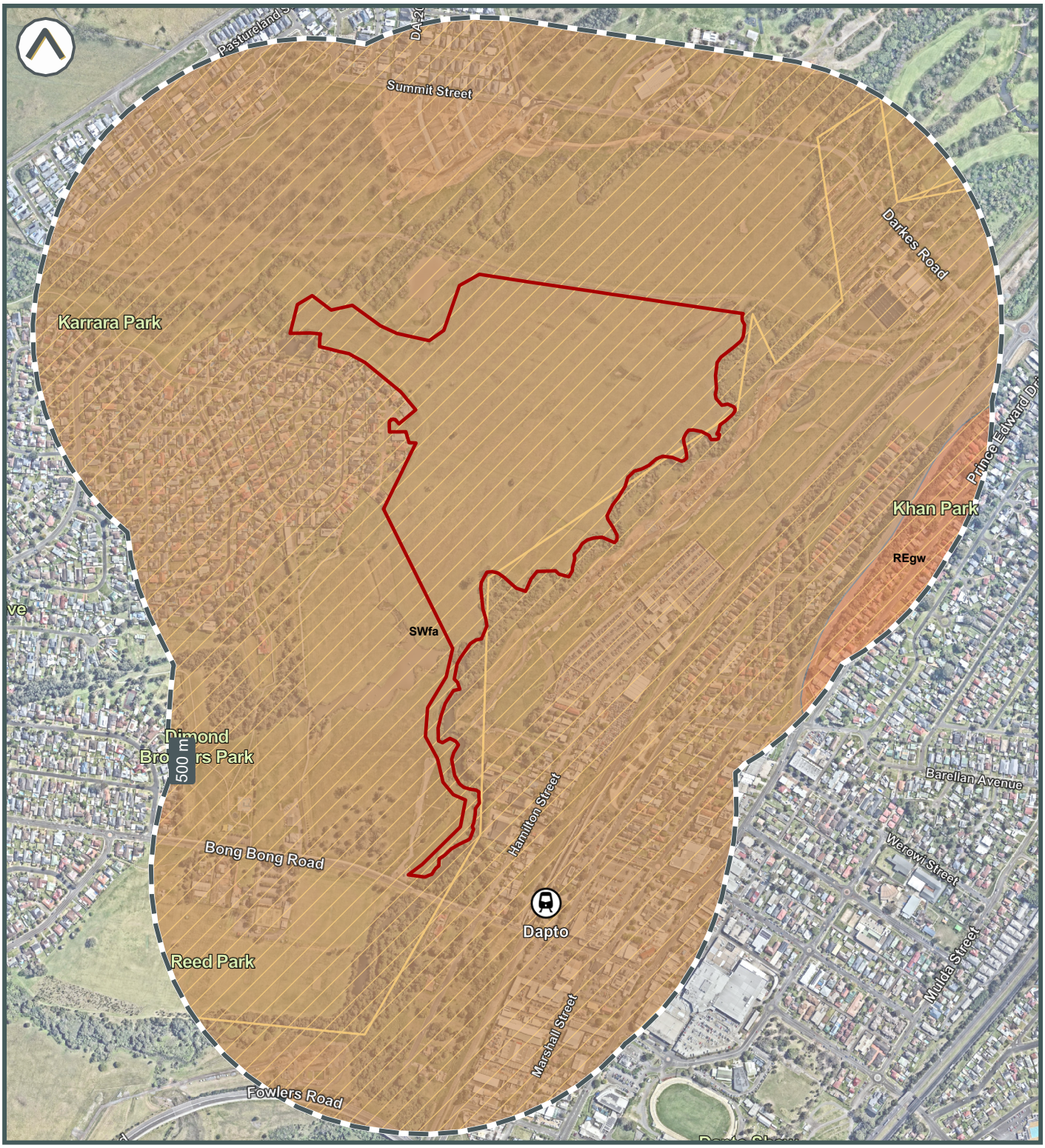
©2024 Land Insight (LI) www.landinsight.co | 13/11/2024 | Data source: Please refer to 'Digital Data Sources' in the Product Guide

Land Insight

Land Insight do no warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that this company shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

Soil Landscape and Salinity

MAP 1.4a



©2024 Land Insight (LI) www.landinsight.co | 13/11/2024 | Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

Radon Level (Bq/m3)
5–19

Soil Landscape
REgw
SWfa

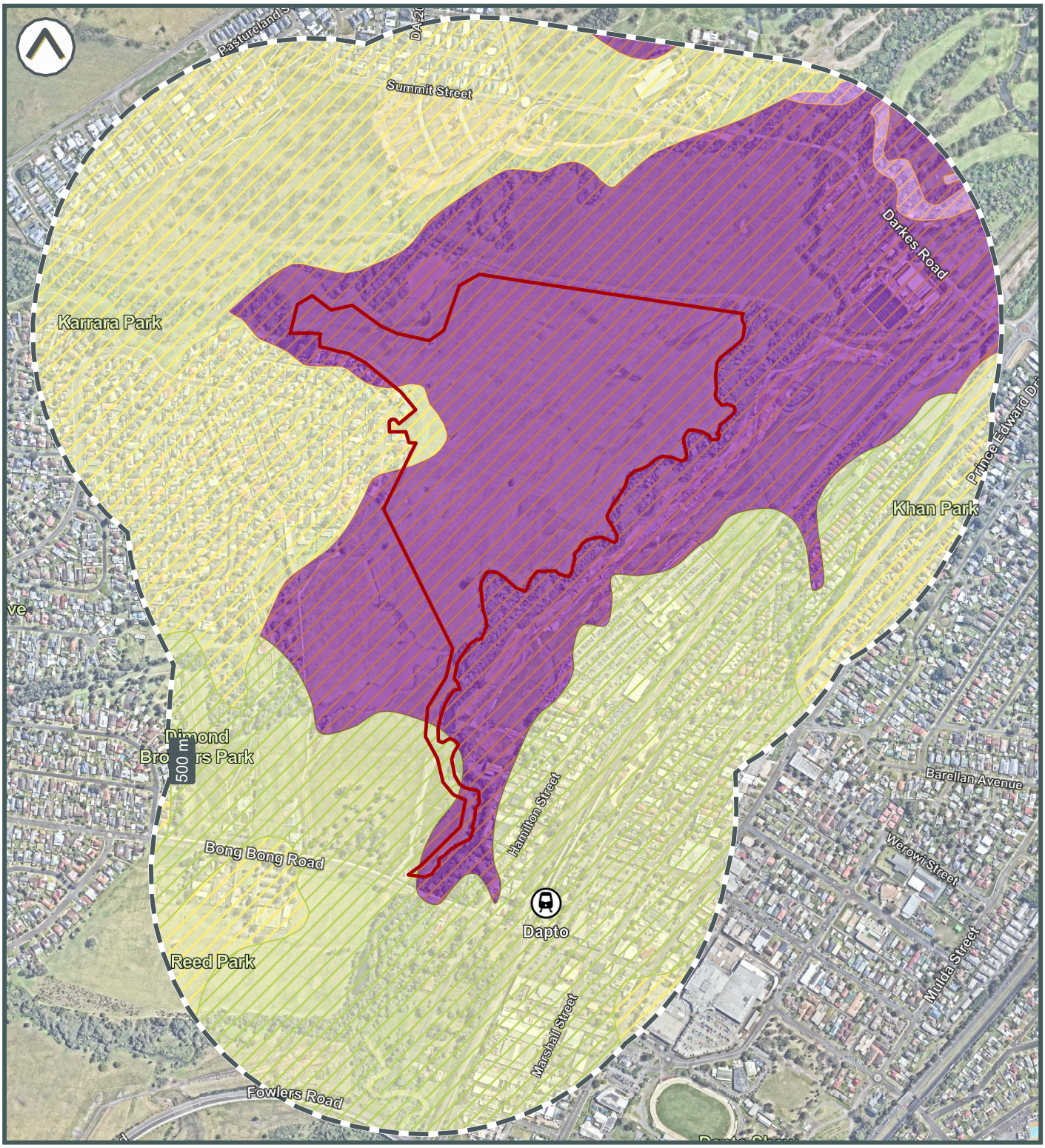
0 100 200 300 400 500m

Land Insight

Land Insight do no warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that this company shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

Acid Sulfate Soils

MAP 1.4b



©2024 Land Insight (LI) www.landinsight.co | 13/11/2024 | Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

Atlas of Australian Acid Sulfate Soils
- Low Probability of occurrence
- Extremely low probability of occurrence

Coastal Acid Sulfate Soils
- Class 3
- Class 4
- Class 5

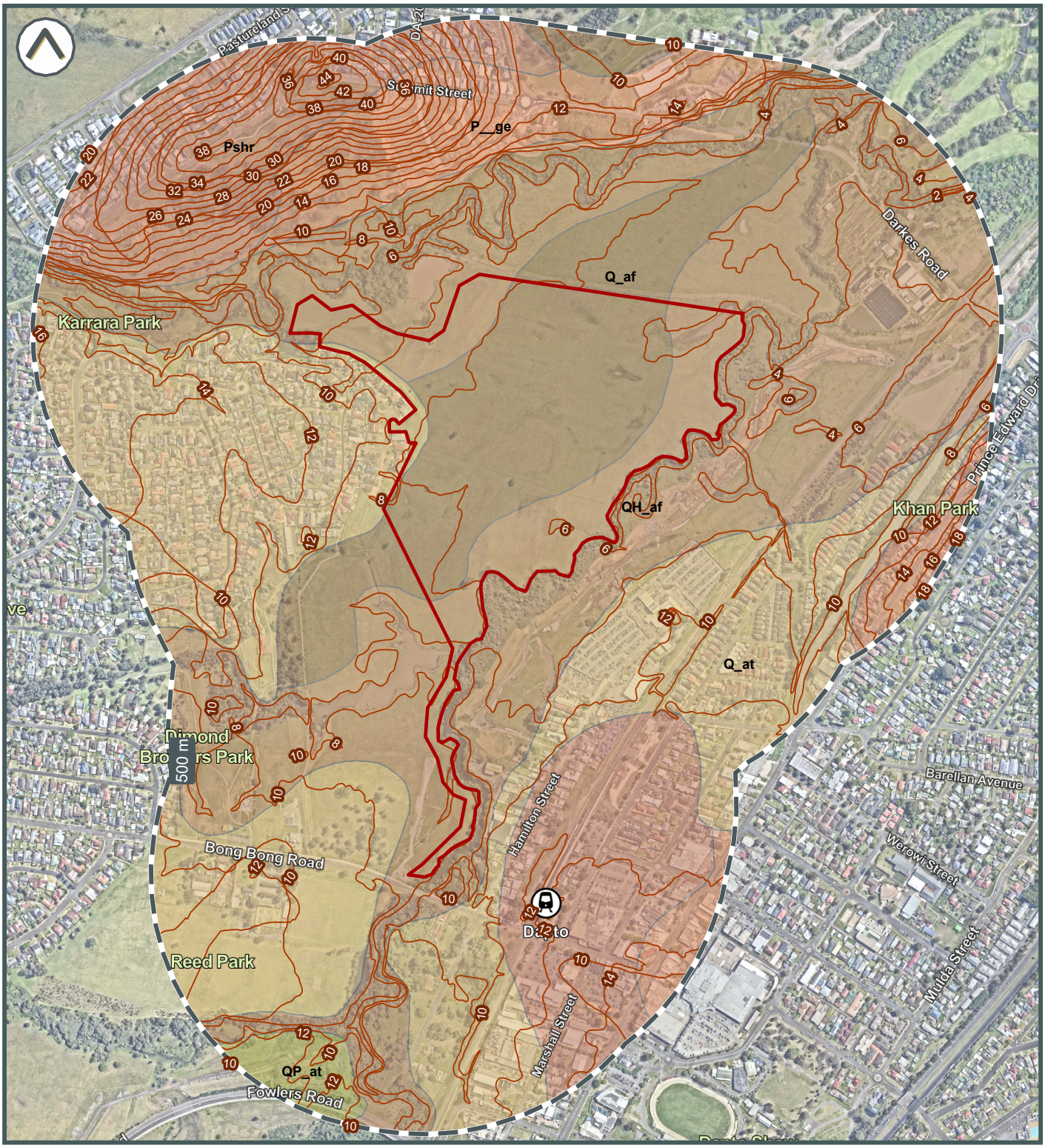
0 100 200 300 400 500m

Land Insight

Land Insight do no warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that this company shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

Geology and Topography

MAP 1.5



©2024 Land Insight (LI) www.landinsight.co | 13/11/2024 | Data source: Please refer to 'Digital Data Sources' in the Product Guide

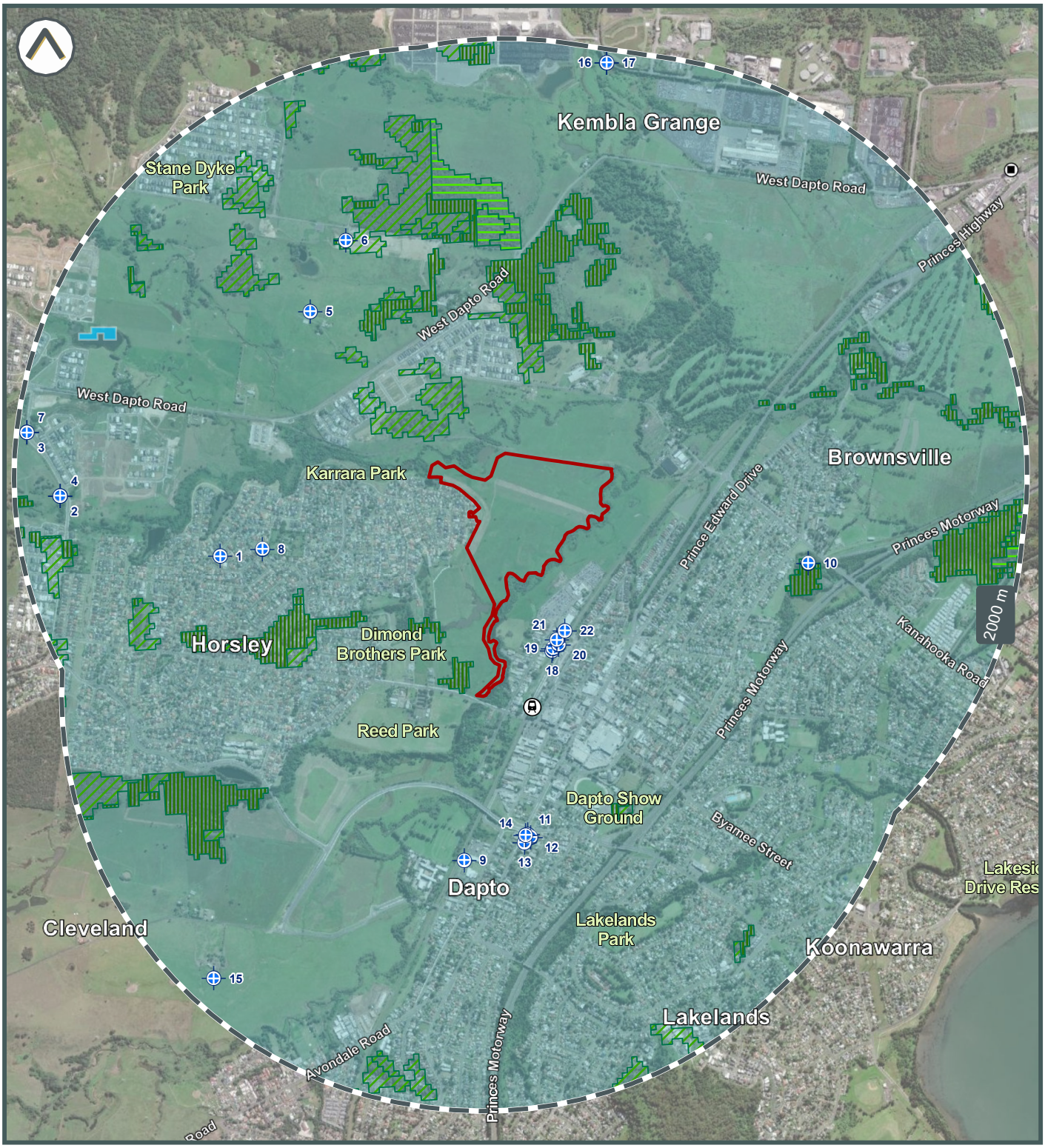
Land Insight

Land Insight do no warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that this company shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

HYDROGEOLOGY

MAP 2.1

Groundwater Dependent Ecosystems & Hydrogeology Constraints



©2024 Land Insight (LI) www.landinsight.co | 13/11/2024 | Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

Groundwater bores

Ecosystems that rely on Subsurface presence of Groundwater

High potential GDE – from regional studies

Moderate potential GDE – from regional studies

Low potential GDE – from regional studies

Wetlands

Aquifer type

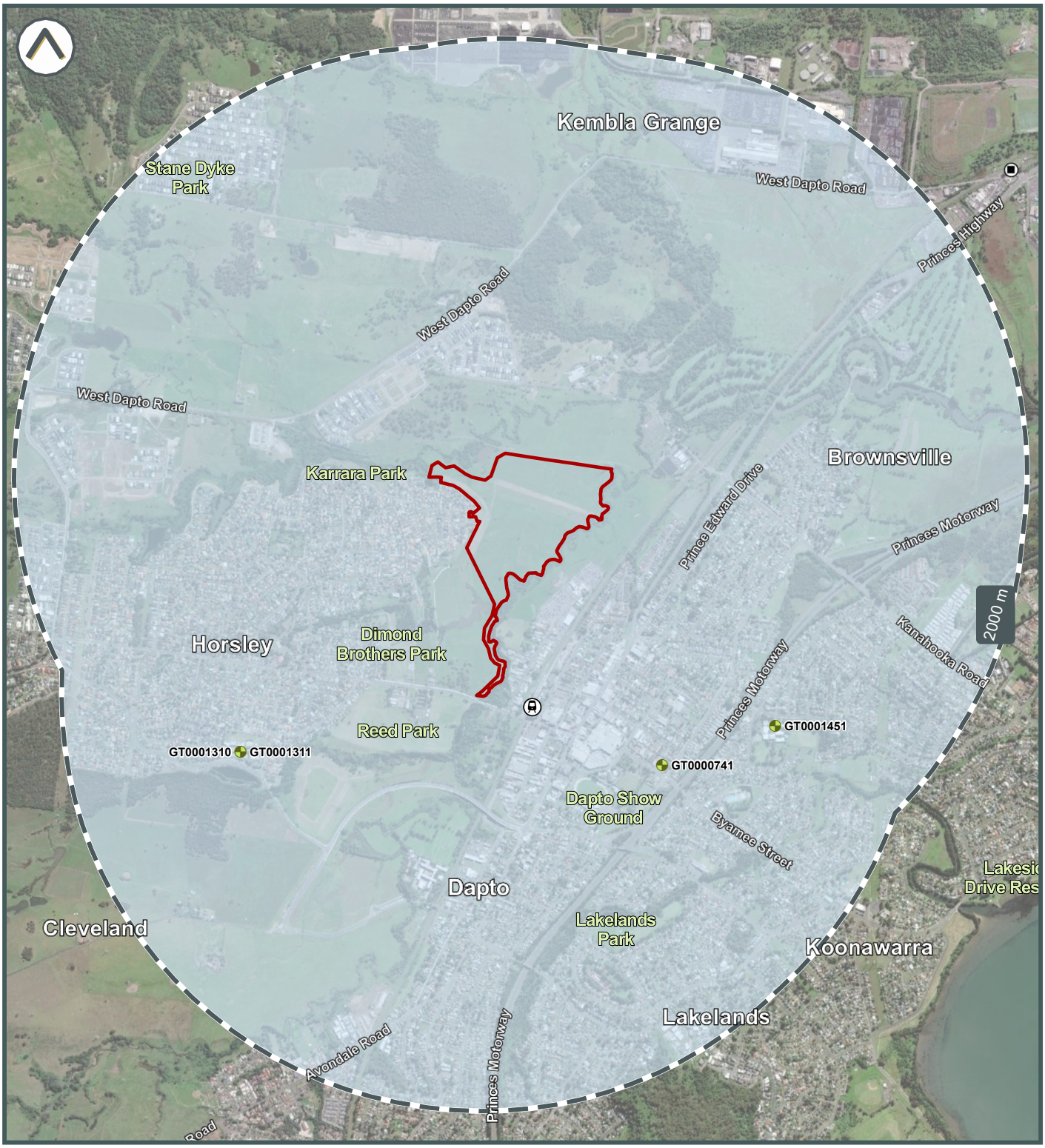
Fractured or fissured, extensive aquifers of low to moderate productivity

0 240 480 720 960 1,200m

Land Insight

Land Insight do no warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that this company shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

Groundwater and Other Bores



©2024 Land Insight (LI) www.landinsight.co | 13/11/2024 | Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

Other borehole/monitoring well location

Salinity Class

No Data

0 240 480 720 960 1,200m

Land Insight

Land Insight do no warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that this company shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

ENVIRONMENTAL REGISTERS LICENSES AND INCIDENTS

Contaminated Land Public Register

MAP 3.1



©2024 Land Insight (LI) www.landinsight.co | 13/11/2024 | Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

Contaminated Land Public Register (EPA)

EPA Notified Contaminated Sites

0 140 280 420 560 700m

Land Insight

Land Insight do no warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that this company shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

Licences, Approvals & Assessments



©2024 Land Insight (LI) www.landinsight.co | 13/11/2024 | Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

Clean Up and Penalty Notices

POEO Licences

Delicensed / No longer in force

0 140 280 420 560 700m

Land Insight

Land Insight do no warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that this company shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

MAP 3.3a

Sites Regulated by Other Jurisdictional Body



Subject area

0 240 480 720 960 1,200m

Land Insight

©2024 Land Insight (LI) www.landinsight.co | 13/11/2024 | Data source: Please refer to 'Digital Data Sources' in the Product Guide

Land Insight do no warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that this company shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

MAP 3.3b

Other Potential Hazard Sources



Subject area

0 100 200 300 400 500m

Land Insight

©2024 Land Insight (LI) www.landinsight.co | 13/11/2024 | Data source: Please refer to 'Digital Data Sources' in the Product Guide

Land Insight do no warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that this company shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

POTENTIALLY CONTAMINATED AREAS

Current Potentially Contaminating Activities (PCAs)

MAP 4.1



©2024 Land Insight (LI) www.landinsight.co | 13/11/2024 | Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

Potentially Contaminating Activities

- Agricultural Industries
- Depots and Storage Yards
- Dry Cleaners
- Manufacturing and Industrial Facilities
- Mechanical and Automotive

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

0 70 140 210 280 350m

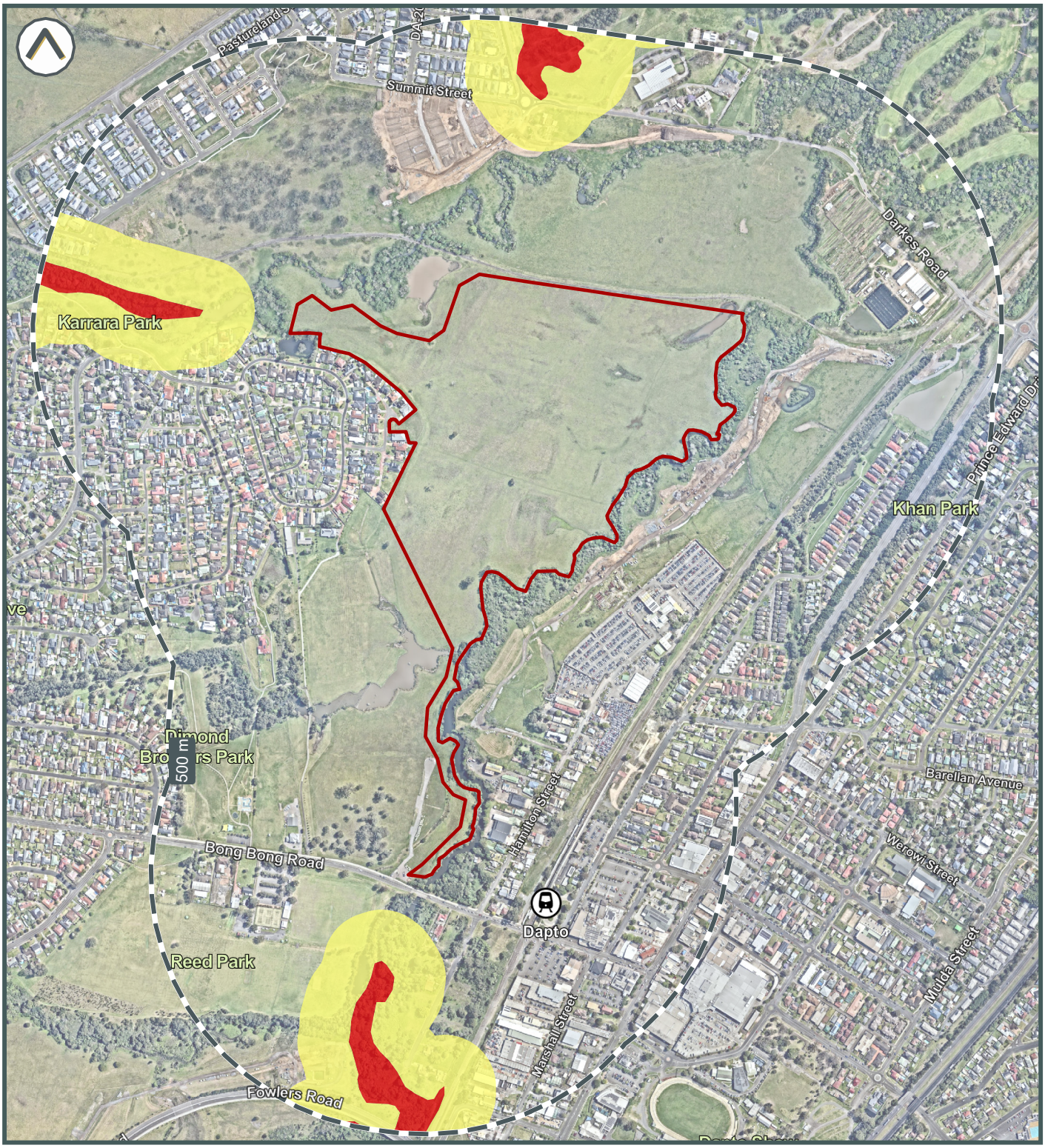
Land Insight

Land Insight do no warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that this company shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

NATURAL HAZARDS

Fire Hazards

MAP 5.1



©2024 Land Insight (LI) www.landinsight.co | 13/11/2024 | Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

Vegetation Buffer

Bushfire Prone Area

Vegetation Category 1

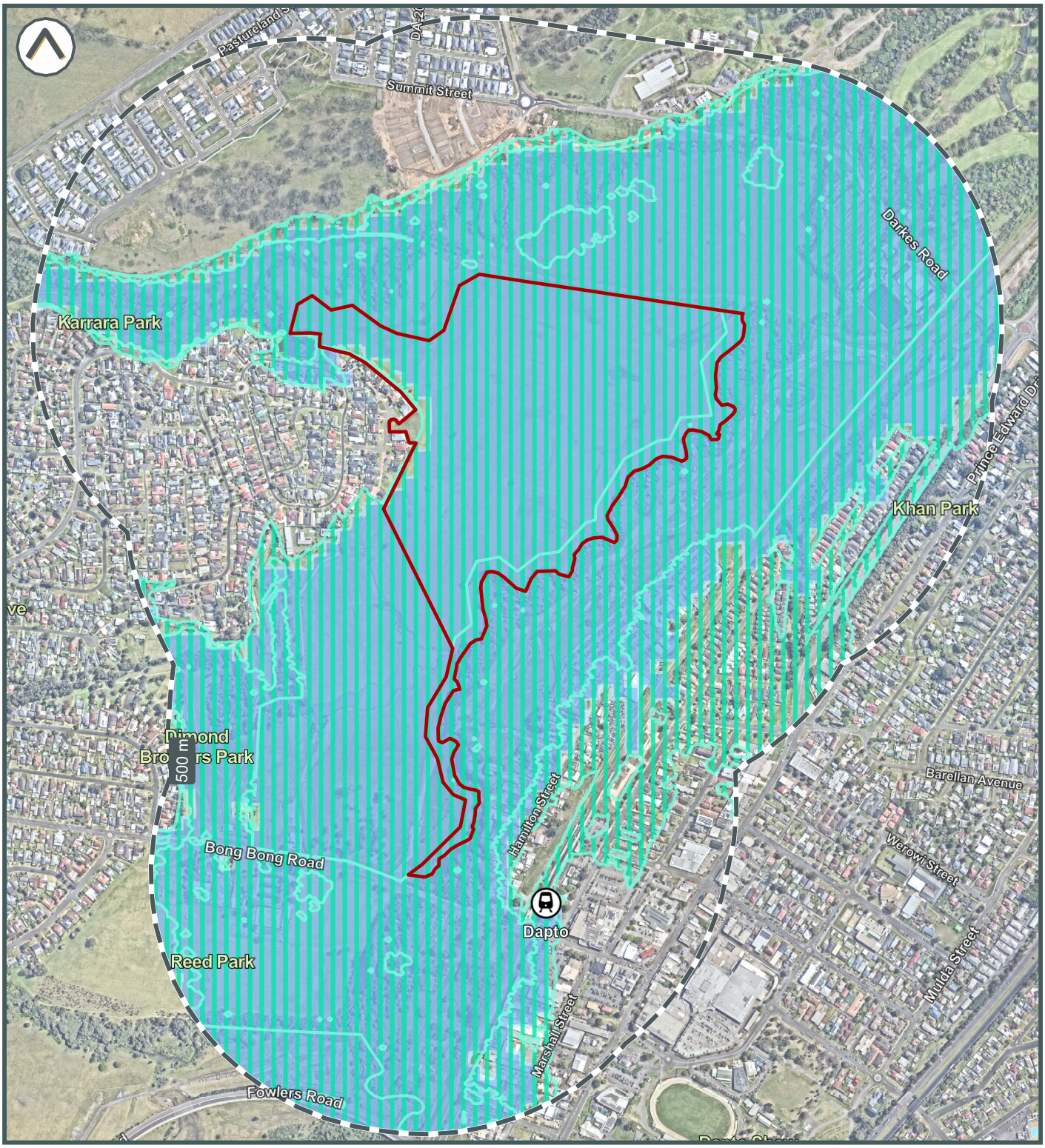
0 100 200 300 400 500m

Land Insight

Land Insight do no warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that this company shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

Flood Hazard

MAP 5.2



Subject area

Category
Flood Prone Area

Type
Probable Maximum Flood (PMF)

0 100 200 300 400 500m

Land Insight

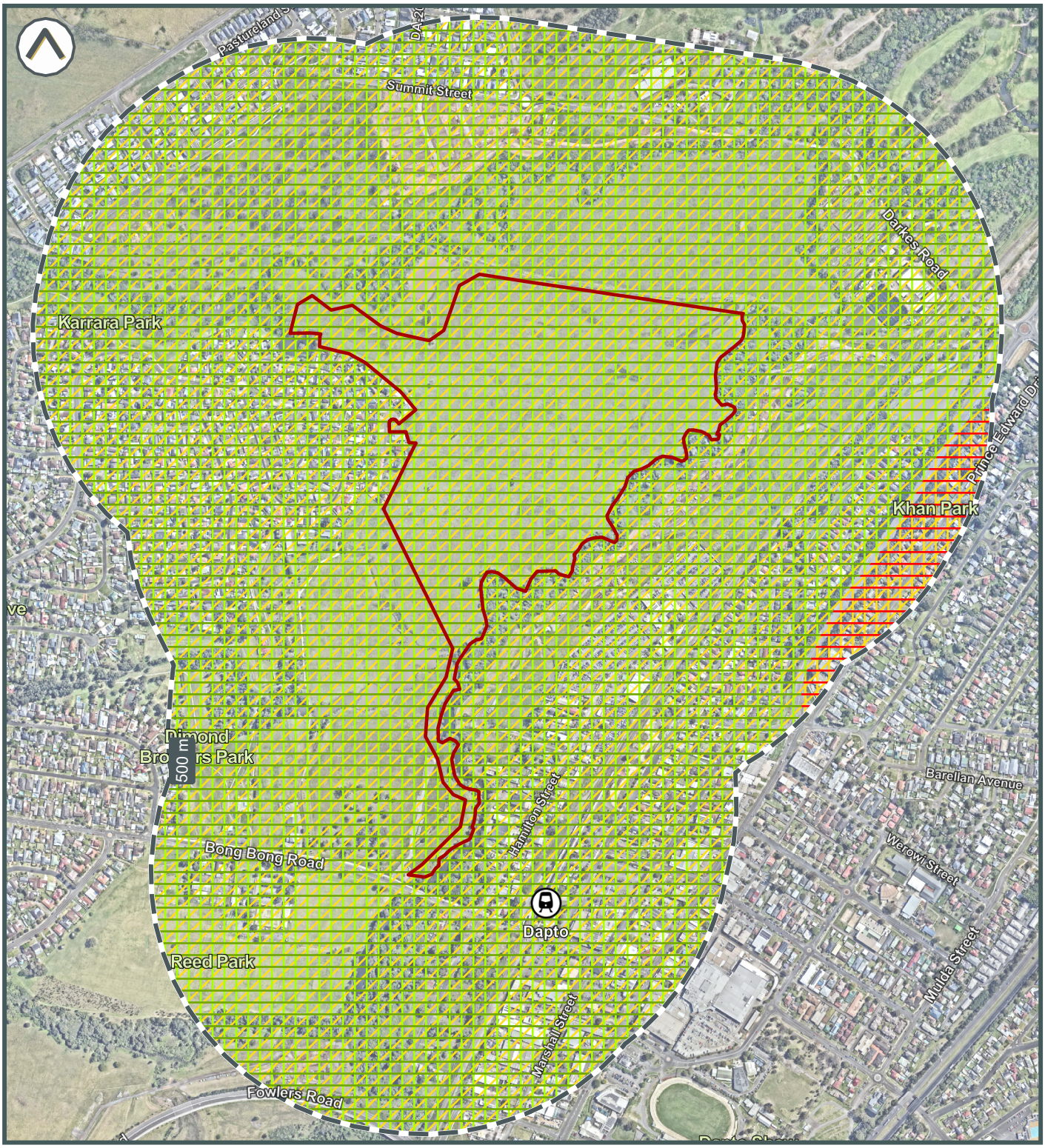
©2024 Land Insight (LI) www.landinsight.co | 13/11/2024 | Data source: Please refer to 'Digital Data Sources' in the Product Guide

Land Insight do no warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that this company shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

NATURAL HAZARDS

Erosion Hazard

MAP 5.3



©2024 Land Insight (LI) www.landinsight.co | 13/11/2024 | Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

Wind Erosion Risk
- Moderate

Water Erosion Risk
- Moderate
- Low

Landslip Erosion Risk
- Very High
- Very Low

0 100 200 300 400 500m

Land Insight

Land Insight do no warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that this company shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

Land
Insight



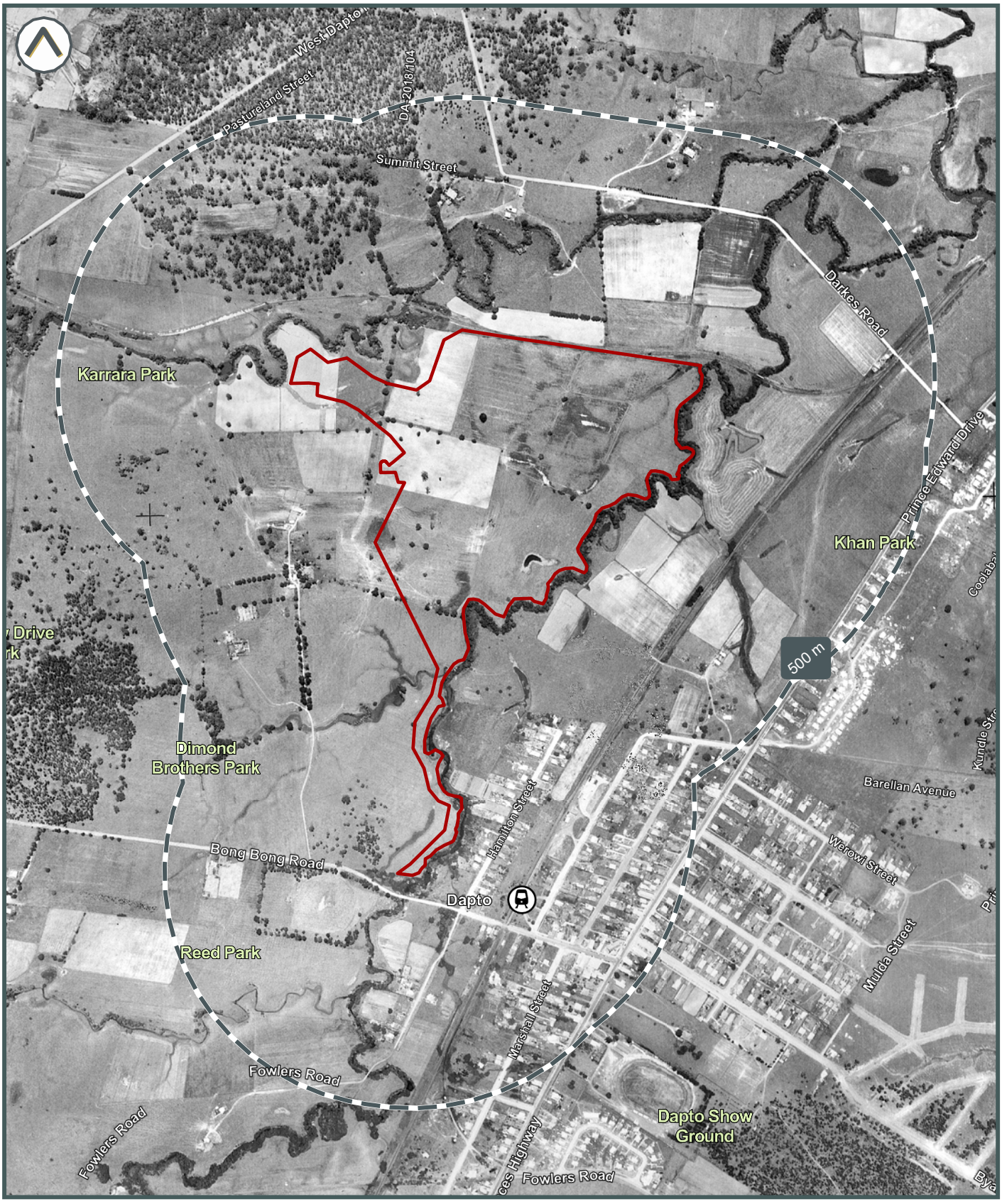
Appendix B

HISTORIC IMAGERY

Barham Pl
Horsley, NSW

MAP B1

Historic Aerial Photograph – 1949



Subject area

0 100 200 300 400 500m

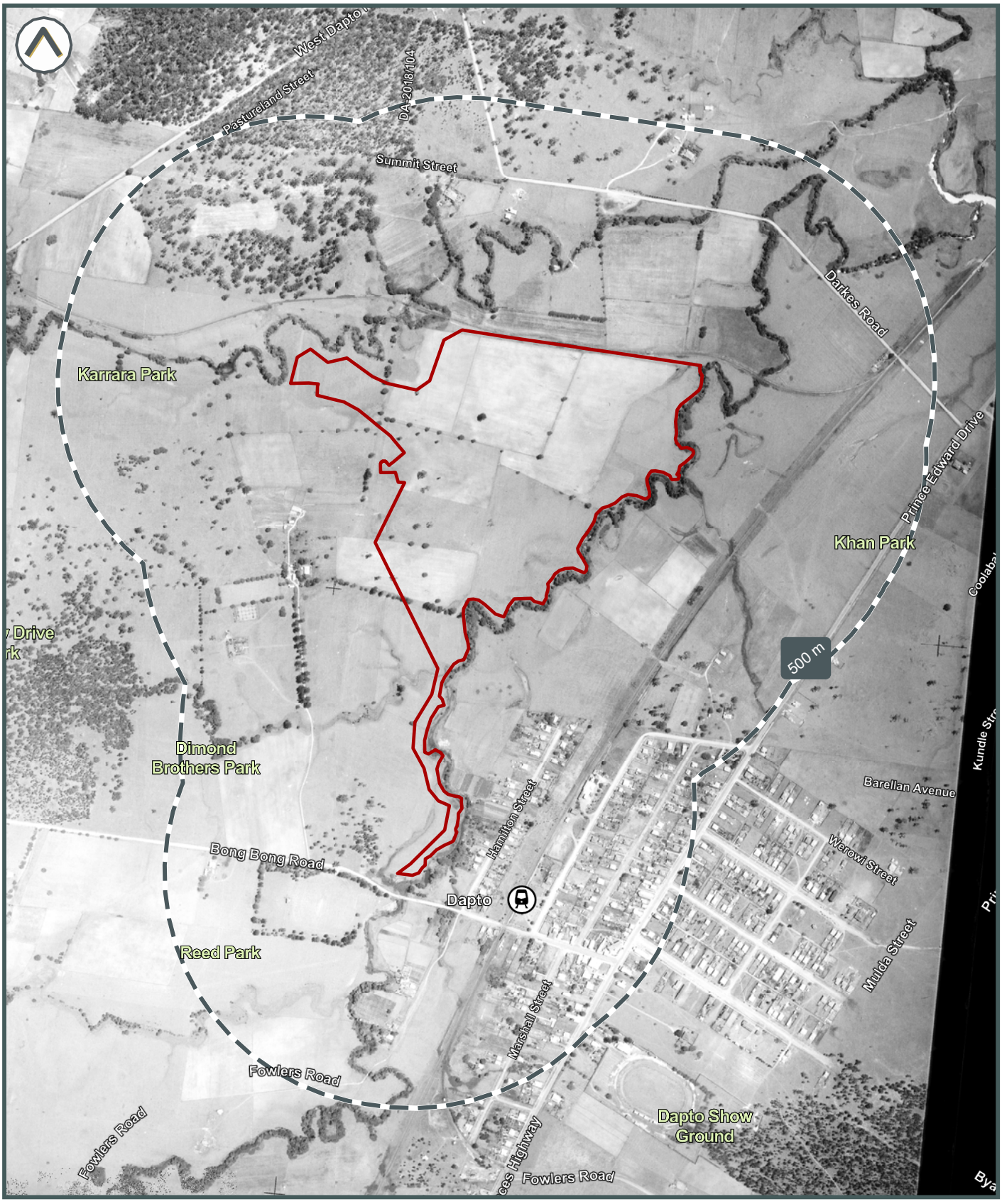
Land Insight

©2024 Land Insight (LI) www.landinsight.co | 15/11/2024 | Data source: Please refer to 'Digital Data Sources' in the Product Guide

Land Insight do no warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that this company shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

MAP B2

Historic Aerial Photograph – 1951



©2024 Land Insight (LI) www.landinsight.co | 15/11/2024 | Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

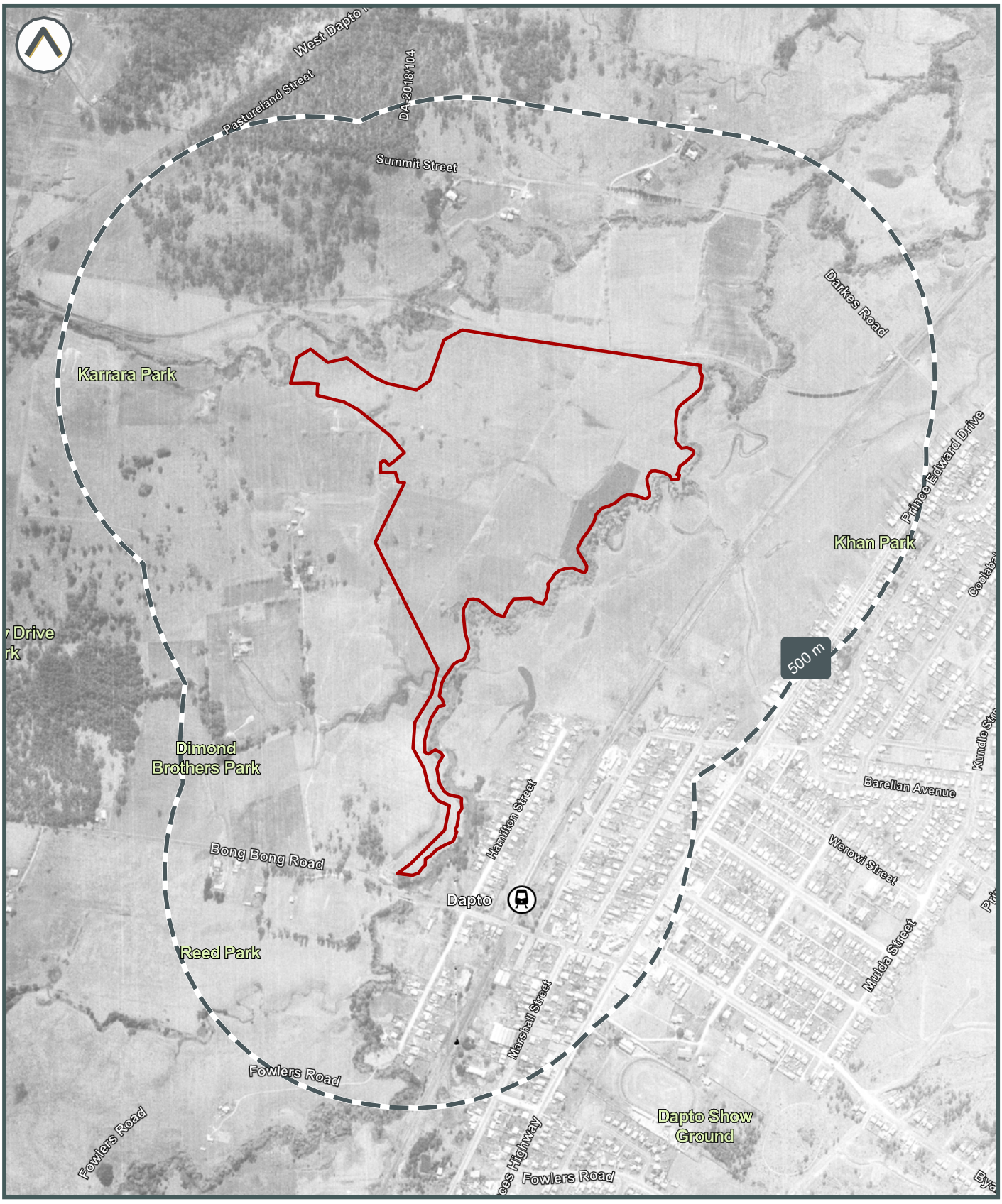
0 100 200 300 400 500m

Land Insight

Land Insight do no warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that this company shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

MAP B3

Historic Aerial Photograph – 1963



Subject area

0 100 200 300 400 500m

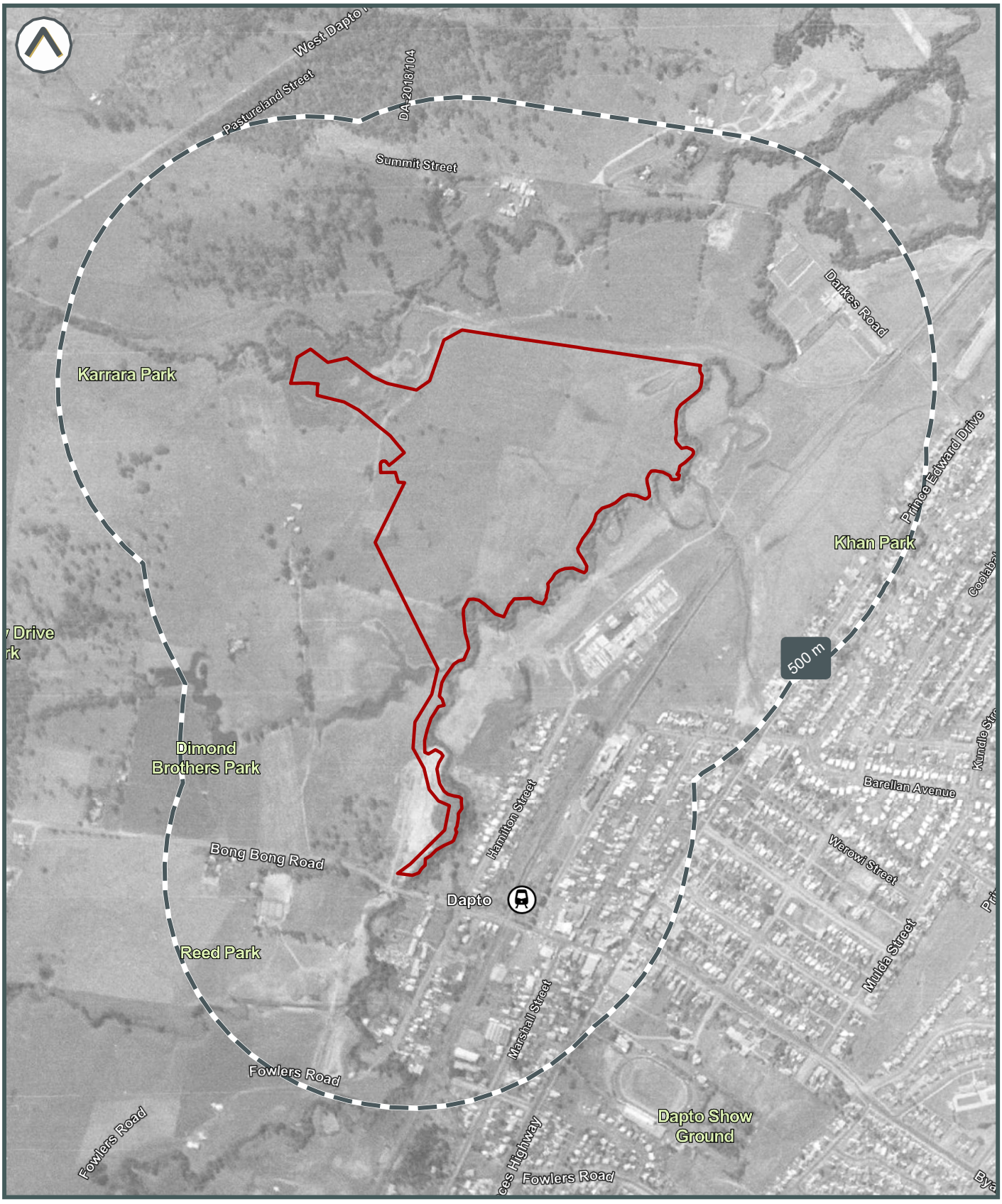
Land Insight

©2024 Land Insight (LI) www.landinsight.co | 15/11/2024 | Data source: Please refer to 'Digital Data Sources' in the Product Guide

Land Insight do no warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that this company shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

MAP B4

Historic Aerial Photograph – 1972



Subject area

0 100 200 300 400 500m

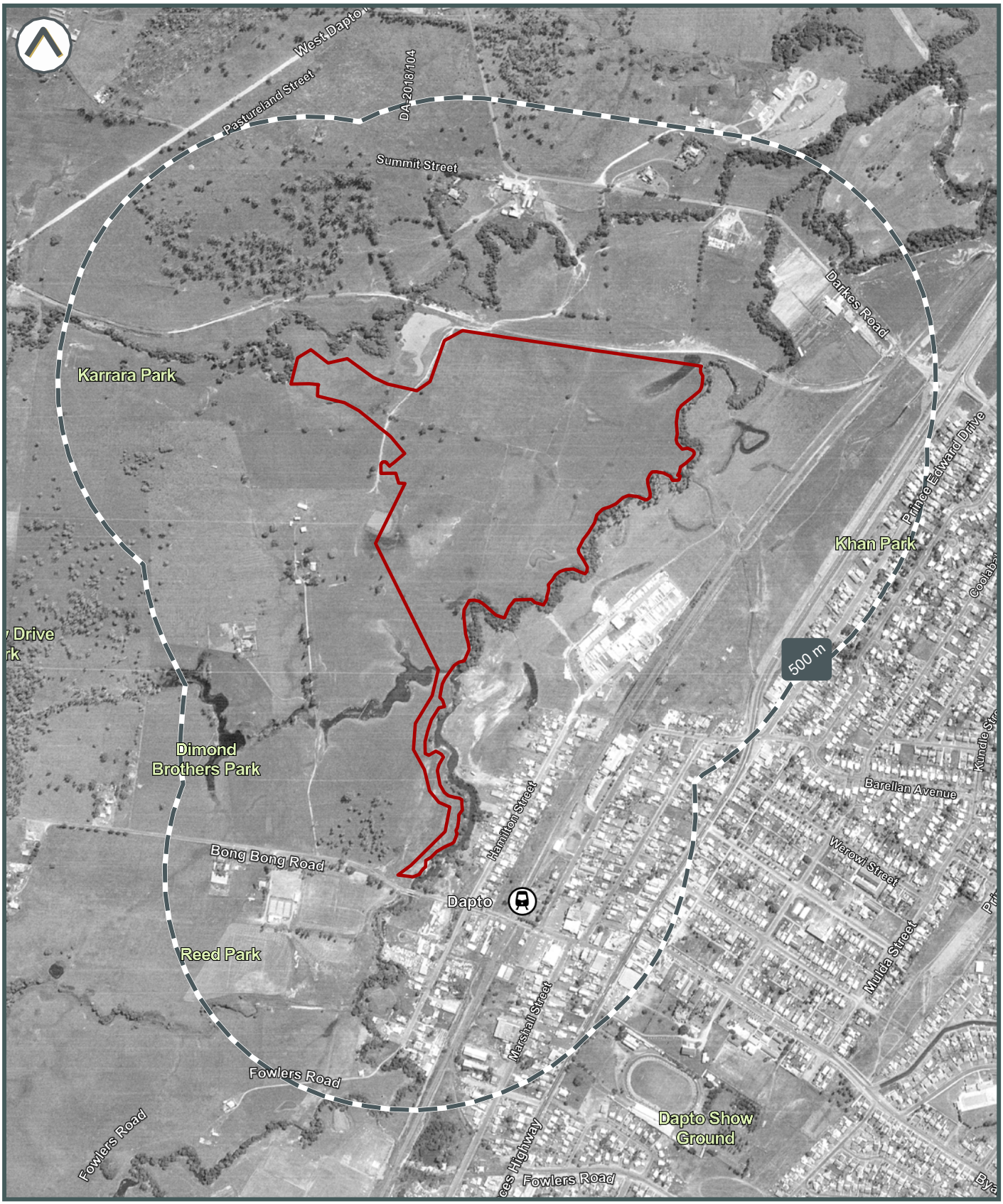
Land Insight

©2024 Land Insight (LI) www.landinsight.co | 15/11/2024 | Data source: Please refer to 'Digital Data Sources' in the Product Guide

