



REPORT TO
43 BEANE STREET PTY LTD

ON
PRELIMINARY SALINITY ASSESSMENT

FOR
PROPOSED RESIDENTIAL DEVELOPMENT

AT
43-45 BEANE STREET, GOSFORD, NSW

Date: 1 August 2025
Ref: E37722PTrpt-SAL

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ABBREVIATIONS

Australian Height Datum	AHD
Acid Sulfate Soil	ASS
Below Ground Level	BGL
Borehole	BH
Cation Exchange Capacity	CEC
Calcium	Ca
Cement, Concrete and Aggregates Australia	CCAA
Chain of Custody	COC
Damp Proof Course	DPC
Department of Land and Water Conservation	DLWC
Dissolved Oxygen	DO
EI Australia	EIA
International Organisation of Standardisation	ISO
JK Environments	JKE
JK Geotechnics	JKG
Local Government Authority	LGA
Map Grid of Australia	MGA
Magnesium	Mg
National Association of Testing Authorities	NATA
Potassium	K
Preliminary Geotechnical Assessment	PGA
Preliminary Site Investigation	PSI
Polyvinyl Chloride	PVC
Practical Quantitation Limit	PQL
Relative Level	RL
Redox Potential	Eh
Site Assessment Criteria	SAC
Standard Penetration Test	SPT
Standard Sampling Procedure	SSP
Standing Water Level	SWL
Standard Sampling Procedure	SSP
Sodium	Na
Western Sydney Regional Organisation of Councils	WSROC
Units	
deci Siemens per Metre	dS/m
Electrical Conductivity	EC
Exchangeable Sodium Percentage (Sodicity)	ESP%
Litres	L
Metres	m
Metres Below Ground Level	mBGL
Millivolts	mV
Millilitres	ml
Milliequivalents	meq
Milligrams per Litre	mg/L
Milligrams per Kilogram	mg/kg
ohm Centimetres	ohm.cm
Parts Per Million	ppm
micro Siemens per Centimetre	µS/cm

1 INTRODUCTION

43 Beane Street Pty Ltd ('the client') commissioned JK Environments (JKE) to undertake a preliminary salinity assessment for the proposed residential development at 43-45 Beane Street, Gosford, NSW ('the site'). The site location is shown on Figure 1 and the assessment was confined to the site boundaries as shown on Figure 2 attached in the appendices.

Previous contamination and geotechnical investigations have been undertaken at the site by EI Australia. A high-level summary of relevant information has been included in Section 2. A geotechnical investigation was undertaken in conjunction with this assessment by JK Geotechnics (JKG). The results of the investigation are presented in a separate report (Ref: 37721Prpt)¹. This report should be read in conjunction with the JKG report.

Background information on salinity is included in the appendices.

1.1 Proposed Development Details

Based on the information provided we understand the proposed development comprises the construction of a 26 level residential development over three basement car parking levels. The proposed lowest basement is at approximately RL 11.5m AHD which would require excavation to depths ranging between 8.5m and 14.5m below the existing surface levels.

1.2 Aim and Objectives

The primary aim of the assessment was to characterise the broad scale dryland salinity conditions at the site in the context of the proposed development works. The assessment objectives were to:

- Assess the current site conditions via a site walkover inspection;
- Assess the soil and groundwater salinity conditions via implementation of a preliminary sampling and analysis program; and
- Assess if a salinity management plan (SMP) is required for the proposed development.

1.3 Scope of Work

The assessment was undertaken generally in accordance with a the JKG proposal (Ref: P72107Prev1) of 23 June 2025 and written acceptance from the client of 23 June 2025. The scope of work included the following:

- Review site information including topography, soils maps, salinity risk maps, regional geology and hydro-geology in the vicinity of the site;
- A walkover site inspection to identify obvious visual indicators of dryland salinity or potential problem areas;
- Soil and groundwater sampling from selected JKG geotechnical boreholes and monitoring wells;
- Interpretation of the analytical results based on established assessment criteria; and

¹ JKG, (2025). *Report to Tony Owen Partners on Geotechnical Investigation for Proposed Residential Development at 43-45 Beane Street, Gosford, NSW* (referred to as JKG report).

- Preparation of a report presenting the results of the assessment.

The assessment was designed and the report was prepared with reference to regulations/guidelines outlined in the table below. Individual guidelines/documents are also referenced within the text of the report.

Table 1-1: Guidelines

Guidelines/Regulations/Documents
Site Investigations for Urban Salinity (2002) ²
Salinity Code of Practice (2004) ³
Managing Urban Stormwater – Soil and Construction (4 th ed.) (2004) ⁴
Salinity Potential in Western Sydney Map (2002) ⁵
Piling – Design and Installation AS2159-2009 (2009) ⁶
Industry Guide T56: Residential Slabs and Footings in Saline Environments (2018) ⁷

² Department of Land and Water Conservation (DLWC), (2002). *Site Investigations for Urban Salinity*, (referred to as DLWC 2002)

³ Western Sydney Regional Organisation of Councils (WSROC) and Department of Infrastructure, Planning and Natural Resources (DIPNR), (2003 amended 2004). *Western Sydney Salinity Code of Practice* (referred to as Salinity Code of Practice)

⁴ NSW Government/Landcom, (2004). *Managing Urban Stormwater – Soil and Construction*, (4th ed.) (referred to as Blue Book)

⁵ DIPNR, (2002). *1:100,000 Map – Salinity Potential in Western Sydney*, (referred to as Salinity Potential Map)

⁶ Standards Australia, (2009). *Piling – Design and Installation, AS2159-2009* (referred to as AS2159-2009)

⁷ Cement, Concrete and Aggregates Australia (CCAA), (2018). *Industry Guide T56: Residential Slabs and Footings in Saline Environments* (referred to as CCAA 2018)

2 SITE INFORMATION

2.1 Previous Investigations

Table 2-1: Summary of Previous Investigations

Report	High-Level Summary
Preliminary Site Investigation, EI Australia, (2024) ⁸	A desktop PSI was completed by EI Australia in December 2024. The PSI identified the site was occupied by residential buildings until the 1970s when it became a concrete and asphaltic concrete car park, and by 2014 all remaining structures were removed. By the time of the site inspection in 2024, the site was vacant and vegetated. The site subsurface conditions were expected to be comprised of uncontrolled and poorly compacted fill, overlying natural silty sandy clays, grading into weathered sandstone and/or shale bedrock. The report noted that Acid Sulfate Soils (ASS) and salinity were not expected to be an issue for the natural soils.
Desktop Preliminary Geotechnical Assessment, EI Australia, (2024) ⁹	Completed in December 2024, the report summarised the subsurface ground conditions likely to be encountered on site based on regional information to include fill, followed by residual silty sand and/or silty clay, and relatively shallow sandstone/ interbedded sandstone and siltstone bedrock, which may vary between approximately 1m to 6m below ground level (BGL) due to the sloping topography. Groundwater was predicted to be available at relatively shallow depths near the soil/bedrock interface, which is expected to range between 2m to 6mBGL. The report concluded that a detailed geotechnical investigation would be required.

2.2 Site Identification

Table 2-2: Site Identification

Site Address:	43-45 Beane Street, Gosford, NSW
Lot & Deposited Plan:	Lot 8, Lot 9, and Lot 14 in DP18726
Current Land Use:	Vacant
Proposed Land Use:	Residential and commercial
Local Government Authority (LGA):	Central Coast Council
Site Area (m²):	2,070
RL (AHD in m) (approx.):	22-26
Geographical Location (decimal degrees) (approx.):	Latitude: -33.42138 Longitude: 151.34368

⁸ EI Australia, (2024). *Report to Tony Owen and Partners Pty Ltd on Preliminary Site Investigation at 43-45 Beane Street, Gosford, NSW* (Ref: E26576.E01.Rev0) on 9 December 2024. (referred to as EI PSI).

⁹ EI Australia, (2024). *Report to Tony Owen and Partners Pty Ltd on Preliminary Geotechnical Investigation at 43-45 Beane Street and 2 Keevers Lane, Gosford, NSW* (Ref: E26576.E01.Rev0) on 10 December 2024. (referred to as EI PGA).

2.3 Site Location and Regional Setting

The site is located in a predominantly mixed use (residential and commercial) area of Gosford, NSW. The site is bounded by Beane Street to the north and Keevers Lane to the west and south. The site is located approximately 1.2km to the north of Broad Water/Brisbane Water, and 1.3km east of Narara Creek.

2.4 Topography

The regional topography is characterised by a minor north to south gully, with the site itself located on a western facing hillside. The elevation levels vary across the site, with the northern portion of the site sloping down to the west, and the southern portion generally level. Levels across the site appear to have been modified to account for the slope and accommodate former developments.

2.5 Site Inspection

A walkover inspection of the site was undertaken by JKE on 2 July 2025. The inspection was limited to accessible areas of the site and was focused on assessing the site conditions relevant to salinity-related factors only.

At the time of the inspection, the site was vacant and overgrown with vegetation. The site is located on a hillside sloping west/northwest, however the site has likely undergone cut and fill to level it.

No indicators of salinity, including salt scalding or salt wicking of the adjacent residential buildings along the eastern boundary.

2.6 Surrounding Land Use

During the site inspection, JKE observed the following land uses in the immediate surrounds:

- North – Beane Street, building under construction;
- South – Keevers Lane, residential apartment building;
- East – Residential apartment building; and
- West – Keevers Lane, Leisure Centre and associated paved car park, residential property, and residential apartment building.

3 GEOLOGY AND HYDROGEOLOGY

3.1 Regional Geology and Soils

The Lotsearch report indicated that the site is underlain by the Terrigal Formation, made up of interbedded laminate, shale and fine to coarse grained quartz to quartz-lithic sandstone, and minor red claystone.

Soil landscape information presented in the Lotsearch report (attached in the appendices) indicated that the site is located within the Erina soil landscape, and characterised as Kandosol soils adjacent to Podosol soils approximately 7m south. Kandosol soils are characterised by a dissected sandstone plateau of moderate to strong relief with sandstone pillars, ledges, and slabs. Podosol soils are characterised by coastal sand plains, dunes, lagoons, and swampy areas.

3.2 Dryland Salinity National Assessment

The salinity mapping information presented in the Lotsearch report indicated that the site is not located within a dryland salinity risk area.

3.3 Acid Sulfate Soil Risk and Planning

The site is not located in an ASS risk area according to the risk maps prepared by the Department of Land and Water Conservation.

ASS information presented in the Lotsearch report indicated that the site is located within a Class 5 ASS risk area, according to the Environmental Planning Instrument on Acid Sulfate Soils. Works in a Class 5 risk area that could pose an environmental risk in terms of ASS include works within 500m of adjacent Class 1,2,3,4 land which are likely to lower the water table below 1m AHD on the adjacent Class 1,2,3,4, land.

It is noted that a Class 2 risk area is mapped within approximately 465m of the site. The proposed development as described in Section 1.1 is not expected to lower the water table below 1m on the Class 2 land considering the proposed excavation depths for the basement will terminate in bedrock, well above 1m AHD.

3.4 Hydrogeology

Hydrogeological information presented in the Lotsearch report (attached in the appendices) indicated that the regional aquifer on-site and in the areas immediately surrounding the site includes porous, extensive aquifers of low to moderate productivity. There were a total of nine registered bores within 1,000m of the site. The majority of the bores were registered for monitoring purposes, with one bore registered for irrigation located approximately 810m from the site, and one registered for water supply located approximately 960m from the site.

3.5 Receiving Water Bodies and Surface Water Run-off

The site location and regional topography indicates that excess surface water flows have the potential to enter local stormwater systems and flow into Broad Water/Brisbane Water located approximately 1.2km south and down-gradient of the site.

4 SAMPLING AND ANALYSIS PLAN

4.1 Soil Sampling Rationale

The investigation included soil sampling from three locations (BH1, BH2, and BH3) combined with the geotechnical investigation, which were positioned to provide spatial coverage of the site, as shown on Figure 2. This sampling density meets the requirements for an 'initial site investigation' recommended in the DLWC 2002 document for 'moderately intensive construction'.

Soil sampling for this assessment was confined to the depth of approximately 4m below existing ground level. This was considered adequate considering the soil/bedrock depths and proposed development details.

4.2 Soil Sampling Methods

Fieldwork for this investigation was undertaken between 4 and 8 July 2025. Sampling locations were set out using a tape measure. Locations were marked using spray paint and were cleared for underground services prior to drilling.

The sample locations were drilled using a track mounted hydraulically operated drill rig equipped with spiral flight augers. Soil samples were obtained from a Standard Penetration Test (SPT) sampler or directly from the auger when conditions did not allow use of the SPT sampler.

Soil samples were collected from the fill and natural profiles encountered during the investigation based on distinct change in lithology or field observations. All samples were recorded on the borehole logs attached in the appendices.

Samples were placed in plastic bags and sealed using twist ties. Sampling personnel used disposable nitrile gloves during sampling activities. The samples were labelled with the job number, sampling location, sampling depth and date.

On completion of the fieldwork, the samples were delivered in the insulated sample container to a NATA registered laboratory for analysis under standard COC procedures. Field sampling protocols adopted for this assessment are summarised in the appendices.

4.3 Groundwater Sampling Rationale

The assessment included the installation of three groundwater monitoring wells spread across the site as shown on Figure 2. The wells were positioned for site coverage and included low lying areas and potential salinity risk areas identified during the site inspection. Twin wells were installed at these locations and samples were obtained from the shallower wells (designated as 'a' wells for sampling purposes) which were installed to depths ranging from approximately 7.8m to 10m.

4.4 Monitoring Well Installation

The monitoring well construction details are documented on appropriate borehole logs presented in the appendices. The wells were installed to depths of approximately 7.8m to 10mBGL. The wells were generally constructed as follows:

- 50mm diameter Class 18 PVC (machine slotted screen) was installed in the lower section of the well to intersect groundwater;
- 50mm diameter Class 18 PVC casing was installed in the upper section of the well (screw fixed);
- A 2mm sand filter pack was used around the screen section for groundwater infiltration;
- A hydrated bentonite seal/plug was used on top of the sand pack to seal the well; and
- A gatic cover was installed at the surface with a concrete plug to limit the inflow of surface water.

The surface RLs for the monitoring wells were obtained from the survey plan provided by the client. A detailed survey of the well heads was outside the scope of the assessment.

4.5 Monitoring Well Development and Groundwater Sampling

The monitoring wells were developed using a submersible electric pump on 9 July 2025. Groundwater samples were obtained from the monitoring wells using a peristaltic low flow pump on 11 July 2025.

The pH, temperature, electrical conductivity (EC), dissolved oxygen (DO) and redox potential (Eh) were monitored during sampling using calibrated field instruments. The sampling data sheets and field calibration information are attached in the appendices. The samples were preserved in accordance with the requirements detailed in AS/NZS 5667.1-1998¹⁰ and placed in an insulated container with ice.

On completion of the fieldwork, the samples were delivered in an insulated sample container to a NATA registered laboratory for analysis under standard chain of custody procedures.

4.6 Laboratory Analysis

Samples were analysed by Envirolab Services Pty Ltd (NATA accreditation number 2901). Reference should be made to the laboratory reports (Ref: 385541 and 385689) attached in the appendices for further details of the analytical methods.

It is noted that Envirolab report 385689 includes additional groundwater data relevant to the groundwater quality screening and surface and groundwater impact assessment. These items have not been discussed in this Salinity Assessment report and are to be reported under a separate cover.

¹⁰ Standards Australia, (1998). *Water Quality – Part 1: Sampling, Guidance on the Design of Sampling Programs, Sampling Techniques and the Preservation and Handling of Samples*, (AS/NZS 5667.1:1998)

4.7 Analytical Schedule

The analytical schedule is outlined in the following table:

Table 4-1: Analytical Schedule

Analyte	Fill Samples	Natural Soil Samples	Groundwater Samples
pH	2	2	3
Electrical Conductivity (EC)	2	2	3
Resistivity	2	2	0
Texture (used to determine EC extract – E _{Ce})	2	1	0
Cation Exchange Capacity (CEC)	0	1	0
Sulphate	2	2	3
Chloride	2	2	3

5 SITE ASSESSMENT CRITERIA (SAC)

5.1 Soil Salinity and Plant Growth

The electrical conductivity (EC) of a 1:5 soil:water extract is commonly used as an indicator of soil salinity conditions as the reading is directly related to the electrolyte (salt) concentration of the extract. In order to compare the laboratory data with published salinity classes, the results are converted to equivalent saturated paste (ECe) using texture adjustment values presented in DLWC 2002.

The following table provides a summary of plant response with reference to salinity:

Table 5-1: Plant Response to Soil Salinity

ECe (dS/m)	Salinity Class	Plant Response ¹
<2	Non-saline	Salinity effects mostly negligible
2-4	Slightly saline	Yields of very sensitive crops may be affected
4-8	Moderately saline	Yield of many crops affected
8-16	Very saline	Only tolerant crops yield satisfactorily
>16	Highly saline	Only a few very tolerant crops yield satisfactorily

Note:

1 - Plant Response to Salinity Class has been adopted from DLWC 2002

5.2 Soil pH and Plant Growth

Soil pH is a measure of the acidity or alkalinity of the soils and values have been assessed as an indicator of soil fertility with respect to plant growth. The optimal pH for plant growth is between 5.5 and 7. Beyond this range, effective revegetation of exposed soil following disturbance is increasingly difficult and the potential for erosion is considered to increase.

Highly alkaline soils are commonly associated with saline and sodic soil conditions and can limit the ability of plants to take up water and nutrients. Highly acidic soils exhibit aluminium toxicity toward plants and can limit the ability of plants to take up other essential nutrients including molybdenum.

Interpretation of soil pH with respect to plant growth is undertaken using the ratings published in Bruce and Rayment (1982)¹¹ presented below:

Table 5-2: Plant Response to Soil pH

pH	Rating
<4.5	Extremely acidic
4.5-5.0	Very strongly acidic

¹¹ Bruce, R.C. and Rayment, G.E., (1982). *Analytical Methods and Interpretations used by the Agricultural Chemistry Branch for Soil and Land Use Surveys*, (referred to as Bruce and Rayment 1982)

pH	Rating
5.1-5.5	Strongly acidic
5.6 – 7.3	Optimal plant growth
7.4-7.8	Mildly alkaline
7.9-8.4	Moderately alkaline
8.5-9.0	Strongly alkaline
>9.1	Very strongly alkaline

5.3 Cation Exchange Capacity (CEC) in Soil

The ability of soils to attract, retain and exchange cations (positively charged ions) is estimated by the calculated CEC value. CEC represents the major controlling factor in stability of clay soil structure, nutrient availability for plant growth, soil pH and the reaction of the soil to chemical applications (fertilisers, conditioners etc.).

High CEC soils have a greater capacity to retain nutrients, however, deficient soils require greater applications of nutrients to correct imbalances. Low CEC soils have a reduced capacity to retain nutrients and may result in leaching of nutrients from the soil in the event of excess nutrient applications.

Metson (1961)¹² developed a set of ratings for effective CEC and the most abundant cations. These are summarised below (values are in meq/100g):

Table 5-3: CEC Rating

Rating	eCEC	Exch Na	Exch K	Exch Ca	Exch Mg
Very low	<6	0-0.1	0-0.2	0-2	0-0.3
Low	6-12	0.1-0.3	0.2-0.3	2-5	0.3-1
Moderate	12-25	0.3-0.7	0.3-0.7	5-10	1-3
High	25-40	0.7-2	0.7-2	10-20	3-8
Very high	>40	>2	>2	>20	>8

5.3.1 Ratio of Exchangeable Calcium to Magnesium

To maintain soil structure there should be a ratio of around 4:1 to 6:1 calcium to magnesium for a balanced soil (Eckert 1987)¹³. At ratios of less than 4:1 calcium is considered to be deficient, whilst at ratios of greater than 6:1 are considered to be magnesium deficient.

¹² Metson, A.J., (1961). *Methods of Chemical Analysis for Soil Survey Samples* (referred to as Metson 1961)

¹³ Eckert, D.J., (1987) *Soil Test Interpretation: Basic Cation Saturation Ratios and Sufficiency Levels* (referred to as Eckert 1987)

5.4 Exchangeable Sodium Percentage or Sodicity (ESP%)

Exchangeable sodium is an important soil stability and salinity parameter. Excessive exchangeable sodium leads to unstable soils, increased runoff, potential salinity, dispersivity and water logging problems.

Normally the sodium content is expressed as a percentage of the CEC as other cations counteract the negative effects of sodium (known as ESP% and termed sodicity). The effect of the exchangeable sodium (exchangeable sodium percentage, ESP) varies with other soil factors such as the type of clay, the relative quantity of magnesium and the quantity of organic matter. However, Charman & Murphy (2000¹⁴) indicate that a soil is generally considered sodic if the ESP exceeds 6% and extremely sodic if the ESP exceeds 15%.

5.5 Groundwater Salinity

EC values in groundwater are dependent on numerous factors and can vary with changes in temperature and pH conditions. Suttar (1990¹⁵) has classed water into different types based on EC values as outlined in the table below.

Table 5-4: EC Ranges in Water

Water Type	EC ($\mu\text{S/cm}$)
Deionised Water	0.5 – 3
Pure Rainwater	<15
Freshwater Rivers	0 – 800
Marginal River Water	800 – 1600
Brackish Water	1600 – 4800
Saline Water	>4800
Seawater	51,500
Industrial Waters	100 – 10,000

5.6 Recommendations for Concrete Slabs and Footings in Saline Soils

In the absence of endorsed recommendations for buildings in saline environments, reference is made to the CCAA 2018. The guide provides recommendations on the minimum concrete grade/strength required for slabs and footings in saline soils. Reference should be made to the CCAA 2018 publication for further information:

¹⁴ Charman, P.E.V and Murphy, B.W (eds), (2000). *Soils: Their Management and Properties*, (referred to as Charman and Murphy 2000)

¹⁵ Suttar, S., (1990). *Ribbons of Blue Handbook*, Scitech, Victoria (referred to as Suttar 1990)

Table 5-5: Minimum Concrete Grade for Slabs and Footings in Saline Soils

ECe (dS/m)	Salinity Class	Concrete Grade ¹
<2	Non-saline	N20
2-4	Slightly saline	N20
4-8	Moderately saline	N25
8-16	Very saline	N32
>16	Highly saline	≥N40

Note:

1 - Concrete Grade for Salinity Class has been adopted from CCAA 2018

5.7 Recommendations for Durability with Reference to AS2159-2009

In designing for durability, reference should be made to the requirements listed in the AS2159-2009. The exposure classification for concrete and steel piles and foundations is outlined in the following tables.

Table 5-6: Exposure Classification for Concrete Piles

Exposure Conditions				Exposure Classification	
Sulphate (expressed as SO ₄)		pH	Chlorides in Groundwater (ppm)	Soil Conditions A ¹	Soil Conditions B ²
In Soil (ppm)	In Groundwater (ppm)				
<5,000	<1,000	>5.5	<6,000	Mild	Non-aggressive
5,000-10,000	1,000-3,000	4.5-5.5	6,000-12,000	Moderate	Mild
10,000-20,000	3,000-10,000	4-4.5	12,000-30,000	Severe	Moderate
>20,000	>10,000	<4	>30,000	Very severe	Severe

Notes:

1 - High permeability soils (e.g. sands and gravels) which are in groundwater

2 - Low permeability soils (e.g. silts and clays) or all soils above groundwater

Table 5-7: Exposure Classification for Steel Piles

Exposure Conditions				Exposure Classifications	
pH	Chlorides		Resistivity (ohm.cm)	Soil Conditions A ¹	Soil Conditions B ²
	In Soil (ppm)	In Groundwater (ppm)			
>5	<5,000	<1,000	>5,000	Non-aggressive	Non-aggressive
4-5	5,000-20,000	1,000-10,000	2,000-5,000	Mild	Non-aggressive
3-4	20,000-50,000	10,000-20,000	1,000-2,000	Moderate	Mild



Exposure Conditions				Exposure Classifications	
pH	Chlorides		Resistivity (ohm.cm)	Soil Conditions A ¹	Soil Conditions B ²
	In Soil (ppm)	In Groundwater (ppm)			
<3	>50,000	>20,000	<1,000	Severe	Moderate

Notes:

1 - High permeability soils (e.g. sands and gravels) which are in groundwater

2 – Low permeability soils (e.g. silts and clays) or all soils above groundwater

6 INVESTIGATION RESULTS

6.1 Subsurface Conditions

A summary of the subsurface conditions encountered during the investigation is presented in the table below. Reference should be made to the borehole logs attached in the appendices for further details.

Table 6-1: Summary of Subsurface Conditions

Profile	Description (metres below ground level - mBGL)
Fill	Fill material was encountered at the surface in all boreholes and extended to depths of approximately 0.2m to 0.5mBGL. The fill typically comprised of gravelly sandy clay, gravelly silty sand, or silty clay and contained inclusions of ironstone and sandstone gravel, slag, and fragments of concrete, and root fibres. No staining or odours were observed in the fill material during fieldwork.
Natural Soil	Natural silty clay residual soils were encountered beneath the fill in all boreholes and extended to depths of approximately 0.85mBGL to 1.8mBGL. Neither staining nor odours were recorded in the natural soils during fieldwork.
Bedrock	Sandstone bedrock was encountered in all boreholes beneath the natural soils. Neither staining nor odours were recorded in the bedrock during fieldwork.
Groundwater	Groundwater seepage was not encountered in the boreholes during auger drilling. Water was introduced during the coring process.

6.2 Laboratory Results

A summary of the results is presented below.

Table 6-2: Summary of Laboratory Results

Analyte	Results
EC & E _{ce}	The EC results ranged from 39µS/m to 130µS/m. The E_{ce} results were <2dS/m at for all samples.
Resistivity	Resistivity values were calculated based on the raw EC values. The resistivity values for the soil samples ranged from 7,692ohm.cm to 25,641ohm.cm.
pH	The results of the analysis ranged from 4.7 to 7.
CEC	Only one sample was tested for CEC (BH1 0.9-1m). The results of the analysis were: • CEC – <1meq/100g; • Exchangeable Na – <0.1meq/100g; • Exchangeable K – 0.2meq/100g; • Exchangeable Ca – 0.2meq/100g; and • Exchangeable Mg – 0.4meq/100g.

Analyte	Results
Sulphate	The results ranged from 26mg/kg to 160mg/kg.
Chloride	The results ranged from <10mg/kg to 20mg/kg.
Groundwater	The results of the analysis ranged from: • pH – 5.3 to 6.9; • EC – 260µS/cm to 370µS/cm; • Chloride - 26mg/L to 32mg/L; and • Sulphate - 25mg/L to 33mg/L.

Note:

Na – Sodium, K – Potassium, Ca – Calcium, Mg – Magnesium

7 RESULTS INTERPRETATION

The laboratory results are compared to the relevant SAC in the attached report tables. Interpretation of the results against the SAC is provided in the following table.

Table 7-1: Interpretation of Laboratory Results

Parameter	Notes
Soil Salinity and Plant Growth	The ECe results were all <2dS/m. All of the samples soil samples were classed as non-saline.
Soil pH and Plant Growth	The soil pH results ranged from 4.7 to 7 and are classed as very strongly acidic to neutral (optimal plant growth). The majority of the surficial soils were generally within the optimum range for plant growth. The acidic conditions generally increased with depth.
CEC in Soil	A CEC value of <1meq/100g was reported for BH1 (0.9-1m). This sample was within the low range which is typical of the soil formation encountered at the site and is generally indicative of the low levels of organic matter within the soils.
Ratio of Calcium to Magnesium	The results indicate that the soils have marginally more magnesium than calcium. The CEC of the soil is generally very low at <1meq/100g.
ESP%	The ESP% value for BH1 (0.9-1m) was 10%, which classifies this sample as sodic (between 5% to 15%).
Groundwater Salinity	The laboratory results indicate that the groundwater is generally non-saline and within the 'freshwater rivers' water type.
Concrete Slabs and Footings in Saline Soils (CCAA 2018)	The proposed earthworks are anticipated to expose soils generally classed as non-saline. The CCAA 2018 recommended concrete grade for slabs and footings in non-saline soils is N20. All soils analysed were classed as non-saline. The results should be assessed by the project design team as applicable for the proposed development. Reference should also be made to AS2159-2009 for minimum concrete strengths and reinforcement cover for concrete piles/foundations.
Soil Conditions for Exposure Classification (AS2159-2009)	The boreholes drilled for the investigation have indicated that the subsurface conditions at the site generally comprise of a combination of low permeability soils (i.e. silts and clays). Based on these conditions, the soils on site have all been classified under 'Soil Conditions B' as all soil samples are located above the groundwater seepage level.
Exposure Classification for Concrete Piles/Foundations (AS2159-2009)	The soil pH and sulphate results indicate that the soils are non-aggressive to mildly aggressive towards buried concrete (the aggressivity is due to the pH results). The groundwater pH, sulphate and chloride results indicate that the groundwater is non-aggressive to mildly aggressive towards buried concrete (the aggressivity is due to the pH results). The results should be assessed by the project design team as applicable for the proposed development.

Parameter	Notes
Exposure Classification for Steel Piles/Foundations (AS2159-2009)	The soil resistivity, pH and chloride results indicate that the soils are non-aggressive towards buried steel. The groundwater pH and chloride results indicate that the groundwater is non-aggressive towards buried steel. The results should be assessed by the project design team as applicable for the proposed development.

8 CONCLUSION AND RECOMMENDATIONS

The investigation identified the following salinity conditions:

- The soils analysed were generally classed as very strongly acidic to optimal for plant growth;
- The soils analysed were generally classed as non-saline;
- The soils analysed were sodic;
- The soils analysed were generally non-aggressive to mildly aggressive towards buried concrete; and
- The soils analysed were generally non-aggressive towards buried steel.

JKE is of the opinion that salinity poses a low risk at the site in the context of the proposed development and a detailed SMP is not required. However, we recommend that the soil aggressivity characteristics be appropriately considered by the project engineers during the design of the proposed activity.

Considering that a majority of the site will be excavated to construct the basement, and the localised areas of deep soil that remain will involve landscaping and the importation of suitable growing medium for this purpose, the soil characteristics relating to plant growth are not likely to be particularly relevant. Notwithstanding, we recommend that this report be reviewed by the landscape consultant so the information can be considered in the context of the landscape design where applicable.

9 LIMITATIONS

The report limitations are outlined below:

- Salinity is a natural phenomenon and can change over time based on site conditions and climatic variations. Changes to existing drainage patterns can also impact the salinity at the site. The results outlined in this report are a snapshot of conditions present at the time of the investigation and is bound to change over time;
- JKE accepts no responsibility for any unidentified salinity issues at the site. Any unexpected problems/subsurface features that may be encountered during development works should be inspected by an environmental consultant as soon as possible;
- JKE accepts no responsibility for non-compliance of salinity management recommendations outlined in this report;
- This report has been prepared based on site conditions which existed at the time of the investigation; scope of work and limitation outlined in the JKE proposal; and terms of contract between JKE and the client (as applicable);
- The conclusions presented in this report are based on investigation of conditions at specific locations, chosen to be as representative as possible under the given circumstances, visual observations of the site and immediate surrounds and documents reviewed as described in the report;
- Subsurface soil and rock conditions encountered between investigation locations may be found to be different from those expected. Groundwater conditions may also vary, especially after climatic changes;
- The investigation and preparation of this report have been undertaken in accordance with accepted practice for environmental consultants, with reference to applicable environmental regulatory authority and industry standards, guidelines and the assessment criteria outlined in the report;
- Where information has been provided by third parties, JKE has not undertaken any verification process, except where specifically stated in the report;
- JKE has not undertaken any assessment of off-site areas that may be potential salinity sources or may have been impacted by adverse salinity conditions, except where specifically stated in the report;
- JKE accept no responsibility for potentially asbestos containing materials that may exist at the site. These materials may be associated with demolition of pre-1990 constructed buildings or fill material at the site;
- JKE have not and will not make any determination regarding finances associated with the site;
- Additional investigation work may be required in the event of changes to the proposed development or land use. JKE should be contacted immediately in such circumstances;
- Material considered to be suitable from a geotechnical point of view may be unsatisfactory from a salinity viewpoint, and vice versa;
- This report has been prepared for the particular project described and no responsibility is accepted for the use of any part of this report in any other context or for any other purpose;
- Copyright in this report is the property of JKE. JKE has used a degree of care, skill and diligence normally exercised by consulting professionals in similar circumstances and locality. No other warranty expressed or implied is made or intended. Subject to payment of all fees due for the investigation, the client alone shall have a licence to use this report;



-
- If the client, or any person, provides a copy of this report to any third party, such third party must not rely on this report except with the express written consent of JKE; and
 - Any third party who seeks to rely on this report without the express written consent of JKE does so entirely at their own risk and to the fullest extent permitted by law, JKE accepts no liability whatsoever, in respect of any loss or damage suffered by any such third party.

Important Information About This Report

These notes have been prepared by JKE to assist with the assessment and interpretation of this report.

The Report is based on a Unique Set of Project Specific Factors

This report has been prepared in response to specific project requirements as stated in the JKE proposal document which may have been limited by instructions from the client. This report should be reviewed, and if necessary, revised if any of the following occur:

- The proposed land use is altered;
- The defined subject site is increased or sub-divided;
- The proposed development details including size, configuration, location, orientation of the structures or landscaped areas are modified;
- The proposed development levels are altered, e.g. addition of basement levels, or deeper filling/cut excavations; or
- Ownership of the site changes.

JKE will not accept any responsibility whatsoever for situations where one or more of the above factors have changed since completion of the assessment. If the subject site is sold, ownership of the assessment report should be transferred by JKE to the new site owners who will be informed of the conditions and limitations under which the assessment was undertaken. No person should apply an assessment for any purpose other than that originally intended without first conferring with the consultant.

Changes in Subsurface Conditions

Subsurface conditions are influenced by natural geological and hydrogeological process and human activities. Groundwater conditions are likely to vary over time with changes in climatic conditions and human activities within the catchment (e.g. water extraction for irrigation or industrial uses, subsurface waste water disposal, construction related dewatering). Soil and groundwater salinity concentrations may also vary over time through migration and accumulation of salts, importation of materials, construction and landscaping. The conclusions of an assessment report may have been affected by the above factors if a significant period of time has elapsed prior to commencement of the proposed development.

This Report is based on Professional Interpretations of Factual Data

Site assessments identify actual subsurface conditions at the actual sampling locations at the time of the investigation. Data obtained from the sampling and subsequent laboratory analyses, available site history information and published regional information is interpreted by geologists, engineers or environmental scientists and opinions are drawn about the overall subsurface conditions, the nature and extent of salinity, the likely impact on the proposed development and appropriate management measures.

Actual conditions may differ from those inferred, because no professional, no matter how qualified, and no subsurface exploration program, no matter how comprehensive, can reveal what is hidden by earth, rock and time. The actual interface between materials may be far more gradual or abrupt than an assessment indicates. Actual conditions in areas not sampled may differ from predictions. Nothing can be done to prevent the unanticipated, but steps can be taken to help minimise the impact. For this reason, site owners should retain the services of their consultants throughout the development stage of the project, to identify variances, conduct additional tests which may be needed, and to recommend solutions to problems encountered on site.

Assessment Limitations

The assessment is designed to identify major salinity risks at the site. Implementing the management recommends can minimise the risks. No assessment can identify all risks as salinity is a natural phenomenon which can change over time. Even a rigorous professional assessment may not detect all potential salinity impacts on a site. Salinity may be present in areas that were not surveyed or sampled, or may accumulate in areas which showed no signs of salinity when sampled.

Misinterpretation of Site Assessments by Design Professionals

Costly problems can occur when other design professionals develop plans based on misinterpretation of an assessment report. To minimise problems associated with misinterpretations, the environmental consultant should be retained to work with appropriate professionals to explain relevant findings and to review the adequacy of plans and specifications relevant to contamination issues.

Logs Should not be Separated from the Assessment Report

Borehole and test pit logs are prepared by environmental scientists, engineers or geologists based upon interpretation of field conditions and laboratory evaluation of field samples. Logs are normally provided in our reports and these should not be re-drawn for inclusion in site management or other design drawings, as subtle but significant drafting errors or omissions may occur in the transfer process. Photographic reproduction can eliminate this problem, however contractors can still misinterpret the logs during bid preparation if separated from the text of the assessment. If this occurs, delays, disputes and unanticipated costs may result. In all cases it is necessary to refer to the rest of the report to obtain a proper understanding of the assessment. Please note that logs with the 'Environmental Log' header are not suitable for geotechnical purposes as they have not been peer reviewed by a Senior Geotechnical Engineer.

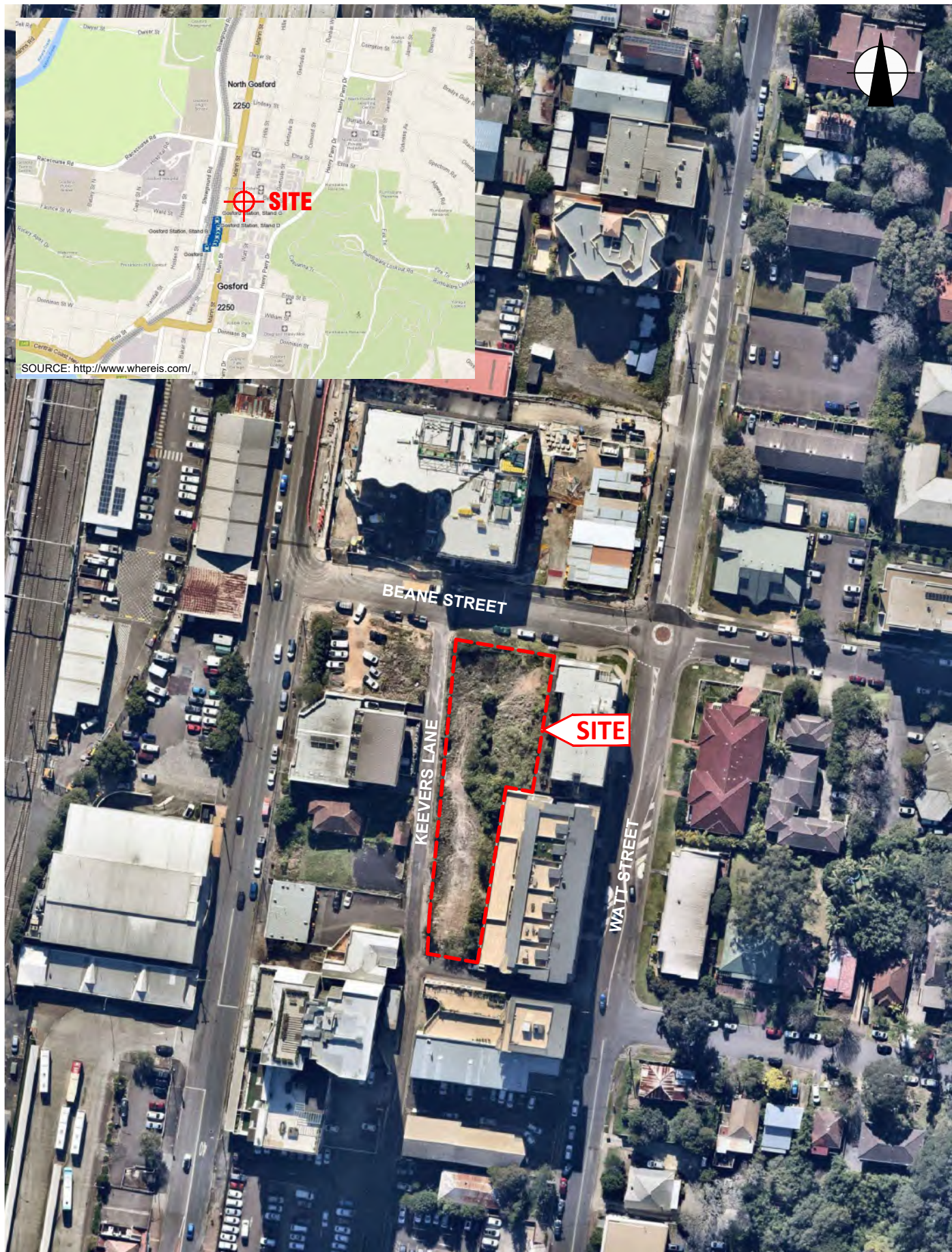
To reduce the likelihood of borehole and test pit log misinterpretation, the complete assessment should be available to persons or organisations involved in the project, such as contractors, for their use. Denial of such access and disclaiming responsibility for the accuracy of subsurface information does not insulate an owner from the attendant liability. It is critical that the site owner provides all available site information to persons and organisations such as contractors.

Read Responsibility Clauses Closely

Because an environmental site assessment is based extensively on judgement and opinion, it is necessarily less exact than other disciplines. This situation has resulted in wholly unwarranted claims being lodged against consultants. To help prevent this problem, model clauses have been developed for use in written transmittals. These are definitive clauses designed to indicate consultant responsibility. Their use helps all parties involved recognise individual responsibilities and formulate appropriate action. Some of these definitive clauses are likely to appear in the environmental site assessment, and you are encouraged to read them closely. Your consultant will be pleased to give full and frank answers to any questions.



Appendix A: Report Figures



SOURCE: <http://www.whereis.com/>

AERIAL IMAGE SOURCE: MAPS.AU.NEARMAP.COM

Title:

SITE LOCATION PLAN

Location:

43-45 BEANE STREET, GOSFORD, NSW

Project No:

E37722PT

Figure No:

1

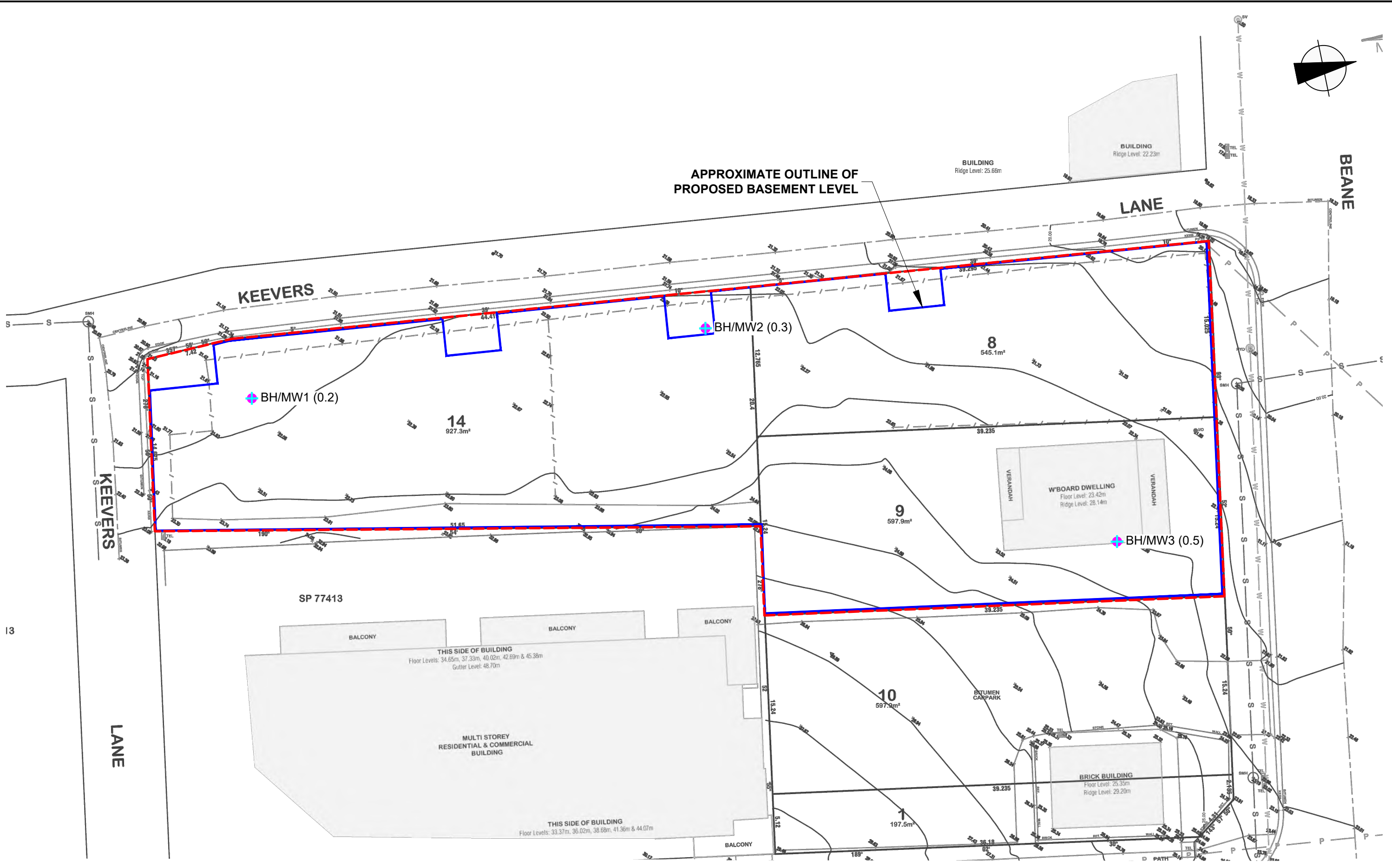
This plan should be read in conjunction with the Environmental report.

JKEnvironments



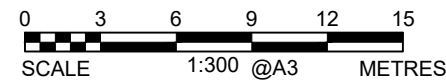
PLOT DATE: 29/07/2025 9:19:06 AM DWG FILE: K:\S\C EIS JOBS\37000\SE37722PT GOSFORD\CAD\E37722PT.DWG

13



LEGEND

- APPROXIMATE SITE BOUNDARY
- ◆ BH/MW(Fill Depth) BOREHOLE AND TWIN GROUNDWATER MONITORING WELL LOCATION, NUMBER AND DEPTH OF FILL (m)



This plan should be read in conjunction with the Environmental report.

Title: SAMPLE LOCATION PLAN	
Location: 43-45 BEANE STREET, GOSFORD, NSW	
Project No: E37722PT	Figure No: 2
JKEnvironments	





Appendix B: Laboratory Results Summary Tables

ABBREVIATIONS AND EXPLANATIONS FOR SALINITY TABLES

Abbreviations used in the Tables:

Ca	Calcium
CEC	Cation Exchange Capacity
DO	Dissolved Oxygen
EC	Electrical Conductivity
ECe	Extract Electrical Conductivity
Eh	Redox Potential
ESP	Exchangeable Sodium Percentage (Each Na/CEC)
K	Potassium
Mg	Magnesium
Na	Sodium
SWL	Standing Water Level

Units used in the Tables

°C	Degrees Celsius
dS/m	deciSiemens per metre
m	meters
meq/100g	milliequivalents per 100 grams
mg/kg	milligrams per kilogram
mg/L	milligrams per litre
mV	millivolts
ohm.cm	ohm centimetre
µS/cm	microSiemens per centimetre

Notes on Specific Tables

SUMMARY OF SOIL LABORATORY RESULTS - EC and ECe

- The salinity Class has been adopted from 'Site Investigations for Urban Salinity' DLWC 2002.
- The chart function assumes an ECe value of 1.9 for values that are less than the practical quatitation limit.