Land Insight do no warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that this company shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

MAP B5

Historic Aerial Photograph – 1975



©2024 Land Insight (LI) www.landinsight.co | 15/11/2024 | Data source: Please refer to 'Digital Data Sources' in the Product Guide

Land Insight

Land Insight do no warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that this company shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

MAP B6

Historic Aerial Photograph – 1980



Subject area

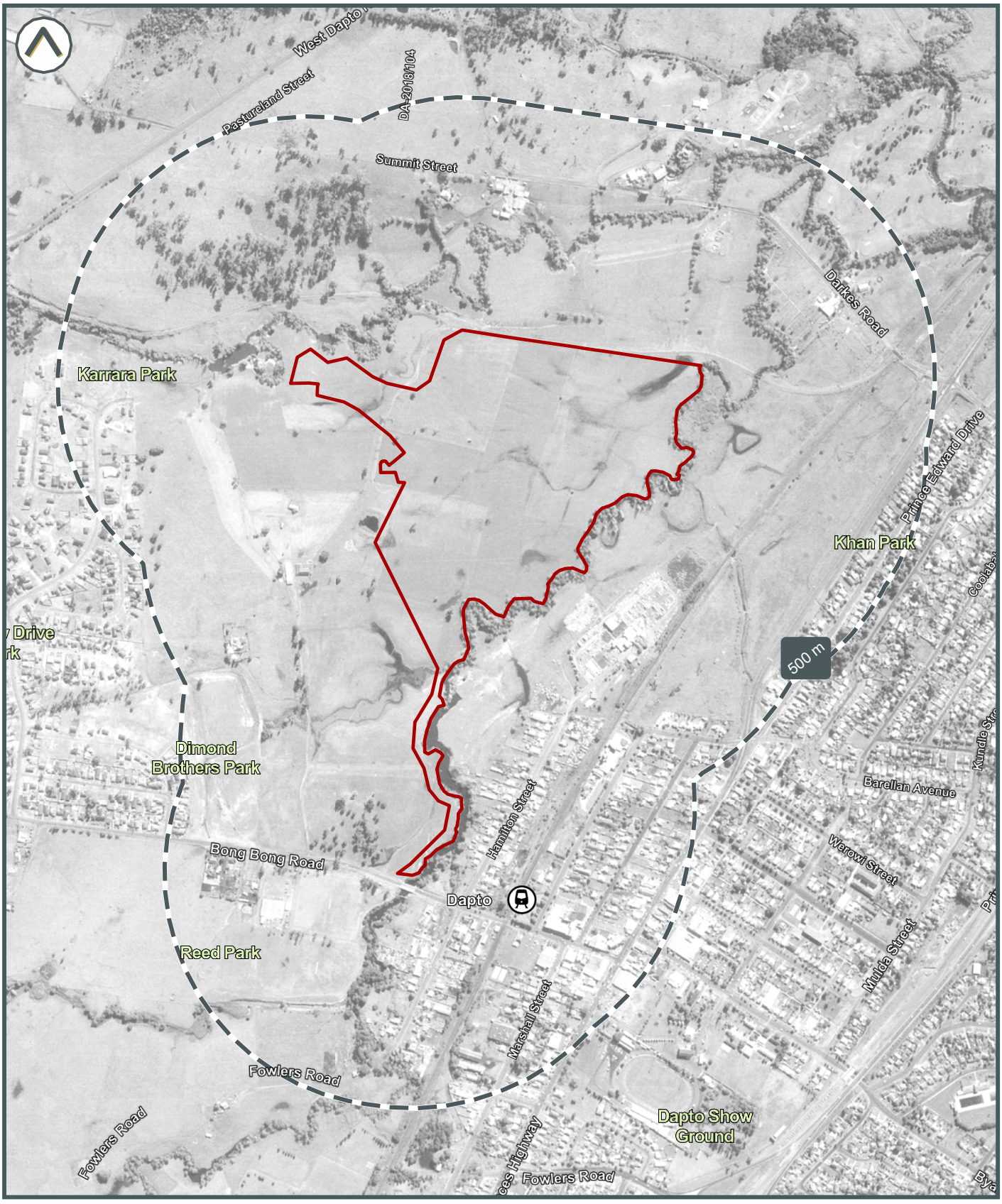
0 100 200 300 400 500m

Land Insight

©2024 Land Insight (LI) www.landinsight.co | 15/11/2024 | Data source: Please refer to 'Digital Data Sources' in the Product Guide

Land Insight do no warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that this company shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

Historic Aerial Photograph – 1984



©2024 Land Insight (LI) www.landinsight.co | 15/11/2024 | Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

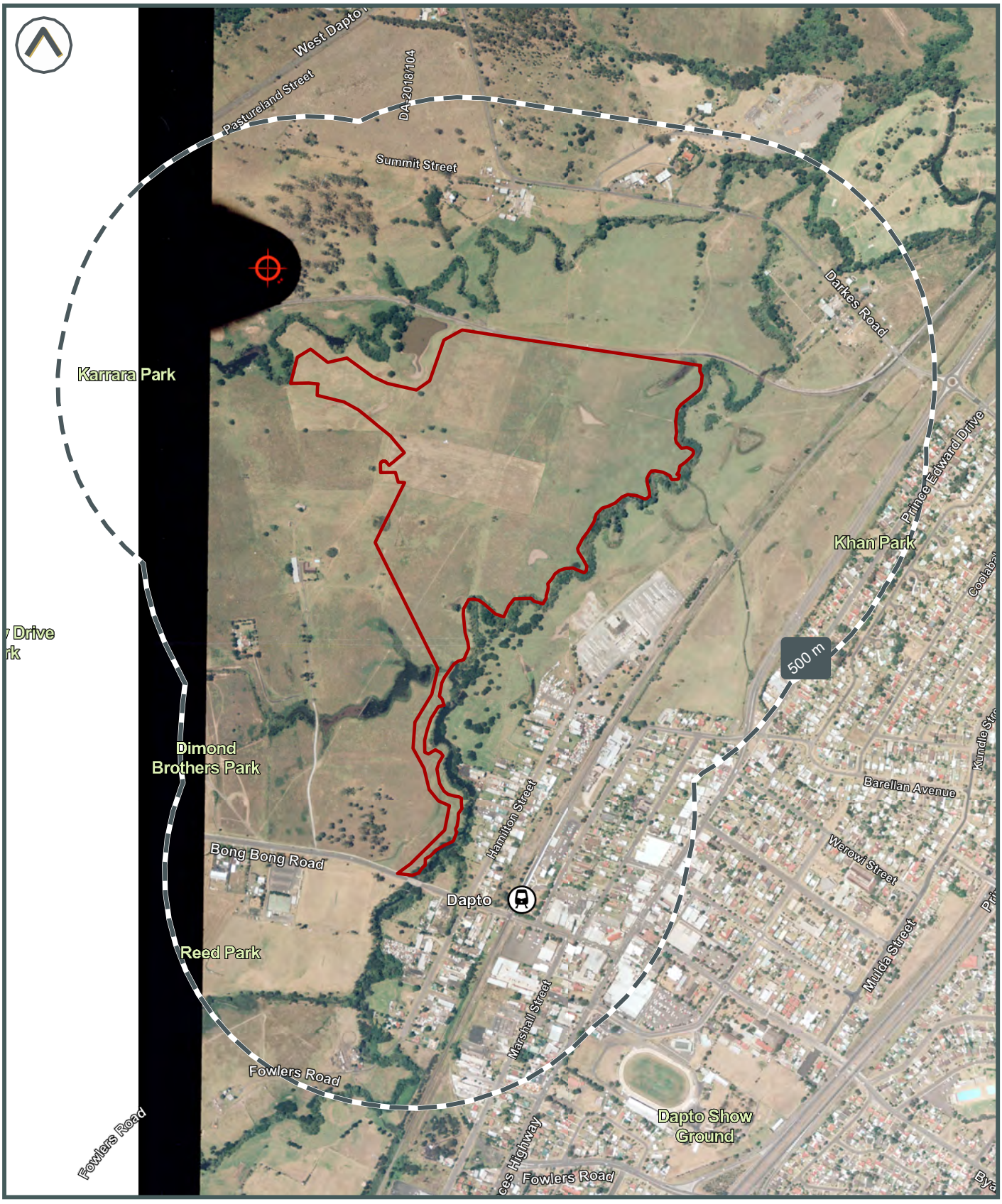
0 100 200 300 400 500m

Land Insight

Land Insight do no warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that this company shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

MAP B8

Historic Aerial Photograph – 1994



Subject area

0 100 200 300 400 500m

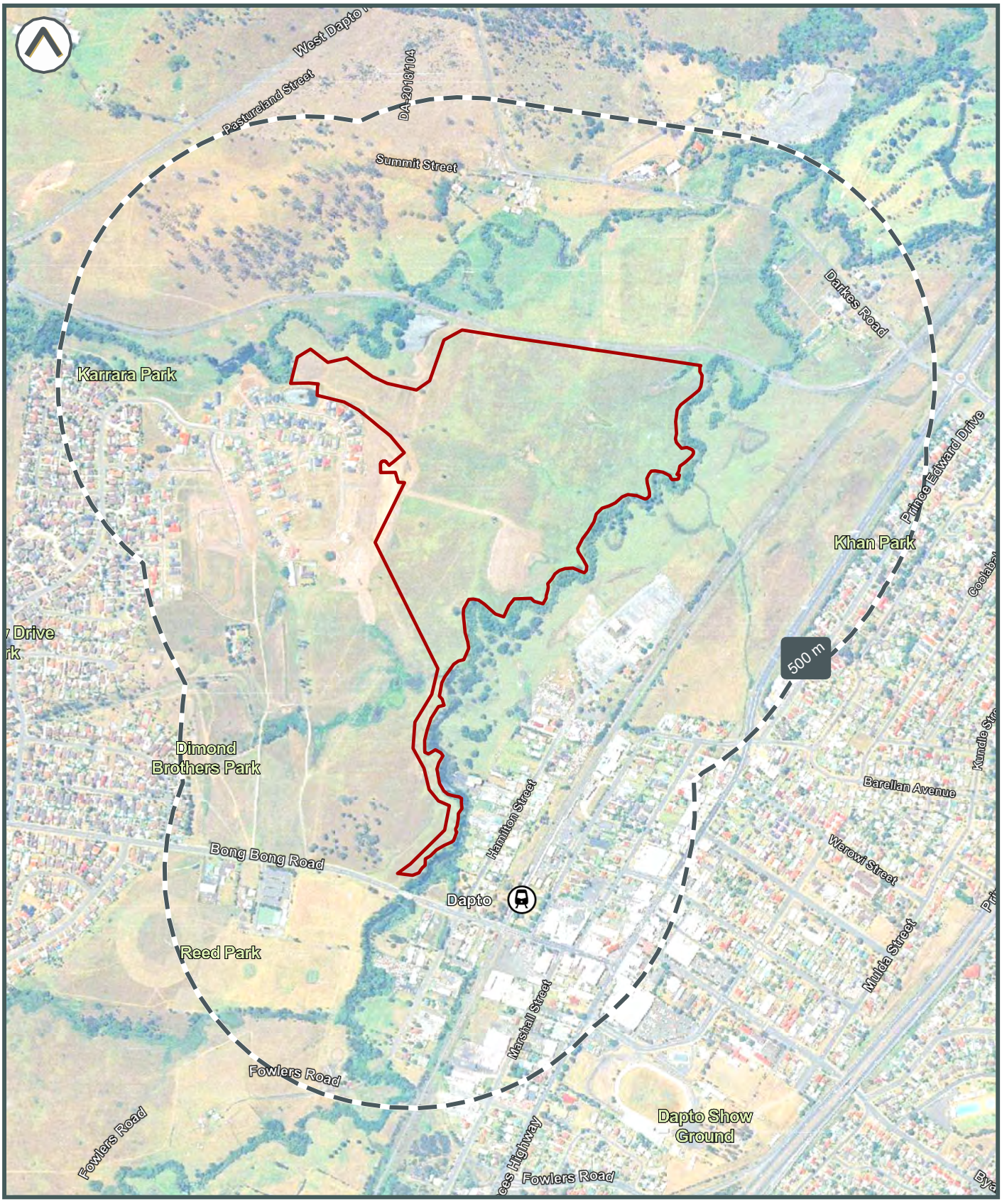
©2024 Land Insight (LI) www.landinsight.co | 15/11/2024 | Data source: Please refer to 'Digital Data Sources' in the Product Guide

Land Insight

Land Insight do no warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that this company shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

MAP B9

Historic Aerial Photograph – 1997



Subject area

0 100 200 300 400 500m

Land Insight

©2024 Land Insight (LI) www.landinsight.co | 15/11/2024 | Data source: Please refer to 'Digital Data Sources' in the Product Guide

Land Insight do no warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that this company shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

MAP B10

Historic Aerial Photograph – 2002



Subject area

0 100 200 300 400 500m

Land Insight

©2024 Land Insight (LI) www.landinsight.co | 15/11/2024 | Data source: Please refer to 'Digital Data Sources' in the Product Guide

Land Insight do no warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that this company shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

MAP B11

Historic Aerial Photograph – 2008



Subject area

0 100 200 300 400 500m

Land Insight

©2024 Land Insight (LI) www.landinsight.co | 15/11/2024 | Data source: Please refer to 'Digital Data Sources' in the Product Guide

Land Insight do no warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that this company shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

MAP B12

Historic Aerial Photograph – 2010



©2024 Land Insight (LI) www.landinsight.co | 15/11/2024 | Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 100 200 300 400 500m

Land Insight

Land Insight do no warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that this company shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

MAP B13

Historic Aerial Photograph – 2014



Subject area

0 100 200 300 400 500m

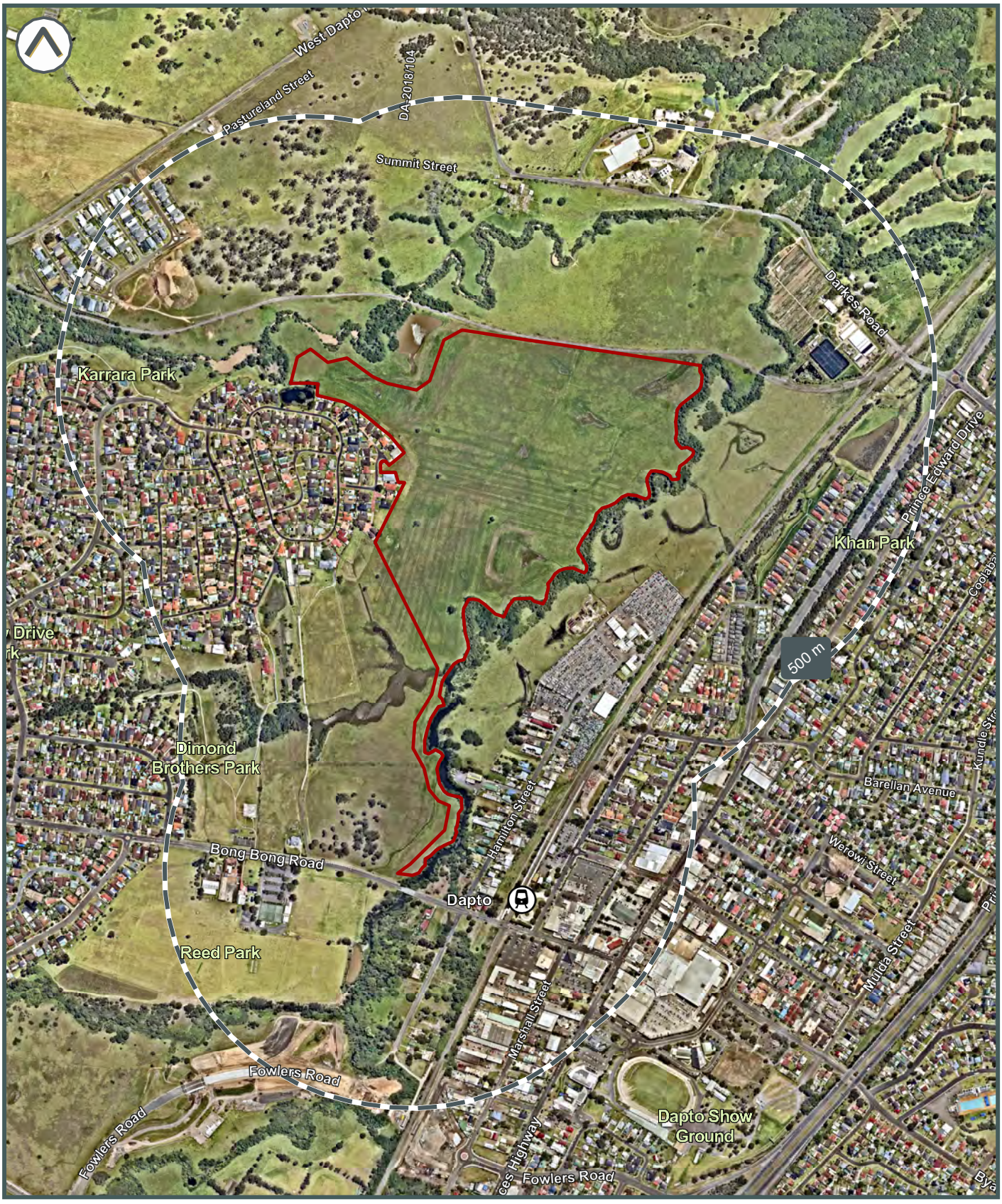
Land Insight

©2024 Land Insight (LI) www.landinsight.co | 15/11/2024 | Data source: Please refer to 'Digital Data Sources' in the Product Guide

Land Insight do no warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that this company shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

MAP B14

Historic Aerial Photograph – 2018



Subject area

0 100 200 300 400 500m

Land Insight

©2024 Land Insight (LI) www.landinsight.co | 15/11/2024 | Data source: Please refer to 'Digital Data Sources' in the Product Guide

Land Insight do no warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that this company shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

MAP B15

Historic Aerial Photograph – 2021



Subject area

0 100 200 300 400 500m

Land Insight

©2024 Land Insight (LI) www.landinsight.co | 15/11/2024 | Data source: Please refer to 'Digital Data Sources' in the Product Guide

Land Insight do no warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that this company shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

MAP B16

Historic Aerial Photograph – 2024



Subject area

0 100 200 300 400 500m

Land Insight

©2024 Land Insight (LI) www.landinsight.co | 15/11/2024 | Data source: Please refer to 'Digital Data Sources' in the Product Guide

Land Insight do no warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that this company shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

MAP B17

1969–1991 1:25,000 Topographic Map (Wollongong 9029-2S)



©2024 Land Insight (LI) www.landinsight.co | 15/11/2024 | Data source: Please refer to 'Digital Data Sources' in the Product Guide

Subject area

0 160 320 480 640 800m

Land Insight

Land Insight do no warrant the accuracy or completeness of information in this publication and any person using or relying upon such information does so on the basis that this company shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.

Land Insight

Appendix H – Council Search

DA99/692

BONG BONG RD LOT 412 NO 34 DP 873616 HORSLEY

Where copyright exists in a document, it is provided for information purposes only in accordance with Council's statutory obligations and the copyright laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

Gosford Micrographics Pty Ltd 02 43898066

WOLLONGONG
City of Diversity

D99/692

(spike)

Wollongong City Council Development & Construction Certificate Application

DA99/692

THIS APPLICATION IS FOR:–

Development Approval ——— (Yes)/No

Advertised Development Approval ——— (Yes)/No

Integrated Development Approval ——— Yes/(No)

Designated Development Approval ——— Yes/(No)

Zoning 2(a) Low Density & 6(b) Private Recreation

Hazard Fill, Flood ——— Yes/No

Wind Classification ——— Yes/(No)

Application taken by Carol Ward 5

Related C.C. No. ———

Council to Provide Construction Certificate ——— Yes/No

Council to be Principal Certifing Authority ——— Yes/No

Endorsement/Refusal Date ———

Deferred Commencement ——— Yes/No

Contact Officer ———

Card Sent ——— Yes/No

Fee	Amount	Receipt No.	Date Paid	Fee	Amount	Receipt No.	Date Paid
L.S.L.				BUILDERS INSURANCE			
SECTION 94				OTHER			
BOND/ GUARANTEE				OTHER			

NOTIFICATION

(Yes)/No

Notification Expiry Date 24.11.99 – 8.12.99

Objections ——— Yes/No

Date referred to E.H.O. ———

APPLICATION FILE MOVEMENT

To	Action Required	Date	Initial

Referred to	Officer	Date Sent	Date Ret
Landscape		16.11.99	
L.D.E		18.11.99	

Applicant

Applicant Address

Telephon

S.14(3)(3)(A) Personal Information

Lot. No. 412 D.P. 873616 Sec.....

D/A 99/692

Development Subdivision - 2 Lots.

Development Address 34 Bong Bong Rd Horsley.

Location N/S Bong Bong Rd S/W Hamilton St.

Property No. 136.5260

Rates No. 6.4099.51300

Where copyright exists in a document, it is provided for information purposes only in accordance with statutory obligations and statutory obligations and copyright laws still apply. The consent is required if any part of the document is used for any other purpose.

D99/690

WOLLONGONG CITY COUNCIL 16/11/99

DEVELOPMENT APPLICATION WORKSHEET

APPLICATION NO: D 692/99 DATE REC'D: 16/11/99 Page: 1

FEE DETAILS :

LOCATION DETAILS:
ADDRESS : 34 BONG BONG RD

SUBURB : HORSLEY

DESCRIPTION : DP 873616 Lot 412

POSITION : N/S BONG BONG RD 5 W HAMILTON ST

PROPOSED USAGE: SUBDIVISION - 2 LOTS

APPLICANT DETAILS:
NAME :
ADDRESS :
:

S.14(3)(3)(A) Personal Information

OWNER : BARLYN PTY LTD
CONSENT GIVEN : CY

ZONES : 2(a) LOW DENSITY RESIDENTIAL
6(b) PRIVATE RECREATION

LAND CONSTRAINTS:

B/L NOTE
DEVELOPMENT RESTRICTIONS
DEMOLITION OF BUILDINGS
S.E.P.P NO. 22 - SHOPS & COMMERCIAL
D.C.P. RETAIL MARKETS 94/1
D.C.P. URBAN CONSOLIDATION 94/3
NO RESOLUTION TO MAKE LEP
S.E.P.P NO. 45 - PERMISSIBILITY MINING
D.D.C.P. DESIGN OF WASTE FACILITIES
ROAD WIDENING - NOT AFFECTED

SEWAGE MANAGEMENT SYSTEMS
S.E.P.P NO 50 - CANAL ESTATE DEVELOPMENT
NOTE:CLAUSE 29
3
IMPORTANT NOTE:-
W.L.E.P 1990 & AMENDMENT NO 129
CONTRIBUTION PLAN 97/19 - HORSLEY
UNSTABLE LAND - NOT AFFECTED
NOT IDENTIFIED FOR DUAL OCCUPANCY
ACID SULPHATE SOILS

I.R.E.P. No 1
D.C.P. KEEPING OF PIGEONS 93/1
D.C.P. SHOP-TOP HOUSING 94/2
W.L.E.P. 1990 AND SUBSEQUENT AMENDMEN
D.D.C.P - COMPLYING DEVELOPMENT
MINES SUBSIDENCE - NOT AFFECTED
D.L.E.P - HERITAGE AMENDMENTS 1996
LEADED PAINT AND BUILDING RENOVATIONS
S.E.P.P. NO. 55 - REMEDIATION OF LAND
CONTAMINATED LAND M. ACT - NOT AFFECT
D.C.P BED & BREAKFAST ACCOMMODATION 9
S.E.P.P NO. 45 - PERMISSIBILITY MININ
W.L.E.P. 1990 & AMENDMENT NO. 37
D.C.P. 39
FILLED LAND - AFFECTED
FLOOD HAZARD - AFFECTED
B/L FRONT - RESIDENTIAL - 6M

L.E.P.....

Where copyright exists in a document, it is provided for information purposes only in accordance with Council's statutory obligations and copyright laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

PROPERTY DEVELOPMENT HISTORY

PARCEL IDENTIFIER: DP 873616 Lot 412
PIN: 79475

SUBJECT TO;
a) REST'N - VIDE DP873616
b) ESMT - VIDE DP873616
c) R.O.C'WAY - VIDE DP873616
d) PROP ESMT - VIDE DP267423

APP. NO. D93/719 - SUBDIVISION - 116 LOTS - APPROVED CONDITIONALLY - 24.12.93
APP. NO. D93/719(AM) - AMENDED CONSENT - APPROVED CONDITIONALLY - 24.12.93
APP. NO. D93/719(AM/1) - AMENDED CONSENT - APPROVED CONDITIONALLY - 24.12.93
APP. NO. D93/719(AM/2) - AMENDED CONSENT - APPROVED CONDITIONALLY - 24.12.93
APP.NO. D94/591 - SUBDIVISION - 4 LOTS - WITHDRAWN - 9.9.94
APP. NO D93/719(AM/3) - AMENDED CONSENT - APPROVED CONDITIONALLY - 24.12.93
APP. NO. D95/714 - SUBDIVISION - 25 LOTS AN FILLING OF RURAL WATER STORAGE DAM - DEFERRED CONSENT - 28.2.96
APP.NO. D95/714(AM) - AMENDED CONSENT - APPROVED CONDITIONALLY - 26.6.96
APP. ON. D95/811 - HOME EMPLOYMENT - MANUFACTURING KITCHENS - REFUSED - 11.7..96
APP. NO. D95/714(AM/1) - AMENDED CONSENT - APPROVED CONDITIONALLY - 28.2.96
APP. NO. D97/710 - DUAL OCCUPANCY - APPROVED CONDITIONALLY - 4.2.98
APP. NO. D99/692 - SUBDIVISION - 2 LOTS - CURRENT APPLICATION

Where copyright exists in a document, it is provided for information purposes only in accordance with council's statutory obligations and the copyright laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

WOLLONGONG
City of Diversity

Design - Landscape DA Reply

Ba No. *Date Out* 24/11/99

Da No. 692/99

E No. *Design Job Number* DV14830

MANAGER PLANNING
Attention: LP

House No. 34 *Lot No.* 412 *DP Number* 873616

Street BONG BONG *St. Abbrev.* RD

Suburb HORSLEY

Reference is made to your memo dated 16/11/99 concerning the abovementioned matter, and it is advised that the submitted information referred with the Application has been assessed and found to be:-

Unacceptable. Consent should be withheld until the applicant provides the following information:

☐ 01	☐ 05	☐ 09	☐ 13	☐ 17	☐ 21	☐ 25	☐ 29	☐ 33
☐ 02	☐ 06	☐ 10	☐ 14	☐ 18	☐ 22	☐ 26	☐ 30	☐ 34
☐ 03	☐ 07	☐ 11	☐ 15	☐ 19	☐ 23	☐ 27	☐ 31	☐ 35
☐ 04	☐ 08	☐ 12	☐ 16	☐ 20	☐ 24	☐ 28	☐ 32	☐ An Arborist's report is required on the street tree and trees

Number **Text**

The plan should indicate the proposed building zones.

An arborist report should accompany the tree survey.

Where copyright exists in a document, it is provided for information purposes only in accordance with Council's statutory obligations and copyright laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

F Shaw

Felicity Shaw **Design Division**

WOLLONGONG CITY COUNCIL 16/11/99

DEVELOPMENT APPLICATION WORKSHEET

APPLICATION NO: D 692/99 DATE REC'D: 16/11/99 Page: 1

FEE DETAILS :

LOCATION DETAILS:
ADDRESS : 34 BONG BONG RD landscape
SUBURB : HORSLEY
DESCRIPTION : DP 873616 Lot 412

POSITION : N/S BONG BONG RD 5 W HAMILTON ST

PROPOSED USAGE: SUBDIVISION - 2 LOTS

APPLICANT DETAILS:
NAME : S.14(3)(3)(A) Personal Information
ADDRESS :
:

OWNER : BARLYN PTY LTD
CONSENT GIVEN : CY

ZONES : 2(a) LOW DENSITY RESIDENTIAL
6(b) PRIVATE RECREATION

LAND CONSTRAINTS:

B/L NOTE
DEVELOPMENT RESTRICTIONS
DEMOLITION OF BUILDINGS
S.E.P.P NO. 22 - SHOPS & COMMERCIAL
D.C.P. RETAIL MARKETS 94/1
D.C.P. URBAN CONSOLIDATION 94/3
NO RESOLUTION TO MAKE LEP
S.E.P.P NO. 45 - PERMISSIBILITY MINING
D.D.C.P. DESIGN OF WASTE FACILITIES
ROAD WIDENING - NOT AFFECTED

SEWAGE MANAGEMENT SYSTEMS
S.E.P.P NO 50 - CANAL ESTATE DEVELOPMENT
NOTE:CLAUSE 29
3
IMPORTANT NOTE:-
W.L.E.P 1990 & AMENDMENT NO 129
CONTRIBUTION PLAN 97/19 - HORSLEY
UNSTABLE LAND - NOT AFFECTED
NOT IDENTIFIED FOR DUAL OCCUPANCY
ACID SULPHATE SOILS

I.R.E.P. No 1
D.C.P. KEEPING OF PIGEONS 93/1
D.C.P. SHOP-TOP HOUSING 94/2
W.L.E.P. 1990 AND SUBSEQUENT AMENDMEN

D.D.C.P - COMPLYING DEVELOPMENT
MINES SUBSIDENCE - NOT AFFECTED
D.L.E.P - HERITAGE AMENDMENTS 1996
LEADED PAINT AND BUILDING RENOVATIONS
S.E.P.P. NO. 55 - REMEDIATION OF LAND
CONTAMINATED LAND M. ACT - NOT AFFECT
D.C.P BED & BREAKFAST ACCOMMODATION 9
S.E.P.P NO. 45 - PERMISSIBILITY MININ
W.L.E.P. 1990 & AMENDMENT NO. 37
D.C.P. 39
FILLED LAND - AFFECTED
FLOOD HAZARD - AFFECTED
B/L FRONT - RESIDENTIAL - 6M

L.E.P.....

DESIGN DIVISION
16 NOV 1999
DV14830

Where copyright exists in a document, it is provided for information purposes only in accordance with Council's statutory obligations and copyright laws still apply. No part of the document is required for any other purpose.

Graham, Bell and Bowman Architects

Ref: 484/1/E

11th November, 1999

The General Manager,
Wollongong City Council,
Locked Bag 8821,
SOUTH COAST MAILING CENTRE. N.S.W. 2521

Dear Sir,

Re: Development Application
Sub-division Lot 10 Bong Bong Road, Dapto

Please find attached the following documents for this application.

01 The completed Development Application Form and the applicants cheque for the application fee.

02 Four (4) copies of our statement supporting the application.

03 Four (4) copies of the site survey plan showing:
- Boundaries and location of trees.
- Road frontage showing location of existing services.
- Site levels relative to AHD and levels extending into adjacent properties.
- Location of existing easements and rights of carriageway.

Note that no drainage or roadworks details have been provided as the application does not apply for any development or change of current use on either allotment.

Should you require additional information please do not hesitate to contact the writer.

Where copyright exists in a document, it is provided for information purposes only and in accordance with Council's subject to obligations and copyright laws still apply. The copyright consent is owner's of the document is required if any part of the document is reproduced for any other purpose.

Yours faithfully,

Bruce W. Bowman
For & On behalf of
Graham, Bell & Bowman Pty. Limited.

Enc.

484114

Graham, Bell and Bowman Pty. Limited A.C.N. 002 669 070
94 Kembla Street, Wollongong - Telephone (02) 4228 8311 - Facsimile (02) 4228 5749
Correspondence to P.O. Box 316, Wollongong East, N.S.W. 2520
Directors: Terry Graham, B Arch. (Hons) A R A I A Bruce Bowman, A R A I A

Graham, Bell and Bowman Architects

Ref: 484/1/C

Project: Sub-Division – Lot 10 Bong, Bong Road West Dapto
H. Barham

STATEMENT IN SUPPORT OF SUB DIVISION **11.11.99**

1. INTRODUCTION

01 Graham, Bell & Bowman have been commissioned by the applicant and property owner, S.14(3)(3)(A) Personal o apply for sub-division of Lot 10 into two separate titles under the current 6b zoning.

02 The subject land consisting of approximately 43Ha is divided into two parts by a naturally occurring billabong formed off Mullet Creek.

2. SITE CHARACTERISTICS

01 Lot 10 is located on the north side of Bong Bong Road, West Dapto. The eastern boundary of the site is formed by Mullet Creek.

The site is relatively level and has a frontage of 201 metres to Bong Bong Road.

The site has no building structures and is currently utilised for grazing.

02 Lot 10 was identified in the Mullet Creed Flood Study (PWD 1985) to have been affected by flooding in the 1% AEP flood event.

3. PROPOSED SUB-DIVISION

01 The proposed sub-division is described by KF Williams drawing JO3053/1298.

02 The two lot sub-division is formed each side of the billabong and described as Lot 500 with frontage to Bong Bong Road and Lot 501 with a current right of way easement access from Bong Bong Road.

4. OBJECTIVE OF SUB-DIVISION

01 The site was formerly used for dairy cattle. It is currently grazed by beef cattle which is not economically viable on a holding of this area.

02 The owner / applicant wishes to obtain separate title for the proposed two lots and dispose of the property.

Where copyright exists in a document, it is provided for information purposes only in accordance with Councils copyright obligations and statutory laws. The copyright still applies if any part of the document is reproduced or used for any other purpose.

Graham, Bell and Bowman Pty. Limited A.C.N. 002 669 070
94 Kembla Street, Wollongong - Telephone (042) 28 8311 - Facsimile (042) 28 5749
Correspondence to P.O. Box 316, Wollongong East, N.S.W. 2520
Directors: Terry Graham, B Arch (Hons) A.R.A.I.A. Bruce Bowman, A.R.A.I.A.

WOLLONGONG CITY COUNCIL 16/11/99

DEVELOPMENT APPLICATION WORKSHEET

APPLICATION NO: D 692/99 DATE REC'D: 16/11/99 Page: 1

FEE DETAILS :

LOCATION DETAILS:
ADDRESS : 34 BONG BONG RD

SUBURB : HORSLEY

DESCRIPTION : DP 873616 Lot 412

POSITION : N/S BONG BONG RD 5 W HAMILTON ST

PROPOSED USAGE: SUBDIVISION - 2 LOTS

APPLICANT DETAILS:
NAME : S.14(3)(3)(A) Personal Information
ADDRESS :
:

OWNER : BARLYN PTY LTD
CONSENT GIVEN : CY

ZONES : 2(a) LOW DENSITY RESIDENTIAL
6(b) PRIVATE RECREATION

LAND CONSTRAINTS:

B/L NOTE
DEVELOPMENT RESTRICTIONS
DEMOLITION OF BUILDINGS
S.E.P.P NO. 22 - SHOPS & COMMERCIAL
D.C.P. RETAIL MARKETS 94/1
D.C.P. URBAN CONSOLIDATION 94/3
NO RESOLUTION TO MAKE LEP
S.E.P.P NO. 45 - PERMISSIBILITY MINING
D.D.C.P. DESIGN OF WASTE FACILITIES
ROAD WIDENING - NOT AFFECTED
SEWAGE MANAGEMENT SYSTEMS
S.E.P.P NO 50 - CANAL ESTATE DEVELOPMENT
NOTE:CLAUSE 29
3
IMPORTANT NOTE:-
W.L.E.P 1990 & AMENDMENT NO 129
CONTRIBUTION PLAN 97/19 - HORSLEY
UNSTABLE LAND - NOT AFFECTED
NOT IDENTIFIED FOR DUAL OCCUPANCY
ACID SULPHATE SOILS

I.R.E.P. No 1
D.C.P. KEEPING OF PIGEONS 93/1
D.C.P. SHOP-TOP HOUSING 94/2
W.L.E.P. 1990 AND SUBSEQUENT AMENDMEN
D.D.C.P - COMPLYING DEVELOPMENT
MINES SUBSIDENCE - NOT AFFECTED
D.L.E.P - HERITAGE AMENDMENTS 1996
LEADED PAINT AND BUILDING RENOVATIONS
S.E.P.P. NO. 55 - REMEDIATION OF LAND
CONTAMINATED LAND M. ACT - NOT AFFECT
D.C.P BED & BREAKFAST ACCOMMODATION 9
S.E.P.P NO. 45 - PERMISSIBILITY MININ
W.L.E.P. 1990 & AMENDMENT NO. 37
D.C.P. 39
FILLED LAND - AFFECTED
FLOOD HAZARD - AFFECTED
B/L FRONT - RESIDENTIAL - 6M

L.E.P.....

Warning: Copyright exists in a document, it is provided for information purposes only in accordance with Council's statutory obligations and copyright laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

WOLLONGONG
City of Diversity

PLEASE QUOTE
Ref: LP:mp
Ext: 7308
File No: D99/692

Memo to be Filed ☐

17 November 1999

SENIOR DRAUGHTSMAN - PLANNING AND DEVELOPMENT

DEVELOPMENT APPLICATION D99/692 – LOT 412 DP 873616 NO 34 BONG BONG ROAD, HORSLEY – SUBDIVISION TWO LOTS

The subject Application is to be advertised in the Wollongong Advertiser on Wednesday 24 November 1999.

Please arrange for erection of the prescribed sign and advise me by 10.00am on Tuesday 23 November 1999 that the sign has been erected.

At the expiration of 14 days from the date of advertisement, please ensure the sign is retrieved.

MANAGER PLANNING

MEMO TO CITY PLANNER

Sign erected on land on 23-11-99

by H.JONES

SENIOR DRAUGHTSMAN

Where copyright exists in a document, it is provided for information purposes only in accordance with Council's statutory obligations and copyright laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

City of Wollongong

DEVELOPMENT PROPOSAL

LOT 412 DP 873616 NO 34 BONG BONG ROAD, HORSLEY

An application has been received by Council from Mrs H Barham for the following development on this land.

SUBDIVISION TWO LOTS

ANY PERSON MAY, BEFORE THE CLOSING DATE SHOWN BELOW, MAKE A SUBMISSION EITHER FOR OR AGAINST THE PROPOSED DEVELOPMENT, WHERE A SUBMISSION IS MADE BY WAY OF OBJECTION, THE GROUNDS OF OBJECTION ARE REQUIRED TO BE SPECIFIED IN THE SUBMISSION. ANY SUBMISSION MADE TO COUNCIL WILL NOT BE CONFIDENTIAL AND WILL BE MADE AVAILABLE FOR PUBLIC INSPECTION.

CLOSING DATE FOR RECEIPT OF SUBMISSIONS 8 December 1999.

THE ABOVEMENTIONED APPLICATION, INCLUDING ACCOMPANYING PLANS AND DOCUMENTS, MAY BE INSPECTED DURING ORDINARY OFFICE HOURS, UP TO THE CLOSING DATE SHOWN ABOVE AT

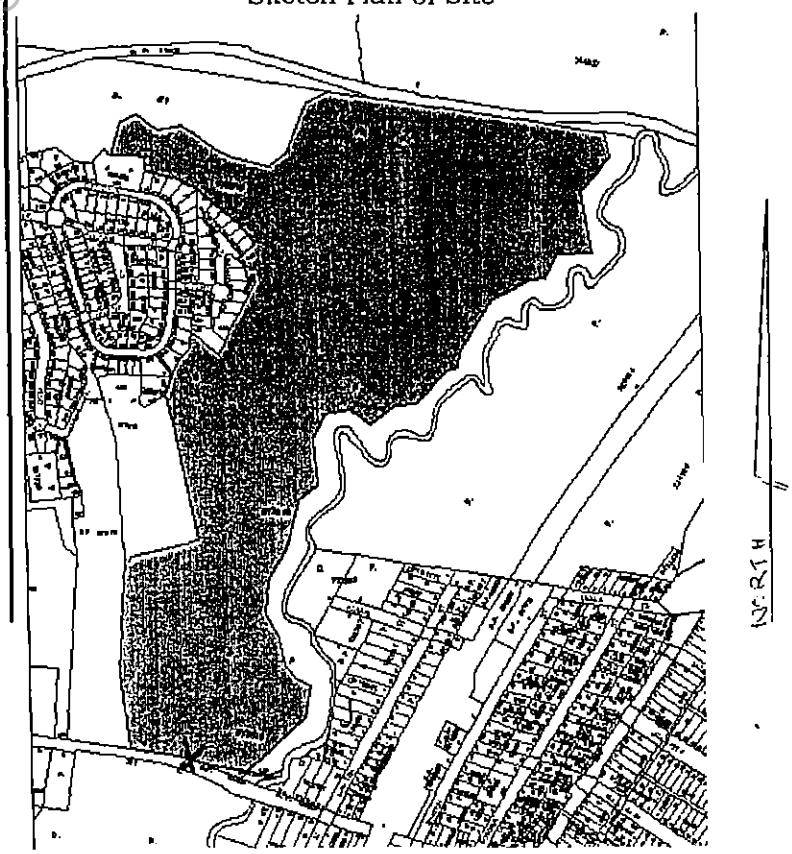
COUNCIL'S PLANNING DIVISION
ADMINISTRATION BUILDING
LEVEL 4
BURELLI STREET
WOLLONGONG 2500

SUBMISSIONS IN WRITING SHOULD BE ADDRESSED TO:

GENERAL MANAGER
WOLLONGONG CITY COUNCIL
LOCKED BAG 8821
SOUTH COAST MAIL CENTRE NSW 2521

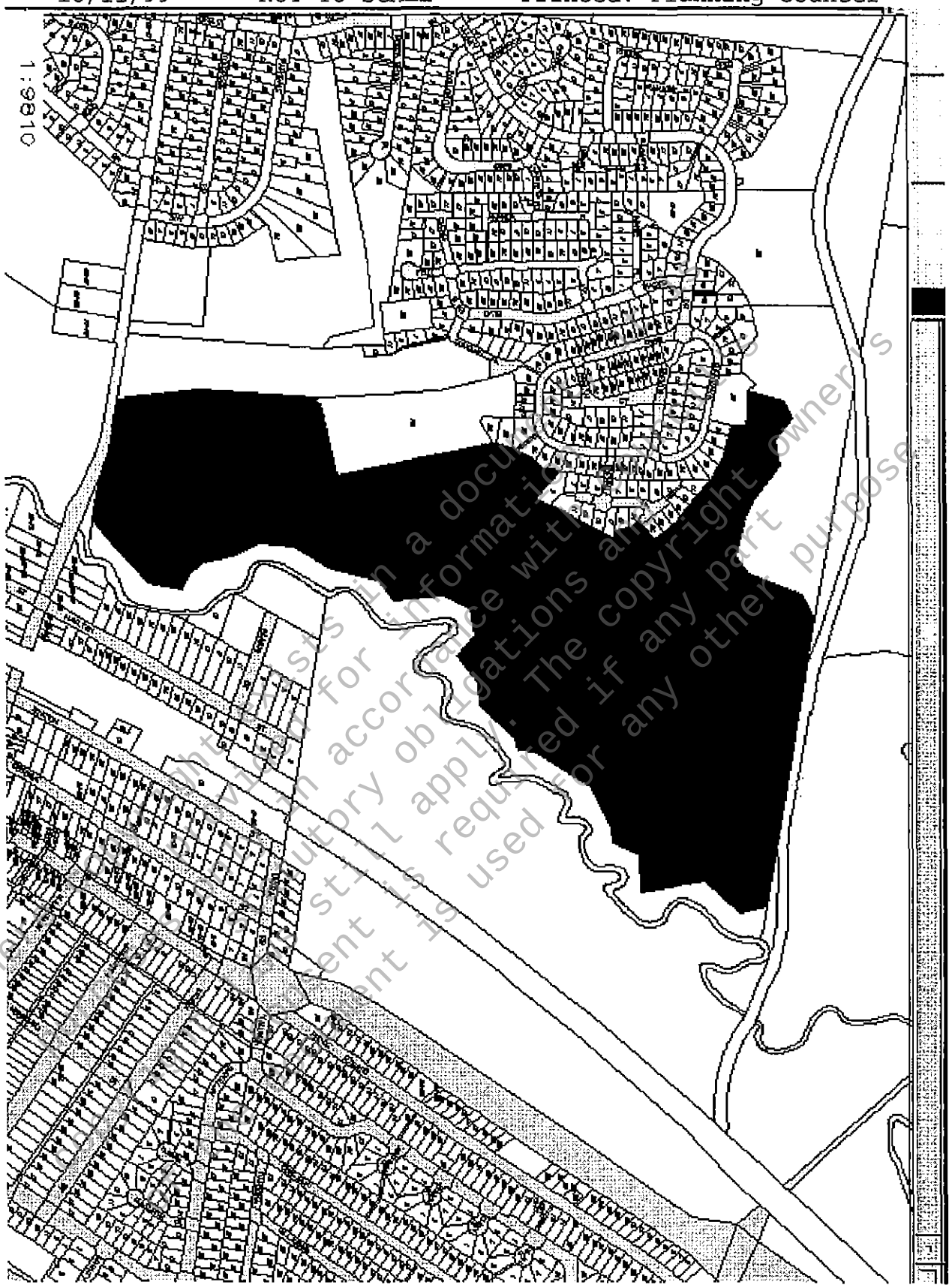
QUOTING REFERENCE NO:
D99/692

Sketch Plan of Site



Warning: Copyright exists in documents provided to Council's planning division and Council's use of this document is subject to obligations and restrictions imposed by copyright law. Council's consent to supply this document does not imply that it is free of copyright owner's consent if any part of the document is required for any purpose.

16/11/99 NOT TO SCALE Printed: Planning counter



No liability will be accepted for any inaccuracy of the data shown.

ADVERTISING REQUEST

PLANNER : L. P. DATE: 16.11.99.

D/A NO 99/692

PROPERTY DESCRIPTION

LOCATED ON THE:

APPLICANT:

DEVELOPMENT PROPOSAL:

PERIOD OF NOTIFICATION REQUIRED

☒ 2 WEEKS

NOTIFCATION REQUIRED

☑ SITE NOTICE

☑ ADJOINING/ADJACENT

☑ NEWSPAPER _____ NO. OF NOTICES RQUIRED _____

☐ ADDITIONAL NOTIFICATION TO: _____

DATE: 24/11/99
DATE: / /
DATE: 8/12/99

☐ DISPLAY AT DEPT OF PLANNING
☐ OTHER _____

* Given to the girls

When copyright exists in a document, it is provided for information purposes only in accordance with Council's copyright laws statutory obligations and consent is required if any part of the document is used for any other purpose.

16/11/99 NOT TO SCALE Printed: Planning counter



No liability will be accepted for any inaccuracy of the data shown.

Graham, Bell and Bowman Architects

Ref: 484/1/E

11th November, 1999

The General Manager,
Wollongong City Council,
Locked Bag 8821,
SOUTH COAST MAILING CENTRE. N.S.W. 2521

Dear Sir,

Re: Development Application
Sub-division Lot 10 Bong Bong Road, Dapto

Please find attached the following documents for this application.

01 The completed Development Application Form and the applicants cheque for the application fee.

02 Four (4) copies of our statement supporting the application.

03 Four (4) copies of the site survey plan showing:
- Boundaries and location of trees.
- Road frontage showing location of existing services.
- Site levels relative to AHD and levels extending into adjacent properties.
- Location of existing easements and rights of carriageway.

Note that no drainage or roadworks details have been provided as the application does not apply for any development or change of current use on either allotment.

Should you require additional information please do not hesitate to contact the writer.

Where copyright exists in a document, it is provided for information purposes only in accordance with Council's statutory obligations and copyright laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

Yours faithfully,

Bruce W. Bowman
For & On behalf of
Graham, Bell & Bowman Pty. Limited.

Enc.

484114

Graham, Bell and Bowman Pty. Limited A.C.N. 002 669 070
94 Kembla Street, Wollongong - Telephone (02) 4228 8311 - Facsimile (02) 4228 5749
Correspondence to P.O. Box 316, Wollongong East, N.S.W. 2520
Directors: Terry Graham, B Arch. (Hons) A R A I A. Bruce Bowman, A R A I A

Graham, Bell and Bowman Architects

Ref: 484/1/C

Project: Sub-Division – Lot 10 Bong, Bong Road West Dapto
H. Barham

STATEMENT IN SUPPORT OF SUB DIVISION **11.11.99**

1. INTRODUCTION

01 Graham, Bell & Bowman have been commissioned by the applicant and property owner S.14(3)(3)(A) Personal to apply for sub-division of Lot 10 into two separate titles under the current 6b zoning.

02 The subject land consisting of approximately 43Ha is divided into two parts by a naturally occurring billabong formed off Mullet Creek.

2. SITE CHARACTERISTICS

01 Lot 10 is located on the north side of Bong Bong Road, West Dapto. The eastern boundary of the site is formed by Mullet Creek.

The site is relatively level and has a frontage of 201 metres to Bong Bong Road.

The site has no building structures and is currently utilised for grazing.

02 Lot 10 was identified in the Mullet Creed Flood Study (PWD 1985) to have been affected by flooding in the 1% AEP flood event.

3. PROPOSED SUB-DIVISION

01 The proposed sub-division is described by KF Williams drawing JO3053/1298.

02 The two lot sub-division is formed each side of the billabong and described as Lot 500 with frontage to Bong Bong Road and Lot 501 with a current right of way easement access from Bong Bong Road.

4. OBJECTIVE OF SUB-DIVISION

01 The site was formerly used for dairy cattle. It is currently grazed by beef cattle which is not economically viable on a holding of this area.

02 The owner / applicant wishes to obtain separate title for the proposed two lots and dispose of the property.

Where copyright exists in a document it is provided for information purposes only in accordance with Councils statutory obligations and copyright laws. The copyright owners consent is required if any part of the document is used for any other purpose.

Graham, Bell and Bowman Pty. Limited A.C.N. 002 669 070
94 Kembla Street, Wollongong - Telephone (042) 28 8311 - Facsimile (042) 28 5749
Correspondence to P.O. Box 316, Wollongong East, N.S.W. 2520
Directors: Terry Graham, B Arch. (Hons) A R A I A. Bruce Bowman, A R A I A

PLEASE QUOTE
Ref: **JJ**
Ext: **7296**
File No: **D**

Memo to be Filed ☐

MANAGER FINANCE

Attention: Disbursements

DEVELOPMENT APPLICATION D

Please refund Development Application fees totalling $ 475 to:

S.14(3)(3)(A) Personal Information

c/- Bruce Bowman Architects
94 Kembla St
Wollongong

Account No: A7493.031
Amount: $330.00

Account No:- A7493.051
Amount:- $75.00

Account No: A7493.087
Amount: $40.00

Account No:- A7493.88
Amount:- $40.00

Receipt No: 3396
Date: 24.11.99
TOTAL: $475.00

Address of Property: 34 Bong Bong Rd Horsley.

TOTAL:

B SEIDEN
MANAGER PLANNING

Where copyright exists in a document, it is provided for information purposes only in accordance with Council's statutory obligations and copyright laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

WOLLONGONG CITY COUNCIL

Locked Bag 8821
South Coast Mail Centre
Wollongong 2521
Telephone (02) 4227 7111
Facsimile (02) 4227 7277
DX 27811

WOLLONGONG
City of Diversity

03396

Date

D/A No. DA 917/95

Property No.

B/A No.

CC No.

Other

NAME S.14(3)(3)(A) Personal Information

ADDRESS C/- Bruce Bowman Architects

Suburb 141 Auckland St Post Code Wollongong

A/C NAME	CODE	A/C NO	AMOUNT
Development Fees (Planning)	02	6	330
Reconsideration (Planning)	09	251	
Amended Application (Planning)	03	252	
Development Advertising	22	531	40 -
Extn of Development Consent	06	20	
Integrated Development			
Fisheries Management Act	20	253	
Heritage Act	21	254	
National Parks and Wildlife	23	255	
Pollution Control	24	256	
Rivers & Foreshores Improvement Act	25	257	
Roads Act	26	258	
Waste Minimisation & Management Act	27	259	
Water Act	28	260	
Construction Cert. (Subdivisions)	35	266	
Compliance Cert. (Subdivision)	36	267	
Subdivision Cert.	37	13	
Complying Development(Subd'n)	38	268	
General Subdivision Items	39	269	
Miscellaneous (Subdivisions)	41	270	

A/C NAME	CODE	A/C NO.	AMOUNT
State Government Long Service Levy	16	21	
Development Fees (Building)	40	250	
Construction Certificate	10	261	
Complying Development	30	262	
Principal Certifying Authority	31	263	
Compliance Certificates	32	264	
Occupation Certificates	33	265	
Building Fees	01	2	
Damage/Default Fee	12	17	
Road Opening Fee	04	15	
Archiving Fee	05	4	75 -
Section 88b Restriction Fee	15	19	40
Hazard Investigation	HI	90	
Wind Classification	WI	76	
Amended Plans (Building Appln)	07	31	
Building Certificate	11	12	
Landscape/Works		998	
Section 94 Account No:			
Rezoning	08	271	
Development Codes		57	

A/C NAME	CODE	A/C NO.	AMOUNT
Other Refund	550		40
		TOTAL	515.

DRAWER S.14(3)(3)(A) Personal Information

CHEQUE No. 615 CASHIER QW

4041

Copyright exists in a document it is provided for information purposes only in accordance with Council's statutory obligations and Copyright laws still apply. The copyright is required if any part of the document is used for any other purpose.

Graham, Bell and Bowman Architects

Ref: 484/1/E

23rd November, 1999

The General Manager,
Wollongong City Council,
Locked Bag 8821,
SOUTH COAST MAILING CENTRE. N.S.W. 2521

Attention: Mr L. Pawlak,

Dear Sir,

Re: D99/692
Sub-division Bong Bong Road, Horsely

I write on instruction from our client, S.14(3)(3)(A) Personal information advising that we wish to withdraw the above mentioned development application.

Could you arrange the return of the documents and refund the application fee.

Yours faithfully,

Bruce W. Bowman
For & On behalf of
Graham, Bell & Bowman Pty. Limited.

24/11

Where copyright exists in document, it is provided for information purposes only in accordance with Council's statutory obligations and copyright laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

484117

Graham, Bell and Bowman Pty. Limited A.C.N. 002 669 070
94 Kembla Street, Wollongong - Telephone (02) 4228 8311 - Facsimile (02) 4228 5749
Correspondence to P.O. Box 316, Wollongong East, N.S.W. 2520
Directors: Terry Graham, BArch. (Hons) ARAIA. Bruce Bowman, ARAIA

F/C

NEW DEVELOPMENT APPLICATIONS (Cont ....)

~~D99/691~~ ~~Lot 4 DP 811416 No. 5 Railway Avenue, Scarborough~~
16.11.99 South East side Railway Avenue
$20,000 **Alterations and Additions to Dwelling**
5 Special Uses Zone Application : Mr & Mrs C Van Krevel

1 Refer to Health and Building.

2 Planner to check if any trees are to be removed and if so refer to Landscape Architect.

3 Advertise two (2) weeks by letter to adjoining/affected owners.

D99/692 **Lot 412 DP 873616 No. 34 Bong Bong Road, Horsley**
16.11.99 North side Bong Bong Rd 5 Lots West Hamilton Street
Subdivision - Two (2) Lots
2(a)&6(b) Zone Application : S.14(3)(3)(A)

1 Refer to Land Development Engineer.

2 Referred to Landscape Architect.

3 Advertise two (2) weeks - Site Notice and 1 notice in the newspaper only.

In the absence of a specific proposal for the development of proposed lot 500, the application should not be approved. As part of the subdivision of the Basha property to create the Robins Creek Estate, a conscious decision has made to not break up the floodplain & the DA zoned by Council reflected this

---

~~D99/693~~ ~~Lot 31 DP 862829 No. 216 Reddalls Road, West Dapto~~
16.11.99 North side Reddalls Rd 2 Lots West Reddalls Road
$10,000 **Shed**
7(c) Zone Application : Mr A Pemberton

1 Refer to Health and Building.

2 Planner to assess in accordance with 7(c) Guidelines.

3 If application is approved, Consent to be conditioned that at no time must this shed be used for any residential or dual occupancy purposes.

4 Advertise two (2) weeks by letter to adjoining/affected owners.

Spoke to Bruce Bowman & advised him there were two options - withdraw the application - it will be refused.
He will discuss with Mrs Basha & get back to me

18/11/99

Whole copyright exists in a document, it is provided for information purposes only in accordance with council's statutory obligations and copyright laws still apply. The copyright of the document is required if any part consent is used for any other purpose.

PLAN FORM 3 — To be used in conjunction with Plan Form 2

WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION

OFFICE USE ONLY

DP 873616

Registered 9-12-1997

This is sheet 1A of my plan in 4 sheets dated 10TH NOVEMBER 1997

Surveyor registered under Surveyors Act 1939

This is sheet A of the plan of A sheets covered by my Certificate No. G 501 of 27-11-97

General Manager / Authorised Person

For use where space is insufficient in any panel on Plan Form 2.

(M) EASEMENT FOR TRANSMISSION LINE 30.48 WIDE (G.G. 19.11.1943 FOLIOS 2015&2016)

(N) EASEMENT FOR TRANSMISSION LINE 18.29 WIDE (J5361)

(P) EASEMENT FOR THE CONSTRUCTION AND MAINTENANCE OF WATER SUPPLY WORKS 4.57 WIDE (L460432 - D.P. 227382)

(Q) EASEMENT TO DRAIN WATER VARIABLE WIDTH (D.P. 649473)

(S) EASEMENT FOR ACCESS VARIABLE WIDTH (D.P. 649473)

(5)(R) RESTRICTION ON USE OF LAND

226
D. P. 261623

PUBLIC

Robin's

419
6.058ha

A.I.S.

PT Pt 35 D.P. 212322

Creek

RESERVE

SUNNYBANK

BARLYN COURT CRESCENT

SEE DIAGRAM A

SEE SHEET 2

412

420
4567m²

(13 WIDE)

CRES

SSM 89090 FD

DIAGRAM A
1:1000

DIAGRAM B
N.T.S.

DIAGRAM C
1:1000

SEE DIAGRAM B

SEE DIAGRAM C

SEE SHEET 3

RAILWAY

BOUNDARY

Creek

426
4.68lha

TRAVERSE

LEFT BANK

Mullet

L.S.G.

Reduction Ratio 1: 2000

J00928

Plan Drawing only to appear in this space

SURVEYOR'S REFERENCE J00928/797/BARHAM4

Whole copyright exists in a document, it is provided for information purposes only in accordance with Council's statutory obligations and copyright laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

4

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

This negative is a photograph made as a permanent record of a document in the custody of the Registrar General this day. 12 December 1997

PLAN FORM 3 — To be used in conjunction with Plan Form 2 — WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION

*OFFICE USE ONLY

DP 873616

Registered 9.12.1997

This is sheet 3 of my plan is 4 sheets
dated 10TH NOVEMBER 1997

Surveyor registered under Surveyors Act 1939

This is sheet 3 in the plan of 4 sheets covered by my Certificate No. G 501 of 27.11.97

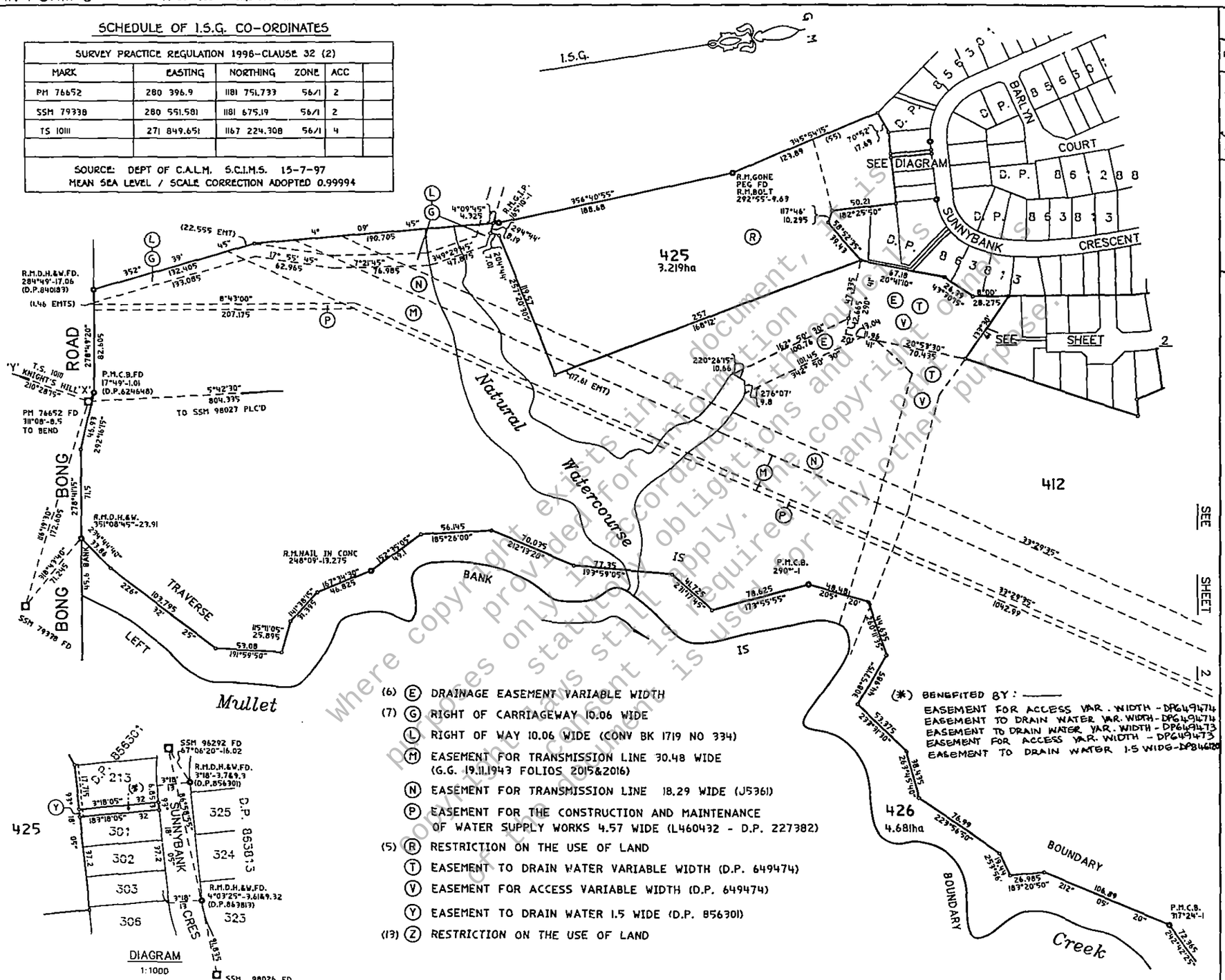
General Manager/Authorised Person

For use where space is insufficient in any panel on Plan Form 2.

SCHEDULE OF I.S.G. CO-ORDINATES

SURVEY PRACTICE REGULATION 1996–CLAUSE 32 (2)					
MARK	EASTING	NORTHING	ZONE	ACC	
PM 76652	280 396.9	1181 751.733	56/1	2	
SSM 79338	280 551.581	1181 675.19	56/1	2	
TS 10111	271 849.651	1167 224.308	56/1	4	

SOURCE: DEPT OF C.A.L.M. S.C.I.M.S. 15-7-97
MEAN SEA LEVEL / SCALE CORRECTION ADOPTED 0.99994



(6) (E) DRAINAGE EASEMENT VARIABLE WIDTH
(7) (G) RIGHT OF CARRIAGEWAY 10.06 WIDE
(L) RIGHT OF WAY 10.06 WIDE (CONV BK 1719 NO 334)
(M) EASEMENT FOR TRANSMISSION LINE 30.48 WIDE (G.G. 19.11.1943 FOLIOS 2015&2016)
(N) EASEMENT FOR TRANSMISSION LINE 18.29 WIDE (J536I)
(P) EASEMENT FOR THE CONSTRUCTION AND MAINTENANCE OF WATER SUPPLY WORKS 4.57 WIDE (L460432 - D.P. 227382)
(5) (R) RESTRICTION ON THE USE OF LAND
(T) EASEMENT TO DRAIN WATER VARIABLE WIDTH (D.P. 649474)
(V) EASEMENT FOR ACCESS VARIABLE WIDTH (D.P. 649474)
(Y) EASEMENT TO DRAIN WATER 1.5 WIDE (D.P. 856301)
(13) (Z) RESTRICTION ON THE USE OF LAND

(*) BENEFITED BY: ——
EASEMENT FOR ACCESS VAR. WIDTH - DP649474
EASEMENT TO DRAIN WATER VAR. WIDTH - DP649474
EASEMENT TO DRAIN WATER VAR. WIDTH - DP649473
EASEMENT FOR ACCESS VAR. WIDTH - DP649473
EASEMENT TO DRAIN WATER 1.5 WIDE - DP846120

Reduction Ratio 1: 2000

Plan Drawing only to appear in this space

SURVEYOR'S REFERENCE J00928/797/SARHAM4

Where copyright exists in a document, this is provided for information purposes only in accordance with statutory obligations and copyright laws still apply. The obligation is required if any other purpose. Copyright in the document is vested in the Crown or any of the document is used for

3

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

This negative is a photograph made as a permanent record of a document in the custody of the Registrar General this day. 12 December 1997

PLAN FORM 2

Plan Drawing only to appear in this space

OFFICE USE ONLY

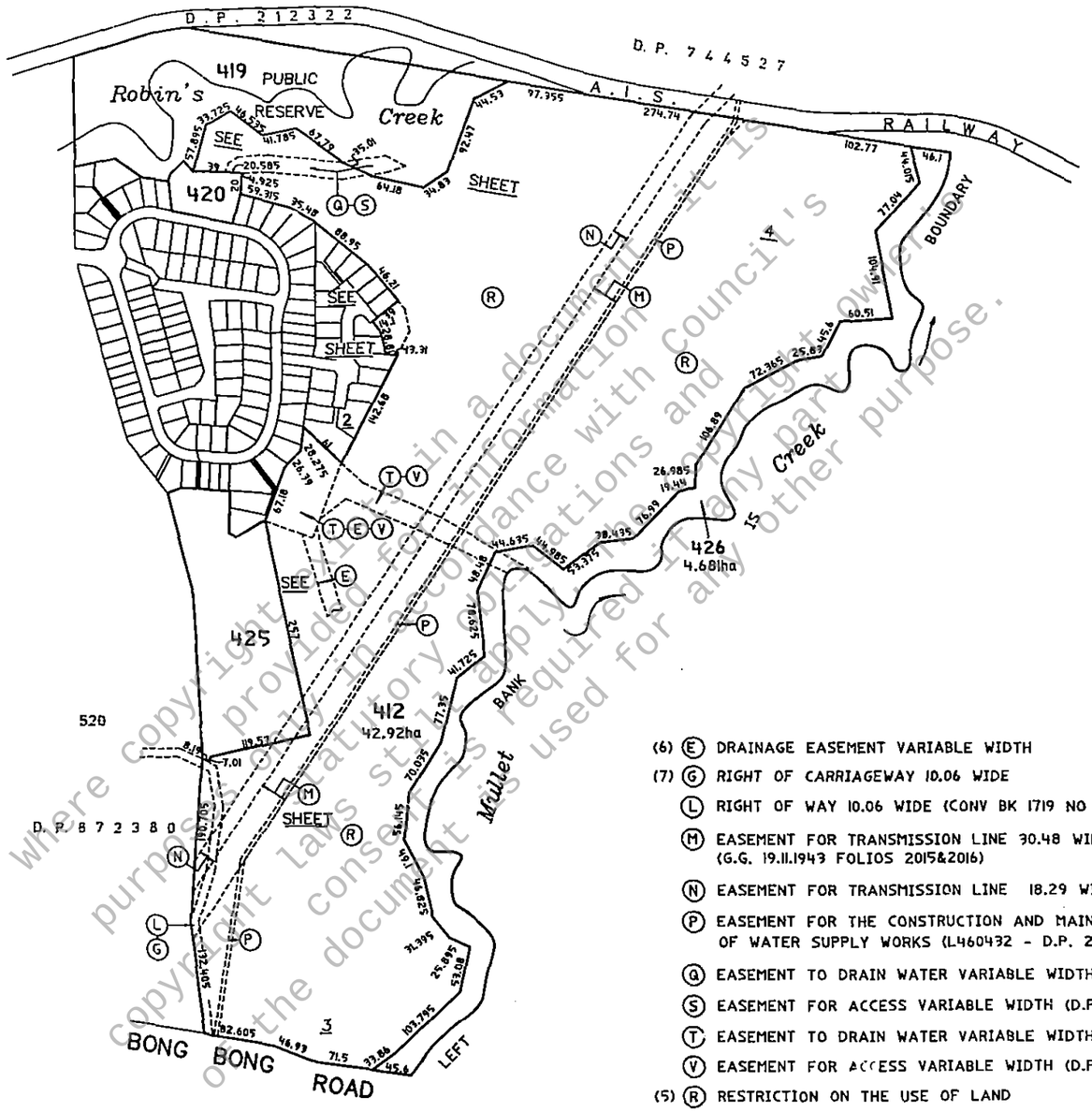
DP 873616

SIGNATURES AND SEALS ONLY

The Common Seal of Bulli P/L was affixed in the presence of:

Director

Director



(6) (E) DRAINAGE EASEMENT VARIABLE WIDTH

(7) (G) RIGHT OF CARRIAGEWAY 10.06 WIDE

(L) RIGHT OF WAY 10.06 WIDE (CONV BK 1719 NO 334) (DP88179)

(M) EASEMENT FOR TRANSMISSION LINE 30.48 WIDE (G.G. 19.11.1943 FOLIOS 2015&2016)

(N) EASEMENT FOR TRANSMISSION LINE 18.29 WIDE (J5961)

(P) EASEMENT FOR THE CONSTRUCTION AND MAINTENANCE OF WATER SUPPLY WORKS (L460432 - D.P. 227382) (4.57 WIDE)

(Q) EASEMENT TO DRAIN WATER VARIABLE WIDTH (D.P. 649473)

(S) EASEMENT FOR ACCESS VARIABLE WIDTH (D.P. 649473)

(T) EASEMENT TO DRAIN WATER VARIABLE WIDTH (D.P. 649474)

(V) EASEMENT FOR ACCESS VARIABLE WIDTH (D.P. 649474)

(5) (R) RESTRICTION ON THE USE OF LAND

Registered 9.12.1997

C.A: No. 6501 OF 27.11.1997

Title System: TORRENS

Purpose: SUBDIVISION

Ref. Map: W 7377 – ~~3126~~ 3,61 & 62

Last Plan: DP856301

PLAN OF SUBDIVISION OF LOTS 228 & 229 IN D.P. 856301

Lengths are in metres. Reduction Ratio 1:4000

LGA: WOLLONGONG

Locality: WEST DAPTO

Parish: KEMBLA

County: CAMDEN

This is sheet 1 of my plan in 4 sheets (Delete if inapplicable)

I, DAVID ANTHONY LOFBERG of K.F. WILLIAMS & ASSOCS. P/L P.O. BOX 1477, WOLLONGONG 2500 a surveyor registered under the Surveyors Act, 1929, hereby certify that the survey represented in this plan is accurate, has been made in accordance with the Survey Practice Regulation 1978 and was completed on 10TH NOVEMBER 1997

Signature: [signature]
Surveyor registered under the Surveyors Act, 1929

DATUM LINE OF AZIMUTH 'X'–'Y'

ACN 008 664 417

Plans used in preparation of survey/compilation.

D.P.230057	D.P.865288	D.P.856301
D.P.624648	D.P.854650	D.P.88179
D.P.744527	D.P.858754	D.P.861288
D.P.161785	D.P.227382	D.P.840183
D.P.846120	D.P.212322	D.P.649473

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

SEE SHEET 2

Crown Lands Office Approval

PLAN APPROVED _____ Authorised Officer

Land District _____

Paper No. _____

Field Book _____ pages _____

Council Certificate

I hereby certify that –

[a] the requirements of the Local Government Act, 1919 [other than the requirements for the registration of plans] and

x [b] the requirements of †Part 3 Division 2 of the Water Board Act 1987 or † Part 5 Division 7 of the Hunter Water Board (Corporation) Act 1991

have been complied with by the applicant in relation to the proposed SUBDIVISION

[Insert "new road", "subdivision" or "consolidation (or)" set out herein]

Subdivision No. 6501

Date 27-11-97

[Signature] _____

General Manager/Authorised Person

Council File No. F572GB E7721

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

† Delete if inapplicable

SURVEYOR'S REFERENCE: J00928/797/BARHAM4

WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION

DP 873616

Where copyright exists it is provided for information purposes only in accordance with Council's statutory obligations and copyright laws still apply. Any part of the document is required for any other purpose.

This negative is a photograph made as a permanent record of a document in the custody of the Registrar General this day. 12 December 1997

PLAN FORM 3 — To be used in conjunction with Plan Form 2

WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION

*OFFICE USE ONLY

DP 873616

Registered 9.12.1997

This is sheet 2 of my plan in 4 sheets dated 10TH NOVEMBER 1997

Surveyor registered under Surveyors Act 1929

This is sheet 2 of the plan of 4 sheets covered by my Certificate No. G501 of 27-11-97

General Manager/Authorised Person

For use where space is insufficient in any panel on Plan Form 2.

PURSUANT TO SEC 88B OF THE CONVEYANCING ACT 1919, IT IS INTENDED TO CREATE:

(1) EASEMENT TO DRAIN WATER VARIABLE WIDTH
(2) RIGHT OF CARRIAGEWAY VARIABLE WIDTH
(3) EASEMENT FOR SERVICES VARIABLE WIDTH
(4) EASEMENT FOR UNDERGROUND CABLES VARIABLE WIDTH
(5) RESTRICTION ON THE USE OF LAND
(6) DRAINAGE EASEMENT VARIABLE WIDTH
(7) RIGHT OF CARRIAGEWAY 10.06 WIDE
(8) RESTRICTION ON THE USE OF LAND
(9) RESTRICTION ON THE USE OF LAND
(10) RESTRICTION ON THE USE OF LAND
(11) RESTRICTION ON THE USE OF LAND
(12) RESTRICTION ON THE USE OF LAND
(13) RESTRICTION ON THE USE OF LAND

AS SET OUT IN THE ACCOMPANYING INSTRUMENT AND ENDORSED WITH COUNCIL'S CERTIFICATE.

IT IS INTENDED TO DEDICATE BARHAM PLACE TO THE PUBLIC AS ROAD

IT IS INTENDED TO CREATE LOT 419 AS PUBLIC RESERVE.

Reduction Ratio 1: 500

(1) (A) EASEMENT TO DRAIN WATER VARIABLE WIDTH
(2) (B) RIGHT OF CARRIAGEWAY VARIABLE WIDTH
(3) (C) EASEMENT FOR SERVICES VARIABLE WIDTH
(4) (D) EASEMENT FOR UNDERGROUND CABLES VARIABLE WIDTH
(5) (R) RESTRICTION ON THE USE OF LAND
(6) (E) DRAINAGE EASEMENT VARIABLE WIDTH
(13) (Z) RESTRICTION ON THE USE OF LAND

Plan Drawing only to appear in this space

SURVEYOR'S REFERENCE: J00928/797/BARHAM4

where copyright exists in a document, it is provided for information purposes only. The copyright laws still apply. Consent is required in accordance with statutory obligations. Unauthorised use of the document, in part or whole, is prohibited.

2

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

This negative is a photograph made as a permanent record of a document in the custody of the Registrar General this day. 12 December 1997

INSTRUMENT SETTING OUT TERMS OF EASEMENTS INTENDED TO BE CREATED, OR RELEASED AND OF PROFITS A PRENDRE, RESTRICTIONS ON THE USE OF LAND AND POSITIVE COVENANTS INTENDED TO BE CREATED PURSUANT TO SECTION 88B OF THE CONVEYANCING ACT, 1919.

Lengths are in metres

DP 873616

Plan of Subdivision of Lots 228 & 229 DP 856301 and covered by Council's Certificate No. 6501 of 27.11.1997

Full name and address of Registered Proprietor of the land:

ROBERT JOHN KRAUSS & ROBYN MARGARET KRAUSS of 1 BONG BONG RD., DAPTO. &
Barlyn Limited (A.C.N. 000 476 291)
21 Princes Highway
FIGTREE NSW 2525

Part I

1. Identity of easement or restriction firstly referred to in the abovementioned Plan: Easement to drain water variable width

Schedule of Lots etc. Affected

Lots Burdened	Lots, Name of Road or Authority Benefited
406	405, 407, 408
407	405, 406, 408
408	405, 406, 407

2. Identity of easement or restriction secondly referred to in the abovementioned Plan: Right of Carriageway variable width.

Schedule of Lots etc. Affected

Lots Burdened	Lots, Name of Road or Authority Benefited
406	405, 407, 408
407	405, 406, 408
408	405, 406, 407
418	421, 422
421	418, 422

Wollongong City Council General Manager

27700/3

Where copyright exists in a document, it is provided for information purposes only in accordance with Council's statutory obligations and copyright laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

INSTRUMENT SETTING OUT TERMS OF EASEMENTS INTENDED TO BE CREATED, OR RELEASED AND OF PROFITS A PRENDRE, RESTRICTIONS ON THE USE OF LAND AND POSITIVE COVENANTS INTENDED TO BE CREATED PURSUANT TO SECTION 88B OF THE CONVEYANCING ACT, 1919.

Lengths are in metres

DP 873616

Plan of Subdivision of Lots 228 & 229 DP 856301 and covered by Council's Certificate No. 6501 of 27.11.1997

3. Identity of easement or restriction thirdly referred to in the abovementioned Plan: Easement for services variable width.

Schedule of Lots etc. Affected

Lots Burdened	Lots, Name of Road or Authority Benefited
406	405, 407, 408
407	405, 406, 408
408	405, 406, 407
418	421, 422
421	418, 422

4. Identity of easement or restriction fourthly referred to in the abovementioned Plan: Easement for underground cables variable width

Schedule of Lots etc. Affected

Lots Burdened	Lots, Name of Road or Authority Benefited
406	
407	
408	Integral Energy Australia
418	
421	

Wollongong City Council General Manager

27700/3

This negative is a photograph made as a permanent record of a document in the custody of the Registrar General this day. 15 December 1997

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

INSTRUMENT SETTING OUT TERMS OF EASEMENTS INTENDED TO BE CREATED, OR RELEASED AND OF PROFITS A PRENDRE, RESTRICTIONS ON THE USE OF LAND AND POSITIVE COVENANTS INTENDED TO BE CREATED PURSUANT TO SECTION 88B OF THE CONVEYANCING ACT, 1919.

Lengths are in metres

DP 873616

Plan of Subdivision of Lots 228 & 229 DP 856301 and covered by Council's Certificate No. 6501 of 27.11.1997

5. Identity of easement or restriction fifthly referred to in the abovementioned Plan: Restriction on the use of land.

Schedule of Lots etc. Affected

Lots Burdened	Lots, Name of Road or Authority Benefited
412, 425	The Council of the City of Wollongong

6. Identity of easement or restriction sixthly referred to in the abovementioned Plan: Drainage Easement Variable Width.

Schedule of Lots etc. Affected

Lots Burdened	Lots, Name of Road or Authority Benefited
412	418, 421, 422, The Council of the City of Wollongong
418	421, 422, The Council of the City of Wollongong
421	418, 422, The Council of the City of Wollongong

7. Identity of easement or restriction seventhly referred to in the abovementioned Plan: Right of Carriageway 10.06 Wide.

Schedule of Lots etc. Affected

Lots Burdened	Lots, Name of Road or Authority Benefited
412	425

8. Identity of easement or restriction eighthly referred to in the abovementioned Plan: Restriction on the Use of Land.

Wollongong City Council General Manager

27700/3

INSTRUMENT SETTING OUT TERMS OF EASEMENTS INTENDED TO BE CREATED, OR RELEASED AND OF PROFITS A PRENDRE, RESTRICTIONS ON THE USE OF LAND AND POSITIVE COVENANTS INTENDED TO BE CREATED PURSUANT TO SECTION 88B OF THE CONVEYANCING ACT, 1919.

Lengths are in metres

DP 873616

Plan of Subdivision of Lots 228 & 229 DP 856301 and covered by Council's Certificate No. 6501 of 27.11.1997

Schedule of Lots etc. Affected

Lots Burdened	Lots, Name of Road or Authority Benefited
406 to 412 inclusive & 415 to 418 inclusive & 421	The Council of the City of Wollongong

9. Identity of easement or restriction ninethly referred to in the abovementioned Plan: Restriction on the Use of Land

Schedule of Lots etc. Affected

Lots Burdened	Lots, Name of Road or Authority Benefited
401 - 418 inclusive 421 - 425 inclusive	The Council of the City of Wollongong

10. Identity of easement or restriction tenthly referred to in the abovementioned Plan: Restriction on the use of land.

Schedule of Lots etc. Affected

Lots Burdened	Lots, Name of Road or Authority Benefited
401 - 418 inclusive 421 - 424 inclusive	The Council of the City of Wollongong

11. Identity of easement or restriction eleventhly referred to in the abovementioned Plan: Restriction on the Use of Land

Wollongong City Council General Manager

27700/3

Where copyright exists in a document, it is provided for information purposes only in accordance with council's statutory obligations and copyright laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

2

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

This negative is a photograph made as a permanent record of a document in the custody of the Registrar General this day. 15 December 1997

INSTRUMENT SETTING OUT TERMS OF EASEMENTS INTENDED TO BE CREATED, OR RELEASED AND OF PROFITS A PRENDRE, RESTRICTIONS ON THE USE OF LAND AND POSITIVE COVENANTS INTENDED TO BE CREATED PURSUANT TO SECTION 88B OF THE CONVEYANCING ACT, 1919.

Lengths are in metres

DP 873616

Plan of Subdivision of Lots 228 & 229 DP 856301 and covered by Council's Certificate No. G501 of 27.11.1997

Schedule of Lots etc. Affected

Lots Burdened	Lots, Name of Road or Authority Benefited
412, 425	The Council of the City of Wollongong

12. Identity of easement or restriction twelvethly referred to in the abovementioned Plan:

Restriction on the Use of Land

Schedule of Lots etc. Affected

Lots Burdened	Lots, Name of Road or Authority Benefited
412, 425	The Council of the City of Wollongong

13. Identity of easement or restriction thirteenthly referred to in the abovementioned Plan:

Restriction on the Use of Land

Schedule of Lots etc. Affected

Lots Burdened	Lots, Name of Road or Authority Benefited
418, 421 & 422	The Council of the City of Wollongong

Part II

1. Terms of Easement for Underground Cables variable width fourthly referred to in the abovementioned Plan:

1. Full and free right and licence for the Authority Benefited to erect electricity equipment under the land burdened by this easement for the purpose of transmission of electricity and incidental purposes and to cause or permit electricity to be transmitted through the electricity equipment together with the following rights:

Wollongong City Council General Manager

27700/3

Where copyright exists in a document, it is provided for information purposes only in accordance with Council's statutory obligations and copyright laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

INSTRUMENT SETTING OUT TERMS OF EASEMENTS INTENDED TO BE CREATED, OR RELEASED AND OF PROFITS A PRENDRE, RESTRICTIONS ON THE USE OF LAND AND POSITIVE COVENANTS INTENDED TO BE CREATED PURSUANT TO SECTION 88B OF THE CONVEYANCING ACT, 1919.

Lengths are in metres

DP 873616

Plan of Subdivision of Lots 228 & 229 DP 856301 and covered by Council's Certificate No. G501 of 27.11.1997

(a) to enter, pass, and repass on the land burdened (with or without vehicles) at all reasonable times (and at any time in the event of an emergency) to gain access to the easement and to remain there for any reasonable time with or without workmen materials or machinery,

(b) to cut, trim, remove, and lop trees, roots and other vegetation which encroach on the easement or prevent reasonable access to the easement or the electricity equipment,

(c) to remove any other obstructions of any kind which encroach on the easement or prevent reasonable access to the easement or the electricity equipment, and

(d) to excavate the land burdened for the purposes of this easement.

2. In exercising its rights under this easement the Authority Benefited will take all reasonable precautions to ensure as little disturbance as possible to the surface of the land burdened and will restore that surface as nearly as practicable to its original condition.

3. The Owner of the land burdened covenants with the Authority Benefited that the Owner:

(a) will not erect or permit to be erected any structure on or under the land burdened,

(b) will not alter the surface level of the land burdened or carry out any form of construction affecting its surface, undersurface of subsoil, and

(c) will not do or permit anything to be done whereby access by the Authority Benefited is restricted

without the written permission of the Authority Benefited and in accordance with such conditions as the Authority Benefited may reasonably impose.

4. *Authority Benefited* means Integral Energy Australia and its successors, employees, agents, contractors, and persons authorised by it.

Owner means the registered proprietor of the land burdened (including those claiming under or through the Owner).

Electricity equipment means underground electricity cables, ducts, and ancillary electrical equipment.

Wollongong City Council General Manager

27700/3

3

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

This negative is a photograph made as a permanent record of a document in the custody of the Registrar General this day. 15 December 1997

INSTRUMENT SETTING OUT TERMS OF EASEMENTS INTENDED TO BE CREATED, OR RELEASED AND OF PROFITS A PRENDRE, RESTRICTIONS ON THE USE OF LAND AND POSITIVE COVENANTS INTENDED TO BE CREATED PURSUANT TO SECTION 88B OF THE CONVEYANCING ACT, 1919.

Lengths are in metres

Plan: D.P. 873616

Plan of Subdivision of Lots 228 & 229
DP 856301 and covered by Council's
Certificate No. 6501 of 27.11.1997

Erect includes construct, repair, maintain, modify, use, and remove.

Name of authority empowered to release, vary or modify the Easement for Underground Cables variable width fourthly referred to in the abovementioned Plan:

Integral Energy Australia

2. Terms of Restriction on the use of land fifthly referred to in the abovementioned Plan:

No building, driveway or other structure and no filling material shall be erected, placed or permitted to remain on that part of the land hereby burdened shown as Restriction on the use of land and marked with the symbol (R) without the prior written approval of The Council of the City of Wollongong or otherwise than in strict compliance with such condition as that Council may impose.

Name of authority empowered to release, vary or modify the Restriction on the use of land fifthly referred to in the abovementioned Plan:

The Council of the City of Wollongong.

3. Terms of Drainage Easement Variable Width sixthly referred to in the abovementioned Plan:

Full and free right for the authority benefited by this easement ("the Council"), and every person authorised by it, from time to time and at all times to drain water (whether rain, storm, spring, soakage or seepage water) in any quantities across and through the site of this easement ("the Site"), together with the right to use, for the purposes of the easement, any line of pipes and/or open channel and/or other drainage structure already laid within the Site, or any pipe or pipes or other structure in replacement or in substitution therefor and, where no such line of pipes or other structure exists, to lay, place and maintain a line of pipes of sufficient internal diameter or other structure of sufficient dimensions and together with the right for the Council and every person authorised by it, with any tools, implements, or machinery, necessary for the purpose, to enter upon the Site and such other part or parts of the lot or lots burdened by this easement as is necessary for the purpose and to remain there for any reasonable time for the purpose of laying, inspecting, cleansing, repairing, maintaining, renewing or modifying such pipe line or other structure or any part thereof and, for any of the aforesaid purposes, to open the soil of the Site to such

Wollongong City Council General Manager

27700/3

INSTRUMENT SETTING OUT TERMS OF EASEMENTS INTENDED TO BE CREATED, OR RELEASED AND OF PROFITS A PRENDRE, RESTRICTIONS ON THE USE OF LAND AND POSITIVE COVENANTS INTENDED TO BE CREATED PURSUANT TO SECTION 88B OF THE CONVEYANCING ACT, 1919.

Lengths are in metres

Plan: D.P. 873616

Plan of Subdivision of Lots 228 & 229
DP 856301 and covered by Council's
Certificate No. 6501 of 27.11.1997

extent as may be necessary and to remove and carry away all or any of the clay, sand, gravel, stones, earth and materials which shall be taken out of the site and/or to use all or any part thereof in the making, laying out, construction and maintenance of a drain and/or to leave the same or any part or parts thereof upon the site, and in relation to this easement, the Proprietor of the Site ("the Proprietor") hereby covenants with the Council -

a) that the Proprietor will not permit or suffer any act, deed, matter or thing whereby the said drain or line of pipes or other structure will or shall be likely to become injured or damaged or whereby the Council shall be prevented from or hampered in exercising its rights pursuant to this easement;

b) that the Proprietor will not interfere with the free passage and conveyance of water through the said drain or line of pipes or other structure;

c) that if the Proprietor shall do permit or suffer any act, deed, matter or thing whereby the said drain or line of pipes or other structure shall be injured or damaged or shall interfere with the free passage and conveyance of water through the same the Proprietor shall forthwith at the expense of the Proprietor properly and substantially repair and make good all such injury or damage and shall restore the free passage and conveyance of water through the said line of pipes or other structure and do all things necessary or expedient for the said purposes or any of them; and

d) that the Proprietor will not without the prior consent and approval in writing of the Council first had and obtained or otherwise than in strict compliance with such conditions as the Council may impose -

i. erect, construct or place upon the Site, or permit to be erected constructed or placed thereon, any building or other structure whatever or any pavement; or

ii. make or permit to be made any alteration to the existing surface levels of the Site by any means whatsoever.

Name of authority empowered to release, vary or modify the Drainage Easement Variable width sixthly referred to in the abovementioned Plan:

The Council of the City of Wollongong.

Wollongong City Council General Manager

27700/3

Warning: Copyright exists in a document provided for information purposes only in accordance with statutory obligations. The copyright laws still apply. The consent is required if any part of the document is used for other purposes.

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

This negative is a photograph made as a permanent record of a document in the custody of the Registrar General this day. 15 December 1997

INSTRUMENT SETTING OUT TERMS OF EASEMENTS INTENDED TO BE CREATED, OR RELEASED AND OF PROFITS A PRENDRE, RESTRICTIONS ON THE USE OF LAND AND POSITIVE COVENANTS INTENDED TO BE CREATED PURSUANT TO SECTION 88B OF THE CONVEYANCING ACT, 1919.

Lengths are in metres

Plan: D.P. 873616 Plan of Subdivision of Lots 228 & 229 DP 856301 and covered by Council's Certificate No. 6501 of 27.11.1997

4. Terms of Restriction on the use of land eighthly referred to in the abovementioned Plan:

No fence shall be erected or permitted to remain on any lot hereby burdened to divide it from the adjoining land zoned private recreation 6(b) unless it shall be 1.2 metres in height and constructed of an A.R.C weldmesh type fence or similar galvanised open mesh fence except with the prior written approval of the Council of the City of Wollongong or otherwise than in strict compliance which such conditions as that Council may impose.

Name of authority empowered to release, vary or modify the Restriction on the use of land eighthly referred to in the abovementioned Plan:

The Council of the City of Wollongong

5. Terms of Restriction on the use of land ninethly referred to in the abovementioned Plan:

"No building or other structure shall be erected, placed or permitted to remain on the land hereby burdened if filling or excavation of the land exceeds either 600mm above or below its existing surface level"

Name of authority empowered to release, vary or modify the Restriction on the use of land ninethly referred to in the abovementioned Plan:

The Council of the City of Wollongong

6. Terms of Restriction on the use of land tenthly referred to in the abovementioned Plan:

No building or other structure including driveways and no filling material shall be erected, placed or permitted to remain on any lot hereby burdened unless;

A) The footings and foundations of the buildings, structures and driveway and filling have been erected in accordance with plans and specifications which have been-

a) Prepared by a suitably qualified structural and/or civil engineer taking into account the recommendations and other information or requirements contained in the report by Douglas & Partners referenced 23224A dated October 1997, lodged with The council of the City of Wollongong.

Wollongong City Council General Manager

27700/3

INSTRUMENT SETTING OUT TERMS OF EASEMENTS INTENDED TO BE CREATED, OR RELEASED AND OF PROFITS A PRENDRE, RESTRICTIONS ON THE USE OF LAND AND POSITIVE COVENANTS INTENDED TO BE CREATED PURSUANT TO SECTION 88B OF THE CONVEYANCING ACT, 1919.

Lengths are in metres

Plan: D.P. 873616 Plan of Subdivision of Lots 228 & 229 DP 856301 and covered by Council's Certificate No. 6501 of 27.11.1997

b) Reviewed and approved by a suitably qualified and experience consulting Geotechnical engineer.

B) Erected in accordance with plans and approved by Council of the City of Wollongong or otherwise than in strict compliance with such conditions Council may impose.

Name of authority empowered to release, vary or modify the Restriction on the use of land tenthly referred to in the abovementioned Plan:

The Council of the City of Wollongong

7. Terms of Restriction on the use of land eleventhly referred to in the abovementioned Plan:

Vehicular ingress and egress by farm or agricultural machinery shall not be gained to or from the land across the common boundary between the land hereby burdened and Sunnybank Crescent and Barham Place without the prior written consent of The Council of the City of Wollongong or otherwise than in strict compliance with such conditions as that Council may impose.

Name of authority empowered to release, vary or modify the Restriction on the use of land eleventhly referred to in the abovementioned Plan:

The Council of the City of Wollongong

8. Terms of Restriction on the use of land twelvethly referred to in the abovementioned Plan:

"No dwelling, driveway, fence or other structure shall be erected and no tree planting shall be permitted and no alteration shall be made to the existing surface levels of the land hereby burdened without the prior written approval of the Council of the City of Wollongong or otherwise than in strict compliance with such conditions as that Council may impose."

Name of authority empowered to release, vary or modify the Restriction on the use of land twelvethly referred to in the abovementioned Plan:

The Council of the City of Wollongong

Wollongong City Council General Manager

27700/3

This negative is a photograph made as a permanent record of a document in the custody of the Registrar General this day. 15 December 1997

INSTRUMENT SETTING OUT TERMS OF EASEMENTS INTENDED TO BE CREATED, OR RELEASED AND OF PROFITS A PRENDRE, RESTRICTIONS ON THE USE OF LAND AND POSITIVE COVENANTS INTENDED TO BE CREATED PURSUANT TO SECTION 88B OF THE CONVEYANCING ACT, 1919.

Lengths are in metres *(Sheet 11 of 11 Sheets)*

Plan: D.P. 873616 Plan of Subdivision of Lots 228 & 229 DP 856301 and covered by Council's Certificate No. 650/ OF 27.11.1997

9. Terms of Restriction on the use of land thirteenthly referred to in the abovementioned Plan:

No building or other structure including driveways and no filling material shall be erected, placed or permitted to remain on any part of the land hereby burdened marked (Z) unless:

A) The footings and foundations of the buildings, structures and driveway and filling have been erected in accordance with plans and specifications which have been-

   a) Prepared by a suitably qualified structural and/or civil engineer taking into account the recommendations and other information or requirements contained in the report by Douglas & Partners referenced 23224A dated October 1997, lodged with The council of the City of Wollongong.

   b) Reviewed and approved by a suitably qualified and experience consulting Geotechnical engineer.

B) Erected in accordance with plans and approved by Council of the City of Wollongong or otherwise than in strict compliance with such conditions Council may impose.

Name of authority empowered to release, vary or modify the Restriction on the use of land tenthly referred to in the abovementioned Plan:

The Council of the City of Wollongong

THE COMMON SEAL of BARLYN PTY LTD was hereunto affixed pursuant to a resolution of its Board of Directors and in the presence of:

.....
Director

BARLYN PTY. LTD. A.C.N. 000 478 291 Common Seal

.....
Secretary

Signed in my presence by Robert John Krauss & Robyn Margaret Krauss who are personally known to me

YVONNE MAY SCHLEGEL
22 STILNESS RD
FIGTREE
HOUSE PERSON

(WITNESS)

.....
Wollongong City Council General Manager

27700/3

REGISTERED 9-12-1997

This negative is a photograph made as a permanent record of a document in the custody of the Registrar General this day. 15 December 1997

application form
DEVELOPMENT

Locked Bag 8821
South Coast Mail Centre 2521
Telephone (02) 4227 7111
Facsimile (02) 4227 7277
TTY (02) 4227 6389
DX 27811 Wollongong Court

DA No _____
Property No _____
Fee _____
Advertising Fee _____
Total Fees _____
Receipt No _____
Date Paid _____

Environmental Planning and Assessment Act, 1979.
Strata Titles Act, 1973

Application form to be lodged with four (4) copies of plans, four (4) copies of Statement of Environmental Effects, one (1) A4 reduction of elevations, site plan and appropriate fees.

Note: Council may require additional information of the proposed development to be provided where that information is essential to the determination of the development application. Applicants are strongly urged to have discussions with Planning Officers or the Development Assessment Panel **prior** to formal submission of applications.

PROPERTY

Property Address 34 BONG BONG ROAD, WEST DAPTO
(Street No) (Street Name) (Suburb)

Nearest Cross Street HAMILTON STREET.

Lot No 10 412 Section No _____ DP 840783 873616

APPLICANT

Name _____

Contact Person _____

Address _____

Ph (Bus Hrs) _____

S.14(3)(3)(A) Personal Information

OWNER

Name AS ABOVE Ph (Bus Hrs) _____

Address _____ Postcode _____

EXISTING DEVELOPMENT

Existing Use of Land GRAZING

Type of Existing Building VACANT
(eg. Factory, Office, Dwelling)

Any Building to be Demolished NO

Please indicate if there are any obstructions to planner inspecting site NO
(eg. horses, dogs, locked gate)

PROPOSED DEVELOPMENT

Which of the following does the application involve?
(Please tick appropriate box)

New Development	☐	Use of Existing Premises	☐
Subdivision /Strata No of Lots	☑	Amended	☐
		Other	☐

Details of Proposed Development TWO LOT SUB-DIVISION

Note: Plans and other information describing the development as well as information on the environmental impact of the proposal must accompany the application (see over). An Environmental Impact Statement may be required for any development that may result in a significant impact on its surroundings.

Contract Price/Council Valuation of Work $ _____

Please Complete Overleaf

Where copyright exists in a document it is provided for information purposes only in accordance with Council's statutory obligations and copyright laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

CONTACT FOR SECTION 94 ACCOUNTS OR BONDS (IF DIFFERENT TO APPLICANT)

Name N.A.

Address _____ Postcode _____
(Street No) (Street Name) (Suburb)

REVIEW OF ENVIRONMENTAL EFFECTS

Does the proposal involve any of the following?
(Please tick appropriate box)

	Yes	No
1. Overshadowing of adjoining premises.	☐	☑
2. Intrusion on privacy of adjoining premises.	☐	☑
3. Interruption to existing views of surrounding properties.	☐	☑
4. The destruction of trees or significant alteration of natural site features.	☐	☑
5. Increased drainage disposal to surrounding/adjoining properties.	☐	☑
6. Increased traffic generation.	☐	☑
7. Detrimental impact on adjoining properties by the generation of noise.	☐	☑
8. The demolition or alteration of any building of local, national or historic importance.	☐	☑
9. Any other significant impact on the environment.	☐	☑

Note: In addition to the above a Statement of Environmental Effects is required for all developments. (Exceptions: subdivisions and strata subdivisions). (Four (4) copies required.)

OWNER(S)* CONSENT

This section must be signed by the owner(s)* of the land.

I/We hereby consent to the lodgement of this development application.

Signature(s) of Owner(s) of Property or Company Seal _ S.14(3)(3)(A) Personal Information _ Date 12-11-99

* **All owners must sign the application.**

* **Where the landowner is a company, the capacity of the signatory must be stated and the company seal provided.**

APPLICANT'S AUTHORITY

I hereby apply for consent for the development described in this application

Signature of Applicant _____ Date _____

Please Make Sure That You Have Completed Every Section Of This Form

Where copyright exists in a document, it is provided for information purposes only in accordance with Council's statutory obligations and copyright laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

application form

DEVELOPMENT

DEVELOPMENT APPLICATION SUBMISSION REQUIREMENTS

A well prepared and complete development application will usually result in a speedier decision by Council.

Applicants are strongly urged to have discussions with Planning Officers or the Development Assessment Panel so that the precise nature of the development and its specific requirements may be established.

Each development is unique and therefore the following is not intended to be an exhaustive list of the information required by Council. It is included only as a guide for applicants in the preparation of a development application.

All applications are to be lodged with **appropriate fees** as well as the following information.

1. **FOUR (4) copies of the site plan (1:100 and/or 1:200 min. scale) showing:**
   a. The location of the existing buildings on the site in relation to all boundaries as well as any trees.
   b. The NORTH point.
   c. Site levels to AHD (Australian Height Datum).
   d. Easements and rights of way.
   e. Drainage details.
   f. Location and dimensions of car parking.
2. **FOUR (4) copies of the general plans (1:100 min. scale) showing:**
   a. The floor plan with dimensions of all rooms and overall size of the building.
   b. Front, rear and side elevations of the building (photographs if existing).
   c. Details of exterior materials and colour scheme.
3. **ONE (1) copy of site plan and elevations reduced to A4 size.**
4. **FOUR (4) copies of statement of environmental effects.**
5. **In cases where Council's records indicate potential flooding or instability, additional information such as a flood study or geotechnical report may be required.**

For Dual Occupancy/Granny Flat

The following additional information is required:

a. Elevations (or photographs) and a dimensioned floor plan of the existing dwelling.
b. Where two dwellings are being erected, a landscape concept plan (FOUR (4) copies required).
c. Location of car parking.
d. A detailed Statement of Environmental Effects addressing the relevant issues, such as possible overshadowing, effects on privacy and existing views, traffic impact, effect on existing trees, vegetation and animal life, solar access (FOUR (4) copies required).

For Residential Flats

The following additional information may be required:

a. Location of car parking (see DCP No 9 for amount required).
b. Landscape concept plan (FOUR (4) copies).
c. A detailed Statement of Environmental Effects addressing the relevant issues, such as possible overshadowing, effects on privacy and existing views, traffic impact, effect on any existing trees, vegetation and animal life, solar access (four (4) copies required).

It is strongly recommended that you refer to Development Control Plan No 9 (DCP No 9) to ascertain the development standards and design guidelines for this type of development.

Please See Overleaf

Where copyright exists in a document, it is provided for information purposes only in accordance with Council's statutory obligations and copyright laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

For Commercial / Industrial Development

The following additional information may be required:

a. Details of the hours of operation, employment provided, plant/equipment to be used, storage/loading/unloading facilities, waste disposal, work carried out/service provided.

b. Landscape concept plan (FOUR (4) copies).

c. Location of car parking (see DCP No 6 for amount required).

d. A detailed Statement of Environmental Effects addressing issues such as noise generation, traffic impact and matters affecting employee safety (FOUR (4) copies).

It is strongly recommended that you refer to Development Control Plan No 6 (DCP No 6) to ascertain the development standards and design guidelines for this type of development.

For Home Employment

a. Details of operation e.g. goods produced / service provided, traffic generation, off street parking, noise generation, hours, equipment to be used.

b. A statement verifying all employees are residents of the premises.

four (4) copies of the above required.

Subdivisions

1 **FOUR (4) copies of layout plan at appropriate scale showing:**

✓a. The location of the existing buildings on the site in relation to all boundaries as well as any trees.

✓b. Survey details of road frontages showing location of existing services and other structures.

✓c. The NORTH point.

✓d. Site levels to AHD including levels extending 10m into adjacent lands.

✓e. Restrictions as to user, easements and rights of carriageway

✓f. Drainage details.

For Designated Development

An Environmental Impact Statement must be prepared to specifications obtained from the New South Wales Department of Planning.

It is strongly recommended that, prior to the submission of a development application, the applicant discuss the proposal with the Development Assessment Panel to establish the specific requirements for this type of development.

For Any Other Development

Specific requirements will be provided by a Planning Officer or the Development Assessment Panel.

Where copyright exists in a document, it is provided for information purposes only in accordance with Council's statutory obligations and copyright laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

Forté Marketing & Design © 8013. 01.98

Graham, Bell and Bowman Architects

Ref: 484/1/E

11th November, 1999

The General Manager,
Wollongong City Council,
Locked Bag 8821,
SOUTH COAST MAILING CENTRE. N.S.W. 2521

Dear Sir,

Re: Development Application
Sub-division Lot 10 Bong Bong Road, Dapto

Please find attached the following documents for this application.

01 The completed Development Application Form and the applicants cheque for the application fee.

02 Four (4) copies of our statement supporting the application.

03 Four (4) copies of the site survey plan showing:
- Boundaries and location of trees.
- Road frontage showing location of existing services.
- Site levels relative to AHD and levels extending into adjacent properties.
- Location of existing easements and rights of carriageway.

Note that no drainage or roadworks details have been provided as the application does not apply for any development or change of current use on either allotment.

Should you require additional information please do not hesitate to contact the writer.

Where copyright exists in a document, it is provided for information purposes only in accordance with Council's subject to obligations and copyright laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

Yours faithfully,

Bruce W. Bowman
For & On behalf of
Graham, Bell & Bowman Pty. Limited.

Enc.

484114

Graham, Bell and Bowman Pty. Limited A.C.N. 002 669 070
94 Kembla Street, Wollongong - Telephone (02) 4228 8311 - Facsimile (02) 4228 5749
Correspondence to P.O. Box 316, Wollongong East, N.S.W. 2520
Directors: Terry Graham, B.Arch. (Hons) A.R.A.I.A. Bruce Bowman, A.R.A.I.A.

Graham, Bell and Bowman Architects

Ref: 484/1/E

11th November, 1999

The General Manager,
Wollongong City Council,
Locked Bag 8821,
SOUTH COAST MAILING CENTRE. N.S.W. 2521

Dear Sir,

Re: Development Application
Sub-division Lot 10 Bong Bong Road, Dapto

Please find attached the following documents for this application.

01 The completed Development Application Form and the applicants cheque for the application fee.

02 Four (4) copies of our statement supporting the application.

03 Four (4) copies of the site survey plan showing:
- Boundaries and location of trees.
- Road frontage showing location of existing services.
- Site levels relative to AHD and levels extending into adjacent properties.
- Location of existing easements and rights of carriageway.

Note that no drainage or roadworks details have been provided as the application does not apply for any development or change of current use on either allotment.

Should you require additional information please do not hesitate to contact the writer.

Where copyright exists in a document, it is provided for information purposes only. In accordance with Council's statutory obligations and copyright laws still apply. The copyright owner's consent is required if any part of the document is reused for any other purpose.

Yours faithfully,

Bruce W. Bowman
For & On behalf of
Graham, Bell & Bowman Pty. Limited.

Enc.

484114

Graham, Bell and Bowman Pty. Limited A.C.N. 002 669 070
94 Kembla Street, Wollongong - Telephone (02) 4228 8311 - Facsimile (02) 4228 5749
Correspondence to P.O. Box 316, Wollongong East, N.S.W. 2520
Directors: Terry Graham, B Arch. (Hons) A R A I A. Bruce Bowman, A R A I A

Graham, Bell and Bowman Architects

Ref: 484/1/C

Project: Sub-Division – Lot 10 Bong, Bong Road West Dapto
H. Barham

STATEMENT IN SUPPORT OF SUB DIVISION **11.11.99**

1. INTRODUCTION

01 Graham, Bell & Bowman have been commissioned by the applicant and property owner, S.14(3)(3)(A) Personal to apply for sub-division of Lot 10 into two separate titles under the current 6b zoning.