SUMMARY OF RESISTIVITY CALCULATION ON SOIL EC RESULTS

- The resistivity values have been calculated on the laboratory EC values.
- The classification has been derived from the Australian Standard 2159-2009 Piling Design and Installation (Table 6.5.2 [A] & [C])
- Table 6.5.2 [A] of Australian Standard 2159-2009 recommends using a Moderate Exposure Classification for Steel Piles in Fresh Water - Soft Running Water

SUMMARY OF SOIL LABORATORY RESULTS - pH

- The pH Classification has been derived from the Australian Standard 2159-2009 Piling Design and Installation (Tables 6.4.2 [C] & 6.5.2 [C])
- Table 6.5.2 [A] of Australian Standard 2159-2009 recommends using a Moderate Exposure Classification for Steel Piles in Fresh Water - Soft Running Water

SUMMARY OF SOIL LABORATORY RESULTS - SULFATE & CHLORIDES

- The classification has been derived from the Australian Standard 2159-2009 Piling Design and Installation (Table 6.5.2 [A] & [C])
- The chart function assumes an concentration of 0.5mg/kg for values that are less than the practical quatitation limit.

SUMMARY OF SOIL LABORATORY RESULTS - CEC & ESP

- The Sodcity rating has been adopted from the publication 'Site Investigations for Urban Salinity' DLWC 2002.

SUMMARY OF GROUNDWATER LABORATORY RESULTS

- The classification has been derived from the Australian Standard 2159-2009 Piling Design and Installation (Table 6.5.2 [A] & [C]) .
- Table 6.4.2 [A] recommends using a Mild Exposure Classification for Concrete Piles in Fresh Water - Treat as in Soil Condition 'A'.
- Table 6.5.2 [A] recommends using a Moderate Exposure Classification for Steel Piles in Fresh Water - Soft Running Water.

TABLE 1
SUMMARY OF SOIL LABORATORY RESULTS - EC and ECe

Borehole Number	Sample Depth (m)	Sample Description	EC ($\mu\text{S}/\text{cm}$)	ECe (dS/m)	Salinity Class
BH1	0.1-0.2	F: Gravelly Sandy Clay	130	<2	NON SALINE
BH3	0-0.2	F: Silty Clay	96	<2	NON SALINE
BH3	1-1.2	Silty Clay	39	<2	NON SALINE
Total Number of Samples			4	4	-
Minimum Value			39	<PQL	-
Maximum Value			130	<PQL	-

ECe Values (dS/m)

Salinity Class

<2	NON SALINE
2 to 4	SLIGHTLY SALINE
4 to 8	MODERATELY SALINE
8 to 16	VERY SALINE
>16	HIGHLY SALINE

TABLE 2
SUMMARY OF RESISTIVITY CALCULATION ON SOIL EC RESULTS

Borehole Number	Sample Depth (m)	Sample Description	EC (µS/cm)	Resistivity (ohm.cm)	Classification Condition B
BH1	0.1-0.2	F: Gravelly Sandy Clay	130	7,692	Non Aggressive
BH1	0.9-1.0	Silty Clay	46	21,739	Non Aggressive
BH3	0-0.2	F: Silty Clay	96	10,417	Non Aggressive
BH3	1-1.2	Silty Clay	39	25,641	Non Aggressive
Total Number of Samples			4	4	-
Minimum Value			39	7,692	-
Maximum Value			130	25,641	-

Classification is based on Soil condition 'B' - low permeability soils (e.g. silts & clays) or all soils above groundwater.

Resistivity Values (ohm.cm) **Classification for Steel Piles**

>5,000	Non-Aggressive
2,000 - 5,000	Non-Aggressive
1,000 - 2,000	Mildly Aggressive
<1,000	Moderately Aggressive

TABLE 3
SUMMARY OF SOIL LABORATORY RESULTS - pH

Borehole Number	Sample Depth (m)	Sample Description	pH	Classification for Concrete Piles Condition B	Classification for Steel Piles Condition B
BH1	0.1-0.2	F: Gravelly Sandy Clay	5.8	Non-Aggressive	Non-Aggressive
BH1	0.1-0.2	LAB DUPLICATE	6.3	Non-Aggressive	Non-Aggressive
BH1	0.9-1.0	Silty Clay	4.7	Mildly Aggressive	Non-Aggressive
BH3	0-0.2	F: Silty Clay	7	Non-Aggressive	Non-Aggressive
BH3	1-1.2	Silty Clay	4.8	Mildly Aggressive	Non-Aggressive
Total Number of Samples			5	-	-
Minimum Value			4.7	-	-
Maximum Value			7	-	-

Classification is based on Soil condition 'B' - low permeability soils (e.g. silts & clays) or all soils above groundwater.

pH Value	Classification for Concrete Piles	pH Value	Classification for Steel Piles
>5.5	Non-Aggressive	>5	Non-Aggressive
4.5 - 5.5	Mildly Aggressive	4.0 - 5.0	Non-Aggressive
4 - 4.5	Moderately Aggressive	3.0 - 4.0	Mildly Aggressive
<4	Severely Aggressive	<3	Moderately Aggressive

TABLE 4
SUMMARY OF SOIL LABORATORY RESULTS - SULPHATE & CHLORIDES

Borehole Number	Sample Depth (m)	Sample Description	Chloride (mg/kg)	Sulphate (mg/kg)	Classification for Concrete Piles Sulfate - Condition B	Classification for Steel Piles Chloride - Condition B
BH1	0.1-0.2	F: Gravelly Sandy Clay	<10	160	Non-Aggressive	Non-Aggressive
BH1	0.1-0.2	LAB DUPLICATE	<10	140	Non-Aggressive	Non-Aggressive
BH1	0.9-1.0	Silty Clay	20	41	Non-Aggressive	Non-Aggressive
BH3	0-0.2	F: Silty Clay	<10	26	Non-Aggressive	Non-Aggressive
BH3	1-1.2	Silty Clay	<10	36	Non-Aggressive	Non-Aggressive
Total Number of Samples			5	5	-	-
Minimum Value			<PQL	26	-	-
Maximum Value			20	160	-	-

Classification is based on Soil condition 'B' - low permeability soils (e.g. silts & clays) or all soils above groundwater.

Sulfate Values	Classification for Concrete Piles	Chloride Values	Classification for Steel Piles
<5,000	Non-Aggressive	<5,000	Non-Aggressive
5,000 - 10,000	Mildly Aggressive	5,000 - 20,000	Non-Aggressive
10,000 - 20,000	Moderately Aggressive	20,000 - 50,000	Mildly Aggressive
>20,000	Severely Aggressive	>50,000	Moderately Aggressive

TABLE 5 SUMMARY OF SOIL LABORATORY RESULTS - CEC & ESP									
Borehole Number	Sample Depth (m)	Sample Description	Exchangeable Ca	Exchangeable K	Exchangeable Mg	Exchangeable Na	CEC	ESP %	Ca:Mg
			(meq/100g)						
BH1	0.9-1.0	Silty Clay	0.2	0.2	0.4	<0.1	<1	10.0%	0.5:1
Total Number of Samples			1	1	1	1	1	1	1
Minimum Value			0.20	0.20	0.40	<PQL	<PQL	10.0%	0.5 :1
Maximum Value			0.20	0.20	0.40	<PQL	<PQL	10.0%	0.5 :1
ESP Value Sodicity Rating < 5% 5% to 15% > 15% Non-Sodic Sodic Highly Sodic									

TABLE 6
SUMMARY OF GROUNDWATER LABORATORY RESULTS

Sample Reference	Field Measurements						Laboratory Results					Classification for Concrete Piles Soil Condition B	Classification for Steel Piles Soil Condition B
	SWL (m)	pH	EC (µS/cm)	Temp (°C)	Eh (mV)	DO (mg/L)	pH	EC	(µS/cm)	Sulfate (mg/L)	Chloride (mg/L)		
MW1a	5.58	5.1	233	20	226.9	2.02	5.7	260		25	31	Non-Aggressive	Non-Aggressive
MW1a	5.58	5.1	233	20	226.9	2.02	5.7	260		26	32	Non-Aggressive	Non-Aggressive
MW2a	5.71	6.7	324	19	22.7	0.72	6.9	370		33	26	Non-Aggressive	Non-Aggressive
MW3a	6.25	4.7	199	14.5	118.4	4.19	5.3	270		32	30	Mildly Aggressive	Non-Aggressive
Total Number of Samples	7	7	7	7	7	7	7	7		7	7	-	-
Minimum Value	5.58	4.7	199	14.5	22.7	0.72	5.3	260		25	26	-	-
Maximum Value	6.25	6.7	324	20	226.9	4.19	6.9	370		33	32	-	-
Exposure Classification for Concrete Piles							pH	Sulfate (mg/L)		Chloride (mg/L)		Classification B	
Classification is based on Soil condition 'B' - low permeability soils (e.g. silts and clays) or all soils above groundwater.							> 5.5	<1,000		<6,000		Non-Aggressive	
							4.5 - 5.5	1,000 - 3,000		6,000 - 12,000		Mildly Aggressive	
							4.0 - 4.5	3,000 - 10,000		12,000 - 30,000		Moderately Aggressive	
							< 4	>10,000		>30,000		Severely Aggressive	
Exposure Classification for Steel Piles							pH			Chloride (mg/L)		Classification B	
Classification is also based on Soil condition 'B' - low permeability soils (e.g. silts and clays) or all soils above groundwater.							> 5			<1,000		Non-Aggressive	
							4.0 - 5.0			1,000 - 10,000		Non-Aggressive	
							3.0 - 4.0			10,000 - 20,000		Mildly Aggressive	
							<3			>20,000		Moderately Aggressive	



Appendix C: Lotsearch Environmental Report



LOTSEARCH

LOTSEARCH ENVIRO PROFESSIONAL

Date: 30 Jun 2025 10:42:56

Reference: LS086279 EP

Address: 43-45 Beane Street, Gosford, NSW 2250

Disclaimer:

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

Dataset Listing

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

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features On-site	No. Features within 100m	No. Features within Buffer
Cadastre Boundaries	NSW Department of Customer Service - Spatial Services	24/06/2025	24/06/2025	Monthly	-	-	-	-
Topographic Data	NSW Department of Customer Service - Spatial Services	20/05/2025	20/05/2025	Annually	-	-	-	-
List of NSW contaminated sites notified to EPA	Environment Protection Authority NSW	10/06/2025	08/05/2025	Monthly	1000m	0	0	0
Contaminated Land Records of Notice	Environment Protection Authority NSW	11/06/2025	11/06/2025	Monthly	1000m	0	0	0
Former Gasworks	Environment Protection Authority NSW	20/05/2025	15/05/2025	Quarterly	1000m	0	0	0
Notices under the POEO Act 1997	Environment Protection Authority NSW	28/05/2025	28/05/2025	Monthly	1000m	0	0	1
National Waste Management Facilities Database	Geoscience Australia	30/05/2025	19/01/2023	Annually	1000m	0	0	1
National Liquid Fuel Facilities	Geoscience Australia	16/10/2024	19/01/2023	Annually	1000m	0	0	0
EPA PFAS Investigation Program	Environment Protection Authority NSW	30/06/2025	05/02/2025	Monthly	2000m	0	0	0
Defence PFAS Investigation & Management Program - Investigation Sites	Australian Department of Defence	11/06/2025	11/06/2025	Monthly	2000m	0	0	0
Defence PFAS Investigation & Management Program - Management Sites	Australian Department of Defence	11/06/2025	11/06/2025	Monthly	2000m	0	0	0
Airservices Australia National PFAS Management Program	Airservices Australia	11/06/2025	21/05/2025	Monthly	2000m	0	0	0
Defence Controlled Areas	Australian Department of Defence	10/04/2025	10/04/2025	Quarterly	2000m	0	0	0
Defence 3 Year Regional Contamination Investigation Program	Australian Department of Defence	11/06/2025	02/09/2022	Quarterly	2000m	0	0	0
National Unexploded Ordnance (UXO)	Australian Department of Defence	10/04/2025	10/04/2025	Quarterly	2000m	0	0	0
EPA Other Sites with Contamination Issues	Environment Protection Authority NSW	28/11/2024	15/12/2022	Annually	1000m	0	0	0
Licensed Activities under the POEO Act 1997	Environment Protection Authority NSW	16/06/2025	16/06/2025	Monthly	1000m	0	0	2
Delicensed POEO Activities still regulated by the EPA	Environment Protection Authority NSW	16/06/2025	16/06/2025	Monthly	1000m	0	0	2
Former POEO Licensed Activities now revoked or surrendered	Environment Protection Authority NSW	16/06/2025	16/06/2025	Monthly	1000m	0	0	6
UBD Business Directories (Premise & Intersection Matches)	Hardie Grant			Not required	150m	0	169	257
UBD Business Directories (Road & Area Matches)	Hardie Grant			Not required	150m	-	160	207
UBD Business Directory Dry Cleaners & Motor Garages/Service Stations (Premise & Intersection Matches)	Hardie Grant			Not required	500m	0	4	29
UBD Business Directory Dry Cleaners & Motor Garages/Service Stations (Road & Area Matches)	Hardie Grant			Not required	500m	-	13	19
Points of Interest	NSW Department of Customer Service - Spatial Services	19/05/2025	19/05/2025	Quarterly	1000m	0	0	52
Tanks (Areas)	NSW Department of Customer Service - Spatial Services	19/05/2025	19/05/2025	Quarterly	1000m	0	0	0
Tanks (Points)	NSW Department of Customer Service - Spatial Services	19/05/2025	19/05/2025	Quarterly	1000m	0	0	4
Major Easements	NSW Department of Customer Service - Spatial Services	20/05/2025	20/05/2025	Quarterly	1000m	0	1	28
State Forest	Forestry Corporation of NSW	18/12/2024	11/11/2024	Annually	1000m	0	0	0
Hydrogeology Map of Australia	Geoscience Australia	22/04/2025	19/08/2019	Annually	1000m	1	1	1

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features On-site	No. Features within 100m	No. Features within Buffer
Temporary Water Restriction (Botany Sands Groundwater Source) Order 2024	NSW Department of Climate Change, Energy, the Environment and Water	13/05/2025	28/06/2024	Quarterly	1000m	0	0	0
National Groundwater Information System (NGIS) Boreholes	Bureau of Meteorology; Water NSW	30/05/2025	04/03/2025	Annually	2000m	0	0	65
NSW Seamless Geology Single Layer: Rock Units	NSW Department of Primary Industries and Regional Development	19/05/2025	16/04/2024	Annually	1000m	1	1	6
NSW Seamless Geology Single Layer: Geological Boundaries and Faults	NSW Department of Primary Industries and Regional Development	19/05/2025	16/04/2024	Annually	1000m	0	0	0
NSW Seamless Geology Single Layer: Trendlines	NSW Department of Primary Industries and Regional Development	19/05/2025	16/04/2024	Annually	1000m	0	0	0
NSW Seamless Geology Single Layer: Fold Axes	NSW Department of Primary Industries and Regional Development	19/05/2025	16/04/2024	Annually	1000m	0	0	0
Naturally Occurring Asbestos Potential	NSW Department of Primary Industries and Regional Development	05/05/2025	30/09/2015	Annually	1000m	0	0	0
Atlas of Australian Soils	Australian Bureau of Agriculture and Resource Economics and Sciences (ABARES)	15/01/2025	17/02/2011	Annually	1000m	1	2	2
Soil Landscapes of Central and Eastern NSW	NSW Department of Climate Change, Energy, the Environment and Water	18/12/2024	27/07/2020	Annually	1000m	1	1	5
Environmental Planning Instrument Acid Sulfate Soils	NSW Department of Planning, Housing and Infrastructure	26/06/2025	09/05/2025	Monthly	500m	3	-	-
Atlas of Australian Acid Sulfate Soils	CSIRO	15/01/2025	21/02/2013	Annually	1000m	1	1	3
Dryland Salinity - National Assessment	Australian Bureau of Agricultural and Resource Economics and Sciences	03/06/2025	15/04/2025	Annually	1000m	0	0	0
Mining Subsidence Districts	NSW Department of Customer Service	20/05/2025	20/05/2025	Quarterly	1000m	0	0	0
Current Mining Titles	NSW Department of Primary Industries and Regional Development	02/06/2025	02/06/2025	Monthly	1000m	0	0	0
Mining Title Applications	NSW Department of Primary Industries and Regional Development	02/06/2025	02/06/2025	Monthly	1000m	0	0	0
Historic Mining Titles	NSW Department of Primary Industries and Regional Development	02/06/2025	02/06/2025	Monthly	1000m	13	13	15
Environmental Planning Instrument SEPP State Significant Precincts	NSW Department of Planning, Housing and Infrastructure	26/06/2025	08/09/2023	Monthly	1000m	1	1	1
Environmental Planning Instrument Land Zoning	NSW Department of Planning, Housing and Infrastructure	26/06/2025	13/06/2025	Monthly	1000m	1	2	66
Commonwealth Heritage List	Australian Department of Climate Change, Energy, the Environment and Water	23/10/2024	13/04/2022	Annually	1000m	0	0	0
National Heritage List	Australian Department of Climate Change, Energy, the Environment and Water	23/10/2024	13/04/2022	Annually	1000m	0	0	0
State Heritage Register - Curtilages	NSW Department of Planning, Industry and Environment	20/05/2025	21/03/2025	Quarterly	1000m	0	0	1
Environmental Planning Instrument Local Heritage	NSW Department of Planning, Housing and Infrastructure	26/06/2025	13/06/2025	Monthly	1000m	0	3	33
Bush Fire Prone Land	NSW Rural Fire Service	24/06/2025	23/06/2025	Monthly	1000m	0	1	3
NSW Native Vegetation Type Map	NSW Department of Climate Change, Energy, the Environment and Water	28/05/2025	04/10/2024	Quarterly	1000m	1	1	57
Ramsar Wetlands of Australia	Australian Department of Climate Change, Energy, the Environment and Water	19/05/2025	05/03/2025	Annually	1000m	0	0	0
Collaborative Australian Protected Areas Database (CAPAD) 2022 - Terrestrial	Australian Department of Climate Change, Energy, The Environment and Water	20/03/2025	19/06/2024	Annually	1000m	0	0	0

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features On-site	No. Features within 100m	No. Features within Buffer
Collaborative Australian Protected Areas Database (CAPAD) 2022 - Marine	Australian Department of Climate Change, Energy, The Environment and Water	20/03/2025	30/06/2022	Annually	1000m	0	0	0
Groundwater Dependent Ecosystems	Bureau of Meteorology	30/05/2025	07/05/2020	Annually	1000m	0	0	3
Inflow Dependent Ecosystems Likelihood	Bureau of Meteorology	30/05/2025	07/05/2020	Annually	1000m	0	0	3
NSW BioNet Species Sightings	NSW Department of Climate Change, Energy, the Environment and Water	13/06/2025	13/06/2025	Monthly	10000m	-	-	-

Site Diagram

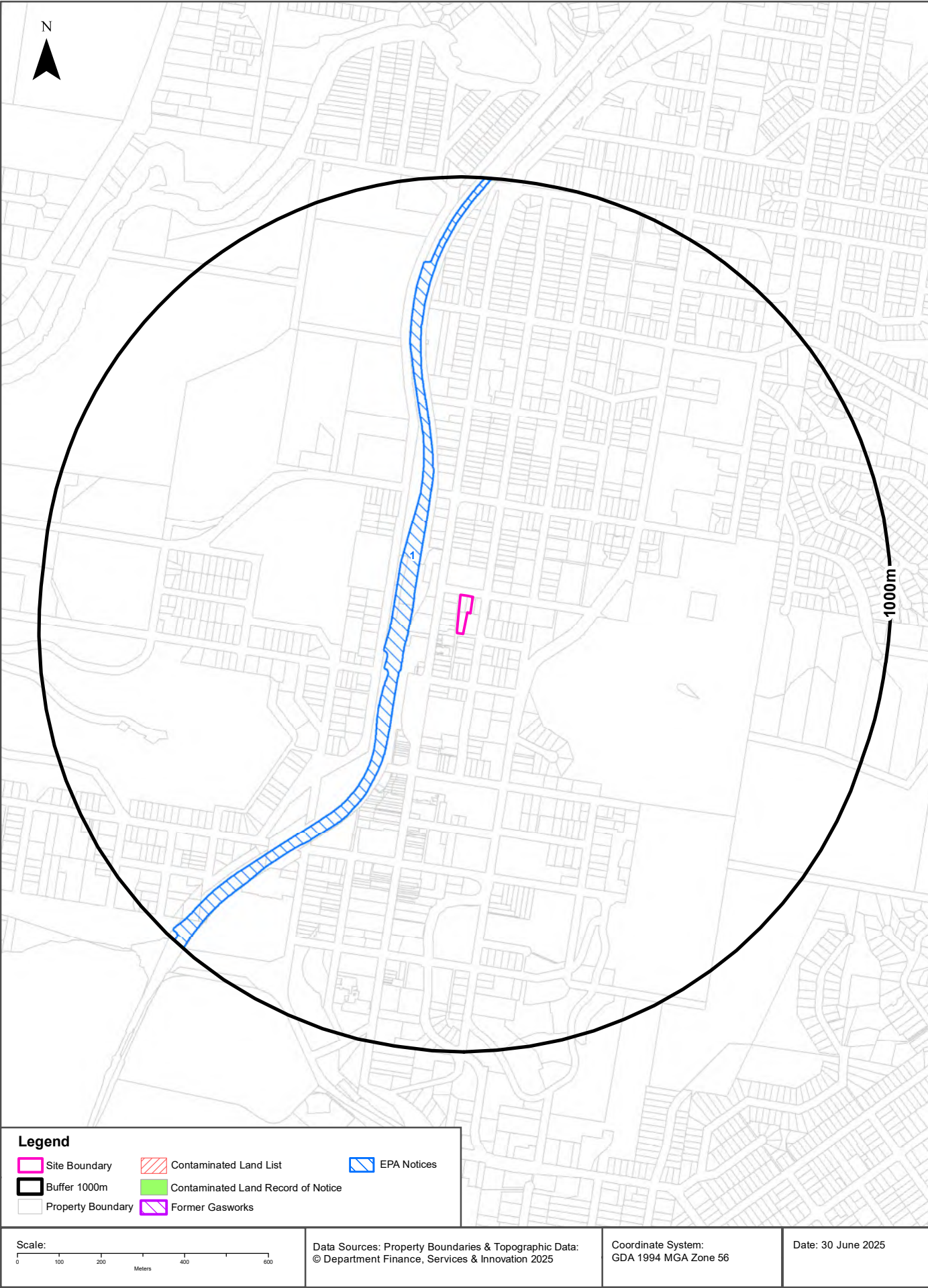
43-45 Beane Street, Gosford, NSW 2250



Legend Site Boundary Internal Parcel Boundaries	Total Area: 2069m ² Total Perimeter: 235m	
	Scale: 012.525 Meters	
	Data Sources: Property Boundaries & Topographic Data: © Department Finance, Services & Innovation 2025	
	Coordinate System: GDA 1994 MGA Zone 56	Date: 30 June 2025

Contaminated Land

43-45 Beane Street, Gosford, NSW 2250



Contaminated Land

43-45 Beane Street, Gosford, NSW 2250

List of NSW contaminated sites notified to EPA

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

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

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

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

NSW EPA Contaminated Land List Data Source: Environment Protection Authority

© State of New South Wales through the Environment Protection Authority

Contaminated Land

43-45 Beane Street, Gosford, NSW 2250

Contaminated Land: Records of Notice

Record of Notices within the dataset buffer:

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

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

Former Gasworks

Former Gasworks within the dataset buffer:

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

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

Contaminated Land

43-45 Beane Street, Gosford, NSW 2250

EPA Notices

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

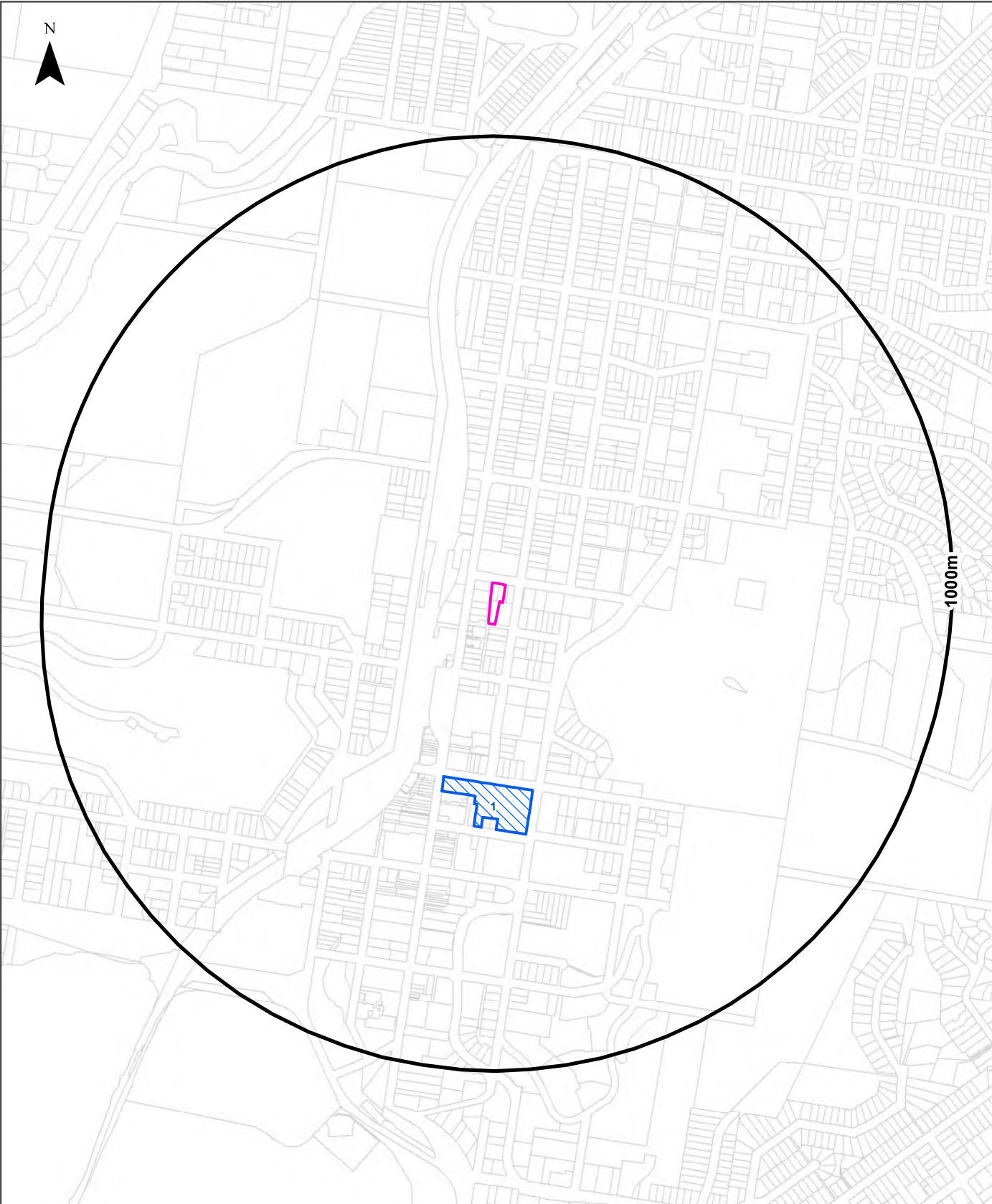
Map ID	Number	Type	Name	Address	Status	Issued Date	Act	Offence	Offence Date	Loc Conf	Dist	Dir
1	3173530755	Penalty Notice	SYDNEY TRAINS	SYDNEY TRAINS, HAYMARKET, NSW 1238	Issued	10/11/2021	Protection of the Environment Operations Act 1997 - 64(1)	Contravene condition of licence - Corporation	31/05/2021	Network of Features	111m	West

NSW EPA Notice Data Source: Environment Protection Authority

© State of New South Wales through the Environment Protection Authority

Waste Management & Liquid Fuel Facilities

43-45 Beane Street, Gosford, NSW 2250



Legend

- Site Boundary
- Waste Management Facilities
- Buffer 1000m
- National Liquid Fuel Facilities
- Property Boundary

Scale: 0 100 200 400 600 Meters

Data Sources: Property Boundaries & Topographic Data:
© Department Finance, Services & Innovation 2025

Coordinate System:
GDA 1994 MGA Zone 56

Date: 30 June 2025

Waste Management & Liquid Fuel Facilities

43-45 Beane Street, Gosford, NSW 2250

National Waste Management Facilities Database

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

Map ID	Owner	Name	Address	Management Type	Facility Type	Status	Loc Conf	Dist	Dir
1	WOOLWORTHS	WOOLWORTHS SUPERMARKET	171 MANN STREET, GOSFORD	DROP-OFF	SOFT PLASTICS DROP-OFF FACILITY	OPERATIONAL	Premise Match	354m	South

Source: Waste Management Facilities Database
Creative Commons 4.0 © Commonwealth of Australia (Geoscience Australia) 2022

National Liquid Fuel Facilities

National Liquid Fuel Facilities within the dataset buffer:

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

National Liquid Fuel Facilities Data Source: Geoscience Australia
Creative Commons 4.0 © Commonwealth of Australia

PFAS Investigation & Management Programs

43-45 Beane Street, Gosford, NSW 2250

EPA PFAS Investigation Program

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

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

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

Defence PFAS Investigation Program

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

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

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

Defence PFAS Management Program

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

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

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

Airservices Australia National PFAS Management Program

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

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

Airservices Australia National PFAS Management Program Data Custodian: Airservices Australia

Defence Sites and Unexploded Ordnance

43-45 Beane Street, Gosford, NSW 2250

Defence Controlled Areas (DCA)

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

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

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

Defence 3 Year Regional Contamination Investigation Program (RCIP)

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

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

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

National Unexploded Ordnance (UXO)

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

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

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

EPA Other Sites with Contamination Issues

43-45 Beane Street, Gosford, NSW 2250

EPA Other Sites with Contamination Issues

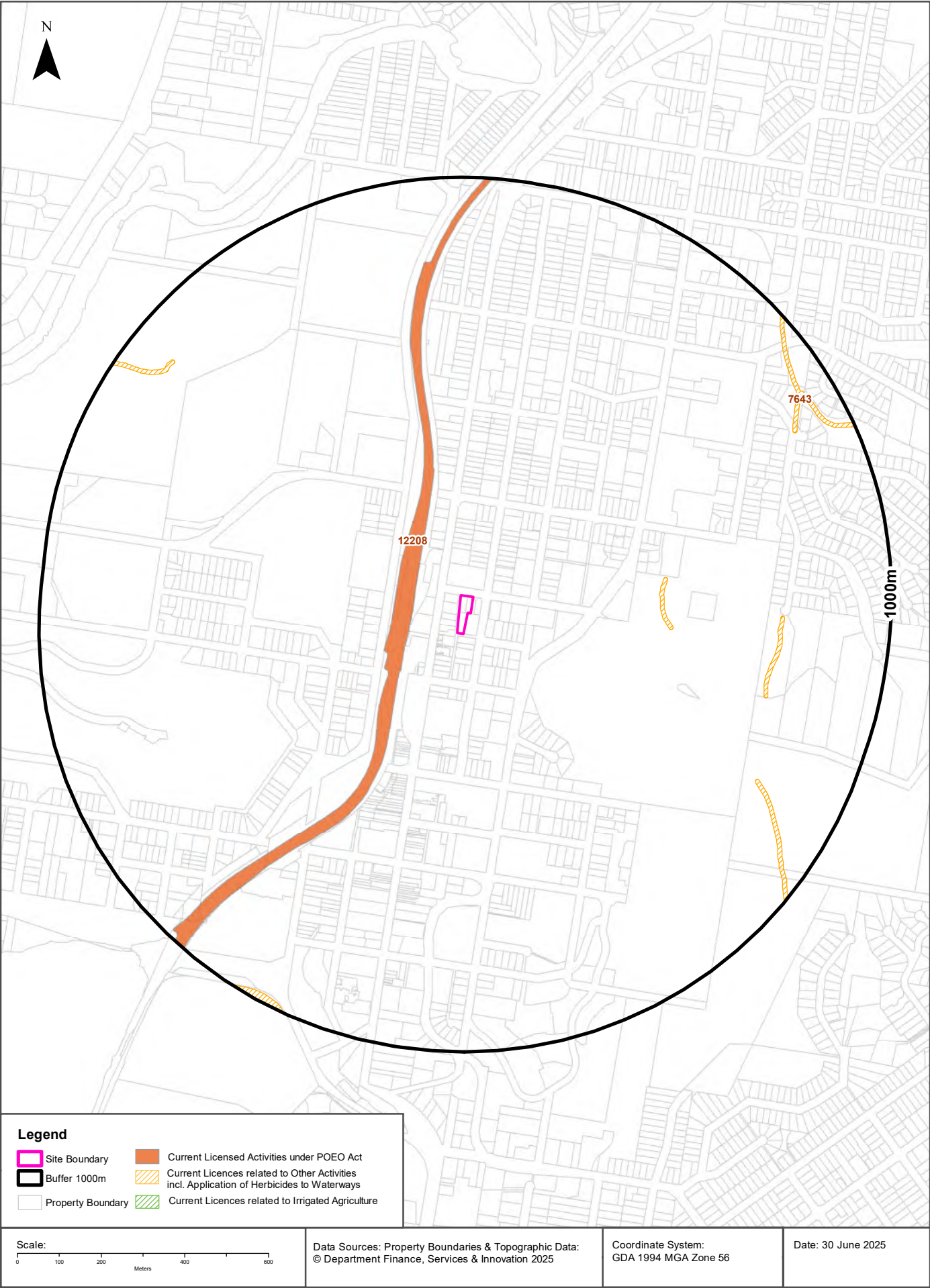
This dataset contains other sites identified on the EPA website as having contamination issues. This dataset currently includes:

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

Sites within the dataset buffer:

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

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



EPA Activities

43-45 Beane Street, Gosford, NSW 2250

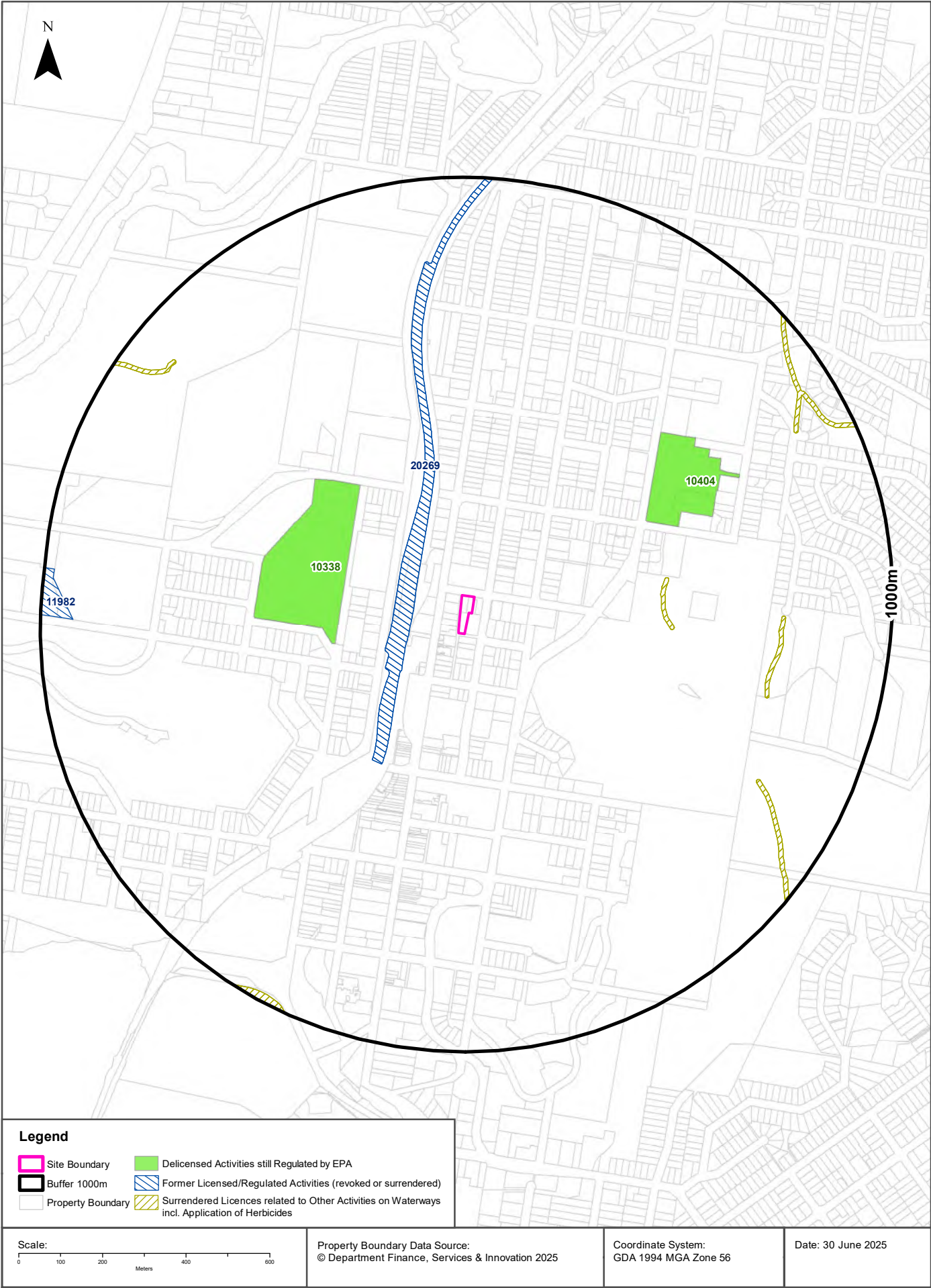
Licensed Activities under the POEO Act 1997

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

EPL	Organisation	Name	Address	Suburb	Activity	Loc Conf	Distance	Direction
12208	SYDNEY TRAINS		SYDNEY TRAINS, HAYMARKET, NSW 1238		Railway systems activities	Network of Features	111m	West
7643	Central Coast Council	THE WATERS WITHIN THE CENTRAL COAST LOCAL GOVERNMENT AREA	MULTIPLE WATERWAYS, CENTRAL COAST MC, NSW 2252	GOSFORD	Other activities	Network of Features	445m	East

POEO Licence Data Source: Environment Protection Authority

© State of New South Wales through the Environment Protection Authority



Legend

 Site Boundary

 Buffer 1000m

 Property Boundary

 Delicensed Activities still Regulated by EPA

 Former Licensed/Regulated Activities (revoked or surrendered)

 Surrendered Licences related to Other Activities on Waterways incl. Application of Herbicides

Scale:

0

100

200

400

600

Meters

Property Boundary Data Source:
© Department Finance, Services & Innovation 2025

Coordinate System:
GDA 1994 MGA Zone 56

Date: 30 June 2025

EPA Activities

43-45 Beane Street, Gosford, NSW 2250

Delicensed Activities still regulated by the EPA

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

Licence No	Organisation	Name	Address	Suburb	Activity	Loc Conf	Distance	Direction
10338	NORTHERN SYDNEY AND CENTRAL COAST AREA HEALTH SERVICE	GOSFORD HOSPITAL	HOLDEN STREET	GOSFORD	Hazardous, Industrial or Group A Waste Generation or Storage	Premise Match	283m	West
10404	HEALTH CARE NORTH GOSFORD PTY LTD	NORTH GOSFORD PRIVATE HOSPITAL	9 BURRABIL AVENUE	GOSFORD	Hazardous, Industrial or Group A Waste Generation or Storage	Premise Match	448m	North East

Delicensed Activities Data Source: Environment Protection Authority

© State of New South Wales through the Environment Protection Authority

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

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

Licence No	Organisation	Location	Status	Issued Date	Activity	Loc Conf	Distance	Direction
20269	DOWNER EDI WORKS PTY LTD	Gosford Passing Loops Project, Main North Line Corridor - 2km section between Gosford and Narara Stations, GOSFORD	Surrendered	14/05/2013	Crushing, grinding or separating	Network of Features	111m	North West
20269	DOWNER EDI WORKS PTY LTD	Gosford Passing Loops Project, Main North Line Corridor - 2km section between Gosford and Narara Stations, GOSFORD	Surrendered	14/05/2013	Railway systems activities	Network of Features	111m	North West
4653	LUHRMANN ENVIRONMENT MANAGEMENT PTY LTD	WATERWAYS THROUGHOUT NSW	Surrendered	06/09/2000	Other Activities / Non Scheduled Activity - Application of Herbicides	Network of Features	445m	East
4838	Robert Orchard	Various Waterways throughout New South Wales - SYDNEY NSW 2000	Surrendered	07/09/2000	Other Activities / Non Scheduled Activity - Application of Herbicides	Network of Features	445m	East
6630	SYDNEY WEED & PEST MANAGEMENT PTY LTD	WATERWAYS THROUGHOUT NSW - PROSPECT, NSW, 2148	Surrendered	09/11/2000	Other Activities / Non Scheduled Activity - Application of Herbicides	Network of Features	445m	East
11982	AUSGRID	Ausgrid West Gosford Depot, Cnr Faunce Street & Racecourse Road, GOSFORD	Surrendered	18/08/2004	Waste storage - hazardous, restricted solid, liquid, clinical and related waste and asbestos waste	Premise Match	922m	West

Former Licensed Activities Data Source: Environment Protection Authority

© State of New South Wales through the Environment Protection Authority

Historical Business Directories

43-45 Beane Street, Gosford, NSW 2250



Historical Business Directories

43-45 Beane Street, Gosford, NSW 2250

Business Directory Records 1950-1982 Premise or Road Intersection Matches

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

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
1	JOINERS	Crick, A. L., 293 Mann St., Gosford	184459	1950	Premise Match	6m	West
2	ENGINEERS - CIVIL	Brown, M. T., 277 Mann St., Gosford 2250	124059	1982	Premise Match	11m	South West
	HOSPITAL SUPPLIES & EQUIPMENT MFRS. &/OR DIST.	Medihire., 277 Mann St., Gosford 2250	124379	1982	Premise Match	11m	South West
	BUILDING DESIGNERS.	Mooney, Grahame & Associates., 277 Mann St., Gosford 2250	123684	1982	Premise Match	11m	South West
	DRAUGHTSMEN	Mooney, Grahame & Associates., 277 Mann St., Gosford 2250	123968	1982	Premise Match	11m	South West
	PLAN & / OR SPECIFICATION SPECIALISTS	Mooney, Grahame & Associates., 277 Mann St., Gosford 2250	125026	1982	Premise Match	11m	South West
	PLAN PRINTERS	Mooney, Grahame R. Associates., 277 Mann St., Gosford 2250	125020	1982	Premise Match	11m	South West
	WATER BEDS	Sleeper Catcher Water Beds., 277 Mann St., Gosford 2250	125515	1982	Premise Match	11m	South West
3	SADDLERS	Central Coast Saddlery., 315 Mann St., Gosford 2250	125193	1982	Premise Match	20m	North
	AGRICULTURAL MACHINERY HIRERS &/OR DEALERS	Gosford Co-op Citrus Packing House Ltd., 307 Mann St., Gosford 2250	123440	1982	Premise Match	20m	North
	AGRICULTURAL MACHINERY MFRS. &/ OR IMPS. &/OR DIST.	Gosford Co-op Citrus Packing House Ltd., 307 Mann St., Gosford 2250	123442	1982	Premise Match	20m	North
	BOX & CASE MFRS. &/OR MERCHANTS	Gosford Co-op Citrus Packing House Ltd., 307 Mann St., Gosford 2250	123633	1982	Premise Match	20m	North
	FERTILIZER MFRS. &/OR SUPPLIERS	Gosford Co-op Citrus Packing House Ltd., 307 Mann St., Gosford 2250	124113	1982	Premise Match	20m	North
	HARDWARE &/OR BUILDERS SUPPLIES	Gosford Co-op Citrus Packing House Ltd., 307 Mann St., Gosford 2250	124325	1982	Premise Match	20m	North
	IRRIGATION SYSTEMS &/ OR EQUIPMENT MFRS. &/OR DIST.	Gosford Co-op Citrus Packing House Ltd., 307 Mann St., Gosford 2250	124445	1982	Premise Match	20m	North
	LAWNMOWER SALES & / OR SERVICE	Gosford Co-op Citrus Packing House Ltd., 307 Mann St., Gosford 2250	124496	1982	Premise Match	20m	North
	MOTOR CAR &/OR TRUCK DEALERS - NEW &/OR USED.	Gosford Co-op Citrus Packing House Ltd., 307 Mann St., Gosford 2250	124699	1982	Premise Match	20m	North
	MOTOR CYCLE IMPS. &/ OR DIST.	Gosford Co-op Citrus Packing House Ltd., 307 Mann St., Gosford 2250	124725	1982	Premise Match	20m	North
	OUTBOARD MOTOR MFRS. & / OR DIST.	Gosford Co-op Citrus Packing House Ltd., 307 Mann St., Gosford 2250	124946	1982	Premise Match	20m	North
	RANGES - ELECTRIC - MFRS. &/OR IMPS. &/OR DIST.	Gosford Co-op Citrus Packing House Ltd., 307 Mann St., Gosford 2250	125115	1982	Premise Match	20m	North
	RANGES - FUEL &/OR SLOW COMBUSTION - MFRS. &/OR IMPS. &/OR DIST.	Gosford Co-op Citrus Packing House Ltd., 307 Mann St., Gosford 2250	125117	1982	Premise Match	20m	North
	SEED MERCHANTS.	Gosford Co-op Citrus Packing House Ltd., 307 Mann St., Gosford 2250	125242	1982	Premise Match	20m	North
	TRACTOR IMPS. &/OR MFRS. &/OR DIST.	Gosford Co-op Citrus Packing House Ltd., 307 Mann St., Gosford 2250	125454	1982	Premise Match	20m	North
	TRAILERS &/OR SEMI-TRAILERS MFRS. &/OR DIST. &/ OR HIRERS	Gosford Co-op Citrus Packing House Ltd., 307 Mann St., Gosford 2250	125459	1982	Premise Match	20m	North

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
3	READY-CUT HOMES	Gosford Sawmills & Joinery Works, 315 Mann St., Gosford 2250	125119	1982	Premise Match	20m	North
	BUILDERS HARDWARE MFRS. &/OR DIST.	Gosford Sawmills & Joinery Works., 315 Mann St., Gosford 2250	123676	1982	Premise Match	20m	North
	FENCING CONTRACTORS	Gosford Sawmills & Joinery Works., 315 Mann St., Gosford 2250	124111	1982	Premise Match	20m	North
	GARAGE DOOR MFRS. &/ OR DIST.	Gosford Sawmills & Joinery Works., 315 Mann St., Gosford 2250	124216	1982	Premise Match	20m	North
	HARDWARE &/OR BUILDERS SUPPLIES	Gosford Sawmills & Joinery Works., 315 Mann St., Gosford 2250	124328	1982	Premise Match	20m	North
	JOINERY MERCHANTS	Gosford Sawmills & Joinery Works., 315 Mann St., Gosford 2250	124473	1982	Premise Match	20m	North
	LIME &/OR CEMENT MERCHANTS	Gosford Sawmills & Joinery Works., 315 Mann St., Gosford 2250	124501	1982	Premise Match	20m	North
	ROOFING MATERIAL MFRS. &/ OR DIST.	Gosford Sawmills & Joinery Works., 315 Mann St., Gosford 2250	125186	1982	Premise Match	20m	North
	TIMBER MERCHANTS &/ OR SAWMILLERS	Gosford Sawmills & Joinery Works., 315 Mann St., Gosford 2250	125423	1982	Premise Match	20m	North
	PLUMBERS SUPPLIES.	Gostord Co-op Citrus Packing House Ltd., 307 Mann St., Gosford 2250	125050	1982	Premise Match	20m	North
	PUMP & PUMPING EQUIPMENT MFRS. &/OR DIST.	Gostord Co-op Citrus Packing House Ltd., 307 Mann St., Gosford 2250	125093	1982	Premise Match	20m	North
	TRACTOR REPAIR SPECIALISTS	Gostord Co-op Citrus Packing House Ltd., 307 Mann St., Gosford 2250	125456	1982	Premise Match	20m	North
	BOX & CASE MERCHANTS &/OR MANUFACTURERS	Gosford Co-op. Citrus Packing House Ltd., 307-309 Mann St. Gosford 2250	537950	1970	Premise Match	20m	North
	FERTILIZERS-MFRS. &/OR SUPPLIERS	Gosford Co-op. Citrus Packing House Ltd., 307-309 Mann St. Gosford 2250	538240	1970	Premise Match	20m	North
	IRRIGATION SYSTEMS EQUIPMENT-MFRS./DIST.	Gosford Co-op. Citrus Packing House Ltd., 307-309 Mann St. Gosford 2250	538448	1970	Premise Match	20m	North
	LAWN MOWER SALES & SERVICE	Gosford Co-op. Citrus Packing House Ltd., 307-309 Mann St. Gosford 2250	538471	1970	Premise Match	20m	North
	MOTOR CAR & TRUCK DEALERS-NEW & USED	Gosford Co-op. Citrus Packing House Ltd., 307-309 Mann St. Gosford 2250	538597	1970	Premise Match	20m	North
	MOTOR CYCLE SALES & SERVICE	Gosford Co-op. Citrus Packing House Ltd., 307-309 Mann St. Gosford 2250	538616	1970	Premise Match	20m	North
	OUTBOARD MOTORS MANUFACTURERS & DISTRIBUTORS	Gosford Co-op. Citrus Packing House Ltd., 307-309 Mann St. Gosford 2250	538738	1970	Premise Match	20m	North
	PLUMBERS' SUPPLIES	Gosford Co-op. Citrus Packing House Ltd., 307-309 Mann St. Gosford 2250	538789	1970	Premise Match	20m	North
	PUMP EQUIPMENT MANUFACTURER & DISTRIBUTOR	Gosford Co-op. Citrus Packing House Ltd., 307-309 Mann St. Gosford 2250	538803	1970	Premise Match	20m	North
	RANGES-ELECTRIC-MANUFACTURERS &/OR DIST.	Gosford Co-op. Citrus Packing House Ltd., 307-309 Mann St. Gosford 2250	538831	1970	Premise Match	20m	North
	SEED MERCHANTS	Gosford Co-op. Citrus Packing House Ltd., 307-309 Mann St. Gosford 2250	538878	1970	Premise Match	20m	North
	TRACTOR IMPORTERS, MFRS. &/OR DISTRIBUTORS	Gosford Co-op. Citrus Packing House Ltd., 307-309 Mann St. Gosford 2250	538981	1970	Premise Match	20m	North
	TRACTOR REPAIR SPECIALISTS	Gosford Co-op. Citrus Packing House Ltd., 307-309 Mann St. Gosford 2250	538979	1970	Premise Match	20m	North
	AGRICULTURAL MACHINERY HIRERS &/OR DEALERS	Gosford Co-op. Citrus Packing House, 307 Mann St. Gosford 2250	537837	1970	Premise Match	20m	North
	HARDWARE & BUILDERS' SUPPLIES	Gosford Co-op. Citrus Packing House, 307 Mann St. Gosford 2250	538373	1970	Premise Match	20m	North
	MOTOR CYCLE IMPORTERS &/OR DISTRIBUTORS	Gosford Co-op. Citrus Packing House, 307 Mann St. Gosford 2250	538615	1970	Premise Match	20m	North
	RANGES-SLOW COMBUSTION-IMPORTERS &/OR DISTRIBUTORS	Gosford Co-op. Citrus Packing House, 307 Mann St. Gosford 2250	538836	1970	Premise Match	20m	North
	BITUMEN & BITUMINOUS PRODUCTS	Gosford Sawmills & Joinery Works, 315 Mann St. Gosford 2250	537925	1970	Premise Match	20m	North
	BUILDERS' HARDWARE-MFRS./DIST.	Gosford Sawmills & Joinery Works, 315 Mann St. Gosford 2250	537981	1970	Premise Match	20m	North

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
3	CONCRETE BRICK & BLOCK MANUFACTURERS	Gosford Sawmills & Joinery Works, 315 Mann St. Gosford 2250	538070	1970	Premise Match	20m	North
	HARDWARE & BUILDERS' SUPPLIES	Gosford Sawmills & Joinery Works, 315 Mann St. Gosford 2250	538374	1970	Premise Match	20m	North
	JOINERY MERCHANTS	Gosford Sawmills & Joinery Works, 315 Mann St. Gosford 2250	538463	1970	Premise Match	20m	North
	LIME & CEMENT MERCHANTS	Gosford Sawmills & Joinery Works, 315 Mann St. Gosford 2250	538481	1970	Premise Match	20m	North
	PLYWOOD MANUFACTURER & MERCHANT &/OR DISTRIBUTORS	Gosford Sawmills & Joinery Works, 315 Mann St. Gosford 2250	538793	1970	Premise Match	20m	North
	ROOFING MATERIALS MFRS. &/OR DISTRIBUTORS	Gosford Sawmills & Joinery Works, 315 Mann St. Gosford 2250	538855	1970	Premise Match	20m	North
	TILE MANUFACTURERS &/OR DISTRIBUTORS-FLOOR & WALL	Gosford Sawmills & Joinery Works, 315 Mann St. Gosford 2250	538964	1970	Premise Match	20m	North
	TIMBER MERCHANTS & SAWMILLERS	Gosford Sawmills & Joinery Works, 315 Mann St. Gosford 2250	538966	1970	Premise Match	20m	North
	CONCRETE BRICK & BLOCK MANUFACTURERS	Kirkness, W. H. Pty. Ltd., 315 Mann St. Gosford 2250	538072	1970	Premise Match	20m	North
	DOOR MANUFACTURERS	Kirkness, W. H. Pty. Ltd., 315 Mann St. Gosford 2250	538136	1970	Premise Match	20m	North
	FLYSCREEN, DOOR &/OR WINDOW MFRS. &/OR DIST.	Kirkness, W. H. Pty. Ltd., 315 Mann St. Gosford 2250	538267	1970	Premise Match	20m	North
	GAS APPLIANCE SHOWROOMS	Kirkness, W. H. Pty. Ltd., 315 Mann St. Gosford 2250	538312	1970	Premise Match	20m	North
	LAWN MOWER SALES & SERVICE	Kirkness, W. H. Pty. Ltd., 315 Mann St. Gosford 2250	538473	1970	Premise Match	20m	North
	NURSERYMEN	Kirkness, W. H. Pty. Ltd., 315 Mann St. Gosford 2250	538729	1970	Premise Match	20m	North
	WINDOW FRAME MANUFACTURERS &/OR DIST.	Kirkness, W. H. Pty. Ltd., 315 Mann St. Gosford 2250	539021	1970	Premise Match	20m	North
	BOAT, LAUNCH, YACHT BUILDERS & REPAIRERS	Gosford Co-op Citrus Packing House Ltd., 307 Mann St., Gosford	203326	1961	Premise Match	20m	North
	MOTOR OIL & SPIRIT MERCHANTS	Gosford Co-op Citrus Packing House Ltd., 307 Mann St., Gosford	204065	1961	Premise Match	20m	North
	OUTBOARD MOTORS MANUFACTURERS & DISTRIBUTORS	Gosford Co-op Citrus Packing House Ltd., 307 Mann St., Gosford	204136	1961	Premise Match	20m	North
	BOX & CASE MERCHANTS & MANUFACTURERS	Gosford Co-op. Citrus Packing House Ltd., 307 Mann St., Gosford	203345	1961	Premise Match	20m	North
	LAWN MOWER SALES & SERVICE	Gosford Co-op. Citrus Packing House Ltd., 307 Mann St., Gosford	203887	1961	Premise Match	20m	North
	MOTOR OIL & SPIRIT DEPOTS	Gosford Co-op. Citrus Packing House Ltd., 307 Mann St., Gosford	204058	1961	Premise Match	20m	North
	REFRIGERATOR DEALERS & SERVICEMEN	Gosford Co-op. Citrus Packing House Ltd., 307 Mann St., Gosford	204260	1961	Premise Match	20m	North
	SEED MERCHANTS	Gosford Co-op. Citrus Packing House Ltd., 307 Mann St., Gosford	204301	1961	Premise Match	20m	North
	STATION & FARM SUPPLIES	Gosford Co-op. Citrus Packing House Ltd., 307 Mann St., Gosford	204345	1961	Premise Match	20m	North
	AGRICULTURE MACHINERY DEALERS	Gosford Co-op. Citrus Packing House Ltd., 307-309 Mann St., Gosford	203214	1961	Premise Match	20m	North
	BUILDERS' SUPPLIES	Gosford Co-op. Citrus Packing House Ltd., 307-309 Mann St., Gosford	203386	1961	Premise Match	20m	North
	FRUIT PACKERS & GRADERS	Gosford Co-op. Citrus Packing House Ltd., 307-309 Mann St., Gosford	203684	1961	Premise Match	20m	North
	HARDWARE DEALERS & IRONMONGERS	Gosford Co-op. Citrus Packing House Ltd., 307-309 Mann St., Gosford	203790	1961	Premise Match	20m	North
	TIMBER MERCHANTS & SAWMILLERS	Gosford Co-op. Citrus Packing House Ltd., 307-309 Mann St., Gosford	204385	1961	Premise Match	20m	North
	PLYWOOD MANUFACTURER & MERCHANT	Kirkness, W. H. Pty. Ltd., 315 Mann St., Gosford	204196	1961	Premise Match	20m	North
	BUILDERS' HARDWARE-MFRS./DIST.	Kirkness, W. H. Pty. Ltd., 315 Mann St., Gosford	203380	1961	Premise Match	20m	North

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
3	BUILDERS' SUPPLIERS	Kirkness, W. H. Pty. Ltd., 315 Mann St., Gosford	203387	1961	Premise Match	20m	North
	FLYSCREEN DOORS, WINDOWS-MFRS.	Kirkness, W. H. Pty. Ltd., 315 Mann St., Gosford	203656	1961	Premise Match	20m	North
	JOINERY MANUFACTURERS	Kirkness, W. H. Pty. Ltd., 315 Mann St., Gosford	203868	1961	Premise Match	20m	North
	LIME & CEMENT MERCHANTS	Kirkness, W. H. Pty. Ltd., 315 Mann St., Gosford	203898	1961	Premise Match	20m	North
	PAINT, VARNISH COLOUR MANUFACTURER SUPPLIES	Kirkness, W. H. Pty. Ltd., 315 Mann St., Gosford	204147	1961	Premise Match	20m	North
	PAINTERS' SUPPLIES & REQUIREMENTS	Kirkness, W. H. Pty. Ltd., 315 Mann St., Gosford	204154	1961	Premise Match	20m	North
	PLUMBERS' SUPPLIES	Kirkness, W. H. Pty. Ltd., 315 Mann St., Gosford	204191	1961	Premise Match	20m	North
	TIMBER MERCHANTS & SAWMILLERS	Kirkness, W. H. Pty. Ltd., 315 Mann St., Gosford	204387	1961	Premise Match	20m	North
	WALLBOARD DISTRIBUTORS-WHOLESALE	Kirkness, W. H. Pty. Ltd., 315 Mann St., Gosford	204431	1961	Premise Match	20m	North
	BUILDERS' HARDWARE-MFRS./DISTS.	W.H. Kirkness Pty. Ltd. 315 Mann Street, Gosford	203309	1961	Premise Match	20m	North
	POTATO DISTRIBUTORS	307-309 Mann St., Gosford	184609	1950	Premise Match	20m	North
	PRINTERS-GENERAL	Gosford Co-op. Citrus Packing House Ltd., 307-309 Mann St., Gosford	184618	1950	Premise Match	20m	North
	MOTOR OIL & SPIRIT MERCHANTS	Gosford Co-op. Citrus Packing House Ltd. (Agents, Golden Fleece Oil), 307-309 Mann St., Gosford	184552	1950	Premise Match	20m	North
	CITRUS PACKING HOUSE	Gosford Co-op. Citrus Packing House Ltd., 307-309 Mann St., Gosford	184276	1950	Premise Match	20m	North
	FARM, ORCHARD & STATION SUPPLIERS	Gosford Co-op. Citrus Packing House Ltd., 307-309 Mann St., Gosford	184335	1950	Premise Match	20m	North
	FRUIT PACKERS	Gosford Co-op. Citrus Packing House Ltd., 307-309 Mann St., Gosford	184363	1950	Premise Match	20m	North
	SEEDSMEN &/OR NURSERYMEN	Gosford Co-op. Citrus Packing House Ltd., 307-309 Mann St., Gosford	184656	1950	Premise Match	20m	North
	AGRICULTURAL MACHINERY DEALERS &/OR SERVICEMEN	Gosford Co-op. Citrus Packing House Ltd. (Dangar, Gedye and Malloch Ltd.), 307-309 Mann St., Gosford	184134	1950	Premise Match	20m	North
	POTATO DISTRIBUTORS	Gosford Co-op. Packing House Ltd. (Potato Board), 307-309 Mann St., Gosford	184608	1950	Premise Match	20m	North
	CITRUS PACKING HOUSE	Gosford Co-Op.-Citrus Packing House Ltd. 307-309 Mann St., Gosford	184275	1950	Premise Match	20m	North
4	CARPET &/OR FLOOR COVERING RETAILERS &/OR SPECIALISTS	Camberg Carpets Pty. Ltd., 275 Mann St., Gosford 2250	123747	1982	Premise Match	41m	South West
	SECONDHAND DEALERS	St. Vincent De Paul Store., 273 Mann St., Gosford 2250	125238	1982	Premise Match	41m	South West
5	MOTOR CAR & TRUCK DEALERS	Dodds, E. H., 303 Mann St., Gosford	184527	1950	Road Intersection	51m	North West
6	AIR CONDITIONING SALES & SERVICE	Sungold Co-op Ltd., 259 Mann St., Gosford	203227	1961	Premise Match	59m	South West
	BUILDERS' HARDWARE-MFRS./DISTS.	Sungold Co-op Ltd., 259 Mann St., Gosford	203381	1961	Premise Match	59m	South West
	OUTBOARD MOTORS MANUFACTURERS & DISTRIBUTORS	Sungold Co-op Ltd., 259 Mann St., Gosford	204138	1961	Premise Match	59m	South West
	PLUMBERS' SUPPLIES	Sungold Co-op Ltd., 259 Mann St., Gosford	204194	1961	Premise Match	59m	South West
	BUILDERS' SUPPLIERS	Sungold Co-op. Ltd., 259 Mann St., Gosford	203391	1961	Premise Match	59m	South West
	HARDWARE DEALERS & IRONMONGERS	Sungold Co-op. Ltd., 259 Mann St., Gosford	203794	1961	Premise Match	59m	South West

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6	LAWN MOWER SALES & SERVICE	Sungold Co-op. Ltd., 259 Mann St., Gosford	203894	1961	Premise Match	59m	South West
	LIME & CEMENT MERCHANTS	Sungold Co-op. Ltd., 259 Mann St., Gosford	203901	1961	Premise Match	59m	South West
	PAINTERS' SUPPLIES & REQUIREMENTS	Sungold Co-op. Ltd., 259 Mann St., Gosford	204156	1961	Premise Match	59m	South West
	REFRIGERATOR DEALERS & SERVICEMEN	Sungold Co-op. Ltd., 259 Mann St., Gosford	204268	1961	Premise Match	59m	South West
	SEED MERCHANTS	Sungold Co-op. Ltd., 259 Mann St., Gosford	204305	1961	Premise Match	59m	South West
	STATION & FARM SUPPLIES	Sungold Co-op. Ltd., 259 Mann St., Gosford	204347	1961	Premise Match	59m	South West
	WINE & SPIRIT MERCHANTS-RETAIL	Sungold Co-op. Ltd., 259 Mann St., Gosford	204450	1961	Premise Match	59m	South West
	PLUMBERS, GASFITTERS & DRAINLAYERS	Gosford Bulk Loading Rural Co-op. Society Ltd. (The), 259 Mann St., Gosford	184602	1950	Premise Match	59m	South West
	SAWMILLERS	Gosford Bulk Loading Rural Co-op. Society Ltd. (The), 259 Mann St., Gosford	184644	1950	Premise Match	59m	South West
	CITRUS PACKING HOUSE	Gosford Bulk Loading Rural Co-op. Society Ltd., 259 Mann St., Gosford	184277	1950	Premise Match	59m	South West
	AGRICULTURAL MACHINERY DEALERS &/OR SERVICEMEN	Gosford Bulk Loading Rural Co-operative Society (The), 259 Mann St., Gosford	184133	1950	Premise Match	59m	South West
	WINE & SPIRIT MERCHANTS	Gosford Bulk Loading Rural Co-operative Society (The), 259 Mann St., Gosford	185928	1950	Premise Match	59m	South West
	MOTOR OIL & SPIRIT MERCHANTS	Gosford Bulk Loading Rural Co-operative Society Ltd. (The) (Agents, Shell Oil), 259 Mann St., Gosford	184551	1950	Premise Match	59m	South West
	BUILDERS' SUPPLIES	Gosford Bulk Loading Rural Co-operative Society Ltd. (The), 259 Mann St., Gosford	184198	1950	Premise Match	59m	South West
	HARDWARE DEALERS & IRONMONGERS	Gosford Bulk Loading Rural Co-operative Society Ltd. (The), 259 Mann St., Gosford	184416	1950	Premise Match	59m	South West
	SEEDSMEN &/OR NURSERYMEN	Gosford Bulk Loading Rural Co-operative Society Ltd. (The), 259 Mann St., Gosford	184655	1950	Premise Match	59m	South West
	SPRAYING EQUIPMENT DEALERS	Gosford Bulk Loading Rural Co-operative Society Ltd. (The), 259 Mann St., Gosford	184669	1950	Premise Match	59m	South West
	TIMBER MERCHANTS	Gosford Bulk Loading Rural Co-operative Society Ltd. (The), 259 Mann St., Gosford	185887	1950	Premise Match	59m	South West
	FERTILIZER MANUFACTURERS & SUPPLIES	Gosford Bulk Loading Rural Co-operative Society Ltd., 259 Mann St., Gosford	184336	1950	Premise Match	59m	South West
7	BOAT, LAUNCH &/OR YACHT SALES &/OR SERVICE	G.P.H. Boats., 310 Mann St., Gosford 2250	123601	1982	Premise Match	60m	North West
8	JOINERY MANUFACTURERS	Parry, B. & Sons Pty. Ltd., 55 Beane St., Gosford 2250	124470	1982	Premise Match	67m	East
	SHOP &/OR OFFICE FITTERS	Parry, B. & Sons Pty. Ltd., 55 Beane St., Gosford 2250	125259	1982	Premise Match	67m	East
	FURNITURE-CHURCH-MFRS./W'SALERS	Parry, B. & Sons, 53 Beane St. Gosford 2250	538299	1970	Premise Match	67m	East
	JOINERY MANUFACTURERS	Parry, B. & Sons, 53 Beane St. Gosford 2250	538460	1970	Premise Match	67m	East
	SHOP & OFFICE FITTERS	Parry, B. & Sons, 53 Beane St. Gosford 2250	538887	1970	Premise Match	67m	East
	JOINERY MERCHANTS	Parry, B. and Sons 53 Beane St. Gosford 2250	538464	1970	Premise Match	67m	East
	GLAZIERS	Parry, B. & Sons, 53 Beane St., Gosford	203734	1961	Premise Match	67m	East
	JOINERY MANUFACTURERS	Parry, B. & Sons, 53 Beane St., Gosford	203871	1961	Premise Match	67m	East

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8	SHOP & OFFICE FITTERS	Parry, B. & Sons, 53 Beane St., Gosford	204312	1961	Premise Match	67m	East
	JOINERY MERCHANTS	Parry, B. and Sons, 53 Beane St., Gosford	203876	1961	Premise Match	67m	East
	FURNITURE-CHURCH-MNFRS./W/SALERS.	Parry, B., and Sons, 53 Beane St., Gosford	203699	1961	Premise Match	67m	East
9	PRINTERS-LETTERPRESS	Ironmonger C & E Pty. Ltd., 257 Mann St., Gosford 2250	538795	1970	Premise Match	71m	South West
	PRINTERS-LETTERPRESS	Ironmonger, C. & E. Pty. Ltd., 257 Mann St. Gosford 2250	538797	1970	Premise Match	71m	South West
	PRINTERS-LITHOGRAPHIC (OFFSET)	Ironmonger, C. & E. Pty. Ltd., 257 Mann St. Gosford 2250	538798	1970	Premise Match	71m	South West
	NEWSPAPER PUBLISHERS & PRINTERS	Woy Woy Herald (The), 257 Mann St. Gosford 2250	538725	1970	Premise Match	71m	South West
10	TOY MFRS. &/OR DIST	Rocking Horse Stud, The., 319 Mann St., Gosford 2250	125452	1982	Premise Match	72m	North
11	MOTOR ACCESSORIES &/ OR SPARE PARTS-RETAIL	Booths Service Station., 253 Mann St., Gosford 2250	124639	1982	Premise Match	95m	South
	MOTOR CAR &/OR TRUCK DEALERS - NEW &/OR USED.	Booths Service Station., 253 Mann St., Gosford 2250	124692	1982	Premise Match	95m	South
	MOTOR GARAGES &/OR ENGINEERS &/ OR SERVICE STATIONS	Booths Service Station., 253 Mann St., Gosford 2250	124748	1982	Premise Match	95m	South
	MOTOR ACCESSORIES & SPARE PARTS DEALERS	Booths Service Station, 253 Mann St. Gosford 2250	538562	1970	Premise Match	95m	South
	MOTOR CAR & TRUCK DEALERS-NEW & USED	Booths Service Station, 253 Mann St. Gosford 2250	538593	1970	Premise Match	95m	South
	MOTOR GARAGES & ENGINEERS	Booths Service Station, 253 Mann St. Gosford 2250	538630	1970	Premise Match	95m	South
	BATTERY SERVICE STATIONS	Booths Service Station, 253 Mann St., Gosford	203293	1961	Premise Match	95m	South
	MOTOR ACCESSORIES & SPARE PARTS DEALERS	Booths Service Station, 253 Mann St., Gosford	203976	1961	Premise Match	95m	South
	MOTOR CAR & TRUCK DEALERS-NEW & USED	Booths Service Station, 253 Mann St., Gosford	204004	1961	Premise Match	95m	South
	MOTOR GARAGES & ENGINEERS	Booths Service Station, 253 Mann St., Gosford	204026	1961	Premise Match	95m	South
	TYRE & TUBE DEALERS	Booth's Service Station, 253 Mann St., Gosford	204414	1961	Premise Match	95m	South
	MOTOR CAR & TRUCK DEALERS	Booth Garage (Agents, Commer and Diamond T Trucks), 253 Mann St., Gosford	184526	1950	Premise Match	95m	South
	MOTOR ACCESSORIES DEALERS	Booth Garage, 253 Mann St., Gosford	184511	1950	Premise Match	95m	South
	MOTOR GARAGES & ENGINEERS	Booths Garage, 253 Mann St., Gosford	184538	1950	Premise Match	95m	South
	TYRE DEALERS	Booths Garage, 253 Mann St., Gosford	185906	1950	Premise Match	95m	South
	BATTERY SERVICE STATIONS	Booth's Garage, 253 Mann St., Gosford	184166	1950	Premise Match	95m	South
12	MOTOR GARAGES &/OR ENGINEERS &/ OR SERVICE STATIONS	Caltex Service Station., 314 Mann St., Gosford 2250	124756	1982	Premise Match	118m	North
	MOTOR SERVICE STATIONS-PETROL, OIL, Etc.	Parson's Service Station, 322 Mann St., Gosford	204091	1961	Premise Match	118m	North
13	INSTRUMENT REPAIRERS	Tyrrell Bros., 17 Hills St. Gosford 2250	538406	1970	Premise Match	128m	North East
	INSTRUMENTS-AUTOMOTIVE-SPECIALISTS	Tyrrell Bros., 17 Hills St. Gosford 2250	538407	1970	Premise Match	128m	North East
	INSTRUMENTS-INDUSTRIAL-MFRS. &/OR DIST.	Tyrrell Bros., 17 Hills St. Gosford 2250	538408	1970	Premise Match	128m	North East
14	MOTOR BUS SERVICES	Entrance Red Bus Services Pty. Ltd., 135 Faunce St., Gosford 2250	124678	1982	Premise Match	131m	South
	MOTOR BUS SERVICES	Entrance Red Bus Services Pty. Ltd. (The), 135 Faunce St. Gosford 2250	538589	1970	Premise Match	131m	South
	MOTOR BUS SERVICES	Entrance Red Bus Services Pty. Ltd. (The), 135 Faunce St., Gosford	203996	1961	Premise Match	131m	South

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14	MOTOR BUS SERVICES	Gosford Bus Service, 135 Faunce St., Gosford	203997	1961	Premise Match	131m	South
15	MOTOR ACCESSORIES & SPARE PARTS DEALERS	Gosford Service Station Pty. Ltd., 249 Mann St., Gosford	203980	1961	Premise Match	131m	South
	MOTOR CAR & TRUCK DEALERS-NEW & USED	Gosford Service Station Pty. Ltd., 249 Mann St., Gosford	204011	1961	Premise Match	131m	South
	MOTOR GARAGES & ENGINEERS	Gosford Service Station Pty. Ltd., 249 Mann St., Gosford	204035	1961	Premise Match	131m	South
	MOTOR WHEEL REPAIR SPECIALISTS	Gosford Service Station Pty. Ltd., 249 Mann St., Gosford	204102	1961	Premise Match	131m	South
	MOTOR ACCESSORIES DEALERS	Gosford Service Station, 249 Mann St., Gosford	184514	1950	Premise Match	131m	South
	MOTOR GARAGES & ENGINEERS	Gosford Service Station, 249 Mann St., Gosford	184541	1950	Premise Match	131m	South
16	MOTOR PAINTERS &/ OR PANEL BEATERS	Bourkes Smash Repairs., 325 Mann St., Gosford 2250	124820	1982	Premise Match	134m	North
	MOTOR CAR &/OR TRUCK DEALERS - NEW &/OR USED.	Parson's Garage Pty. Ltd., 325 Mann St., Gosford 2250	124709	1982	Premise Match	134m	North
	MOTOR GARAGES &/OR ENGINEERS &/ OR SERVICE STATIONS	Parson's Garage Pty. Ltd., 325 Mann St., Gosford 2250	124789	1982	Premise Match	134m	North
	MOTOR ACCESSORIES & SPARE PARTS DEALERS	Parsons Garage Pty. Ltd., 325 Mann St. Gosford 2250	538573	1970	Premise Match	134m	North
	MOTOR CAR & TRUCK DEALERS-NEW & USED	Parsons Garage Pty. Ltd., 325 Mann St. Gosford 2250	538603	1970	Premise Match	134m	North
	MOTOR GARAGES & ENGINEERS	Parsons Garage Pty. Ltd., 325 Mann St. Gosford 2250	538649	1970	Premise Match	134m	North
	MOTOR PAINTERS & PANEL BEATERS	Parsons Garage Pty. Ltd., 325 Mann St. Gosford 2250	538676	1970	Premise Match	134m	North
	MOTOR SPARE PARTS-MFRS. &/OR W'SALERS.	Parsons Garage Pty. Ltd., 325 Mann St. Gosford 2250	538698	1970	Premise Match	134m	North
	MOTOR TOWING SERVICES	Parsons Garage Pty. Ltd., 325 Mann St. Gosford 2250	538702	1970	Premise Match	134m	North
	MOTOR WHEEL REPAIRERS &/OR SPECIALISTS	Parsons Garage Pty. Ltd., 325 Mann St. Gosford 2250	538708	1970	Premise Match	134m	North
	MOTOR GARAGES & ENGINEERS	Parsons Garage Pty. Ltd. 325 Mann St., Gosford	204012	1961	Premise Match	134m	North
	AGRICULTURE MACHINERY DEALERS	Parsons Garage Pty. Ltd., 325 Mann St., Gosford	203216	1961	Premise Match	134m	North
	BATTERY SERVICE STATIONS	Parsons Garage Pty. Ltd., 325 Mann St., Gosford	203300	1961	Premise Match	134m	North
	MOTOR ACCESSORIES & SPARE PARTS DEALERS	Parsons Garage Pty. Ltd., 325 Mann St., Gosford	203984	1961	Premise Match	134m	North
	MOTOR CAR & TRUCK DEALERS-NEW & USED	Parsons Garage Pty. Ltd., 325 Mann St., Gosford	204014	1961	Premise Match	134m	North
	MOTOR GARAGES & ENGINEERS	Parsons Garage Pty. Ltd., 325 Mann St., Gosford	204040	1961	Premise Match	134m	North
	MOTOR PAINTERS & PANEL BEATERS	Parsons Garage Pty. Ltd., 325 Mann St., Gosford	204073	1961	Premise Match	134m	North
	MOTOR TOWING SERVICES	Parsons Garage Pty. Ltd., 325 Mann St., Gosford	204098	1961	Premise Match	134m	North
	MOTOR WHEEL REPAIR SPECIALISTS	Parsons Garage Pty. Ltd., 325 Mann St., Gosford	204105	1961	Premise Match	134m	North
	MOTOR CAR & TRUCK DEALERS	Parsons Garage Pty. Ltd. (Agents, Chrysler, Plymouth, Morris, Riley, Wolseley Cars, Fargo and Morris Trucks), 325 Mann St., Gosford	184532	1950	Premise Match	134m	North
	TRACTOR DEALERS	Parsons Garage Pty. Ltd. (Agents, Oliver Tractors and Trusty), 325 Mann St., Gosford	185897	1950	Premise Match	134m	North
	MOTOR ACCESSORIES DEALERS	Parsons Garage Pty. Ltd., 325 Mann St., Gosford	184518	1950	Premise Match	134m	North
	MOTOR GARAGES & ENGINEERS	Parsons Garage Pty. Ltd., 325 Mann St., Gosford	184542	1950	Premise Match	134m	North
	MOTOR PAINTERS & PANEL BEATERS	Parsons Garage Pty. Ltd., 325 Mann St., Gosford	184558	1950	Premise Match	134m	North

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
16	MOTOR TOWING SERVICES	Parsons Garage Pty. Ltd., 325 Mann St., Gosford	184562	1950	Premise Match	134m	North
	TYRE DEALERS	Parsons Garage Pty. Ltd., 325 Mann St., Gosford	185908	1950	Premise Match	134m	North
	WELDERS-OXY & ELECTRIC	Parsons Garage Pty. Ltd., 325 Mann St., Gosford	185924	1950	Premise Match	134m	North
	BATTERY SERVICE STATIONS	Parson's Garage Pty. Ltd., 325 Mann St., Gosford	184167	1950	Premise Match	134m	North
17	BALL &/OR ROLLER BEARINGS MFRS. &/OR IMPS. &/OR DIST.	Kirkness, J. E., 170 Gertrude St., Gosford 2250	123546	1982	Premise Match	138m	North East
	BEARINGS &/OR BUSH MFRS. &/OR DIST.	Kirkness, J. E., 170 Gertrude St., Gosford 2250	123575	1982	Premise Match	138m	North East
	BELTING MFRS. &/ OR IMPS. &/OR DIST.	Kirkness, J. E., 170 Gertrude St., Gosford 2250	123577	1982	Premise Match	138m	North East
	DIE & PRESS TOOL MAKERS.	Kirkness, J. E., 170 Gertrude St., Gosford 2250	123946	1982	Premise Match	138m	North East
	ENGINEERS - FABRICATING	Kirkness, J. E., 170 Gertrude St., Gosford 2250	124073	1982	Premise Match	138m	North East
	ENGINEERS - GENERAL &/ OR MANUFACTURING &/OR MECHANICAL	Kirkness, J. E., 170 Gertrude St., Gosford 2250	124079	1982	Premise Match	138m	North East
	ENGINEERS SUPPLIES	Kirkness, J. E., 170 Gertrude St., Gosford 2250	124097	1982	Premise Match	138m	North East
	GEAR CUTTERS &/OR MFRS	Kirkness, J. E., 170 Gertrude St., Gosford 2250	124231	1982	Premise Match	138m	North East
	MACHINE TOOL MFRS. &/OR IMPS. &/ OR DIST.	Kirkness, J. E., 170 Gertrude St., Gosford 2250	124517	1982	Premise Match	138m	North East
	MOTOR ACCESSORIES &/ OR SPARE PARTS-RETAIL	Kirkness, J. E., 170 Gertrude St., Gosford 2250	124652	1982	Premise Match	138m	North East
	PULLEY MFRS. &/OR DIST.	Kirkness, J. E., 170 Gertrude St., Gosford 2250	125092	1982	Premise Match	138m	North East
	STEEL FABRICATORS	Kirkness, J. E., 170 Gertrude St., Gosford 2250	125342	1982	Premise Match	138m	North East
	TOOLMAKERS	Kirkness, J. E., 170 Gertrude St., Gosford 2250	125434	1982	Premise Match	138m	North East
	TRANSMISSION EQUIPMENT MFRS. &/OR DIST.	Kirkness, J. E., 170 Gertrude St., Gosford 2250	125460	1982	Premise Match	138m	North East
	ENGINEERS - PRECISION	Kirkness, J. G., 170 Gertrude St., Gosford 2250	124084	1982	Premise Match	138m	North East
	HIRING SERVICES	Racecourse Totalizators Pty. Ltd., 170 Gertrude St., Gosford 2250	124368	1982	Premise Match	138m	North East
	ENGINEERS-GENERAL, MFRG. & MECHANICAL	Kirkness, J. E., 170 Gertrude St. Gosford 2250	538224	1970	Premise Match	138m	North East
	ENGINEERS-PRECISION	Kirkness, J. E., 170 Gertrude St. Gosford 2250	538229	1970	Premise Match	138m	North East
	BALL & ROLLER BEARINGS MFRS./IMPORTERS &/OR DIST.	Kirkness, J. E., 172-174 Gertrude St. Gosford 2250	537895	1970	Premise Match	138m	North East
	BEARINGS & BUSH MANUFACTURER & DISTRIBUTOR	Kirkness, J. E., 172-174 Gertrude St. Gosford 2250	537907	1970	Premise Match	138m	North East
	BELTING MANUFACTURERS &/OR DISTRIBUTORS	Kirkness, J. E., 172-174 Gertrude St. Gosford 2250	537924	1970	Premise Match	138m	North East
	DIE & PRESS TOOL MAKERS	Kirkness, J. E., 172-174 Gertrude St. Gosford 2250	538109	1970	Premise Match	138m	North East
	ENGINEERS' SUPPLIES	Kirkness, J. E., 172-174 Gertrude St. Gosford 2250	538236	1970	Premise Match	138m	North East
	ENGINEERS-STRUCTURAL	Kirkness, J. E., 172-174 Gertrude St. Gosford 2250	538233	1970	Premise Match	138m	North East
	GEAR CUTTERS &/OR MANUFACTURERS	Kirkness, J. E., 172-174 Gertrude St. Gosford 2250	538315	1970	Premise Match	138m	North East
	MACHINE TOOL MANUFACTURERS &/OR IMPORTERS &/OR DIST.	Kirkness, J. E., 172-174 Gertrude St. Gosford 2250	538488	1970	Premise Match	138m	North East
	PULLEY MANUFACTURERS	Kirkness, J. E., 172-174 Gertrude St. Gosford 2250	538802	1970	Premise Match	138m	North East

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
17	TOOL MAKERS	Kirkness, J. E., 172-174 Gertrude St. Gosford 2250	538973	1970	Premise Match	138m	North East
	TRANSMISSION EQUIPMENT MFRS. &/OR DIST.	Kirkness, J. E., 172-174 Gertrude St. Gosford 2250	538986	1970	Premise Match	138m	North East
	WELDERS-ELECTRIC &/OR OXY	Kirkness, J. E., 172-174 Gertrude St. Gosford 2250	539013	1970	Premise Match	138m	North East
18	ELECTRIC LIGHT FITTINGS &/OR EQUIPMENT MFRS. & /OR DIST.	Bright Spot, The., 243A Mann St., Gosford 2250	124013	1982	Premise Match	146m	South
	BOAT, LAUNCH &/OR YACHT ACCESSORIES MFRS. &/OR DIST.	McMillan, Joe for Boating & Caravan Accessories., 245 Mann Rd., Gosford 2250	123590	1982	Premise Match	146m	South
	CAMPING & HIKING EQUIPMENT - SUPPLIERS HIRERS &/OR REPAIRERS	McMillan, Joe for Boating & Caravan Accessories., 245 Mann St., Gosford 2250	123737	1982	Premise Match	146m	South
	CARAVAN ACCESSORIES.	McMillan, Joe for Boating & Caravan Accessories., 245 Mann St., Gosford 2250	123739	1982	Premise Match	146m	South
	SHIP CHANDLERS	McMillan, Joe for Boating & Caravan Accessories., 245 Mann St., Gosford 2250	125251	1982	Premise Match	146m	South
	BOOT & SHOE REPAIRERS	Brown, E. J., 245 Mann St. Gosford 2250	537941	1970	Premise Match	146m	South
	CARPET CLEANERS & SHAMPOOERS	Gosford Dry Cleaners, 243 Mann St. Gosford 2250	538031	1970	Premise Match	146m	South
	DRY CLEANERS, PRESSERS & DYERS	Gosford Dry Cleaners, 243 Mann St. Gosford 2250	538165	1970	Premise Match	146m	South
	INVISIBLE MENDING SPECIALISTS	Gosford Dry Cleaners, 243 Mann St. Gosford 2250	538446	1970	Premise Match	146m	South
	CARPET CLEANERS & SHAMPOOERS	Back Like New Dry Cleaners, 243 Mann St., Gosford	203453	1961	Premise Match	146m	South
	INVISIBLE MENDING SPECIALISTS	Back Like New Dry Cleaners, 243 Mann St., Gosford	203856	1961	Premise Match	146m	South
	DRY CLEANERS, PRESSERS & DYERS	Back-Like-New Dry Cleaners, 243 Mann St., Gosford	203551	1961	Premise Match	146m	South
	BOOT & SHOE REPAIRERS	Brown, E. J., 245 Mann St., Gosford	203341	1961	Premise Match	146m	South
	DRY CLEANERS, PRESSERS & DYERS	Back-Like-New Dry Cleaners, 243 Mann St., Gosford	184317	1950	Premise Match	146m	South
	FOOTWEAR RETAILERS & REPAIRERS	Brown, E. J., 243 Mann St., Gosford	184344	1950	Premise Match	146m	South

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Business Directory Records 1950-1982