02 The subject land consisting of approximately 43Ha is divided into two parts by a naturally occurring billabong formed off Mullet Creek.

2. SITE CHARACTERISTICS

01 Lot 10 is located on the north side of Bong Bong Road, West Dapto. The eastern boundary of the site is formed by Mullet Creek.

The site is relatively level and has a frontage of 201 metres to Bong Bong Road.

The site has no building structures and is currently utilised for grazing.

02 Lot 10 was identified in the Mullet Creed Flood Study (PWD 1985) to have been affected by flooding in the 1% AEP flood event.

3. PROPOSED SUB-DIVISION

01 The proposed sub-division is described by KF Williams drawing JO3053/1298.

02 The two lot sub-division is formed each side of the billabong and described as Lot 500 with frontage to Bong Bong Road and Lot 501 with a current right of way easement access from Bong Bong Road.

4. OBJECTIVE OF SUB-DIVISION

01 The site was formerly used for dairy cattle. It is currently grazed by beef cattle which is not economically viable on a holding of this area.

02 The owner / applicant wishes to obtain separate title for the proposed two lots and dispose of the property.

Where copyright exists in a document it is provided for information purposes only in accordance with Councils statutory obligations and copyright laws. The copyright is still the property of the author. Consent is required if any part of the document is used for any other purpose.

Graham, Bell and Bowman Pty. Limited A.C.N. 002 669 070
94 Kembla Street, Wollongong - Telephone (042) 28 8311 - Facsimile (042) 28 5749
Correspondence to P.O. Box 316, Wollongong East, N.S.W. 2520
Directors: Terry Graham, B Arch (Hons) A R A I A. Bruce Bowman, A R A I A

WOLLONGONG
City of Diversity

10 December 1999

S.14(3)(3)(A) Personal Information

Dear Mr & Mrs Stretton

DEVELOPMENT APPLICATION D99/692 – LOT 412 DP 873616
No. 34 BONG BONG ROAD, HORSLEY – 2 LOT SUBDIVISION
File No: D99/692
Our Ref: D.LP.JM

I refer to your letter dated 5 December 1999 in relation to the above and advise that this development application has been withdrawn by the applicant.

If you have any queries, please don't hesitate to contact me on the number below.

Yours faithfully

Les Pawlak
Assistant Manager
Wollongong City Council
Direct Line (02) 4227 7308

Where copyright exists in a document, it is provided for information purposes only in accordance with Council's statutory obligations and laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

41 Burelli Street Wollongong Locked Bag 8821 South Coast Mail Centre NSW 2521 DX: 27811 Wollongong Court
Voice: (02) 4227 7111 Fax: (02) 4227 7277 TTY: (02) 4227 6389
Email: council@wollongong.nsw.gov.au Web: http://www.wollongong.nsw.gov.au

Workflow Cover Sheet

Date 8/12/1999
Login rogers

Record Barcode

Record Number **DOC99/21815**

File **DA99/692**

Record Title **Objection to the development**

Primary Contact **Terry Stretton**

LES

Action Required	Action Barcode	Date Completed	Upd?
ACTION CORRESPONDENCE BY PLAN OFFICER			No

Resp.Of **Station Officer Planning**

Due Date **22/12/1999**

Please note response sent + attach D99/692

Thanks
Les
8/12

Where copyright exists in a document, it is provided for information purposes only in accordance with council's statutory obligations and copyright laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

DO NOT REMOVE THIS COVERSHEET

Mr Rod Oxley
General Manager
Wollongong City Council
Locked Bag 8821
South Coast Mail Centre
NSW 2521

5th December 1999

WOLLO
-8 DEC 19
ACTION BY clan
COPY TO
FILE No. DA99/692
FOLIO 99/21815

Dear Sir

Re Development Application D99/962

We wish to object to the proposed development on a number of grounds.

a). The proposed development is in a flood area and has known to flood on a number of occasions, twice in the past twelve months. The proposed development is very close to Mullet Creek, which has a long history of flooding and closing off Bong Bong road to through traffic. Development will grossly interfere with water run off.
b). We are in close proximity to the proposal and in the last twelve months, floodwater has been only several feet from our fence. The storm water channels at the rear of our property would be hindered from natural flow if development took place in the proposed area. Giving us some great concern to be flooded on neighbouring properties and ours.
c). It would be necessary to remove approximately 40 trees to develop this site in question. Surely this would be against environmental policies of Council.

We strongly object to the proposed development on this site as outlined. Not only are we concerned of the current flooding problems in the area but development in the proposed area would without doubt make the situation much more dangerous and long term precaution must be taken into consideration.

S.14(3)(3)(A) Personal Information

Bong Bong Rd Lot-412
N° 34 DP 873616
Hornsby
79475

Where copyright exists in this document, it is provided for information purposes only in accordance with Wollongong Council's statutory obligations and the copyright owner's consent. The copyright laws still apply. The document is issued for any other purpose.

CONSENT

Forbes Rigby Pty Ltd
ATTN: David Hartmann
278 Keira St
WOLLONGONG NSW 2500

APPLICATION DA-2005/1600

Determination	Conditionally Approved
Approval Authority	Wollongong City Council
Endorsement Date	6 December 2005

NOTICE OF DETERMINATION OF INTEGRATED DEVELOPMENT APPLICATION

Issued under Section 81 of the Environmental Planning and Assessment Act 1979

The integrated development application described below has been determined:

Description	3 lot subdivision
Location	Lot 412 DP 873616
	34 Bong Bong Road, HORSLEY NSW 2530

Consent has been granted subject to the following conditions:

Conditions imposed by Council as part of this Integrated Development Consent are:

Approved Plans and Specifications

1 The development is to be carried out in compliance with the plans and documentation listed below and endorsed with Council's stamp, except where amended by other conditions of this consent:

Plans and Specifications	Statement of environmental effects including plans - number 103088-02/Report 001 rev 0 - dated September 2005 - Forbes Rigby Pty Ltd

General Matters

2 Subdivision only

Any future development of the lots created by this consent must be subject to further separate development applications in accordance with Councils legislative requirements. This consent is for subdivision only and does not approve any specific types of development within the proposed lots.

Where copyright exists in a document, it is provided for information purposes only in accordance with Council's statutory obligations and the copyright laws still apply. The copyright consent is required if any part of the document is used for any other purpose.

Document Set ID: 5068526
Version: 1, Version Date: 06/12/2005

Prior to Issue of Engineering Construction Certificate

3 Subdivision Code
All works must be designed in accordance with the requirements set out in the version of the Wollongong City Council Subdivision Code current at the time of issue of this consent.

4 Engineering Construction Certificate
An Engineering Construction Certificate must be obtained prior to commencement of any works on site.

5 Construction Certificate Details
Details of all engineering works must be submitted to the Certifying Authority, for approval prior to the issue of a Construction Certificate.

6 Accessway Design
A concrete accessway must be provided to proposed lot 2 to the following standards:

- **6.1 A minimum of 2.75 metre wide;**
- **6.2 a minimum of 150mm thick, with a minimum 25MPa compressive strength after 28 days; and**
- **6.3 reinforced with a minimum F72 mesh from the kerb for the full length of the access corridor underlain by a minimum 75 mm thickness of DGS20 compacted to 98% of modified density.**

Drainage over the accessway must be contained in a kerb or central dish and conveyed to a public road or piped drainage system. Details of the accessway, including long-section, cross-sections, typical cross-sections and the effect on adjoining land must be provided with the Construction Certificate.

7 Provision of Services in Accessways
The provision for the utility servicing of Lot 2 with the installation of service conduits or provision of a minimum 0.5 metre wide unformed strip.

Prior to the Commencement of Works

8 Appointment of Principal Certifying Authority
Prior to the commencement of work, the person having the benefit of the Development Consent and the Construction Certificate must:

- **8.1 appoint a Principal Certifying Authority (PCA) and notify Council in writing of the appointment. Irrespective of whether Council or an accredited private certifier is appointed; and**
- **8.2 notify Council in writing of their intention to commence works (at least 2 days notice is required.).**

You are advised that Wollongong City Council's type M10 form sets out the above requirements.

9 Compliance with Council's Subdivision Code
All works must be approved by way of issue of a Construction Certificate and constructed in accordance with the version of the Wollongong City Council Subdivision Code current at the time of this consent.

10 Supervision of Works
A suitably qualified and experienced Civil Engineer, Registered Surveyor or experienced Civil Engineering Foreman must be appointed by the developer before any work commences. The supervisor's name, address and contact telephone

Where copyright exists in a document, it is provided for information purposes only in accordance with Council's copyright obligations and applies. The copyright owner's consent is required if any part of the document is used for any other purpose.

Document Set ID: 5068526
Version: 1, Version Date: 06/12/2005

number must be submitted to the Principal Certifying Authority, two days prior to the commencement of any work.

11 Wollongong City Council M10 Form
A Wollongong City Council M10 form must be completed and lodged with Wollongong City Council a minimum of 2 days prior to any work commencing on the site

12 Sign – Supervisor Contact Details
Prior to commencement of any work, a sign must be erected in a prominent position stating the following:

12.1 unauthorised entry to the work site is prohibited;
12.2 name of the person in charge of the work site and a contact telephone number; and
12.3 existing lot number of the property.

This sign shall be removed only upon the completion of the construction works.

13 Site Documentation
The supervisor must have on-site at all times a copy of the following documents:

13.1 a copy of the Development Consent;
13.2 a copy of the Construction Certificate and approved drawings

14 Erosion and Sediment Control Measures
Erosion and sedimentation control measures are to be established in accordance with the requirements of Council. All erosion and sedimentation control measures are to in place, prior to the commencement of any works and shall be maintained for a minimum period of 6 months after the completion of all works. Daily maintenance of the erosion and sedimentation control measures is to undertaken to ensure their effectiveness.

During Construction

15 Restricted Work Hours of Operation
The developer must not carry out any work (other than emergency procedures to control dust or sediment laden runoff) outside the normal working hours, namely 7.00 am to 5.00 pm Monday to Friday and 7.00 am to 1.00 pm Saturday, without the prior written consent of the Principal Certifying Authority. No work is permitted on Sundays or Public Holidays.

Any request to vary these hours shall be submitted to the Principal Certifying Authority in writing, detailing:

15.1 the variation in hours required'
15.2 the reason for that variation; and
15.3 the type of work and machinery to be used.

16 Compliance Inspections
The construction of the subdivision will require regular inspections in accordance with the Wollongong City Council Subdivision Code. If Wollongong City Council is to carry out compliance inspections you are advised that inspections must be paid for at the time of submission of Wollongong City Council's type M10 form and booked a minimum of 24 hours prior to taking place.

Where copyright exists in a document, it is provided for information purposes only in accordance with council's statutory obligations and the copyright owner's copyright laws still apply. The consent is required if any part of the document is used for any other purpose.

Document Set ID: 5068526
Version: 1, Version Date: 06/12/2005

Prior to Issue Subdivision Certificate/Release of Final Subdivision Plan

17 Works-As-Executed Plans

The submission of 2 sets (minimum) of Works-As-Executed (WAE) plans to the Principal Certifying Authority, prior to the release of the Subdivision Certificate. The Works-As-Executed plans shall be certified by a registered surveyor indicating that the survey is a true and accurate record of the works that have been constructed.

The Works-As-Executed dimensions, levels and certifications must also be shown in red on a copy of the approved Construction Certificate plans. The Works-As-Executed (WAE) plans must include:

17.1 final locations and levels for all works.

18 Natural Watercourse

All natural watercourses must be chartered on the final subdivision plan.

19 Existing Easements

All existing easements must be acknowledged on the final subdivision plan.

20 Existing Restriction as to Use

All existing restriction on the use of land must be acknowledged on the final subdivision plan.

21 Encroaching Pipes

A minimum one (1) metre wide easement to drain water shall be created over any encroaching drainage pipes.

22 Encroaching Services

A minimum one (1) metre wide easement for services must be created over any encroaching utility service.

23 Section 88B Instrument

The submission of a Final Section 88B Instrument to Council/Principal Certifying Authority, which incorporates (but is not necessarily limited to) the following restrictions, easements and covenants, where applicable:

23.1 restricted building zone over the 1% AEP flood inundation area of the floodplain which prohibits the erection of structures, fences, pools, ancillary buildings, the placement of fill, undertaking any earthworks and the planting of trees;

23.2 restriction as to user which defines a restricted building zone;

23.3 restriction as to user defining minimum floor levels for any lots which have any part of the lot below the 1% AEP flood level. This shall be accompanied by the 1% flood profile of the natural watercourse with superimposed lot boundary location;

23.4 restriction as to user over any filled lots which stipulates that footings must be designed by a suitably qualified civil and/or structural engineer;

e) easement for services

f) easement to drain water

g) right of carriageway

24 Final Documentation Required Prior to Issue of Subdivision Certificate

The submission of the following information/documentation to the Principal Certifying Authority, prior to the issue of a Subdivision Certificate:

Where copyright exists in a document, it is provided for information purposes only in accordance with Council's statutory obligations and copyright laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

Document Set ID: 5068526
Version: 1, Version Date: 06/12/2005

24.1 Completed Subdivision Certificate application form and fees in accordance with Council's fees and charges;

24.2 Original Construction Certificates and approved drawings (where issued by an accredited Private Certifying Authority);

24.3 Final plan of Subdivision prepared by a registered surveyor plus four (4) equivalent size paper copies of the plan;

24.4 Section 88B Instrument covering all necessary easements and restrictions on the use of any lot within the subdivision;

24.5 Original Subdivider/Developer Compliance Certificate pursuant to Section 73 of the Water Board (Corporatisation) Act 1994 from Sydney Water. Sydney Water may require you to construct works and/or pay developer charges. Accordingly, you should make immediate application to Sydney Water to avoid problems in servicing your development;

24.6 Original Notification of Arrangement from an Integral Energy regarding the supply of underground electricity to the proposed allotments. Integral Energy may require you to construct works and/or pay developer charges. Accordingly, you should make immediate application to an Electricity Service Provider to avoid problems in servicing your development;

24.7 Original Compliance Certificate from Telstra or another Telecommunications Service Provider which confirms that the developer has consulted with the Provider with regard to the provision of telecommunication services for the development; and

24.8 Payment of required Section 94 Contributions

Section 94 Contributions

25 A total monetary contribution of $16,243.80 shall be paid to Wollongong City Council for the purposes of section 94 Contribution Plan Fees. The total contribution shall be paid prior to the release of the Subdivision certificate.

The individual contribution amounts are outlined below. These amounts will be indexed on 1 July in each year in accordance with indexing methods outlined in the relevant contribution plan, with amended rates being available from Council.

The contribution plans may be inspected or a copy purchased at the Strategic Planning Department's Inquiry Counter – Level 3, Council's Administration Building, 41 Burelli Street, Wollongong during normal business hours.

- **Contribution Plan for the Horsley Release Area**

  A monetary contribution shall be paid to Wollongong City Council for the cost of providing public services and facilities as outlined in the plan in lieu of their physical provision. This contribution has been assessed pursuant to s94 of the Environmental Planning and Assessment Act, and the Wollongong Contribution Plan for Horsley Release Area and its associated amendments after identifying the likelihood that this development will require or increase the demand for the public amenities and public services within the locality. The contribution has been calculated on the size of the development site which equals 1.6 developable hectare(s).

  The contribution is for the following:

Horsley Release Area - Fowlers Road	$3,209.40
Horsley Release Area - West Dapto Road	$581.40
Horsley Release Area - Link Road	$1,863.10

Where copyright exists in a document it is provided for information purposes only in accordance with Council's statutory obligations and the copyright laws still apply. The copyright consent is required if any part of this document is used for any other purpose.

Document Set ID: 5068526
Version: 1, Version Date: 06/12/2005

Horsley Release Area - Roundabouts Part 7	$67.75
Horsley Release Area - Roundabouts Part 8	$86.90
Horsley Release Area - Roundabouts Part 13	$80.15
Horsley Release Area - Roundabouts Part 15	$108.15
Horsley Release Area - Roundabouts Part 16	$318.95
Horsley Release Area - Roundabouts Part 17	$48.05
Horsley Release Area - Roundabouts Part 18	$48.05
Horsley Release Area - Roundabouts Part 19	$48.05
Horsley Release Area - Cycleway	$1,337.35
Horsley Release Area - Open Space	$1,940.35
Horsley Release Area - Community and Recreation	$3,629.80
Horsley Release Area - Section 94 Administration	$130.10
Horsley Release Area - Water Quality	$2,746.25

The reasons for the imposition of the conditions are:

1 To minimise any likely adverse environmental impact of the proposed development.

2 To ensure the protection of the amenity and character of land adjoining and in the locality.

3 To ensure the proposed development complies with the provisions of Environmental Planning Instruments and Council's Codes and Policies.

4 To ensure the development does not conflict with the public interest.

Notes

1 This consent becomes effective and operates from the date shown as "Endorsement Date" on the front page of this notice. This consent will lapse unless development is commenced within four years (five years with the prior written approval of Council) from the endorsement date shown on this notice.

2 Section 97 of the Environmental Planning and Assessment Act confers on an applicant who is dissatisfied with the determination of a consent authority a right of appeal to the Land and Environment Court exercisable within twelve months from the date of receipt of this notice.

3 The holder of a development consent that is being acted upon must also hold a current:

- **a Construction Certificate under the provisions of the Environmental Planning and Assessment Act, 1979.**
- **b Subdivision Certificate under the provisions of the Environmental Planning and Assessment Act, 1979.**
- **c Strata Subdivision approval under the Strata Titles Act, 1973.**

4 Where the consent is for building work or subdivision work, no temporary buildings may be placed on the site and no site excavation, filling, removal of trees or other site preparation may be carried out prior to the issue of a Construction Certificate and appointment of a Principal Certifying Authority.

5 A Tree Management Order has been proclaimed in the City of Wollongong. Under this order, no tree on the land the subject of this approval may be ringbarked, cut down, topped, lopped or wilfully destroyed except with the prior consent of Council which may be given subject to such conditions as Council considers appropriate.

Where copyright exists in a document, it is provided for information purposes only in accordance with Council's statutory obligations and copyright owner's consent. The copyright is limited strictly. The copyright owner's consent is required if any part of the document is used for any other purpose.

Document Set ID: 5068526
Version: 1, Version Date: 06/12/2005

However, unless specified otherwise in this consent, those trees which are specifically designated to be removed on the plans approved under this consent or are within 3 metres of an approved building footprint may be removed, provided that a Construction Certificate has been issued for the development the subject of this consent and a Principal Certifying Authority appointed and the required Bank Guarantees have been lodged with Council.

6 In this consent the developer means the applicant for development consent and any person or corporation who carries out the development pursuant to that consent.

7 Section 82A of the Environmental Planning and Assessment Act confers on an applicant who is dissatisfied with the determination of a consent authority a right to request the consent authority to review the determination. The request for review must be made within 12 months after the date on which the applicant received the notice of determination and must be accompanied by the fee set by the Regulations; it does not apply to an application in respect of Designated Development or Integrated Development.

Note - Prolonged Rainfall Events

The applicant is advised that under existing conditions and during prolonged rainfall events, flooding of the site may occur and it is in the applicant's interest to take all necessary precautions to minimise the risk of property loss and/or damage.

Yours faithfully



Alan Davis
Land Development Engineer
Wollongong City Council
Direct Line (02) 4227 7255

enc

Where copyright exists in a document it is provided for information purposes only in accordance with council's statutory obligations and copyright laws still apply. The copyright owners consent is required if any part of the document is used for any other purpose.

Document Set ID: 5068526
Version: 1, Version Date: 06/12/2005

wollongong
city of innovation

WOLLONGONG CITY COUNCIL

Address 41 Burelli Street Wollongong • **Post** Locked Bag 8821 Wollongong DC NSW 2500
Phone (02) 4227 7111 • **Fax** (02) 4227 7277 • **Email** council@wollongong.nsw.gov.au
Web www.wollongong.nsw.gov.au • ABN 63 139 525 939 - GST Registered

S.14(3)(3)(A) Personal Information

APPLICATION	DA-2021/437
Determination	Conditionally Approved
Approval Authority	Wollongong City Council
Endorsement Date	5 August 2021

NOTICE OF DETERMINATION OF DEVELOPMENT APPLICATION

Issued under Section 4.16 of the Environmental Planning and Assessment Act 1979

The development application described below has been determined:

Description	Subdivision - boundary adjustment
Location	Lot 412 DP 873616, Lot 413 DP 873616, Lot 425 DP 873616
	34 Bong Bong Road, 21 Barham Place, 78 Sunnybank Crescent, HORSLEY NSW 2530

Consent has been granted subject to the following conditions:

Approved Plans and Specifications

1 The development shall be implemented substantially in accordance with the details and specifications set out on Drawing D220303 sheet 1-A dated 14 April 2021 prepared by CEH Consulting and any details on the application form, and with any supporting information received, except as amended by the conditions specified and imposed hereunder.

General Matters

2 **Tree Removal**
This application does not approve the removal of any native trees or vegetation. A separate development application, or tree management permit application, shall be submitted to Council if trees are proposed to be removed.

Prior to the Issue of the Subdivision Certificate

3 **Property Addressing Policy Compliance**
Prior to the issue of any construction certificate, the developer must ensure that any site addressing complies with Council's **Property Addressing Policy** (as amended). Where appropriate, the developer must also lodge a written request to Council's **Infrastructure Systems & Support – Property Addressing (propertyaddressing@wollongong.nsw.gov.au),** for the site addressing prior to the issue of the construction certificate. Please allow up to 3-5 business days for a reply. Enquiries regarding property addressing may be made by calling 4227 8660.

4 **Existing Easements**
All existing easements must be acknowledged on the final subdivision plan.

5 **Existing Restriction as to Use**
All existing restriction on the use of land must be acknowledged on the final subdivision plan.

Where copyright exists in a document, it is provided for information purposes only in accordance with Council's statutory obligations and copyright laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

CONSENT

Document Set ID: 10990467
Version: 6, Version Date: 05/08/2021

6 **Encroaching Pipes**
A minimum one (1) metre wide easement to drain water shall be created over any encroaching drainage pipes.

For all drainage easements proposed over the subject lots, a works as executed/survey plan of all stormwater drainage within the site is to be submitted with the Subdivision Certificate Application to confirm this.

7 **Encroaching Services**
A minimum one (1) metre wide easement for services must be created over any encroaching utility service.

8 **88B Instrument Easements/Restrictions**
Any easements or restrictions required by this consent must nominate Wollongong City Council as the authority to vary, modify or release/extinguish the easements or restrictions. The form of the easement(s) or restriction(s) created as a result of this consent must be in accordance with the standard format for easements and restrictions as accepted by NSW Land Registry Services.

9 **Final Documentation Required Prior to Issue of Subdivision Certificate**
The submission of the following information/documentation to the Principal Certifier (PC), prior to the issue of a Subdivision Certificate:

a Completed Subdivision Certificate application form and fees in accordance with Council's fees and charges;
b Certificate of Practical completion from Wollongong City Council or an accredited PC (if applicable);
c Administration sheet prepared by a registered surveyor;
d Section 88B Instrument covering all necessary easements and restrictions on the use of any lot within the subdivision;
e Final plan of Subdivision prepared by a registered surveyor plus one (1) equivalent size paper copies of the plan;
f Original Subdivider/Developer Compliance Certificate pursuant to Section 73 of the Water Board (Corporatisation) Act 1994 from Sydney Water;
g Original Notification of Arrangement from an Endeavour Energy regarding the supply of underground electricity to the proposed allotments;
h Original Compliance Certificate from Telstra or another Telecommunications Service Provider which confirms that the developer has consulted with the Provider with regard to the provision of telecommunication services for the development.
i Payment of section 94 fees (Pro rata) (if applicable).

Operational Phases of the Development/Use of the Site

10 **Domestic Grazing Animals**
No domestic grazing animals shall be permitted to enter or graze within areas of native vegetation on the property.

Reasons

The reasons for the imposition of the conditions are:

1 To minimise any likely adverse environmental impact of the proposed development.
2 To ensure the protection of the amenity and character of land adjoining and in the locality.
3 To ensure the proposed development complies with the provisions of Environmental Planning Instruments and Council's Codes and Policies.
4 To ensure the development does not conflict with the public interest.

Notes

1 This consent becomes effective and operates from the date shown as **"Endorsement Date"** on the front page of this notice. This consent will lapse unless development is commenced within five (5) years from the endorsement date shown on this notice.

Where copyright exists in a document it is provided for information purposes only. In accordance with Council's statutory obligations and copyright laws still apply. The copyright owner of the document is required if any part is used for any other purpose.

Document Set ID: 10990467
Version: 6, Version Date: 05/08/2021

2 Section 8.7 of the Environmental Planning and Assessment Act 1979 confers on an applicant who is dissatisfied with the determination of a consent authority a right of appeal to the Land and Environment Court exercisable within six (6) months from the date of receipt of this notice.

3 Section 8.3 of the Environmental Planning and Assessment Act 1979 confers on an applicant who is dissatisfied with the determination of a consent authority a right to request the consent authority to review the determination. The request for review of the determination must be made within six (6) months from the date of receipt of this notice. In the absence of a pending appeal before the Land and Environment Court, the request for review, and the review by Council, must all be completed within the abovementioned six (6) month time period. Accordingly, applicants are advised to provide Council with sufficient time to complete the review within this period, failing which the determination cannot be reviewed. The request must be accompanied by the fees set by the Environmental Planning and Assessment Regulation.

A right of review of determination does not exist for a determination made in respect of a Designated Development.

4 The holder of a development consent that is being acted upon must also hold a current Subdivision Certificate under the provisions of the Environmental Planning and Assessment Act, 1979.

5 Where the consent is for building work or subdivision work, no temporary buildings may be placed on the site and no site excavation, filling, removal of trees or other site preparation may be carried out prior to the issue of a Construction Certificate and appointment of a PC.

6 A Tree Management Permit Policy has been proclaimed in the City of Wollongong. Under this order, no tree on the land the subject of this approval may be ringbarked, cut down, topped, lopped or wilfully destroyed except with the prior consent of Council which may be given subject to such conditions as Council considers appropriate. However, unless specified otherwise in this consent, those trees which are specifically designated to be removed on the plans approved under this consent or has any part of a trunk located within three (3) metres of an approved building footprint may be removed, provided that a Construction Certificate has been issued for the development the subject of this consent and a PC appointed.

7 In this consent the developer means the applicant for development consent and any person or corporation who carries out the development pursuant to that consent.

8 Council recommends that NSW Wildlife Information and Rescue Service (WIRES) be contacted for assistance in relocating any native fauna prior to removal of any trees and bushland, authorised by this consent. For wildlife rescue assistance, you must call the Wildlife Rescue Line 1300 094 737 (13 000 WIRES) or visit their website www.wires.org.au for more information.

9 Before undertaking renovation or demolition work, or removing materials from site during development works refer to Council's website for further information:

http://www.wollongong.nsw.gov.au/development/regulations/Pages/Renovations-Demolition.aspx
http://www.wollongong.nsw.gov.au/services/household/Pages/chemicalcleanout.aspx

10 **Prolonged Rainfall Events**
The applicant is advised that under existing conditions and during prolonged rainfall events, flooding of the site may occur and it is in the applicant's interest to take all necessary precautions to minimise the risk of property loss and/or damage.

This letter is authorised by

Nicole Ashton
Senior Development Project Officer
Wollongong City Council
Telephone (02) 4227 7111

enc

Where copyright exists in a document, it is provided for information purposes only in accordance with Council's statutory obligations and copyright laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

Document Set ID: 10990467
Version: 6, Version Date: 05/08/2021

Planning Assessment Report

DA-2021/437

Where copyright exists in this document, it is provided for information purposes only in accordance with Council's statutory obligations and copyright laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.



Document Set ID: 10990469
Version: 5, Version Date: 04/08/2021

Conflict of interest declaration	
Assessing Officer: I, Nicole Ashton, declare that I have no potential or actual conflict of interest in assessing this application.	Yes
Peer reviewer: I, Kristy Robinson, that I have no potential or actual conflict of interest in assessing this application. *Note: Any actual or potential conflict of interest must be immediately reported to your supervisor.*	Yes
Does the application require reporting to the Local Planning Panel for determination or advice?	No
Does the application require determination by the Southern Regional Planning Panel as outlined in Schedule 7 of State SEPP (State and Regional Development) 2011	No
Relevant internal referrals sent	Yes
Relevant external referrals sent	NA
Property constraints checked (ASS, heritage, flood, bushfire, contamination, unstable, fill etc).	Yes
Accompanying reports / technical studies provided in relation to identified constraints	Yes
Exhibition undertaken in accordance with Community Participation Policy (*Extended notification to sensitive land uses or other parties if appropriate*)	Yes (not reqd)
Development appropriately classified and permissible in the zone	Yes
Landowner's consent (see Pathways). For companies, person with appropriate delegations on a company letterhead and / or company seal / ABN	Yes
Estimated cost of development provided and that correct DA fees paid. *If in doubt, check with PAU as to whether a cost verification using Cordell's was undertaken.*	Yes
Applicable planning controls addressed in SOEE	Yes
LEP or DCP variations supported by justification statement	NA
DP / 88B easements or restrictions	Yes
PAU sheet checked for special instructions	Yes
Site inspection undertaken previously in association with prelodgement meeting	Yes
Finalising	
Internal referrals complete and satisfactory (*(if unsatisfactory and disagreement between planner and other officer then appropriate explanation given)*	Yes
External referrals complete and correct date of receipt in Pathway	NA
Workflow tasks complete	Yes
S7.12 contributions task inserted and complete	Yes
Recommended conditions appropriate to development inserted in Pathway	Yes
Development categories updated for variations to development standards	NA
Correct plans and documents identified in condition 1 of draft consent.	Yes
Correct description in draft consent.	Yes
Correct notice of determination template selected (e.g. integrated, designated, RD etc)	Yes
Peer review complete	Yes
Determination authority identified in draft consent: **Delegated Authority**	Yes
Assessment report final printed.	Yes

Where copyright exists in a document, it is provided for information purposes only, in accordance with Council's statutory obligations and copyright laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

DA No.	**DA-2021/437**
Proposal	Subdivision - boundary adjustment
Property	34 Bong Bong Road Horsley
Applicant	S.14(3)(3)(A) Personal Information
Responsible Team	City Wide Team
Lodged	27 April 2021

1 APPLICATION OVERVIEW

1 EXECUTIVE SUMMARY

Proposal

The proposal is for a boundary adjustment involving three allotments.

Permissibility

The proposed subdivision is permissible with consent under Wollongong Local Environmental Plan 2009.

Notification and submissions

The application did not require notification.

Planning controls and compliance

The following planning controls apply to the proposal:

State Environmental Planning Policies:

- SEPP No. 55 – Remediation of Land
- SEPP (Coastal Management) 2018

Local Environmental Planning Policies:

- Wollongong Local Environmental Plan (WLEP) 2009

Development Control Plans:

- Wollongong Development Control Plan 2009

Other policies

- West Dapto Development Contributions Plan
- Wollongong Community Participation Plan 2019

The proposal is satisfactory with regard to the applicable planning controls as discussed in the body of this report.

Likely impacts

The proposal is considered acceptable with regard to the likely impacts.

Main issues

There are no significant issues impacting on the proposal.

Referrals

Council's Development Engineering, Environment and Urban Release Officers have provided satisfactory referrals. External comments were not required.

Recommendation

It is recommended that the application be conditionally approved.

Where copyright exists in a document, it is provided for information purposes only in accordance with Council's statutory obligations and the copyright owner's copyright laws still apply. The copyright of any part of the document is required if any part is used for any other purpose.

Document Set ID: 10990469
Version: 5, Version Date: 04/08/2021

1.1 DETAILED DESCRIPTION OF PROPOSAL

The proposal is for a boundary adjustment between three existing allotments.

The existing allotments are as follows:

Existing Lot	Area	Zoning
Lot 412	42.92ha	R2/RE2
Lot 413	573.4m2	R2
Lot 425	3.219ha	R2/RE2

The proposed allotments are as follows:

Proposed Lot	Area	Zoning
1	148 482.5m2 (14.85ha)	R2/RE2
2	89 766.8m2 (89.77ha)	RE2
3	223 684.265m2 (22.37ha)	R2/RE2

The proposed lots generally reflect the northern, central and southern portions of the original allotment.

1.1 BACKGROUND

The site has the following development history:

Application Number	Description	Decision	Decision Date
DA-1999/692	Subdivision - 2 Lots	None	24-Nov-1999
DA-2005/1600	3 lot subdivision	Approved	06-Dec-2005
CS-2006/21	3 lot subdivision	Approved	25-May-2006
DE-2008/6	Construction of Illawarra Employment & Teaching Centre		
MP-2008/247	Illawarra Employment and Education Centre with ancillary and related commercial and residential uses	None	03-Feb-2009
PL-2020/163	Three (3) lot subdivision - NOTES ONLY	None	02-Nov-2020

Prelodgement PL-2020/163 was held in relation to the proposal. The application submission generally addresses the issues raised in the notes.

Customer service actions

There are no outstanding customer service requests of relevance to the development

1.2 SITE DESCRIPTION

The site is located at 34 Bong Bong Road, 21 Barham Place and 78 Sunnybank Crescent Horsley and the title references are Lot 412, 413 and 425 DP 873616.The land is a large parcel that sits between Mullet Creek at the east and existing West Dapto development to the west. The southern boundary of the site touches on Bong Bong Road. The land presents as largely cleared land with very little notable overall vegetative presence. There is a stand of trees at the southern end adjoining Bong Bong Road, and a tributary of Mullet Creek crosses across the site in a west/east direction.

The site is irregular in shape and relatively flat.

Where copyright exists in a document, it is provided for information purposes only in accordance with Council's statutory obligations and copyright still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

Adjoining development is as follows:

- North: similar cleared land, zoned SP2
- East: Mullet Creek
- South: Bong Bong Road, and cleared land zoned RE1
- West: low density residential development

Property constraints

Council records identify the land as being impacted by the following constraints:

- Fill
- Acid sulphate soils (Class 4 and 5): No earthworks are proposed and no concerns are raised in this regard.
- Flooding: The site is identified as being located within a flood risk precinct (under review). Council's Development Engineer has reviewed the application in this regard and did not raise any concerns as there are no physical works occurring in association with the proposal.
- 88b restriction: relate to restrictions on building location, fencing, access over residential land, requirements in relation to filled land
- Coastal Hazard(s): the site has an area of coastal wetlands and associated buffer as shown below in Figure 3



Figure 1: Aerial photograph

Warning: This is a document in accordance with Council's Copyright Policy. It is the responsibility of the person requesting the document to ensure that any part of it is not used for any other purpose.

Document Set ID: 10990469
Version: 5, Version Date: 04/08/2021

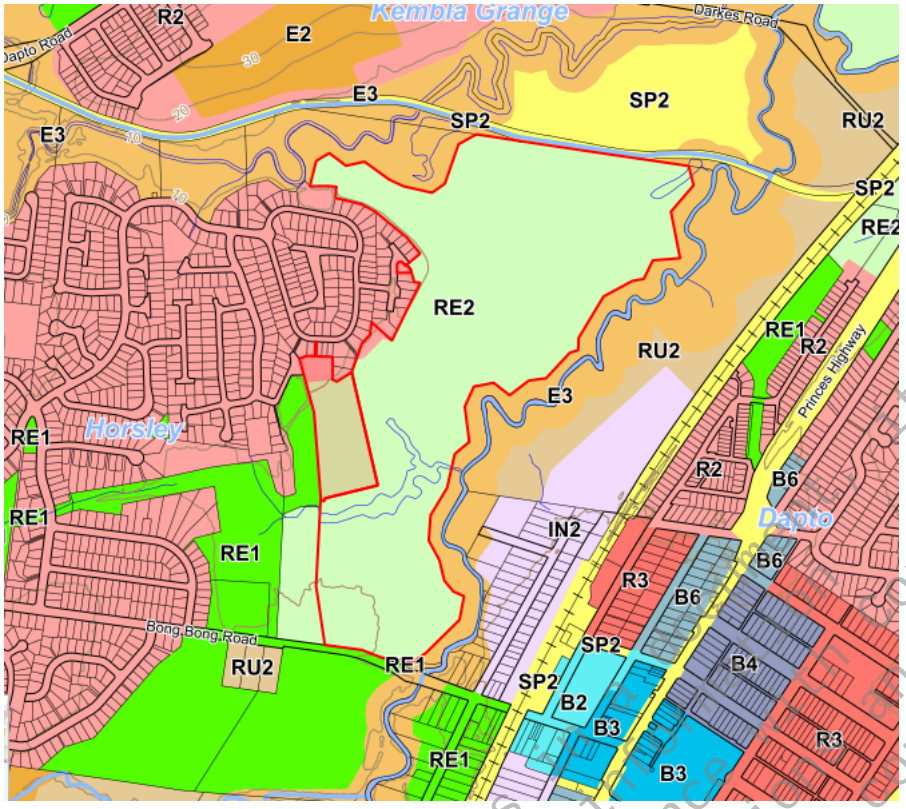


Figure 2: WLEP 2009 zoning map



Figure 3: Coastal Management SEPP 2018 – Coastal Wetlands (brown) and Coastal Wetlands Buffer (pink)

1.3 SUBMISSIONS

The application did not require notification in accordance with Council's Community Participation Plan 2019.

Document Set ID: 10990469
Version: 5, Version Date: 04/08/2021

1.4 CONSULTATION

1.4.1 INTERNAL CONSULTATION

Urban Release Officer

Council's Urban Release Officer has reviewed the application and given a satisfactory referral.

Environment Officer

Council's Environment Officer has reviewed the application and given a satisfactory referral subject to conditions of consent.

Development Engineering Officer

The application has been assessed in regard to traffic, stormwater and subdivision matters and found to be satisfactory. Conditions of consent were recommended and are included in the consent.

1.4.2 EXTERNAL CONSULTATION

None required

2 ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

1.7 Application of Part 7 of Biodiversity Conservation Act 2016 and Part 7A of Fisheries Management Act 1994

This Act has effect subject to the provisions of Part 7 of the Biodiversity Conservation Act 2016 and Part 7A of the Fisheries Management Act 1994 that relate to the operation of this Act in connection with the terrestrial and aquatic environment.

NSW BIODIVERSITY CONSERVATION ACT 2016

The development does not propose any vegetation removal and the development would therefore not be considered to result in adverse impacts on biodiversity and is consistent with the provisions of the Biodiversity Conservation Act 2016.

2.1 SECTION 4.15(1)(A)(1) ANY ENVIRONMENTAL PLANNING INSTRUMENT

2.1.1 STATE ENVIRONMENTAL PLANNING POLICY NO. 55 – REMEDIATION OF LAND

The proposal was referred to Council's Environment Officer who provided the following commentary in relation to contamination matters:

> The PSI (Douglas Partners, Preliminary Site Investigation - Proposed, 78 Sunnybank Crescent, 21 Barham Place and 34 Bong Bong Road, Horsley, February 2021) found the following:
>
> *The PSI has identified potential sources of contamination at the site which are considered typical for a rural residential property in this region. As such, the identified potential for contamination is not considered to be a constraint that would preclude the proposed subdivision (being a boundary adjustment only). The site is therefore considered to be suitable for the proposed subdivision from a contaminated land perspective.*
>
> *However, if any future development is proposed at the site that would result in a change in land use, it is recommended that some investigation be undertaken to better define the actual contamination risks (if any) that the potential contamination may pose on subsequently proposed development.*
>
> This is accepted and no further assessment is required.

As there are no earthworks proposed and the proposal does not comprise a change of use, no concerns are raised in regard to contamination as relates to the use of the land and the requirements of clause 7.

2.1.2 STATE ENVIRONMENTAL PLANNING POLICY (COASTAL MANAGEMENT) 2018

21 Savings and transitional provisions

Where copyright exists in a document, it is provided for information purposes only in accordance with Council's statutory obligations and the copyright owner's laws still apply. The copyright of the document is required if any part is used for any other purpose.

Document Set ID: 10990469
Version: 5, Version Date: 04/08/2021

Not relevant to this application.

3 Aim of Policy

The aim of this Policy is to promote an integrated and co-ordinated approach to land use planning in the coastal zone in a manner consistent with the objects of the Coastal Management Act 2016, including the management objectives for each coastal management area, by:

(a) managing development in the coastal zone and protecting the environmental assets of the coast, and

(b) establishing a framework for land use planning to guide decision-making in the coastal zone, and

(c) mapping the 4 coastal management areas that comprise the NSW coastal zone for the purpose of the definitions in the Coastal Management Act 2016.

5 Land to which Policy applies

This Policy applies to land within the coastal zone.

7 Relationship with other environmental planning instruments

(1) In the event of an inconsistency between this Policy and another environmental planning instrument, whether made before or after the commencement of this Policy, this Policy prevails to the extent of the inconsistency.

(2) This Policy does not apply to land within the Lease Area within the meaning of State Environmental Planning Policy (Three Ports) 2013.

Part 2 Development controls for coastal management areas

Division 1 Coastal wetlands and littoral rainforests area

10 Development on certain land within coastal wetlands and littoral rainforests area

(1) The following may be carried out on land identified as "coastal wetlands" or "littoral rainforest" on the Coastal Wetlands and Littoral Rainforests Area Map only with development consent:

(a) the clearing of native vegetation within the meaning of Part 5A of the Local Land Services Act 2013,

(b) the harm of marine vegetation within the meaning of Division 4 of Part 7 of the Fisheries Management Act 1994,

(c) the carrying out of any of the following:

(i) earthworks (including the depositing of material on land),

(ii) constructing a levee,

(iii) draining the land,

(iv) environmental protection works,

(d) any other development.

Note. Clause 17 provides that, for the avoidance of doubt, nothing in this Part:

(a) permits the carrying out of development that is prohibited development under another environmental planning instrument, or

(b) permits the carrying out of development without development consent where another environmental planning instrument provides that the development may be carried out only with development consent.

(2) Development for which consent is required by subclause (1), other than development for the purpose of environmental protection works, is declared to be designated development for the purposes of the Act.

(3) Despite subclause (1), development for the purpose of environmental protection works on land identified as "coastal wetlands" or "littoral rainforest" on the Coastal Wetlands and Littoral Rainforests Area Map may be carried out by or on behalf of a public authority without development consent if the development is identified in:

(a) the relevant certified coastal management program, or

Where a copyright exists in a document, it is provided for information purposes only in accordance with Council's statutory obligations and the copyright laws still apply. The consent is required if any part of the document is used for any other purpose.

Document Set ID: 10990469
Version: 5, Version Date: 04/08/2021

(b) a plan of management prepared and adopted under Division 2 of Part 2 of Chapter 6 of the Local Government Act 1993, or

(c) a plan of management approved and in force under Division 6 of Part 5 of the Crown Lands Act 1989.

(4) A consent authority must not grant consent for development referred to in subclause (1) unless the consent authority is satisfied that sufficient measures have been, or will be, taken to protect, and where possible enhance, the biophysical, hydrological and ecological integrity of the coastal wetland or littoral rainforest.

(5) Nothing in this clause requires consent for the damage or removal of a priority weed within the meaning of clause 32 of Schedule 7 to the Biosecurity Act 2015.

(6) This clause does not apply to the carrying out of development on land reserved under the National Parks and Wildlife Act 1974 if the proposed development is consistent with a plan of management prepared under that Act for the land concerned.

***Comment**: The development is for a paper subdivision and as such, there are no physical works involved in the proposal. The subject site has a small area identified as coastal wetland, with an associated buffer area, as shown above in Figure 3. However as there are no works proposed within this defined area, the proposal is not considered to be designated development.*

11 Development on land in proximity to coastal wetlands or littoral rainforest

Note. The Coastal Wetlands and Littoral Rainforests Area Map identifies certain land that is inside the coastal wetlands and littoral rainforests area as “proximity area for coastal wetlands” or “proximity area for littoral rainforest” or both.

(1) Development consent must not be granted to development on land identified as “proximity area for coastal wetlands” or “proximity area for littoral rainforest” on the Coastal Wetlands and Littoral Rainforests Area Map unless the consent authority is satisfied that the proposed development will not significantly impact on:

(a) the biophysical, hydrological or ecological integrity of the adjacent coastal wetland or littoral rainforest, or

(b) the quantity and quality of surface and ground water flows to and from the adjacent coastal wetland or littoral rainforest.

(2) This clause does not apply to land that is identified as “coastal wetlands” or “littoral rainforest” on the Coastal Wetlands and Littoral Rainforests Area Map.

***Comment**: As discussed above, the development is for a paper subdivision and as such, there are no physical works involved in the proposal including no works within the identified buffer area that has proximity to coastal wetlands. As such, the development is not considered likely to impact on the integrity of the coastal wetland or change any surface and ground water flows to and from the wetland.*

Division 2 Coastal vulnerability area

Note. At the commencement of this Policy, no Coastal Vulnerability Area Map was adopted and therefore no coastal vulnerability area has been identified.

Division 3 Coastal environment area

The subject site is not identified as being land within the Coastal Environment Area.

Division 4 Coastal use area

The subject site is not identified as being land within the Coastal Use Area.

Division 5 General

15 Development in coastal zone generally—development not to increase risk of coastal hazards

Development consent must not be granted to development on land within the coastal zone unless the consent authority is satisfied that the proposed development is not likely to cause increased risk of coastal hazards on that land or other land.

Where copyright exists in a document it is provided for information purposes only. The copyright owner's consent is required if any part of the document is used for any other purpose.

16 Development in coastal zone generally—coastal management programs to be considered

Development consent must not be granted to development on land within the coastal zone unless the consent authority has taken into consideration the relevant provisions of any certified coastal management program that applies to the land.

As stated above, a review of the SEPP's mapping extents identifies that the subject site contains land mapped as containing coastal wetland, however the site is not located within any other coastal management area. Council is satisfied that the proposed boundary adjustment will not adversely impact upon the wetland.

2.1.3 WOLLONGONG LOCAL ENVIRONMENTAL PLAN 2009

Clause 1.4 Definitions

Subdivision is defined by the EP&A Act as being the the division of land into 2 or more parts that, after the division, would be obviously adapted for separate occupation, use or disposition. The division may (but need not) be effected-

(a) by conveyance, transfer or partition, or

(b) by any agreement, dealing, plan or instrument rendering different parts of the land available for separate occupation, use or disposition.

Clause 1.8A Savings provision relating to pending development approvals

Not applicable

Part 2 Permitted or prohibited development

Clause 2.2 – zoning of land to which Plan applies

The zoning map identifies the land as being zoned R2 Low Density Residential/RE2 Private Recreation.

Clause 2.3 – Zone objectives and land use table

The objectives of the R2 zone are as follows:

• To provide for the housing needs of the community within a low density residential environment.

• To enable other land uses that provide facilities or services to meet the day to day needs of residents

The proposal is satisfactory with regard to the above objectives. There are existing dwellings on the R2 zoned land with frontage to Sunnybank Crescent and Barham Place.

The objectives of the RE2 zone are as follows:

• To enable land to be used for private open space or recreational purposes.

• To provide a range of recreational settings and activities and compatible land uses.

• To protect and enhance the natural environment for recreational purposes

The proposal is satisfactory with regard to the above objectives. There RE2 zoned land is currently used for agistment, a form of extensive agriculture, which is a permissible use in the zone. The Statement of Environmental Effects states that this use will continue.

Clause 2.6 Subdivision—consent requirements

Subdivision on the land is permissible with consent. The application proposes boundary adjustments through torrens title subdivision.

Part 4 Principal development standards

Clause 4.1 Minimum subdivision lot size

The RE2 zoned land does not have a minimum lot size defined by WLEP 2009. Each R2 zoned land part is not being reduced by the proposed subdivision and achieves the minimum lot size of 449m^2 for the R2 zoned portions.

Where copyright exists in a document, it is provided for information purposes only in accordance with Council's statutory obligations and copyright laws. The copyright owner's still apply. The consent is required if any part of the document is used for any other purpose.

Document Set ID: 10990469
Version: 5, Version Date: 04/08/2021

Clause 4.4 Floor space ratio

The proposal does not comprise any additional gross floor area. The amount of R2 zoned land has not changed such that the proposal would now exceed the maximum floor space ration for the land.

Part 5 Miscellaneous provisions

Clause 5.21 Flood planning

The proposal was referred to Council's Development Engineer who gave a conditionally satisfactory referral response. There are no built form changes and the boundary adjustment is a paper subdivision. As such, the development is considered to be consistent with the objectives of the Clause.

Part 6 Urban release areas

6.1 Arrangements for designated State public infrastructure

The land is not intended to be developed intensively for urban purposes and as such, satisfactory arrangements for the provision of designated State public infrastructure sin not required.

6.2 Development control plan

Clause 6.2 does not apply to the proposed subdivision of land for the purpose of a realignment of boundaries that does not create additional lots, as is the case for this proposal.

Part 7 Local provisions – general

7.1 Public utility infrastructure

The existing developments on the land are already serviced by the appropriate utilities. The boundary adjustment does not impact on existing servicing.

7.2 Natural resource sensitivity—biodiversity

The proposal was referred to Council's Environment Officer for comment. It is noted that there are no areas of Natural Resource Sensitivity–Biodiversity will be impacted by the proposed boundary adjustment.

7.4 Riparian lands

The proposal was referred to Council's Environment Officer for comment. Riparian lands will not be affected by the proposed development.

7.5 Acid Sulfate Soils

There are no physical works proposed and as such, an acid sulfate soils management plan is not required for the proposal.

2.2 SECTION 4.15(1)(A)(II) ANY PROPOSED INSTRUMENT

None applicable.

2.3 SECTION 4.15(1)(A)(III) ANY DEVELOPMENT CONTROL PLAN

2.3.1 WOLLONGONG DEVELOPMENT CONTROL PLAN 2009

There are no development control variations proposed by the development.

CHAPTER A2 – ECOLOGICALLY SUSTAINABLE DEVELOPMENT

Development controls to improve the sustainability of development throughout Wollongong are integrated into the relevant chapters of this DCP. Generally speaking, the proposal is considered to be consistent with the principles of Ecologically Sustainable Development.

CHAPTER B2 – RESIDENTIAL SUBDIVISION

Although Chapter B2 is applicable to the subdivision of land in the R2 zone, the controls are of little relevance to the proposed development. There are existing dwellings on two of the parts of R2 zoned land, and due to the large lot size/ land area, the proposed subdivision boundaries will have little impact on those R2 parts. The shape and size of each R2 portion does not change under this proposal.

There are no changes to the built form or servicing arising from the proposed subdivision.

Where copyright exists in a document, it is supplied for information purposes only in accordance with Council's statutory obligations and laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

Document Set ID: 10990469
Version: 5, Version Date: 04/08/2021

PRECINCT PLAN – Chapter D16: West Dapto Release Area

The controls contained within Chapter D16 have little relevance to the proposed boundary adjustment. There will be no additional urban development arising from the proposal, and the land does not form part of any proposed neighbourhood plan.

CHAPTER E13 FLOODPLAIN MANAGEMENT

The site is identified as being located within a flood risk precinct that is under review. The proposal was referred to Council's Development Engineer who notes that the Mullet Creek 2018 flood study shows that the subject lots are located within High Flood Risk precinct, as defined in Chapter E13, WDCP 2009. However, the residential component of the lots 1 and 3 are above the flood affected area and able to be developed in accordance with the requirements of Chapter E13 WDCP 2009.

In this regard, the proposal is not considered to be contrary to Chapter E13.

2.3.2 WOLLONGONG CITY WIDE DEVELOPMENT CONTRIBUTIONS PLAN

The estimated cost of works is less than $100 000. As this is the threshold value for the levying of contributions, a levy is therefore not applicable under this plan.

2.4 SECTION 4.15(1)(A)(IIIA) ANY PLANNING AGREEMENT THAT HAS BEEN ENTERED INTO UNDER SECTION 7.4, OR ANY DRAFT PLANNING AGREEMENT THAT A DEVELOPER HAS OFFERED TO ENTER INTO UNDER SECTION 7.4

There are no planning agreements entered into or any draft agreement offered to enter into under S7.4 which affect the development.

2.5 SECTION 4.15(A)(IV) THE REGULATIONS (TO THE EXTENT THAT THEY PRESCRIBE MATTERS FOR THE PURPOSES OF THIS PARAGRAPH)

92 What additional matters must a consent authority take into consideration in determining a development application?

There is no demolition proposed in relation to the proposal.

93 Fire safety and other considerations

Not applicable, as there is no change of building use proposed.

94 Consent authority may require buildings to be upgraded

Not applicable, there are no building works proposed.

2.6 SECTION 4.15(1)(B) THE LIKELY IMPACTS OF DEVELOPMENT

The proposal is considered acceptable with regard to the likely impacts. The development did not require notification in accordance with the Community Participation Plan 2019, and all internal referrals were conditionally satisfactory.

2.7 SECTION 4.15(1)(C) THE SUITABILITY OF THE SITE FOR THE DEVELOPMENT

Does the proposal fit in the locality?

The proposal is considered appropriate with regard to the zoning of the site and is not expected to have any negative impacts on the amenity of the locality or adjoining developments.

Are the site attributes conducive to development?

There are no site constraints that would prevent the proposal.

2.8 SECTION 4.15(1)(D) ANY SUBMISSIONS MADE IN ACCORDANCE WITH THIS ACT OR THE REGULATIONS

None received.

Where copyright exists in a document, it is provided for information purposes only. In accordance with Council's copyright statutory obligations and licence agreements, this copyright still applies. The consent is required if any part of the document is used for any other purpose.

Document Set ID: 10990469
Version: 5, Version Date: 04/08/2021

2.9 SECTION 4.15(1)(E) THE PUBLIC INTEREST

The application is not expected to have any unreasonable impacts on the environment or the amenity of the locality. It is considered appropriate with consideration to the zoning and the character of the area is satisfactory with regard to the applicable planning controls. The proposal did not require notification. The proposal is considered to be in the public interest.

3 CONCLUSION

This application has been assessed as satisfactory having regard to the Heads of Consideration under Section S4.15(1) of the Environmental Planning and Assessment Act 1979, the provisions of Wollongong Local Environmental Plan 2009 and all relevant Council DCPs, Codes and Policies. The proposal is considered supportable in its current form.

4 RECOMMENDATION

It is recommended that the development application be approved subject to appropriate conditions of consent:

Issue of this letter is authorised by

Nicole Ashton

Senior Development Project Officer

Wollongong City Council

Direct Line: 4227 7111

Where copyright exists in a document, it is provided for information purposes only in accordance with Council's statutory obligations and copyright laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

Document Set ID: 10990469
Version: 5, Version Date: 04/08/2021

CEH Consulting Pty Ltd
ABN 81 056 544 604

Statement of Environmental Effects

for the subdivision of Lots 412, 413 and 425 in Deposited Plan 873616

Summary:
The development application is for the boundary adjustment of lots 412, 413 and 425 in Deposited Plan 873616. The development does not propose any new allotments; the proposal is for the modification to the existing Lot Layout only.

The development has had a pre lodgment meeting with a reference number PL-2020/163.

The reasoning for the boundary adjustment is that the land is a deceased estate and the beneficiaries wanted a different distribution of the land for their own residential and recreation purposes for Lots 1 and 3. The remaining Lot 2 zoned RE 2 will be held for horse agistment.

Location:



Where copyright exists in a document, it is provided for information purposes only. The copyright owner's permission is required if any part of the document is used for any other purpose.

The property is known as lots 412, 413 and 425 in Deposited Plan 873616, being
Numbers;

412	34 Bong Bong Road	Horsley
413	21 Barham Place	Horsley
425	78 Sunnybank Cr	Horsley

Legislation:
Below is a map indicating the zoning of Lots 412, 413 and 425.
The current zoning for each Lot is both R2 (Low density residential) and RE2 (Private Recreation) under the Wollongong LEP 2009.



Lot	Zoning
412	R2 and RE 2
413	R2
425	R2 and RE 2

Where copyright exists in a document, it is provided for information purposes only in accordance with council's statutory obligations and copyright laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

The objectives of Zone RE 2 Private Recreation are;

- To enable land to be used for private open space or recreational purposes.
- To provide a range of recreational settings and activities and compatible land uses.
- To protect and enhance the natural environment for recreational purposes.

The modification of the boundaries does not affect the objectives of the zoning as the land use within the RE 2 zone does not change with the boundary adjustment.

The objectives of Zone R2 Low density residential are;

- To provide for the housing needs of the community within a low density residential environment.
- To enable other land uses that provide facilities or services to meet the day to day needs of residents.

The modification of the boundaries does not affect the objectives of the zoning as the land use within the R2 zone does not change with the boundary adjustment.

Minimum Lot Size:

Existing

Lot	Existing Lot Area (m²)	LEP Minimum R2 and RE 2
412	42.92Ha	449m² and N/A
413	573.4m²	N/A
425	3.219Ha	449m² and N/A

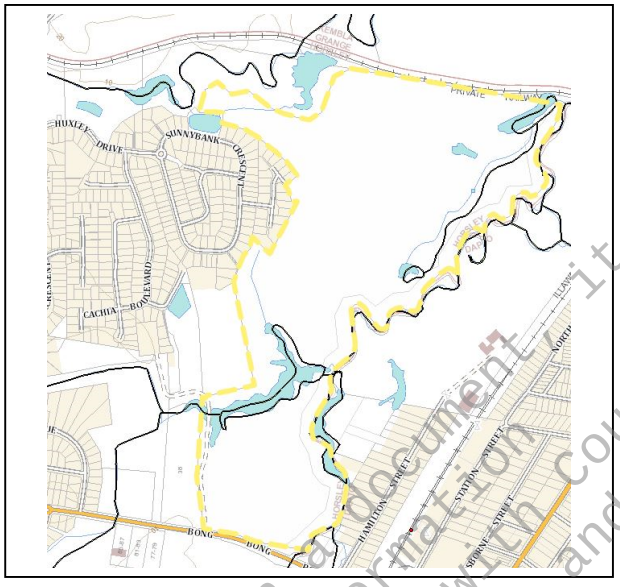
Proposed

Proposed Lot	Proposed Area (m²)	LEP Minimum R2 and RE 2
1	148,482 m²	449m² and N/A
2	89,766 m²	N/A
3	223,684.265m²	449m² and N/A

As shown in the table above the proposed Lot layout complies with each zones minimum Lot size.

Where copyright exists in a document, it is provided for information purposes only in accordance with Council's statutory obligations and copyright laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

Riparian Zone and Wetlands:



Above is an image of the riparian creeks within the property. I also refer you to page 11 of the Biodiversity report conducted by BIOSIS. In summary the wetlands and riparian zones are not affected by the boundary adjustment.

The proposal is not considered to be Integrated Development.

As detailed in PL-2020/163 the proposal is essentially a boundary adjustment between three allotments, with no new lots being created, development contributions should not apply to the proposal.

Permissibility and DCP:

The reasoning for the boundary adjustment is that the land is a deceased estate and the beneficiaries wanted a different distribution of the land for their own residential and recreation use for Lots 1 and 3. The remaining Lot 2 zoned RE 2 will be held for horse agistment.

Each future purpose is not changing the current use of the land which would comply with the West Dapto Vision. Each new Lot will have access to the surrounding streets via the three road frontages;

Lot 1 has access through a driveway and handle onto Sunnybank Cr. and Bong Bong Road. Lot 1 already has a right of carriageway onto Bong Bong Road with a concrete driveway leading to the R2 zoned land.

Lot 2 has access to Bong Bong Road and Lot 3 has direct frontage access to Barnham Pl.

The majority of the site is within the 1% AEP area and would be classified as a high risk area (Refer to Flood report by Add design).

Where copyright exists in a document it is provided for information purposes only in accordance with Council's copyright obligations and statutory laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

The modification to the boundaries does not affect the buildable areas of the site which are also zoned R2. The proposed development is not for any construction nor does the proposed development place any existing buildings or structures within the high risk area. Lot 2 which is to be used for horse agistment at a later date is already zoned RE 2 which prevents the construction of any residential buildings.

Environment:
The proposal does not have any affect to the existing environmental factors of the area as detailed within the Environmental report undertaken by Biosis.

The development does not propose the removal of any trees or grass lands and therefore the need for a BDAR and Biodiversity Offset Scheme do not apply.

Natural Resource Sensitivity:

The objective of this clause is to protect, maintain or improve the diversity and condition of the native vegetation and habitat, including—
(a) protecting biological diversity of native flora and fauna, and
(b) protecting the ecological processes necessary for their continued existence, and
(c) encouraging the recovery of threatened species, communities, populations and their habitats.

The environmental report undertaken by Biosis has indicated habitat for threatened species with the diversity of the native grass lands and riparian system. Within the report the nil effects of the proposed development have also been detailed with caveats for any future development.

SEPP (Coastal Management) 2018
11, 13, 15 and 16 must be addressed in the SoEE to ensure the objectives of the SEPP are met.

Clause 11 of the SEPP states,
(1) Development consent must not be granted to development on land identified as "proximity area for coastal wetlands" or "proximity area for littoral rainforest" on the Coastal Wetlands and Littoral Rainforests Area Map unless the consent authority is satisfied that the proposed development will not significantly impact on—
(a) the biophysical, hydrological or ecological integrity of the adjacent coastal wetland or littoral rainforest, or
(b) the quantity and quality of surface and ground water flows to and from the adjacent coastal wetland or littoral rainforest.

The proposal does not change the current impact of land use of the area.

Clause 13 of the SEPP states,
(1) Development consent must not be granted to development on land that is within the coastal environment area unless the consent authority has considered whether the proposed development is likely to cause an adverse impact on the following—
(a) the integrity and resilience of the biophysical, hydrological (surface and groundwater) and ecological environment,
(b) coastal environmental values and natural coastal processes,

Where copyright exists in a document, it is provided for information purposes only in accordance with Council's statutory obligations and copyright laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

(c) the water quality of the marine estate (within the meaning of the Marine Estate Management Act 2014), in particular, the cumulative impacts of the proposed development on any of the sensitive coastal lakes identified in Schedule 1,
(d) marine vegetation, native vegetation and fauna and their habitats, undeveloped headlands and rock platforms,
(e) existing public open space and safe access to and along the foreshore, beach, headland or rock platform for members of the public, including persons with a disability,
(f) Aboriginal cultural heritage, practices and places,
(g) the use of the surf zone.
(2) Development consent must not be granted to development on land to which this clause applies unless the consent authority is satisfied that—
(a) the development is designed, sited and will be managed to avoid an adverse impact referred to in subclause (1), or
(b) if that impact cannot be reasonably avoided—the development is designed, sited and will be managed to minimise that impact, or
(c) if that impact cannot be minimised—the development will be managed to mitigate that impact.

The development does not change anything on site except the boundary positions, the hydrological, utility, vegetation and biophysical will remain intact from this development.

Clause 15 of the SEPP states,
Development consent must not be granted to development on land within the coastal zone unless the consent authority is satisfied that the proposed development is not likely to cause increased risk of coastal hazards on that land or other land.

The development does not increase the risk of coastal hazards, the site conditions will remain unchanged.

Land Contamination:

A Stage 1 - Preliminary Site Investigation (PSI) has been undertaken for the proposed development.

The PSI has identified potential sources of contamination at the site which are considered typical for a rural residential property in this region. As such, the identified potential for contamination is not considered to be a constraint that would preclude the proposed subdivision (being a boundary adjustment only). The site is therefore considered to be suitable for the proposed subdivision from a contaminated land perspective.

Drainage:
The site has existing drainage works, basins and dams with associated easements that had been created within the previous subdivision of Deposited Plan 873616. The proposal does not affect the current drainage system or the rights of the drainage system benefiting parties within the 88B instrument. The proposal does not include additional hard stand areas or re grading of the existing land form.

Services:
The proposed development will utilize the existing services available for each of the R2 zoned land parcels.

Where copyright exists in a document it is provided for information purposes only in accordance with council's statutory obligations and copyright owner's consent is required if any part of the document is used for any other purpose.

Each land parcel that has the ability to be developed in the future has access to Water, Sewer and telecommunications from Sunnybank Cr and Barnham Pl.

Regards



Matthew B. Smith M.I.S. Aust.,
B.E. (Geomatic Engineering, Hon.)

Where copyright exists in a document, it is provided for information purposes only in accordance with Council's statutory obligations and copyright laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.



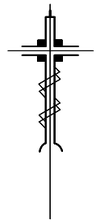
Where copyright exists this plan may be used for purposes only in accordance with the copyright laws still applying to any part of it

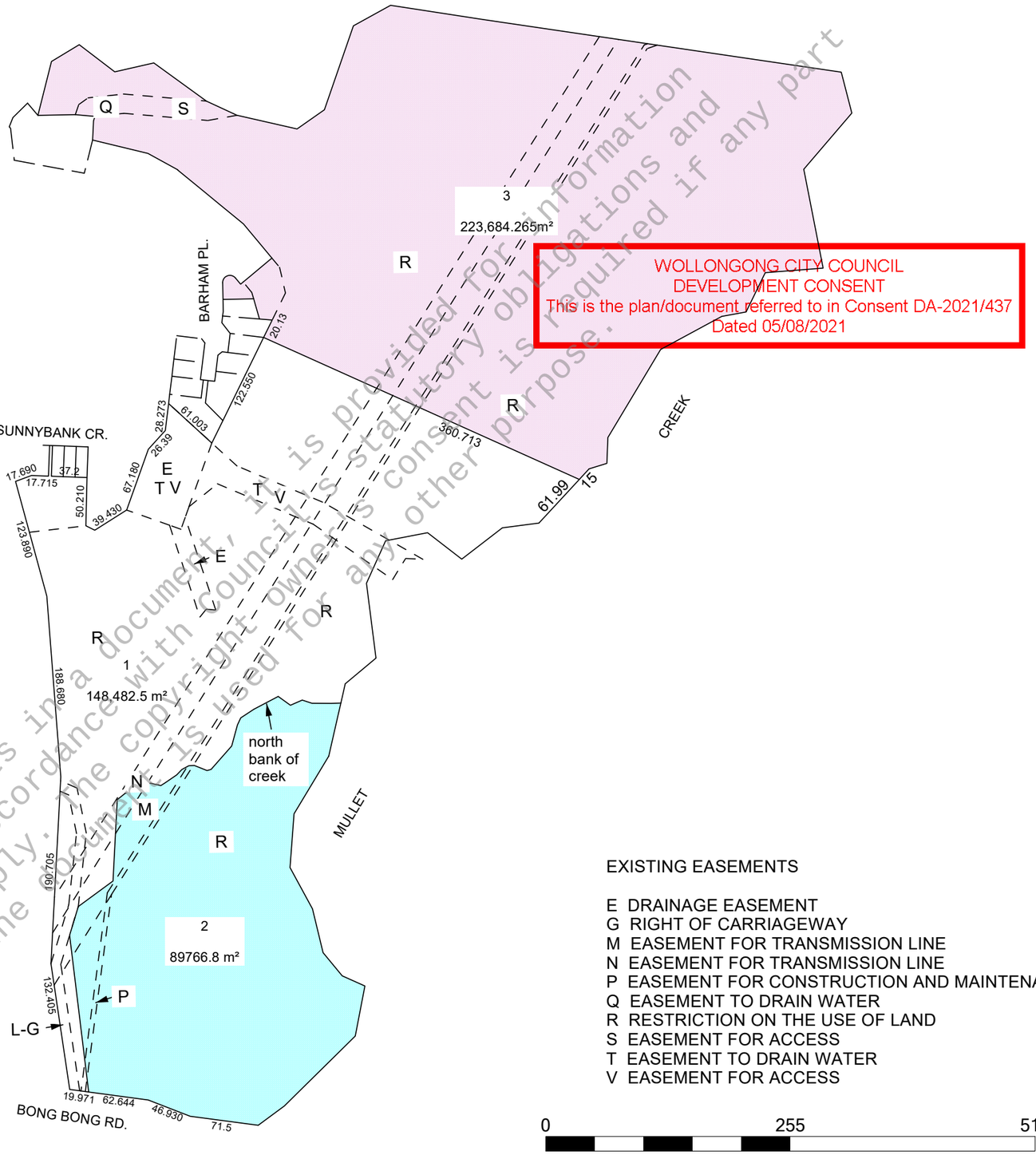
1m major contours
Levels are to AHD

Site Plan

412 Bong bong Road Horsley

CEH CONSULTING PTY LTD
SURVEYORS, TOWN PLANNERS, SUBDIVISION CERTIFIERS





WOLLONGONG CITY COUNCIL
DEVELOPMENT CONSENT
This is the plan/document referred to in Consent DA-2021/437
Dated 05/08/2021

Copyright exists in a document, it is provided for information purposes only in accordance with council's statutory obligations and the copyright still apply. the copyright owner's consent is required if any part of the document is used for any other purpose.

NOTE:

ALL AREAS ARE APPROXIMATE AND HAVE BEEN TAKEN TO THE TRAVERSE LINE ALONG THE CREEK AS SHOWN BY DP 873616. ADDITIONAL AREAS WILL BE SHOWN FOR A SURVEYED PLAN.

EXISTING EASEMENTS

E DRAINAGE EASEMENT
G RIGHT OF CARRIAGEWAY
M EASEMENT FOR TRANSMISSION LINE
N EASEMENT FOR TRANSMISSION LINE
P EASEMENT FOR CONSTRUCTION AND MAINTENANCE
Q EASEMENT TO DRAIN WATER
R RESTRICTION ON THE USE OF LAND
S EASEMENT FOR ACCESS
T EASEMENT TO DRAIN WATER
V EASEMENT FOR ACCESS

0 255 510

CEH Consulting Pty Ltd.
A . B . N . 81 056 544 604
CONSULTING LAND, ENGINEERING AND MINING SURVEYORS, TOWN PLANNERS
' THE LINK ' 44 BAAN BAAN STREET DAPTO NSW 2530
PHONE 02 42 614366 msmith@cehconsulting.com.au FAX 02 42 615243

PLAN OF PROPOSED SUBDIVISION

OF LOTS 425, 412, 413 IN DP 873616

DATE	14/04/2021	REVISION	DATE	COMMENTS
SURVEYOR	MS	A		BDY LOT 1 AND 2 MODIFICATION
DRAWN	DM			
CHECKED	MS			
SURVEY FILE				

DRG. No.
D220303
SCALE 1:5100@A3
Sheet 1 of 1 Sheets

wollongong
city of innovation

WOLLONGONG CITY COUNCIL

Address 41 Burelli Street Wollongong • **Post** Locked Bag 8821 Wollongong DC NSW 2500
Phone (02) 4227 7111 • **Fax** (02) 4227 7277 • **Email** council@wollongong.nsw.gov.au
Web www.wollongong.nsw.gov.au • ABN 63 139 525 939 - GST Registered

S.14(3)(3)(A) Personal Information

CERTIFICATE **SC-2021/130**
Issued 20 December 2021
Certifying Authority Wollongong City Council

SUBDIVISION CERTIFICATE

Issued under Section 6.4(d) of the Environmental Planning and Assessment Act 1979

The Subdivision Certificate application described below has been determined:

Location	Lot 412 DP 873616, Lot 413 DP 873616, Lot 425 DP 873616 34 Bong Bong Road, HORSLEY NSW 2530, 21 Barham Place, HORSLEY NSW 2530, 78 Sunnybank Crescent, HORSLEY NSW 2530
Description	Subdivision - boundary adjustment
Development Consent	DA-2021/437
Issued	05-Aug-2021

The provisions of Section 6.15 of the Environmental Planning and Assessment Act 1979 have been satisfied.

This letter is authorised by:

Aleks Radicevic
Snr Land Development Engineer
Wollongong City Council
Telephone (02) 4227 7111

Where copyright exists in a document, it is provided for information purposes only in accordance with council's statutory obligations and copyright laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

CERTIFICATE

Document Set ID: 20429545
Version: 3, Version Date: 20/12/2021

PLAN FORM 6 (2019)	**DEPOSITED PLAN ADMINISTRATION SHEET**	Sheet 1 of 2 sheet(s)

Office Use Only	Office Use Only
Registered: Title System:	

PLAN OF SUBDIVISION OF LOT 412, LOT 413 AND LOT 425 IN DP 873616	LGA: WOLLONGONG Locality: HORSLEY Parish: KEMBLA County: CAMDEN

Survey Certificate

I, BRUCE ERNEST SMITH

of CEH Consulting Pty Ltd
ABN 81 056 544 604

a surveyor registered under the *Surveying and Spatial Information Act 2002*, certify that:

*(a) The land shown in the plan was surveyed in accordance with the *Surveying and Spatial Information Regulation 2017*, is accurate and the survey was completed on 29/09/2021

~~*(b) The part of the land shown in the plan (*being/*excluding ** .....~~
~~.....)~~
~~was surveyed in accordance with the *Surveying and Spatial Information Regulation 2017*, the part surveyed is accurate and the survey was completed on, ... the part not surveyed was compiled in accordance with that Regulation, or~~

~~*(c) The land shown in this plan was compiled in accordance with the *Surveying and Spatial Information Regulation 2017*.~~

Datum Line: 'X' – 'Y'

Type: *Urban/~~*Rural~~

The terrain is *Level-Undulating / ~~*Steep-Mountainous~~.

Signature: ..... Dated: 25/10/2021
Surveyor Identification No: 1994
Surveyor registered under
the *Surveying and Spatial Information Act 2002*

*Strike out inappropriate words.

**Specify the land actually surveyed or specify any land shown in the plan that is not the subject of the survey.

~~Crown Lands NSW/Western Lands Office Approval~~

~~I, ... (Authorised Officer) in approving this plan certify that all necessary approvals in regard to the allocation of the land shown herein have been given.~~

~~Signature: .....~~

~~Date: .....~~

~~File Number: .....~~

~~Office: .....~~

Subdivision Certificate

I, Aleks Radicevic

*Authorised Person/~~*General Manager/*Accredited Certifier~~, certify that the provisions of s.6.15 of the *Environmental Planning and Assessment Act 1979* have been satisfied in relation to the proposed subdivision, new road or reserve set out herein.

Signature: .....

Accreditation number: .....

Consent Authority THE COUNCIL OF THE CITY OF WOLLONGONG

Date of endorsement: 20/12/2021

Subdivision Certificate number: SC-2021/130

File number: DA-2021/437

*Strike through if inapplicable.

Plans used in the preparation of survey/compilation. DP 873616, DP 624648, DP 840183, DP 1063839, DP 856301, DP 863813, DP 872380, DP 873616, DP 846120, DP 212322, DP 1274097	Statements of intention to dedicate public roads, create public reserves and drainage reserves, acquire/resume land.
Surveyor's Reference: D220303	Signatures, Seals and Section 88B Statements should appear on PLAN FORM 6A

Where Copyright exists in a document, it is provided for information purposes only in accordance with Council's statutory obligations and Copyright laws still apply. The copyright consent is required if any part of the document is used for any other purpose

PLAN FORM 6A (2017) **DEPOSITED PLAN ADMINISTRATION SHEET** Sheet 2 of 2 sheet(s)

Office Use Only

Registered:

Office Use Only

PLAN OF SUBDIVISION OF LOT 412, LOT 413 AND LOT 425 IN DP 873616

Subdivision Certificate number: SC-2021/130

Date of Endorsement: 20/12/2021

This sheet is for the provision of the following information as required:

- A schedule of lots and addresses - See 60(c) *SSI Regulation 2017*
- Statements of intention to create and release affecting interests in accordance with section 88B *Conveyancing Act 1919*
- Signatures and seals- see 195D *Conveyancing Act 1919*
- Any information which cannot fit in the appropriate panel of sheet 1 of the administration sheets.

Lot No.	House No.	Street Name	Street Type	Locality
1	78	SUNNYBANK	CRESCENT	HORSLEY
2	34	BONG BONG	ROAD	HORSLEY
3	21	BARHAM	PLACE	HORSLEY

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

1. EASEMENT FOR OVERHEAD POWER LINE 9 WIDE (F)

PURSUANT TO SECTION 88B OF THE CONVEYANCING ACT 1919, IT IS INTENDED TO RELEASE:

1. RIGHT OF CARRIAGEWAY 10.06 WIDE (DP873616) (7)

BARLYN PTY LTD
ACN 000 476 291

ROBYN MARGARET KRAUSS
Director

CHRISTOPHER BARHAM
Director

ANTHONY BARHAM
Director

LEE BARHAM
Director

S.14(3)(3)(A) Personal Information

Where copyright exists in a document, it is provided for information purposes only in accordance with Council's statutory obligations and the copyright laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

If space is insufficient use additional annexure sheet

Surveyor's Reference: D220303

INSTRUMENT SETTING OUT TERMS OF EASEMENTS OR PROFITS Á PRENDRE INTENDED TO BE CREATED OR RELEASED AND OF RESTRICTIONS ON THE USE OF LAND OR POSITIVE COVENANTS INTENDED TO BE CREATED PURSUANT TO SECTION 88B OF THE CONVEYANCING ACT 1919

Plan: Plan of Subdivision of Lot 412, Lot 413 and Lot 425 in DP873616 covered by Council's Certificate No. SC-2021/130

Full name and address of the owner of the land: Barlyn Pty Ltd ACN 000 476 291
Robert John Krauss & Robyn Margret Krauss
21 Princes Highway
Figtree NSW 2526

Part 1 (Creation)

Number of item shown in the intention panel on the plan	Identity of easement, profit á prendre, to be created and referred to in the plan	Burdened lot(s) or parcel(s)	Benefited lot(s), road(s), bodies or Prescribed Authorities
1	Easement for Overhead Power Line 9 Wide (F)	1 and 2	Epsilon Distribution Ministerial Holding Corporation

Part 1A (Release)

Number of item shown in the intention panel on the plan	Identity of easement, profit á prendre, to be released and referred to in the plan	Burdened lot(s) or parcel(s)	Benefited lot(s), road(s), bodies or Prescribed Authorities
1	Right of Carriageway 10.06 wide (G)	412 in DP 873616	425 in DP 873616

Part 2 (Terms)

1. **TERMS OF EASEMENT FOR OVERHEAD POWER LINE 9 WIDE NUMBERED 1 IN THE PLAN**

   The terms set out in Memorandum AK104602 are incorporated into this document, subject to replacing the words 'Endeavour Energy' with 'Epsilon Distribution Ministerial Holding Corporation'.

~~General Manager~~ / Authorised Person

Where copyright exists in a document, it is provided for information purposes only. In accordance with Council's statutory obligations and copyright laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

INSTRUMENT SETTING OUT TERMS OF EASEMENTS OR PROFITS Á PRENDRE INTENDED TO BE CREATED OR RELEASED AND OF RESTRICTIONS ON THE USE OF LAND OR POSITIVE COVENANTS INTENDED TO BE CREATED PURSUANT TO SECTION 88B OF THE CONVEYANCING ACT 1919

Plan: Plan of Subdivision of Lot 412, Lot 413 and Lot 425 in DP873616 covered by Council's Certificate No. SC-2021/130

I certify that the attorney signed this instrument in my presence.

Signed by the attorney named below who signed this instrument pursuant to the power of attorney specified for **Endeavour Energy Network Asset Partnership (ABN 30 586 412 717)** on behalf of **Epsilon Distribution Ministerial Holding Corporation (ABN 59 253 130 878)** pursuant to section 36 of the *Electricity Network Assets (Authorised Transactions) Act 2015* (NSW)

Signature of witness:

Signature of attorney:

Name of witness:

Natasha Issac

Address of witness:
c/- Endeavour Energy
51 Huntingwood Drive
Huntingwood NSW 2148

Attorney name: Simon Lawton

Attorney position: Strategic Property Manager

Power of attorney: Book 4793

No 57

EE reference: NRS3511

Date:

~~General Manager~~ / Authorised Person

Where copyright exists in a document, it is provided for information purposes only in accordance with council's statutory obligations and copyright laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

INSTRUMENT SETTING OUT TERMS OF EASEMENTS OR PROFITS Á PRENDRE INTENDED TO BE CREATED OR RELEASED AND OF RESTRICTIONS ON THE USE OF LAND OR POSITIVE COVENANTS INTENDED TO BE CREATED PURSUANT TO SECTION 88B OF THE CONVEYANCING ACT 1919

Plan: Plan of Subdivision of Lot 412, Lot 413 and Lot 425 in DP873616 covered by Council's Certificate No. SC-2021/130

BARLYN PTY LTD
ACN 000 476 291

ROBYN MARGRET KRAUSS
Director

CHRISTOPHER BARHAM
Director

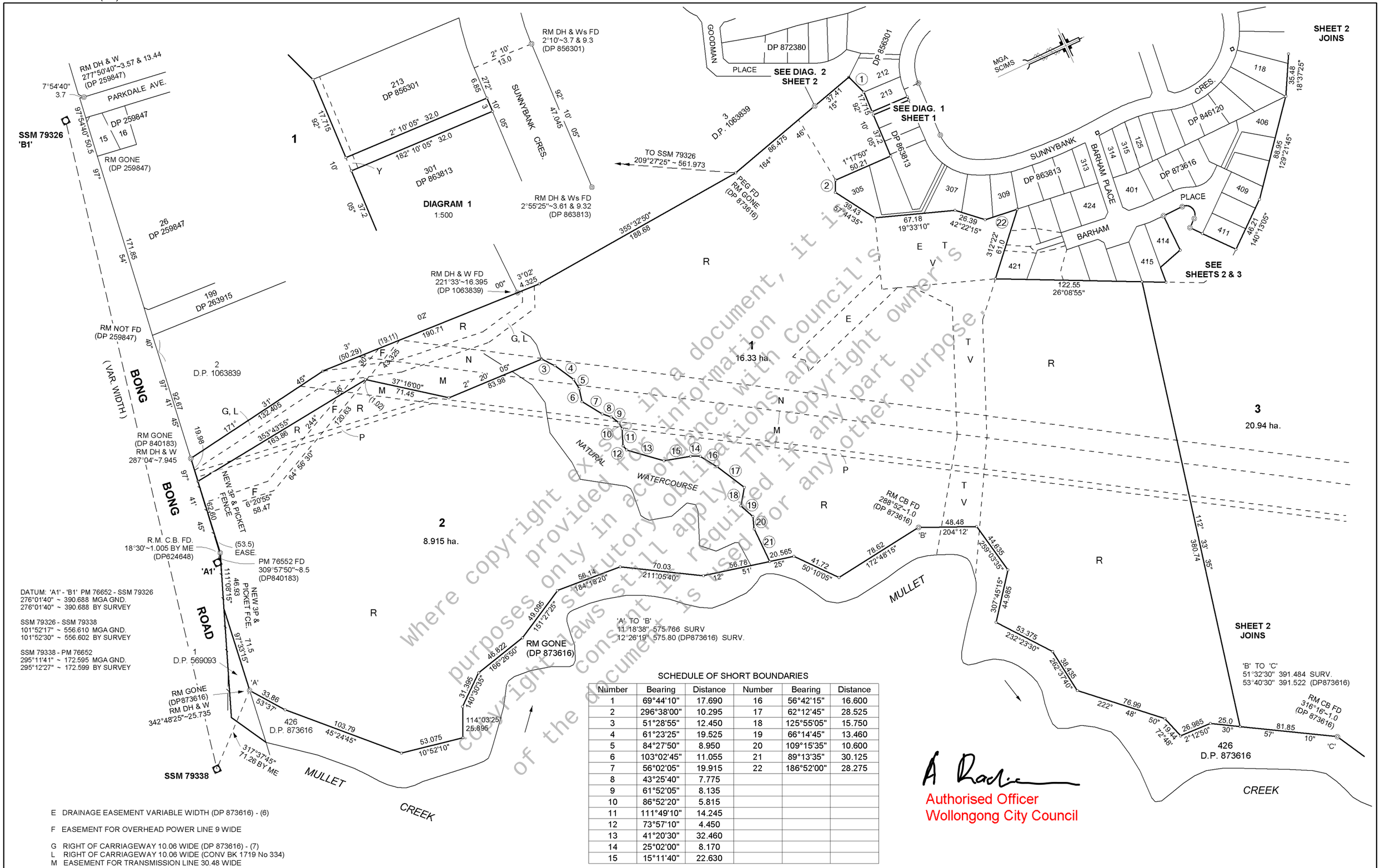
ANTHONY BARHAM
Director

LEE BARHAM
Director

S.14(3)(3)(A) Personal Information

Where copyright exists in a document, it is provided for information purposes only in accordance with Council's statutory obligations and copyright laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

~~General Manager~~ / Authorised Person



SCHEDULE OF SHORT BOUNDARIES

Number	Bearing	Distance	Number	Bearing	Distance
1	69°44'10"	17.690	16	56°42'15"	16.600
2	296°38'00"	10.295	17	62°12'45"	28.525
3	51°28'55"	12.450	18	125°55'05"	15.750
4	61°23'25"	19.525	19	66°14'45"	13.460
5	84°27'50"	8.950	20	109°15'35"	10.600
6	103°02'45"	11.055	21	89°13'35"	30.125
7	56°02'05"	19.915	22	186°52'00"	28.275
8	43°25'40"	7.775			
9	61°52'05"	8.135			
10	86°52'20"	5.815			
11	111°49'10"	14.245			
12	73°57'10"	4.450			
13	41°20'30"	32.460			
14	25°02'00"	8.170			
15	15°11'40"	22.630			

E DRAINAGE EASEMENT VARIABLE WIDTH (DP 873616) - (6)

F EASEMENT FOR OVERHEAD POWER LINE 9 WIDE

G RIGHT OF CARRIAGEWAY 10.06 WIDE (DP 873616) - (7)
L RIGHT OF CARRIAGEWAY 10.06 WIDE (CONV BK 1719 No 334)
M EASEMENT FOR TRANSMISSION LINE 30.48 WIDE (G.G. 19.11.1943 FOLIOS 2015 & 2016)
N EASEMENT FOR TRANSMISSION LINE 18.29 WIDE (J5361)
P EASEMENT FOR THE CONSTRUCTION AND MAINTENANCE OF WATER SUPPLY WORKS 4.57 WIDE (L4604320)
R RESTRICTION ON THE USE OF LAND (DP873616) - (5)
T EASEMENT TO DRAIN WATER VARIABLE WIDTH (DP 649474)
V EASEMENT FOR ACCESS VARIABLE WIDTH (DP 649474)
Y EASEMENT TO DRAIN WATER 1.5 WIDE (DP 649474)
Z RESTRICTION ON THE USE OF LAND (DP873616) - (13)

Where copyright exists in a document, it is provided for information purposes only in accordance with Council's copyright obligations and copyright laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

Authorised Officer
Wollongong City Council

Surveyor : BRUCE ERNEST SMITH Date of Survey : 29th Sept. 2021 Surveyor's Ref : D220303	**PLAN OF SUBDIVISION OF LOT 412, LOT 413 AND LOT 425 IN DP 873616**	LGA: WOLLONGONG Locality : HORSLEY Subdivision No: Lengths are in metres. Reduction Ratio 1:2000	Registered	DP

00 10 20 30 40 50 Table of mm 90 100 110 120 130 140

M EASEMENT FOR TRANSMISSION LINE 30.48 WIDE (G.G. 19.11.1943 FOLIOS 2015 & 2016)
N EASEMENT FOR TRANSMISSION LINE 18.29 WIDE (J5361)
P EASEMENT FOR THE CONSTRUCTION AND MAINTENANCE OF WATER SUPPLY WORKS 4.57 WIDE (L4604320)
Q EASEMENT TO DRAIN WATER VARIABLE WIDTH (DP 649474)
R RESTRICTION ON THE USE OF LAND (DP873616) - (5)
S EASEMENT FOR ACCESS VARIABLE WIDTH (DP 649474)
T EASEMENT TO DRAIN WATER VARIABLE WIDTH (DP 649474)
V EASEMENT FOR ACCESS VARIABLE WIDTH (DP 649474)
Y EASEMENT TO DRAIN WATER 1.5 WIDE (DP 649474)
Z RESTRICTION ON THE USE OF LAND (DP873616) - (13)

MGA SCIMS

'E1' TO 'F1'
276°46'55" 713.504 SURV.
277°54'50" 713.534 (DP873616)

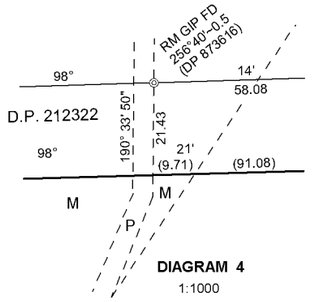


DIAGRAM 4
1:1000

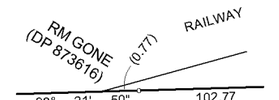


DIAGRAM 3
N.T.S.

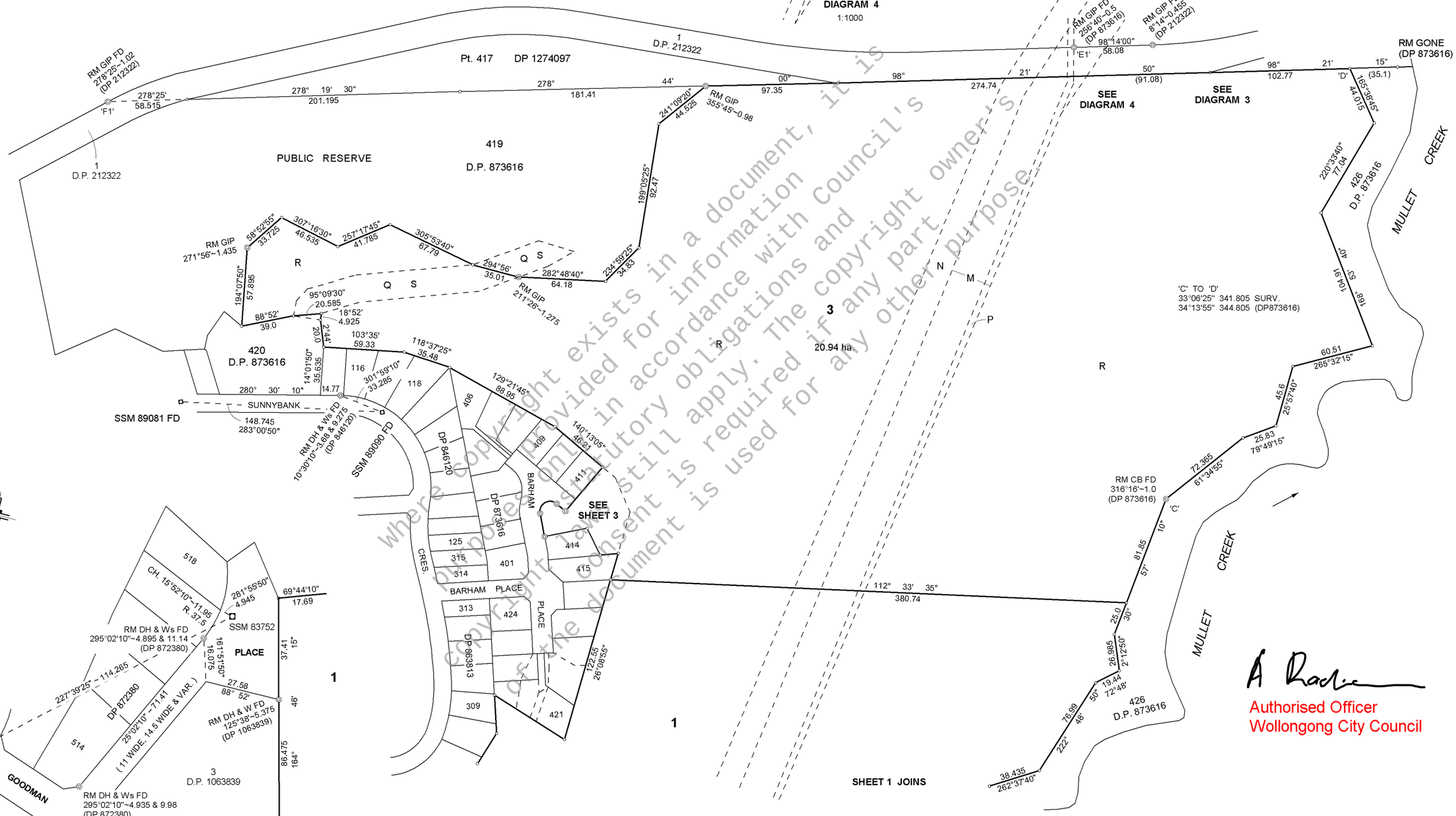


DIAGRAM 2
1:1000

A Radice
Authorised Officer
Wollongong City Council

where copyright exists in a document, it is provided for information purposes only in accordance with Council's statutory obligations and copyright laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

Surveyor : BRUCE ERNEST SMITH Date of Survey : 29th Sept. 2021 Surveyor's Ref : D220303	**PLAN OF SUBDIVISION OF LOT 412, LOT 413 AND LOT 425 IN DP 873616**	LGA: WOLLONGONG Locality : HORSLEY Subdivision No: Lengths are in metres. Reduction Ratio 1:2000	Registered	DP

00 10 20 30 40 50 Table of mm 90 100 110 120 130 140

COORDINATE SCHEDULE						
MARK	MGA COORDINATES		CLASS	PU	METHOD	STATE
	EASTING	NORTHING				
S.S.M.79326	296480.903	6181079.394	B	N/A	SCIMS	FOUND
P.M.76652	296869.473	6181038.361	B	N/A	SCIMS	FOUND
S.S.M.79338	297025.665	6180964.880	B	N/A	SCIMS	FOUND
S.S.M.83769	296480.903	6181079.394	B	N/A	SCIMS	FOUND
S.S.M.83752	296480.903	6181079.394	B	N/A	SCIMS	FOUND
S.S.M.89090	296838.924	6181988.877	B	N/A	SCIMS	FOUND
S.S.M.89081	296693.974	6182022.361	B	N/A	SCIMS	FOUND
S.S.M.98027	296933.678	6181840.197	C	N/A	CAD. TRAV.	FOUND
S.S.M.98028	296940.419	6181927.419	C	N/A	CAD. TRAV.	FOUND

DATE OF SCIMS COORDINATES: 29/09/2021 MGA ZONE: 56 GA DATUM: GDA 2020
COMBINED SCALE FACTOR 1.000104

SEE DIAGRAM 1 SHEET 1

RM DH & Ws FD 2°10'~3.7 & 9.3 (DP 856301)

RM DH & Ws FD 2°55'25"~3.61 & 9.32 (DP 863813)

SUNNYBANK CRES.

92° 10' 05" 47.045

SUNNYBANK

BARHAM

PLACE

(13 WIDE)

(15 WIDE & VAR.)

D. P. 863813

D. P. 873616

D. P. 846120

303 304 306 307 308 313 314 315 125 401 405 406 409 411 414 415 417 418 421 424 119

45.0 182°10'05"

67.18 19° 33' 10"

26.39 42° 22' 15"

186° 28.275

71.245

52'

96° 52' 00" 260.00

RM DH & Ws FD 188°10'~3.41 & 9.55 (DP 873616)

RM DH & Ws FD 187°33'~3.39 & 9.535 (DP 873616)

141.52' 5.655

38.5 186° 52' 00"

RM DH & Ws FD 116°30'~4.97 & 10.925 (DP 873616)

96° 52' 00" 150.0

6° 52' 00" 27.5

5.655 51° 52'

6° 52' 20.0

321° 52' 14.14

6° 52' 11.765

359° 12.645

174°22'15" 20.48

312° 61.0

METAL FCE. (10 YRS.)

P. & W. FCE. (10 YRS.)

122.55 26° 08' 55"

(21.19)

20.13 26°08'55"

112° 33' 35" 380.74

SSM 98028 FD

SSM 98027 FD

RM DH & Ws FD 94°25'~4.615 & 10.105 (DP 873616)

184°25'10" 87.475

50°29" 4.455

50° 13' 05" 31.0 (8.21)

RM DH & W 95°30'~4.705

01' 40" 17.375

R. 7.5 A 18.486 CH. 69°37" 14.15

140°13" 8.465

RM DH & Ws FD 92°20'~4.86 & 10.415 (DP 873616)

RM DH & Ws FD 229°58'~2.97 & 7.045 (DP 873616)

RM DH & W 213°58'~7.435

50° 42.5 13' 05"

140° 46.21 13' 05"

METAL FCE. (10 YRS.)

269° 01' 40" 32.005

344° 02' 05" 21.885

BK. FCE. (10 YRS.)

94° 39' 15" 13.21

88.95 129° 21' 45"

R

1

3

A Rad

Authorised Officer
Wollongong City Council

MGA SCIMS

Where copyright exists in a document, it is provided for information purposes only in accordance with Councils statutory obligations and copyright laws still apply. The copyright is reserved for any part of the document is used for any other purpose.

Surveyor : BRUCE ERNEST SMITH Date of Survey : 29th Sept. 2021 Surveyor's Ref : D220303	**PLAN OF SUBDIVISION OF LOT 412, LOT 413 AND LOT 425 IN DP 873616**	LGA: WOLLONGONG Locality : HORSLEY Subdivision No: Lengths are in metres. Reduction Ratio 1:600	Registered	DP

00 10 20 30 40 50 Table of mm 90 100 110 120 130 140

CEH Consulting Pty Ltd
ABN 81 056 544 604

Statement of Environmental Effects

For the boundary adjustment and consolidation of lot 2 and 3 in DP 1280810 and consolidation of lot 426 in Deposited Plan 873616

Summary:
The development application is for the boundary adjustment of lots 2 and 3 in DP 1280810 and 426 in Deposited Plan 873616. The development does not propose any new allotments; the proposal is for the modification to the existing Lot Layout only and the consolidation of Lot 426 into Lot 3 DP 1280810.

The reasoning for the boundary adjustment is that the land is a deceased estate and the beneficiaries need Lot 426 DP 1280810 to be consolidated into the existing Lots 3 so as the owning company can be extinguished.

Location:



Where copyright exists in a document, it is provided for information purposes only in accordance with Council's copyright obligations and copyright does not apply. The copyright owner's document is used for any part of any other purpose.

· Torrens and Strata Subdivisions
· Volumetric Surveys
· Residential Surveys
· Mine surveyors
· Subdivision Certifiers
· Land Development
· Project Management
· Commercial Surveys
· Industrial Surveys

Dapto: 44 Baan Baan Street
Casuarina:36/2 Kamala Cr.
Ulladulla: 132 Princes Hwy
Postal: PO Box 212, Dapto N.S.W, 2530
Ph: +61 4261 4366
Email: msmith@cehconsulting.com.au

Member of the Australian Association of Consulting Surveyors NSW

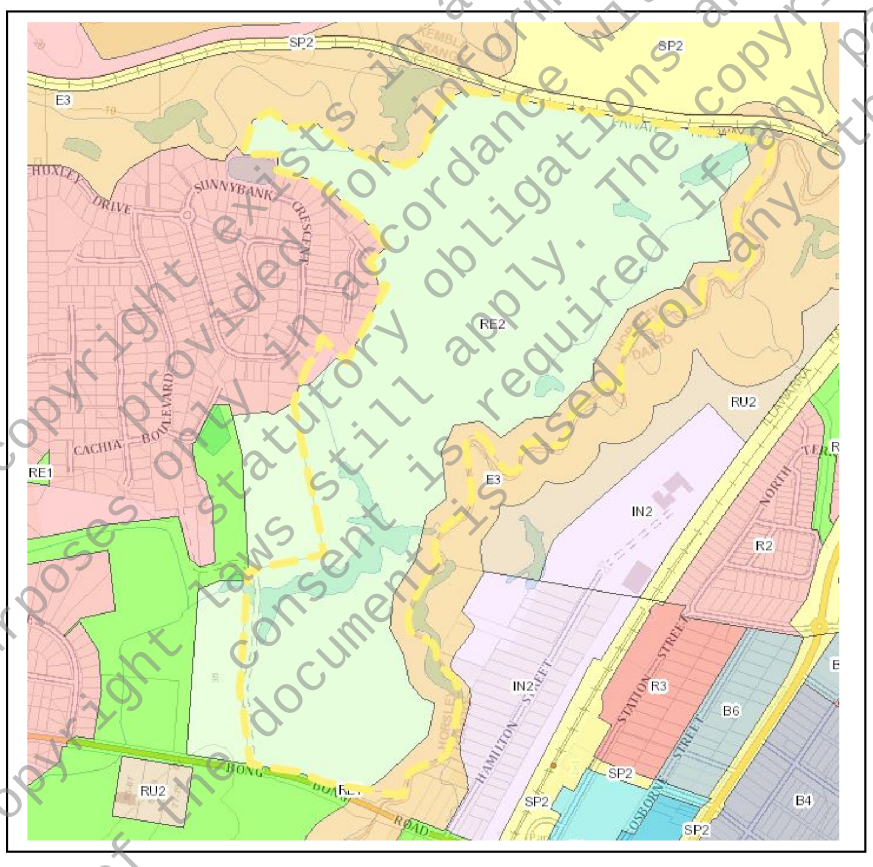
ISO 9001

The property is known as lots 2, 3 in DP 1280810 and 426 in Deposited Plan 873616, being Numbers;

202	21 Barham Place	Horsley
203	78 Sunnybank Cr	Horsley

Legislation:
Below is a map indicating the zoning of Lots 202 and 203.
The current zoning for each Lot is both R2 (Low density residential) and RE2 (Private Recreation) under the Wollongong LEP 2009.

The zoning of Lot 426 in DP 1280810 is E3. By consolidating the Lot into the Lot 203, would create a split zoned Lot. Lot 202 and 203 is already a split zoned Lot.



Where copyright exists in a document, it is provided for information purposes only in accordance with Councils statutory obligations and copyright laws still apply. The copyright consent is required if any part of the document is used for any other purpose.

Lot	Zoning

202	R2 and RE 2
203	R2 and RE 2

The objectives of Zone RE 2 Private Recreation are;
- To enable land to be used for private open space or recreational purposes.
- To provide a range of recreational settings and activities and compatible land uses.
- To protect and enhance the natural environment for recreational purposes.

The modification of the boundaries does not affect the objectives of the zoning as the land use within the RE 2 zone does not change with the boundary adjustment.

The objectives of Zone R2 Low density residential are;
- To provide for the housing needs of the community within a low density residential environment.
- To enable other land uses that provide facilities or services to meet the day to day needs of residents.

The modification of the boundaries does not affect the objectives of the zoning as the land use within the R2 zone does not change with the boundary adjustment.

Minimum Lot Size:

Existing

Lot	Existing Lot Area (m^2)	LEP Minimum R2 and RE 2, E3
2	573.4m^2	N/A
3	3.219Ha	449m^2 and N/A
426	4.68 Ha	N/A

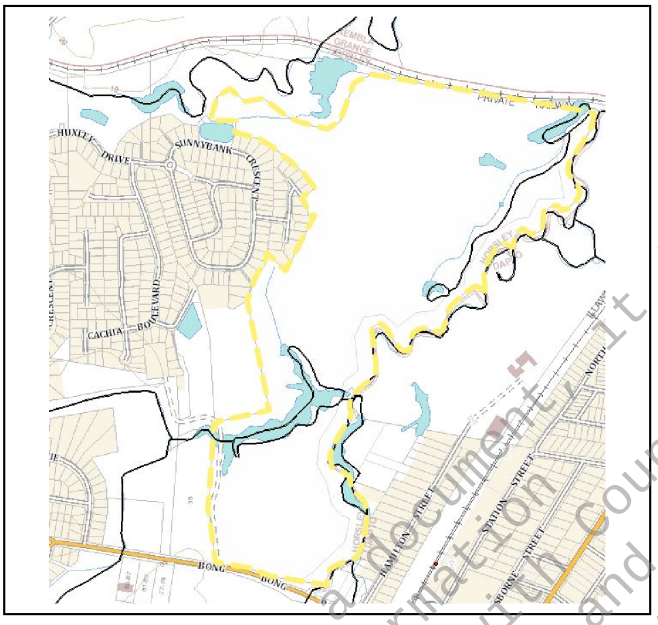
Proposed

Proposed Lot	Proposed Area (m^2)	LEP Minimum R2 and RE 2
202	8.826 Ha	N/A
203	33.3 Ha	449m^2 and N/A

As shown in the table above the proposed Lot layout complies with each zones minimum Lot size.

Where copyright exists in a document, it is provided for information purposes only in accordance with council's statutory obligations and copyright laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

Riparian Zone and Wetlands:



Above is an image of the riparian creeks within the property. I also refer you to page 11 of the Biodiversity report conducted by BIOSIS. In summary the wetlands and riparian zones are not affected by the boundary adjustment.

The proposal is not considered to be Integrated Development.

As detailed in PL-2020/163 the proposal is essentially a boundary adjustment between two allotments, with no new lots being created, development contributions should not apply to the proposal.

Permissibility and DCP:

The reasoning for the boundary adjustment is that the land is a deceased estate and the beneficiaries wanted a different distribution of the land for their own residential and recreation use for Lots 2 and 3.

Each future purpose is not changing the current use of the land which would comply with the West Dapto Vision. Each new Lot will have access to the surrounding streets via the three road frontages;

Lot 202 has access through a driveway and handle onto Sunnybank Cr. and Bong Bong Road. Lot 202 already has a right of carriageway onto Bong Bong Road with a concrete driveway leading to the R2 zoned land.

Lot 203 has direct frontage access to Barnham Pl.

The majority of the site is within the 1% AEP area and would be classified as a high risk area (Refer to Flood report by Add design).

Where copyright exists in a document it is provided for information purposes only in accordance with council's statutory obligations and copyright laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

The modification to the boundaries does not affect the buildable areas of the site which are also zoned R2. The proposed development is not for any construction nor does the proposed development place any existing buildings or structures within the high risk area. Lot 2 which is to be used for horse agistment at a later date is already zoned RE 2 which prevents the construction of any residential buildings.

Environment:
The proposal does not have any affect to the existing environmental factors of the area as detailed within the Environmental report undertaken by Biosis.

The development does not propose the removal of any trees or grass lands and therefore the need for a BDAR and Biodiversity Offset Scheme do not apply.

Natural Resource Sensitivity:

The objective of this clause is to protect, maintain or improve the diversity and condition of the native vegetation and habitat, including—
(a) protecting biological diversity of native flora and fauna, and
(b) protecting the ecological processes necessary for their continued existence, and
(c) encouraging the recovery of threatened species, communities, populations and their habitats.

The environmental report undertaken by Biosis has indicated habitat for threatened species with the diversity of the native grass lands and riparian system. Within the report the nil effects of the proposed development have also been detailed with caveats for any future development.

SEPP (Coastal Management) 2018
11, 13, 15 and 16 must be addressed in the SoEE to ensure the objectives of the SEPP are met.

Clause 11 of the SEPP states,
(1) Development consent must not be granted to development on land identified as "proximity area for coastal wetlands" or "proximity area for littoral rainforest" on the Coastal Wetlands and Littoral Rainforests Area Map unless the consent authority is satisfied that the proposed development will not significantly impact on—
(a) the biophysical, hydrological or ecological integrity of the adjacent coastal wetland or littoral rainforest, or
(b) the quantity and quality of surface and ground water flows to and from the adjacent coastal wetland or littoral rainforest.

The proposal does not change the current impact of land use of the area.

Clause 13 of the SEPP states,
(1) Development consent must not be granted to development on land that is within the coastal environment area unless the consent authority has considered whether the proposed development is likely to cause an adverse impact on the following—
(a) the integrity and resilience of the biophysical, hydrological (surface and groundwater) and ecological environment,
(b) coastal environmental values and natural coastal processes,

Where copyright exists in a document, it is provided for information purposes only in accordance with Council's copyright laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

(c) the water quality of the marine estate (within the meaning of the Marine Estate Management Act 2014), in particular, the cumulative impacts of the proposed development on any of the sensitive coastal lakes identified in Schedule 1,
(d) marine vegetation, native vegetation and fauna and their habitats, undeveloped headlands and rock platforms,
(e) existing public open space and safe access to and along the foreshore, beach, headland or rock platform for members of the public, including persons with a disability,
(f) Aboriginal cultural heritage, practices and places,
(g) the use of the surf zone.
(2) Development consent must not be granted to development on land to which this clause applies unless the consent authority is satisfied that—
(a) the development is designed, sited and will be managed to avoid an adverse impact referred to in subclause (1), or
(b) if that impact cannot be reasonably avoided—the development is designed, sited and will be managed to minimise that impact, or
(c) if that impact cannot be minimised—the development will be managed to mitigate that impact.