Road or Area Matches

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

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
19	MOTOR GARAGES &/OR ENGINEERS &/ OR SERVICE STATIONS	Ashworth. J., 46 Beane St., Gosford 2250	124747	1982	Road Match	0m
	BOARDS &/ OR COMMITTEES - OFFICIAL	Central Coast. (N.S.W.) Citrus Marketing Board., Beane St., Gosford 2250	123587	1982	Road Match	0m
	ELECTRIC CABLE FLEXIBLE &/OR WIRE MANUFACTURER & DISTRIBUTOR	Faulks Ltd., Beane St. Gosford 2250	538176	1970	Road Match	0m
	ELECTRIC ELEMENT MANUFACTURERS &/OR DISTRIBUTORS	Faulks Ltd., Beane St. Gosford 2250	538178	1970	Road Match	0m
	ELECTRIC LIGHT FITTINGS (SHADES, BRACKETS, ETC.) MFRS. & DIST.	Faulks Ltd., Beane St. Gosford 2250	538181	1970	Road Match	0m
	ELECTRIC MOTORS-DEALERS &/OR WHOLESALERS	Faulks Ltd., Beane St. Gosford 2250	538184	1970	Road Match	0m
	ELECTRIC SWITCH & CONTROL GEAR MFRS. &/OR DISTRIBUTORS	Faulks Ltd., Beane St. Gosford 2250	538187	1970	Road Match	0m
	ELECTRIC URNS-MFRS. &/OR DISTRIBUTORS	Faulks Ltd., Beane St. Gosford 2250	538189	1970	Road Match	0m
	ELECTRICAL SUPPLIES APPLIANCES-WHOLESALE	Faulks Ltd., Beane St. Gosford 2250	538212	1970	Road Match	0m
	BOAT, LAUNCH, YACHT BUILDERS & REPAIRERS	Offshore Marine, 46 Beane St. Gosford 2250	537933	1970	Road Match	0m
	NURSERYMEN	Ulaki Nursery, 21 Beane St. Gosford 2250	538731	1970	Road Match	0m
	AGRICULTURAL MACHINERY DEALERS	Domino Rural Services Pty. Ltd., Beane St., Gosford	203189	1961	Road Match	0m
	AGRICULTURAL MACHINERY REPAIRS	Domino Rural Services Pty. Ltd., Beane St., Gosford	203221	1961	Road Match	0m
	MOTOR ACCESSORIES & SPARE PARTS DEALERS	Domino Rural Services Pty. Ltd., Beane St., Gosford	203977	1961	Road Match	0m
	MOTOR CAR & TRUCK DEALERS-NEW & USED	Domino Rural Services Pty. Ltd., Beane St., Gosford	204005	1961	Road Match	0m
	TRACTOR IMPORTER AND MANUFACTURERS AND DISTRIBUTORS	Domino Rural Services Pty. Ltd., Beane St., Gosford	204402	1961	Road Match	0m
	WELDERS-ELECTRIC & OXY	Domino Rural Services Pty. Ltd., Beane St., Gosford	204436	1961	Road Match	0m
20	MOTOR WRECKERS.	Gosford Spare Parts., 20 Hills St., Gosford 2250	124886	1982	Road Match	29m
	MOTOR WRECKERS	Gosford Spare Parts, 20 Hills St. Gosford 2250	538711	1970	Road Match	29m
	BOTTLE MERCHANTS & EXCHANGES	Jenkins, C., Hill St. Gosford 2250	537947	1970	Road Match	29m
	SCRAP METAL MERCHANTS	Spare Parts Gosford, 15 Hill St. Gosford 2250	538874	1970	Road Match	29m
	BOTTLE MERCHANTS & EXCHANGES	Jenkins, C., Hill St., Gosford	203344	1961	Road Match	29m
	CARRIERS & CARTAGE CONTRACTORS	Monkcom's Carrying Service Pty Limited., 15 Hill St., Gosford	203461	1961	Road Match	29m
	CARRIERS & CARTAGE CONTRACTORS	Monkcom's Carrying Service Pty. Limited., 15 Hill St., Gosford	203468	1961	Road Match	29m
	FURNITURE REMOVALIST & STORAGE	Monkcom's Carrying Service Pty. Limited., 15 Hill St., Gosford	203720	1961	Road Match	29m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
20	ROAD TRANSPORT SERVICES-N.S.W.	Monkcom's Carrying Service Pty. Limited., 15 Hill St., Gosford	204278	1961	Road Match	29m
	BATTERY SERVICE STATIONS	Spare Parts Gosford, 15 Hill St., Gosford	203302	1961	Road Match	29m
	MOTOR GARAGES & ENGINEERS	Spare Parts Gosford, 15 Hill St., Gosford	204045	1961	Road Match	29m
	SCRAP METAL MERCHANTS	Spare Parts Gosford, 15 Hill St., Gosford	204293	1961	Road Match	29m
	SECONDHAND DEALERS	Spare Parts Gosford, 15 Hill St., Gosford	204297	1961	Road Match	29m
	BOTTLE MERCHANTS	Jenkins, C., Hill St., Gosford	184176	1950	Road Match	29m
	CARRIERS & CARTAGE CONTRACTORS	Mattocks, H. P., Hill St., Gosford	184242	1950	Road Match	29m
21	MOTOR ACCESSORIES &/ OR SPARE PARTS-RETAIL	Advank. (Gosford) Motor Service Pty. Ltd., Pacific Highway., North Gosford 2250	124637	1982	Road Match	40m
	MOTOR CAR &/OR TRUCK DEALERS - NEW &/OR USED.	Advanx. (Gosford) Motor Service Pty. Ltd., Pacific Highway., North Gosford 2250	124689	1982	Road Match	40m
	MOTOR CAR &/OR TRUCK DEALERS - NEW &/OR USED.	Ashley Reid Motor Mart., Pacific Highway., North Gosford 2250	124690	1982	Road Match	40m
	AMUSEMENTS.	Australian Reptile Park., Pacific Highway., North Gosford. 2250	123471	1982	Road Match	40m
	MOTOR ACCESSORIES &/ OR SPARE PARTS-RETAIL	Golden Fleece Service Station., Pacific Highway, North Gosford 2250	124646	1982	Road Match	40m
	MOTOR GARAGES &/OR ENGINEERS &/ OR SERVICE STATIONS	Golden Fleece Service Station., Pacific Highway., North Gosford 2250	124772	1982	Road Match	40m
	BUILDERS &/ OR BUILDING CONTRACTORS	Gould, K. B. Real Estate Pty. Ltd., Pacific Highway, Gosford 2250	123657	1982	Road Match	40m
	MOTOR WHEEL REPAIRERS &/OR SPECIALISTS	Robies Wheel Alignment & Spares., Pacific Highway., North Gosford 2250	124879	1982	Road Match	40m
	CARRIERS &/OR CARTAGE CONTRACTORS	Rightway Transport Pty. Ltd., Railway Goods Shed, Mann St., Gosford 2250	123770	1982	Road Match	40m
	MOTOR STEERING SPECIALISTS	Robies Wheel Alignment & Spares., Pacific Highway, North Gosford 2250	124858	1982	Road Match	40m
	MOTOR ACCESSORIES &/OR SPARE PARTS -WHOLESALE	Robies Wheel Alignment & Spares., Pacific Highway., North Gosford 2250	124663	1982	Road Match	40m
	TYRE DEALERS, RETREADERS &/OR VULCANIZERS	Robies Wheel Alignment & Spares., Pacific Highway., North Gosford 2250	125474	1982	Road Match	40m
	ALUMINIUM PRODUCTS MANUFACTURER	Brisbane Water Blind Mfrg. Co., Mann St. Gosford 2250	537849	1970	Road Match	40m
	AWNINGS-ALUMINIUM-MFRS. &/OR DIST.	Brisbane Water Blind Mfrg. Co., Mann St. Gosford 2250	537887	1970	Road Match	40m
	BLIND MANUFACTURERS & SPECIALISTS	Brisbane Water Blind Mfrg. Co., Mann St. Gosford 2250	537929	1970	Road Match	40m
	CANVAS GOODS MANUFACTURERS & WHOLESALERS	Brisbane Water Blind Mfrg. Co., Mann St. Gosford 2250	538021	1970	Road Match	40m
	FLYSCREEN, DOOR &/OR WINDOW MFRS. &/OR DIST.	Brisbane Water Blind Mfrg. Co., Mann St. Gosford 2250	538265	1970	Road Match	40m
	UPHOLSTERERS	Clarke's Upholsterers, Mann St. Gosford 2250	538995	1970	Road Match	40m
	MOTOR TRIMMERS	Clarkes Upholsterers, Mann St. Gosford 2250	538703	1970	Road Match	40m
	CAKE & PASTRYCOOKS-WHOLESALE	Dixie Pies, Pacific Hghwy., North Gosford	538012	1970	Road Match	40m
	DOUGHNUT MANUFACTURERS	Dixie Pies, Pacific Hghwy., North Gosford	538139	1970	Road Match	40m
	AGRICULTURAL MACHINERY HIRERS &/OR DEALERS	Eagle, A. E. & Sons Pty. Limited, Pacific Hghwy., North Gosford	537834	1970	Road Match	40m
	EARTH MOVING EQUIPMENT MANUFACTURER &/OR DISTRIBUTOR	Eagle, A. E. & Sons Pty. Limited, Pacific Hghwy., North Gosford	538172	1970	Road Match	40m
	MOTOR ACCESSORIES & SPARE PARTS DEALERS	Eagle, A. E. & Sons Pty. Limited, Pacific Hghwy., North Gosford	538564	1970	Road Match	40m
	MOTOR CAR & TRUCK DEALERS-NEW & USED	Eagle, A. E. & Sons Pty. Limited, Pacific Hghwy., North Gosford	538594	1970	Road Match	40m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
21	MOTOR GARAGES & ENGINEERS	Eagle, A. E. & Sons Pty. Limited, Pacific Hghwy., North Gosford	538634	1970	Road Match	40m
	TRACTOR IMPORTERS, MFRS. &/OR DISTRIBUTORS	Eagle, A. E. & Sons Pty. Limited, Pacific Hghwy., North Gosford	538980	1970	Road Match	40m
	TRACTOR REPAIR SPECIALISTS	Eagle, A. E. & Sons Pty. Limited, Pacific Hghwy., North Gosford	538978	1970	Road Match	40m
	MOTOR ENGINE RECONDITIONERS	Eagle, A. E. and Sons, Pacific Hghwy., North Gosford	538623	1970	Road Match	40m
	MOTOR ACCESSORIES & SPARE PARTS DEALERS	Golden Fleece Service Station, Pacific Hghwy., North Gosford	538566	1970	Road Match	40m
	MOTOR CAR & TRUCK DEALERS-NEW & USED	Golden Fleece Service Station, Pacific Hghwy., North Gosford	538596	1970	Road Match	40m
	MOTOR SERVICE STATIONS-PETROL, OILS, Etc.	Golden Fleece Service Station, Pacific Hghwy., North Gosford	538685	1970	Road Match	40m
	MOTOR SERVICE STATIONS-PETROL, OILS, Etc.	Gosford Auto Electrics, Pacific Hghwy., Gosford North	538687	1970	Road Match	40m
	BATTERY SALES & SERVICE	Gosford Auto Electrics, Pacific Hghwy., North Gosford	537905	1970	Road Match	40m
	CARAVAN DEALERS & HIRERS	Gosford Caravans, Pacific Hghwy., North Gosford	538023	1970	Road Match	40m
	CRANES-MOBILE-PROPRIETORS &/OR HIRERS	Gosford Earthmovers, Pacific Hghwy., North Gosford	538087	1970	Road Match	40m
	EARTH-MOVING MACHINERY HIRERS	Gosford Earthmovers, Pacific Hghwy., North Gosford	538174	1970	Road Match	40m
	HAULAGE CONTRACTORS	Gosford Earthmovers, Pacific Hghwy., North Gosford	538385	1970	Road Match	40m
	SHIPPING & FORWARDING AGENTS	Gosford Tourist & Travel Centre, Mann St, Gosford 2250	538885	1970	Road Match	40m
	AIR SERVICES BOOKING AGENTS	Gosford Tourist & Travel Centre, Mann St. Gosford 2250	537847	1970	Road Match	40m
	VETERINARY SURGEONS	Gosford Veterinary Clinic, Mann St. Gosford 2250	538998	1970	Road Match	40m
	HARDWARE & BUILDERS' SUPPLIES	Hill's Building & Hardware Store, 72 Pacific Hghwy. Gosford 2250	538375	1970	Road Match	40m
	MOTOR CAR & TRUCK DEALERS-NEW & USED	Hilton, Brian Pty. Ltd., Pacific Hghwy., North Gosford	538600	1970	Road Match	40m
	MOTOR GARAGES & ENGINEERS	Hilton, Brian Pty. Ltd., Pacific Hghwy., North Gosford	538643	1970	Road Match	40m
	CONCRETE BRICK & BLOCK MANUFACTURERS	Jayworth Masonry (Sydney) Pty. Ltd., Pacific Hghwy., North Gosford	538071	1970	Road Match	40m
	AGRICULTURAL MACHINERY HIRERS &/OR DEALERS	Joyce, G. J. Pty. Ltd., Pacific Hghwy., North Gosford	537839	1970	Road Match	40m
	EARTH MOVING EQUIPMENT MANUFACTURER &/OR DISTRIBUTOR	Joyce, G. T. Pty. Ltd., Pacific Hghwy., North Gosford	538173	1970	Road Match	40m
	TRACTOR IMPORTERS, MFRS. &/OR DISTRIBUTORS	Joyce, G. T. Pty. Ltd., Pacific Hghwy., North Gosford	538982	1970	Road Match	40m
	ENGINEERS-FABRICATING	Lansdowne Engineering, Pacific Hghwy., North Gosford	538223	1970	Road Match	40m
	ENGINEERS-GENERAL, MFRG. & MECHANICAL	Lansdowne Engineering, Pacific Hghwy., North Gosford	538225	1970	Road Match	40m
	WELDERS-ELECTRIC &/OR OXY	Lansdowne Engineering, Pacific Hghwy., North Gosford	539014	1970	Road Match	40m
	PHOTOGRAPHERS	Masters Studios, Mann St. Gosford 2250	538757	1970	Road Match	40m
	ELECTROPLATERS	Nethery, A. & M., Pacific Hghwy., North Gosford	538217	1970	Road Match	40m
	MERCHANTS-WHOLESALE	Producers Co-op. Dist. Society Ltd. (The), 66 Pacific Hghwy. Gosford 2250	538514	1970	Road Match	40m
	MOTOR OIL & SPIRIT DEPOTS	Shell Co. of Aust. Ltd., Pacific Hghwy., North Gosford	538663	1970	Road Match	40m
	BUILDERS &/OR BUILDING CONTRACTORS	Thompson, S. & Son Pty. Ltd., Mann St. Gosford 2250	537976	1970	Road Match	40m
	BUILDERS' EQUIPMENT HIRERS	Turner, S. & Son Pty. Ltd., Mann St. Gosford 2250	537979	1970	Road Match	40m
	CONCRETE MIXER EQUIPMENT HIRE SERVICE	Turner, S. & Son Pty. Ltd., Mann St. Gosford 2250	538080	1970	Road Match	40m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
21	CRANES-MOBILE-PROPRIETORS &/OR HIRERS	Turner, S. & Son Pty. Ltd., Mann St. Gosford 2250	538090	1970	Road Match	40m
	HAULAGE CONTRACTORS	Waters & McPhan Pty. Ltd., Pacific Hwy., North Gosford	538387	1970	Road Match	40m
	ROAD TRANSPORT SERVICES-INTERSTATE	Waters & McPhan Pty. Ltd., Pacific Hwy., North Gosford	538853	1970	Road Match	40m
	PLUMBERS' SUPPLIES	West Gosford Building Supplies Pty. Ltd., 60 Pacific Hwy. Gosford 2250	538792	1970	Road Match	40m
	MOTOR CAR & TRUCK DEALERS - NEW & USED	A.E. Eagle & Sons Pacific Highway, North Gosford	203193	1961	Road Match	40m
	BUILDERS & CONTRACTORS	Ashwell & Carroll Tourist Bureau Pty. Ltd., Mann St., Gosford	203348	1961	Road Match	40m
	EARTH MOVING EQUIPMENT MANUFACTURER, IMPORTER & DISTRIBUTOR	Eagle, A. E. & Sons, Pacific Highway., North Gosford	203555	1961	Road Match	40m
	MOTOR CAR & TRUCK DEALERS-NEW & USED	Eagle, A. E. & Sons, Pacific Highway., North Gosford	204006	1961	Road Match	40m
	MOTOR CAR & TRUCK DEALERS-NEW & USED	Eagle, A. E. and Sons, Pacific Highway, Gosford	204007	1961	Road Match	40m
	AGRICULTURAL MACHINERY DEALERS	Eagle, A. E. and Sons, Pacific Highway., North Gosford	203190	1961	Road Match	40m
	MOTOR ACCESSORIES & SPARE PARTS DEALERS	Eagle, A. E. and Sons, Pacific Highway., North Gosford	203978	1961	Road Match	40m
	MOTOR ENGINE RECONDITIONERS	Eagle, A. E. and Sons, Pacific Highway., North Gosford	204021	1961	Road Match	40m
	MOTOR GARAGES & ENGINEERS	Eagle, A. E. and Sons, Pacific Highway., North Gosford	204030	1961	Road Match	40m
	ENGINEERS-GENERAL, MFRG. & MECHANICAL	Fairlie, C. and Son Pty. Ltd., 58 Pacific Highway., Gosford	203601	1961	Road Match	40m
	MOTOR ENGINE RECONDITIONERS	Fairlie, C. and Son Pty. Ltd., 58 Pacific Highway., Gosford	204022	1961	Road Match	40m
	FIBRE GLASS, PLASTIC PRODUCTS MFRS.	Fairlie Plastics, 58 Pacific Highway., Gosford	203628	1961	Road Match	40m
	MOTOR CAR & TRUCK DEALERS-NEW & USED	Golden Fleece Service Station, Pacific Highway., North Gosford	204009	1961	Road Match	40m
	MOTOR SERVICE STATIONS-PETROL, OIL, Etc.	Golden Fleece Service Station, Pacific Highway., North Gosford	204081	1961	Road Match	40m
	AIR SERVICES BOOKING AGENTS	Gosford Tourist Bureau, Ashwell & Carroll Pty. Ltd., Mann St., Gosford	203232	1961	Road Match	40m
	BOAT, LAUNCH, YACHT BUILDERS & REPAIRERS	Kiwi Caravans, 58 Pacific Highway., Gosford	203327	1961	Road Match	40m
	ENGINEERS-GENERAL, MFRG. & MECHANICAL	Lansdowne Engineering, 23 Pacific Highway., North Gosford	203603	1961	Road Match	40m
	WELDERS-ELECTRIC & OXY	Lansdowne Engineering, 23 Pacific Highway., North Gosford	204441	1961	Road Match	40m
	ELECTROPLATERS	Lansdowne, B., 23 Pacific Highway., North Gosford	203595	1961	Road Match	40m
	METAL POLISHER	Lansdowne, B., 23 Pacific Highway., North Gosford	203935	1961	Road Match	40m
	BAKERS-BREAD	Nolan Bros., Mann St., Gosford	203278	1961	Road Match	40m
	MOTOR SERVICE STATIONS-PETROL, OIL, Etc.	North Gosford Transport Centre, Pacific Highway., North Gosford	204086	1961	Road Match	40m
	MERCHANTS-WHOLESALE	Producers Co-op. DIST., Society Ltd. (The), 66 Pacific Highway., Gosford	203934	1961	Road Match	40m
	MOTOR BUS SERVICES	Robert's Brisbane Water Coaches, Mann St., North Gosford	203998	1961	Road Match	40m
	BATTERY SERVICE STATIONS	Roberts Fleetline Service Station & Restaurant, Mann St., North Gosford	203301	1961	Road Match	40m
	ENGINEERS-DIESEL	Roberts Fleetline Service Station & Restaurant, Mann St., North Gosford	203596	1961	Road Match	40m
	MOTOR ACCESSORIES & SPARE PARTS DEALERS	Robert's Fleetline Service Station & Restaurant, Mann St., North Gosford	203986	1961	Road Match	40m
	MOTOR GARAGES & ENGINEERS	Robert's Fleetline Service Station & Restaurant, Mann St., North Gosford	204042	1961	Road Match	40m
	TYRE & TUBE DEALERS	Robert's Fleetline Service Station & Restaurant, Mann St., North Gosford	204419	1961	Road Match	40m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
21	MOTOR OIL & SPIRIT DEPOTS	Shell Co. of Aust., Ltd., Pacific Highway., North Gosford	204061	1961	Road Match	40m
	CARRIERS & CARTAGE CONTRACTORS	Waters & McPhan, Pacific Highway., North Gosford	203472	1961	Road Match	40m
	ROAD TRANSPORT SERVICES-INTERSTATE	Waters and McPhan, Pacific Highway., North Gosford	204277	1961	Road Match	40m
	PLUMBERS' SUPPLIES	West Gosford Building Supplies Pty. Ltd., 60 Pacific Highway., Gosford	204195	1961	Road Match	40m
	RANGES-ELECTRIC-DEALER	West Gosford Building Supplies Pty. Ltd., 60 Pacific Highway., Gosford	204230	1961	Road Match	40m
	AMBULANCES	Ambulance, Brisbane Water District, Mann St., Gosford	184139	1950	Road Match	40m
	AIR SERVICES BOOKING AGENTS	Ash and Cox (J. A. Brown, Propr.) (T.A.A., A.N.A. and Ansett), Main St., Gosford	184138	1950	Road Match	40m
	ENGINEERS-GENERAL &/OR MANUFACTURING &/OR MECHANICAL	Batt, A. H., 60 Pacific Highway., Gosford	184330	1950	Road Match	40m
	WELDERS-OXY & ELECTRIC	Batt, A. H., 60 Pacific Highway., Gosford	185919	1950	Road Match	40m
	DENTISTS	Carroll, W. R., Mann St., Gosford	184295	1950	Road Match	40m
	PLUMBERS, GASFITTERS & DRAINLAYERS	Cleary and Son, Mann St., Gosford	184601	1950	Road Match	40m
	FUNERAL DIRECTORS	Creighton, R. H., Mann St., Gosford	184365	1950	Road Match	40m
	MOTOR OIL & SPIRIT MERCHANTS	Eagle and Corner (Agents, C.O.R.), Pacific Highway., North Gosford	184550	1950	Road Match	40m
	MOTOR CAR & TRUCK DEALERS	Eagle and Corner (Agents, Hudson, Packard and Standard), Pacific Highway., North Gosford	184528	1950	Road Match	40m
	AGRICULTURAL MACHINERY DEALERS &/OR SERVICEMEN	Eagle and Corner (International Harvester), Pacific Highway., North Gosford	184131	1950	Road Match	40m
	MOTOR ACCESSORIES DEALERS	Eagle and Corner, Pacific Highway., North Gosford	184512	1950	Road Match	40m
	MOTOR GARAGES & ENGINEERS	Eagle and Corner, Pacific Highway., North Gosford	184539	1950	Road Match	40m
	BRICK, PIPE & TILE MANUFACTURERS	Gosford Brick, Pipe and Tile Pty. Ltd., Mann St., Gosford	184177	1950	Road Match	40m
	BUILDERS & BUILDING CONTRACTORS	Gosford Estate and Builder Pty. Ltd (C/o. Ash and Cox), Mann St., Gosford	184186	1950	Road Match	40m
	FOOTWEAR RETAILERS & REPAIRERS	Harils, N., Mann St., Gosford	184345	1950	Road Match	40m
	TENNIS RACQUET REPAIRERS & RESTRINGERS	Haslems, Mann St., Gosford	185884	1950	Road Match	40m
	DENTISTS	Johns, A. E., Mann St., Gosford	184296	1950	Road Match	40m
	FIBROUS PLASTER MANUFACTURERS	King, R. H., Mann St., Gosford	184338	1950	Road Match	40m
	ELECTRICAL CONTRACTORS & ELECTRICIANS	Massier and Goodliffe, Mann St., Gosford	184323	1950	Road Match	40m
	HOSPITALS-PRIVATE	Omrah Private Hospital., Mann St., Gosford	184421	1950	Road Match	40m
	CARRIERS & CARTAGE CONTRACTORS	Pink, C. S., Mann St., Gosford	184244	1950	Road Match	40m
	BUILDERS & BUILDING CONTRACTORS	Pryor, T. H., Mann St., Gosford	184190	1950	Road Match	40m
	MOTOR PAINTERS & PANEL BEATERS	Smith, L. R., 60 Pacific Highway., Gosford	184560	1950	Road Match	40m
	MOTOR CAR & TRUCK DEALERS	Standard), Pacific Highway., North Gosford	184529	1950	Road Match	40m
	MOTOR GARAGES & ENGINEERS	Stephenson's Garage, Pacific Highway., North Gosford	184546	1950	Road Match	40m
	MOTOR ACCESSORIES DEALERS	Sungold Motors, Pacific Highway., Gosford	184517	1950	Road Match	40m
	TYRE DEALERS	Sungold Motors, Pacific Highway., Gosford	185911	1950	Road Match	40m
	ELECTRICAL CONTRACTORS & ELECTRICIANS	Wainwright, R. W., Mann St., Gosford	184326	1950	Road Match	40m

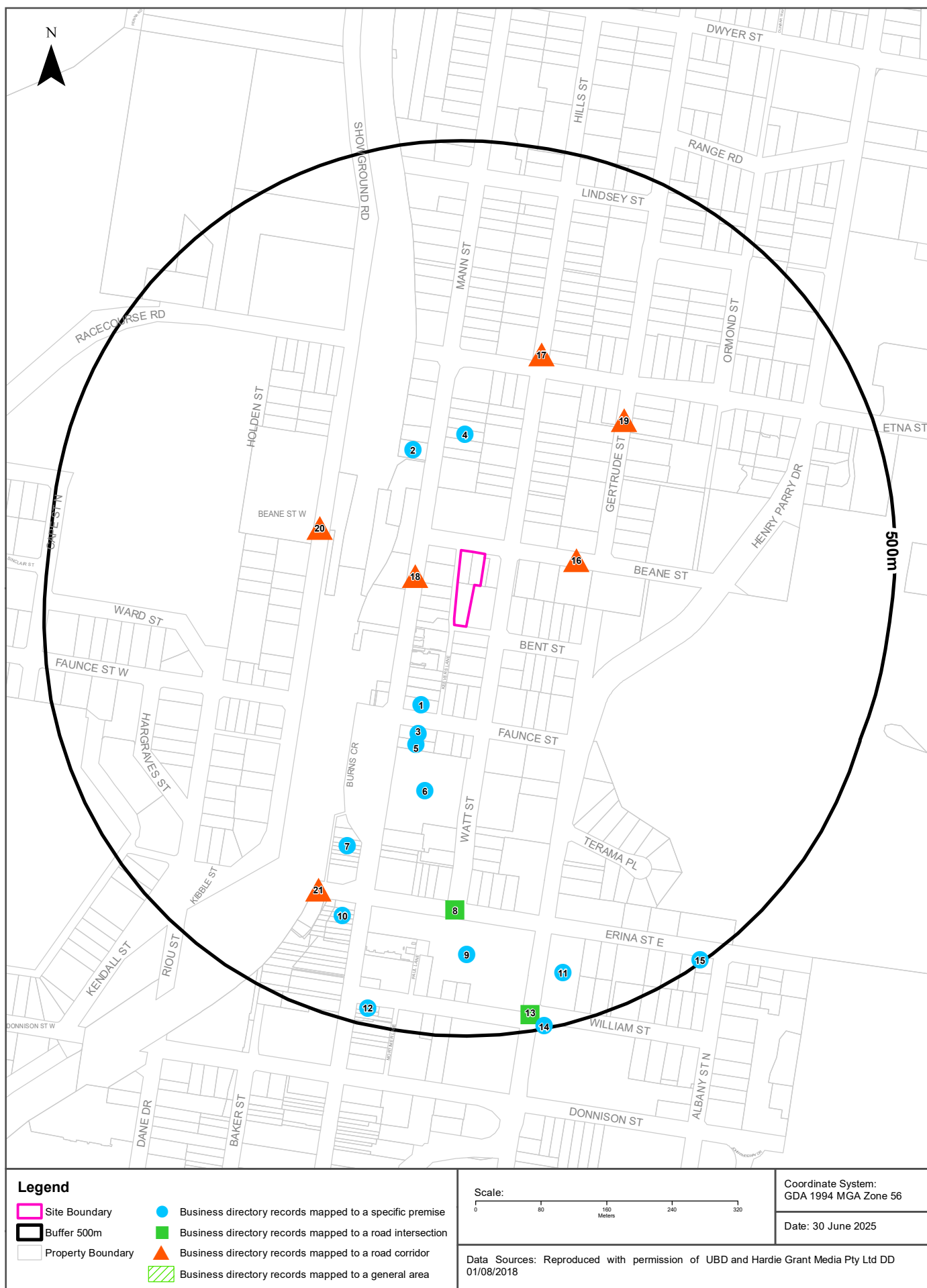
Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
21	BUILDERS' SUPPLIES	White, W. R., Mann St., Gosford	184200	1950	Road Match	40m
	CHEMISTS	Whitler, F. M., Mann St., Gosford	184267	1950	Road Match	40m
	PHOTOGRAPHERS-PORTRAIT	Woods, Mrs. M., Mann St., Gosford	184597	1950	Road Match	40m
22	TAXIS &/OR HIRE CARS	Jones, C., Bent St., Gosford	184689	1950	Road Match	52m
23	SCHOOLS & COLLEGES-TECHNICAL	Junior Technical High School, Faunce St., West Gosford	204292	1961	Road Match	110m
	CARRIERS & CARTAGE CONTRACTORS	McInerney, J. J., Faunce St., Gosford	203467	1961	Road Match	110m
24	FURNITURE-NURSERY-MFRS. &/OR W'SALERS	Anderson's Furniture, 131 Gertrude St. Gosford 2250	538304	1970	Road Match	133m
	BLIND MANUFACTURERS & SPECIALISTS	Andersons Furniture, 131 Gertrude St. Gosford 2250	537927	1970	Road Match	133m
	CARPET & FLOOR COVERINGS	Andersons Furniture, 131 Gertrude St. Gosford 2250	538024	1970	Road Match	133m
	FURNITURE & FURNISHINGS	Andersons Furniture, 131 Gertrude St. Gosford 2250	538289	1970	Road Match	133m
	FURNITURE -GARDEN ORNAMENTAL - MFRS. & WHOLESALEERS	Andersons Furniture, 131 Gertrude St. Gosford 2250	538302	1970	Road Match	133m
	SMALLGOODS MFRS. & WHOLESALEERS	Dibben Bros., 65 Gertrude St. Gosford 2250	538892	1970	Road Match	133m
	MOTOR ACCESSORIES & SPARE PARTS DEALERS	Gosford Motors Pty. Ltd., Gertrude St. Gosford 2250	538567	1970	Road Match	133m
	MOTOR BODY BUILDERS & REPAIRERS	Gosford Motors Pty. Ltd., Gertrude St. Gosford 2250	538580	1970	Road Match	133m
	MOTOR BRAKE SERVICES	Gosford Motors Pty. Ltd., Gertrude St. Gosford 2250	538586	1970	Road Match	133m
	MOTOR CAR & TRUCK DEALERS-NEW & USED	Gosford Motors Pty. Ltd., Gertrude St. Gosford 2250	538598	1970	Road Match	133m
	MOTOR CARBURETTOR/TUNING SPECIALISTS	Gosford Motors Pty. Ltd., Gertrude St. Gosford 2250	538609	1970	Road Match	133m
	MOTOR ELECTRICIANS	Gosford Motors Pty. Ltd., Gertrude St. Gosford 2250	538622	1970	Road Match	133m
	MOTOR ENGINE RECONDITIONERS	Gosford Motors Pty. Ltd., Gertrude St. Gosford 2250	538624	1970	Road Match	133m
	MOTOR GARAGES & ENGINEERS	Gosford Motors Pty. Ltd., Gertrude St. Gosford 2250	538640	1970	Road Match	133m
	MOTOR OIL & SPIRIT DEPOTS	Gosford Motors Pty. Ltd., Gertrude St. Gosford 2250	538661	1970	Road Match	133m
	MOTOR PAINTERS & PANEL BEATERS	Gosford Motors Pty. Ltd., Gertrude St. Gosford 2250	538670	1970	Road Match	133m
	MOTOR SPARE PARTS-MFRS. &/OR W'SALERS.	Gosford Motors Pty. Ltd., Gertrude St. Gosford 2250	538696	1970	Road Match	133m
	MOTOR TOWING SERVICES	Gosford Motors Pty. Ltd., Gertrude St. Gosford 2250	538699	1970	Road Match	133m
	MOTOR WRECKERS	Gosford Motors Pty. Ltd., Gertrude St. Gosford 2250	538710	1970	Road Match	133m
	SCHOOLS & COLLEGES-TECHNICAL	Gosford Technical School, Gertrude St. Gosford 2250	538871	1970	Road Match	133m
	MOTOR OIL & SPIRIT DEPOTS	Valvoline (Aust.) Supply Depot, Gertrude St. Gosford 2250	538666	1970	Road Match	133m
	FLOOR COVERING-INDUSTRIAL-SPECIALISTS	Anderson's Furniture, 131 Gertrude St., Gosford	203649	1961	Road Match	133m
	FLYSCREEN DOORS, WINDOWS-MFRS.	Anderson's Furniture, 131 Gertrude St., Gosford	203653	1961	Road Match	133m
	FURNITURE-NURSERY-RETAIL	Anderson's Furniture, 131 Gertrude St., Gosford	203715	1961	Road Match	133m
	FURNITURE-ORNAMENTAL GARDEN	Anderson's Furniture, 131 Gertrude St., Gosford	203718	1961	Road Match	133m
	OFFICE EQUIPMENT MANUFACTURER/DISTRIBUTOR	Anderson's Furniture, 131 Gertrude St., Gosford	204130	1961	Road Match	133m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
24	SMALLGOODS MFRS. & WHOLESALERS	Dibben Bros., 65 Gertrude St., Gosford	204319	1961	Road Match	133m
	EARTH MOVING & ROAD MAKING CONTRACTORS	Earth Movers (The) (G. J. Joyce Pty. Ltd.) 160 Gertrude St., Gosford	203557	1961	Road Match	133m
	SCHOOLS & COLLEGES-TECHNICAL	Gosford Technical School, Gertrude St., Gosford	204291	1961	Road Match	133m
	EARTH MOVING & ROAD MAKING CONTRACTORS	Joyces Sawmill, 160 Gertrude St., Gosford	203560	1961	Road Match	133m
	TIMBER MERCHANTS & SAWMILLERS	Joyces Sawmill, 160 Gertrude St., Gosford	204386	1961	Road Match	133m
	BEARINGS & BUSH MANUFACTURER & DISTRIBUTOR	Kirkness, J. E., 127 Gertrude St., Gosford	203307	1961	Road Match	133m
	ENGINEERS-GENERAL, MFRG. & MECHANICAL	Kirkness, J. E., 127 Gertrude St., Gosford	203602	1961	Road Match	133m
	ENGINEERS-PRECISION	Kirkness, J. E., 127 Gertrude St., Gosford	203607	1961	Road Match	133m
	ENGINEERS-STRUCTURAL	Kirkness, J. E., 127 Gertrude St., Gosford	203611	1961	Road Match	133m
	ENGINEERS-SUPPLIES	Kirkness, J. E., 127 Gertrude St., Gosford	203616	1961	Road Match	133m
	MOTOR ACCESSORIES & SPARE PARTS DEALERS	Kirkness, J. E., 127 Gertrude St., Gosford	203982	1961	Road Match	133m
	PULLEY MANUFACTURER	Kirkness, J. E., 127 Gertrude St., Gosford	204210	1961	Road Match	133m
	TOOL MAKERS	Kirkness, J. E., 127 Gertrude St., Gosford	204393	1961	Road Match	133m
	WELDERS-ELECTRIC & OXY	Kirkness, J. E., 127 Gertrude St., Gosford	204440	1961	Road Match	133m
	TAXIS &/OR HIRE CARS	Campbell, K., Gertrude St., Gosford	184685	1950	Road Match	133m
	TAXIS &/OR HIRE CARS	Cattell, J. T., 151 Gertrude St., Gosford	184686	1950	Road Match	133m
	BUILDERS & BUILDING CONTRACTORS	Easey, A., Gertrude St., Gosford	184185	1950	Road Match	133m
	CASE MANUFACTURERS	Kirkness, R. G., 121 Gertrude St., Gosford	184254	1950	Road Match	133m
	TAXIS &/OR HIRE CARS	Thomas, M. E., Gertrude St., Gosford	185883	1950	Road Match	133m

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Dry Cleaners, Motor Garages & Service Stations

43-45 Beane Street, Gosford, NSW 2250



Historical Business Directories

43-45 Beane Street, Gosford, NSW 2250

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

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

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
1	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS	Booths Service Station., 253 Mann St., Gosford 2250	124748	1982	Premise Match	95m	South
	MOTOR GARAGES & ENGINEERS	Booths Service Station, 253 Mann St. Gosford 2250	538630	1970	Premise Match	95m	South
	MOTOR GARAGES & ENGINEERS	Booths Service Station, 253 Mann St., Gosford	204026	1961	Premise Match	95m	South
	MOTOR GARAGES & ENGINEERS	Booths Garage, 253 Mann St., Gosford	184538	1950	Premise Match	95m	South
2	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS	Caltex Service Station., 314 Mann St., Gosford 2250	124756	1982	Premise Match	118m	North
	MOTOR SERVICE STATIONS-PETROL, OIL, Etc.	Parson's Service Station, 322 Mann St., Gosford	204091	1961	Premise Match	118m	North
3	MOTOR GARAGES & ENGINEERS	Gosford Service Station Pty. Ltd., 249 Mann St., Gosford	204035	1961	Premise Match	131m	South
	MOTOR GARAGES & ENGINEERS	Gosford Service Station, 249 Mann St., Gosford	184541	1950	Premise Match	131m	South
4	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS	Parson's Garage Pty. Ltd., 325 Mann St., Gosford 2250	124789	1982	Premise Match	134m	North
	MOTOR GARAGES & ENGINEERS	Parsons Garage Pty. Ltd., 325 Mann St. Gosford 2250	538649	1970	Premise Match	134m	North
	MOTOR GARAGES & ENGINEERS	Parsons Garage Pty. Ltd. 325 Mann St., Gosford	204012	1961	Premise Match	134m	North
	MOTOR GARAGES & ENGINEERS	Parsons Garage Pty. Ltd., 325 Mann St., Gosford	204040	1961	Premise Match	134m	North
	MOTOR GARAGES & ENGINEERS	Parsons Garage Pty. Ltd., 325 Mann St., Gosford	184542	1950	Premise Match	134m	North
5	DRY CLEANERS, PRESSERS & DYERS	Gosford Dry Cleaners, 243 Mann St. Gosford 2250	538165	1970	Premise Match	146m	South
	DRY CLEANERS, PRESSERS & DYERS	Back-Like-New Dry Cleaners, 243 Mann St., Gosford	203551	1961	Premise Match	146m	South
	DRY CLEANERS, PRESSERS & DYERS	Back-Like-New Dry Cleaners, 243 Mann St., Gosford	184317	1950	Premise Match	146m	South
6	MOTOR GARAGES & ENGINEERS	Richardson Motors, 237 Mann St., Gosford	184543	1950	Premise Match	158m	South
7	MOTOR GARAGES & ENGINEERS	Baker, F. G., 196 Mann St., Gosford	184537	1950	Premise Match	293m	South West
8	MOTOR GARAGES & ENGINEERS	Grawill Motors, Cnr. Erina & Watt Sts. Gosford 2250	538641	1970	Road Intersection	346m	South
	MOTOR GARAGES & ENGINEERS	Grawill Motors, Cnr. Erina & Watt Sts., Gosford	204036	1961	Road Intersection	346m	South
9	DRY CLEANERS & PRESSERS	Lawrence Dry Cleaners., 73 Imperial Centre., Gosford 2250	123980	1982	Premise Match	354m	South
	DRY CLEANERS, PRESSERS & DYERS	Malley, C. O., 165 Mann St., Gosford	184318	1950	Premise Match	354m	South
10	DRY CLEANERS, PRESSERS & DYERS	Prestige (A. Dodd and Co.), 174 Mann St., Gosford	184319	1950	Premise Match	375m	South

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
11	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS	Gosford Motors., 131 Henry Parry Dr., Gosford 2250	124775	1982	Premise Match	389m	South
12	DRY CLEANERS & PRESSERS	Spring Fresh Dry Cleaners., 1 William St., Gosford 2250	123982	1982	Premise Match	475m	South
13	MOTOR GARAGES & ENGINEERS	Rosenfelder, Emil, Cnr. Gertrude and William Sts., Gosford	204043	1961	Road Intersection	480m	South
14	DRY CLEANERS & PRESSERS	Springfresh Dry Cleaners., Shop 131 Marketown., Gosford 2250	123984	1982	Premise Match	490m	South
15	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS	Tate, Frank., 139 Erina St., Gosford 2250	124798	1982	Premise Match	492m	South East
	MOTOR GARAGES & ENGINEERS	Tate, F., 139 Erina St. Gosford 2250	538654	1970	Premise Match	492m	South East

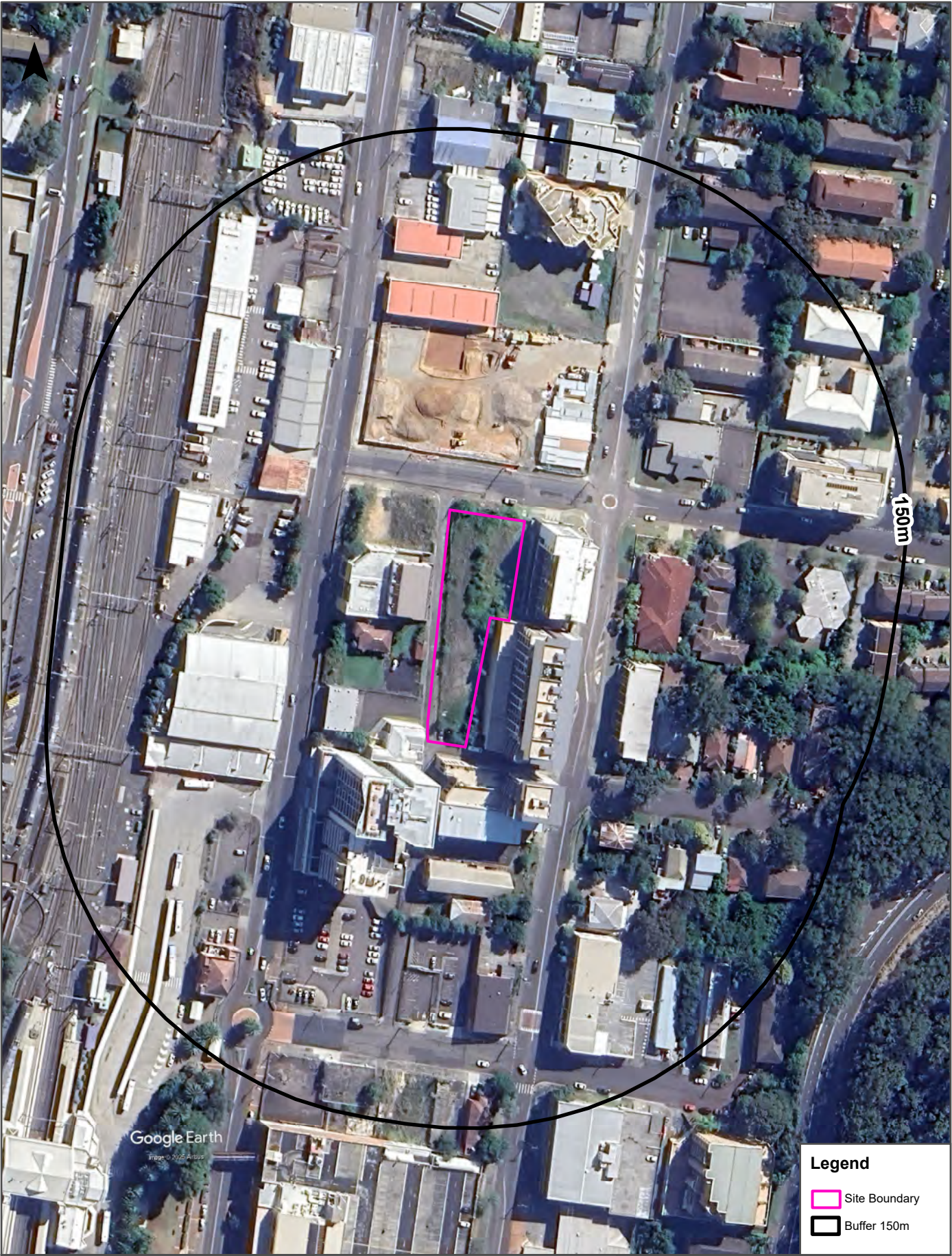
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Dry Cleaners, Motor Garages & Service Stations Road or Area Matches

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

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
16	MOTOR GARAGES &/OR ENGINEERS &/ OR SERVICE STATIONS	Ashworth. J., 46 Beane St., Gosford 2250	124747	1982	Road Match	0m
17	MOTOR GARAGES & ENGINEERS	Spare Parts Gosford, 15 Hill St., Gosford	204045	1961	Road Match	29m
18	MOTOR GARAGES &/OR ENGINEERS &/ OR SERVICE STATIONS	Golden Fleece Service Station., Pacific Highway., North Gosford 2250	124772	1982	Road Match	40m
	MOTOR GARAGES & ENGINEERS	Eagle, A. E. & Sons Pty. Limited, Pacific Hghwy., North Gosford	538634	1970	Road Match	40m
	MOTOR SERVICE STATIONS-PETROL, OILS, Etc.	Golden Fleece Service Station, Pacific Hghwy., North Gosford	538685	1970	Road Match	40m
	MOTOR SERVICE STATIONS-PETROL, OILS, Etc.	Gosford Auto Electrics, Pacific Hghwy., Gosford North	538687	1970	Road Match	40m
	MOTOR GARAGES & ENGINEERS	Hilton, Brian Pty. Ltd., Pacific Hghwy., North Gosford	538643	1970	Road Match	40m
	MOTOR GARAGES & ENGINEERS	Eagle, A. E. and Sons, Pacific Highway., North Gosford	204030	1961	Road Match	40m
	MOTOR SERVICE STATIONS-PETROL, OIL, Etc.	Golden Fleece Service Station, Pacific Highway., North Gosford	204081	1961	Road Match	40m
	MOTOR SERVICE STATIONS-PETROL, OIL, Etc.	North Gosford Transport Centre, Pacific Highway., North Gosford	204086	1961	Road Match	40m
	MOTOR GARAGES & ENGINEERS	Robert's Fleetline Service Station & Restaurant, Mann St., North Gosford	204042	1961	Road Match	40m
	MOTOR GARAGES & ENGINEERS	Eagle and Corner, Pacific Highway., North Gosford	184539	1950	Road Match	40m
	MOTOR GARAGES & ENGINEERS	Stephenson's Garage, Pacific Highway., North Gosford	184546	1950	Road Match	40m
19	MOTOR GARAGES & ENGINEERS	Gosford Motors Pty. Ltd., Gertrude St. Gosford 2250	538640	1970	Road Match	133m
20	MOTOR GARAGES & ENGINEERS	Love, J. E. & R. W., Showground Rd. Gosford 2250	538646	1970	Road Match	162m
21	DRY CLEANERS, PRESSERS & DYERS	Topper Dry Cleaners, Baker St. Gosford 2250	538166	1970	Road Match	351m
	DRY CLEANERS, PRESSERS & DYERS	Topper Dry Cleaners, 14 Baker St., Gosford	203552	1961	Road Match	351m
	DRY CLEANERS, PRESSERS & DYERS	Topper Dry Cleaners Baker St., Gosford	184316	1950	Road Match	351m
	DRY CLEANERS, PRESSERS & DYERS	Topper Dry Cleaners, Baker St., Gosford	184320	1950	Road Match	351m

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Scale: 0 20 40 60 80 Meters	Data Sources: Aerial Imagery: © NSW Department of Customer Service	Coordinate System: GDA 1994 MGA Zone 56	Date: 27 June 2025
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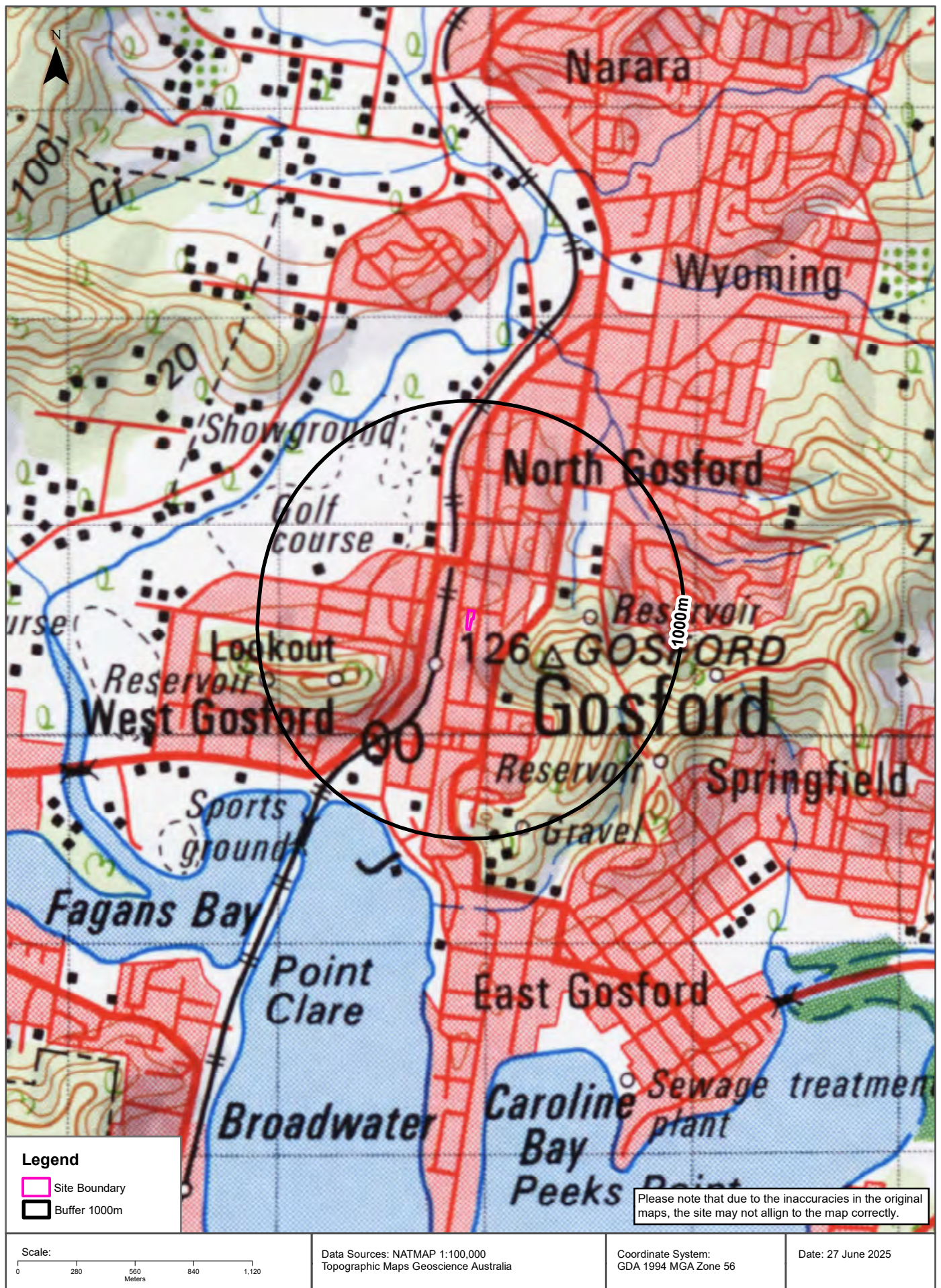