The development does not change anything on site except the boundary positions, the hydrological, utility, vegetation and biophysical will remain intact from this development.

Clause 15 of the SEPP states,
Development consent must not be granted to development on land within the coastal zone unless the consent authority is satisfied that the proposed development is not likely to cause increased risk of coastal hazards on that land or other land.

The development does not increase the risk of coastal hazards, the site conditions will remain unchanged.

Land Contamination:

A Stage 1 - Preliminary Site Investigation (PSI) has been undertaken for the proposed development.

The PSI has identified potential sources of contamination at the site which are considered typical for a rural residential property in this region. As such, the identified potential for contamination is not considered to be a constraint that would preclude the proposed subdivision (being a boundary adjustment only). The site is therefore considered to be suitable for the proposed subdivision from a contaminated land perspective.

Drainage:
The site has existing drainage works, basins and dams with associated easements that had been created within the previous subdivision of Deposited Plan 873616. The proposal does not affect the current drainage system or the rights of the drainage system benefiting parties within the 88B instrument. The proposal does not include additional hard stand areas or re grading of the existing land form.

Services:
The proposed development will utilize the existing services available for each of the R2 zoned land parcels.

Where copyright exists in a document, it is provided for information purposes only in accordance with Councils statutory obligations and copyright laws still apply. The copyright owners consent is required if any part of the document is used for any other purpose.

Each land parcel that has the ability to be developed in the future has access to Water, Sewer and telecommunications from Sunnybank Cr and Barnham Pl.

Regards



Matthew B. Smith M.I.S. Aust.,
B.E. (Geomatic Engineering, Hon.)

Where copyright exists in a document, it is provided for information purposes only in accordance with Council's statutory obligations and copyright laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

MGA SCIMS

SSM 79326 'Y'

DATUM: 'X' - 'Y' PM 76652 - SSM 79326
276°01'40" ~ 390.688 MGA GND.
276°01'40" ~ 390.688 BY SURVEY

SSM 79326 - SSM 79338
101°52'17" ~ 556.610 MGA GND.
101°52'30" ~ 556.602 BY SURVEY

SSM 79338 - PM 76652
295°11'41" ~ 172.595 MGA GND.
295°12'27" ~ 172.599 BY SURVEY

DIAGRAM 1
1:500

213 DP 856301
301 DP 863813
SUNNYBANK CRES.
RM DH & Ws FD 2°10'~3.7 & 9.3 (DP 856301)
RM DH & Ws FD 2°55'25"~3.61 & 9.32 (DP 863813)
2° 10' 13.0
2° 10' 05" 32.0
182° 10' 05" 32.0
272° 6.85
92° 47.045
92° 17.715
10' 05" 37.2
10' 3

202

TO SSM 79326 209°27'25" ~ 561.973
PEG FD RM GONE (DP 873616)
355° 32' 50" 188.68
164° 86.475
46'

RM DH & W FD 221°33'~16.395 (DP 1063839)
3°02' 4.325
3° 02' 00" 190.71

2 D.P. 1063839

BONG (VAR. WIDTH)

RM GONE (DP 840183) RM DH & W 287°04'~7.945
19.98
171° G, L 31' 132.405
353° 43' 55" 163.86
45"

R.M. C.B. FD. 18°30'~1.005 BY ME (DP624648)
PM 76552 FD 309°57'50"~8.5 (DP840183)
'X'
97° 41' 62.60
45"
111°10'15" 46.93
97°33'15" 71.5

1 D.P. 569093

RM GONE (DP873616) RM DH & W 342°48'25"~25.735
33.86 53°37'
103.79 45°24'45"
53.075 10°52'10"
114°03'25" 25.895
140°30'35" 31.895
166°26'50" 46.822
151°27'25" 49.095
184°18'20" 56.14
211°05'40" 70.03
12° 51' 25" 56.78

SSM 79338

MULLET CREEK

M 37°16' 71.45
M 2° 20' 05" 83.98
N
R
P
G, L
NATURAL WATERCOURSE

2 D.P. 1280810

R

202
8.826 ha.

153°36'23" 302.362

T V

203
33.12 ha.

R

GOODMAN PLACE
DP 872380
DP 856301
SEE DIAG. 2 SHEET 2
SEE DIAG. 1 SHEET 1
37.41 15°
212
213
17.715 92°
10' 05" 37.2
DP 863813
1°17'50" 50.21
305
307
309
SUNNYBANK
DP 863813
313
BARHAM PLACE
314
315
125
DP 846120
406
CRES.
118
35.48 18°37'25"
DP 873616
401
424
409
PLACE
88.95 129°21'45"
39.43 51°44'35"
67.18 19°33'10"
26.39 42°22'15"
22
312°22' 61.0
BARHAM
414
411
46.21 140°13'05"
421
415
122.55 26°08'55"

203

SHEET 2 JOINS

WOLLONGONG CITY COUNCIL
DEVELOPMENT CONSENT
This is the plan/document referred to in Consent DA-2022/589
Dated 07/09/2022

Where copyright exists in a document it is provided for information purposes only in accordance with Council's statutory obligations and copyright laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

E DRAINAGE EASEMENT VARIABLE WIDTH (DP 873616) - (6)
G RIGHT OF CARRIAGEWAY 10.06 WIDE (DP 873616) - (7)
L RIGHT OF CARRIAGEWAY 10.06 WIDE (CONV BK 1719 No 334)
M EASEMENT FOR TRANSMISSION LINE 30.48 WIDE (G.G. 19.11.1943 FOLIOS 2015 & 2016)
N EASEMENT FOR TRANSMISSION LINE 18.29 WIDE (J5361)
P EASEMENT FOR THE CONSTRUCTION AND MAINTENANCE OF WATER SUPPLY WORKS 4.57 WIDE (L4604320)
R RESTRICTION ON THE USE OF LAND (DP873616) - (5)
T EASEMENT TO DRAIN WATER VARIABLE WIDTH (DP 649474)
V EASEMENT FOR ACCESS VARIABLE WIDTH (DP 649474)
Y EASEMENT TO DRAIN WATER 1.5 WIDE (DP 649474)
Z RESTRICTION ON THE USE OF LAND (DP873616) - (13)

AREA OF PROPOSED LOT 203 IS APPROXIMATE AND IS SUBJECT TO SURVEY OF MULLETT CREEK BANK

SCHEDULE OF SHORT BOUNDARIES

Number	Bearing	Distance	Number	Bearing	Distance
1	69°44'10"	17.690	16	56°42'15"	16.600
2	296°38'00"	10.295	17	62°12'45"	28.525
3	51°28'55"	12.450	18	125°55'05"	15.750
4	61°23'25"	19.525	19	66°14'45"	13.460
5	84°27'50"	8.950	20	109°15'35"	10.600
6	103°02'45"	11.055	21	89°13'35"	30.125
7	56°02'05"	19.915	22	186°52'00"	28.275
8	43°25'40"	7.775			
9	61°52'05"	8.135			
10	86°52'20"	5.815			
11	111°49'10"	14.245			
12	73°57'10"	4.450			
13	41°20'30"	32.460			
14	25°02'00"	8.170			
15	15°11'40"	22.630			

SHEET 2 JOINS

CREEK

Surveyor : BRUCE ERNEST SMITH Date of Survey : 30/05/2022 Surveyor's Ref : D220303	**PLAN OF PROPOSED BOUNDARY ADJUSTMENT OF LOTS 1 AND 3 DP 1280810 AND CONSOLIDATION OF LOT 426 IN DP 873616**	LGA: WOLLONGONG Locality : HORSLEY Subdivision No: Lengths are in metres. Reduction Ratio 1:2000	Registered	DP

00 10 20 30 40 50 Table of mm 90 100 110 120 130 140

M EASEMENT FOR TRANSMISSION LINE 30.48 WIDE (G.G. 19.11.1943 FOLIOS 2015 & 2016)
N EASEMENT FOR TRANSMISSION LINE 18.29 WIDE (J5361)
P EASEMENT FOR THE CONSTRUCTION AND MAINTENANCE OF WATER SUPPLY WORKS 4.57 WIDE (L4604320)
Q EASEMENT TO DRAIN WATER VARIABLE WIDTH (DP 649473)
R RESTRICTION ON THE USE OF LAND (DP873616) - (5)
S EASEMENT FOR ACCESS VARIABLE WIDTH (DP 649473)
T EASEMENT TO DRAIN WATER VARIABLE WIDTH (DP 649474)
U EASEMENT FOR PIPELINE 20 WIDE (DP 1016609) (8351968)
V EASEMENT FOR ACCESS VARIABLE WIDTH (DP 649474)
Y EASEMENT TO DRAIN WATER 1.5 WIDE (DP 856301)
Z RESTRICTION ON THE USE OF LAND (DP873616) - (13)

MGA SCIMS

RM GIP FD 278°25'~1.02 (DP 212322)
'F1'
278°25' 58.515
278° 19' 30" 201.195
278° 181.41
44' 00" 97.35
98°
274.74
21'
RM GIP FD 256°40'~0.5 (DP 873616)
'E1'
98°14'00" 58.08
RM GIP FD 8°14'~0.455 (DP 212322)
50" (91.08)
98° 102.77
21'
'D'
15" (35.1)
RM GONE (DP 873616)

1 D.P. 212322
Pt. 417 DP 1274097
1 D.P. 212322
PUBLIC RESERVE
419 D.P. 873616

241°09'20" 44.525
RM GIP 355°45'~0.98
199°05'25" 92.47
234°50'25" 34.83
282°48'40" 64.18
294°56' 35.01
RM GIP 211°26'~1.275
305°53'40" 67.79
257°17'45" 41.785
307°16'30" 46.535
58°52'55" 33.725
RM GIP 271°56'~1.435
194°07'50" 57.895
95°09'30" 20.585
88°52' 39.0
18°52' 4.925
20.0
2'44"
103°35' 59.33
118°37'25" 35.48
129°21'45" 88.95
140°13'05" 46.21
14°01'50" 35.635
280° 30' 10" 14.77
301°59'10" 33.285
116
118
406
409
411
414
415
401
424
421
125
315
314
313
309
DP 846120
DP 873616
DP 863813
BARHAM PLACE
BARHAM
CRES.
PLACE
420 D.P. 873616
203
33.12 ha.
R
Q S
N
M
U
P
SUNNYBANK
SSM 89081 FD
148.745 283°00'50"
RM DH & Ws FD 10°30'10"~3.88 & 9.275 (DP 846120)
SSM 89090 FD
122.55 26°06'55"

WOLLONGONG CITY COUNCIL
DEVELOPMENT CONSENT
This is the plan/document referred to in Consent DA-2022/589
Dated 07/09/2022

Where a copyright exists in a document, it is provided for information purposes only in accordance with Council's statutory obligations and copyright laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

MULLET CREEK

AREA OF PROPOSED LOT 203 IS APPROXIMATE
AND IS SUBJECT TO SURVEY OF MULLETT CREEK BANK

SHEET 1 JOINS

Surveyor : BRUCE ERNEST SMITH Date of Survey : 30/05/2022 Surveyor's Ref : D220303	**PLAN OF PROPOSED BOUNDARY ADJUSTMENT OF LOTS 1 AND 3 DP 1280810 AND CONSOLIDATION OF LOT 426 IN DP 873616**	LGA: WOLLONGONG Locality : HORSLEY Subdivision No: SC-2021/130 Lengths are in metres. Reduction Ratio 1:2000	Registered	DP

00 10 20 30 40 50 Table of mm 90 100 110 120 130 140

Planning Assessment Report

Where copyright exists in a document, it is provided for information purposes only in accordance with Council's statutory obligations and copyright laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

Conflict of interest declaration	
Assessing Officer: I, Nicole Ashton, declare that I have no potential or actual conflict of interest in assessing this application.	Yes
Peer reviewer: I, Brigit Mathai, that I have no potential or actual conflict of interest in assessing this application. *Note: Any actual or potential conflict of interest must be immediately reported to your supervisor.*	Yes
Does the application require reporting to the Local Planning Panel for determination or advice?	No
Does the application require determination by the Southern Regional Planning Panel as outlined in Schedule 7 of State SEPP (State and Regional Development) 2011	No
Relevant internal referrals sent	Yes
Relevant external referrals sent	NA
Property constraints checked (ASS, heritage, flood, bushfire, contamination, unstable, fill etc).	Yes
Accompanying reports / technical studies provided in relation to identified constraints	Yes
Exhibition undertaken in accordance with Community Participation Policy (*Extended notification to sensitive land uses or other parties if appropriate*)	Yes
Development appropriately classified and permissible in the zone	Yes
Landowner's consent (see Pathways). For companies, person with appropriate delegations on a company letterhead and / or company seal / ABN	Yes
Estimated cost of development provided and that correct DA fees paid. *If in doubt, check with PAU as to whether a cost verification using Cordell's was undertaken.*	Yes
Applicable planning controls addressed in SOEE	Yes
LEP or DCP variations supported by justification statement	NA
DP / 88B easements or restrictions	Yes
PAU sheet checked for special instructions	Yes
Site inspection undertaken previously in association with prelodgement meeting	Yes
Finalising	
Internal referrals complete and satisfactory (*(if unsatisfactory and disagreement between planner and other officer then appropriate explanation given)*	Yes
External referrals complete and correct date of receipt in Pathway	NA
Tasks complete	Yes
S7.12 contributions task inserted and complete	Yes
Recommended conditions appropriate to development inserted in Pathway	Yes
Development categories updated for variations to development standards	NA
Correct plans and documents identified in condition 1 of draft consent.	Yes
Correct description in draft consent.	Yes
Correct notice of determination template selected (e.g. integrated, designated, RD etc)	Yes
Peer review complete	Yes
Determination authority identified in draft consent: **Delegated Authority**	Yes
Assessment report final printed.	Yes

Where copyright exists in a document, it is provided for information purposes only. In accordance with Council's statutory obligations, old copyright laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

DA No.	**DA-2022/589**
Proposal	Subdivision of land - boundary adjustment for Lots 1 and 3 DP 1280810 and consolidation of Lot 426 DP 873616
Property	78 Sunnybank Crescent Horsley 21 Barham Place Horsley Lot 426 DP 873616
Applicant	S.14(3)(3)(A) Personal Information
Responsible Team	City Wide Team
Lodged	16 June 2022

1 APPLICATION OVERVIEW

1 EXECUTIVE SUMMARY

Proposal

The proposal is for a boundary adjustment between existing Lots 1 and 3, and the consolidation of existing Lot 426 with existing Lot 3.

Permissibility

The proposed subdivision is permissible with consent under Wollongong Local Environmental Plan 2009.

Notification and submissions

The application did not receive any submissions following notification.

Planning controls and compliance

The following planning controls apply to the proposal:

State Environmental Planning Policies:

- SEPP (Resilience and Hazards) 2021

Local Environmental Planning Policies:

- Wollongong Local Environmental Plan (WLEP) 2009

Development Control Plans:

- Wollongong Development Control Plan 2009

Other policies

- West Dapto Development Contributions Plan
- Wollongong Community Participation Plan 2019

The proposal is satisfactory with regard to the applicable planning controls as discussed in the body of this report.

Likely impacts

The proposal is considered acceptable with regard to the likely impacts.

Main issues

There are no significant issues impacting on the proposal.

Where copyright exists in a document, it is provided for information purposes only in accordance with Council's copyright statutory obligations and consent is required if any part of the document is used for any other purpose. The copyright owner's laws still apply.

Referrals

Council's Development Engineering, Environment, Strategic and Urban Release Officers have provided satisfactory referrals. External comments were not required.

Recommendation

It is recommended that the application be conditionally approved.

1.1 DETAILED DESCRIPTION OF PROPOSAL

The proposal is for the following:

Existing Lot	Proposed Lot	Changes proposed
Lot 1	Lot 202	Area decreases from 16.33ha to 8.826ha
Lot 3	Lot 203	Area increases from 20.94ha to 33.12ha
Lot 426	Lot 203	Lot 426 is consolidated into Lot 203, contributing 4.681 ha

Existing Lot 426 land is entirely zoned C3 Environmental Management.

It is noted that the Statement of Environmental Effects provided by the applicant incorrectly numbers the existing Lot numbers involved in the subdivision, however the intent of the proposal is clear and as shown on the approved Subdivision Plan.

1.1 BACKGROUND

The site has the following development history:

Application Number	**Description**	**Decision**	**Decision Date**
DA-1999/692	Subdivision - 2 Lots	None	24-Nov-1999
DA-2005/1600	3 lot subdivision	Approved	06-Dec-2005
CS-2006/21	3 lot subdivision	Approved	25-May-2006
DE-2008/6	Construction of Illawarra Employment & Teaching Centre		
MP-2008/247	Illawarra Employment and Education Centre with ancillary and related commercial and residential uses	None	03-Feb-2009
PL-2020/163	Three (3) lot subdivision - NOTES ONLY	None	02-Nov-2020
DA-2021/437	Subdivision - boundary adjustment	Approved	5 Aug 2021

The most recent approved boundary adjustment has been completed and registered.

No pre-lodgement meeting was held for this proposal, however a pre-lodgement was held under PL-2020/163 for a similar proposal. The applicant submission is consistent with discussions held in that meeting.

Where copyright exists in a document, it is provided for information purposes only in accordance with councils statutory obligations and copyright laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

Customer service actions

There are no outstanding customer service requests of relevance to the development.

1.2 SITE DESCRIPTION

The site is located at 78 Sunnybank Crescent Horsley (Lot 1 DP 1280810), 21 Barham Place Horsley (Lot 3 DP 1280810) and Lot 426 DP 873616. The land located alongside Mullet Creek is Lot 426 and is zoned C3 Environmental Management.

Existing Lot 1 and Lot 3 are zoned both R2 Low Density Residential and RE2 Private Recreation. The R2 component is located immediately adjacent to Sunnybank Crescent and Barham Place respectively.

The land is a large parcel that sits between Mullet Creek at the east and existing West Dapto development to the west. The southern boundary of the site touches on Bong Bong Road. The land presents as largely cleared land with very little notable overall vegetative presence. There is a stand of trees at the southern end adjoining Bong Bong Road, and a tributary of Mullet Creek crosses across the site in a west/east direction.

The site is irregular in shape and relatively flat.

Adjoining development is as follows:

- North: similar cleared land, zoned SP2
- East: Mullet Creek
- South: Bong Bong Road, and cleared land zoned RE1
- West: low density residential development

Property constraints

Council records identify the land as being impacted by the following constraints:

- Fill
- Acid sulphate soils (Class 4 and 5): No earthworks are proposed and no concerns are raised in this regard.
- Flooding: The site is identified as being located within a flood risk precinct (under review). Council's Development Engineer has reviewed the application in this regard and did not raise any concerns as there are no physical works occurring in association with the proposal.
- 88b restriction: relate to restrictions on building location, fencing, access over residential land, requirements in relation to filled land
- Coastal Hazard(s): the site has an area of coastal wetlands and associated buffer as shown below in Figure 3

Where copyright exists in a document it is provided for information purposes only in accordance with Council's statutory obligations and copyright law still apply. The copyright owners consent is required if any part of the document is used for any other purpose.



Figure 1: Aerial photograph

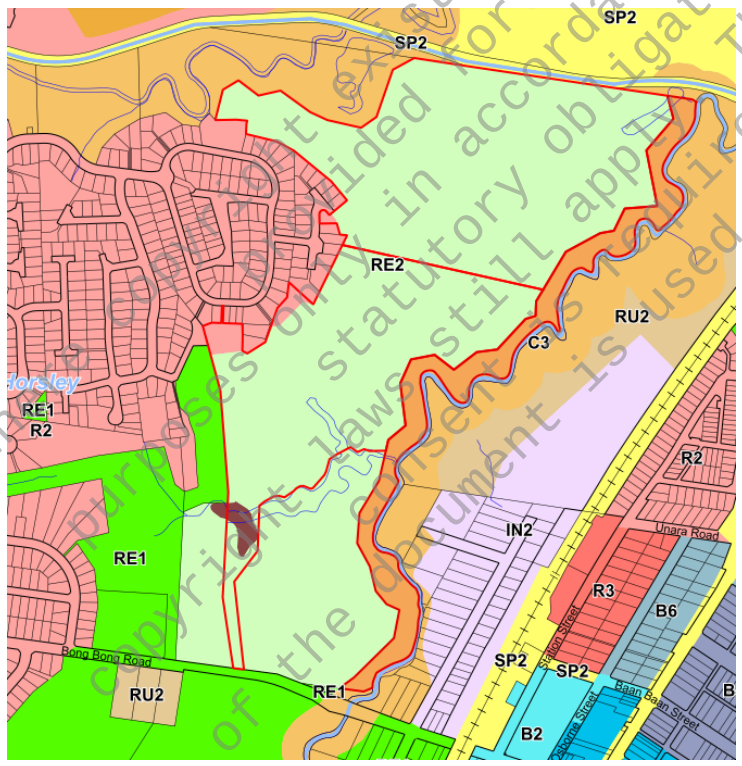


Figure 2: WLEP 2009 zoning map

Where copyright exists it is provided for information purposes only in accordance with Council's statutory obligations and copyright laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

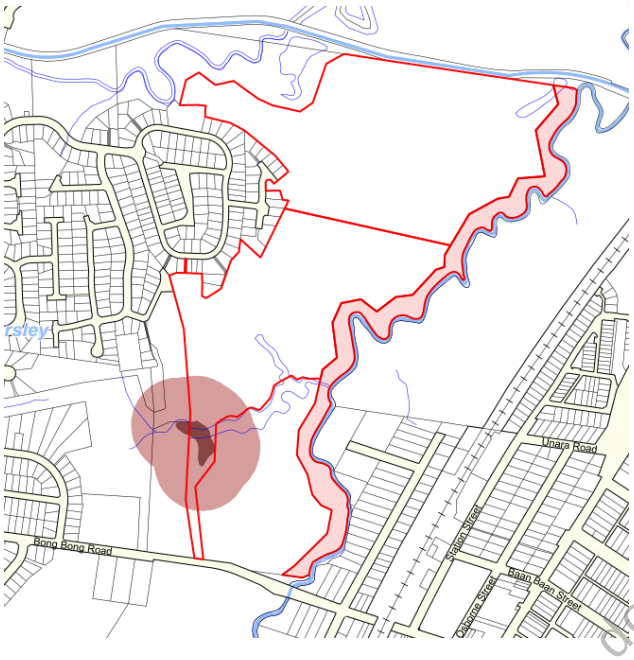


Figure 3: Coastal Management SEPP 2018 – Coastal Wetlands (brown) and Coastal Wetlands Buffer (pink)

1.3 SUBMISSIONS

The application was notified in accordance with Council's Community Participation Plan 2019. No submissions were received following the notification.

1.4 CONSULTATION

1.4.1 INTERNAL CONSULTATION

Urban Release

Council's Urban Release Officer has reviewed the application and given a satisfactory referral. No specific conditions were recommended.

Strategic Planning Officer

Council's Strategic Planning Officer has reviewed the application and given a satisfactory referral. No specific conditions were recommended.

Development Engineering Officer

The application has been assessed in regard to traffic, stormwater and subdivision matters and found to be satisfactory. Conditions of consent were recommended and are included in the consent.

Environment

The application has been assessed in regard to environmental matters and found to be satisfactory. Conditions of consent were recommended and are included in the consent.

1.4.2 EXTERNAL CONSULTATION

None required

Where copyright exists in a document, it is provided for information purposes only in accordance with Council's obligations and statutory obligations and copyright laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

2 ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

2.1 SECTION 4.15(1)(A)(1) ANY ENVIRONMENTAL PLANNING INSTRUMENT

2.1.1 STATE ENVIRONMENTAL PLANNING POLICY (RESILIENCE AND HAZARDS) 2021

Chapter 4 Remediation of land

4.6 Contamination and remediation to be considered in determining development application

A PSI (Douglas Partners, Preliminary Site Investigation - Proposed, 78 Sunnybank Crescent, 21 Barham Place and 34 Bong Bong Road, Horsley, February 2021) provided in association with DA-2021/437 found the following:

> *The PSI has identified potential sources of contamination at the site which are considered typical for a rural residential property in this region. As such, the identified potential for contamination is not considered to be a constraint that would preclude the proposed subdivision (being a boundary adjustment only). The site is therefore considered to be suitable for the proposed subdivision from a contaminated land perspective.*
>
> *However, if any future development is proposed at the site that would result in a change in land use, it is recommended that some investigation be undertaken to better define the actual contamination risks (if any) that the potential contamination may pose on subsequently proposed development.*
>
> This is accepted and no further assessment is required.

The PSI was reviewed by Council's Environment Officer under that development application and it was agreed that as there are no earthworks were proposed and the proposal did not comprise a change of use, there were no concerns raised in regard to contamination as relates to the use of the land and the requirements of clause 7 (of SEPP 55, applicable at the time of assessment of DA-2021/437).

Similarly, this application does not propose any works and there is no change of use, and as such the commentary provided in DA-2021/437 is considered relevant to this proposal and the requirements of Clause 4.6 are considered to be satisfied in this regard.

Chapter 2 Coastal management

Part 2.2 Development controls for coastal management areas

Division 1 Coastal wetlands and littoral rainforests area

2.7 Development on certain land within coastal wetlands and littoral rainforests area

(1) The following may be carried out on land identified as "coastal wetlands" or "littoral rainforest" on the Coastal Wetlands and Littoral Rainforests Area Map only with development consent:

(a) the clearing of native vegetation within the meaning of Part 5A of the Local Land Services Act 2013,

(b) the harm of marine vegetation within the meaning of Division 4 of Part 7 of the Fisheries Management Act 1994,

(c) the carrying out of any of the following:

(i) earthworks (including the depositing of material on land),

(ii) constructing a levee,

(iii) draining the land,

(iv) environmental protection works,

(d) any other development.

Note. Clause 2.14 provides that, for the avoidance of doubt, nothing in this Part:

(a) permits the carrying out of development that is prohibited development under another environmental planning instrument, or

Where copyright exists in a document it is provided for information purposes only in accordance with Council's statutory obligations and the copyright owner's consent is required if any part of the document is used for any other purpose.

(b) permits the carrying out of development without development consent where another environmental planning instrument provides that the development may be carried out only with development consent.

(2) Development for which consent is required by subclause (1), other than development for the purpose of environmental protection works, is declared to be designated development for the purposes of the Act.

(3) Despite subclause (1), development for the purpose of environmental protection works on land identified as "coastal wetlands" or "littoral rainforest" on the Coastal Wetlands and Littoral Rainforests Area Map may be carried out by or on behalf of a public authority without development consent if the development is identified in:

(a) the relevant certified coastal management program, or

(b) a plan of management prepared and adopted under Division 2 of Part 2 of Chapter 6 of the Local Government Act 1993, or

(c) a plan of management approved and in force under Division 6 of Part 5 of the Crown Lands Act 1989.

(4) A consent authority must not grant consent for development referred to in subclause (1) unless the consent authority is satisfied that sufficient measures have been, or will be, taken to protect, and where possible enhance, the biophysical, hydrological and ecological integrity of the coastal wetland or littoral rainforest.

(5) Nothing in this clause requires consent for the damage or removal of a priority weed within the meaning of clause 32 of Schedule 7 to the Biosecurity Act 2015.

(6) This clause does not apply to the carrying out of development on land reserved under the National Parks and Wildlife Act 1974 if the proposed development is consistent with a plan of management prepared under that Act for the land concerned.

***Comment**: The development is for a paper subdivision and as such, there are no physical works involved in the proposal. The subject site has a small area identified as coastal wetland, with an associated buffer area, as shown above in Figure 3. However as there are no works proposed within this defined area, the proposal is not considered to be designated development.*

2.8 Development on land in proximity to coastal wetlands or littoral rainforest

Note. The Coastal Wetlands and Littoral Rainforests Area Map identifies certain land that is inside the coastal wetlands and littoral rainforests area as "proximity area for coastal wetlands" or "proximity area for littoral rainforest" or both.

(1) Development consent must not be granted to development on land identified as "proximity area for coastal wetlands" or "proximity area for littoral rainforest" on the Coastal Wetlands and Littoral Rainforests Area Map unless the consent authority is satisfied that the proposed development will not significantly impact on:

(a) the biophysical, hydrological or ecological integrity of the adjacent coastal wetland or littoral rainforest, or

(b) the quantity and quality of surface and ground water flows to and from the adjacent coastal wetland or littoral rainforest.

(2) This clause does not apply to land that is identified as "coastal wetlands" or "littoral rainforest" on the Coastal Wetlands and Littoral Rainforests Area Map.

***Comment**: As discussed above, the development is for a paper subdivision and as such, there are no physical works involved in the proposal including no works within the identified buffer area that has proximity to coastal wetlands. As such, the development is not considered likely to impact on the integrity of the coastal wetland or change any surface and ground water flows to and from the wetland.*

A review of the SEPP's mapping extents identifies that the subject site contains land mapped as containing coastal wetland, however the site is not located within any other coastal management area. Council is satisfied that the proposed boundary adjustment will not adversely impact upon the wetland.

Where copyright exists in a document, it is provided for information purposes only in accordance with Council's statutory obligations and the copyright owner's consent. The copyright is still applies. The document is required for any part of the document is used for any other purpose.

2.1.2 WOLLONGONG LOCAL ENVIRONMENTAL PLAN 2009

Clause 1.4 Definitions

Subdivision is defined by the EP&A Act as being the the division of land into 2 or more parts that, after the division, would be obviously adapted for separate occupation, use or disposition. The division may (but need not) be effected-

(a) by conveyance, transfer or partition, or

(b) by any agreement, dealing, plan or instrument rendering different parts of the land available for separate occupation, use or disposition.

Clause 1.8A Savings provision relating to pending development approvals

None applicable

Part 2 Permitted or prohibited development

Clause 2.2 – zoning of land to which Plan applies

The zoning map identifies Lots 2 and 3 as being zoned R2 Low Density Residential/RE2 Private Recreation.

Lot 426 is zoned C3 Environmental Management.

Clause 2.3 – Zone objectives and land use table

The objectives of the R2 zone are as follows:

• To provide for the housing needs of the community within a low density residential environment.

• To enable other land uses that provide facilities or services to meet the day to day needs of residents

The proposal is satisfactory with regard to the above objectives. There are existing dwellings on the R2 zoned land with frontage to Sunnybank Crescent and Barham Place.

The objectives of the RE2 zone are as follows:

• To enable land to be used for private open space or recreational purposes.

• To provide a range of recreational settings and activities and compatible land uses.

• To protect and enhance the natural environment for recreational purposes

The proposal is satisfactory with regard to the above objectives. There RE2 zoned land is currently used for agistment, a form of extensive agriculture, which is a permissible use in the zone.

The objectives of the C3 zoned land are as follows:

• To protect, manage and restore areas with special ecological, scientific, cultural or aesthetic values.

• To provide for a limited range of development that does not have an adverse effect on those values.

The proposal is satisfactory with regard to the above objectives. The consolidation will allow the C3 lands to be managed as part of a greater overall allotment, rather than as an isolated allotment.

Clause 2.6 Subdivision—consent requirements

Subdivision on the land is permissible with consent. The application proposes boundary adjustments and consolidation through torrens title subdivision.

Part 4 Principal development standards

Clause 4.1 Minimum subdivision lot size

The RE2 zoned land does not have a minimum lot size defined by WLEP 2009. Each R2 zoned land part is not being reduced by the proposed subdivision and achieves the minimum lot size of 449m^2 for the R2 zoned portions.

Where copyright exists in a document, it is provided for information purposes only in accordance with Council's statutory obligations and consent is required if any part of the document is used for any other purpose.

4.1A Minimum lots sizes for certain split zones

As per the requirements of this Clause, Lot 203 is being created and will contain land R2 zoned land that achieves the minimum lot size for the land and will also contain all of the Zone E3 Environmental Management land that was within Lot 426. The proposal complies with the requirements of Cl 4.1A in this regard.

Clause 4.4 Floor space ratio

The proposal does not comprise any additional gross floor area. The amount of R2 zoned land has not changed such that the proposal would now exceed the maximum floor space ration for the land.

Part 5 Miscellaneous provisions

Clause 5.21 Flood planning

The proposal was referred to Council's Development Engineer who gave a conditionally satisfactory referral response. There are no built form changes and the boundary adjustment/consolidation is a paper subdivision. As such, the development is considered to be consistent with the objectives of the Clause.

Part 6 Urban release areas

6.1 Arrangements for designated State public infrastructure

The land is within a special contributions area and as such, the provisions of this Clause do not apply.

6.2 Development control plan

Clause 6.2 does not apply to the proposed subdivision of land for the purpose of a realignment of boundaries that does not create additional lots, as is the case for this proposal.

Part 7 Local provisions – general

7.1 Public utility infrastructure

The existing developments on the land are already serviced by the appropriate utilities. The boundary adjustment does not impact on existing servicing.

7.2 Natural resource sensitivity—biodiversity

There are no areas of Natural Resource Sensitivity–Biodiversity will be impacted by the proposed boundary adjustment.

7.4 Riparian lands

Riparian lands will not be affected by the proposed development.

7.5 Acid Sulfate Soils

There are no physical works proposed and as such, an acid sulfate soils management plan is not required for the proposal.

2.2 SECTION 4.15(1)(A)(II) ANY PROPOSED INSTRUMENT

None applicable.

2.3 SECTION 4.15(1)(A)(III) ANY DEVELOPMENT CONTROL PLAN

2.3.1 WOLLONGONG DEVELOPMENT CONTROL PLAN 2009

CHAPTER A1 – INTRODUCTION

There are no development control variations proposed by the development.

CHAPTER A2 – ECOLOGICALLY SUSTAINABLE DEVELOPMENT

Development controls to improve the sustainability of development throughout Wollongong are integrated into the relevant chapters of this DCP. Generally speaking, the proposal is considered to be consistent with the principles of Ecologically Sustainable Development.

Where copyright exists in a document, it is provided for information purposes only in accordance with Council's statutory obligations and laws still apply. The copyright owners consent is required if any part of the document is used for any other purpose.

CHAPTER B2 – RESIDENTIAL SUBDIVISION

Although Chapter B2 is applicable to the subdivision of land in the R2 zone, the controls are of little relevance to the proposed development. There are existing dwellings on two of the parts of R2 zoned land, and due to the large lot size/ land area, the proposed subdivision boundaries will have little impact on those R2 parts. The shape and size of each R2 portion does not change under this proposal.

There are no changes to the built form or servicing arising from the proposed subdivision.

PRECINCT PLAN – Chapter D16: West Dapto Release Area

The controls contained within Chapter D16 have little relevance to the proposed boundary adjustment. There will be no additional urban development arising from the proposal, and the land does not form part of any proposed neighbourhood plan.

CHAPTER E13 FLOODPLAIN MANAGEMENT

The site is identified as being located within a flood risk precinct that is under review. The proposal was referred to Council's Development Engineer who notes that overall it is not considered that there are any significant engineering constraints that would prohibit the boundary adjustment and consolidation from occurring.

It is noted from DA-2021/437 that the residential component of the lots is above the flood affected area and able to be developed in accordance with the requirements of Chapter E13 WDCP 2009.

In this regard, the proposal is not considered to be contrary to Chapter E13.

2.3.2 WOLLONGONG CITY WIDE DEVELOPMENT CONTRIBUTIONS PLAN

West Dapto Development Contributions Plan – Residential Development

The West Dapto Development Contributions Plan applies to the subject property. This Plan levies on residential development a contribution based on the increase in lots and/or dwellings. There is no increase in lots and/or dwellings from this development and therefore contributions do not apply. Council's Contributions Officer has confirmed that the development does not attract contributions.

2.4 SECTION 4.15(1)(A)(IIIA) ANY PLANNING AGREEMENT THAT HAS BEEN ENTERED INTO UNDER SECTION 7.4, OR ANY DRAFT PLANNING AGREEMENT THAT A DEVELOPER HAS OFFERED TO ENTER INTO UNDER SECTION 7.4

There are no planning agreements entered into or any draft agreement offered to enter into under S7.4 which affect the development.

2.5 SECTION 4.15(A)(IV) THE REGULATIONS (TO THE EXTENT THAT THEY PRESCRIBE MATTERS FOR THE PURPOSES OF THIS PARAGRAPH)

Environmental Planning and Assessment Regulation 2021

2 Savings

Not applicable

6 Determination of BASIX development

Not relevant

61 Additional matters that consent authority must consider

Not applicable

62 Consideration of fire safety

Not applicable

63 Considerations for erection of temporary structures

Not applicable

Where copyright exists in a document, it is provided for information purposes only and in accordance with Council's copyright obligations and the copyright owner's consent is required if any part of the document is used for any other purpose.

2.6 SECTION 4.15(1)(B) THE LIKELY IMPACTS OF DEVELOPMENT

The proposal is considered acceptable with regard to the likely impacts.

2.7 SECTION 4.15(1)(C) THE SUITABILITY OF THE SITE FOR THE DEVELOPMENT

Does the proposal fit in the locality?

The proposal is considered appropriate with regard to the zoning of the site and is not expected to have any negative impacts on the amenity of the locality or adjoining developments.

Are the site attributes conducive to development?

There are no site constraints that would prevent the proposal.

2.8 SECTION 4.15(1)(D) ANY SUBMISSIONS MADE IN ACCORDANCE WITH THIS ACT OR THE REGULATIONS

None received.

2.9 SECTION 4.15(1)(E) THE PUBLIC INTEREST

The application is not expected to have any unreasonable impacts on the environment or the amenity of the locality. It is considered appropriate with consideration to the zoning and the character of the area is satisfactory with regard to the applicable planning controls. The proposal did not require notification. The proposal is considered to be in the public interest.

3 CONCLUSION

This application has been assessed as satisfactory having regard to the Heads of Consideration under Section S4.15(1) of the Environmental Planning and Assessment Act 1979, the provisions of Wollongong Local Environmental Plan 2009 and all relevant Council DCPs, Codes and Policies. The proposal is considered supportable in its current form.

4 RECOMMENDATION

It is recommended that the development application be approved subject to appropriate conditions of consent:

Where copyright exists in a document it is provided for information purposes only in accordance with Council's statutory obligations and copyright laws still apply. The copyright owner's consent is required if any part of the document is used for other purpose.

Issue of this letter is authorised by

Nicole Ashton

Senior Development Project Officer

Wollongong City Council

Direct Line: 4227 7111

wollongong
city of innovation

WOLLONGONG CITY COUNCIL

Address 41 Burelli Street Wollongong • **Post** Locked Bag 8821 Wollongong DC NSW 2500
Phone (02) 4227 7111 • **Fax** (02) 4227 7277 • **Email** council@wollongong.nsw.gov.au
Web www.wollongong.nsw.gov.au • ABN 63 139 525 939 - GST Registered

S.14(3)(3)(A) Personal Information

APPLICATION	**DA-2022/589**
Determination	Conditionally Approved
Approval Authority	Wollongong City Council
Endorsement Date	7 September 2022

NOTICE OF DETERMINATION OF DEVELOPMENT APPLICATION

Issued under Section 4.16 of the Environmental Planning and Assessment Act 1979

The development application described below has been determined:

Proposal	Subdivision of land - boundary adjustment for Lots 1 and 3 DP 1280810 and consolidation of Lot 426 DP 873616
Location	Lot 1 DP 1280810 Lot 3 DP 1280810 Lot 426 DP 873616 78 Sunnybank Crescent HORSLEY NSW 2530

Consent has been granted subject to the following conditions:

1. Approved Plans and Supporting Documentation
Development must be carried out in accordance with the following approved plans and supporting documentation (stamped by Council), except where the conditions of this consent expressly require otherwise.

Plan No	Rev No	Plan Title	Drawn By	Dated
D220303 Sheet 1 of 2		Plan of Proposed Boundary Adjustment of Lots 1 and 3 DP 1280810 and Consolidation of Lot 426 in DP 873616	Bruce Ernest Smith	30 May 2022
D220303 Sheet 2 of 2		Plan of Proposed Boundary Adjustment of Lots 1 and 3 DP 1280810 and Consolidation of Lot 426 in DP 873616	Bruce Ernest Smith	30 May 2022

In the event of any inconsistency between the approved plans and the supporting documentation, the approved plans prevail. In the event of any inconsistency between the approved plans and a condition of this consent, the condition prevails.

Note: an inconsistency occurs between an approved plan and supporting documentation or between an approved plan and a condition when it is not possible to comply with both at the relevant time.

Where copyright exists in a document, it is provided for information purposes only in accordance with Council's statutory obligations and Copyright Laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

General Conditions

2. Tree Removal
This application does not approve the removal of any native trees or vegetation. A separate development application, or tree management permit application shall be submitted to Council if native trees are proposed to be removed.

Before the Issue of a Subdivision Certificate

3. Property Addressing Policy Compliance
Prior to the issue of any Subdivision Certificate, the developer must ensure that any site addressing complies with Council's **Property Addressing Policy** (as amended). Where appropriate, the developer must also lodge a *General Property Addressing Request* through Online Services on Council's Website *(https://www.wollongong.nsw.gov.au/book-and-apply/online-services)*, for the site addressing prior to the issue of the Construction Certificate. Please allow up to 5 business days for a reply. Enquiries regarding property addressing may be made by calling (02) 4227 8660.

4. Existing Easements
All existing easements must be acknowledged on the final subdivision plan.

5. Existing Restriction as to Use
All existing restriction on the use of land must be acknowledged on the final subdivision plan.

6. Encroaching Pipes
A minimum one (1) metre wide easement to drain water shall be created over any encroaching drainage pipes.

For all drainage easements proposed over the subject lots, a Works-As-Executed/survey plan of all stormwater drainage within the site is to be submitted with the Subdivision Certificate Application to confirm this.

7. Encroaching Services
A minimum one (1) metre wide easement for services must be created over any encroaching utility service.

8. 88B Instrument Easements/Restrictions
Any easements or restrictions required by this consent must nominate Wollongong City Council as the authority to vary, modify or release/extinguish the easements or restrictions. The form of the easement(s) or restriction(s) created as a result of this consent must be in accordance with the standard format for easements and restrictions as accepted by NSW Land Registry Services.

9. Section 88B Instrument
The submission of a Final Section 88B Instrument to Council/Principal Certifier, which incorporates the necessary restrictions, easements and covenants, where applicable.

10. Final Documentation Required Prior to Issue of Subdivision Certificate
The submission of the following information/documentation to the Principal Certifier, prior to the issue of a Subdivision Certificate:

a. Completed Subdivision Certificate application form and fees in accordance with Council's fees and charges;

b. Final plan of Subdivision prepared by a registered surveyor plus four (4) equivalent size paper copies of the plan;

c. Section 88B Instrument (where applicable) covering all necessary easements and restrictions on the use of any lot within the subdivision;

d. Original Subdivider/Developer Compliance Certificate pursuant to Section 73 of the Water Board (Corporatisation) Act 1994 from Sydney Water.

Where copyright exists in a document it is only provided for information purposes in accordance with Council's obligations and the copyright owner's consent is required if any part of the document is used for any other purpose.

Occupation and Ongoing Use

11. Domestic Grazing Animals

No domestic grazing animals, including goats, shall be permitted to enter or graze within areas of native vegetation on the property.

Reasons

The reasons for the imposition of the conditions are:

1. To minimise any likely adverse environmental impact of the proposed development.
2. To ensure the protection of the amenity and character of land adjoining and in the locality.
3. To ensure the proposed development complies with the provisions of Environmental Planning Instruments and Council's Codes and Policies.
4. To ensure the development does not conflict with the public interest.

Notes

1. This consent becomes effective and operates from the date the consent is uploaded to the NSW Planning Portal. The consent will lapse unless development is commenced within five (5) years from the date the consent was uploaded to the NSW Planning Portal.
2. Section 8.7 of the Environmental Planning and Assessment Act 1979 confers on an applicant who is dissatisfied with the determination of a consent authority a right of appeal to the Land and Environment Court exercisable within six (6) months from the date this notice was uploaded to the NSW Planning Portal.
3. Section 8.3 of the Environmental Planning and Assessment Act 1979 confers on an applicant who is dissatisfied with the determination of a consent authority a right to request the consent authority to review the determination. The request for review of the determination must be made within six (6) months from the date this notice was uploaded to the NSW Planning Portal. In the absence of a pending appeal before the Land and Environment Court, the request for review, and the review by Council, must all be completed within the abovementioned six (6) month time period. Accordingly, applicants are advised to provide Council with sufficient time to complete the review within this period, failing which the determination cannot be reviewed. The request must be accompanied by the fees set by the Environmental Planning and Assessment Regulation.

   A right of review of determination does not exist for a determination made in respect of a Designated Development.
4. The holder of a Development Consent that is being acted upon must also hold a current Subdivision Certificate under the provisions of the Environmental Planning and Assessment Act, 1979.
5. Where the **consent** is for building work or subdivision work, no temporary buildings may be placed on the site and no site excavation, filling, removal of trees or other site preparation may be carried out prior to the issue of a Construction Certificate and appointment of a Principal Certifier.
6. A Tree Management Permit Policy has been proclaimed in the City of Wollongong. Under this order, no tree on the land the subject of this approval may be ringbarked, cut down, topped, lopped or wilfully destroyed except with the prior consent of Council which may be given subject to such conditions as Council considers appropriate. However, unless specified otherwise in this consent, those trees which are specifically designated to be removed on the plans approved under this consent or has any part of a trunk located within three (3) metres of an approved building footprint may be removed, provided that a Construction Certificate has been issued for the development the subject of this consent and a Principal Certifier appointed.
7. In this consent the developer means the applicant for Development Consent and any person or corporation who carries out the development pursuant to that consent.

Where copyright exists in a document, it is proposed only to provide information in accordance with Council's obligations and copyright laws. The copyright owner's consent is required if any part of the document is used for any other purpose.

8. Council recommends that NSW Wildlife Information and Rescue Service (WIRES) be contacted for assistance in relocating any native fauna prior to removal of any trees and bushland, authorised by this consent. For wildlife rescue assistance, you must call the Wildlife Rescue Line 1300 094 737 (13 000 WIRES) or visit their website www.wires.org.au for more information.

9. Before undertaking renovation or demolition work or removing materials from site during development works refer to Council's website for further information regarding the responsible disposal of waste during demolition and building works.

10. Persons benefiting from this Development Consent are advised that between the 17-25 September 2022 Wollongong will host the UCI Road World Championships. This is one of the biggest annual cycling events in the world and will generate international visitation and focus. The event will require temporary road closures which will limit access to construction sites, residences and businesses at times. The event may also generate noise, odour, traffic and have longer hours of operation.

    When planning any construction or business/residential activity, we suggest you keep this period in mind to minimise disruptions that may impact on you. Further detail on routes and anticipated road impacts will be available from 2022.

11. **Prolonged Rainfall Events**
    The applicant is advised that under existing conditions and during prolonged rainfall events, flooding of the site may occur and it is in the applicant's interest to take all necessary precautions to minimise the risk of property loss and/or damage.

This letter is authorised by

Nicole Ashton
Senior Development Project Officer
Wollongong City Council
Telephone (02) 4227 7111

enc

Where copyright exists in a document it is provided for information purposes only in accordance with Council's statutory obligations and copyright laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

wollongong
city of innovation

WOLLONGONG CITY COUNCIL

Address 41 Burelli Street Wollongong • **Post** Locked Bag 8821 Wollongong DC NSW 2500
Phone (02) 4227 7111 • **Fax** (02) 4227 7277 • **Email** council@wollongong.nsw.gov.au
Web www.wollongong.nsw.gov.au • ABN 63 139 525 939 - GST Registered

S.14(3)(3)(A) Personal Information

CERTIFICATE	**SC-2022/137**
Certifying Authority	Wollongong City Council
Date	19 December 2022

SUBDIVISION CERTIFICATE

Issued under Section 6.4(d) of the Environmental Planning and Assessment Act 1979

The Subdivision Certificate application described below has been determined:

Location	Lot 1 DP 1280810 78 Sunnybank Crescent HORSLEY NSW 2530
Description	Subdivision - boundary adjustment
Development Consent	DA-2022/589
Issued	07 September 2022

The provisions of Section 6.15 of the Environmental Planning and Assessment Act 1979 have been satisfied.

This letter is authorised by:

Aleks Radicevic
Senior Development Engineer - Subdivisions
Wollongong City Council
Telephone (02) 4227 7111

Where copyright exists in a document, it is provided for information purposes only in accordance with Council's statutory obligations and copyright laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

Document, it is provided for information purposes only in accordance with Council's statutory obligations and where copyright exists in a document, it is subject to the copyright owner's consent is required if any part copyright laws. It applies to the entire document is used for any other purpose.

SSM 79326 'B1'
RM DH & W 277°50'40"~3.57 & 13.44 (DP 259847)
7°54'40" 3.7
PARKDALE AVE.
DP 259847
15
16
RM GONE (DP 259847)
97°54'40" 50.5
97°
171.85
54'
26 DP 259847
199 DP 263915
RM NOT FD (DP 259847)
40'
97° 41' 45"
92.67
2 D.P. 1063839
BONG (VAR. WIDTH)
RM DH & W FD 287°04'~7.945 (DP 1280810)
97°
41'
45'
162.60
NEW 3P & PICKET FENCE
64°56'30"
F 6°20'55" 58.47
R.M. C.B. FD. 18°30'~1.005 BY ME (DP624648)
(53.5) EASE.
PM 76552 FD 309°57'50"~8.5 (DP840183)
'A1'
111°08'15"
46.93
NEW 3P & PICKET FOE.
RM DH & W FD. 21°08'~2.85 (DP 1280810)
ROAD
71.5
97°
1 D.P. 569093
33'
'A'
53°37' 33.86
RM DH & W FD. 342°48'25"~25.735 (DP 1280810)
32.98
15'
LEFT BANK OF CREEK
SSM 79338 TO 'A' 317°37'45" 71.26
RM DH & W. 51°56'45"~30.68
SSM 79338
MULLET CREEK
45°24'45" 103.79
114°03'25" 25.895
53.075
10°52'10"
31.395
140°39'35"
31.375
349°40'25"
49.095
151°27'25"
46.822
166°26'50"
56.14
184°18'20"
70.03
211°05'40"
56.78
51'
12°
20.565
25"
41.72
50°10'05"
78.62
172°48'15"
41.05
354°11'50"
33.79
35°09'05"
26.965
23°12'20"
32°07'35"
29.815
10°29'30"
29.405
31.945
131°40'25"
88°09'30"
35.945
RM GIP 220°49' 5.46
RM CB FD 288°52'~1.0 (DP 873616)
'B'
RM GONE (DP 873616)
RM GIP NOT FD (DP 873616)
RM DH & W FD 221°33'~16.395 (DP 1063839)
3°02' 4.325
00"
02'
190.71
(19.11)
3° (50.29)
32° 43.25
37°16'00" 71.45
2° 20' 05" 83.98
(1.02)
120.63
244°
353°43'55" 163.86
171°
132.405
31'
R
L
M
N
P
U
F
T
V
E
Z
NATURAL WATERCOURSE
2 D. P. 1 2 8 0 8 1 0
'A' TO 'B' 11°18'38" 575.766 SURV 11°18'38" 575.766 (DP 1280810)
'B' TO 'C' 51°32'30" 391.484 SURV. 51°32'30" 391.484 (DP 1280810)
RM CB FD 316°16'~1.0 (DP 873616)
'C'
LEFT BANK OF CREEK
202 8.826 ha.
203 32.93 ha.
R
SHEET 2 JOINS
SEE SHEETS 2 & 3
SEE DIAG. 2 SHEET 2
SEE DIAG. 1 SHEET 1
GOODMAN PLACE
DP 872380
DP 856301
MGA SCIMS
212
213
DP 863813
305
307
309
313
314
315
125
DP 846120
118
406
SUNNYBANK CRES.
SUNNYBANK
BARHAM PLACE
SP 59080
SP 63984
402
DP 873616
PLACE
409
411
414
415
418
422
423
BARHAM
S.P. 65625
312°22' 61.0
39.43 57°44'35"
67.18 19°33'10"
26.39 42°22'15"
142.68 26°08'55"
35.48 18°37'25"
88.95 129°21'45"
46.21 140°13'05"
1°17'50" 50.21
37.41 15°
17.715 92°
10' 05" 37.2
213 DP 856301
202
RM DH & Ws FD 2°10'~3.7 & 9.3 (DP 856301)
2° 10' 13.0
92° 10' 05" 47.045
6.85
272°
10' 05"
2° 10' 05" 32.0
182° 10' 05" 32.0
RM DH & W FD 179°27'~3.695 (DP 1280810)
301 DP 863813
DIAGRAM 1 1:500
RM DH & Ws FD 2°55'25"~3.61 & 9.32 (DP 863813)
TO SSM 79326 209°27'25"~561.973
PEG FD RM GONE (DP 873616)
355°32'50" 186.68
86.475
164°
46'
3 D.P. 1063839
DATUM: 'A1' - 'B1' PM 76652 - SSM 79326
276°01'40" ~ 390.688 MGA GND.
276°01'40" ~ 390.688 BY SURVEY
SSM 79326 - SSM 79338
101°52'17" ~ 556.610 MGA GND.
101°52'30" ~ 556.602 BY SURVEY
SSM 79338 - PM 76652
295°11'41" ~ 172.595 MGA GND.
295°12'27" ~ 172.599 BY SURVEY

E DRAINAGE EASEMENT VARIABLE WIDTH (DP 873616) - (6)
F EASEMENT FOR OVERHEAD POWER LINE 9 WIDE (DP 1280810)
L RIGHT OF WAY 10.06 WIDE (CONV BK 1719 No 334)
M EASEMENT FOR TRANSMISSION LINE 30.48 WIDE (G.G. 19.11.1943 FOLIOS 2015 & 2016)
N EASEMENT FOR TRANSMISSION LINE 18.29 WIDE (J5361)
P EASEMENT FOR THE CONSTRUCTION AND MAINTENANCE OF WATER SUPPLY WORKS 4.57 WIDE (L460432)
R RESTRICTION ON THE USE OF LAND (DP873616) - (5)
T EASEMENT TO DRAIN WATER VARIABLE WIDTH (DP 649474)
U EASEMENT FOR PIPELINE 20 WIDE (DP 1016609) (8351968)
V EASEMENT FOR ACCESS VARIABLE WIDTH (DP 649474)
Y EASEMENT TO DRAIN WATER 1.5 WIDE (DP 856301)
Z RESTRICTION ON THE USE OF LAND (DP873616) - (13)

MULLET CREEK BOUNDARY - SHORT LINE TABLE (SEE SHEET 4)

SCHEDULE OF SHORT BOUNDARIES

Number	Bearing	Distance	Number	Bearing	Distance
1	69°44'10"	17.690	16	56°42'15"	16.600
2	296°38'00"	10.295	17	62°12'45"	28.525
3	51°28'55"	12.450	18	125°55'05"	15.750
4	61°23'25"	19.525	19	66°14'45"	13.460
5	84°27'50"	8.950	20	109°15'35"	10.600
6	103°02'45"	11.055	21	89°13'35"	30.125
7	56°02'05"	19.915	22	186°52'00"	28.275
8	43°25'40"	7.775			
9	61°52'05"	8.135			
10	86°52'20"	5.815			
11	111°49'10"	14.245			
12	73°57'10"	4.450			
13	41°20'30"	32.460			
14	15°11'40"	22.63			
15	25°02'00"	8.170			

A Rader
Authorised Officer
Wollongong City Council

Surveyor : BRUCE ERNEST SMITH Date of Survey : 15th Nov. 2022 Surveyor's Ref : D220303-2	**PLAN OF SUBDIVISION OF LOT 1 AND LOT 3 IN DP 1280810 AND LOT 426 IN DP 873616**	LGA: WOLLONGONG Locality : HORSLEY Subdivision No: Lengths are in metres. Reduction Ratio 1:2000	Registered DP

Document Set ID: 23848403
Version: 1, Version Date: 30/11/2022

M EASEMENT FOR TRANSMISSION LINE 30.48 WIDE (G.G. 19.11.1943 FOLIOS 2015 & 2016)
N EASEMENT FOR TRANSMISSION LINE 18.29 WIDE (J5361)
P EASEMENT FOR THE CONSTRUCTION AND MAINTENANCE OF WATER SUPPLY WORKS 4.57 WIDE (L4604320)
Q EASEMENT TO DRAIN WATER VARIABLE WIDTH (DP 649474)
R RESTRICTION ON THE USE OF LAND (DP873616) - (5)
S EASEMENT FOR ACCESS VARIABLE WIDTH (DP 649474)
T EASEMENT TO DRAIN WATER VARIABLE WIDTH (DP 649474)
V EASEMENT FOR ACCESS VARIABLE WIDTH (DP 649474)
Y EASEMENT TO DRAIN WATER 1.5 WIDE (DP 649474)
Z RESTRICTION ON THE USE OF LAND (DP873616) - (13)

MGA SCIMS

'E' TO 'F'
276°46'55" 713.504 SURV.
277°54'50" 713.534 (DP873616)

RM GIP FD 256°40'~0.5 (DP 873616)
D.P. 212322
98° 14' 58.08
190° 33' 50" 21.43
98° 21' (9.71) 50" (91.08)
M P M

DIAGRAM 4
1:1000

RM GONE (DP 873616) (0.77) RAILWAY
98° 21' 50" 102.77 98° 21' 15"

DIAGRAM 3
N.T.S.

RM GIP FD 278°25'~1.02 (DP 212322)
'F' 278°25' 58.515
278° 19' 30" 201.195
278° 181.41
44" 00" 97.35
98° 274.74
21' 50" (91.08)
98° 102.77
21' 15"
'D' 43.62 BANK OF CK.

1 D.P. 212322
Pt. 417 DP 1274097
1 D.P. 212322

RM GIP FD 256°40'~0.5 (DP 873616)
RM GIP FD 8°14'~0.455 (DP 212322)
98°14'00" 58.08
'E'

SEE DIAGRAM 4
SEE DIAGRAM 3

35 D.P. 751278
RM GIP 59°29'~9.68

241°09'20" 44.525
RM GIP FD 355°45'~0.98 (DP 1280810)
199°05'25" 92.47

PUBLIC RESERVE
419
D.P. 873616

RM GIP FD 271°56'~1.435 (DP 1280810)
58°52'55" 33.725
307°16'30" 46.535
257°17'45" 41.785
305°53'40" 67.79
294°56' 35.01
282°48'40" 64.18
234°59'25" 34.83
RM GIP FD 211°26'~1.275 (DP 1280810)
194°07'50" 57.895
R Q S Q S

95°09'30" 20.585
88°52' 39.0
18°52' 4.925
2°44' 20.0
103°35' 59.33
118°37'25" 35.48
129°21'45" 88.95
140°13'05" 46.21
14°01'50" 35.695
301°59'10" 33.285
116 118 406 409 411
280° 30' 10" 14.77

420
D.P. 873616

SUNNYBANK
SSM 89081 FD
148.745
283°00'50"
RM DH & Ws FD 10°30'10"~3.68 & 3.275 (DP 846120)
SSM 89090 FD

DP 846120
DP 873616
BARHAM
SEE SHEET 3
CRES.
125 315 314 402 414 415
SP 63984
BARHAM PLACE
313 SP 59080 424 422 418
DP 863813
309 SP 65625
PLACE
142.68 26°08'55"
153°36'25" 302.36
202

203
32.93 ha.
R
N M P

'C' TO 'D'
33°06'25" 341.805 SURV.
34°13'55" 344.805 (DP873616)

RM CB FD 316°16'~1.0 (DP 873616)
'C'
SEE SHEET 1 LEFT BANK OF CREEK
CREEK
MULLET
51°56'10" 31.045
CREEK
MULLET

SHEET 1 JOINS

MGA SCIMS

518
CH. 15°52'10"~11.95 R. 37.5
281°55'50" 4.945
69°44'10" 17.69
SSM 83752
RM DH & Ws FD 295°02'10"~4.895 & 11.14 (DP 872380)
PLACE
161°51'50" 16.075
37.41 15"
27.58 88° 52'
227°39'25" ~ 114.265
DP 872380
25°02'10" ~ 71.41 (11 WIDE, 14.5 WIDE & VAR.)
RM DH & W FD 125°38'~5.375 (DP 1063839)
46
86.475 164°
SSM 83769
514
GOODMAN
3 D.P. 1063839
RM DH & Ws FD 295°02'10"~4.935 & 9.98 (DP 872380)
202

DIAGRAM 2
1:1000

Authorised Officer
Wollongong City Council

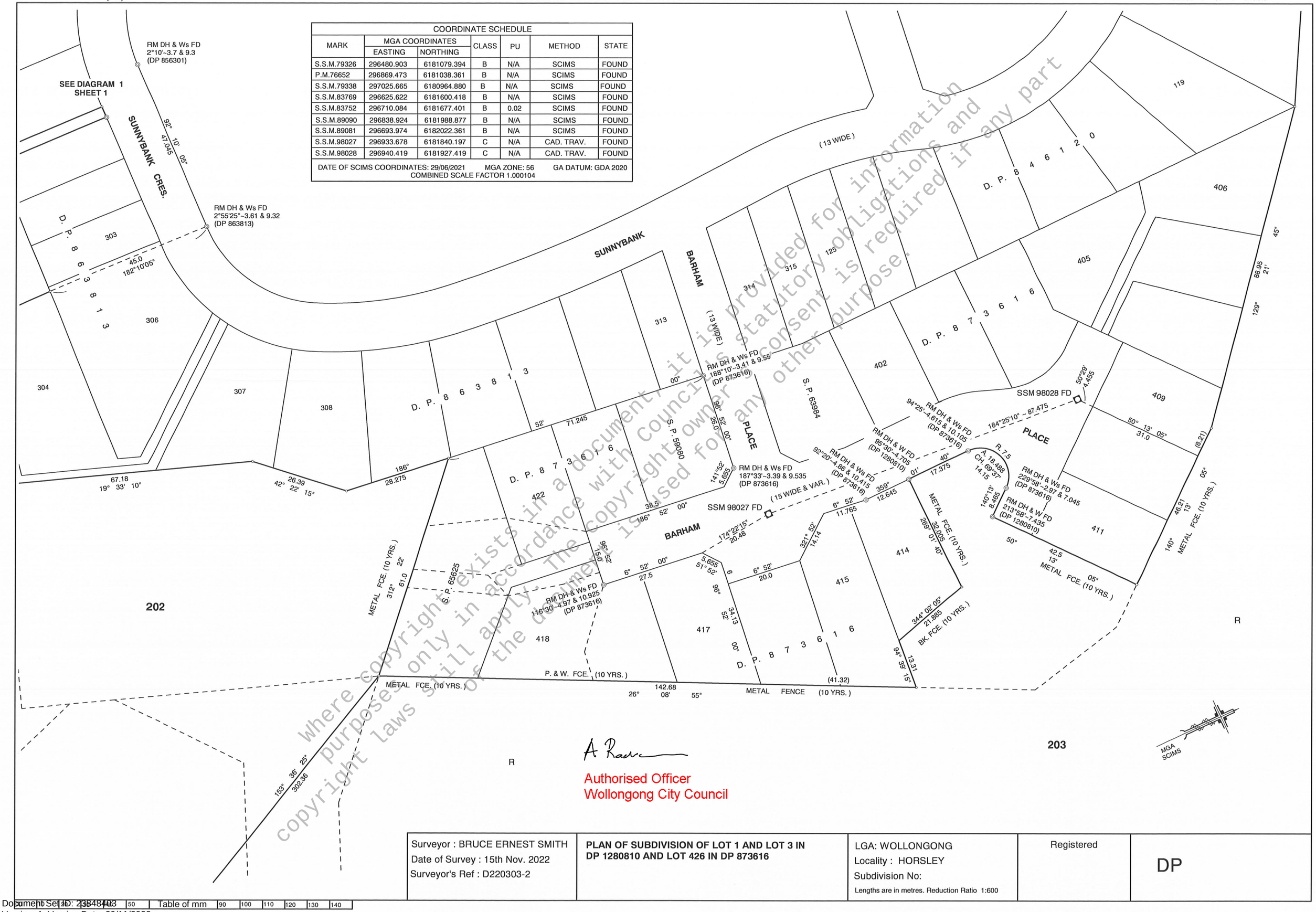
Surveyor : BRUCE ERNEST SMITH Date of Survey : 15th Nov. 2022 Surveyor's Ref : D220303-2	**PLAN OF SUBDIVISION OF LOT 1 AND LOT 3 IN DP 1280810 AND LOT 426 IN DP 873616**	LGA: WOLLONGONG Locality : HORSLEY Subdivision No: Lengths are in metres. Reduction Ratio 1:2000	Registered	DP

Where copyright exists in a document, it is provided for information purposes only in accordance with Council's statutory obligations and copyright laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

Document Set ID: 23848403
Version: 1, Version Date: 30/11/2022

COORDINATE SCHEDULE						
MARK	MGA COORDINATES		CLASS	PU	METHOD	STATE
	EASTING	NORTHING				
S.S.M.79326	296480.903	6181079.394	B	N/A	SCIMS	FOUND
P.M.76652	296869.473	6181038.361	B	N/A	SCIMS	FOUND
S.S.M.79338	297025.665	6180964.880	B	N/A	SCIMS	FOUND
S.S.M.83769	296625.622	6181600.418	B	N/A	SCIMS	FOUND
S.S.M.83752	296710.084	6181677.401	B	0.02	SCIMS	FOUND
S.S.M.89090	296838.924	6181988.877	B	N/A	SCIMS	FOUND
S.S.M.89081	296693.974	6182022.361	B	N/A	SCIMS	FOUND
S.S.M.98027	296933.678	6181840.197	C	N/A	CAD. TRAV.	FOUND
S.S.M.98028	296940.419	6181927.419	C	N/A	CAD. TRAV.	FOUND

DATE OF SCIMS COORDINATES: 29/06/2021 MGA ZONE: 56 GA DATUM: GDA 2020
COMBINED SCALE FACTOR 1.000104



Where copyright exists in a document, it is provided for information purposes only in accordance with statutory obligations and copyright laws still apply. The copyright owner's consent is required if any part of the document is used for any other purpose.

A Rae

Authorised Officer
Wollongong City Council

Surveyor : BRUCE ERNEST SMITH Date of Survey : 15th Nov. 2022 Surveyor's Ref : D220303-2	**PLAN OF SUBDIVISION OF LOT 1 AND LOT 3 IN DP 1280810 AND LOT 426 IN DP 873616**	LGA: WOLLONGONG Locality : HORSLEY Subdivision No: Lengths are in metres. Reduction Ratio 1:600	Registered	DP

Document Set ID: 23848403
Version: 1, Version Date: 30/11/2022

MULLET CREEK BOUNDARY - SHORT LINE TABLE (SEE SHEET 1)

Number	Bearing	Distance	Number	Bearing	Distance
1	66°52'40"	9.525	41	351°01'10"	13.33
2	71°42'40"	4.705	42	344°07'15"	20.81
3	30°20'10"	7.21	43	4°51'40"	10.775
4	37°44'15"	6.865	44	28°39'10"	22.625
5	50°43'00"	7.285	45	85°03'10"	10.035
6	1°12'50"	13.605	46	101°29'40"	11.795
7	58°33'15"	12.97	47	125°38'30"	14.65
8	45°13'05"	17.695	48	108°43'45"	18.9
9	59°42'15"	19.23	49	23°58'05"	25.835
10	65°01'35"	17.685	50	38°05'25"	19.29
11	51°53'50"	5.38	51	134°23'30"	9.325
12	20°58'45"	19.355	52	105°10'20"	19.785
13	325°14'35"	3.34	53	29°46'25"	14.065
14	353°02'15"	4.195	54	359°04'10"	5.19
15	26°58'05"	6.31	55	15°50'25"	11.925
16	9°11'00"	16.555	56	10°16'10"	7.415
17	1°15'50"	10.83	57	350°46'05"	7.085
18	35°00'20"	13.205	58	40°57'45"	14.055
19	355°23'30"	14.02	59	30°46'10"	12.16
20	3°31'00"	7.88	60	53°52'15"	12.13
21	302°49'40"	6.795	61	71°36'55"	12.85
22	278°03'35"	10.485	62	85°02'45"	16.615
23	285°19'10"	13.985	63	113°21'25"	19.525
24	310°23'35"	10.83	64	111°42'35"	7.07
25	329°31'35"	18.765	65	42°17'55"	6.765
26	16°56'00"	13.77	66	3°15'45"	9.185
27	30°09'45"	17.75	67	332°01'30"	16.28
28	325°34'30"	8.035	68	327°32'05"	19.77
29	298°06'20"	13.27	69	349°33'10"	7.335
30	239°29'15"	17.315	70	27°31'50"	23.26
31	294°13'10"	8.35	71	36°45'55"	19.19
32	358°53'00"	25.215	72	31°46'30"	24.7
33	13°49'45"	23.935	73	15°48'50"	17.51
34	18°30'25"	25.585	74	45°25'00"	17.465
35	76°39'35"	12.645	75	72°26'20"	16.035
36	341°48'45"	13.875	76	63°20'50"	15.12
37	315°40'20"	8.895	77	48°26'35"	19.37
38	27°37'15"	13.735			
39	55°53'15"	12.185			
40	76°38'15"	11.83			

MULLET CREEK BOUNDARY - SHORT LINE TABLE (SEE SHEET 2)

Number	Bearing	Distance	Number	Bearing	Distance
74	45°25'00"	17.465	111	8°14'50"	14.545
75	72°26'20"	19.29	112	6°11'55"	10.93
76	63°20'50"	15.12	113	34°55'55"	13.205
77	48°26'35"	19.37	114	49°43'00"	18.94
78	67°53'15"	13.1	115	27°20'45"	9.01
79	96°45'20"	19.035	116	10°31'15"	9.37
80	112°43'40"	19.43	117	4°19'10"	14.46
81	75°15'20"	4.19	118	329°40'40"	9.39
82	49°15'25"	7.525	119	0°15'15"	9.73
83	358°07'55"	8.735	120	30°05'35"	4.21
84	349°09'35"	6.99			
85	345°38'35"	13.95			
86	354°37'40"	9.025			
87	25°12'15"	11.25			
88	39°20'55"	7.655			
89	86°40'50"	9.225			
90	100°25'10"	16.15			
91	117°30'00"	16.7			
92	159°00'05"	5.67			
93	137°33'15"	3.73			
94	88°59'00"	11.0			
95	62°24'35"	3.11			
96	15°07'20"	8.475			
97	280°49'40"	5.485			
98	27°30'20"	8.415			
99	12°25'50"	10.59			
100	54°04'05"	13.815			
101	47°32'35"	18.83			
102	33°02'25"	7.425			
103	0°59'15"	4.825			
104	321°14'30"	4.71			
105	293°55'50"	12.335			
106	258°31'05"	11.62			
107	318°57'30"	16.925			
108	347°53'20"	8.15			
109	11°33'50"	11.785			
110	355°23'20"	25.315			

Where copyright exists this document is provided for information purposes only. In accordance with copyright laws still apply. Permission is required if any part of the document is used for any other purpose.

A Rader

Authorised Officer
Wollongong City Council

Surveyor : BRUCE ERNEST SMITH Date of Survey : 15th Nov. 2022 Surveyor's Ref : D220303-2	**PLAN OF SUBDIVISION OF LOT 1 AND LOT 3 IN DP 1280810 AND LOT 426 IN DP 873616**	LGA: WOLLONGONG Locality : HORSLEY Subdivision No: Lengths are in metres. Reduction Ratio 1:2000	Registered	DP

Document Set ID: 23848403
Version: 1, Version Date: 30/11/2022

Appendix I – Chain of Custody and Sample Receipt Documentation

Sheet 1 of 1

Site: 21 Barham Place, Horsley NSW

Project No: E26578

Laboratory: **Envirolab Services**
12 Ashley Street,
CHATSWOOD NSW 2067
P: 02 9910 6200

Sample ID	Laboratory ID	Container Type	Sampling Date	Sampling Time	Sample Matrix: SOIL	WATER	0.45 µm field filtered	OTHER	Analysis: HM[A] /TRH/BTEX/PAHs OCP/OP/PCB/Asbestos	HM[A] /TRH/PAHs	HM[A] /TRH/BTEX	BTEX	VOCs	Asbestos	Asbestos Quantification	Excavated Natural Material (ENM) Suite	Dewatering Suite	pH / pH peroxide	sPOCAS	Chromium Reducible Sulfur (CrS)	PFAS	pH / CEC (cation exchange)	pH / EC (electrical conductivity)	Sulphate / Chloride	HOLD		TCLP HM[B] / PAH	Comments
1 QT_241118		J	18/11/2024	AM	X						X																

ENVIROLAB

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 366763
Date Received: 19/11/24
Time Received: 1650
Received By: ML
Temp: Cool/Ambient 8°C
Cooling: Ice/Icepack
Security: Intact/Broken/None

LABORATORY TURNAROUND

Container Type:
J = solvent washed, acid rinsed, Tefton sealed glass jar
S = solvent washed, acid rinsed glass bottle
P = natural HDPE plastic bottle
VC = glass vial, Tefton Septum
ZLB = Zip-Lock Bag

Investigator: I attest that these samples were collected in accordance with standard EI field sampling procedures.

Sampler's Name (EI):	Received by (Envirolab):
Print: Sean Nolan	Print: Katherine Chavez
Signature:	Signature:
Date: 18/11/2024	Date: 19/11/24

IMPORTANT:
Please e-mail laboratory results to: lab@eiaustralia.com.au

Report with EI Waste Classification Table

Sampler's Comments:
Please CC Sean

ATC #10591

19/11/24

source: Sydney.pdf page: 1 SGS Ref: SE274283_COC

18_9 CP QCset

Sheet _1_ of _1_

Site: 21 Barham Place, Horsley NSW

Project No: E26578

Laboratory: SGS Australia
Unit 16, 33 Maddox Street,
ALEXANDRIA NSW 2015
P: 02 8594 0400 F: 02 8594 0499

Sample ID	Laboratory ID	Container Type	Sampling Date	Sampling Time	Sample Matrix: SOIL	WATER	0.45 µm field filtered	OTHER	Analysis: HM[A] /TRH (including F1, F2, F3, F4)/BTEX/ PAHs/ OCP/OP/PCB/Asbestos	HM[A] /TRH (including F1, F2, F3, F4)/ BTEX/PAHs	HM[A] /TRH (including F1, F2, F3, F4)/BTEX	BTEX	VOCs	Asbestos	Asbestos Quantification (500ml)	Asbestos 10L field screening	Excavated Natural Material (ENM) Suite	ENM Suite - Stockpile discrete (TRH/BTEX/PAHs)	ENM Suite - Stockpile composite (HM[A] /pH / EC / Foreign Materials)	Dewatering Suite	pH / pH peroxide	sPOCAS	Chromium Reducible Sulfur (CrS)	PFAS	pH / CEC (cation exchange)	pH / EC (electrical conductivity)	Sulphate / Chloride	~~Lead~~ HOLD	TCLP HM[B] / PAH
BH101_0.0-0.1	1	J, ZLB	18/11	AM	X				X																				
BH101_0.5-0.6	2	J, ZLB								X				X															
BH102_0.1-0.2	3	J							X																				
BH102_1.1-1.2	4									X																			
BH103_0.1-0.2	5								X																				
~~BH104_0.0-0.1~~	~~6~~																											X	
BH104_0.0-0.2	8								X																				
BH104_0.3-0.4																												X	
QD_241118	7	J			X						X																		
QR_241118	8	S VC				X					X																		
TB	9	VC			X							X																	
TS	10	VC			X							X																	

Comments

HM[A]
Arsenic
Cadmium
Chromium
Copper
Lead
Mercury
Nickel
Zinc

HM[B]
Arsenic
Cadmium
Chromium
Lead
Mercury
Nickel

Dewatering Suite
pH & EC
TDS / TDU
Hardness
Total Cyanide
Metals (Al, As, Cd, Cr, Cu, Pb, Hg, Ni, Zn)
TRH (F1, F2, F3, F4)
BTEX
PAH
Total Phenol

LABORATORY TURNAROUND
- [x] Standard
- [ ] 24 Hours
- [ ] 48 Hours
- [ ] 72 Hours
- [ ] Other____

SGS EHS Sydney COC
SE274283

Container Type:
J = solvent washed, acid rinsed, Tefton sealed glass jar
S = solvent washed, acid rinsed glass bottle
P = natural HDPE plastic bottle
VC = glass vial, Tefton Septum
ZLB = Zip-Lock Bag BB = Bulk Bag

Investigator: I attest that these samples were collected in accordance with standard EI field sampling procedures.

Report with EI Waste Classification Table ☐

Sampler's Name (EI): Print Sean Nolan
Signature
Date 18·11·24

Received by (SGS): Print Andrey Sabishchyka
Signature
Date 19/11/24 11:40

IMPORTANT:
Please e-mail laboratory results to: lab@eiaustralia.com.au, sean, riley.

Sampler's Comments:
Please send QT_241118 to Envirolab. Separate COC attached.

~~20.2°C CP~~

eiaustralia
Contamination | Remediation | Geotechnical
Suite 6.01, 55 Miller Street,
PYRMONT NSW 2009
Ph: 9516 0722
lab@eiaustralia.com.au

SAMPLE RECEIPT ADVICE

SE274283

CLIENT DETAILS

Contact	Sean Nolan
Client	EI AUSTRALIA
Address	SUITE 6.01 55 MILLER STREET PYRMONT NSW 2009
Telephone	61 2 95160722
Facsimile	(Not specified)
Email	sean.nolan@eiaustralia.com.au
Project	**E26578 21 Barham Place, Horsley NSW**
Order Number	**E26578**
Samples	10

LABORATORY DETAILS

Manager	Shane McDermott
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
Samples Received	Tue 19/11/2024
Report Due	Tue 26/11/2024
SGS Reference	**SE274283**

SUBMISSION DETAILS

This is to confirm that 10 samples were received on Tuesday 19/11/2024. Results are expected to be ready by COB Tuesday 26/11/2024.
Please quote SGS reference SE274283 when making enquiries. Refer below for details relating to sample integrity upon receipt.

Sample counts by matrix	9 Soil, 1 Water	Type of documentation received	COC
Date documentation received	19/11/2024	Samples received in good order	Yes
Samples received without headspace	Yes	Sample temperature upon receipt	18.9°C
Sample container provider	SGS	Turnaround time requested	Standard
Samples received in correct containers	Yes	Sufficient sample for analysis	Yes
Sample cooling method	Ice Bricks	Samples clearly labelled	Yes
Complete documentation received	Yes		

Unless otherwise instructed, water and bulk samples will be held for one month from date of report, and soil samples will be held for two months.

COMMENTS

QT forwarded to Envirolab.
2 Jars, 2 Bags on Hold

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.

SAMPLE RECEIPT ADVICE

SE274283

CLIENT DETAILS

Client EI AUSTRALIA

Project E26578 21 Barham Place, Horsley NSW

SUMMARY OF ANALYSIS

No.	Sample ID	OC Pesticides in Soil	OP Pesticides in Soil	PAH (Polynuclear Aromatic Hydrocarbons) in Soil	PCBs in Soil	Total Recoverable Elements in Soil/Waste	TRH (Total Recoverable Hydrocarbons) in Soil	VOC's in Soil	Volatile Petroleum Hydrocarbons in Soil
001	BH101_0.0-0.1	22	14	26	8	7	10	11	7
002	BH101_0.5-0.6	-	-	26	-	7	10	11	7
003	BH102_0.1-0.2	22	14	26	8	7	10	11	7
004	BH102_1.1-1.2	-	-	26	-	7	10	11	7
005	BH103_0.1-0.2	22	14	26	8	7	10	11	7
006	BH104_0.1-0.2	22	14	26	8	7	10	11	7
007	QD_241118	-	-	-	-	7	10	11	7
009	TB	-	-	-	-	-	-	11	-
010	TS	-	-	-	-	-	-	11	-

CONTINUED OVERLEAF

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.
The numbers shown in the table indicate the number of results requested in each package.
Please indicate as soon as possible should your request differ from these details .
Testing as per this table shall commence immediately unless the client intervenes with a correction .

SAMPLE RECEIPT ADVICE

SE274283

CLIENT DETAILS

Client EI AUSTRALIA

Project E26578 21 Barham Place, Horsley NSW

SUMMARY OF ANALYSIS

No.	Sample ID	Fibre Identification in soil	Mercury in Soil	Moisture Content
001	BH101_0.0-0.1	3	1	1
002	BH101_0.5-0.6	3	1	1
003	BH102_0.1-0.2	3	1	1
004	BH102_1.1-1.2	-	1	1
005	BH103_0.1-0.2	3	1	1
006	BH104_0.1-0.2	3	1	1
007	QD_241118	-	1	1
009	TB	-	-	1

CONTINUED OVERLEAF

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.
The numbers shown in the table indicate the number of results requested in each package.
Please indicate as soon as possible should your request differ from these details .
Testing as per this table shall commence immediately unless the client intervenes with a correction .

SAMPLE RECEIPT ADVICE

SE274283

CLIENT DETAILS

Client EI AUSTRALIA

Project E26578 21 Barham Place, Horsley NSW

SUMMARY OF ANALYSIS

No.	Sample ID	Mercury (dissolved) in Water	Trace Metals (Dissolved) in Water by ICPMS	TRH (Total Recoverable Hydrocarbons) in Water	VOCs in Water	Volatile Petroleum Hydrocarbons in Water
008	QR_241118	1	7	9	11	7

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.
The numbers shown in the table indicate the number of results requested in each package.
Please indicate as soon as possible should your request differ from these details .
Testing as per this table shall commence immediately unless the client intervenes with a correction .

Appendix J – Laboratory Analytical Reports

ANALYTICAL REPORT

Accreditation No. 2562

CLIENT DETAILS

Contact	Sean Nolan
Client	EI AUSTRALIA
Address	SUITE 6.01 55 MILLER STREET PYRMONT NSW 2009
Telephone	61 2 95160722
Facsimile	(Not specified)
Email	sean.nolan@eiaustralia.com.au
Project	**E26578 21 Barham Place, Horsley NSW**
Order Number	**E26578**
Samples	10

LABORATORY DETAILS

Manager	Shane McDermott
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	**SE274283 R0**
Date Received	19/11/2024
Date Reported	26/11/2024

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.
Asbestos analysed by Approved Identifier Cameron Smith.

SIGNATORIES

Dong LIANG
Metals/Inorganics Team Leader

Ly Kim HA
Organic Section Head

Ravee SIVASUBRAMANIAM
Hygiene Team Leader

Teresa NGUYEN
Organic Chemist

Ying Ying ZHANG
Laboratory Technician

VOC's in Soil [AN433] Tested: 19/11/2024

PARAMETER	UOM	LOR	BH101_0.0-0.1 SOIL - 18/11/2024 SE274283.001	BH101_0.5-0.6 SOIL - 18/11/2024 SE274283.002	BH102_0.1-0.2 SOIL - 18/11/2024 SE274283.003	BH102_1.1-1.2 SOIL - 18/11/2024 SE274283.004	BH103_0.1-0.2 SOIL - 18/11/2024 SE274283.005
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
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
Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1

PARAMETER	UOM	LOR	BH104_0.1-0.2 SOIL - 18/11/2024 SE274283.006	QD_241118 SOIL - 18/11/2024 SE274283.007	TB SOIL - 18/11/2024 SE274283.009	TS SOIL - 18/11/2024 SE274283.010
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	[100%]
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	[95%]
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	[100%]
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	[99%]
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	[101%]
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	-
Total BTEX*	mg/kg	0.6	<0.6	<0.6	<0.6	-
Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1

Volatile Petroleum Hydrocarbons in Soil [AN433] Tested: 19/11/2024

PARAMETER	UOM	LOR	BH101_0.0-0.1 SOIL - 18/11/2024 SE274283.001	BH101_0.5-0.6 SOIL - 18/11/2024 SE274283.002	BH102_0.1-0.2 SOIL - 18/11/2024 SE274283.003	BH102_1.1-1.2 SOIL - 18/11/2024 SE274283.004	BH103_0.1-0.2 SOIL - 18/11/2024 SE274283.005
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
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	BH104_0.1-0.2 SOIL - 18/11/2024 SE274283.006	QD_241118 SOIL - 18/11/2024 SE274283.007
TRH C6-C9	mg/kg	20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25

TRH (Total Recoverable Hydrocarbons) in Soil [AN403] Tested: 19/11/2024

PARAMETER	UOM	LOR	BH101_0.0-0.1 SOIL - 18/11/2024 SE274283.001	BH101_0.5-0.6 SOIL - 18/11/2024 SE274283.002	BH102_0.1-0.2 SOIL - 18/11/2024 SE274283.003	BH102_1.1-1.2 SOIL - 18/11/2024 SE274283.004	BH103_0.1-0.2 SOIL - 18/11/2024 SE274283.005
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	**57**	<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	BH104_0.1-0.2 SOIL - 18/11/2024 SE274283.006	QD_241118 SOIL - 18/11/2024 SE274283.007
TRH C10-C14	mg/kg	20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100
TRH >C10-C16	mg/kg	25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 19/11/2024

PARAMETER	UOM	LOR	BH101_0.0-0.1 SOIL - 18/11/2024 SE274283.001	BH101_0.5-0.6 SOIL - 18/11/2024 SE274283.002	BH102_0.1-0.2 SOIL - 18/11/2024 SE274283.003	BH102_1.1-1.2 SOIL - 18/11/2024 SE274283.004	BH103_0.1-0.2 SOIL - 18/11/2024 SE274283.005
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	BH104_0.1-0.2 SOIL - 18/11/2024 SE274283.006
Naphthalene	mg/kg	0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1
Fluorene	mg/kg	0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1
Anthracene	mg/kg	0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1
Pyrene	mg/kg	0.1	<0.1
Benzo(a)anthracene	mg/kg	0.1	<0.1
Chrysene	mg/kg	0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0*	TEQ (mg/kg)	0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR*	TEQ (mg/kg)	0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	TEQ (mg/kg)	0.2	<0.2
Total PAH (18)	mg/kg	0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8

OP Pesticides in Soil [AN420] Tested: 19/11/2024

PARAMETER	UOM	LOR	BH101_0.0-0.1 SOIL - 18/11/2024 SE274283.001	BH102_0.1-0.2 SOIL - 18/11/2024 SE274283.003	BH103_0.1-0.2 SOIL - 18/11/2024 SE274283.005	BH104_0.1-0.2 SOIL - 18/11/2024 SE274283.006
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	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
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	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
Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	<1.7	<1.7

OC Pesticides in Soil [AN420] Tested: 19/11/2024

PARAMETER	UOM	LOR	BH101_0.0-0.1 SOIL - 18/11/2024 SE274283.001	BH102_0.1-0.2 SOIL - 18/11/2024 SE274283.003	BH103_0.1-0.2 SOIL - 18/11/2024 SE274283.005	BH104_0.1-0.2 SOIL - 18/11/2024 SE274283.006
Alpha BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Beta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Lindane (gamma BHC)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Delta BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Alpha Endosulfan	mg/kg	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
Dieldrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Beta Endosulfan	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDD	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan sulphate	mg/kg	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
Endrin ketone	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1

PCBs in Soil [AN420] Tested: 19/11/2024

PARAMETER	UOM	LOR	BH101_0.0-0.1 SOIL - 18/11/2024 SE274283.001	BH102_0.1-0.2 SOIL - 18/11/2024 SE274283.003	BH103_0.1-0.2 SOIL - 18/11/2024 SE274283.005	BH104_0.1-0.2 SOIL - 18/11/2024 SE274283.006
Arochlor 1016	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1221	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1232	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1242	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1248	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1254	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1260	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 19/11/2024

PARAMETER	UOM	LOR	BH101_0.0-0.1 SOIL - 18/11/2024 SE274283.001	BH101_0.5-0.6 SOIL - 18/11/2024 SE274283.002	BH102_0.1-0.2 SOIL - 18/11/2024 SE274283.003	BH102_1.1-1.2 SOIL - 18/11/2024 SE274283.004	BH103_0.1-0.2 SOIL - 18/11/2024 SE274283.005
Arsenic, As	mg/kg	1	4	2	3	3	8
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	9.9	6.4	11	8.6	7.1
Copper, Cu	mg/kg	0.5	10	15	9.2	8.4	15
Lead, Pb	mg/kg	1	11	10	13	8	10
Nickel, Ni	mg/kg	0.5	3.5	2.5	4.1	1.8	5.2
Zinc, Zn	mg/kg	2	18	17	23	8.7	48

PARAMETER	UOM	LOR	BH104_0.1-0.2 SOIL - 18/11/2024 SE274283.006	QD_241118 SOIL - 18/11/2024 SE274283.007
Arsenic, As	mg/kg	1	4	4
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	5.0	11
Copper, Cu	mg/kg	0.5	22	12
Lead, Pb	mg/kg	1	42	17
Nickel, Ni	mg/kg	0.5	5.2	5.1
Zinc, Zn	mg/kg	2	87	26

Mercury in Soil [AN312] Tested: 19/11/2024

PARAMETER	UOM	LOR	BH101_0.0-0.1 SOIL - 18/11/2024 SE274283.001	BH101_0.5-0.6 SOIL - 18/11/2024 SE274283.002	BH102_0.1-0.2 SOIL - 18/11/2024 SE274283.003	BH102_1.1-1.2 SOIL - 18/11/2024 SE274283.004	BH103_0.1-0.2 SOIL - 18/11/2024 SE274283.005
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH104_0.1-0.2 SOIL - 18/11/2024 SE274283.006	QD_241118 SOIL - 18/11/2024 SE274283.007
Mercury	mg/kg	0.05	**0.08**	<0.05

Moisture Content [AN002] Tested: 19/11/2024

PARAMETER	UOM	LOR	BH101_0.0-0.1 SOIL - 18/11/2024 SE274283.001	BH101_0.5-0.6 SOIL - 18/11/2024 SE274283.002	BH102_0.1-0.2 SOIL - 18/11/2024 SE274283.003	BH102_1.1-1.2 SOIL - 18/11/2024 SE274283.004	BH103_0.1-0.2 SOIL - 18/11/2024 SE274283.005
% Moisture	%w/w	1	**15.7**	**11.4**	**16.7**	**17.8**	**20.7**

PARAMETER	UOM	LOR	BH104_0.1-0.2 SOIL - 18/11/2024 SE274283.006	QD_241118 SOIL - 18/11/2024 SE274283.007	TB SOIL - 18/11/2024 SE274283.009
% Moisture	%w/w	1	**12.1**	**15.9**	<1.0

Fibre Identification in soil [AS4964/AN602] Tested: 19/11/2024

PARAMETER	UOM	LOR	BH101_0.0-0.1 SOIL - 18/11/2024 SE274283.001	BH101_0.5-0.6 SOIL - 18/11/2024 SE274283.002	BH102_0.1-0.2 SOIL - 18/11/2024 SE274283.003	BH103_0.1-0.2 SOIL - 18/11/2024 SE274283.005	BH104_0.1-0.2 SOIL - 18/11/2024 SE274283.006
Date Analysed*	No unit	-	22/11/2024 00:00	22/11/2024 00:00	22/11/2024 00:00	22/11/2024 00:00	22/11/2024 00:00
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

VOCs in Water [AN433] Tested: 21/11/2024

PARAMETER	UOM	LOR	QR_241118 WATER - 18/11/2024 SE274283.008
Benzene	µg/L	0.5	<0.5
Toluene	µg/L	0.5	<0.5
Ethylbenzene	µg/L	0.5	<0.5
m/p-xylene	µg/L	1	<1
o-xylene	µg/L	0.5	<0.5
Total Xylenes	µg/L	1.5	<1.5
Total BTEX	µg/L	3	<3
Naphthalene (VOC)*	µg/L	0.5	<0.5

Volatile Petroleum Hydrocarbons in Water [AN433] Tested: 21/11/2024

PARAMETER	UOM	LOR	QR_241118 WATER - 18/11/2024 SE274283.008
TRH C6-C9	µg/L	40	<40
Benzene (F0)	µg/L	0.5	<0.5
TRH C6-C10	µg/L	50	<50
TRH C6-C10 minus BTEX (F1)	µg/L	50	<50

TRH (Total Recoverable Hydrocarbons) in Water [AN403] Tested: 20/11/2024

PARAMETER	UOM	LOR	QR_241118 WATER - 18/11/2024 SE274283.008
TRH C10-C14	µg/L	50	<50
TRH C15-C28	µg/L	200	<200
TRH C29-C36	µg/L	200	<200
TRH C37-C40	µg/L	200	<200
TRH >C10-C16	µg/L	60	<60
TRH >C10-C16 - Naphthalene (F2)	µg/L	60	<60
TRH >C16-C34 (F3)	µg/L	500	<500
TRH >C34-C40 (F4)	µg/L	500	<500
TRH C10-C40	µg/L	320	<320

Trace Metals (Dissolved) in Water by ICPMS [AN318] Tested: 20/11/2024

PARAMETER	UOM	LOR	QR_241118 WATER - 18/11/2024 SE274283.008
Arsenic	µg/L	1	<1
Cadmium	µg/L	0.1	<0.1
Chromium	µg/L	1	<1
Copper	µg/L	1	<1
Lead	µg/L	1	<1
Nickel	µg/L	1	<1
Zinc	µg/L	5	<5

Mercury (dissolved) in Water [AN311(Perth)/AN312] Tested: 20/11/2024

PARAMETER	UOM	LOR	QR_241118 WATER - 18/11/2024 SE274283.008
Mercury	mg/L	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 AAS or ICP as per USEPA Method 200.8.
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	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.
AN420	(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). Total PAH calculated from individual analyte detections at or above the limit of reporting .
AN420	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).
AN433	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.
AN602/AS4964	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.
AN602/AS4964	Fibres/material that cannot be unequivocably 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.
AN602/AS4964	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/reporting limit (RL) 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."

AN602/AS4964	The sample can be reported “no asbestos found at the reporting limit (RL) of 0.1 g/kg” (<0.01%w/w) where AN602 section 4.5 of this method has been followed, and if- (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.

FOOTNOTES

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

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.

ANALYTICAL REPORT

Accreditation No. 2562

CLIENT DETAILS

Contact	Sean Nolan
Client	EI AUSTRALIA
Address	SUITE 6.01 55 MILLER STREET PYRMONT NSW 2009
Telephone	61 2 95160722
Facsimile	(Not specified)
Email	sean.nolan@eiaustralia.com.au
Project	**E26578 21 Barham Place, Horsley NSW**
Order Number	**E26578**
Samples	5

LABORATORY DETAILS

Manager	Shane McDermott
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	**SE274283 R0**
Date Received	19 Nov 2024
Date Reported	26 Nov 2024

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.
Asbestos analysed by Approved Identifier Cameron Smith.

SIGNATORIES

S. Ravensdale

Ravee SIVASUBRAMANIAM
Hygiene Team Leader

RESULTS

Fibre Identification in soil — Method AN602

Laboratory Reference	Client Reference	Matrix	Sample Description	Date Sampled	Date Analysed	Fibre Identification	Est.%w/w*
SE274283.001	BH101_0.0-0.1	Soil	142g Clay, Sand, Rocks	18 Nov 2024	22 Nov 2024	No Asbestos Found at RL of 0.1g/kg	<0.01
SE274283.002	BH101_0.5-0.6	Soil	83g Clay, Sand, Rocks, Bitumen	18 Nov 2024	22 Nov 2024	No Asbestos Found at RL of 0.1g/kg Organic Fibres Detected	<0.01
SE274283.003	BH102_0.1-0.2	Soil	52g Clay, Sand, Soil, Rocks	18 Nov 2024	22 Nov 2024	No Asbestos Found at RL of 0.1g/kg Organic Fibres Detected	<0.01
SE274283.005	BH103_0.1-0.2	Soil	98g Clay, Sand, Soil, Rocks	18 Nov 2024	22 Nov 2024	No Asbestos Found at RL of 0.1g/kg Organic Fibres Detected	<0.01
SE274283.006	BH104_0.1-0.2	Soil		18 Nov 2024	22 Nov 2024	No Asbestos Found at RL of 0.1g/kg Organic Fibres Detected	<0.01

METHOD	METHODOLOGY SUMMARY
AN602/AS4964	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.
AN602/AS4964	Fibres/material that cannot be unequivocably 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.
AN602/AS4964	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/reporting limit (RL) 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."
AN602/AS4964	The sample can be reported “no asbestos found at the reporting limit (RL) of 0.1 g/kg” (<0.01%w/w) where AN602 section 4.5 of this method has been followed, and if- (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.

FOOTNOTES

Amosite	-	Brown Asbestos	NA	-	Not Analysed
Chrysotile	-	White Asbestos	LNR	-	Listed, Not Required
Crocidolite	-	Blue Asbestos	*	-	NATA accreditation does not cover the performance of this service .
Amphiboles	-	Amosite and/or Crocidolite	**	-	Indicative data, theoretical holding time exceeded.
			***	-	Indicates that both * and ** apply.

(In reference to soil samples only) This report does not comply with the analytical reporting recommendations in the Western Australian Department of Health Guidelines for the Assessment and Remediation and Management of Asbestos Contaminated sites in Western Australia - May 2009.

Unless it is reported that sampling has been performed by SGS, the samples have been analysed as received.

Where reported: 'Asbestos Detected': Asbestos detected by polarised light microscopy, including dispersion staining.
Where reported: 'No Asbestos Found': No Asbestos Found by polarised light microscopy , including dispersion staining.
Where reported: 'UMF Detected': Mineral fibres of unknown type detected by polarised light microscopy, including dispersion staining. Confirmation by another independent analytical technique may be necessary.

Even after disintegration it can be very difficult, or impossible, to detect the presence of asbestos in some asbestos -containing bulk materials using polarised light microscopy. This is due to the low grade or small length or diameter of asbestos fibres present in the material, or to the fact that very fine fibres have been distributed intimately throughout the materials.

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 test report shall not be reproduced, except in full.

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 366743

Client Details

Client	EI Australia
Attention	Sean Nolan
Address	Suite 6.01, 55 Miller Street, Pyrmont, NSW, 2009

Sample Details

Your Reference	**E26578, 21 Barham Place, Horsley NSW**
Number of Samples	1 Soil
Date samples received	19/11/2024
Date completed instructions received	19/11/2024

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Report Details

Date results requested by	26/11/2024
Date of Issue	25/11/2024

NATA Accreditation Number 2901. This document shall not be reproduced except in full.

Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Results Approved By
Dragana Tomas, Senior Chemist
Giovanni Agosti, Group Technical Manager
Liam Timmins, Organics Supervisor

Authorised By
Nancy Zhang, Laboratory Manager

vTRH(C6-C10)/BTEXN in Soil		
Our Reference		366743-1
Your Reference	UNITS	QT_241118
Date Sampled		18/11/2024
Type of sample		Soil
Date extracted	-	20/11/2024
Date analysed	-	20/11/2024
TRH C_6 - C_9	mg/kg	<25
TRH C_6 - C_{10}	mg/kg	<25
vTRH C_6 - C_{10} less BTEX (F1)	mg/kg	<25
Benzene	mg/kg	<0.2
Toluene	mg/kg	<0.5
Ethylbenzene	mg/kg	<1
m+p-xylene	mg/kg	<2
o-Xylene	mg/kg	<1
Naphthalene	mg/kg	<1
Total +ve Xylenes	mg/kg	<1
Surrogate aaa-Trifluorotoluene	%	89

svTRH (C10-C40) in Soil		
Our Reference		366743-1
Your Reference	UNITS	QT_241118
Date Sampled		18/11/2024
Type of sample		Soil
Date extracted	-	20/11/2024
Date analysed	-	23/11/2024
TRH C_{10} - C_{14}	mg/kg	<50
TRH C_{15} - C_{28}	mg/kg	<100
TRH C_{29} - C_{36}	mg/kg	<100
Total +ve TRH (C10-C36)	mg/kg	<50
TRH >C_{10} -C_{16}	mg/kg	<50
TRH >C_{10} -C_{16} less Naphthalene (F2)	mg/kg	<50
TRH >C_{16} -C_{34}	mg/kg	<100
TRH >C_{34} -C_{40}	mg/kg	<100
Total +ve TRH (>C10-C40)	mg/kg	<50
Surrogate o-Terphenyl	%	87

Acid Extractable metals in soil		
Our Reference		366743-1
Your Reference	UNITS	QT_241118
Date Sampled		18/11/2024
Type of sample		Soil
Date prepared	-	20/11/2024
Date analysed	-	20/11/2024
Arsenic	mg/kg	6
Cadmium	mg/kg	<0.4
Chromium	mg/kg	14
Copper	mg/kg	18
Lead	mg/kg	19
Mercury	mg/kg	<0.1
Nickel	mg/kg	9
Zinc	mg/kg	40

Moisture		
Our Reference		366743-1
Your Reference	UNITS	QT_241118
Date Sampled		18/11/2024
Type of sample		Soil
Date prepared	-	19/11/2024
Date analysed	-	20/11/2024
Moisture	%	18

Method ID	Methodology Summary
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date extracted	-			20/11/2024	[NT]	[NT]	[NT]	[NT]	20/11/2024	[NT]
Date analysed	-			20/11/2024	[NT]	[NT]	[NT]	[NT]	20/11/2024	[NT]
TRH C_6 - C_9	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	103	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-023	<25	[NT]	[NT]	[NT]	[NT]	103	[NT]
Benzene	mg/kg	0.2	Org-023	<0.2	[NT]	[NT]	[NT]	[NT]	97	[NT]
Toluene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	105	[NT]
Ethylbenzene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	105	[NT]
m+p-xylene	mg/kg	2	Org-023	<2	[NT]	[NT]	[NT]	[NT]	105	[NT]
o-Xylene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	103	[NT]
Naphthalene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	92	[NT]	[NT]	[NT]	[NT]	90	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date extracted	-			20/11/2024	[NT]	[NT]	[NT]	[NT]	20/11/2024	[NT]
Date analysed	-			23/11/2024	[NT]	[NT]	[NT]	[NT]	23/11/2024	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	93	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	82	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	86	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	93	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	82	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	86	[NT]
Surrogate o-Terphenyl	%		Org-020	78	[NT]	[NT]	[NT]	[NT]	111	[NT]

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			20/11/2024	[NT]	[NT]	[NT]	[NT]	20/11/2024	[NT]
Date analysed	-			20/11/2024	[NT]	[NT]	[NT]	[NT]	20/11/2024	[NT]
Arsenic	mg/kg	4	Metals-020	<4	[NT]	[NT]	[NT]	[NT]	110	[NT]
Cadmium	mg/kg	0.4	Metals-020	<0.4	[NT]	[NT]	[NT]	[NT]	106	[NT]
Chromium	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	103	[NT]
Copper	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	102	[NT]
Lead	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	104	[NT]
Mercury	mg/kg	0.1	Metals-021	<0.1	[NT]	[NT]	[NT]	[NT]	98	[NT]
Nickel	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	104	[NT]
Zinc	mg/kg	1	Metals-020	<1	[NT]	[NT]	[NT]	[NT]	100	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Where matrix spike recoveries fall below the lower limit of the acceptance criteria (e.g. for non-labile or standard Organics <60%), positive result(s) in the parent sample will subsequently have a higher than typical estimated uncertainty (MU estimates supplied on request) and in these circumstances the sample result is likely biased significantly low.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Appendix K – QA/QC Assessment

K1.1 Quality Assurance / Quality Control Program

Quality assurance comprises an assessment of the reliability of the field procedures and laboratory results against standard industry practices and the SAQP. A summary of the project QA/QC measures incorporated into this PSI is presented in **Table K-1**.

Table K-1 Project QC Measures

Task	Description	Project
Field QA/QC		
General	Work was to be undertaken following standard field procedures which are based on industry accepted standard practice.	Soil samples were collected directly from the augers. Soil samples were placed in 250 gram glass jars and plastic bags, which were filled to minimise headspace, and sealed using Teflon-coated lids.
	All fieldwork was supervised by a suitably qualified and experienced scientist or engineer.	Yes
Soil Screening with PID	The PID was serviced and calibrated as per manufacturer requirements. PID calibrated at the beginning of each day of fieldwork.	Yes
Equipment Decontamination	Sampling equipment to be decontaminated after the collection of each soil sample by washing with phosphate-free detergent and potable water, followed by a final distilled water rinse. One rinsate blank would be collected and analysed for the primary contaminants. All results should be non-detect.	Yes One was collected during the soil investigation on 18 November 2024. All concentrations were reported as below the detection limits.
Transport	Samples stored in a chilled cooler box and transported to the laboratories. To ensure the integrity of the samples from collection to receipt by the analytical laboratory, samples were sent by courier to the laboratories under 'chain of custody' describing sample preservation and transport duration.	Yes
Trip Blanks	Trip blank samples were to be prepared and analysed by the primary laboratory for BTEX. Analytical results to be below the laboratory LOR, indicating satisfactory sample transport and handling conditions were achieved.	One trip blank sample was prepared by the primary laboratory and analysed for BTEX during soil testing All results were reported below the laboratory LOR, indicating that ideal sample transport and handling conditions were achieved (i.e. no cross-contamination of volatiles during sample transport and subsequent handling).

Task	Description	Project
Trip Spikes	Trip spike samples were to be prepared and analysed by the primary laboratory for BTEX. Analytical results to be within 80-120% recovery, indicating satisfactory sample transport and handling conditions were achieved.	One trip spike sample was prepared by the primary laboratory and analysed for BTEX during soil testing All results were reported below the laboratory LOR, indicating that ideal sample transport and handling conditions were achieved (i.e. no cross-contamination of volatiles during sample transport and subsequent handling).
Duplicates	Field duplicate samples were to be analysed as follows (as per NEPM): ▪ intra-laboratory duplicates at a rate of 1 in 20 primary samples; and ▪ inter-laboratory duplicates at a rate of 1 in 20 primary samples. Field and laboratory acceptable limits between 30-50% RPD as stated by AS4482.1–2005. RPDs that exceed this range may be considered acceptable where: ▪ Results are less than 10 times the limits of reporting (LOR); ▪ Results are less than 20 times the LOR and the RPD is less than 50%; or ▪ Heterogeneous materials or volatile compounds are encountered. Non-compliance is to be documented in the report and the sample re-analysed or a higher level conservatively adopted.	The required sampling density of 1 per 20 duplicated primary samples was achieved and sufficient for the investigation. Laboratory duplicates prepared and analysed. Minor non-conformance, with negligible effects on data use for interpretative purposes. Non-conformance was reported for metal concentrations for the inter-laboratory soil duplicate. This is likely due to heterogeneous fill material. Field QC samples and calculated RPD values are presented in **Table K-5**. Copies of laboratory reports are included in **Appendix J**.
Laboratory QA/QC		
Laboratory Analysis	The laboratories selected are NATA accredited for the analytes selected and perform their own internal QA/QC programs.	Yes SGS - primary laboratory Envirolab - secondary laboratory Laboratory QA/QC analyses are included in **Appendix L.**
	Appropriate detection limits were used for the analyses to be undertaken.	Practical Quantitation Limits for all tested parameters during the PSI are presented in laboratory analytical reports in **Appendix J.**
Holding Times	Holding times are the maximum permissible elapsed time in days from the collection of the sample to its extraction and/or analysis. All extraction and analyses should be completed within standard guidelines.	All samples were analysed within the holding times.
Method Blanks	A method blank contains the reagents used to prepare the sample for final analysis. The purpose of this procedure is to identify contamination in the reagent materials and assess potential bias in the sample analysis due to contaminated reagents. The QC criterion aims to find no detectable contamination in the reagents. Each analysis procedure should be subject to a method blank analysis. The results of each should indicate that contaminants were not detected.	Yes

Task	Description	Project
Laboratory Duplicates	Laboratory duplicates are field samples that are split in the laboratory and subsequently analysed a number of times in the same batch. These sub-samples are selected by the laboratory to assess the accuracy and precision of the analytical method. The selected laboratories should undertake QA/QC procedures such as calibration standards, laboratory control samples, surrogates, reference materials, sample duplicates and matrix spikes. Intra-laboratory duplicates should be performed at a frequency of 1 per 10 samples.	Assessment of laboratory duplicates has been undertaken by the laboratory. All laboratory control standards were within acceptable ranges.
Laboratory Control Standard	A laboratory control standard is a standard reference material used in preparing primary standards. The concentration should be equivalent to a mid-range standard to confirm the primary calibration. Laboratory control samples should be performed on a frequency of 1 per 20 samples or at least one per analytical run.	Assessment of laboratory control standard has been undertaken by the laboratory. All laboratory control standards were within acceptable ranges.
Matrix Spikes	Matric spikes are field samples to which a predetermined stock solution of known concentration has been added. The samples are then analysed for recovery of the known addition. Recoveries should be within the stated laboratory control limits of 70 to 130% and duplicates should have RPDs of less than 50%.	Assessment of matrix spikes has been undertaken by the laboratory. All laboratory control standards were within acceptable ranges.
Surrogate Spikes	Surrogate spikes provide a means of checking, for every analysis that no gross errors have occurred at any stage of the procedure leading to significant analyte loss. Recoveries should be within the stated laboratory control limits of 70 to 130%.	Assessment of surrogate spikes has been undertaken by the laboratory. All data quality objectives were met.
Conclusion	The QA/QC indicators should either all comply with the required standards or showed no variations that would have no significant effect on the quality of the data.	Assessment of the investigation QA/QC is presented in the following sections.