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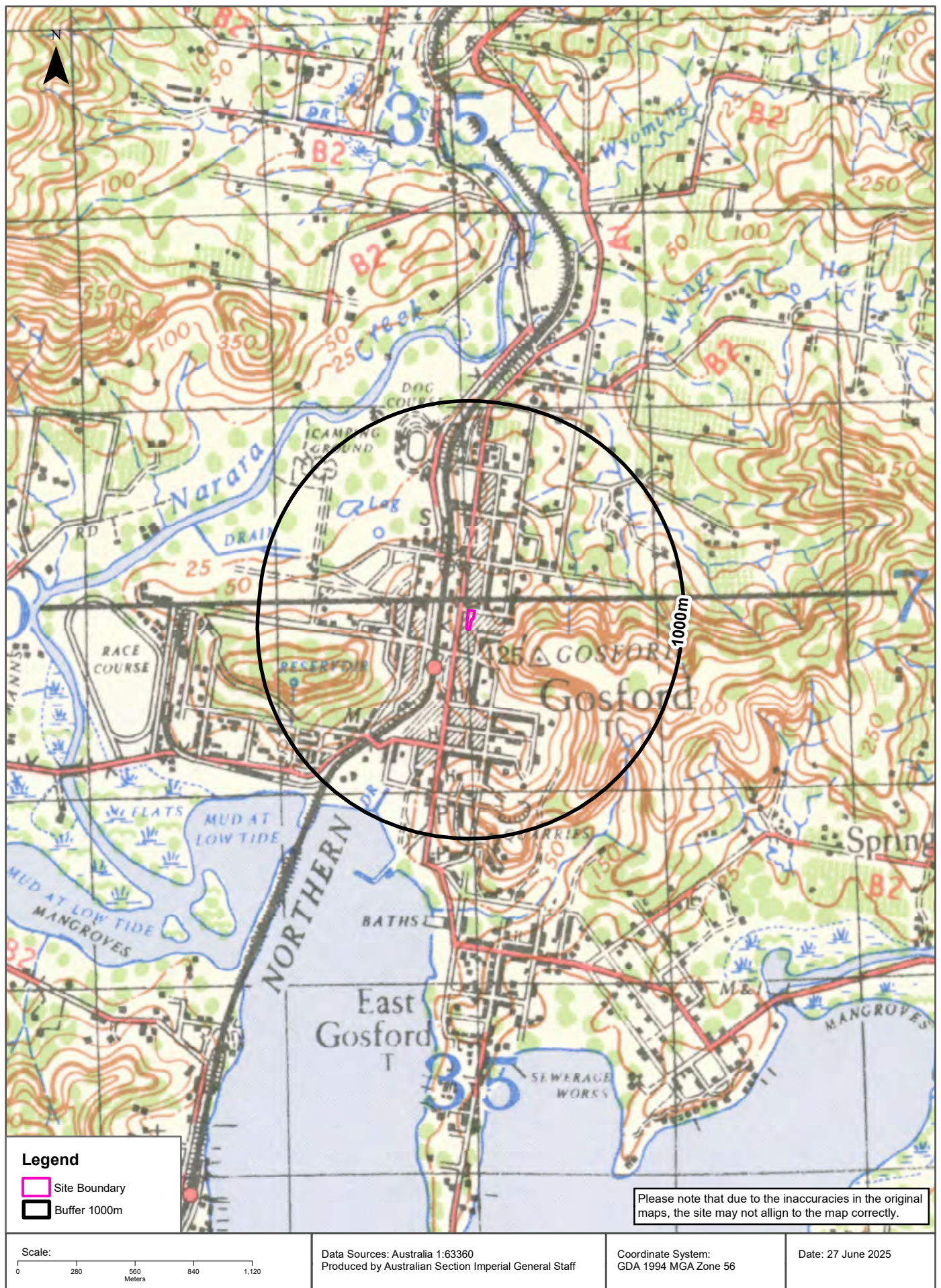
Historical Map 1975

43-45 Beane Street, Gosford, NSW 2250



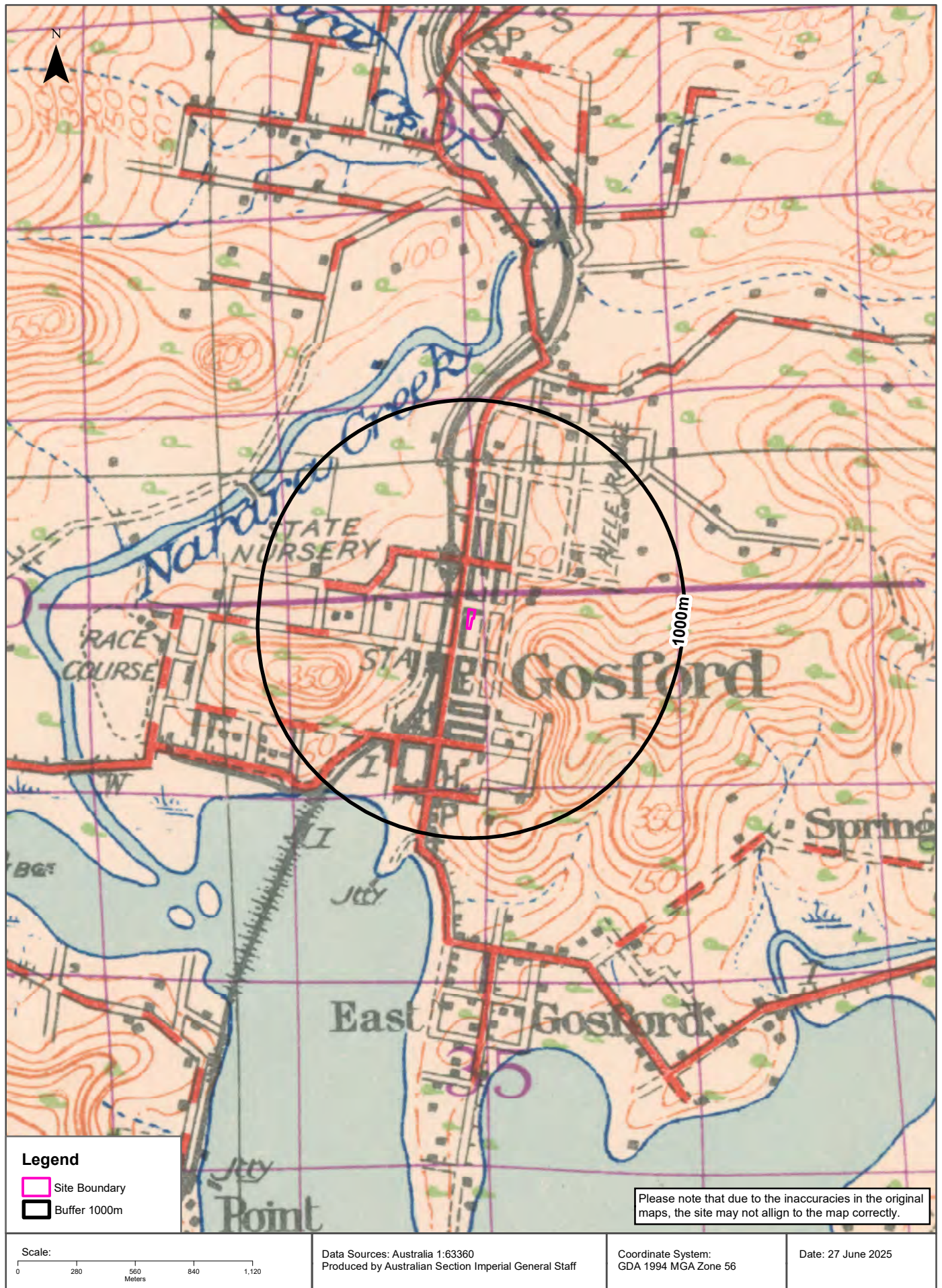
Historical Map c.1942

43-45 Beane Street, Gosford, NSW 2250

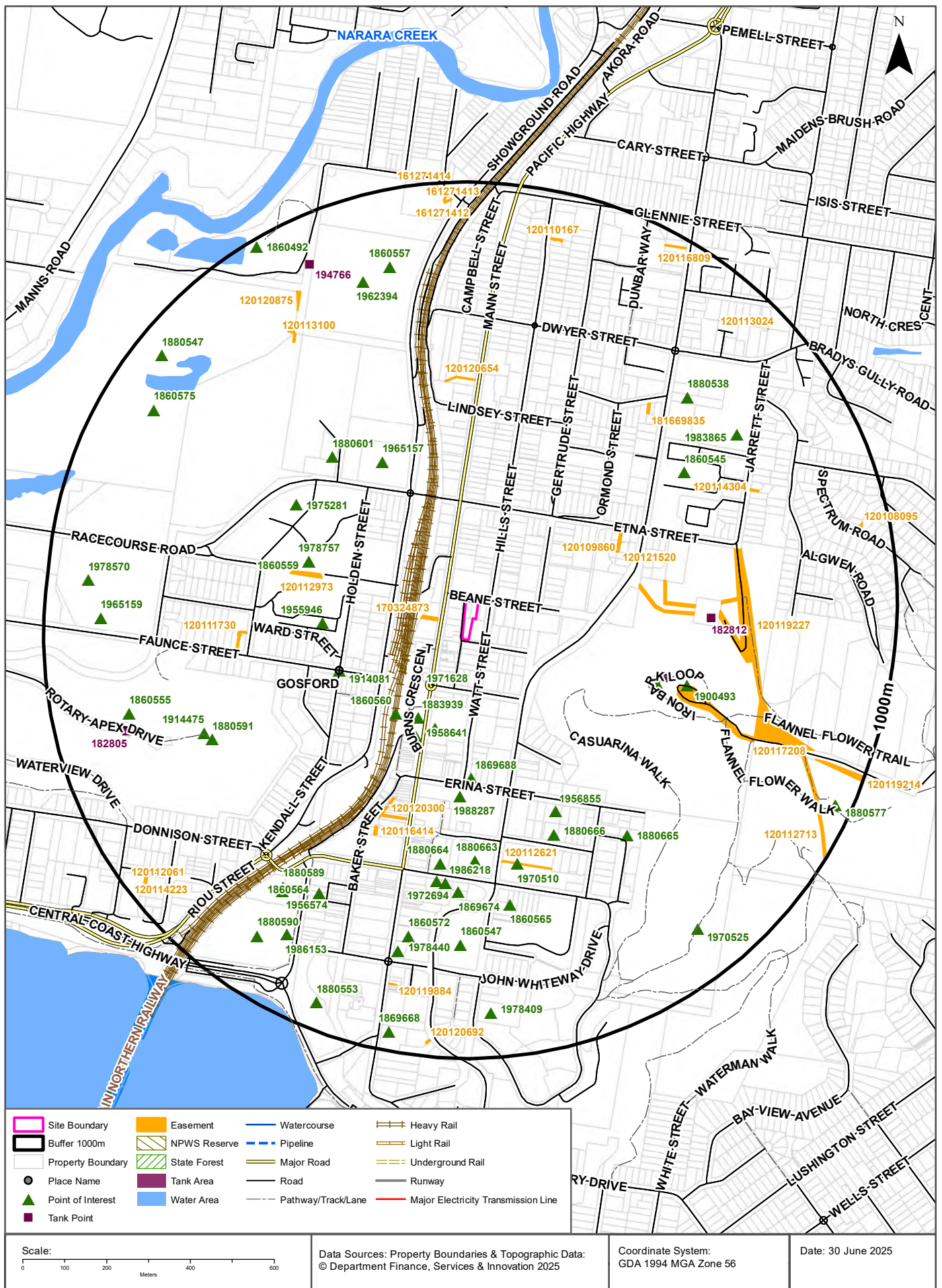


Historical Map c.1921

43-45 Beane Street, Gosford, NSW 2250



43-45 Beane Street, Gosford, NSW 2250



Topographic Features

43-45 Beane Street, Gosford, NSW 2250

Points of Interest

What Points of Interest exist within the dataset buffer?

Map Id	Feature Type	Label	Distance	Direction
1971628	Transport Interchange	GOSFORD BUS INTERCHANGE	138m	South West
1883939	Park	BURNS PLACE	215m	South West
1975282	Community Medical Centre	GATEWAY COMMUNITY HEALTH CENTRE	223m	South
1860560	Railway Station	GOSFORD RAILWAY STATION	239m	South West
1958641	Tourist Information Centre	GOSFORD VISITOR INFORMATION CENTRE	259m	South West
1914081	Town	GOSFORD	303m	West
1869688	Post Office	GOSFORD POST OFFICE	330m	South
1955946	Helipad	Helipad	336m	West
1988287	Shopping Centre	IMPERIAL CENTRE GOSFORD	374m	South
1965157	High School	GOSFORD HIGH SCHOOL	386m	North West
1978757	General Hospital	CENTRAL COAST TRANSITIONAL CARE FACILITY	387m	West
1860559	General Hospital	GOSFORD HOSPITAL	387m	West
1956855	Place Of Worship	Place Of Worship	459m	South East
1860563	Lookout	NURRUNGA LOOKOUT	460m	East
1975281	Community Medical Centre	GOSFORD HOSPITAL COMMUNITY HEALTH SERVICES	467m	North West
1880601	Club	GOSFORD GOLF CLUB	469m	North West
1880666	Place Of Worship	CHRISTIAN SCIENTIST CHURCH	508m	South
1880663	Park	KIBBLE PARK	528m	South
1900493	Mountain Like	MOUNT MOUAT	528m	East
1880664	Library	GOSFORD LIBRARY	539m	South
1970510	Shopping Centre	GOSFORD TOWN CENTRE	548m	South
1860545	General Hospital	GOSFORD PRIVATE HOSPITAL	581m	North East
1972694	High School	ET AUSTRALIA SECONDARY COLLEGE	582m	South
1986218	Special School	ET AUSTRALIA SECONDARY COLLEGE SENIOR CAMPUS	583m	South
1880665	Community Facility	RED CROSS SOCIETY	600m	South East
1869674	Place Of Worship	UNITING CHURCH	603m	South
1860565	Court House	GOSFORD COURT HOUSE	639m	South
1880591	Lookout	PRESIDENTS HILL LOOKOUT	643m	South West
1914475	Mountain Like	PRESIDENTS HILL	657m	South West
1860564	Club	CENTRAL COAST LEAGUES CLUB	697m	South West
1880538	Cemetery	GOSFORD CEMETERY	699m	North East
1860572	Local Government Chambers	GOSFORD CITY COUNCIL	722m	South

Map Id	Feature Type	Label	Distance	Direction
1860547	Technical College	GOSFORD TAFE COLLEGE	729m	South
1880589	Community Facility	GOSFORD CITY BOWLING CLUB	731m	South West
1983865	Special School	NORTH GOSFORD LEARNING CENTRE	736m	North East
1956574	Sports Field	BOWLING GREENS	741m	South West
1978440	Community Facility	CENTRAL COAST CONSERVATORIUM	762m	South
1962394	Dog Track	GOSFORD GREYHOUND TRACK	801m	North
1860555	Park	WATERVIEW PARK	816m	West
1860557	Showground	GOSFORD SHOWGROUND	818m	North
1986153	Filtration Plant	GRAHAM PARK WATER TREATMENT PLANT	821m	South West
1880590	Sports Field	BLUE TONGUE CENTRAL COAST STADIUM	862m	South West
1965159	High School	HENRY KENDALL HIGH SCHOOL	865m	West
1860575	Golf Course	GOSFORD GOLF COURSE	874m	North West
1970525	Lookout	OURAKA LOOKOUT	880m	South East
1978409	Park	JOHN WHITEWAY DRIVE BUSH RESERVE	893m	South
1978570	Primary School	GOSFORD PUBLIC SCHOOL	902m	West
1880547	Park	VICTORIA PARK	933m	North West
1880553	Park	GOSFORD CITY PARK	936m	South
1869668	Police Station	GOSFORD POLICE STATION	955m	South
1880577	Park	RUMBALARA RESERVE	960m	South East
1860492	Sewage Works	Sewage Works	982m	North West

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

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Topographic Features

43-45 Beane Street, Gosford, NSW 2250

Tanks (Areas)

What are the Tank Areas located within the dataset buffer?

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

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

Tanks (Points)

What are the Tank Points located within the dataset buffer?

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

Map Id	Tank Type	Status	Name	Feature Currency	Distance	Direction
194763	Water	Operational		01/05/2020	471m	East
182812	Water	Operational		21/07/2018	558m	East
182805	Water	Operational		21/07/2018	830m	West
194766	Water	Operational		01/05/2020	886m	North West

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

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Major Easements

What Major Easements exist within the dataset buffer?

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

Map Id	Easement Class	Easement Type	Easement Width	Distance	Direction
170324873	Primary	Right of way	7m	63m	West
120112973	Primary	Undefined		348m	West
120121520	Primary	Undefined		351m	North East
120109860	Primary	Undefined		367m	North East
120119227	Primary	Undefined		385m	East
120120300	Primary	Undefined		414m	South
120112713	Primary	Undefined		443m	South East
120116414	Primary	Undefined		492m	South West
120117208	Primary	Undefined		511m	East
120111730	Primary	Undefined		515m	West
120120654	Primary	Undefined		526m	North
120112621	Primary	Undefined		534m	South
181669835	Primary	Right of way	4.7m	606m	North East

Map Id	Easement Class	Easement Type	Easement Width	Distance	Direction
120114304	Primary	Undefined		702m	North East
120113100	Primary	Undefined		741m	North West
120120875	Primary	Undefined		802m	North West
120119884	Primary	Undefined		841m	South
120119214	Primary	Undefined		877m	East
120110167	Primary	Undefined		884m	North
120108095	Primary	Undefined		922m	East
120114223	Primary	Undefined		941m	South West
120112061	Primary	Undefined		948m	South West
120113024	Primary	Undefined		950m	North East
161271412	Secondary	Easement for Water Main		951m	North
161271413	Secondary	Easement for Electricity Purposes		953m	North
161271414	Secondary	Easement for Water Main		958m	North
120120692	Primary	Undefined		958m	South
120116809	Primary	Undefined		962m	North East

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

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Topographic Features

43-45 Beane Street, Gosford, NSW 2250

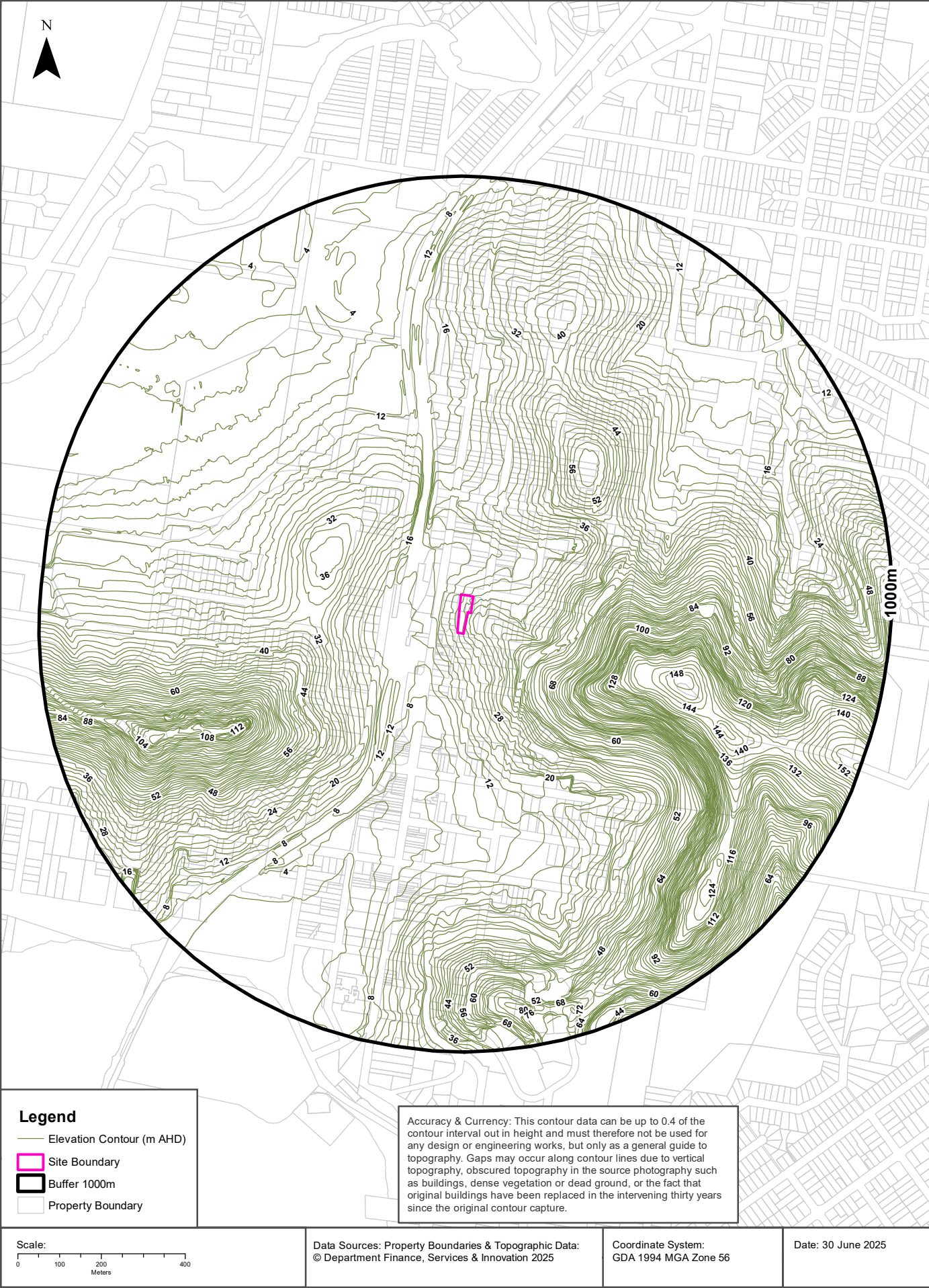
State Forest

What State Forest exist within the dataset buffer?

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

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

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Hydrogeology & Groundwater

43-45 Beane Street, Gosford, NSW 2250

Hydrogeology

Description of aquifers within the dataset buffer:

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

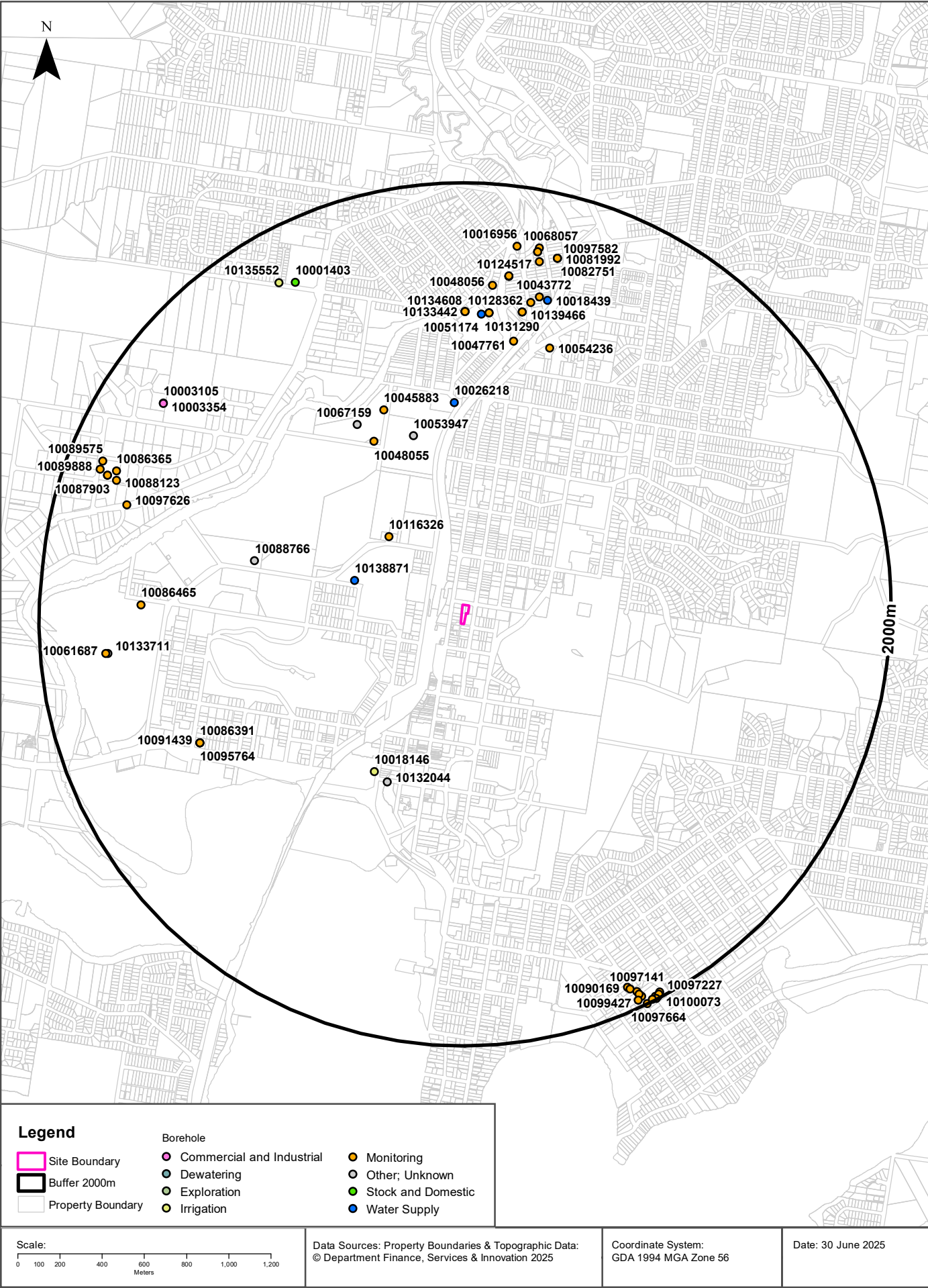
Hydrogeology Map of Australia : Commonwealth of Australia (Geoscience Australia)
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Temporary Water Restriction (Botany Sands Groundwater Source) Order 2024

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

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

Temporary Water Restriction (Botany Sands Groundwater Source) Order 2024 Data Source : NSW Department of Primary Industries



Hydrogeology & Groundwater

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Groundwater Boreholes

Boreholes within the dataset buffer:

NGIS Bore ID	NSW Bore ID	Bore Type	Status	Drill Date	Bore Depth (m)	Reference Elevation	Height Datum	Salinity (mg/L)	Yield (L/s)	SWL (mbgl)	Distance	Direction
10116326	GW100343	Monitoring	Functioning	15/03/1993	73.00		AHD	2800	9.000	5.50	474m	North West
10138871	GW053790	Water Supply	Unknown	01/01/1980	42.70		AHD				525m	West
10018146	GW201679	Irrigation	Functioning	20/09/2004	102.00		AHD				813m	South West
10132044	GW201893	Other	Functional	08/08/2004	78.00		AHD		1.500		829m	South West
10053947	GW105399	Other	Unknown	14/08/2003	48.50		AHD	660	2.500	6.60	832m	North
10048055	GW201179	Monitoring	Functional	12/03/2007	16.20		AHD			3.05	880m	North West
10026218	GW201677	Water Supply	Functioning	28/06/2006	205.00		AHD		8.000	7.00	958m	North
10067159	GW065029	Other	Unknown	22/12/1989	62.00		AHD	Fresh			988m	North West
10045883	GW201689	Monitoring	Functional	22/11/2007	62.00		AHD	600	4.000	3.60	994m	North
10088766	GW072796	Other	Functioning	21/01/1995	90.00		AHD	Good	0.804	9.00	1007m	West
10047761	GW201054	Monitoring	Functional	26/10/2007	10.50		AHD			1.50	1270m	North
10054236	GW107812	Monitoring	Unknown	02/11/2004	5.00		AHD			2.53	1279m	North
10086391	GW200838	Monitoring	Functional	12/05/2010	7.50		AHD			3.00	1359m	South West
10091439	GW200840	Monitoring	Functional	24/05/2010	8.00		AHD			3.00	1359m	South West
10095764	GW200839	Monitoring	Functional	12/05/2010	7.50		AHD			3.00	1359m	South West
10051174	GW201688	Water Supply	Functioning	16/04/2005	160.00		AHD				1379m	North
10131290	GW201888	Monitoring	Functional	16/02/2006	42.00		AHD				1387m	North
10137650	GW201888	Monitoring	Functional	16/02/2006	42.00		AHD				1387m	North
10133442	GW201889	Monitoring	Functional	22/02/2006	150.00		AHD			4.00	1388m	North
10134608	GW201889	Monitoring	Functional	22/02/2006	150.00		AHD			4.00	1388m	North
10139294	GW201889	Monitoring	Functional	22/02/2006	150.00		AHD			4.00	1388m	North
10139466	GW201886	Monitoring	Functional	08/03/2006	46.00		AHD		6.000	4.00	1413m	North
10140124	GW201886	Monitoring	Functional	08/03/2006	46.00		AHD		6.000	4.00	1413m	North
10128362	GW201885	Monitoring	Functional	28/09/2005	60.00		AHD		8.760		1465m	North
10018439	GW201678	Water Supply	Functioning	15/01/2006	165.00		AHD		25.000	4.00	1492m	North
10043772	GW201056	Monitoring	Functional	05/12/2011	15.20		AHD			1.10	1501m	North
10086465	GW104667	Monitoring	Functioning	03/01/2003	42.50		AHD	398	4.000	12.60	1518m	West
10048056	GW201180	Monitoring	Functional	12/02/2006	42.00		AHD				1519m	North
10129487	GW201894	Monitoring	Functional	02/02/2006	144.00		AHD			2.50	1571m	North
10129719	GW201894	Monitoring	Functional	02/02/2006	144.00		AHD			2.50	1571m	North
10137361	GW201895	Monitoring	Functional	02/02/2006	24.00		AHD			2.50	1573m	North

NGIS Bore ID	NSW Bore ID	Bore Type	Status	Drill Date	Bore Depth (m)	Reference Elevation	Height Datum	Salinity (mg/L)	Yield (L/s)	SWL (mbgl)	Distance	Direction
10097626	GW202234	Monitoring	Functional	07/03/2006	5.10		AHD			1.50	1659m	West
10124517	GW202285	Monitoring	Functional	11/03/2005	125.50		AHD				1663m	North
10133711	GW100229	Other	Functioning	24/01/1993	39.00		AHD	1500	4.800		1679m	West
10061687	GW100174	Monitoring	Proposed	04/11/1992	60.00		AHD	3500	3.100		1690m	West
10081992	GW201220	Monitoring	Functional	24/03/2006	156.00		AHD			0.00	1698m	North
10082751	GW201220	Unknown	Functional	24/03/2006			AHD			0.00	1698m	North
10097582	GW201220	Monitoring	Functional	24/03/2006	156.00		AHD			0.00	1698m	North
10003354	GW204856	Commercial and Industrial	Functioning	15/04/2020	58.00		AHD				1708m	North West
10134649	GW201887	Monitoring	Functional	31/03/2006	42.00		AHD				1708m	North
10135402	GW201887	Monitoring	Functional	31/03/2006	42.00		AHD				1708m	North
10003105	GW204855	Commercial and Industrial	Non-functional	15/04/2020	58.00		AHD				1709m	North West
10016956	GW201162	Monitoring	Functioning	11/03/2005	125.50		AHD				1718m	North
10001403	GW014431	Stock and Domestic	Unknown	01/03/1960	24.30		AHD				1720m	North West
10068057	GW201191	Monitoring	Functional	26/10/2007	10.50		AHD			1.50	1726m	North
10088123	GW107069	Monitoring	Unknown	11/10/2004	4.00		AHD			1.52	1742m	West
10135552	GW042838	Irrigation	Unknown	01/08/1975	29.00		AHD	501-1000 ppm			1756m	North West
10086365	GW107070	Monitoring	Unknown	11/10/2004	5.00		AHD			1.48	1758m	West
10087903	GW107072	Monitoring	Unknown	11/10/2004	2.50		AHD			1.22	1792m	West
10088520	GW107071	Monitoring	Unknown	11/10/2004	5.00		AHD			1.24	1792m	West
10089888	GW202233	Monitoring	Functional	07/03/2006	5.20		AHD			1.00	1834m	West
10089575	GW107073	Monitoring	Unknown	12/10/2004	4.20		AHD			1.12	1836m	North West
10090169	GW202604	Monitoring	Functional	17/10/2011	4.00		AHD				1889m	South East
10097141	GW202603	Monitoring	Functional	17/10/2011	4.00		AHD				1901m	South East
10099196	GW202602	Monitoring	Functional	17/10/2011	4.00		AHD				1926m	South East
10099427	GW202601	Monitoring	Functional	17/10/2011	4.00		AHD				1941m	South East
10094446	GW201097	Monitoring	Functional	15/04/2011	6.00		AHD			2.20	1955m	South East
10103564	GW202600	Monitoring	Functional	17/10/2011	4.00		AHD				1965m	South East
10097227	GW201095	Monitoring	Functional	13/04/2011	9.00		AHD			2.70	1976m	South East
10101672	GW202607	Monitoring	Functional	05/07/2012	8.20		AHD			3.50	1982m	South East
10097123	GW201093	Monitoring	Functional	13/04/2011	6.00		AHD			2.40	1984m	South East
10100073	GW202606	Monitoring	Functional	05/07/2012	8.20		AHD			3.50	1990m	South East
10106839	GW201099	Monitoring	Functional	15/04/2011	7.50		AHD			2.20	1991m	South East
10103962	GW202605	Monitoring	Functional	09/07/2012	7.00		AHD			3.50	1996m	South East
10097664	GW201098	Monitoring	Functional	15/04/2011	6.00		AHD			2.30	1998m	South East

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

Hydrogeology & Groundwater

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Driller's Logs

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

NGIS Bore ID	Drillers Log	Distance	Direction
10116326	0.00m-9.00m TOPSOIL & SAND (WB) 9.00m-18.50m RED CLAY 18.50m-29.00m SAND (WB) 29.00m-30.00m GRAVEL (WB) 30.00m-45.00m GREY SANDSTONE (MEDIUM GRAIN) 45.00m-47.00m GREY SANDSTONE, CLAY (MEDIUM GRAIN) 47.00m-52.00m GREY SANDSTONE (FINE GRAIN) 52.00m-54.00m GREY SANDSTONE (MEDIUM GRAIN) & BED SHALE 54.00m-55.00m CLAY BAND 55.00m-61.00m GREY SANDSTONE (MEDIUM GRAIN) 61.00m-62.00m GREY SANDSTONE (MEDIUM GRAIN) & BED SHALE 62.00m-72.50m GREY SANDSTONE (MEDIUM GRAIN) W.B. 72.50m-73.00m GREY SANDSTONE (MEDIUM GRAIN) & BED SHALE	474m	North West
10018146	0.00m-6.00m Sand, medium, golden 6.00m-13.00m Clay, grey 13.00m-16.00m Sand, fine, grey, with clay 16.00m-24.00m Sand, medium-fine, grey, with dirty water & clay 24.00m-25.00m Gravel & Sand, harder 25.00m-30.00m Shale, grey 30.00m-35.00m Sandstone, with some Shale bands, highly fractured 35.00m-57.00m Shale 57.00m-65.00m Sandstone 65.00m-65.00m Shale 65.00m-75.50m Sandstone, grey 75.50m-102.00m Shale	813m	South West
10132044	0.00m-3.00m Sandy Clay, with wood & gravel 3.00m-5.00m Clay, marine, grey 5.00m-11.00m Sand, grey, with clay 11.00m-12.00m Sandstone, weathered layer 12.00m-14.00m Sandy Clay 14.00m-16.00m Sandstone, weathered 16.00m-20.00m Clay; pink & red 20.00m-27.00m Shale, grey 27.00m-30.00m Sandstone, white 30.00m-34.00m Shale 34.00m-35.00m Sandstone 35.00m-44.00m Shale, grey red 44.00m-46.00m Sandstone 46.00m-60.00m Shale & Sandstone layers 60.00m-78.00m Shale, solid, grey Sandstone layers	829m	South West
10053947	0.00m-4.00m CLAY 4.00m-15.00m SAND/SILT/CLAY/SANDSTONE BANDS/ROCKS 15.00m-25.00m SANDSTONE GREY SOFT 25.00m-27.00m CLAYSTONE FRACTURED 27.00m-29.00m SANDSTONE GREY SOFT 29.00m-35.50m SILTSTONE SOFT 35.50m-37.00m SANDSTONE GREY 37.00m-37.30m CLAY 37.30m-40.00m SANDSTONE GREY 40.00m-40.20m CLAY 40.20m-44.10m SILTSTONE SOFT 44.10m-44.20m DOLERITE 44.20m-44.40m DOLERITE FRACTURED 44.40m-45.00m DOLERITE V/FINE GRAIN/HARD/CREAM 45.00m-48.50m SANDSTONE GREY	832m	North
10048055	0.00m-2.50m FILL, SOIL, CLAY, GRAVEL 2.50m-3.50m SANDY CLAY 3.50m-13.50m SAND SILTY WET, GREY 13.50m-16.20m SAND, YELLOW BROWN	880m	North West
10026218	0.00m-5.00m Clay, red 5.00m-12.00m Sandy Clay 12.00m-24.00m Clay, wet 24.00m-57.00m Shale, grey 57.00m-67.00m Sandstone, shale bands 67.00m-118.00m Shale 118.00m-140.00m Sandstone/Shale/Siltstone 140.00m-150.00m Sandstone, fine 150.00m-205.00m Sandstone, minor fractures	958m	North

NGIS Bore ID	Drillers Log	Distance	Direction
10045883	0.00m-1.00m Fill 1.00m-15.00m Sand, grey, fine to medium 15.00m-16.00m Sand, yellow, medium 16.00m-17.00m Clay, white-cream 17.00m-20.00m Sandstone, strongly weathered, grey 20.00m-23.00m Claystone, white to light grey 23.00m-26.00m Sandstone, cream to yellow 26.00m-33.00m Shale & Siltstone, in part iron rich 33.00m-36.00m Shale, light grey 36.00m-41.00m Shale, grey 41.00m-62.00m Shale, grey, & Sandstone interbedded	994m	North
10088766	0.00m-5.00m 5.00m-17.00m Clay-sandstone 17.00m-90.00m	1007m	West
10047761	0.00m-0.10m Fill: Asphalt 0.10m-0.25m Fill: Road Base 0.25m-0.45m Fill: Concrete Slab 0.45m-1.80m Clay, brown 1.80m-2.00m Sand, dry, brown 2.00m-8.50m Sand, wet, grey 8.50m-10.50m Sand, bands of & hard Clay	1270m	North
10054236	0.00m-0.50m TOPSOIL/FILL 0.50m-3.80m SILTY SANDY CLAY 3.80m-5.00m SILTY SAND	1279m	North
10086391	0.00m-1.50m Fill 1.50m-3.00m Sandstone, light yellow, weathered 3.00m-6.00m Sandstone, fractured, yellow, grey lense 6.00m-7.50m Sandstone, grey, black lense	1359m	South West
10091439	0.00m-1.50m Fill 1.50m-3.00m Sandstone, light yellow, weathered 3.00m-6.00m Sandstone, fractured, yellow, grey lense 6.00m-8.00m Sandstone, grey, black lense	1359m	South West
10095764	0.00m-1.50m Fill 1.50m-3.00m Sandstone, light yellow, weathered 3.00m-6.00m Sandstone, fractured, yellow, grey lense 6.00m-7.50m Sandstone, grey, black lense	1359m	South West
10051174	0.00m-11.00m Topsoil, sandy, grey brown 11.00m-18.00m Siltstone, weathered, pink to orange 18.00m-21.00m Sandstone, red 21.00m-24.00m Sandstone, grey, with clay layers 24.00m-45.00m Shale, grey 45.00m-50.00m Sandstone, grey 50.00m-72.00m Shale, grey 72.00m-105.00m Sandstone, grey 105.00m-108.00m Shale, orange grey 108.00m-128.00m Shale, dark grey 128.00m-132.00m Shale, pinkish grey 132.00m-146.00m Shale, grey 146.00m-155.00m Sandstone, coarse grained 155.00m-159.00m Shale, grey, reddish brown 159.00m-160.00m Shale, greenish grey	1379m	North
10131290	0.00m-3.00m Clay, brown/black 3.00m-5.00m Clay, dark brown, Sand & Silt 5.00m-9.00m Clay/Sand, brown 9.00m-11.00m Sand/Gravel, coarse, angular 11.00m-16.00m Sandy Clay; grey 16.00m-17.00m Sand, black, organics & coarse angular 17.00m-23.00m Sandy Clay; grey 23.00m-27.00m Rock/Shale, grey, with organics 27.00m-42.00m Clay, grey/Shale	1387m	North
10137650	0.00m-3.00m Clay, brown/black 3.00m-5.00m Clay, dark brown, Sand & Silt 5.00m-9.00m Clay/Sand, brown 9.00m-11.00m Sand/Gravel, coarse, angular 11.00m-16.00m Sandy Clay; grey 16.00m-17.00m Sand, black, organics & coarse angular 17.00m-23.00m Sandy Clay; grey 23.00m-27.00m Rock/Shale, grey, with organics 27.00m-42.00m Clay, grey/Shale	1387m	North
10133442	0.00m-3.00m Clay, & organics, grey 3.00m-12.00m Clay, & fine Sand, grey, wet 12.00m-15.00m Sandstone & organics 15.00m-20.00m Sandstone/Shale, soft 20.00m-147.00m Shale, with minor soft sand bands, clay/grey 147.00m-150.00m Sandstone	1388m	North

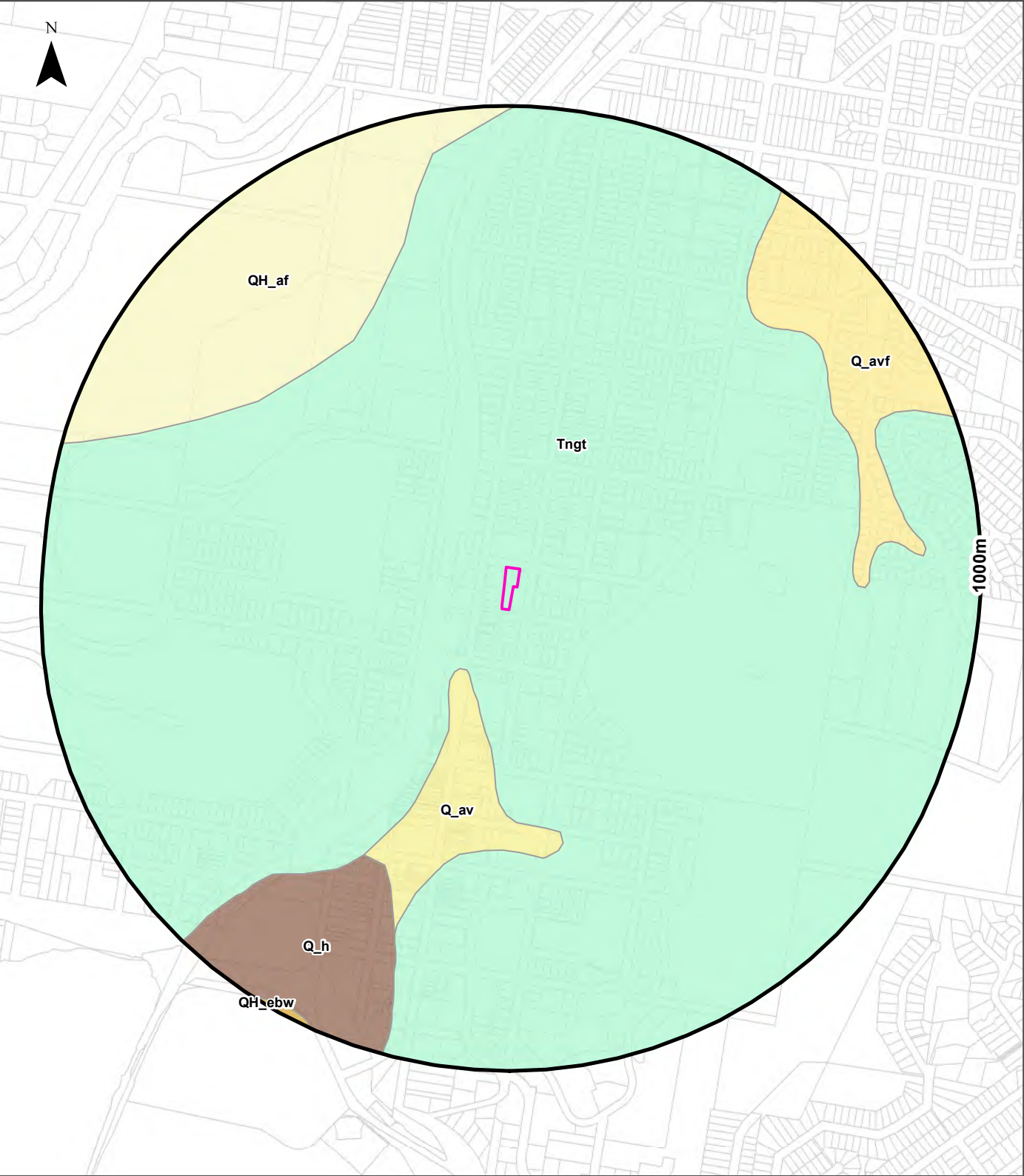
NGIS Bore ID	Drillers Log	Distance	Direction
10134608	0.00m-3.00m Clay, & organics, grey 3.00m-12.00m Clay, & fine Sand, grey, wet 12.00m-15.00m Sandstone & organics 15.00m-20.00m Sandstone/Shale, soft 20.00m-147.00m Shale, with minor soft sand bands, clay/grey 147.00m-150.00m Sandstone	1388m	North
10139294	0.00m-3.00m Clay, & organics, grey 3.00m-12.00m Clay, & fine Sand, grey, wet 12.00m-15.00m Sandstone & organics 15.00m-20.00m Sandstone/Shale, soft 20.00m-147.00m Shale, with minor soft sand bands, clay/grey 147.00m-150.00m Sandstone	1388m	North
10139466	0.00m-4.00m Clay 4.00m-9.00m Clay, dark 9.00m-15.00m Sand/Gravels 15.00m-22.00m Clay & Gravels 22.00m-46.00m Shale/Gravels	1413m	North
10140124	0.00m-4.00m Clay 4.00m-9.00m Clay, dark 9.00m-15.00m Sand/Gravels 15.00m-22.00m Clay & Gravels 22.00m-46.00m Shale/Gravels	1413m	North
10128362	0.00m-4.00m Sand, dark grey/brown/orange 4.00m-7.00m Clay, grey orange, sand wood 7.00m-12.00m Sand/Wood/Charcoal, grey 12.00m-23.00m Sand, grey, charcoal woods vegetation 23.00m-29.00m Sand, hard, grey, quartz, soft zones 29.00m-31.00m Sand, hard, grey, wood 31.00m-36.00m Sandstone, grey, fine-medium 36.00m-39.00m Sandstone, light grey & dark brown 39.00m-42.00m Sandstone, fractured, medium, grey 42.00m-45.00m Shale, dark grey & brown 45.00m-60.00m Sandstone, grey	1465m	North
10018439	0.00m-2.00m Clay, light tan/grey, compact 2.00m-5.00m Clay, Sand interbeds, grey 5.00m-22.00m Sand, silty, wood, charcoal, water bearing 22.00m-36.00m Rock, ligh grey, fractured 36.00m-164.00m Sandstone, fractured, grey 164.00m-170.00m Shale, brownish/red, hard 170.00m-184.00m Shale, brownish red	1492m	North
10043772	0.00m-0.40m Fill: Road Base 0.40m-1.50m Sand, brown 1.50m-5.00m Sand, light grey 5.00m-15.00m Sand, dark grey	1501m	North
10086465	0.00m-0.20m BITUMEN 0.20m-8.00m SANDSTONE L/BROWN 8.00m-17.30m SANDSTONE/CLAYSTONE 17.30m-18.50m SANDSTONE FRACTURED 18.50m-20.00m SANDSTONE/IRONSTONE FRACTURED 20.00m-20.50m IRONSTONE 20.50m-22.00m SANDSTONE L/BROWN 22.00m-23.50m CLAYSTONE 23.50m-27.50m SANDSTONE/IRONSTONE 27.50m-29.70m CLAYSTONE 29.70m-32.50m SANDSTONE L/BROWN 32.50m-33.00m SANDSTONE/QUARTZ 33.00m-34.50m CLAYSTONE/SHALE 34.50m-36.00m SILTSTONE SOFT 36.00m-37.30m CLAY L/BLUE/STIFF 37.30m-38.50m SILTSTONE L/GREY 38.50m-42.20m SHALE RED 42.20m-42.50m SILTSTONE	1518m	West
10048056	0.00m-5.00m GREY CLAY AND ALLUVIALS 5.00m-10.00m SAND MEDIUM /FINE 10.00m-18.00m CLAY/SANDSTONE 18.00m-26.00m SANDSTONE GREY, SHALE GREY 26.00m-38.00m SHALE GREY, CLAYS SOFT 38.00m-42.00m SHALES GREY	1519m	North
10129487	0.00m-12.00m Sand, organics, grey 12.00m-24.00m Sandy Clay, brown 24.00m-24.00m Clay & mixed Gravels, grey 24.00m-28.00m Clay & Shales, soft, light grey, getting harder & darker in colour with depth 28.00m-121.00m Shale, high clay content 121.00m-131.00m Sandstone & Shale bands 131.00m-144.00m Sandstone/Clay bands	1571m	North

NGIS Bore ID	Drillers Log	Distance	Direction
10129719	0.00m-12.00m Sand, organics, grey 12.00m-24.00m Sandy Clay, brown 24.00m-28.00m Clay & Shales, soft, light grey, getting harder & darker in colour with depth 24.00m-24.00m Clay & mixed Gravels, grey 28.00m-121.00m Shale, high clay content 121.00m-131.00m Sandstone & Shale bands 131.00m-144.00m Sandstone/Clay bands	1571m	North
10137361	0.00m-12.00m Sand, & Organics, grey 12.00m-24.00m Sandy Clay, brown	1573m	North
10097626	0.00m-0.80m Fill; Gravelly Sand, road-base material, medium grained, red/brown, angular gravels up to 100mm diameter, loose, moist 0.80m-1.50m Fill; Gravelly Sandy Clay; moderate plasticity, grey, angular gravels, medium grained sand, moist 1.50m-2.80m Clayey Sand; fine to medium grained, grey, low plasticity clay, moist, well graded, moist 2.80m-3.50m Peat; Clay; low to moderate plasticity, black/grey, moist/wet 3.50m-5.10m Clay; low plasticity, dark grey, loose, wet	1659m	West
10124517	0.00m-24.00m Fill; grey sandy slop with wood 24.00m-31.00m Shale & Clay layers 31.00m-48.00m Shale, grey 48.00m-54.00m Sandstone, grey 54.00m-60.00m Shale, grey 60.00m-81.00m Sandstone, grey, with fractures 81.00m-84.00m Sandstone, grey 84.00m-90.00m Shale & grey Sandstone 90.00m-94.00m Sandstone, grey 94.00m-106.00m Shale, grey to brown 106.00m-118.00m Sandstone, grey, fractured 118.00m-121.00m Shale & Sandstone layers 121.00m-124.00m Shale, dark grey 124.00m-130.00m Shale, grey green	1663m	North
10133711	0.00m-8.00m WHITE SANDSTONE 8.00m-20.00m GREY SANDSTONE 20.00m-29.00m BROWN WEATHERED SANDSTONE 29.00m-33.00m GREY SANDSTONE 33.00m-39.00m GREY SILTSTONE	1679m	West
10061687	0.00m-1.00m SANDY BLACK LOAM 1.00m-3.00m GREY CLAY 3.00m-4.00m SILTY GREY SAND 4.00m-8.00m SANDY GREY CLAY 8.00m-9.00m WHITE SILTY SAND 9.00m-12.00m SANDY GREY CLAY 12.00m-18.00m GREY CLAY 18.00m-21.00m BROWN WEATHERED SANDSTONE 21.00m-22.00m FRACTURED GREY SANDSTONE 22.00m-35.00m GREY SANDSTONE 35.00m-36.00m FRACTURED SANDSTONE 36.00m-56.00m GREY SILTSTONE 56.00m-57.00m SOFT GREY SHALE 57.00m-60.00m GREY SANDSTONE	1690m	West
10081992	0.00m-3.00m CLAY BROWN 3.00m-8.00m SAND 8.00m-19.00m CLAY GREY 19.00m-29.00m CLAY GREY BROWN 29.00m-156.00m CLAY GREY, SHALES	1698m	North
10082751	0.00m-3.00m CLAY BROWN 3.00m-8.00m SAND 8.00m-19.00m CLAY GREY 19.00m-29.00m CLAY GREY BROWN 29.00m-156.00m CLAY GREY, SHALES	1698m	North
10097582	0.00m-3.00m CLAY BROWN 3.00m-8.00m SAND 8.00m-19.00m CLAY GREY 19.00m-29.00m CLAY GREY BROWN 29.00m-156.00m CLAY GREY, SHALES	1698m	North
10134649	0.00m-2.00m Clay, medium 2.00m-8.00m Sandy Clay 8.00m-11.00m Sand, orange 11.00m-26.00m Sand, organics, clay mix 26.00m-30.00m Rock, soft, clay bands 30.00m-42.00m Shale, decomposed, & hard shale bands	1708m	North
10135402	0.00m-2.00m Clay, medium 2.00m-8.00m Sandy Clay 8.00m-11.00m Sand, orange 11.00m-26.00m Sand, organics, clay mix 26.00m-30.00m Rock, soft, clay bands 30.00m-42.00m Shale, decomposed, & hard shale bands	1708m	North

NGIS Bore ID	Drillers Log	Distance	Direction
10016956	0.00m-24.00m Sand Slop, grey, with wood 24.00m-31.00m Shale, & Clay layers 31.00m-48.00m Shale, grey 48.00m-54.00m Sandstone, grey 54.00m-60.00m Shale, grey 60.00m-81.00m Sandstone, grey, fractured 81.00m-84.00m Sandstone, grey 84.00m-90.00m Shale, & grey Sandstone 90.00m-94.00m Sandstone, grey 94.00m-106.00m Shale, grey to brown 106.00m-118.00m Sandstone, grey, fractured 118.00m-121.00m Shale & Sandstone layers 121.00m-124.00m Shale, dark grey 124.00m-125.50m Shale, grey green	1718m	North
10068057	0.00m-0.10m ASPHALT 0.10m-0.25m ROAD BASE 0.25m-0.45m CONCRETE SLAB 0.45m-1.80m CLAY BROWN 1.80m-2.00m SAND DRY BROWN 2.00m-8.50m SAND WET GREY 8.50m-10.50m CLAY HARD	1726m	North
10088123	0.00m-1.20m FILL, SANDY CLAY 1.20m-2.10m FILL,CLAY 2.10m-3.70m PEAT, SANDY CLAY 3.70m-4.00m SAND	1742m	West
10135552	0.00m-0.24m Soil 0.24m-3.35m Clay 3.35m-9.14m Sand Wet Clay 9.14m-12.50m Clay 12.50m-22.86m Sandstone Water Supply 22.86m-28.96m Shale	1756m	North West
10086365	0.00m-2.00m FILL,SANDY CLAY 2.00m-3.00m PEAT,SANDY CLAY 3.00m-4.00m SAND 4.00m-5.00m SANDY CLAY	1758m	West
10087903	0.00m-2.50m FILL,,SANDY CLAY	1792m	West
10088520	0.00m-2.00m FILL,CLAYEY SAND 2.00m-2.30m SANDY CLAY 2.30m-2.80m PEAT,SANDY CLAY 2.80m-5.00m SAND	1792m	West
10089888	0.00m-0.25m Fill; Asphalt, angular gravels, loose, wet 0.25m-0.50m Fill; Sandy Clay; low to moderate plasticity, medium grained sands with subangular gravels 0.50m-2.40m Sandy Clay, moderate to high plasticity, grey with red mottling, fine grained sands, some gravels, moist 2.40m-3.00m Peat; Sandy Clay, low to moderate plasticity, black/dark grey, moist 3.00m-4.00m Sandy Clay; low plasticity, grey, medium grained sand 4.00m-5.00m Clay; high plasticity, stiff, fine grained sand 5.00m-5.20m Sand; fine to medium grained, grey, some clay	1834m	West
10089575	0.00m-2.10m FILL,SANDY CLAY 2.10m-2.80m PEAT,SANDY CLAY 2.80m-3.50m SAND 3.50m-4.20m CLAY	1836m	North West
10090169	0.00m-0.15m Silt, Sandy; topsoil, soft, brown, frequent roots, moderate to high organic content 0.15m-0.90m Silt, Sandy; soft, light brown, reduced organic content 0.90m-2.80m Silt, Sandy; fine grained sands, brown-grey 2.80m-4.00m Silt, Sandy; fine grained sands, hard, brown-grey, wet from 3m	1889m	South East
10097141	0.00m-0.30m Sand, slightly sand, slightly gravelly; gravels subangular-subrounded, fine to medium grain of sandstone, light brown m 0.30m-1.00m Sand, silty; fine grained, light brown, some root structures 1.00m-3.00m Silt, Sandy; fine grained sand, soft, light brown 3.00m-4.00m Silt, Sandy; fine grained sand, soft, grey mottled brown, wet	1901m	South East
10099427	0.00m-0.10m Sand, Clayey; with grass of surface, brown 0.10m-0.30m Sand, Clayey; with subangular to subrounded, fine to coarse gravels of sandstone, brown, wood & metal fragments, rootlet 0.30m-0.90m Sand, Clayey; fine grained, light brown, moist 0.90m-1.40m Sand, Silty; fine grained, grey, wet 1.40m-4.00m Silt, Sandy; soft, fine grained, grey, wet	1941m	South East
10094446	0.00m-0.20m Clay, Gravelly; brown, slightly sandy, frequent rootlets 0.20m-1.10m Clay, Gravelly; brown gravel is angular to subangular, fine to coarse grained of concrete, slightly sandy 1.10m-1.30m Clayey Sand; light grey, very clayey 1.30m-6.00m Sandy Clay; light grey & brown, sand is fine grained, clay is mottled with brown from 4.5m	1955m	South East
10103564	0.00m-0.10m Fill; road base 0.10m-0.30m Sand, silty; soft, fine grained, with some gravels, dark brown 0.30m-0.40m Sand, silty; soft, fine grained, angular gravels, dark brown 0.40m-0.70m Sand, silty; soft, fine grained, light brown 0.70m-4.00m Sand, silty; coarse to fine grained, angular to subangular gravels of sandstone, grey-brown	1965m	South East

NGIS Bore ID	Drillers Log	Distance	Direction
10097227	0.00m-4.80m Clayey Sand; light brown to brown 4.80m-9.00m Silt, Sandy; light grey, medium plasticity, firm to stiff, fine grained Sand	1976m	South East
10101672	0.00m-3.50m Fill; Clayey sand/rippsed sandstone, light brown to brown, moist 3.50m-8.20m Sand/Sandstone; fine grained, grey/red, weathered bedrock, with silt & traces of clay	1982m	South East
10097123	0.00m-3.00m Clay; light brown to brown 3.00m-4.20m Sand; grey, fine grained, slightly clayey 4.20m-6.00m Sand; grey & brown, fine grained, dense, slightly clayey	1984m	South East
10100073	0.00m-3.50m Fill; Clayey sand/rippsed sandstone (imported VENM backfill), red brown/light brown, moist to wet 3.50m-7.40m Sand/Sandstone; fine grained, grey/red, weathered bedrock, with silt & traces of clay	1990m	South East
10106839	0.00m-0.10m Fill; Concrete drive way 0.10m-1.40m Clay, Gravelly; brown, gravel is angular to subangular, fine to coarse grained, slightly sandy 1.40m-2.30m Sandy Clay; brown, soft 2.30m-2.60m Clay; grey brown, fine to stiff, slightly sandy 2.60m-3.10m Sandy Clay; red, dense, very sandy 3.10m-4.20m Clay; grey, with brown mottling, firm to stiff, slightly sandy 4.20m-5.50m Sandy Clay; light grey & white, moist, very sandy 5.50m-7.50m Clayey Sand; dark brown, slightly clayey	1991m	South East
10103962	0.00m-2.80m Fill; Sand, coarse grained, white/red, moist, odourless, increasing silt content with depth 2.80m-5.00m Sand, Silty; coarse grained, red, moist 5.00m-6.00m Sandstone, Silty; weathered, grey with iron fibres, moist becoming wet 6.00m-7.00m Sandstone; weathered, coarse, grey, becoming rock, wet, odourless	1996m	South East
10097664	0.00m-0.10m Fill; Concrete driveway 0.10m-0.29m Gravel, Clayey Sandy; brown & black gravel, sand & clay brown, dense 0.29m-0.85m Clay, Sandy Gravelly; grey, fine to stiff, gravel is angular to subangular, fine to coarse grained of concrete or sandst 0.85m-6.00m Sandy Clay; ligh brown, with red brown mottling, very sandy, soft	1998m	South East

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



Legend		Linear Geological Structures and Boundaries			
Site Boundary	Trendline	Marker Bed	Miscellaneous Boundary		
Report Buffer	Fold Axis	Faulted Boundary	Water/Coastline Boundary		
Property Boundary	Geological Boundary	Shear Zone or Schist Zone Boundary	State/Territory Border		

Scale: 0100200400600 Meters	Data Sources: Property Boundaries & Topographic Data: © Department Finance, Services & Innovation 2025	Coordinate System: GDA 1994 MGA Zone 56	Date: 30 June 2025
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Geology

43-45 Beane Street, Gosford, NSW 2250

Geological Units

Geological units within the dataset buffer:

Code	Unit Name	Description	Stratigraphy	Age Range	Dominant Lithology	Dist	Dir
Tngt	Terrigal Formation	Interbedded laminite, shale and fine- to coarse-grained quartz- to quartz-lithic sandstone; minor red claystone.	/Narrabeen Group/Gosford Subgroup/Terrigal Formation//	Early Triassic (base) to Middle Triassic (top)	Siliciclastic sedimentary rock	0m	On-site
Q_av	Alluvial valley deposits	Silt, clay, (fluvially deposited) lithic to quartz-lithic sand, gravel.	/Alluvium//Alluvial valley deposits//	Quaternary (base) to Now (top)	Clastic sediment	153m	South
QH_af	Alluvial floodplain deposits	Silt, very fine- to medium-grained lithic to quartz-rich sand, clay.	/Alluvium//Alluvial floodplain deposits//	Holocene (base) to Now (top)	Clastic sediment	592m	North West
Q_h	Anthropogenic deposits	Anthropocene deposits varying from large man-made clasts (concrete blocks to building demolition rubble) to quarried natural boulders, with interstitial sand-sized to clay matrix.	/Anthropogenic deposits////	Quaternary (base) to Now (top)	Anthropogenic material	611m	South West
Q_avf	Alluvial fan deposits	Fluvially-deposited quartz-lithic sand, silt, gravel, clay.	/Alluvium//Alluvial valley deposits//Alluvial fan deposits/	Quaternary (base) to Now (top)	Clastic sediment	722m	North East
QH_ebw	Estuarine basin and bay (subaqueous)	Clay, silt, shell, very fine- to fine-grained lithic-quartz ($\pm$ carbonate) sand (fluvially- and/or marine-deposited).	/Estuarine deposits//Estuarine basin and bay/Estuarine basin and bay (subaqueous)/	Holocene (base) to Now (top)	Clastic sediment	979m	South West

Geology

43-45 Beane Street, Gosford, NSW 2250

Linear Geological Structures

Fault and shear or schist zone boundaries within the dataset buffer:

Map ID	Boundary Type	Feature Description	Fault Dip Angle	Fault Dip Direction	Dist	Dir
NA	No records in buffer					

Trendlines within the dataset buffer:

Map ID	Feature Description	Observation Method	Structure Name	Dist	Dir
NA	No records in buffer				

Fold axes within the dataset buffer:

Map ID	Feature Description	Observation Method	Structure Name	Dist	Dir
NA	No records in buffer				

Marker beds within the dataset buffer:

Map ID	Feature Description	Rock Unit Description	Dist	Dir
NA	No records in buffer			

Geological Data Source: Statewide Seamless Geology v2.4, NSW Department of Primary Industries and Regional Development
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Naturally Occurring Asbestos Potential

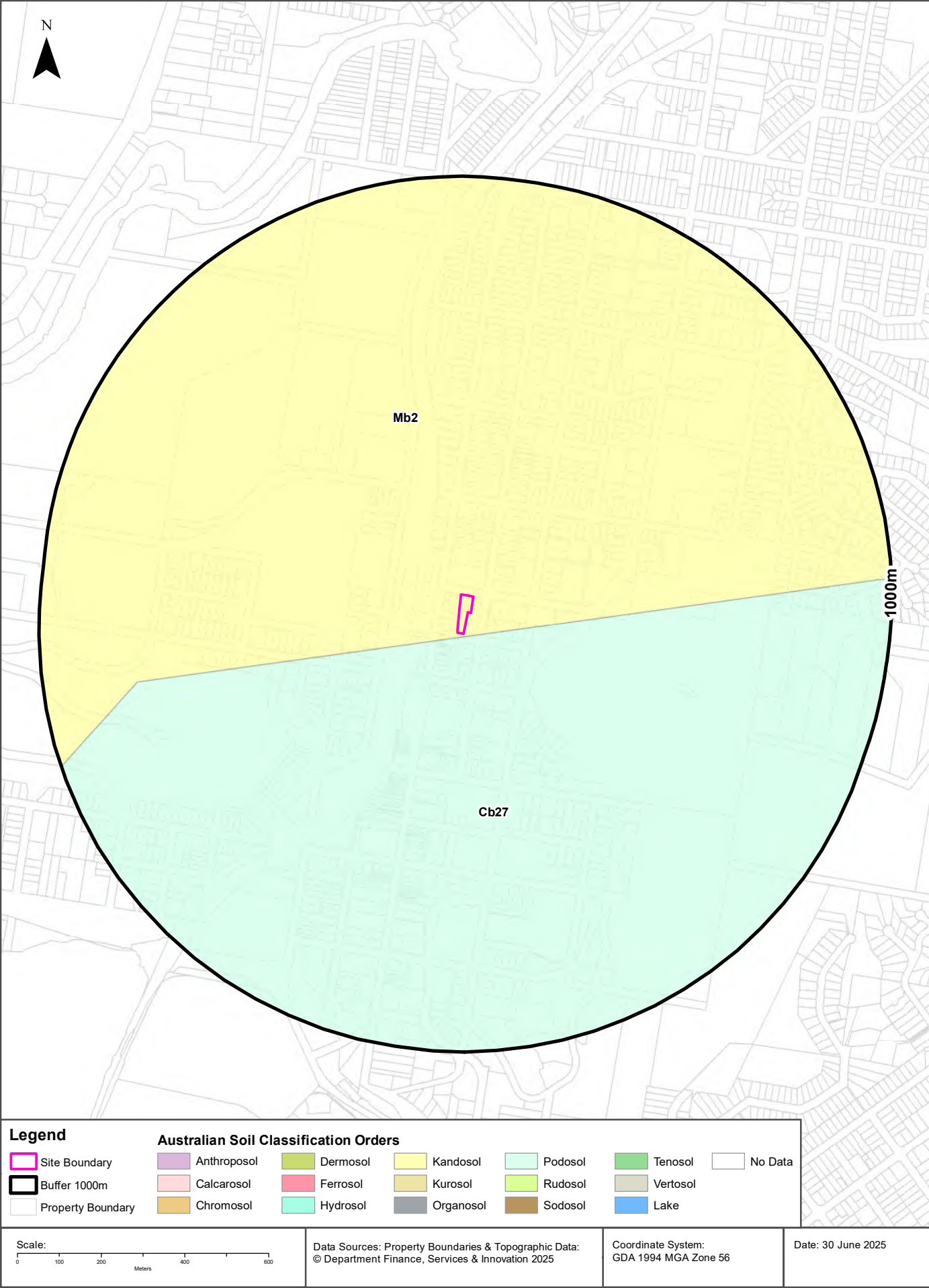
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Naturally Occurring Asbestos Potential

Naturally Occurring Asbestos Potential within the dataset buffer:

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

Naturally Occurring Asbestos Potential Data Source: Statewide Seamless Geology v2.4, NSW Department of Primary Industries and Regional Development
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Soils

43-45 Beane Street, Gosford, NSW 2250

Atlas of Australian Soils

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

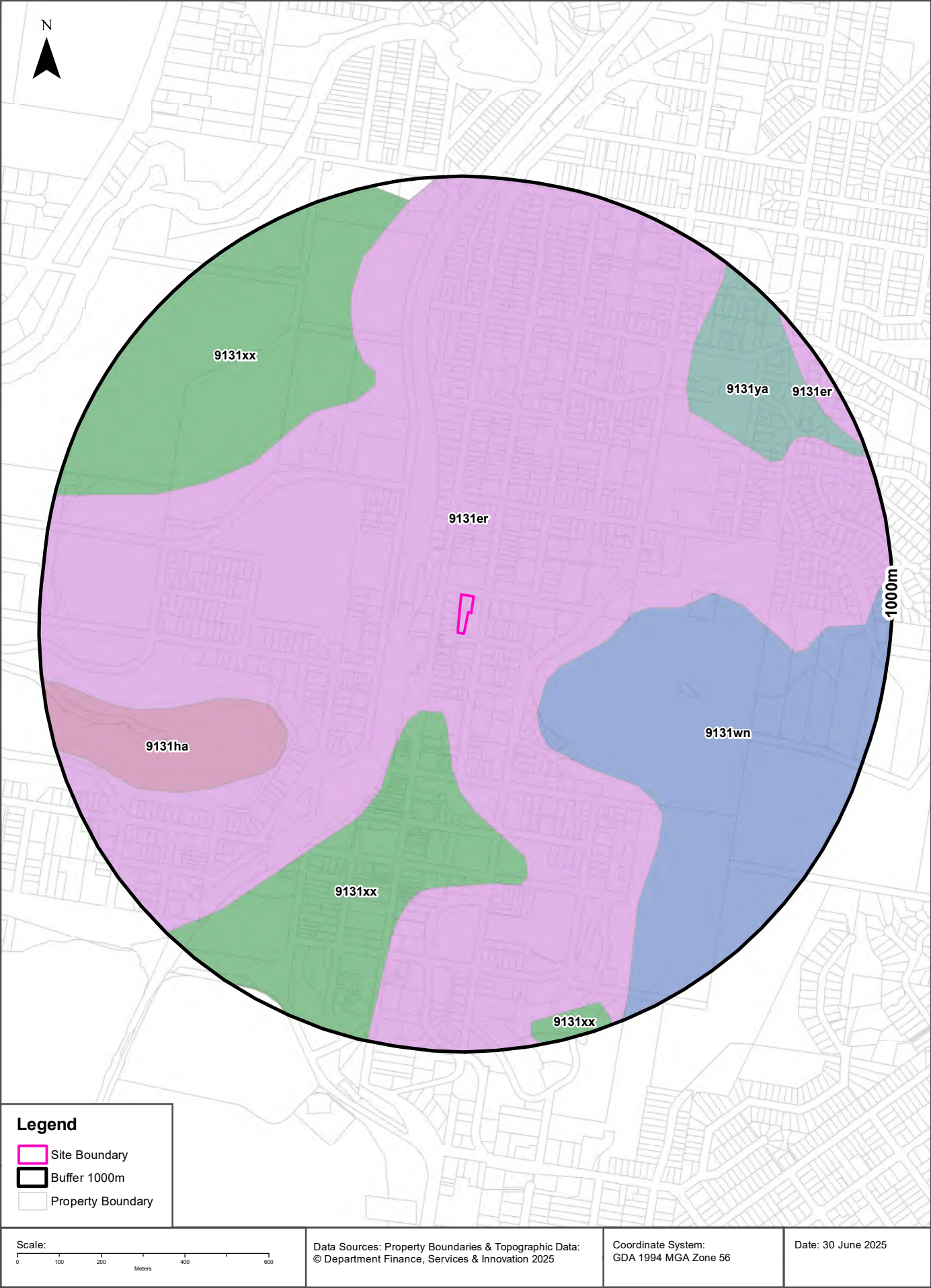
Map Unit Code	Soil Order	Map Unit Description	Distance	Direction
Mb2	Kandosol	Dissected sandstone plateau of moderate to strong relief with sandstone pillars, ledges, and slabs-- level to undulating ridges, irregularly benched slopes, steep ridges, cliffs, canyons, narrow sandy valleys: chief soils are (i) on areas of gentle to moderate relief, acid yellow leached earths (Gn2.74) and (Gn2.34) and acid leached yellow earths (Gn2.24)- sometimes these soils contain ironstone gravel; and (ii) on, or adjacent to, areas of strong relief, siliceous sands (Uc1.2), leached sands (Uc2.12) and (Uc2.2), and shallow forms of the above (Gn2) soils. Associated are: (i) on flat to gently undulating remnants of the original plateau surface, leached sands (Uc2.3), siliceous sands (Uc1.2), sandy earths (Uc5.22), and (Gn2) soils as for (i) above (these areas are in part comparable with unit Cb29); (ii) on flat ironstone gravelly remnants of the original plateau surface, (Gn2) soils as for unit Mb5(i); (iii) on gently undulating ridges where interbedded shales are exposed, shallow, often stony (Dy3.41), (Dr2.21), and related soils similar to unit Tb35; (iv) narrow valleys of (Uc2.3) soils flanked by moderate slopes of (Dy3.41) soils; (v) escarpments of steep hills with shallow (Dy) and (Dr) soils between sandstone pillars; and (vi) shallow (Um) soils, such as (Um6.21) on steep hills of basic rocks. As mapped, minor areas of units Mg20, Mm1, and Mw8 are included. Data are limited.	0m	On-site
Cb27	Podosol	Coastal sand plains and dunes, lagoons, and swampy areas: chief soils are leached sands (Uc2.3 and Uc2.2). Associated are dunes of siliceous sands (Uc1.2) and/or calcareous sands (Uc1.1) fringing the coastline; and swampy areas of (Uf6) soils and (Uc1.2) soils with peaty surfaces. Unit Cb27 has similarities with units Cb28 and Ca6.	7m	South

Atlas of Australian Soils Data Source: CSIRO

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Soil Landscapes of Central and Eastern NSW

43-45 Beane Street, Gosford, NSW 2250



Soils

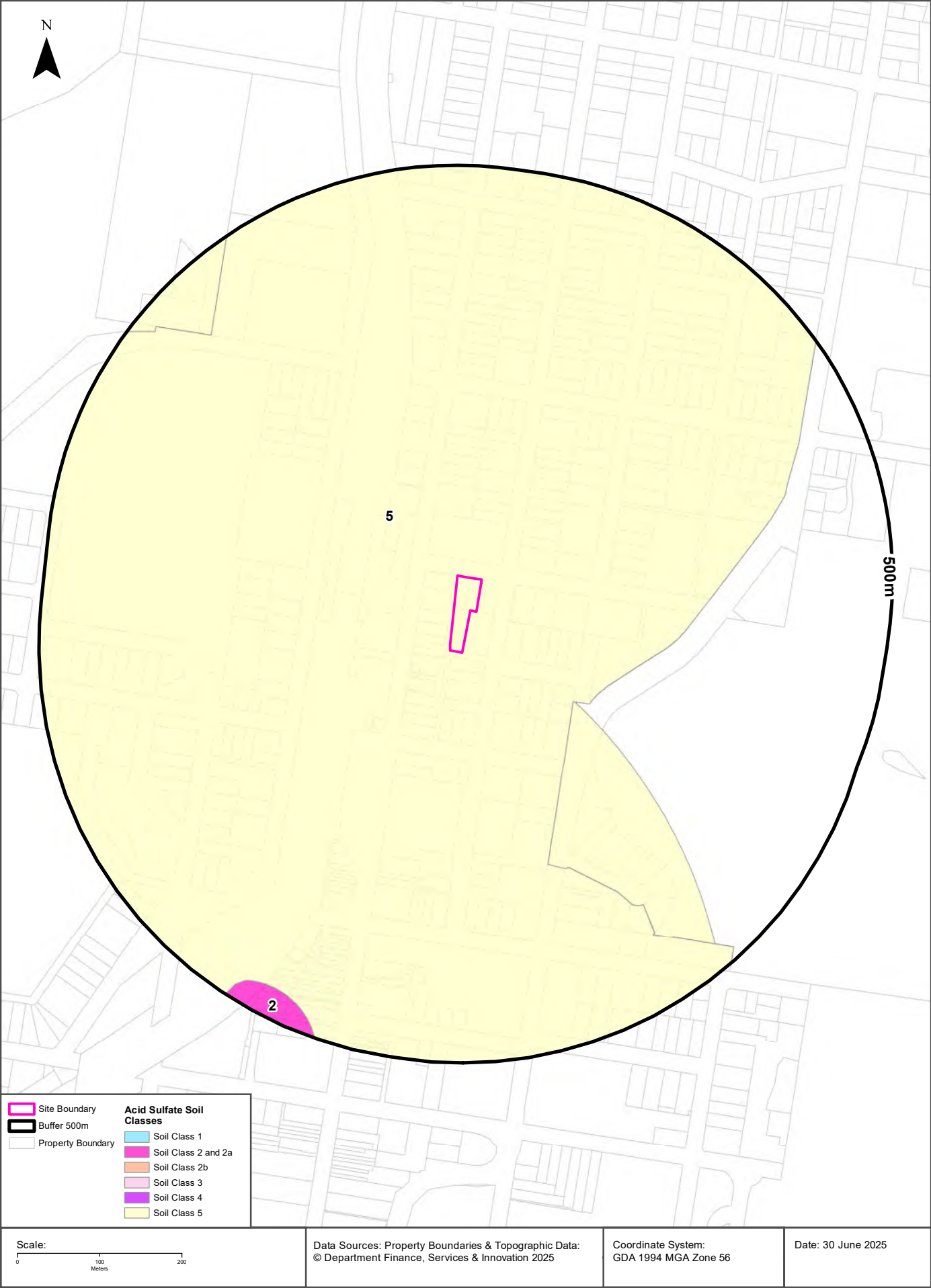
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Soil Landscapes of Central and Eastern NSW

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

Soil Code	Name	Distance	Direction
9131er	Erina	0m	On-site
9131xx	Disturbed Terrain	194m	South
9131wn	Watagan	225m	South East
9131ha	Hawkesbury	469m	South West
9131ya	Yarramalong	681m	North East

Soil Landscapes of Central and Eastern NSW: NSW Department of Planning, Industry and Environment
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Acid Sulfate Soils

43-45 Beane Street, Gosford, NSW 2250

Environmental Planning Instrument - Acid Sulfate Soils

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

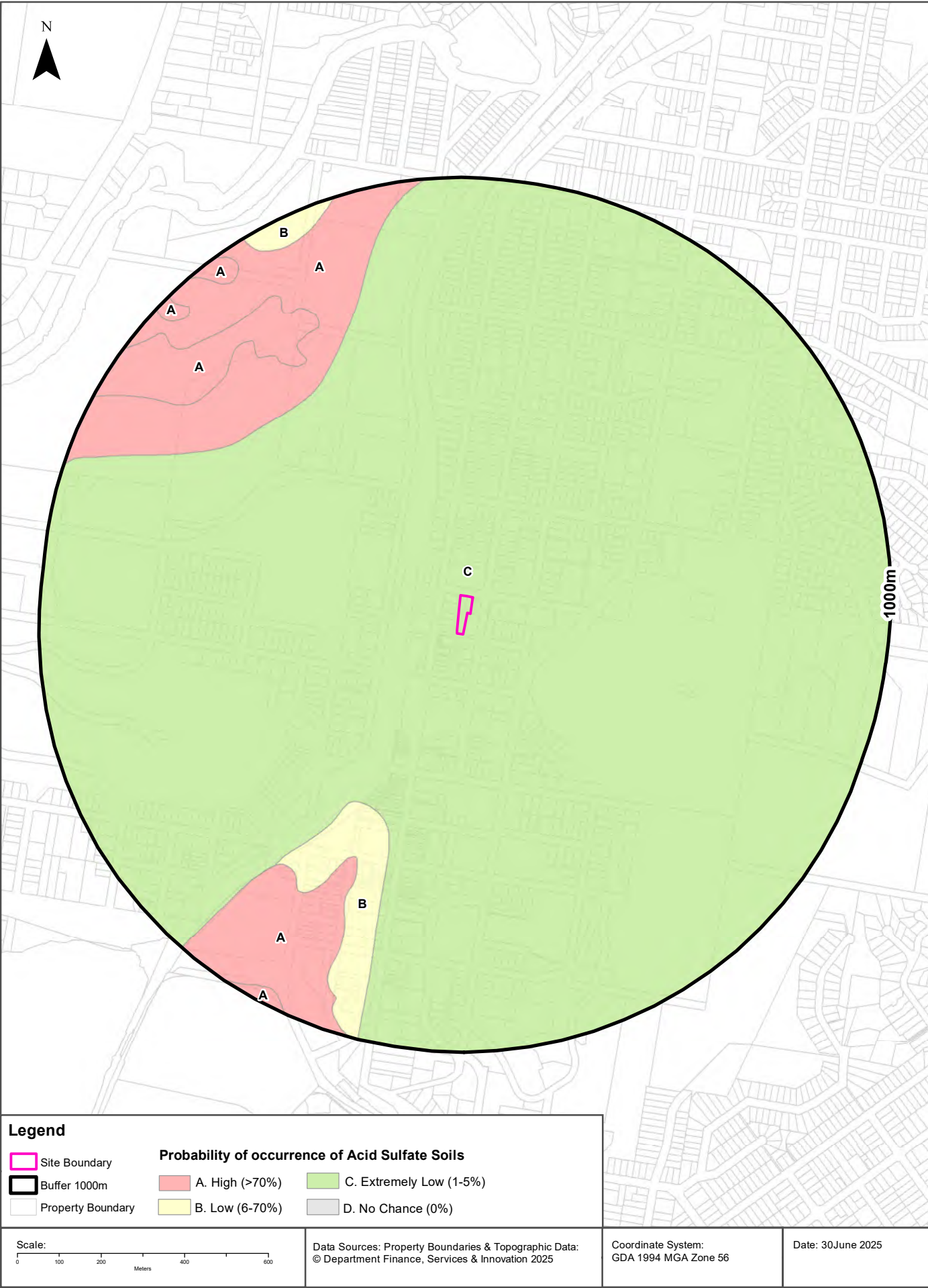
Soil Class	Description	EPI Name
5	Works within 500 metres of adjacent Class 1, 2, 3, or 4 land that is below 5 metres AHD and by which the watertable is likely to be lowered below 1 metre AHD on adjacent Class 1, 2, 3 or 4 land, present an environmental risk	State Environmental Planning Policy (Gosford City Centre) 2018
5	Works within 500 metres of adjacent Class 1, 2, 3, or 4 land that is below 5 metres AHD and by which the watertable is likely to be lowered below 1 metre AHD on adjacent Class 1, 2, 3 or 4 land, present an environmental risk	State Environmental Planning Policy (Precincts—Regional) 2021
5	Works within 500 metres of adjacent Class 1, 2, 3, or 4 land that is below 5 metres AHD and by which the watertable is likely to be lowered below 1 metre AHD on adjacent Class 1, 2, 3 or 4 land, present an environmental risk	State Environmental Planning Policy (Precincts?Regional) 2021

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

Soil Class	Description	EPI Name	Distance	Direction
2	Works below natural ground surface present an environmental risk; Works by which the watertable is likely to be lowered present an environmental risk	State Environmental Planning Policy (Precincts?Regional) 2021	463m	South West
2	Works below natural ground surface present an environmental risk; Works by which the watertable is likely to be lowered present an environmental risk	State Environmental Planning Policy (Precincts—Regional) 2021	463m	South West
2	Works below natural ground surface present an environmental risk; Works by which the watertable is likely to be lowered present an environmental risk	State Environmental Planning Policy (Gosford City Centre) 2018	463m	South West

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Acid Sulfate Soils

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Atlas of Australian Acid Sulfate Soils

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

Class	Description	Distance	Direction
C	Extremely low probability of occurrence. 1-5% chance of occurrence with occurrences in small localised areas.	0m	On-site
B	Low Probability of occurrence. 6-70% chance of occurrence.	463m	South
A	High Probability of occurrence. >70% chance of occurrence.	587m	South West

Atlas of Australian Acid Sulfate Soils Data Source: CSIRO

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Dryland Salinity

43-45 Beane Street, Gosford, NSW 2250

Dryland Salinity - National Assessment

Is there Dryland Salinity - National Assessment data onsite?

No

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

No

What Dryland Salinity assessments are given?

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

Dryland Salinity Data Source : National Land and Water Resources Audit

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

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

Mining

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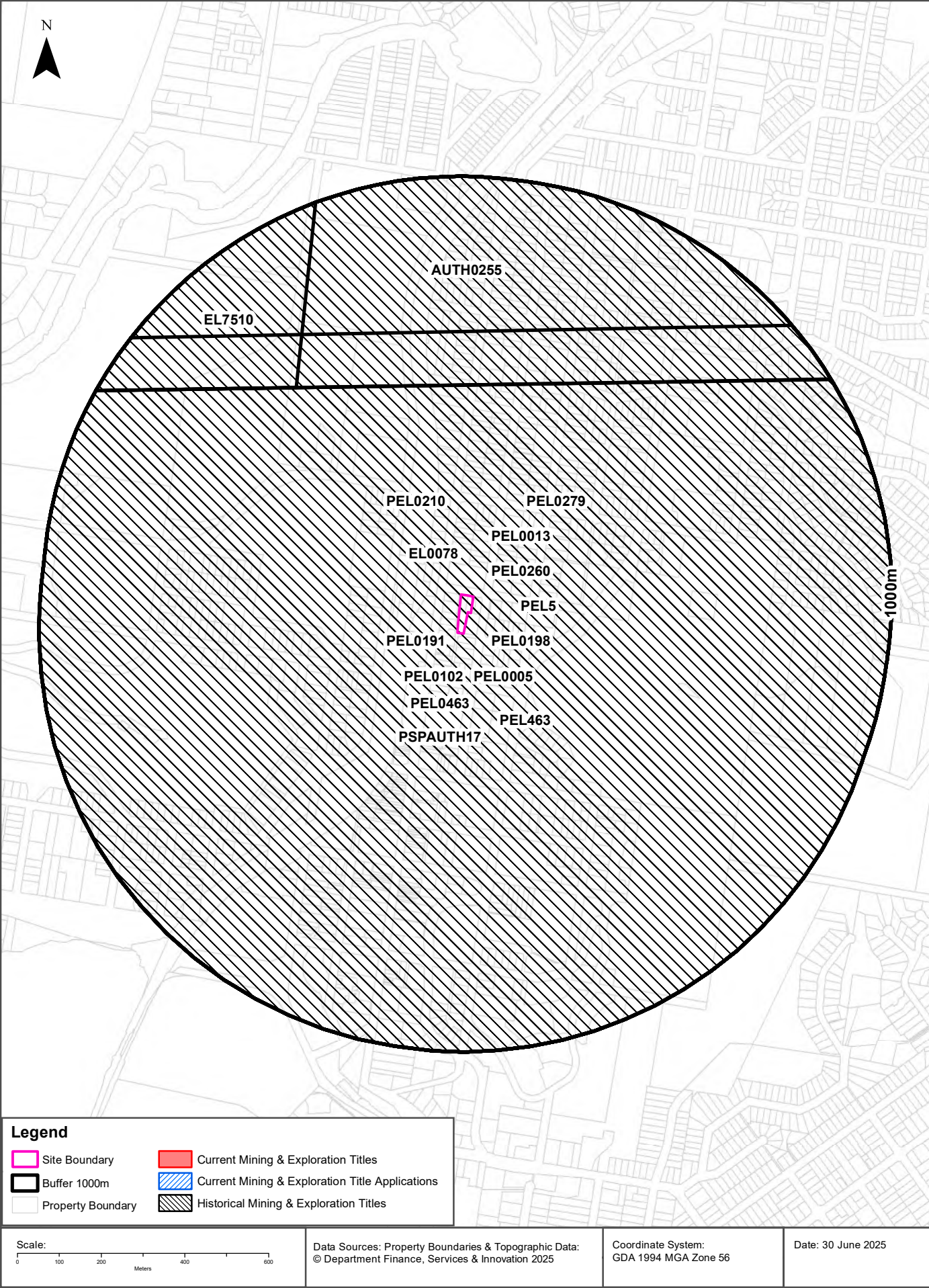
Mining Subsidence Districts

Mining Subsidence Districts within the dataset buffer:

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

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

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Mining

43-45 Beane Street, Gosford, NSW 2250

Current Mining & Exploration Titles

Current Mining & Exploration Titles within the dataset buffer:

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

Current Mining & Exploration Titles Data Source: Statewide Seamless Geology v2.4, NSW Department of Primary Industries and Regional Development

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Current Mining & Exploration Title Applications

Current Mining & Exploration Title Applications within the dataset buffer:

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

Current Mining & Exploration Title Applications Data Source: Statewide Seamless Geology v2.4, NSW Department of Primary Industries and Regional Development

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Mining

43-45 Beane Street, Gosford, NSW 2250

Historical Mining & Exploration Titles

Historical Mining & Exploration Titles within the dataset buffer:

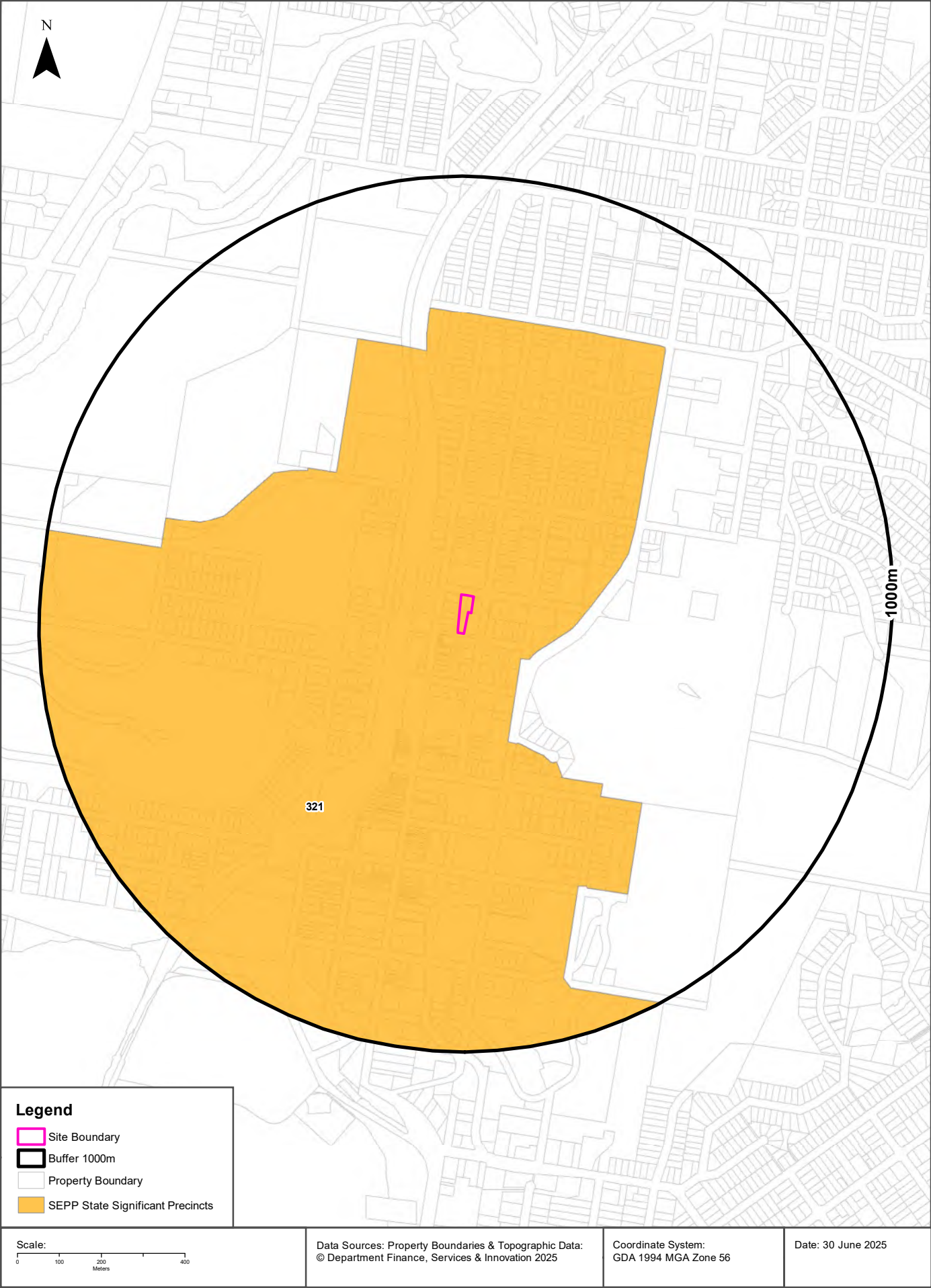
Title Ref	Holder	Start Date	End Date	Resource	Minerals	Dist	Dir
PEL0463	DART ENERGY (APOLLO) PTY LTD	20091010	20150603	PETROLEUM	Petroleum	0m	On-site
PSPAUTH17	MACQUARIE ENERGY PTY LTD	20070803	20080703	PETROLEUM	Petroleum	0m	On-site
EL0078	CONTINENTAL OIL CO OF AUSTRALIA LIMITED	19670201	19680201	MINERALS		0m	On-site
PEL463	DART ENERGY (APOLLO) PTY LTD	20081022	20130227	MINERALS		0m	On-site
PEL5	AGL UPSTREAM INVESTMENTS PTY LIMITED	19931111	20011210	MINERALS		0m	On-site
PEL0210	THE AUSTRALIAN GAS LIGHT COMPANY (AGL), NORTH BULLI COLLIERIES PTY LTD			PETROLEUM	Petroleum	0m	On-site
PEL0279	THE ELECTRICITY COMMISSION OF NSW (TRADING AS PACIFIC POWER)	19910504	19931111	PETROLEUM	Petroleum	0m	On-site
PEL0198	JOHN STREVENS (TERRIGAL) NL			PETROLEUM	Petroleum	0m	On-site
PEL0191	NORTHWEST OIL AND MINERALS CO NL			PETROLEUM	Petroleum	0m	On-site
PEL0260	NORTH BULLI COLLIERIES PTY LTD, AGL PETROLEUM OPERATIONS PTY LTD, THE AUSTRALIAN GAS LIGHT CO.	19810909	19930803	PETROLEUM	Petroleum	0m	On-site
PEL0102	AUSTRALIAN OIL AND GAS CORPORATION LTD			PETROLEUM	Petroleum	0m	On-site
PEL0005	AGL UPSTREAM INVESTMENTS PTY LIMITED	19931111	20150403	PETROLEUM	Petroleum	0m	On-site
PEL0013	AUSTRALIAN OIL AND GAS CORPORATION LTD			PETROLEUM	Petroleum	0m	On-site
AUTH0255	THE ELECTRICITY COMMISSION OF NSW (TRADING AS PACIFIC POWER)	19810204	19910204	COAL	Coal	629m	North
EL7510	GRADIENT ENERGY LIMITED	20100407	20110415	MINERALS	Geothermal	632m	North West

Historical Mining & Exploration Titles Data Source: Statewide Seamless Geology v2.4, NSW Department of Primary Industries and Regional Development

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SEPP State Significant Precincts

43-45 Beane Street, Gosford, NSW 2250



State Environmental Planning Policy

43-45 Beane Street, Gosford, NSW 2250

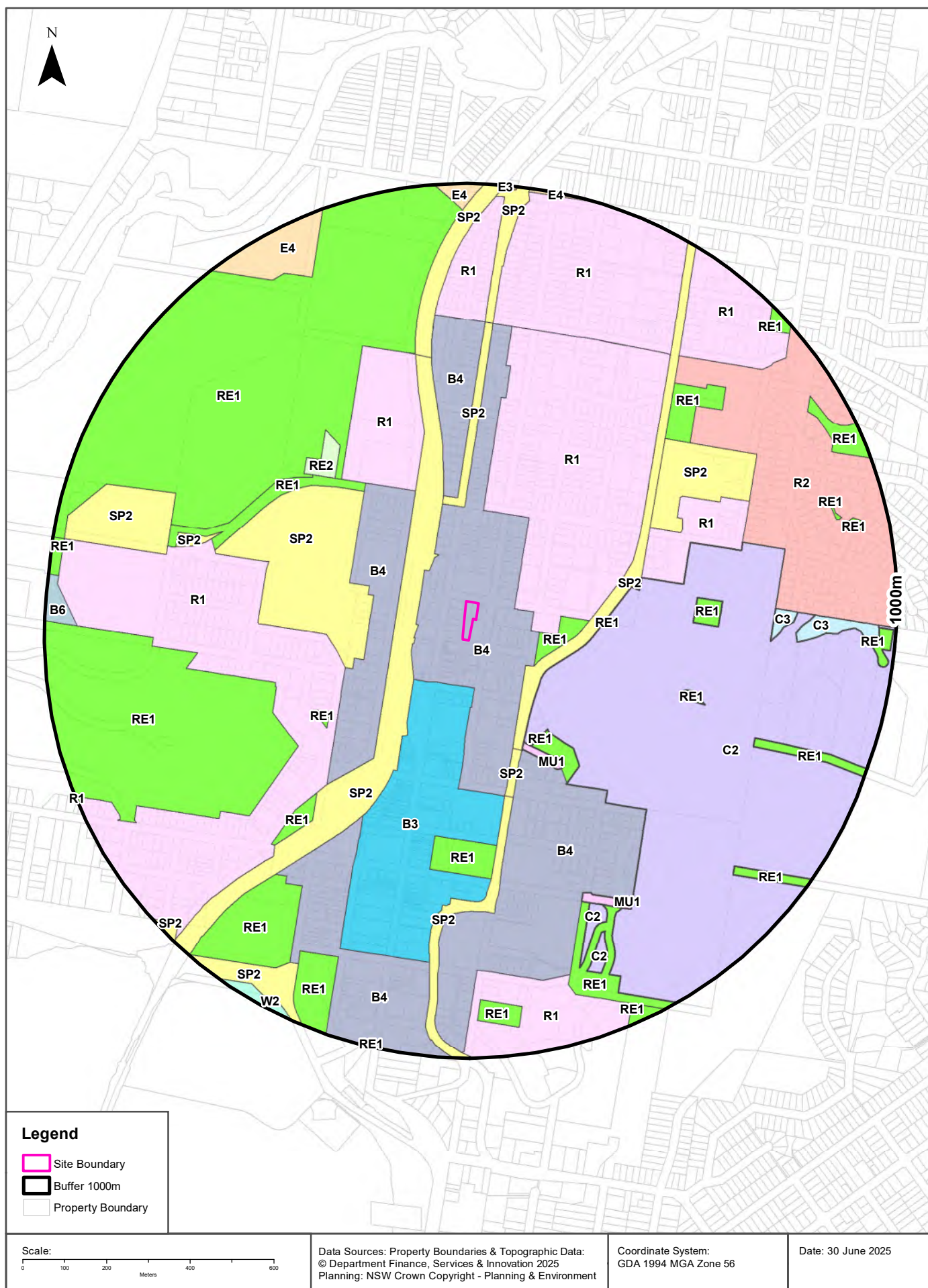
State Significant Precincts

What SEPP State Significant Precincts exist within the dataset buffer?