K1.2 Calculation of Relative Percentage Difference (RPD)

The RPD values were calculated using the following equation:

$$RPD = \frac{|C_O - C_R|}{[(C_O + C_R)/2]} \times 100$$

Where:

C_O = Concentration obtained for the primary sample; and

C_R = Concentration obtained for the blind replicate or split duplicate sample.

K2.1 Field QA/QC

Field QC Samples

The field (intra- / inter- laboratory) duplicate samples collected during the investigation are summarised in **Table K-2**. Inter-laboratory duplicates were analysed by the secondary laboratory, Envirolab.

Table K-2 Field QC Sampling Program

Matrix	Primary QA Sample	Duplicate (Primary Lab)	Triplicate (Secondary Lab)	Total Duplicates
Soil	BH102_0.1-0.2	QD_241118	QT_241118	2

K2.2 Field QC Summary

Review of the field data quality indicators is presented in **Table K-3** below.

Table K-3 Field Data Quality Indicators

QA Component	Data Quality Indicator(s)	Conformance
Accuracy – a quantitative measure of the closeness of reported data to the "true" value	Sampling plan appropriate and complied with	Yes
	Results for inter-laboratory (split field) duplicates acceptable	Part
Precision – A quantitative measure of the variability (or reproducibility) of data	Sampling plan appropriate and complied with	Yes
	Results for intra-laboratory (blind field) duplicates acceptable	Yes
Completeness – A measure of the amount of useable data from a data collection activity	Each critical location sampled	Yes
	Samples collected at targeted locations and depth	Yes
	SAQP appropriate and complied with	Yes
	Experienced sampler	Yes
	Field documentation correct	Yes
Comparability – The	Same sampling method used on each occasion/location	Yes

QA Component	Data Quality Indicator(s)	Conformance
	Experienced sampler	Yes
	Same type of samples collected (filtered, size, fractions)	Yes
Representativeness – The confidence (expressed qualitatively) that data are representative of each medium present onsite	Appropriate media sampled according to SAQP	Yes
	Each media identified in SAQP sampled	Yes
	Appropriate sample collection methodologies, handling, storage and preservation techniques used	Yes

K2.3 Conclusion for the Field QA/QC

All field work, including equipment decontamination and sample preservation and transport, was conducted in accordance with the SAQP, which were devised with reference to industry-approved guidelines. Appropriate QC measures were integrated into each sampling event and the DQIs were met.

All samples, including field QC samples, were transported to the primary and secondary laboratories under refrigerated conditions, using strict COC procedures. Relevant documents (COC forms) were presented with the samples at the times of delivery. All supporting documents (COCs and SRAs) were completed in full and signed, where appropriate. EI considered the field QA/QC program carried out during the PSI to be appropriate.

K2.4 Laboratory QA/QC

Laboratory Accreditation

Primary and intra-laboratory duplicate samples were analysed by SGS (located in Alexandria NSW), with inter-laboratory duplicate samples analysed by Envirolab (located in Chatswood NSW). All laboratories are accredited by NATA for the analyses undertaken.

Laboratory QC Summary

Review of the laboratory data quality indicators is presented in **Table K-4** below.

Table K-4 Laboratory Data Quality Indicators

DQI	Item	Conformance
Completeness A measure of the amount of useable data (expressed as %) from a data collection activity	All critical samples analysed according to SAQP and proposal	**Yes**
	All analytes analysed according to SAQP in proposal	**Yes**
	Appropriate methods and PQLs	**Yes**
	Sample documentation complete	**Yes**
	Sample holding times complied with	**Yes**
Comparability The confidence (expressed qualitatively) that data may be considered to be equivalent for each sampling and analytical event	Sample analytical methods used (including clean-up)	**Yes**
	Sample PQLs (justify/ quantify if different)	**Yes**
	Same laboratories (justify/ quantify if different)	**Yes**
	Same units (justify/ quantify if different)	**Yes**

DQI	Item	Conformance
Representativeness Confidence that data are representative of each media	All key samples analysed according to SAQP in the proposal	**Yes**
Precision A quantitative measure of the variability (or reproducibility) of data	Analysis of laboratory duplicates	**Yes**
	Analysis of field duplicates	**Yes**
	Analysis of laboratory-prepared volatile trip spikes	**Yes**
Accuracy A quantitative measure of the closeness of reported data to the true value	Analysis of field blanks	**Yes**
	Analysis of rinsate/ rinsate blanks	**Yes**
	Analysis of method blanks	**Yes**
	Analysis of matrix spikes (MS)	**Yes**
	Analysis of surrogate spikes	**Yes**
	Analysis of reference materials	Not applicable
	Analysis of laboratory control samples	**Yes**

K2.5 Conclusion for the Laboratory QA/QC

All contracted laboratories (SGS and Envirolab) were accredited by NATA for the analyses undertaken. All analytical procedures used were industry recognised and endorsed standard methods. Appropriate QC measures were integrated into each testing batch and the DQIs were met, or if not, the variability was suitably justified.

All final reports were submitted in full and included all requested analyses, as per the signed COC forms. EI considered the laboratory QA/QC programs carried out during the PSI to be appropriate.

K2.6 Summary of Project QA/QC

The sampling (including sample preservation, transport and decontamination procedures) and laboratory methods followed during this investigation were consistent with EI protocols. The project DQOs specified in **Section 5.2**, **Table 5-1** were considered to have been achieved. The adopted QA/QC program ensured that the data collated during the PSI were accurate, precise and representative of the site condition. It was therefore considered that the data were sufficiently precise and accurate and that the results could be used for PSI interpretative purposes.

Table K-5 Summary of QA/QC Results for Soil Investigation Samples

Site: 21 Barham Place, Horsley NSW
Job No: E26578.E01

Date	Sample Identification	Description	TRH				BTEX				Heavy Metals							
			F1	F2	F3	F4	Benzene	Toluene	Ethylbenzene	Xylene (total)	Arsenic	Cadmium	Chromium (Total)	Copper	Lead	Mercury	Nickel	Zinc
Intra-laboratory Duplicate																		
18-Nov-24	BH102_0.1-0.2	Primary Soil Sample	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	3	<0.3	11	9	13	<0.05	4.1	23
18-Nov-24	QD_241118	Duplicate of BH102_0.1-0.2	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	4	<0.3	11	12	17	<0.05	5.1	26
RPD			***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***0.00***	***28.57***	***0.00***	***0.00***	***26.42***	***26.67***	***0.00***	***21.74***	***12.24***
Inter-laboratory Duplicate																		
18-Nov-24	BH102_0.1-0.2	Primary Soil Sample	<25	<25	<90	<120	<0.1	<0.1	<0.1	<0.3	3	<0.3	11	9	13	<0.05	4.1	23
18-Nov-24	QT_241118	Duplicate of BH102_0.1-0.2	<25	<50	<100	<100	<0.2	<0.5	<1	<1	6	<0.4	14	18	19	<0.1	9	40
RPD			***0.00***	***NA***	***NA***	***NA***	***NA***	***NA***	***NA***	***NA***	**66.67**	***NA***	***24.00***	**64.71**	***37.50***	***NA***	**74.81**	**53.97**
Trip Blanks																		
18-Nov-24	TB	Trip Blank	-	-	-	-	<0.1	<0.1	<0.1	<0.3	-	-	-	-	-	-	-	-
18-Nov-24	TS	Trip Spike	-	-	-	-	[100%]	[96%]	[100%]	[96%]	-	-	-	-	-	-	-	-
Rinsate Blanks																		
18-Nov-24	QR_241118	De-ionised Water	<50	<60	<500	<500	<0.5	<0.5	<0.5	<1.5	<1	<0.1	<1	<1	<1	<0.1	<1	<5

Indicates values where a single result is found to be less than detection, with the duplicate sample found to be over the detection limit.
RPD exceeds 30-50% range referenced from AS4482.1 (2005)

NOTE: All soil results are reported in mg/kg . All water results are reported in µg/L.

F1 = TRH C6-C10 less the sum of BTEX
F2 = TRH >C10-C16 less naphthalene
F3 = TRH >C16-C34
F4 = TRH >C34-C40

[1] Value shown is the lowest recovery value reported for xylenes

Appendix L – Laboratory QA/QC and DQOs

STATEMENT OF QA/QC PERFORMANCE

SE274283 R0

CLIENT DETAILS

Contact	Sean Nolan
Client	EI AUSTRALIA
Address	SUITE 6.01 55 MILLER STREET PYRMONT NSW 2009
Telephone	61 2 95160722
Facsimile	(Not specified)
Email	sean.nolan@eiaustralia.com.au
Project	**E26578 21 Barham Place, Horsley NSW**
Order Number	**E26578**
Samples	10

LABORATORY DETAILS

Manager	Shane McDermott
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	**SE274283 R0**
Date Received	19 Nov 2024
Date Reported	26 Nov 2024

COMMENTS

All the laboratory data for each environmental matrix was compared to SGS' stated Data Quality Objectives (DQO). Comments arising from the comparison were made and are reported below.

The data relating to sampling was taken from the Chain of Custody document.
This QA/QC Statement must be read in conjunction with the referenced Analytical Report.
The Statement and the Analytical Report must not be reproduced except in full.

All Data Quality Objectives were met (within the SGS Alexandria Environmental laboratory).

SAMPLE SUMMARY

Sample counts by matrix	9 Soil, 1 Water	Type of documentation received	COC
Date documentation received	19/11/2024	Samples received in good order	Yes
Samples received without headspace	Yes	Sample temperature upon receipt	18.9°C
Sample container provider	SGS	Turnaround time requested	Standard
Samples received in correct containers	Yes	Sufficient sample for analysis	Yes
Sample cooling method	Ice Bricks	Samples clearly labelled	Yes
Complete documentation received	Yes		

HOLDING TIME SUMMARY

SE274283 R0

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the

Fibre Identification in soil

Method: ME-(AU)-[ENV]AS4964/AN602

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH101_0.0-0.1	SE274283.001	LB330308	18 Nov 2024	19 Nov 2024	18 Nov 2025	19 Nov 2024	18 Nov 2025	26 Nov 2024
BH101_0.5-0.6	SE274283.002	LB330308	18 Nov 2024	19 Nov 2024	18 Nov 2025	19 Nov 2024	18 Nov 2025	26 Nov 2024
BH102_0.1-0.2	SE274283.003	LB330308	18 Nov 2024	19 Nov 2024	18 Nov 2025	19 Nov 2024	18 Nov 2025	26 Nov 2024
BH103_0.1-0.2	SE274283.005	LB330308	18 Nov 2024	19 Nov 2024	18 Nov 2025	19 Nov 2024	18 Nov 2025	26 Nov 2024
BH104_0.1-0.2	SE274283.006	LB330308	18 Nov 2024	19 Nov 2024	18 Nov 2025	19 Nov 2024	18 Nov 2025	26 Nov 2024

Mercury (dissolved) in Water

Method: ME-(AU)-[ENV]AN311(Perth)/AN312

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
QR_241118	SE274283.008	LB330389	18 Nov 2024	19 Nov 2024	16 Dec 2024	20 Nov 2024	16 Dec 2024	20 Nov 2024

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH101_0.0-0.1	SE274283.001	LB330352	18 Nov 2024	19 Nov 2024	16 Dec 2024	19 Nov 2024	16 Dec 2024	22 Nov 2024
BH101_0.5-0.6	SE274283.002	LB330352	18 Nov 2024	19 Nov 2024	16 Dec 2024	19 Nov 2024	16 Dec 2024	22 Nov 2024
BH102_0.1-0.2	SE274283.003	LB330352	18 Nov 2024	19 Nov 2024	16 Dec 2024	19 Nov 2024	16 Dec 2024	22 Nov 2024
BH102_1.1-1.2	SE274283.004	LB330352	18 Nov 2024	19 Nov 2024	16 Dec 2024	19 Nov 2024	16 Dec 2024	22 Nov 2024
BH103_0.1-0.2	SE274283.005	LB330352	18 Nov 2024	19 Nov 2024	16 Dec 2024	19 Nov 2024	16 Dec 2024	22 Nov 2024
BH104_0.1-0.2	SE274283.006	LB330352	18 Nov 2024	19 Nov 2024	16 Dec 2024	19 Nov 2024	16 Dec 2024	22 Nov 2024
QD_241118	SE274283.007	LB330352	18 Nov 2024	19 Nov 2024	16 Dec 2024	19 Nov 2024	16 Dec 2024	22 Nov 2024

Moisture Content

Method: ME-(AU)-[ENV]AN002

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH101_0.0-0.1	SE274283.001	LB330366	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	24 Nov 2024	21 Nov 2024
BH101_0.5-0.6	SE274283.002	LB330366	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	24 Nov 2024	21 Nov 2024
BH102_0.1-0.2	SE274283.003	LB330366	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	24 Nov 2024	21 Nov 2024
BH102_1.1-1.2	SE274283.004	LB330366	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	24 Nov 2024	21 Nov 2024
BH103_0.1-0.2	SE274283.005	LB330366	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	24 Nov 2024	21 Nov 2024
BH104_0.1-0.2	SE274283.006	LB330366	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	24 Nov 2024	21 Nov 2024
QD_241118	SE274283.007	LB330366	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	24 Nov 2024	21 Nov 2024
TB	SE274283.009	LB330366	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	24 Nov 2024	21 Nov 2024

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH101_0.0-0.1	SE274283.001	LB330348	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	29 Dec 2024	22 Nov 2024
BH101_0.5-0.6	SE274283.002	LB330348	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	29 Dec 2024	22 Nov 2024
BH102_0.1-0.2	SE274283.003	LB330348	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	29 Dec 2024	22 Nov 2024
BH102_1.1-1.2	SE274283.004	LB330348	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	29 Dec 2024	22 Nov 2024
BH103_0.1-0.2	SE274283.005	LB330348	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	29 Dec 2024	22 Nov 2024
BH104_0.1-0.2	SE274283.006	LB330348	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	29 Dec 2024	22 Nov 2024
QD_241118	SE274283.007	LB330348	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	29 Dec 2024	22 Nov 2024

OP Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH101_0.0-0.1	SE274283.001	LB330348	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	29 Dec 2024	22 Nov 2024
BH101_0.5-0.6	SE274283.002	LB330348	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	29 Dec 2024	22 Nov 2024
BH102_0.1-0.2	SE274283.003	LB330348	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	29 Dec 2024	22 Nov 2024
BH102_1.1-1.2	SE274283.004	LB330348	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	29 Dec 2024	22 Nov 2024
BH103_0.1-0.2	SE274283.005	LB330348	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	29 Dec 2024	22 Nov 2024
BH104_0.1-0.2	SE274283.006	LB330348	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	29 Dec 2024	22 Nov 2024
QD_241118	SE274283.007	LB330348	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	29 Dec 2024	22 Nov 2024

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH101_0.0-0.1	SE274283.001	LB330348	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	29 Dec 2024	22 Nov 2024
BH101_0.5-0.6	SE274283.002	LB330348	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	29 Dec 2024	22 Nov 2024
BH102_0.1-0.2	SE274283.003	LB330348	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	29 Dec 2024	22 Nov 2024
BH102_1.1-1.2	SE274283.004	LB330348	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	29 Dec 2024	22 Nov 2024
BH103_0.1-0.2	SE274283.005	LB330348	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	29 Dec 2024	22 Nov 2024
BH104_0.1-0.2	SE274283.006	LB330348	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	29 Dec 2024	22 Nov 2024
QD_241118	SE274283.007	LB330348	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	29 Dec 2024	22 Nov 2024

HOLDING TIME SUMMARY

SE274283 R0

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the

PCBs in Soil

Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH101_0.0-0.1	SE274283.001	LB330348	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	29 Dec 2024	22 Nov 2024
BH101_0.5-0.6	SE274283.002	LB330348	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	29 Dec 2024	22 Nov 2024
BH102_0.1-0.2	SE274283.003	LB330348	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	29 Dec 2024	22 Nov 2024
BH102_1.1-1.2	SE274283.004	LB330348	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	29 Dec 2024	22 Nov 2024
BH103_0.1-0.2	SE274283.005	LB330348	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	29 Dec 2024	22 Nov 2024
BH104_0.1-0.2	SE274283.006	LB330348	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	29 Dec 2024	22 Nov 2024
QD_241118	SE274283.007	LB330348	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	29 Dec 2024	22 Nov 2024

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH101_0.0-0.1	SE274283.001	LB330351	18 Nov 2024	19 Nov 2024	17 May 2025	19 Nov 2024	17 May 2025	22 Nov 2024
BH101_0.5-0.6	SE274283.002	LB330351	18 Nov 2024	19 Nov 2024	17 May 2025	19 Nov 2024	17 May 2025	22 Nov 2024
BH102_0.1-0.2	SE274283.003	LB330351	18 Nov 2024	19 Nov 2024	17 May 2025	19 Nov 2024	17 May 2025	22 Nov 2024
BH102_1.1-1.2	SE274283.004	LB330351	18 Nov 2024	19 Nov 2024	17 May 2025	19 Nov 2024	17 May 2025	22 Nov 2024
BH103_0.1-0.2	SE274283.005	LB330351	18 Nov 2024	19 Nov 2024	17 May 2025	19 Nov 2024	17 May 2025	22 Nov 2024
BH104_0.1-0.2	SE274283.006	LB330351	18 Nov 2024	19 Nov 2024	17 May 2025	19 Nov 2024	17 May 2025	22 Nov 2024
QD_241118	SE274283.007	LB330351	18 Nov 2024	19 Nov 2024	17 May 2025	19 Nov 2024	17 May 2025	22 Nov 2024

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
QR_241118	SE274283.008	LB330417	18 Nov 2024	19 Nov 2024	17 May 2025	20 Nov 2024	17 May 2025	21 Nov 2024

TRH (Total Recoverable Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN403

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH101_0.0-0.1	SE274283.001	LB330348	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	29 Dec 2024	22 Nov 2024
BH101_0.5-0.6	SE274283.002	LB330348	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	29 Dec 2024	22 Nov 2024
BH102_0.1-0.2	SE274283.003	LB330348	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	29 Dec 2024	22 Nov 2024
BH102_1.1-1.2	SE274283.004	LB330348	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	29 Dec 2024	22 Nov 2024
BH103_0.1-0.2	SE274283.005	LB330348	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	29 Dec 2024	22 Nov 2024
BH104_0.1-0.2	SE274283.006	LB330348	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	29 Dec 2024	22 Nov 2024
QD_241118	SE274283.007	LB330348	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	29 Dec 2024	22 Nov 2024

TRH (Total Recoverable Hydrocarbons) in Water

Method: ME-(AU)-[ENV]AN403

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
QR_241118	SE274283.008	LB330395	18 Nov 2024	19 Nov 2024	25 Nov 2024	20 Nov 2024	30 Dec 2024	22 Nov 2024

VOC's in Soil

Method: ME-(AU)-[ENV]AN433

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH101_0.0-0.1	SE274283.001	LB330362	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	02 Dec 2024	21 Nov 2024
BH101_0.5-0.6	SE274283.002	LB330362	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	02 Dec 2024	21 Nov 2024
BH102_0.1-0.2	SE274283.003	LB330362	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	02 Dec 2024	21 Nov 2024
BH102_1.1-1.2	SE274283.004	LB330362	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	02 Dec 2024	21 Nov 2024
BH103_0.1-0.2	SE274283.005	LB330362	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	02 Dec 2024	21 Nov 2024
BH104_0.1-0.2	SE274283.006	LB330362	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	02 Dec 2024	21 Nov 2024
QD_241118	SE274283.007	LB330362	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	02 Dec 2024	21 Nov 2024
TB	SE274283.009	LB330362	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	02 Dec 2024	21 Nov 2024
TS	SE274283.010	LB330362	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	02 Dec 2024	21 Nov 2024

VOCs in Water

Method: ME-(AU)-[ENV]AN433

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
QR_241118	SE274283.008	LB330523	18 Nov 2024	19 Nov 2024	02 Dec 2024	21 Nov 2024	02 Dec 2024	22 Nov 2024

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH101_0.0-0.1	SE274283.001	LB330362	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	02 Dec 2024	21 Nov 2024
BH101_0.5-0.6	SE274283.002	LB330362	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	02 Dec 2024	21 Nov 2024
BH102_0.1-0.2	SE274283.003	LB330362	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	02 Dec 2024	21 Nov 2024
BH102_1.1-1.2	SE274283.004	LB330362	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	02 Dec 2024	21 Nov 2024
BH103_0.1-0.2	SE274283.005	LB330362	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	02 Dec 2024	21 Nov 2024
BH104_0.1-0.2	SE274283.006	LB330362	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	02 Dec 2024	21 Nov 2024

HOLDING TIME SUMMARY

SE274283 R0

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the

Volatile Petroleum Hydrocarbons in Soil (continued) — **Method: ME-(AU)-[ENV]AN433**

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
QD_241118	SE274283.007	LB330362	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	02 Dec 2024	21 Nov 2024
TB	SE274283.009	LB330362	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	02 Dec 2024	21 Nov 2024
TS	SE274283.010	LB330362	18 Nov 2024	19 Nov 2024	02 Dec 2024	19 Nov 2024	02 Dec 2024	21 Nov 2024

Volatile Petroleum Hydrocarbons in Water — **Method: ME-(AU)-[ENV]AN433**

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
QR_241118	SE274283.008	LB330523	18 Nov 2024	19 Nov 2024	02 Dec 2024	21 Nov 2024	02 Dec 2024	22 Nov 2024

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Tetrachloro-m-xylene (TCMX) (Surrogate)	BH101_0.0-0.1	SE274283.001	%	60 - 130%	100
	BH102_0.1-0.2	SE274283.003	%	60 - 130%	102
	BH103_0.1-0.2	SE274283.005	%	60 - 130%	104
	BH104_0.1-0.2	SE274283.006	%	60 - 130%	100

OP Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2-fluorobiphenyl (Surrogate)	BH101_0.0-0.1	SE274283.001	%	60 - 130%	96
	BH102_0.1-0.2	SE274283.003	%	60 - 130%	99
	BH103_0.1-0.2	SE274283.005	%	60 - 130%	101
	BH104_0.1-0.2	SE274283.006	%	60 - 130%	96
d14-p-terphenyl (Surrogate)	BH101_0.0-0.1	SE274283.001	%	60 - 130%	96
	BH102_0.1-0.2	SE274283.003	%	60 - 130%	98
	BH103_0.1-0.2	SE274283.005	%	60 - 130%	101
	BH104_0.1-0.2	SE274283.006	%	60 - 130%	97

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2-fluorobiphenyl (Surrogate)	BH101_0.0-0.1	SE274283.001	%	70 - 130%	96
	BH101_0.5-0.6	SE274283.002	%	70 - 130%	103
	BH102_0.1-0.2	SE274283.003	%	70 - 130%	99
	BH102_1.1-1.2	SE274283.004	%	70 - 130%	94
	BH103_0.1-0.2	SE274283.005	%	70 - 130%	101
	BH104_0.1-0.2	SE274283.006	%	70 - 130%	96
d14-p-terphenyl (Surrogate)	BH101_0.0-0.1	SE274283.001	%	70 - 130%	96
	BH101_0.5-0.6	SE274283.002	%	70 - 130%	102
	BH102_0.1-0.2	SE274283.003	%	70 - 130%	98
	BH102_1.1-1.2	SE274283.004	%	70 - 130%	98
	BH103_0.1-0.2	SE274283.005	%	70 - 130%	101
	BH104_0.1-0.2	SE274283.006	%	70 - 130%	97
d5-nitrobenzene (Surrogate)	BH101_0.0-0.1	SE274283.001	%	70 - 130%	88
	BH101_0.5-0.6	SE274283.002	%	70 - 130%	92
	BH102_0.1-0.2	SE274283.003	%	70 - 130%	90
	BH102_1.1-1.2	SE274283.004	%	70 - 130%	89
	BH103_0.1-0.2	SE274283.005	%	70 - 130%	92
	BH104_0.1-0.2	SE274283.006	%	70 - 130%	88

PCBs in Soil

Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
TCMX (Surrogate)	BH101_0.0-0.1	SE274283.001	%	60 - 130%	100
	BH102_0.1-0.2	SE274283.003	%	60 - 130%	102
	BH103_0.1-0.2	SE274283.005	%	60 - 130%	104
	BH104_0.1-0.2	SE274283.006	%	60 - 130%	100

VOC's in Soil

Method: ME-(AU)-[ENV]AN433

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	BH101_0.0-0.1	SE274283.001	%	60 - 130%	92
	BH101_0.5-0.6	SE274283.002	%	60 - 130%	98
	BH102_0.1-0.2	SE274283.003	%	60 - 130%	93
	BH102_1.1-1.2	SE274283.004	%	60 - 130%	93
	BH103_0.1-0.2	SE274283.005	%	60 - 130%	94
	BH104_0.1-0.2	SE274283.006	%	60 - 130%	92
	QD_241118	SE274283.007	%	60 - 130%	88
	TB	SE274283.009	%	60 - 130%	97
	TS	SE274283.010	%	60 - 130%	96
d4-1,2-dichloroethane (Surrogate)	BH101_0.0-0.1	SE274283.001	%	60 - 130%	108
	BH101_0.5-0.6	SE274283.002	%	60 - 130%	110
	BH102_0.1-0.2	SE274283.003	%	60 - 130%	102
	BH102_1.1-1.2	SE274283.004	%	60 - 130%	108
	BH103_0.1-0.2	SE274283.005	%	60 - 130%	111
	BH104_0.1-0.2	SE274283.006	%	60 - 130%	105
	QD_241118	SE274283.007	%	60 - 130%	106
	TB	SE274283.009	%	60 - 130%	117

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA/QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

VOC's in Soil (continued)

Method: ME-(AU)-[ENV]AN433

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
d4-1,2-dichloroethane (Surrogate)	TS	SE274283.010	%	60 - 130%	109
d8-toluene (Surrogate)	BH101_0.0-0.1	SE274283.001	%	60 - 130%	107
	BH101_0.5-0.6	SE274283.002	%	60 - 130%	113
	BH102_0.1-0.2	SE274283.003	%	60 - 130%	105
	BH102_1.1-1.2	SE274283.004	%	60 - 130%	110
	BH103_0.1-0.2	SE274283.005	%	60 - 130%	111
	BH104_0.1-0.2	SE274283.006	%	60 - 130%	109
	QD_241118	SE274283.007	%	60 - 130%	102
	TB	SE274283.009	%	60 - 130%	111
	TS	SE274283.010	%	60 - 130%	108

VOCs in Water

Method: ME-(AU)-[ENV]AN433

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	QR_241118	SE274283.008	%	40 - 130%	91
d4-1,2-dichloroethane (Surrogate)	QR_241118	SE274283.008	%	40 - 130%	87
d8-toluene (Surrogate)	QR_241118	SE274283.008	%	40 - 130%	77

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	BH101_0.0-0.1	SE274283.001	%	60 - 130%	92
	BH101_0.5-0.6	SE274283.002	%	60 - 130%	98
	BH102_0.1-0.2	SE274283.003	%	60 - 130%	93
	BH102_1.1-1.2	SE274283.004	%	60 - 130%	93
	BH103_0.1-0.2	SE274283.005	%	60 - 130%	94
	BH104_0.1-0.2	SE274283.006	%	60 - 130%	92
	QD_241118	SE274283.007	%	60 - 130%	88
d4-1,2-dichloroethane (Surrogate)	BH101_0.0-0.1	SE274283.001	%	60 - 130%	108
	BH101_0.5-0.6	SE274283.002	%	60 - 130%	110
	BH102_0.1-0.2	SE274283.003	%	60 - 130%	102
	BH102_1.1-1.2	SE274283.004	%	60 - 130%	108
	BH103_0.1-0.2	SE274283.005	%	60 - 130%	111
	BH104_0.1-0.2	SE274283.006	%	60 - 130%	105
	QD_241118	SE274283.007	%	60 - 130%	106
d8-toluene (Surrogate)	BH101_0.0-0.1	SE274283.001	%	60 - 130%	107
	BH101_0.5-0.6	SE274283.002	%	60 - 130%	113
	BH102_0.1-0.2	SE274283.003	%	60 - 130%	105
	BH102_1.1-1.2	SE274283.004	%	60 - 130%	110
	BH103_0.1-0.2	SE274283.005	%	60 - 130%	111
	BH104_0.1-0.2	SE274283.006	%	60 - 130%	109
	QD_241118	SE274283.007	%	60 - 130%	102

Volatile Petroleum Hydrocarbons in Water

Method: ME-(AU)-[ENV]AN433

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	QR_241118	SE274283.008	%	40 - 130%	91
d4-1,2-dichloroethane (Surrogate)	QR_241118	SE274283.008	%	60 - 130%	87
d8-toluene (Surrogate)	QR_241118	SE274283.008	%	40 - 130%	77

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

Mercury (dissolved) in Water

Method: ME-(AU)-[ENV]AN311(Perth)/AN312

Sample Number	Parameter	Units	LOR	Result
LB330389.001	Mercury	mg/L	0.0001	<0.0001

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

Sample Number	Parameter	Units	LOR	Result
LB330417.001	Arsenic	µg/L	1	<1
	Cadmium	µg/L	0.1	<0.1
	Chromium	µg/L	1	<1
	Copper	µg/L	1	<1
	Lead	µg/L	1	<1
	Nickel	µg/L	1	<1
	Zinc	µg/L	5	<5

VOCs in Water

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result
LB330523.001	Monocyclic Aromatic Hydrocarbons	Benzene	µg/L	0.5	<0.5
		Toluene	µg/L	0.5	<0.5
		Ethylbenzene	µg/L	0.5	<0.5
		m/p-xylene	µg/L	1	<1
		o-xylene	µg/L	0.5	<0.5
	Polycyclic VOCs	Naphthalene (VOC)*	µg/L	0.5	<0.5
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	93
		d8-toluene (Surrogate)	%	-	94
		Bromofluorobenzene (Surrogate)	%	-	84

Volatile Petroleum Hydrocarbons in Water

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result
LB330523.001		TRH C6-C9	µg/L	40	<40
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	93
		d8-toluene (Surrogate)	%	-	94
		Bromofluorobenzene (Surrogate)	%	-	84

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

Mercury (dissolved) in Water

Method: ME-(AU)-[ENV]AN311(Perth)/AN312

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE274314.044	LB330389.014	Mercury	µg/L	0.0001	<0.0001	<0.0001	200	199

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE274250.005	LB330352.014	Mercury	mg/kg	0.05	<0.05	<0.05	200	0

Moisture Content

Method: ME-(AU)-[ENV]AN002

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE274250.005	LB330366.011	% Moisture	%w/w	1	12.4	14.5	37	16
SE274283.007	LB330366.022	% Moisture	%w/w	1	15.9	15.1	36	5

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE274250.005	LB330348.014		Alpha BHC	mg/kg	0.1	<0.1	<0.1	200	0
			Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	200	0
			Beta BHC	mg/kg	0.1	<0.1	<0.1	200	0
			Lindane (gamma BHC)	mg/kg	0.1	<0.1	<0.1	200	0
			Delta BHC	mg/kg	0.1	<0.1	<0.1	200	0
			Heptachlor	mg/kg	0.1	<0.1	<0.1	200	0
			Aldrin	mg/kg	0.1	<0.1	<0.1	200	0
			Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	200	0
			Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	200	0
			Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	200	0
			Alpha Endosulfan	mg/kg	0.1	<0.1	<0.1	200	0
			p,p'-DDE	mg/kg	0.1	<0.1	<0.1	200	0
			Dieldrin	mg/kg	0.1	<0.1	<0.1	200	0
			Endrin	mg/kg	0.1	<0.1	<0.1	200	0
			Beta Endosulfan	mg/kg	0.1	<0.1	<0.1	200	0
			p,p'-DDD	mg/kg	0.1	<0.1	<0.1	200	0
			Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	200	0
			p,p'-DDT	mg/kg	0.1	<0.1	<0.1	200	0
			Endrin ketone	mg/kg	0.1	<0.1	<0.1	200	0
			Methoxychlor	mg/kg	0.1	<0.1	<0.1	200	0
			Mirex	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.49	0.50	30	3
SE274283.006	LB330348.027		Alpha BHC	mg/kg	0.1	<0.1	<0.1	200	0
			Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	200	0
			Beta BHC	mg/kg	0.1	<0.1	<0.1	200	0
			Lindane (gamma BHC)	mg/kg	0.1	<0.1	<0.1	200	0
			Delta BHC	mg/kg	0.1	<0.1	<0.1	200	0
			Heptachlor	mg/kg	0.1	<0.1	<0.1	200	0
			Aldrin	mg/kg	0.1	<0.1	<0.1	200	0
			Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	200	0
			Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	200	0
			Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	200	0
			Alpha Endosulfan	mg/kg	0.1	<0.1	<0.1	200	0
			p,p'-DDE	mg/kg	0.1	<0.1	<0.1	200	0
			Dieldrin	mg/kg	0.1	<0.1	<0.1	200	0
			Endrin	mg/kg	0.1	<0.1	<0.1	200	0
			Beta Endosulfan	mg/kg	0.1	<0.1	<0.1	200	0
			p,p'-DDD	mg/kg	0.1	<0.1	<0.1	200	0
			Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	200	0
			p,p'-DDT	mg/kg	0.1	<0.1	<0.1	200	0
			Endrin ketone	mg/kg	0.1	<0.1	<0.1	200	0
			Methoxychlor	mg/kg	0.1	<0.1	<0.1	200	0
			Mirex	mg/kg	0.1	<0.1	<0.1	200	0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

OC Pesticides in Soil (continued)

Method: ME-(AU)-[ENV]AN420

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE274283.006	LB330348.027	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.50	0.49	30	1

OP Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE274283.006	LB330348.027		Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	200	0
			Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	200	0
			Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	200	0
			Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	200	0
			Dichlorvos	mg/kg	0.5	<0.5	<0.5	200	0
			Dimethoate	mg/kg	0.5	<0.5	<0.5	200	0
			Ethion	mg/kg	0.2	<0.2	<0.2	200	0
			Fenitrothion	mg/kg	0.2	<0.2	<0.2	200	0
			Malathion	mg/kg	0.2	<0.2	<0.2	200	0
			Methidathion	mg/kg	0.5	<0.5	<0.5	200	0
			Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	200	0
			Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	200	0
		Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	1
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	2

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE274250.005	LB330348.014		Naphthalene	mg/kg	0.1	<0.1	<0.1	200	0
			2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	200	0
			1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	200	0
			Acenaphthylene	mg/kg	0.1	<0.1	<0.1	200	0
			Acenaphthene	mg/kg	0.1	<0.1	<0.1	200	0
			Fluorene	mg/kg	0.1	<0.1	<0.1	200	0
			Phenanthrene	mg/kg	0.1	<0.1	<0.1	200	0
			Anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
			Pyrene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Chrysene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	200	0
			Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	200	0
			Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	200	0
			Carcinogenic PAHs, BaP TEQ <LOR=0*	mg/kg	0.2	<0.2	<0.2	200	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	mg/kg	0.2	<0.2	<0.2	175	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR*	mg/kg	0.3	<0.3	<0.3	134	0
			Total PAH (18)	mg/kg	0.8	<0.8	<0.8	200	0
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.4	0.4	30	4
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	4
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	4
SE274283.006	LB330348.027		Naphthalene	mg/kg	0.1	<0.1	<0.1	200	0
			2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	200	0
			1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	200	0
			Acenaphthylene	mg/kg	0.1	<0.1	<0.1	200	0
			Acenaphthene	mg/kg	0.1	<0.1	<0.1	200	0
			Fluorene	mg/kg	0.1	<0.1	<0.1	200	0
			Phenanthrene	mg/kg	0.1	<0.1	<0.1	200	0
			Anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Fluoranthene	mg/kg	0.1	<0.1	<0.1	198	0
			Pyrene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Chrysene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	200	0
			Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	200	0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

Method: ME-(AU)-[ENV]AN420

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE274283.006	LB330348.027		Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	200	0
			Carcinogenic PAHs, BaP TEQ <LOR=0*	mg/kg	0.2	<0.2	<0.2	200	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	mg/kg	0.2	<0.2	<0.2	175	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR*	mg/kg	0.3	<0.3	<0.3	134	0
			Total PAH (18)	mg/kg	0.8	<0.8	<0.8	200	0
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.4	0.4	30	2
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	1
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	2

PCBs in Soil

Method: ME-(AU)-[ENV]AN420

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE274250.005	LB330348.014		Arochlor 1016	mg/kg	0.1	<0.1	<0.1	200	0
			Arochlor 1221	mg/kg	0.1	<0.1	<0.1	200	0
			Arochlor 1232	mg/kg	0.1	<0.1	<0.1	200	0
			Arochlor 1242	mg/kg	0.1	<0.1	<0.1	200	0
			Arochlor 1248	mg/kg	0.1	<0.1	<0.1	200	0
			Arochlor 1254	mg/kg	0.1	<0.1	<0.1	200	0
			Arochlor 1260	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	TCMX (Surrogate)	mg/kg	-	0.49	0.50	30	3
SE274283.006	LB330348.027		Arochlor 1016	mg/kg	0.1	<0.1	<0.1	200	0
			Arochlor 1221	mg/kg	0.1	<0.1	<0.1	200	0
			Arochlor 1232	mg/kg	0.1	<0.1	<0.1	200	0
			Arochlor 1242	mg/kg	0.1	<0.1	<0.1	200	0
			Arochlor 1248	mg/kg	0.1	<0.1	<0.1	200	0
			Arochlor 1254	mg/kg	0.1	<0.1	<0.1	200	0
			Arochlor 1260	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	TCMX (Surrogate)	mg/kg	-	0.50	0.49	30	1

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE274250.005	LB330351.014	Arsenic, As	mg/kg	1	4	5	51	17
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	15	15	33	1
		Copper, Cu	mg/kg	0.5	1.4	1.3	67	11
		Nickel, Ni	mg/kg	0.5	0.7	0.9	92	17
		Lead, Pb	mg/kg	1	10	11	40	16
		Zinc, Zn	mg/kg	2	8.4	6.5	57	26

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE274312.001	LB330417.014	Arsenic	µg/L	1	3	2	56	4
		Cadmium	µg/L	0.1	<0.1	<0.1	200	0
		Chromium	µg/L	1	<1	<1	200	0
		Copper	µg/L	1	5	5	36	3
		Lead	µg/L	1	<1	<1	157	0
		Nickel	µg/L	1	2	2	78	4
		Zinc	µg/L	5	90	84	21	6

TRH (Total Recoverable Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN403

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE274250.005	LB330348.014		TRH C10-C14	mg/kg	20	<20	<20	200	0
			TRH C15-C28	mg/kg	45	<45	<45	200	0
			TRH C29-C36	mg/kg	45	<45	<45	188	0
			TRH C37-C40	mg/kg	100	<100	<100	200	0
			TRH C10-C36 Total	mg/kg	110	<110	<110	200	0
			TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	200	0
		TRH F Bands	TRH >C10-C16	mg/kg	25	<25	<25	200	0
			TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	200	0
			TRH >C16-C34 (F3)	mg/kg	90	<90	<90	200	0
			TRH >C34-C40 (F4)	mg/kg	120	<120	<120	200	0
SE274283.006	LB330348.027		TRH C10-C14	mg/kg	20	<20	<20	200	0
			TRH C15-C28	mg/kg	45	<45	<45	200	0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

TRH (Total Recoverable Hydrocarbons) in Soil (continued)

Method: ME-(AU)-[ENV]AN403

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE274283.006	LB330348.027		TRH C29-C36	mg/kg	45	<45	<45	200	0
			TRH C37-C40	mg/kg	100	<100	<100	200	0
			TRH C10-C36 Total	mg/kg	110	<110	<110	200	0
			TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	200	0
		TRH F Bands	TRH >C10-C16	mg/kg	25	<25	<25	200	0
			TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	200	0
			TRH >C16-C34 (F3)	mg/kg	90	<90	<90	200	0
			TRH >C34-C40 (F4)	mg/kg	120	<120	<120	200	0

VOC's in Soil

Method: ME-(AU)-[ENV]AN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE274250.005	LB330362.014	Monocyclic	Benzene	mg/kg	0.1	<0.1	<0.1	200	0
		Aromatic	Toluene	mg/kg	0.1	<0.1	<0.1	200	0
			Ethylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
			m/p-xylene	mg/kg	0.2	<0.2	<0.2	200	0
			o-xylene	mg/kg	0.1	<0.1	<0.1	200	0
		Polycyclic	Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.1	8.3	50	9
			d8-toluene (Surrogate)	mg/kg	-	8.7	8.6	50	2
			Bromofluorobenzene (Surrogate)	mg/kg	-	7.9	7.7	50	2
		Totals	Total BTEX*	mg/kg	0.6	<0.6	<0.6	200	0
			Total Xylenes*	mg/kg	0.3	<0.3	<0.3	200	0
SE274283.007	LB330362.034	Monocyclic	Benzene	mg/kg	0.1	<0.1	<0.1	200	0
		Aromatic	Toluene	mg/kg	0.1	<0.1	<0.1	200	0
			Ethylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
			m/p-xylene	mg/kg	0.2	<0.2	<0.2	200	0
			o-xylene	mg/kg	0.1	<0.1	<0.1	200	0
		Polycyclic	Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	10.6	11.0	50	4
			d8-toluene (Surrogate)	mg/kg	-	10.2	11.1	50	8
			Bromofluorobenzene (Surrogate)	mg/kg	-	8.8	9.3	50	7
		Totals	Total BTEX*	mg/kg	0.6	<0.6	<0.6	200	0
			Total Xylenes*	mg/kg	0.3	<0.3	<0.3	200	0

VOCs in Water

Method: ME-(AU)-[ENV]AN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE274375.001	LB330523.022	Monocyclic	Benzene	µg/L	0.5	<0.5	<0.5	200	0
		Aromatic	Toluene	µg/L	0.5	<0.5	<0.5	200	0
			Ethylbenzene	µg/L	0.5	<0.5	<0.5	200	0
			m/p-xylene	µg/L	1	<1	<1	200	0
			o-xylene	µg/L	0.5	<0.5	<0.5	200	0
		Polycyclic	Naphthalene (VOC)*	µg/L	0.5	<0.5	<0.5	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	10	10	30	0
			d8-toluene (Surrogate)	µg/L	-	12	12	30	0
			Bromofluorobenzene (Surrogate)	µg/L	-	8.4	8.4	30	0
		Totals	Total BTEX	µg/L	3	<3	<3	200	0
SE274375.002	LB330523.023	Monocyclic	Benzene	µg/L	0.5	<0.5	<0.5	200	0
		Aromatic	Toluene	µg/L	0.5	<0.5	<0.5	200	0
			Ethylbenzene	µg/L	0.5	<0.5	<0.5	200	0
			m/p-xylene	µg/L	1	<1	<1	200	0
			o-xylene	µg/L	0.5	<0.5	<0.5	200	0
		Polycyclic	Naphthalene (VOC)*	µg/L	0.5	<0.5	<0.5	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	10	10	30	0
			d8-toluene (Surrogate)	µg/L	-	11	11	30	0
			Bromofluorobenzene (Surrogate)	µg/L	-	8.8	8.8	30	0
		Totals	Total BTEX	µg/L	3	<3	<3	200	0

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE274250.005	LB330362.014		TRH C6-C10	mg/kg	25	<25	<25	200	0
			TRH C6-C9	mg/kg	20	<20	<20	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.1	8.3	50	9

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

Volatile Petroleum Hydrocarbons in Soil (continued)

Method: ME-(AU)-[ENV]AN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE274250.005	LB330362.014	Surrogates	d8-toluene (Surrogate)	mg/kg	-	8.7	8.6	50	2
			Bromofluorobenzene (Surrogate)	mg/kg	-	7.9	7.7	50	2
		VPH F Bands	Benzene (F0)	mg/kg	0.1	<0.1	<0.1	200	0
			TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	200	0
SE274283.007	LB330362.034		TRH C6-C10	mg/kg	25	<25	<25	200	0
			TRH C6-C9	mg/kg	20	<20	<20	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	10.6	11.0	50	4
			d8-toluene (Surrogate)	mg/kg	-	10.2	11.1	50	8
			Bromofluorobenzene (Surrogate)	mg/kg	-	8.8	9.3	50	7
		VPH F Bands	Benzene (F0)	mg/kg	0.1	<0.1	<0.1	200	0
			TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	200	0

Volatile Petroleum Hydrocarbons in Water

Method: ME-(AU)-[ENV]AN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE274375.001	LB330523.022		TRH C6-C10	µg/L	50	<50	<50	200	0
			TRH C6-C9	µg/L	40	<40	<40	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	10	10	30	0
			d8-toluene (Surrogate)	µg/L	-	12	12	30	0
			Bromofluorobenzene (Surrogate)	µg/L	-	8.4	8.4	30	0
		VPH F Bands	Benzene (F0)	µg/L	0.5	<0.5	<0.5	200	0
			TRH C6-C10 minus BTEX (F1)	µg/L	50	<50	<50	200	0
SE274375.002	LB330523.023		TRH C6-C10	µg/L	50	<50	<50	200	0
			TRH C6-C9	µg/L	40	<40	<40	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	10	10	30	0
			d8-toluene (Surrogate)	µg/L	-	11	11	30	0
			Bromofluorobenzene (Surrogate)	µg/L	-	8.8	8.8	30	0
		VPH F Bands	Benzene (F0)	µg/L	0.5	<0.5	<0.5	200	0
			TRH C6-C10 minus BTEX (F1)	µg/L	50	<50	<50	200	0

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB330351.002	Arsenic, As	mg/kg	1	330	318.22	80 - 120	103
	Cadmium, Cd	mg/kg	0.3	4.3	4.81	70 - 130	90
	Chromium, Cr	mg/kg	0.5	37	38.31	80 - 120	95
	Copper, Cu	mg/kg	0.5	300	290	80 - 120	102
	Nickel, Ni	mg/kg	0.5	190	187	80 - 120	100
	Lead, Pb	mg/kg	1	90	89.9	80 - 120	101
	Zinc, Zn	mg/kg	2	270	273	80 - 120	97

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB330417.002	Arsenic	µg/L	1	19	20	80 - 120	94
	Cadmium	µg/L	0.1	21	20	80 - 120	106
	Chromium	µg/L	1	22	20	80 - 120	109
	Copper	µg/L	1	22	20	80 - 120	112
	Lead	µg/L	1	21	20	80 - 120	107
	Nickel	µg/L	1	22	20	80 - 120	108
	Zinc	µg/L	5	22	20	80 - 120	109

TRH (Total Recoverable Hydrocarbons) in Water

Method: ME-(AU)-[ENV]AN403

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB330395.002		TRH C10-C14	µg/L	50	1300	1200	60 - 140	107
		TRH C15-C28	µg/L	200	1400	1200	60 - 140	116
		TRH C29-C36	µg/L	200	1400	1200	60 - 140	118
	TRH F Bands	TRH >C10-C16	µg/L	60	1400	1200	60 - 140	114
		TRH >C16-C34 (F3)	µg/L	500	1400	1200	60 - 140	119
		TRH >C34-C40 (F4)	µg/L	500	710	600	60 - 140	118

VOCs in Water

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB330523.002	Monocyclic Aromatic	Benzene	µg/L	0.5	47	45.45	60 - 140	103
		Toluene	µg/L	0.5	46	45.45	60 - 140	102
		Ethylbenzene	µg/L	0.5	46	45.45	60 - 140	100
		m/p-xylene	µg/L	1	89	90.9	60 - 140	98
		o-xylene	µg/L	0.5	45	45.45	60 - 140	100
	Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	9.5	10	60 - 140	95
		d8-toluene (Surrogate)	µg/L	-	10.3	10	70 - 130	103
		Bromofluorobenzene (Surrogate)	µg/L	-	11.3	10	70 - 130	113

Volatile Petroleum Hydrocarbons in Water

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB330523.002		TRH C6-C10	µg/L	50	740	946.63	60 - 140	78
		TRH C6-C9	µg/L	40	640	818.71	60 - 140	79
	Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	9.5	10	60 - 140	95
		d8-toluene (Surrogate)	µg/L	-	10.3	10	70 - 130	103
		Bromofluorobenzene (Surrogate)	µg/L	-	11.3	10	70 - 130	113
	VPH F Bands	TRH C6-C10 minus BTEX (F1)	µg/L	50	470	639.67	60 - 140	73

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub -sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Mercury (dissolved) in Water

Method: ME-(AU)-[ENV]AN311(Perth)/AN312

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE274244.007	LB330389.004	Mercury	mg/L	0.0001	0.0022	-0.004	0.008	108

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE274246.001	LB330351.004	Arsenic, As	mg/kg	1	47	6	50	81
		Cadmium, Cd	mg/kg	0.3	43	<0.3	50	86
		Chromium, Cr	mg/kg	0.5	59	19	50	80
		Copper, Cu	mg/kg	0.5	54	11	50	85
		Nickel, Ni	mg/kg	0.5	47	3.5	50	88
		Lead, Pb	mg/kg	1	63	23	50	79
		Zinc, Zn	mg/kg	2	55	13	50	83

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE274213.001	LB330417.004	Cadmium	µg/L	0.1	21	<0.1	20	107
		Chromium	µg/L	1	21	<1	20	104
		Copper	µg/L	1	17	<1	20	93
		Lead	µg/L	1	20	<1	20	99
		Zinc	µg/L	5	26	11	20	75

VOCs in Water

Method: ME-(AU)-[ENV]AN433

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE274283.008	LB330523.024	Monocyclic	Benzene	µg/L	0.5	52	<0.5	45.45	114
		Aromatic	Toluene	µg/L	0.5	56	<0.5	45.45	123
			Ethylbenzene	µg/L	0.5	50	<0.5	45.45	111
			m/p-xylene	µg/L	1	100	<1	90.9	114
			o-xylene	µg/L	0.5	52	<0.5	45.45	114
		Polycyclic	Naphthalene (VOC)*	µg/L	0.5	54	<0.5	-	-
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	9.7	8.7	-	97
			d8-toluene (Surrogate)	µg/L	-	11.3	7.7	-	113
			Bromofluorobenzene (Surrogate)	µg/L	-	11.3	9.1	-	113
		Totals	Total BTEX	µg/L	3	310	<3	-	-

Volatile Petroleum Hydrocarbons in Water

Method: ME-(AU)-[ENV]AN433

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE274283.008	LB330523.024		TRH C6-C10	µg/L	50	1100	<50	946.63	113
			TRH C6-C9	µg/L	40	890	<40	818.71	109
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	9.7	8.7	-	97
			d8-toluene (Surrogate)	µg/L	-	11.3	7.7	-	113
			Bromofluorobenzene (Surrogate)	µg/L	-	11.3	9.1	-	113
		VPH F	Benzene (F0)	µg/L	0.5		<0.5	-	-
		Bands	TRH C6-C10 minus BTEX (F1)	µg/L	50	760	<50	639.67	118

Matrix spike duplicates are calculated as Relative Percent Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The original result is the analyte concentration of the matrix spike. The Duplicate result is the analyte concentration of the matrix spike duplicate.

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the

No matrix spike duplicates were required for this job.

Samples analysed as received.

Solid samples expressed on a dry weight basis.

QC criteria are subject to internal review according to the SGS QA/QC plan and may be provided on request or alternatively can be found here: https://www.sgs.com.au/~/media/Local/Australia/Documents/Technical Documents/MP-AU-ENV-QU-022 QA QC Plan.pdf

*	NATA accreditation does not cover the performance of this service.
**	Indicative data, theoretical holding time exceeded.
***	Indicates that both * and ** apply.
-	Sample not analysed for this analyte.
IS	Insufficient sample for analysis.
LNR	Sample listed, but not received.
LOR	Limit of reporting.
QFH	QC result is above the upper tolerance.
QFL	QC result is below the lower tolerance.
①	At least 2 of 3 surrogates are within acceptance criteria.
②	RPD failed acceptance criteria due to sample heterogeneity.
③	Results less than 5 times LOR preclude acceptance criteria for RPD.
④	Recovery failed acceptance criteria due to matrix interference.
⑤	Recovery failed acceptance criteria due to the presence of significant concentration of analyte (i.e. the concentration of analyte exceeds the spike level).
⑥	LOR was raised due to sample matrix interference.
⑦	LOR was raised due to dilution of significantly high concentration of analyte in sample.
⑧	Reanalysis of sample in duplicate confirmed sample heterogeneity and inconsistency of results.
⑨	Recovery failed acceptance criteria due to sample heterogeneity.
⑩	LOR was raised due to high conductivity of the sample (required dilution).
†	Refer to relevant report comments for further information.

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 test report shall not be reproduced, except in full.