Map Id	Precinct	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
321		State Environmental Planning Policy (Precincts - Regional) 2021	02/12/2021	01/03/2022	01/03/2022		0m	On-site

State Environment Planning Policy Data Source: NSW Crown Copyright - Planning & Environment
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43-45 Beane Street, Gosford, NSW 2250



Environmental Planning Instrument

43-45 Beane Street, Gosford, NSW 2250

Land Zoning

What EPI Land Zones exist within the dataset buffer?

Zone	Description	Purpose	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
B4	Mixed Use		State Environmental Planning Policy (Precincts—Regional) 2021	02/12/2021	01/03/2022	01/03/2022		0m	On-site
R1	General Residential		State Environmental Planning Policy (Precincts—Regional) 2021	02/12/2021	01/03/2022	01/03/2022		85m	North East
SP2	Infrastructure	Rail Infrastructure Facility	State Environmental Planning Policy (Precincts—Regional) 2021	02/12/2021	01/03/2022	01/03/2022		109m	South West
B3	Commercial Core		State Environmental Planning Policy (Precincts—Regional) 2021	02/12/2021	01/03/2022	01/03/2022		110m	South
SP2	Infrastructure	Road	Central Coast Local Environmental Plan 2022	21/04/2023	26/04/2023	09/05/2025	Map Amendment No 8	147m	North East
RE1	Public Recreation		State Environmental Planning Policy (Precincts—Regional) 2021	02/12/2021	01/03/2022	01/03/2022		152m	East
B4	Mixed Use		State Environmental Planning Policy (Precincts—Regional) 2021	02/12/2021	01/03/2022	01/03/2022		162m	West
C2	Environmental Conservation		Central Coast Local Environmental Plan 2022	09/05/2025	09/05/2025	09/05/2025	Amendment No 8	194m	South East
SP2	Infrastructure	Health Services Facilities	State Environmental Planning Policy (Precincts—Regional) 2021	02/12/2021	01/03/2022	01/03/2022		223m	West
SP2	Infrastructure	Road	State Environmental Planning Policy (Precincts—Regional) 2021	02/12/2021	01/03/2022	01/03/2022		226m	North
B4	Mixed Use		State Environmental Planning Policy (Precincts—Regional) 2021	02/12/2021	01/03/2022	01/03/2022		250m	North
MU1	Mixed Use		Central Coast Local Environmental Plan 2022	21/04/2023	26/04/2023	09/05/2025	Map Amendment No 8	273m	South East
SP2	Infrastructure	Road	State Environmental Planning Policy (Precincts—Regional) 2021	02/12/2021	01/03/2022	01/03/2022		278m	South
RE1	Public Recreation		Central Coast Local Environmental Plan 2022	21/04/2023	26/04/2023	09/05/2025	Map Amendment No 8	282m	South East
R1	General Residential		State Environmental Planning Policy (Precincts—Regional) 2021	02/12/2021	01/03/2022	01/03/2022		290m	West
B4	Mixed Use		State Environmental Planning Policy (Precincts—Regional) 2021	02/12/2021	01/03/2022	01/03/2022		291m	South
R1	General Residential		State Environmental Planning Policy (Precincts—Regional) 2021	02/12/2021	01/03/2022	01/03/2022		292m	North West

Zone	Description	Purpose	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
RE1	Public Recreation		Central Coast Local Environmental Plan 2022	21/04/2023	26/04/2023	09/05/2025	Map Amendment No 8	301m	East
RE1	Public Recreation		State Environmental Planning Policy (Precincts—Regional) 2021	02/12/2021	01/03/2022	01/03/2022		361m	North West
RE1	Public Recreation		State Environmental Planning Policy (Precincts—Regional) 2021	02/12/2021	01/03/2022	01/03/2022		364m	South West
SP2	Infrastructure	Road	State Environmental Planning Policy (Precincts—Regional) 2021	02/12/2021	01/03/2022	01/03/2022		381m	South
R1	General Residential		Central Coast Local Environmental Plan 2022	21/04/2023	26/04/2023	09/05/2025	Map Amendment No 8	393m	East
RE1	Public Recreation		Central Coast Local Environmental Plan 2022	21/04/2023	26/04/2023	09/05/2025	Map Amendment No 8	419m	North West
RE2	Private Recreation		Central Coast Local Environmental Plan 2022	21/04/2023	26/04/2023	09/05/2025	Map Amendment No 8	432m	North West
SP2	Infrastructure	Health Services Facility	Central Coast Local Environmental Plan 2022	21/04/2023	26/04/2023	09/05/2025	Map Amendment No 8	448m	North East
RE1	Public Recreation		State Environmental Planning Policy (Precincts—Regional) 2021	02/12/2021	01/03/2022	01/03/2022		460m	West
RE1	Public Recreation		State Environmental Planning Policy (Precincts—Regional) 2021	02/12/2021	01/03/2022	01/03/2022		474m	South
B4	Mixed Use		State Environmental Planning Policy (Precincts—Regional) 2021	02/12/2021	01/03/2022	01/03/2022		484m	South
RE1	Public Recreation		State Environmental Planning Policy (Precincts—Regional) 2021	02/12/2021	01/03/2022	01/03/2022		507m	South West
RE1	Public Recreation		Central Coast Local Environmental Plan 2022	21/04/2023	26/04/2023	09/05/2025	Map Amendment No 8	513m	East
RE1	Public Recreation		Central Coast Local Environmental Plan 2022	21/04/2023	26/04/2023	09/05/2025	Map Amendment No 8	523m	East
SP2	Infrastructure	Rail Infrastructure Facility	Central Coast Local Environmental Plan 2022	21/04/2023	26/04/2023	09/05/2025	Map Amendment No 8	590m	North
RE1	Public Recreation		Central Coast Local Environmental Plan 2022	21/04/2023	26/04/2023	09/05/2025	Map Amendment No 8	594m	North East
SP2	Infrastructure	Health Services Facilities	State Environmental Planning Policy (Precincts—Regional) 2021	02/12/2021	01/03/2022	01/03/2022		606m	West
R2	Low Density Residential		Central Coast Local Environmental Plan 2022	09/05/2025	09/05/2025	09/05/2025	Amendment No 8	633m	East
MU1	Mixed Use		Central Coast Local Environmental Plan 2022	21/04/2023	26/04/2023	09/05/2025	Map Amendment No 8	662m	South East
R1	General Residential		Central Coast Local Environmental Plan 2022	21/04/2023	26/04/2023	09/05/2025	Map Amendment No 8	666m	North
R1	General Residential		Central Coast Local Environmental Plan 2022	21/04/2023	26/04/2023	09/05/2025	Map Amendment No 8	669m	North
RE1	Public Recreation		Central Coast Local Environmental Plan 2022	21/04/2023	26/04/2023	09/05/2025	Map Amendment No 8	679m	South

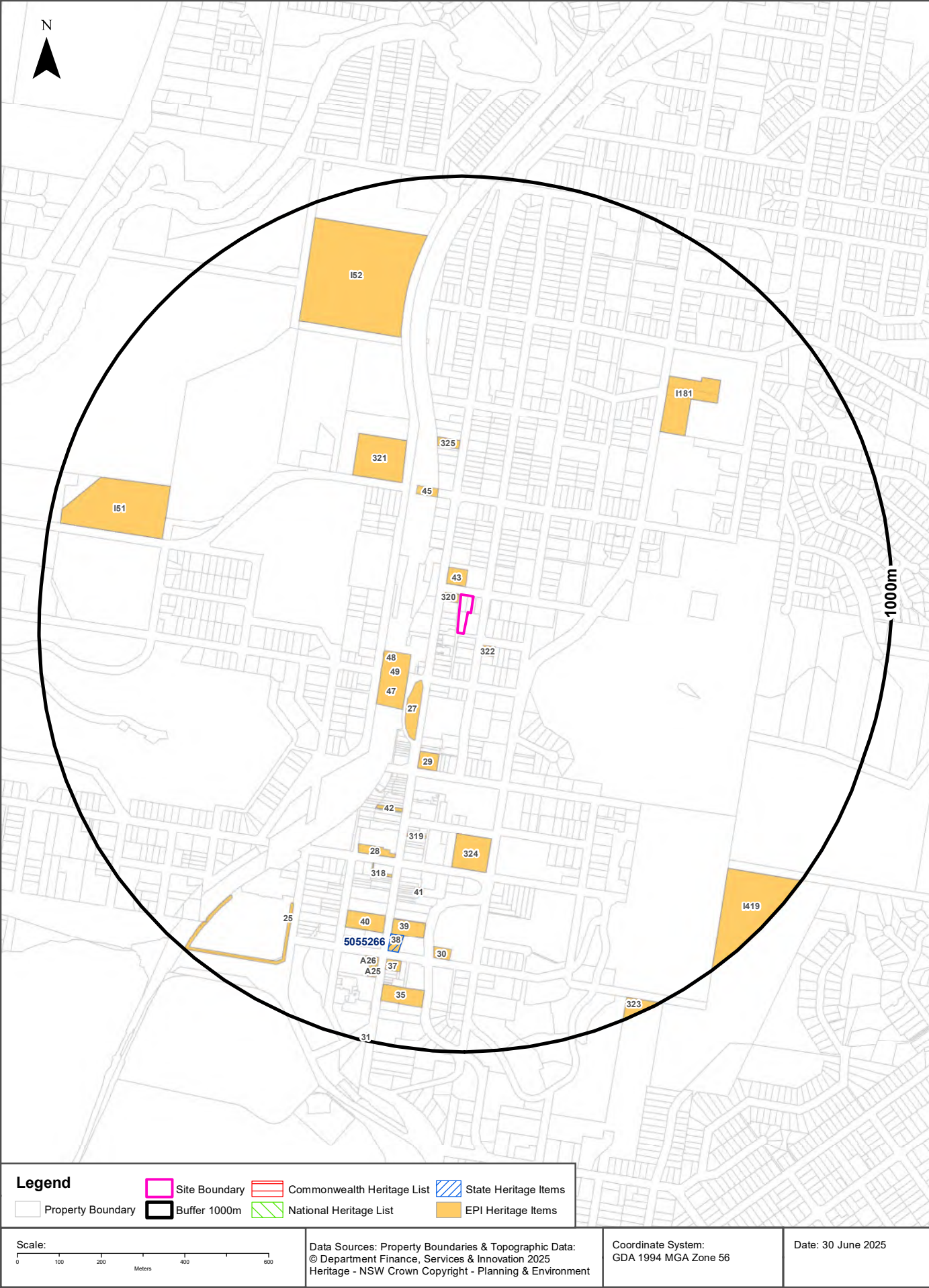
Zone	Description	Purpose	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
C2	Environmental Conservation		Central Coast Local Environmental Plan 2022	09/05/2025	09/05/2025	09/05/2025	Amendment No 8	690m	South
C3	Environmental Management		Central Coast Local Environmental Plan 2022	09/05/2025	09/05/2025	09/05/2025	Amendment No 8	702m	East
RE1	Public Recreation		State Environmental Planning Policy (Precincts—Regional) 2021	02/12/2021	01/03/2022	01/03/2022		704m	South West
RE1	Public Recreation		Central Coast Local Environmental Plan 2022	21/04/2023	26/04/2023	09/05/2025	Map Amendment No 8	721m	East
SP2	Infrastructure	Educational Establishment	Central Coast Local Environmental Plan 2022	21/04/2023	26/04/2023	09/05/2025	Map Amendment No 8	727m	West
C3	Environmental Management		Central Coast Local Environmental Plan 2022	09/05/2025	09/05/2025	09/05/2025	Amendment No 8	760m	East
R1	General Residential		Central Coast Local Environmental Plan 2022	21/04/2023	26/04/2023	09/05/2025	Map Amendment No 8	761m	North East
C2	Environmental Conservation		Central Coast Local Environmental Plan 2022	09/05/2025	09/05/2025	09/05/2025	Amendment No 8	766m	South
R1	General Residential		State Environmental Planning Policy (Precincts—Regional) 2021	02/12/2021	01/03/2022	01/03/2022		790m	South
RE1	Public Recreation		State Environmental Planning Policy (Precincts—Regional) 2021	02/12/2021	01/03/2022	01/03/2022		817m	South West
RE1	Public Recreation		Central Coast Local Environmental Plan 2022	21/04/2023	26/04/2023	09/05/2025	Map Amendment No 8	832m	South East
RE1	Public Recreation		State Environmental Planning Policy (Precincts—Regional) 2021	02/12/2021	01/03/2022	01/03/2022		860m	South
E4	General Industrial		Central Coast Local Environmental Plan 2022	21/04/2023	26/04/2023	09/05/2025	Map Amendment No 8	860m	North West
RE1	Public Recreation		Central Coast Local Environmental Plan 2022	21/04/2023	26/04/2023	09/05/2025	Map Amendment No 8	870m	East
SP2	Infrastructure	Road	State Environmental Planning Policy (Precincts—Regional) 2021	02/12/2021	01/03/2022	01/03/2022		871m	South West
RE1	Public Recreation		Central Coast Local Environmental Plan 2022	21/04/2023	26/04/2023	09/05/2025	Map Amendment No 8	897m	East
RE1	Public Recreation		Central Coast Local Environmental Plan 2022	21/04/2023	26/04/2023	09/05/2025	Map Amendment No 8	909m	North East
B6	Enterprise Corridor		State Environmental Planning Policy (Precincts—Regional) 2021	02/12/2021	01/03/2022	01/03/2022		922m	West
RE1	Public Recreation		Central Coast Local Environmental Plan 2022	21/04/2023	26/04/2023	09/05/2025	Map Amendment No 8	935m	East
RE1	Public Recreation		Central Coast Local Environmental Plan 2022	21/04/2023	26/04/2023	09/05/2025	Map Amendment No 8	951m	North East
RE1	Public Recreation		State Environmental Planning Policy (Precincts—Regional) 2021	02/12/2021	01/03/2022	01/03/2022		952m	South East
SP2	Infrastructure	Road	State Environmental Planning Policy (Precincts—Regional) 2021	02/12/2021	01/03/2022	01/03/2022		961m	South West
W2	Recreational Waterways		State Environmental Planning Policy (Precincts—Regional) 2021	02/12/2021	01/03/2022	01/03/2022		967m	South West

Zone	Description	Purpose	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
RE1	Public Recreation		State Environmental Planning Policy (Precincts—Regional) 2021	02/12/2021	01/03/2022	01/03/2022		973m	West
RE1	Public Recreation		State Environmental Planning Policy (Precincts—Regional) 2021	02/12/2021	01/03/2022	01/03/2022		981m	South
E4	General Industrial		Central Coast Local Environmental Plan 2022	21/04/2023	26/04/2023	09/05/2025	Map Amendment No 8	992m	North
E3	Productivity Support		Central Coast Local Environmental Plan 2022	21/04/2023	26/04/2023	09/05/2025	Map Amendment No 8	993m	North

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Heritage Items

43-45 Beane Street, Gosford, NSW 2250



Heritage

43-45 Beane Street, Gosford, NSW 2250

Commonwealth Heritage List

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

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

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

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

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

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

Heritage Data Source: Australian Government Department of the Environment and Energy - Heritage Branch
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State Heritage Register - Curtilages

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

Map Id	Name	Address	LGA	Listing Date	Listing No	Plan No	Distance	Direction
5055266	Gosford Courthouse and Police Station (former)	45 Mann Street, Gosford	Central Coast	21/02/2025	02103	3337	736m	South

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

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

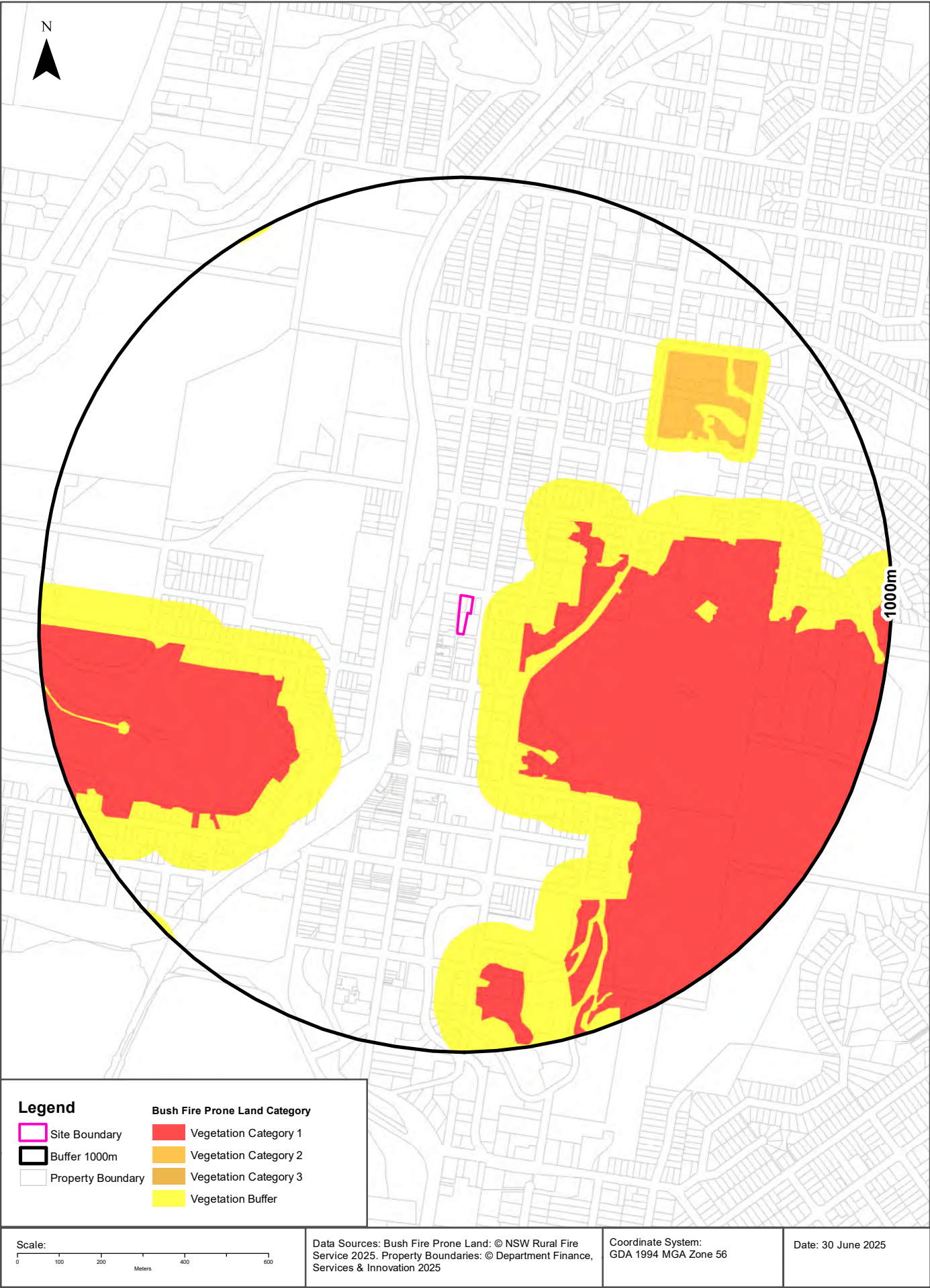
Map Id	Name	Classification	Significance	EPI Name	Published Date	Commenced Date	Currency Date	Distance	Direction
320	Steps of former private hospital	Item - General	Local	State Environmental Planning Policy (Precincts?Regional) 2021	02/12/2021	01/03/2022	01/03/2022	6m	North West
43	Mitre 10 store	Item - General	Local	State Environmental Planning Policy (Precincts?Regional) 2021	02/12/2021	01/03/2022	01/03/2022	20m	North
322	House	Item - General	Local	State Environmental Planning Policy (Precincts?Regional) 2021	02/12/2021	01/03/2022	01/03/2022	53m	South East
47	Railway turntable	Item - General	Local	State Environmental Planning Policy (Precincts?Regional) 2021	02/12/2021	01/03/2022	01/03/2022	124m	South West
48	Signal box, water column and tank	Item - General	Local	State Environmental Planning Policy (Precincts?Regional) 2021	02/12/2021	01/03/2022	01/03/2022	124m	South West

Map Id	Name	Classification	Significance	EPI Name	Published Date	Commenced Date	Currency Date	Distance	Direction
49	Large-faced clock with wooden frame	Item - General	Local	State Environmental Planning Policy (Precincts?Regional) 2021	02/12/2021	01/03/2022	01/03/2022	124m	South West
27	Burns Place Park, feature eucalypt and stands of mature trees	Item - General	Local	State Environmental Planning Policy (Precincts?Regional) 2021	02/12/2021	01/03/2022	01/03/2022	143m	South West
45	Railway bridge and viaduct	Item - General	Local	State Environmental Planning Policy (Precincts?Regional) 2021	02/12/2021	01/03/2022	01/03/2022	242m	North
29	Gosford Hotel	Item - General	Local	State Environmental Planning Policy (Precincts?Regional) 2021	02/12/2021	01/03/2022	01/03/2022	294m	South
321	Part of Gosford High School	Item - General	Local	State Environmental Planning Policy (Precincts?Regional) 2021	02/12/2021	01/03/2022	01/03/2022	304m	North West
325	Three art deco shopfronts	Item - General	Local	State Environmental Planning Policy (Precincts?Regional) 2021	02/12/2021	01/03/2022	01/03/2022	349m	North
42	Building facade, First National Real Estate	Item - General	Local	State Environmental Planning Policy (Precincts?Regional) 2021	02/12/2021	01/03/2022	01/03/2022	440m	South
324	William Street Well	Item - General	Local	State Environmental Planning Policy (Precincts?Regional) 2021	02/12/2021	01/03/2022	01/03/2022	478m	South
319	Shopfront	Item - General	Local	State Environmental Planning Policy (Precincts?Regional) 2021	02/12/2021	01/03/2022	01/03/2022	491m	South
28	Union Hotel	Item - General	Local	State Environmental Planning Policy (Precincts?Regional) 2021	02/12/2021	01/03/2022	01/03/2022	544m	South
318	Orion Cafe	Item - General	Local	State Environmental Planning Policy (Precincts?Regional) 2021	02/12/2021	01/03/2022	01/03/2022	586m	South
I181	Former cemetery, "Brady's Gully"	Item - General	Local	Central Coast Local Environmental Plan 2022	24/06/2022	01/08/2022	09/05/2025	594m	North East
41	Feature tree'fig	Item - General	Local	State Environmental Planning Policy (Precincts?Regional) 2021	02/12/2021	01/03/2022	01/03/2022	618m	South
I52	Dwyer Pavilion	Item - General	Local	Central Coast Local Environmental Plan 2022	24/06/2022	01/08/2022	09/05/2025	632m	North
39	Gosford City Council administration building	Item - General	Local	State Environmental Planning Policy (Precincts?Regional) 2021	02/12/2021	01/03/2022	01/03/2022	698m	South
40	Former Brisbane Water County Council building	Item - General	Local	State Environmental Planning Policy (Precincts?Regional) 2021	02/12/2021	01/03/2022	01/03/2022	698m	South
I51	Gosford State Forest Nursery	Item - General	Local	Central Coast Local Environmental Plan 2022	24/06/2022	01/08/2022	09/05/2025	727m	West
38	Conservatorium of Music (former courthouse and police station)	Item - General	Local	State Environmental Planning Policy (Precincts?Regional) 2021	02/12/2021	01/03/2022	01/03/2022	736m	South
30	Former Gosford Public School and residence, now TAFE Building E	Item - General	Local	State Environmental Planning Policy (Precincts?Regional) 2021	02/12/2021	01/03/2022	01/03/2022	752m	South

Map Id	Name	Classification	Significance	EPI Name	Published Date	Commenced Date	Currency Date	Distance	Direction
25	Avenue and feature trees'Grahame Park	Item - General	Local	State Environmental Planning Policy (Precincts?Regional) 2021	02/12/2021	01/03/2022	01/03/2022	757m	South West
37	Creighton's Funeral Parlour	Item - General	Local	State Environmental Planning Policy (Precincts?Regional) 2021	02/12/2021	01/03/2022	01/03/2022	798m	South
36	Former School of Arts	Item - General	Local	State Environmental Planning Policy (Precincts?Regional) 2021	02/12/2021	01/03/2022	01/03/2022	800m	South
A26	Footings of former police stables	Item - Archaeological	Local	State Environmental Planning Policy (Precincts?Regional) 2021	02/12/2021	01/03/2022	01/03/2022	802m	South
A25	Footings of former sergeants residence/police station	Item - Archaeological	Local	State Environmental Planning Policy (Precincts?Regional) 2021	02/12/2021	01/03/2022	01/03/2022	820m	South
I419	Quarry	Item - General	Local	Central Coast Local Environmental Plan 2022	24/06/2022	01/08/2022	09/05/2025	843m	South East
35	Part of Gosford South Post Office	Item - General	Local	State Environmental Planning Policy (Precincts?Regional) 2021	02/12/2021	01/03/2022	01/03/2022	858m	South
323	Rumbalara Reserve Quarry	Item - General	Local	State Environmental Planning Policy (Precincts?Regional) 2021	02/12/2021	01/03/2022	01/03/2022	952m	South East
31	Gosford City Council Memorial Park, including avenue and feature trees	Item - General	Local	State Environmental Planning Policy (Precincts?Regional) 2021	02/12/2021	01/03/2022	01/03/2022	981m	South

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Natural Hazards

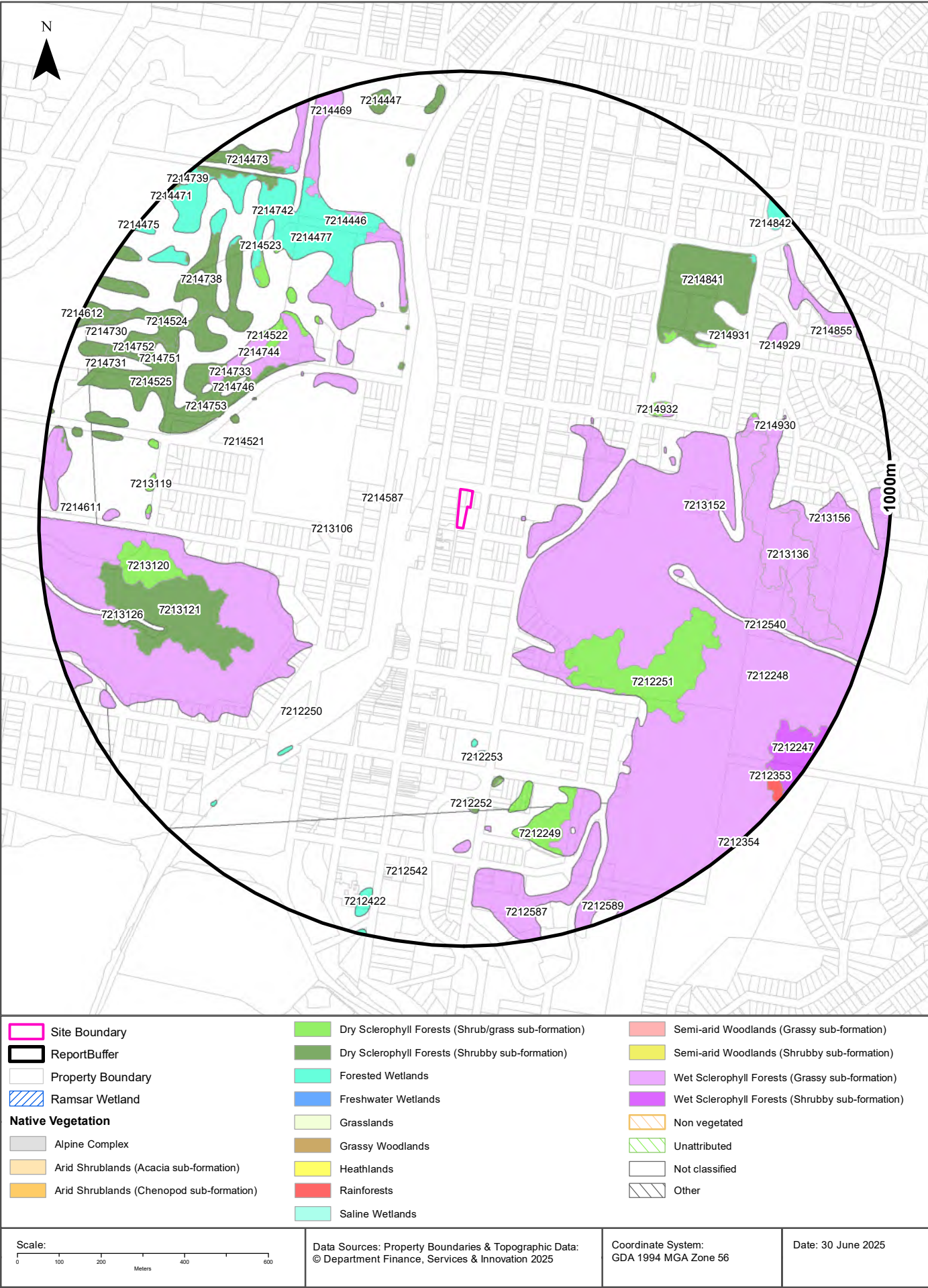
43-45 Beane Street, Gosford, NSW 2250

Bush Fire Prone Land

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

Bush Fire Prone Land Category	Distance	Direction
Vegetation Buffer	30m	South East
Vegetation Category 1	130m	East
Vegetation Category 2	581m	North East

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



Ecological Constraints

43-45 Beane Street, Gosford, NSW 2250

Native Vegetation

What native vegetation exists within the dataset buffer?

Map ID	Vegetation Formation	Plant Community Type and Vegetation Formation	Vegetation Class	Dist	Dir
7214587	Not classified	(Not classified) Not classified	Not classified	0m	On-site
7212248	Wet Sclerophyll Forests (Grassy sub-formation)	(Wet Sclerophyll Forests (Grassy sub-formation)) Central Coast Escarpment Moist Forest	Northern Hinterland Wet Sclerophyll Forests	123m	South East
7213106	Dry Sclerophyll Forests (Shrubby sub-formation)	(Dry Sclerophyll Forests (Shrubby sub-formation)) Sydney Coastal Sandstone Bloodwood Shrub Forest	Sydney Coastal Dry Sclerophyll Forests	292m	West
7214841	Dry Sclerophyll Forests (Shrubby sub-formation)	(Dry Sclerophyll Forests (Shrubby sub-formation)) Sydney Coastal Sandstone Bloodwood Shrub Forest	Sydney Coastal Dry Sclerophyll Forests	319m	North East
7212251	Dry Sclerophyll Forests (Shrub/grass sub-formation)	(Dry Sclerophyll Forests (Shrub/grass sub-formation)) Hunter Coast Sandy Creekflat Low Paperbark Scrub	Hunter-Macleay Dry Sclerophyll Forests	380m	South East
7214932	Dry Sclerophyll Forests (Shrub/grass sub-formation)	(Dry Sclerophyll Forests (Shrub/grass sub-formation)) Hunter Coast Sandy Creekflat Low Paperbark Scrub	Hunter-Macleay Dry Sclerophyll Forests	459m	North East
7212540	Not classified	(Not classified) Not classified	Not classified	495m	East
7212253	Forested Wetlands	(Forested Wetlands) Coastal Creekflat Layered Grass-Sedge Swamp Forest	Coastal Floodplain Wetlands	505m	South
7214525	Dry Sclerophyll Forests (Shrubby sub-formation)	(Dry Sclerophyll Forests (Shrubby sub-formation)) Sydney Coastal Sandstone Bloodwood Shrub Forest	Sydney Coastal Dry Sclerophyll Forests	507m	North West
7214522	Dry Sclerophyll Forests (Shrub/grass sub-formation)	(Dry Sclerophyll Forests (Shrub/grass sub-formation)) Hunter Coast Sandy Creekflat Low Paperbark Scrub	Hunter-Macleay Dry Sclerophyll Forests	517m	North West
7214521	Dry Sclerophyll Forests (Shrub/grass sub-formation)	(Dry Sclerophyll Forests (Shrub/grass sub-formation)) Hunter Coast Sandy Creekflat Low Paperbark Scrub	Hunter-Macleay Dry Sclerophyll Forests	525m	West
7213152	Not classified	(Not classified) Not classified	Not classified	542m	East
7213121	Dry Sclerophyll Forests (Shrubby sub-formation)	(Dry Sclerophyll Forests (Shrubby sub-formation)) Sydney Coastal Sandstone Bloodwood Shrub Forest	Sydney Coastal Dry Sclerophyll Forests	557m	West
7214477	Forested Wetlands	(Forested Wetlands) Coastal Creekflat Layered Grass-Sedge Swamp Forest	Coastal Floodplain Wetlands	559m	North West
7214744	Not classified	(Not classified) Not classified	Not classified	569m	North West
7212250	Dry Sclerophyll Forests (Shrub/grass sub-formation)	(Dry Sclerophyll Forests (Shrub/grass sub-formation)) Hunter Coast Sandy Creekflat Low Paperbark Scrub	Hunter-Macleay Dry Sclerophyll Forests	570m	South West
7214746	Not classified	(Not classified) Not classified	Not classified	577m	North West
7212252	Dry Sclerophyll Forests (Shrubby sub-formation)	(Dry Sclerophyll Forests (Shrubby sub-formation)) Sydney Coastal Sandstone Bloodwood Shrub Forest	Sydney Coastal Dry Sclerophyll Forests	599m	South
7212249	Dry Sclerophyll Forests (Shrub/grass sub-formation)	(Dry Sclerophyll Forests (Shrub/grass sub-formation)) Hunter Coast Sandy Creekflat Low Paperbark Scrub	Hunter-Macleay Dry Sclerophyll Forests	608m	South
7214733	Not classified	(Not classified) Not classified	Not classified	613m	North West
7214753	Not classified	(Not classified) Not classified	Not classified	625m	West
7214931	Dry Sclerophyll Forests (Shrub/grass sub-formation)	(Dry Sclerophyll Forests (Shrub/grass sub-formation)) Hunter Coast Sandy Creekflat Low Paperbark Scrub	Hunter-Macleay Dry Sclerophyll Forests	635m	North East
7214748	Not classified	(Not classified) Not classified	Not classified	642m	North West
7213136	Wet Sclerophyll Forests (Grassy sub-formation)	(Wet Sclerophyll Forests (Grassy sub-formation)) Watagan Range Turpentine-Mahogany Grassy Forest	Northern Hinterland Wet Sclerophyll Forests	649m	East

Map ID	Vegetation Formation	Plant Community Type and Vegetation Formation	Vegetation Class	Dist	Dir
7212422	Forested Wetlands	(Forested Wetlands) Coastal Creekflat Layered Grass-Sedge Swamp Forest	Coastal Floodplain Wetlands	656m	South
7213120	Dry Sclerophyll Forests (Shrub/grass sub-formation)	(Dry Sclerophyll Forests (Shrub/grass sub-formation)) Hunter Coast Sandy Creekflat Low Paperbark Scrub	Hunter-Macleay Dry Sclerophyll Forests	657m	West
7212542	Not classified	(Not classified) Not classified	Not classified	676m	South
7214469	Wet Sclerophyll Forests (Grassy sub-formation)	(Wet Sclerophyll Forests (Grassy sub-formation)) Central Coast Escarpment Moist Forest	Northern Hinterland Wet Sclerophyll Forests	689m	North West
7214446	Wet Sclerophyll Forests (Grassy sub-formation)	(Wet Sclerophyll Forests (Grassy sub-formation)) Central Coast Escarpment Moist Forest	Northern Hinterland Wet Sclerophyll Forests	692m	North West
7214524	Dry Sclerophyll Forests (Shrubby sub-formation)	(Dry Sclerophyll Forests (Shrubby sub-formation)) Hunter Coast Foothills Apple Forest	Sydney Coastal Dry Sclerophyll Forests	697m	North West
7213119	Dry Sclerophyll Forests (Shrub/grass sub-formation)	(Dry Sclerophyll Forests (Shrub/grass sub-formation)) Hunter Coast Sandy Creekflat Low Paperbark Scrub	Hunter-Macleay Dry Sclerophyll Forests	727m	West
7214930	Wet Sclerophyll Forests (Grassy sub-formation)	(Wet Sclerophyll Forests (Grassy sub-formation)) Lower North Ranges Turpentine Moist Forest	Northern Hinterland Wet Sclerophyll Forests	733m	East
7214523	Dry Sclerophyll Forests (Shrubby sub-formation)	(Dry Sclerophyll Forests (Shrubby sub-formation)) Hunter Coast Foothills Apple Forest	Sydney Coastal Dry Sclerophyll Forests	737m	North West
7213126	Not classified	(Not classified) Not classified	Not classified	741m	West
7212562	Not classified	(Not classified) Not classified	Not classified	761m	South
7214751	Not classified	(Not classified) Not classified	Not classified	774m	North West
7214738	Not classified	(Not classified) Not classified	Not classified	776m	North West
7214731	Not classified	(Not classified) Not classified	Not classified	792m	West
7214742	Not classified	(Not classified) Not classified	Not classified	796m	North West
7214929	Wet Sclerophyll Forests (Grassy sub-formation)	(Wet Sclerophyll Forests (Grassy sub-formation)) Lower North Ranges Turpentine Moist Forest	Northern Hinterland Wet Sclerophyll Forests	803m	North East
7214447	Dry Sclerophyll Forests (Shrubby sub-formation)	(Dry Sclerophyll Forests (Shrubby sub-formation)) Hunter Coast Foothills Apple Forest	Sydney Coastal Dry Sclerophyll Forests	810m	North
7214730	Not classified	(Not classified) Not classified	Not classified	817m	North West
7214752	Not classified	(Not classified) Not classified	Not classified	824m	North West
7213156	Not classified	(Not classified) Not classified	Not classified	845m	East
7214473	Dry Sclerophyll Forests (Shrubby sub-formation)	(Dry Sclerophyll Forests (Shrubby sub-formation)) Hunter Coast Foothills Apple Forest	Sydney Coastal Dry Sclerophyll Forests	847m	North West
7214611	Not classified	(Not classified) Not classified	Not classified	862m	West
7214842	Forested Wetlands	(Forested Wetlands) Coastal Creekflat Layered Grass-Sedge Swamp Forest	Coastal Floodplain Wetlands	862m	North East
7212247	Wet Sclerophyll Forests (Shrubby sub-formation)	(Wet Sclerophyll Forests (Shrubby sub-formation)) Hunter Coast Ranges Turpentine Wet Forest	North Coast Wet Sclerophyll Forests	885m	South East
7212587	Not classified	(Not classified) Not classified	Not classified	925m	South
7214855	Wet Sclerophyll Forests (Grassy sub-formation)	(Wet Sclerophyll Forests (Grassy sub-formation)) Lower North Ranges Turpentine Moist Forest	Northern Hinterland Wet Sclerophyll Forests	930m	North East
7212353	Rainforests	(Rainforests) Lower North Wet Gully Palm Rainforest	Northern Warm Temperate Rainforests	940m	South East
7212589	Not classified	(Not classified) Not classified	Not classified	955m	South
7214739	Not classified	(Not classified) Not classified	Not classified	981m	North West
7214471	Dry Sclerophyll Forests (Shrubby sub-formation)	(Dry Sclerophyll Forests (Shrubby sub-formation)) Hunter Coast Foothills Apple Forest	Sydney Coastal Dry Sclerophyll Forests	986m	North West
7214612	Not classified	(Not classified) Not classified	Not classified	993m	North West

Map ID	Vegetation Formation	Plant Community Type and Vegetation Formation	Vegetation Class	Dist	Dir
7214475	Dry Sclerophyll Forests (Shrubby sub-formation)	(Dry Sclerophyll Forests (Shrubby sub-formation)) Sydney Coastal Sandstone Bloodwood Shrub Forest	Sydney Coastal Dry Sclerophyll Forests	997m	North West
7212354	Wet Sclerophyll Forests (Shrubby sub-formation)	(Wet Sclerophyll Forests (Shrubby sub-formation)) Hunter Coast Ranges Turpentine Wet Forest	North Coast Wet Sclerophyll Forests	998m	South East

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

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Ecological Constraints

43-45 Beane Street, Gosford, NSW 2250

Ramsar Wetlands

What Ramsar Wetland areas exist within the dataset buffer?

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

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

Ecological Constraints

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Collaborative Australian Protected Areas Database - Terrestrial

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

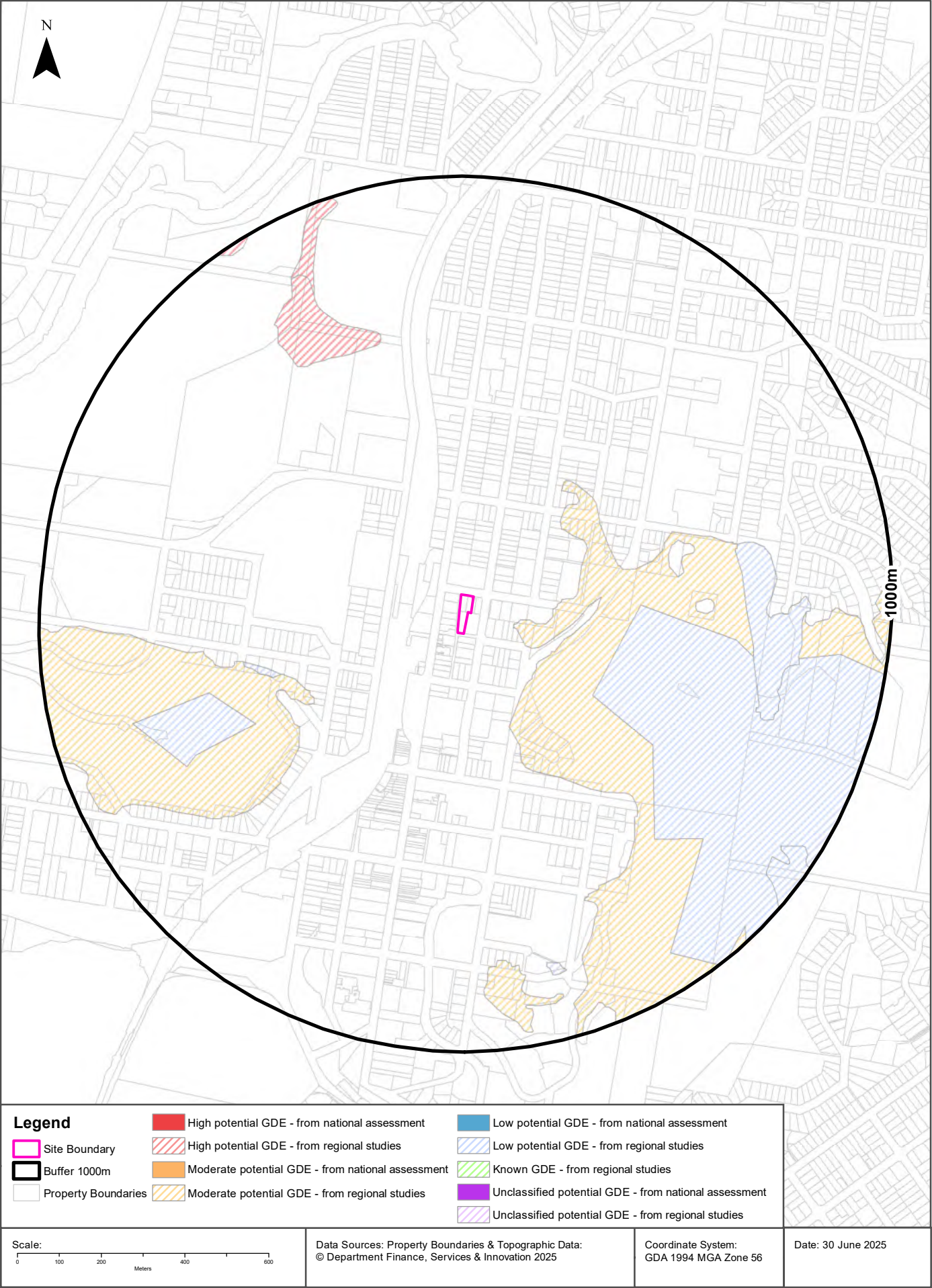
Map ID	Area Name	Area Details	Management Category	Authority	Jurisdiction	Dist	Dir
N/A	No records in buffer						

Collaborative Australian Protected Areas Database - Marine

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

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

Source: Collaborative Australian Protected Areas Database (CAPAD) 2022
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Ecological Constraints

43-45 Beane Street, Gosford, NSW 2250

Groundwater Dependent Ecosystems Atlas

Type	GDE Potential	Geomorphology	Ecosystem Type	Aquifer Geology	Distance	Direction
Terrestrial	Moderate potential GDE - from regional studies	Deeply dissected sandstone plateaus.	Vegetation		104m	South East
Terrestrial	Low potential GDE - from regional studies	Deeply dissected sandstone plateaus.	Vegetation		339m	South East
Terrestrial	High potential GDE - from regional studies	Deeply dissected sandstone plateaus.	Vegetation		630m	North West

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

43-45 Beane Street, Gosford, NSW 2250



Ecological Constraints

43-45 Beane Street, Gosford, NSW 2250

Inflow Dependent Ecosystems Likelihood

Type	IDE Likelihood	Geomorphology	Ecosystem Type	Aquifer Geology	Distance	Direction
Terrestrial	1	Deeply dissected sandstone plateaus.	Vegetation		104m	South East
Terrestrial	3	Deeply dissected sandstone plateaus.	Vegetation		339m	South East
Terrestrial	2	Deeply dissected sandstone plateaus.	Vegetation		435m	West

Inflow Dependent Ecosystems Likelihood Data Source: The Bureau of Meteorology

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Ecological Constraints

43-45 Beane Street, Gosford, NSW 2250

NSW BioNet Species Sightings

Species sightings from the NSW BioNet Repository that have either a state or federal conservation status, or a sensitivity status, and are within 10 km of the site:

Note: This data does not include NSW Category 1 sensitive species.

Kingdom	Class	Scientific	Common	Sensitivity Class	State Conservation Status	Federal Conservation Status	Migratory Species Agreements
Animalia	Amphibia	Heleioporus australiacus	Giant Burrowing Frog	Not Sensitive	Vulnerable	Vulnerable	
Animalia	Amphibia	Litoria aurea	Green and Golden Bell Frog	Not Sensitive	Endangered	Vulnerable	
Animalia	Amphibia	Litoria brevipalmata	Green-thighed Frog	Not Sensitive	Vulnerable	Not Listed	
Animalia	Amphibia	Mixophyes balbus	Stuttering Frog	Category 2	Endangered	Vulnerable	
Animalia	Amphibia	Mixophyes iteratus	Giant Barred Frog	Category 2	Vulnerable	Vulnerable	
Animalia	Amphibia	Pseudophryne australis	Red-crowned Toadlet	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Actitis hypoleucos	Common Sandpiper	Not Sensitive	Not Listed	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Anseranas semipalmata	Maggpie Goose	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Anthochaera phrygia	Regent Honeyeater	Category 2	Critically Endangered	Critically Endangered	
Animalia	Aves	Apus pacificus	Fork-tailed Swift	Not Sensitive	Not Listed	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Ardenna carneipes	Flesh-footed Shearwater	Not Sensitive	Vulnerable	Not Listed	ROKAMBA;JAMBA
Animalia	Aves	Ardenna pacifica	Wedge-tailed Shearwater	Not Sensitive	Not Listed	Not Listed	JAMBA
Animalia	Aves	Ardenna tenuirostris	Short-tailed Shearwater	Not Sensitive	Not Listed	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Artamus cyanopterus cyanopterus	Dusky Woodswallow	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Botaurus poiciloptilus	Australasian Bittern	Not Sensitive	Endangered	Endangered	
Animalia	Aves	Burhinus grallarius	Bush Stone-curlew	Not Sensitive	Endangered	Not Listed	
Animalia	Aves	Calidris acuminata	Sharp-tailed Sandpiper	Not Sensitive	Not Listed	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Calidris canutus	Red Knot	Not Sensitive	Not Listed	Endangered	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Calidris ferruginea	Curlew Sandpiper	Not Sensitive	Critically Endangered	Critically Endangered	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Calidris ruficollis	Red-necked Stint	Not Sensitive	Not Listed	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Calidris tenuirostris	Great Knot	Not Sensitive	Vulnerable	Vulnerable	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Callocephalon fimbriatum	Gang-gang Cockatoo	Category 3	Endangered	Endangered	
Animalia	Aves	Calyptorhynchus banksii samueli	Red-tailed Black-Cockatoo (inland subspecies)	Category 2	Vulnerable	Not Listed	
Animalia	Aves	Calyptorhynchus lathami lathami	South-eastern Glossy Black-Cockatoo	Category 2	Vulnerable	Vulnerable	
Animalia	Aves	Charadrius leschenaultii	Greater Sand-plover	Not Sensitive	Vulnerable	Vulnerable	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Charadrius mongolus	Lesser Sand-plover	Not Sensitive	Vulnerable	Endangered	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Circus assimilis	Spotted Harrier	Not Sensitive	Vulnerable	Not Listed	

Kingdom	Class	Scientific	Common	Sensitivity Class	State Conservation Status	Federal Conservation Status	Migratory Species Agreements
Animalia	Aves	Climacteris picumnus victoriae	Brown Treecreeper (eastern subspecies)	Not Sensitive	Vulnerable	Vulnerable	
Animalia	Aves	Coracina lineata	Barred Cuckoo-shrike	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Cuculus optatus	Oriental Cuckoo	Not Sensitive	Not Listed	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Cyclopsitta diophthalma coxeni	Coxen's Fig-Parrot	Category 2	Critically Endangered	Critically Endangered	
Animalia	Aves	Daphoenositta chrysoptera	Varied Sittella	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Diomedea exulans	Wandering Albatross	Not Sensitive	Endangered	Vulnerable	
Animalia	Aves	Ephippiorhynchus asiaticus	Black-necked Stork	Not Sensitive	Endangered	Not Listed	
Animalia	Aves	Epthianura albifrons	White-fronted Chat	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Esacus magnirostris	Beach Stone-curlew	Not Sensitive	Critically Endangered	Not Listed	
Animalia	Aves	Falco subniger	Black Falcon	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Gallinago hardwickii	Latham's Snipe	Not Sensitive	Vulnerable	Vulnerable	ROKAMBA;JAMBA
Animalia	Aves	Grantiella picta	Painted Honeyeater	Not Sensitive	Vulnerable	Vulnerable	
Animalia	Aves	Gygis alba	White Tern	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Haematopus fuliginosus	Sooty Oystercatcher	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Haematopus longirostris	Pied Oystercatcher	Not Sensitive	Endangered	Not Listed	
Animalia	Aves	Haliaeetus leucogaster	White-bellied Sea-Eagle	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Hamirostra melanosternon	Black-breasted Buzzard	Category 3	Vulnerable	Not Listed	
Animalia	Aves	Hieraaetus morphnoides	Little Eagle	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Hirundapus caudacutus	White-throated Needletail	Not Sensitive	Vulnerable	Vulnerable	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Hydroprogne caspia	Caspian Tern	Not Sensitive	Not Listed	Not Listed	JAMBA
Animalia	Aves	Irediparra gallinacea	Comb-crested Jacana	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Ixobrychus flavicollis	Black Bittern	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Lathamus discolor	Swift Parrot	Not Sensitive	Endangered	Critically Endangered	
Animalia	Aves	Limosa lapponica	Bar-tailed Godwit	Not Sensitive	Not Listed	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Limosa limosa	Black-tailed Godwit	Not Sensitive	Vulnerable	Endangered	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Lophochroa leadbeateri	Pink Cockatoo	Category 2	Vulnerable	Endangered	
Animalia	Aves	Lophoictinia isura	Square-tailed Kite	Category 3	Vulnerable	Not Listed	
Animalia	Aves	Macronectes giganteus	Southern Giant Petrel	Not Sensitive	Endangered	Endangered	
Animalia	Aves	Melithreptus gularis gularis	Black-chinned Honeyeater (eastern subspecies)	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Menura alberti	Albert's Lyrebird	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Neochmia ruficauda	Star Finch	Not Sensitive	Extinct	Endangered	
Animalia	Aves	Neophema pulchella	Turquoise Parrot	Category 3	Vulnerable	Not Listed	

Kingdom	Class	Scientific	Common	Sensitivity Class	State Conservation Status	Federal Conservation Status	Migratory Species Agreements
Animalia	Aves	Ninox connivens	Barking Owl	Category 3	Vulnerable	Not Listed	
Animalia	Aves	Ninox strenua	Powerful Owl	Category 3	Vulnerable	Not Listed	
Animalia	Aves	Numenius madagascariensis	Eastern Curlew	Not Sensitive	Critically Endangered	Critically Endangered	ROKAMBA; CAMBA; JAMBA
Animalia	Aves	Numenius minutus	Little Curlew	Not Sensitive	Not Listed	Not Listed	ROKAMBA; CAMBA; JAMBA
Animalia	Aves	Numenius phaeopus	Whimbrel	Not Sensitive	Not Listed	Not Listed	ROKAMBA; CAMBA; JAMBA
Animalia	Aves	Onychoprion fuscatus	Sooty Tern	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Pachycephala olivacea	Olive Whistler	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Pandion cristatus	Eastern Osprey	Category 3	Vulnerable	Not Listed	
Animalia	Aves	Parvipsitta pusilla	Little Lorikeet	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Petroica boodang	Scarlet Robin	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Petroica phoenicea	Flame Robin	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Phaethon rubricauda	Red-tailed Tropicbird	Not Sensitive	Vulnerable	Not Listed	CAMBA; JAMBA
Animalia	Aves	Pluvialis fulva	Pacific Golden Plover	Not Sensitive	Not Listed	Not Listed	ROKAMBA; CAMBA; JAMBA
Animalia	Aves	Pluvialis squatarola	Grey Plover	Not Sensitive	Not Listed	Not Listed	ROKAMBA; CAMBA; JAMBA
Animalia	Aves	Pomatostomus temporalis	Grey-crowned Babbler (eastern subspecies)	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Pterodroma nigripennis	Black-winged Petrel	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Ptilinopus magnificus	Wompoo Fruit-Dove	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Ptilinopus superbus	Superb Fruit-Dove	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Puffinus assimilis	Little Shearwater	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Pyrrholaemus sagittatus	Speckled Warbler	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Sterna hirundo	Common Tern	Not Sensitive	Not Listed	Not Listed	ROKAMBA; CAMBA; JAMBA
Animalia	Aves	Sternula albifrons	Little Tern	Not Sensitive	Endangered	Not Listed	ROKAMBA; CAMBA; JAMBA
Animalia	Aves	Thalassarche cauta	Shy Albatross	Not Sensitive	Endangered	Endangered	
Animalia	Aves	Thalassarche chrysostoma	Grey-headed Albatross	Not Sensitive	Not Listed	Endangered	
Animalia	Aves	Thalassarche melanophris	Black-browed Albatross	Not Sensitive	Vulnerable	Vulnerable	
Animalia	Aves	Thalasseus bergii	Crested Tern	Not Sensitive	Not Listed	Not Listed	JAMBA
Animalia	Aves	Thinornis cucullatus	Eastern Hooded Dotterel	Not Sensitive	Critically Endangered	Vulnerable	
Animalia	Aves	Todiramphus chloris	Collared Kingfisher	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Tringa brevipes	Grey-tailed Tattler	Not Sensitive	Not Listed	Not Listed	ROKAMBA; CAMBA; JAMBA
Animalia	Aves	Tringa glareola	Wood Sandpiper	Not Sensitive	Not Listed	Not Listed	ROKAMBA; CAMBA; JAMBA
Animalia	Aves	Tringa nebularia	Common Greenshank	Not Sensitive	Endangered	Endangered	ROKAMBA; CAMBA; JAMBA
Animalia	Aves	Tringa stagnatilis	Marsh Sandpiper	Not Sensitive	Not Listed	Not Listed	ROKAMBA; CAMBA; JAMBA
Animalia	Aves	Turnix maculosus	Red-backed Button-quail	Not Sensitive	Vulnerable	Not Listed	

Kingdom	Class	Scientific	Common	Sensitivity Class	State Conservation Status	Federal Conservation Status	Migratory Species Agreements
Animalia	Aves	Tyto novaehollandiae	Masked Owl	Category 3	Vulnerable	Not Listed	
Animalia	Aves	Tyto tenebricosa	Sooty Owl	Category 3	Vulnerable	Not Listed	
Animalia	Aves	Xenus cinereus	Terek Sandpiper	Not Sensitive	Vulnerable	Vulnerable	ROKAMBA;CAMBA; JAMBA
Animalia	Insecta	Petalura gigantea	Giant Dragonfly	Not Sensitive	Endangered	Not Listed	
Animalia	Mammalia	Arctocephalus forsteri	New Zealand Fur-seal	Not Sensitive	Vulnerable	Not Listed	
Animalia	Mammalia	Arctocephalus pusillus doriferus	Australian Fur-seal	Not Sensitive	Vulnerable	Not Listed	
Animalia	Mammalia	Burramys parvus	Mountain Pygmy-possum	Not Sensitive	Endangered	Endangered	
Animalia	Mammalia	Cercartetus nanus	Eastern Pygmy-possum	Not Sensitive	Vulnerable	Not Listed	
Animalia	Mammalia	Chalinolobus dwyeri	Large-eared Pied Bat	Not Sensitive	Endangered	Endangered	
Animalia	Mammalia	Dasyurus maculatus	Spotted-tailed Quoll	Not Sensitive	Vulnerable	Endangered	
Animalia	Mammalia	Dasyurus viverrinus	Eastern Quoll	Not Sensitive	Endangered	Endangered	
Animalia	Mammalia	Dugong dugon	Dugong	Not Sensitive	Endangered	Not Listed	
Animalia	Mammalia	Eubalaena australis	Southern Right Whale	Not Sensitive	Endangered	Endangered	
Animalia	Mammalia	Falsistrellus tasmaniensis	Eastern False Pipistrelle	Not Sensitive	Vulnerable	Not Listed	
Animalia	Mammalia	Isoodon obesulus obesulus	Southern Brown Bandicoot (eastern)	Not Sensitive	Endangered	Endangered	
Animalia	Mammalia	Micronomus norfolkensis	Eastern Coastal Free-tailed Bat	Not Sensitive	Vulnerable	Not Listed	
Animalia	Mammalia	Miniopterus australis	Little Bent-winged Bat	Not Sensitive	Vulnerable	Not Listed	
Animalia	Mammalia	Miniopterus orianae oceanensis	Large Bent-winged Bat	Not Sensitive	Vulnerable	Not Listed	
Animalia	Mammalia	Myotis macropus	Southern Myotis	Not Sensitive	Vulnerable	Not Listed	
Animalia	Mammalia	Notamacropus parma	Parma Wallaby	Not Sensitive	Vulnerable	Vulnerable	
Animalia	Mammalia	Nyctophilus bifax	Eastern Long-eared Bat	Not Sensitive	Vulnerable	Not Listed	
Animalia	Mammalia	Petauroides volans	Southern Greater Glider	Not Sensitive	Endangered	Endangered	
Animalia	Mammalia	Petaurus australis	Yellow-bellied Glider	Not Sensitive	Vulnerable	Vulnerable	
Animalia	Mammalia	Petaurus norfolkensis	Squirrel Glider	Not Sensitive	Vulnerable	Not Listed	
Animalia	Mammalia	Phascolarctos cinereus	Koala	Not Sensitive	Endangered	Endangered	
Animalia	Mammalia	Phoniscus papuensis	Golden-tipped Bat	Not Sensitive	Vulnerable	Not Listed	
Animalia	Mammalia	Potorous tridactylus tridactylus	Northern long-nosed potoroo	Not Sensitive	Vulnerable	Vulnerable	
Animalia	Mammalia	Pseudomys gracilicaudatus	Eastern Chestnut Mouse	Not Sensitive	Vulnerable	Not Listed	
Animalia	Mammalia	Pteropus poliocephalus	Grey-headed Flying-fox	Not Sensitive	Vulnerable	Vulnerable	
Animalia	Mammalia	Saccolaimus flaviventris	Yellow-bellied Sheath-tail-bat	Not Sensitive	Vulnerable	Not Listed	
Animalia	Mammalia	Scoteanax rueppellii	Greater Broad-nosed Bat	Not Sensitive	Vulnerable	Not Listed	
Animalia	Mammalia	Vespadelus troungtoni	Eastern Cave Bat	Not Sensitive	Vulnerable	Not Listed	
Animalia	Reptilia	Antaresia childreni	Children's Python	Not Sensitive	Vulnerable	Not Listed	

Kingdom	Class	Scientific	Common	Sensitivity Class	State Conservation Status	Federal Conservation Status	Migratory Species Agreements
Animalia	Reptilia	Caretta caretta	Loggerhead Turtle	Not Sensitive	Endangered	Endangered	
Animalia	Reptilia	Chelonia mydas	Green Turtle	Not Sensitive	Vulnerable	Vulnerable	
Animalia	Reptilia	Dermochelys coriacea	Leatherback Turtle	Not Sensitive	Endangered	Endangered	
Animalia	Reptilia	Eretmochelys imbricata	Hawksbill Turtle	Not Sensitive	Not Listed	Vulnerable	
Animalia	Reptilia	Hoplocephalus bitorquatus	Pale-headed Snake	Not Sensitive	Vulnerable	Not Listed	
Animalia	Reptilia	Hoplocephalus bungaroides	Broad-headed Snake	Category 2	Endangered	Endangered	
Animalia	Reptilia	Hoplocephalus stephensii	Stephens' Banded Snake	Not Sensitive	Vulnerable	Not Listed	
Animalia	Reptilia	Suta flagellum	Little Whip Snake	Not Sensitive	Vulnerable	Not Listed	
Animalia	Reptilia	Tiliqua occipitalis	Western Blue-tongued Lizard	Not Sensitive	Vulnerable	Not Listed	
Animalia	Reptilia	Uvidicolus sphyrurus	Border Thick-tailed Gecko	Not Sensitive	Vulnerable	Vulnerable	
Animalia	Reptilia	Varanus rosenbergi	Rosenberg's Goanna	Not Sensitive	Vulnerable	Not Listed	
Plantae	Flora	Acacia bynoeana	Bynoe's Wattle	Not Sensitive	Endangered	Vulnerable	
Plantae	Flora	Acacia pubescens	Downy Wattle	Not Sensitive	Vulnerable	Vulnerable	
Plantae	Flora	Baloskion longipes	Dense Cord-rush	Not Sensitive	Vulnerable	Vulnerable	
Plantae	Flora	Callistemon linearifolius	Netted Bottle Brush	Category 3	Vulnerable	Not Listed	
Plantae	Flora	Cryptostylis hunteriana	Leafless Tongue Orchid	Category 2	Vulnerable	Vulnerable	
Plantae	Flora	Darwinia glaucophylla		Not Sensitive	Endangered	Not Listed	
Plantae	Flora	Dendrobium tetragonum var. melaleucaphilum	Spider Orchid	Category 2	Endangered	Not Listed	
Plantae	Flora	Diuris bracteata		Category 2	Endangered	Extinct	
Plantae	Flora	Epacris purpurascens var. purpurascens		Not Sensitive	Vulnerable	Not Listed	
Plantae	Flora	Eucalyptus camfieldii	Camfield's Stringybark	Not Sensitive	Vulnerable	Vulnerable	
Plantae	Flora	Eucalyptus glaucina	Slaty Red Gum	Not Sensitive	Vulnerable	Vulnerable	
Plantae	Flora	Eucalyptus nicholii	Narrow-leaved Black Peppermint	Not Sensitive	Vulnerable	Vulnerable	
Plantae	Flora	Eucalyptus scoparia	Wallangarra White Gum	Not Sensitive	Endangered	Vulnerable	
Plantae	Flora	Euphorbia psammogeton	Sand spurge	Not Sensitive	Endangered	Not Listed	
Plantae	Flora	Grammitis stenophylla	Narrow-leaf Finger Fern	Category 3	Endangered	Not Listed	
Plantae	Flora	Grevillea shiressii		Not Sensitive	Vulnerable	Vulnerable	
Plantae	Flora	Hibbertia procumbens	Spreading Guinea Flower	Not Sensitive	Endangered	Not Listed	
Plantae	Flora	Hibbertia puberula		Not Sensitive	Endangered	Not Listed	
Plantae	Flora	Lindsaea fraseri	Fraser's Screw Fern	Category 3	Endangered	Not Listed	
Plantae	Flora	Macadamia tetraphylla	Rough-shelled Bush Nut	Not Sensitive	Vulnerable	Vulnerable	
Plantae	Flora	Melaleuca biconvexa	Biconvex Paperbark	Not Sensitive	Vulnerable	Vulnerable	
Plantae	Flora	Melaleuca deanei	Deane's Paperbark	Not Sensitive	Vulnerable	Vulnerable	
Plantae	Flora	Persoonia hirsuta	Hairy Geebung	Category 3	Endangered	Endangered	

Kingdom	Class	Scientific	Common	Sensitivity Class	State Conservation Status	Federal Conservation Status	Migratory Species Agreements
Plantae	Flora	<i>Prostanthera askania</i>	Tranquility Mintbush	Not Sensitive	Endangered	Endangered	
Plantae	Flora	<i>Prostanthera junonis</i>	Somersby Mintbush	Not Sensitive	Endangered	Endangered	
Plantae	Flora	<i>Rhodamnia rubescens</i>	Scrub Turpentine	Not Sensitive	Critically Endangered	Critically Endangered	
Plantae	Flora	<i>Rhodomyrtus psidioides</i>	Native Guava	Not Sensitive	Critically Endangered	Critically Endangered	
Plantae	Flora	<i>Senecio spathulatus</i>	Coast Groundsel	Not Sensitive	Endangered	Not Listed	
Plantae	Flora	<i>Syzygium hodgekinsoniae</i>	Red Lilly Pilly	Not Sensitive	Vulnerable	Vulnerable	
Plantae	Flora	<i>Syzygium paniculatum</i>	Magenta Lilly Pilly	Not Sensitive	Vulnerable	Vulnerable	
Plantae	Flora	<i>Tetradlea glandulosa</i>		Not Sensitive	Vulnerable	Not Listed	
Plantae	Flora	<i>Tetradlea juncea</i>	Black-eyed Susan	Not Sensitive	Vulnerable	Vulnerable	
Plantae	Flora	<i>Tylophora woollsii</i>	Cryptic Forest Twiner	Not Sensitive	Endangered	Endangered	

Source: NSW BioNet Species Sightings

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

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Appendix D: Background on Salinity



Background on Salinity

A. General Information on Salinity

Salinity is the accumulation and concentration of salt at or near the ground surface or within surface water bodies. Salt is naturally present in the landscape through deposition of salt from the ocean in coastal areas and through weathering of bedrock that contains salt, accumulated during deposition of original sediments in a prehistoric marine environment. The salts are commonly soluble chlorides, sulphates or carbonates of sodium and magnesium.

In Sydney, salinity issues are typically associated with the Wianamatta Group shales and their derived soil landscapes. The natural vegetation of western Sydney is dominated by large isolated trees with deep root systems that remove subsurface moisture. Slow rates of percolation through the relatively impermeable clay soil and uptake of a large proportion of rainfall by the trees results in limited recharge of the groundwater system by rainfall. The depth to groundwater has developed a natural equilibrium and there is little tendency for salt contained in the groundwater or subsoils to rise to the surface.

B. Salinity and Urban Development

Salinity becomes a problem in urban areas when changes in the land use result in changes to the way water moves through the environment. This can result in vegetation die-back, decrease in water quality and damage to urban infrastructure.

Removal of deep rooted tree species during development and replacement with urban infrastructure, houses and industrial developments reduces the mechanism for the removal of subsurface moisture.

The development of urban salinity is commonly associated with changes in the hydrological cycle through the environment (rainfall, surface run-off, water infiltration and groundwater system). An increase in the quantity of water reaching the groundwater table as a result of vegetation clearance, irrigation of parklands, leaking water infrastructure and changes in drainage patterns, can cause a relatively rapid rise in the groundwater table. Earthworks that include excavation of natural soil profiles and exposure of more saline subsurface soils or shale bedrock may also result in an increase in salt concentrations at the ground surface.

Construction of roads, pipelines and buildings commonly results in removal of topsoil leading to exposure of the subsoils and interception of surficial and shallow subsurface drainage. In addition, over-irrigation of urban gardens, leaking water infrastructure and concentrated drainage patterns can result in increased water movement through the subsoil to the groundwater system leading to a relatively rapid rise in the groundwater table.

A rise in groundwater levels and impediments to subsurface drainage patterns can transport salt formerly stored in the bedrock to the surficial soil profile. This may result in salt encrustation of exposed soils, building foundations, roads, drainage infrastructure and corrosion of metal, concrete and other building materials. Increasing salt concentrations in surficial soils (and consequently in surface waters) may also result in die-off

of the existing vegetation, further reducing the hydrological load on the groundwater system and resulting in further groundwater table rises.

C. Potential Salinity Impacts on Urban Development

Some of the adverse impacts that can arise from saline conditions include:

- Salt scalds caused by a rise in the subsoil moisture content that mobilises salt to the ground surface;
- Salt scalds caused by modification of former drainage patterns which leads to the day lighting of subsurface seepage (either perched water or groundwater) in areas lower in the catchment, either at breaks in the slope or within drainage lines;
- A rise in groundwater table or accumulation of salt rich seepage leading to corrosion of subsurface facilities including concrete structures, metal pipework, cables, foundations, underground services, etc;
- Rising damp, where salt rich moisture is drawn into building and pavement materials by capillary action leading to deterioration of brick, mortar and concrete;
- Structural cracking, damage or building collapse which may occur as a result of shifting and or sinking foundations;
- Plant die-back associated with a rise in groundwater table level that mobilises excess salt to the plant root zone; and
- Subsurface water discharge and subsequent pollution of streams and drainage channels.

D. Soils and Groundwater Planning Strategy in Western Sydney

The aim of the DLWC 2002 document is to provide a framework for the sustainable development and management of new developments in the western region of Sydney. In relation to salinity management, the development should be designed and constructed such that there is no significant increase in the water table level and no adverse salinity impacts.

The proposed development controls that relate to soils and groundwater issues are summarised below:

1. A water management strategy should be prepared to address the following:
 - Reduction of potable water usage onsite;
 - Development of best practice measures for stormwater reuse for open space irrigation;
 - Reduction of potable water demand;
 - Reduction of adverse impacts on local groundwater regimes;
 - Reduction of change in local flow regimes; and
 - Preparation of water maintenance and a monitoring management system.
2. A salinity management plan should be prepared that includes a groundwater management strategy related to:
 - Adoption of small landscaped areas to reduce irrigation requirements;
 - Use of native and other low water requirement plants;
 - Use of mulch cover (not in drainage lines);
 - Use of low flow watering facilities for landscaped areas;
 - Implementation of a tree planting program, especially in high recharge areas, of native, deep rooted, large growing species to assist retention of the groundwater at existing levels;



-
- Retention of existing native tree cover where possible; and
 - Not permitting infiltration pits or tanks to disperse surface water.
3. An assessment of soil and rock conditions at the site, including erosion, expansive and dispersive soil conditions, and plant growth potential should be undertaken.
 4. Use of the Blue Book (2004) as a guide to prepare soil and water management plans. The approved plan and subsequent works are to be supervised by appropriately qualified experienced personnel.



Appendix E: Borehole Logs

BOREHOLE LOG

Client: 43 BEANE STREET PTY LTD
Project: PROPOSED RESIDENTIAL DEVELOPMENT
Location: 43-45 BEANE STREET, GOSFORD, NSW

Job No.: 37721P **Method:** SPIRAL AUGER **R.L. Surface:** ~21.8 m
Date: 4/7/25 **Datum:** AHD
Plant Type: JK309 **Logged/Checked By:** J.L.O./P.W.

Groundwater Record	SAMPLES				Field Tests	RL (m AHD)	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel Density	Hand Penetrometer Readings (kPa)	Remarks
	ES	U50	DB	DS										
DRY ON COMPLETION OF AUGERING									CL-CI	FILL: Gravelly sandy clay, low plasticity, red brown and brown, trace of fine to coarse grained ironstone and sandstone gravel. Silty CLAY: low to medium plasticity, light grey and brown.	w<PL w<PL	Hd	550 450 500	GRASS COVER RESIDUAL
					N = 21 6,9,12	21	1							
					N > 30 12,27,3/ 3mm REFUSAL	20	2		-	Extremely Weathered sandstone: silty CLAY, low plasticity, light grey and red brown, trace of ironstone gravel.	XW	Hd	>600 >600 >600	TERRIGAL FORMATION
						18	4			SANDSTONE: fine grained, grey, light grey and grey brown.	DW	VL - L		VERY LOW 'TC' BIT RESISTANCE
										REFER TO CORED BOREHOLE LOG				Groundwater monitoring well installed to 15.05m. Class 18 machine slotted 50mm Dia. PVC standpipe 15.05m to 10.5m. Casing 0.1m to 10.5m. 2mm sand filter pack 8.6m to 15.05m. Bentonite seal 8.6m to 7.5m. Backfilled with sand and cuttings to the surface. Completed with a concreted gatic cover. Twin Well Groundwater monitoring well installed to 9.0m. Class 18 machine slotted 50mm Dia. PVC standpipe 9.0m to 4.5m. Casing 0.1m to 4.5m. 2mm sand filter pack 4.4m to 9.0m. Bentonite seal 4.4m to 1.0m. Backfilled with sand to the surface. Completed with a concreted gatic cover.

Borehole No.
1
2 / 3

Client: 43 BEANE STREET PTY LTD																
Project: PROPOSED RESIDENTIAL DEVELOPMENT																
Location: 43-45 BEANE STREET, GOSFORD, NSW																
Job No.: 37721P					Core Size: NMLC					R.L. Surface: ~21.8 m						
Date: 4/7/25					Inclination: VERTICAL					Datum: AHD						
Plant Type: JK309					Bearing: N/A					Logged/Checked By: J.L.O./P.W.						
Water Loss Level	Barrel Lift	RL (m AHD)	Depth (m)	Graphic Log	CORE DESCRIPTION Rock Type, grain characteristics, colour, texture and fabric, features, inclusions and minor components	Weathering	Strength	POINT LOAD STRENGTH INDEX I _s (50)	SPACING (mm)			DEFECT DETAILS		Formation		
									600	200	60	20	DESCRIPTION Type, orientation, defect shape and roughness, defect coatings and seams, openness and thickness			
								VL-0.1 L-0.3 M-1 H-3 VH-10 EH					Specific	General		
			18		START CORING AT 4.00m											
100% RETURN AFTER 14 DAYS	50% RETURN		17	4	SANDSTONE: fine to medium grained, grey brown and red brown, with extremely weathered and claystone bands, and iron indurated bands, bedded at 0-10°.	HW	VL - L	1.0					(4.02m) J, 77°, P, R, Cn (4.03m) Be, 5°, P, R, Clay & Fe Ct (4.07m) CS, 5°, 9 mm.t (4.27m) Ji, 60 - 81°, C, R, Clay Ct (4.35m) CS, 0°, P, R, 15 mm.t (4.50m) Be, 0°, P, R, Fe Vn (4.55m) Jh, 60 - 85°, Ir, R, Fe Vn (4.57m) Jh, 60°, P, R, Fe Ct (4.58m) XWS, 60°, 120 mm.t (4.74m) J70°&60°, P, R, Clay Ct (4.78m) XWS, 0°, 70 mm.t (5.07m) XWS, 0°, 20 mm.t (5.27m) XWS, 0°, 70 mm.t (5.50m) J, 70 - 80°, Ir, R, Fe Sn		Terrigal Formation	
		16	5	Extremely Weathered sandstone: silty CLAY, low plasticity, grey and brown.	XW	Hd	0.040 0.10									
70% RETURN			16	6	NO CORE 0.10m											
		15	6	SANDSTONE: fine to medium grained, grey and orange brown, with occasional extremely weathered bands and claystone laminae, bedded at 0-10°.	HW	VL - L	1.0					(5.90m) J, 67°, P, R, Clay Ct (5.93m) J, 20°, P, R, Clay Ct (5.98m) J, 25°, P, R, Clay Ct (6.00m) CS, 0°, 20 mm.t (6.09m) Be, 0°, P, R, Clay Ct (6.10m) Be, 0°, P, R, Clay Ct (6.14m) Ji, 70°, P, R, Cn (6.28m) Be, 0°, P, R, Fe Vn (6.34m) CS, 0°, 8 mm.t (6.39m) Be, 0°, P, R, Fe Vn (6.42m) XWS, 0°, 6 mm.t (6.44m) XWS, 0°, 12 mm.t (6.47m) Jh, 37°, P / St, Clay & Fe Ct (6.64m) Ji, 55°, P, R, Fe Vn (6.77m) Ji, 60 - 80°, Ir, R, Fe Vn (6.84m) J, 14°, P, R, Fe Vn (7.03m) Be, 0°, P, R, Clay Ct (7.22m) J, 80 - 90°, C, R, Clay Ct (7.27m) J, 47°, P, R, Clay, 7 mm.t (7.37m) J, 53°, P, R (7.40m) J, 0°, P, R, Clay, 4 mm.t (7.45m) Ji, 60 - 70°, C, R, Fe Ct (7.46m) Be, 5°, P, R, Fe Vn (7.59m) Be, 0°, P, R, Clay & Fe Vn (7.86m) J, 35°, P, R, Clay Vn (7.96m) J, 85°, P, R, Fe Vn (8.15m) Be, 0°, P, R, Clay Ct (8.36m) J, 73 - 90°, C, R, Fe Ct (8.54m) J, 55°, P, R, Clay Ct (8.55m) XWS, 0°, 50 mm.t (9.05m) Be, 0°, P, R, Clay Vn (9.07m) Be, 0°, P, R, Clay Vn (9.38m) Jx 2, 50 - 90°, Fe Ct (9.52m) XWS, 0°, 50 mm.t (9.59m) Jx 2, 65°, Fe Ct (9.67m) XWS, 0°, 9 mm.t (9.75m) XWS, 0°, 25 mm.t (9.95m) J, 30°, P, R, Clay, 27 mm.t		Terrigal Formation		
			14	7				0.20								
			13	8				0.050 0.10								
			12	9				0.10 0.060								
			12	12	NO CORE 0.10m SANDSTONE: fine to medium grained, light grey, bedded at 0-10°.	HW	VL - L	0.070								

CORED BOREHOLE LOG

Client: 43 BEANE STREET PTY LTD
Project: PROPOSED RESIDENTIAL DEVELOPMENT
Location: 43-45 BEANE STREET, GOSFORD, NSW

Job No.: 37721P **Core Size:** NMLC **R.L. Surface:** ~21.8 m
Date: 4/7/25 **Inclination:** VERTICAL **Datum:** AHD
Plant Type: JK309 **Bearing:** N/A **Logged/Checked By:** J.L.O./P.W.

Water Loss/Level	Barrel Lift	RL (m AHD)	Depth (m)	Graphic Log	CORE DESCRIPTION Rock Type, grain characteristics, colour, texture and fabric, features, inclusions and minor components	Weathering	Strength	POINT LOAD STRENGTH INDEX $I_p(50)$	SPACING (mm)	DEFECT DETAILS		Formation
										DESCRIPTION	General	
100% RETURN			11		SANDSTONE: fine to coarse grained, brown grey, bedded at 0-10°.	SW	M - H	1.2		(10.07m) Be, 0°, P, R, Fe Ct		Terrigal Formation
			11					1.6				
			10					0.90		(11.30m) J, 50°, P, R, Fe Ct		
			12		SANDSTONE: fine to medium grained, light grey, bedded at 0-5°.	FR	H	0.70				
			9					1.1				
			13					1.5				
			8					1.1		(13.32m) J, 66°, P, R, Fe, 12 mm.t		
			14					2.1		(13.63m) J, 40°, P, R, Fe Ct		
			7					1.8				
			15					1.3				
			15					2.1				
			6		END OF BOREHOLE AT 15.09 m							
			16									
			5									

BOREHOLE LOG

Client: 43 BEANE STREET PTY LTD
Project: PROPOSED RESIDENTIAL DEVELOPMENT
Location: 43-45 BEANE STREET, GOSFORD, NSW

Job No.: 37721P **Method:** SPIRAL AUGER **R.L. Surface:** ~22.3 m
Date: 7/7/25 **Datum:** AHD
Plant Type: JK309 **Logged/Checked By:** J.L.O./P.W.

Groundwater Record	SAMPLES				Field Tests	RL (m AHD)	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel Density	Hand Penetrometer Readings (kPa)	Remarks
	ES	U50	DB	DS										
DRY ON COMPLETION OF AUGERING						22			CL	FILL: Gravelly silty sand, fine to coarse grained, dark grey, with fine to coarse grained sandstone gravel, and concrete and slag, trace of clay and root fibres. Silty CLAY: low plasticity, orange brown and light grey, trace of fine to medium grained sand.	M w<PL	Hd	>600 >600 >600	GRASS COVER RESIDUAL
					N > 21 6,12,9/ 50mm REFUSAL		1		-	Extremely Weathered sandstone: silty CLAY, low plasticity, light grey, with iron indurated bands, and occasional very low strength sandstone. SANDSTONE: fine to medium grained, light grey, with iron indurated bands and extremely weathered bands.	XW HW	Hd / EL VL		TERRIGAL FORMATION VERY LOW TO HARD 'TC' BIT OIL RESISTANCE VERY LOW RESISTANCE WITH MODERATE TO HIGH BANDS
						21								
						20								
						19	3			REFER TO CORED BOREHOLE LOG				Groundwater monitoring well installed to 16.2m. Class 18 machine slotted 50mm Dia. PVC standpipe 16.2m to 11.2m. Casing 0.1m to 11.2m. 2mm sand filter pack 16.2m to 10.6m. Bentonite seal 10.6m to 9.4m. Backfilled with sand and cuttings to the surface. Completed with a concreted gatic cover.
						18	4							Twin Well Groundwater monitoring well installed to 10.0m. Class 18 machine slotted 50mm Dia. PVC standpipe 10.0m to 4.0m. Casing 0.1m to 4.0m. 2mm sand filter pack 10.0m to 4.0m. Bentonite seal 4.0m to 1.0m. Backfilled with sand and cuttings to the surface. Completed with a concreted gatic cover.
						17	5							
						16	6							

CORED BOREHOLE LOG

Client: 43 BEANE STREET PTY LTD
Project: PROPOSED RESIDENTIAL DEVELOPMENT
Location: 43-45 BEANE STREET, GOSFORD, NSW

Job No.: 37721P **Core Size:** NMLC **R.L. Surface:** ~22.3 m
Date: 7/7/25 **Inclination:** VERTICAL **Datum:** AHD
Plant Type: JK309 **Bearing:** N/A **Logged/Checked By:** J.L.O./P.W.

Water Loss/Level	Barrel Lift	RL (m AHD)	Depth (m)	Graphic Log	CORE DESCRIPTION Rock Type, grain characteristics, colour, texture and fabric, features, inclusions and minor components	Weathering	Strength	POINT LOAD STRENGTH INDEX $I_p(50)$	SPACING (mm)	DEFECT DETAILS		Formation
										DESCRIPTION Type, orientation, defect shape and roughness, defect coatings and seams, openness and thickness	General	
		20			START CORING AT 2.62m							
			3		NO CORE 0.03m	HW	VL	0.030		(2.68m) Ji, 60° - 70°, Clay Vn (2.83m) Jx 2, 75° - 90°, Clay (2.96m) XWS, 0°, 80 mm.t (3.13m) J, 70° - 90°, Ir, C (3.19m) XWS, 0°, 150 mm.t		Terrigal Formation
		19			SANDSTONE: fine to medium grained, light grey and red brown, bedded at 0-5°.			0.070		(3.42m) CS, 40°, 14 mm.t (3.47m) CS, 40°, 24 mm.t (3.60m) Be, 5°, P, R, Fe (3.74m) XWS, 0°, 25 mm.t (3.85m) J x 2, 50° & 60°, P, R, Clay Vn		
		18	4				VL - L	0.070		(4.03m) J, 45°, C, R, Clay Vn (4.09m) J, 75°, P, R, Fe & Clay Vn		
								0.30		(4.31m) Jh, 70°, P, R, Fe Ct (4.34m) Be, 5°, P, R, Fe & Clay Vn (4.38m) Be, 0°, P, R, Fe & Clay Ct		
								0.30		(4.60m) Be, 0°, P, R, Clay, 4 mm.t (4.72m) Be, 0°, P, R, Clay, 3 mm.t (4.76m) Jh, 40°, P, R, Cn (4.86m) J and Jh, 30° & 75°, P, R, Fe Ct		
		17	5					0.060		(5.22m) J, 90°, P, R, Fe & Clay Vn		
			6		NO CORE 0.05m	HW	VL - L			(5.45m) J, 70° - 90°, C, R, Fe (5.62m) Be, 0°, P, R, Clay, 5 mm.t (5.72m) Jh, 37°, P, R, Fe Vn (5.73m) Jh, 37°, P, R, Fe Vn (5.80m) J, 72° - 90°, P, R, Fe (5.90m) Be, 0°, P, R, Clay Ct (5.96m) J, 50°, P, R, Fe Vn (6.08m) J, 73°, P, R, Fe & XWS, 25 mm.t (6.16m) XWS, 0°, 50 mm.t		
		16			SANDSTONE: fine to medium grained, light grey and brown, bedded at 0-5°, with occasional iron indurated and claystone bands and laminae.			0.30		(6.34m) Be, 0°, P, R, Clay Vn (6.50m) Be, 5°, P, R, Fe & Clay Vn (6.53m) Jhx 2, 77°, P, R, Fe (6.70m) Be, 5°, P, R, Clay Ct (6.80m) J, 60° - 75°, C, R, Fe Ct (6.92m) Jx 2, 73°, C, R, Fe & Clay Ct		
			7					0.030		(7.07m) J, 56°, P, R, Fe & Clay Ct (7.10m) J, 45°, P, R, Fe Ct		
		15						1.0		(7.44m) Be, 0°, P, R, Fe & Clay Ct (7.49m) Be, 0°, P, R, Fe & Clay Vn		
			8				VL	0.050		(7.74m) J, 38°, P, R, Cn (7.96m) Ji, 50°, P, R, Fe Vn (8.14m) Ji, 75°, P, R, Fe Vn		Terrigal Formation
		14						0.050		(8.33m) J, 55°, P, R, Fe Vn (8.40m) Be, 0°, P, R, Fe		
								0.050		(8.69m) Jh, 65° - 90°, C, R, Fe Vn (8.82m) J and Ji, 80° - 90°, P, Un, R, Fe Vn (8.88m) Be, 0°, P, R, Clay Ct		

CORED BOREHOLE LOG

Client: 43 BEANE STREET PTY LTD
Project: PROPOSED RESIDENTIAL DEVELOPMENT
Location: 43-45 BEANE STREET, GOSFORD, NSW

Job No.: 37721P **Core Size:** NMLC **R.L. Surface:** ~22.3 m
Date: 7/7/25 **Inclination:** VERTICAL **Datum:** AHD
Plant Type: JK309 **Bearing:** N/A **Logged/Checked By:** J.L.O./P.W.

80% RETURN													Terrigal Formation
Water Loss/Level	Barrel Lift	RL (m AHD)	Depth (m)	Graphic Log	CORE DESCRIPTION Rock Type, grain characteristics, colour, texture and fabric, features, inclusions and minor components	Weathering	Strength	POINT LOAD STRENGTH INDEX I _s (50)	SPACING (mm)	DEFECT DETAILS Type, orientation, defect shape and roughness, defect coatings and seams, openness and thickness		Formation	
								VL-0.1 L-0.3 M-1 H-3 VH-10 EH	600 200 60 20	Specific	General		
		13			SANDSTONE: fine to medium grained, grey and light grey, with siltstone laminae, bedded at 0-5°.	HW	VL	0.070		 (9.04m) Jx 2, 70 - 80°, P, R, Clay Ct  (9.06m) XWS, 0°, 20 mm.t  (9.10m) Be, 0°, P, R, Clay Ct  (9.24m) XWS, 0°, 15 mm.t			
					NO CORE 0.05m	HW	VL						
		10			SANDSTONE: fine to medium grained, grey and light grey, bedded at 0-10°.	HW	VL			 (9.75m) Jx 3, 90°, 35°, 80°, Ir, P, R  (9.79m) XWS, 0°, 60 mm.t  (9.90m) Jx 3, 77 - 90°, P, Cn  (9.94m) J, 72°, P, R, Clay Vn  (10.01m) J, 70 - 90°, P, R, Fe & Clay Ct  (10.17m) J, 33°, P, R, Clay Vn  (10.30m) XWS, 0°, 45 mm.t			
		12			SANDSTONE: fine to coarse grained, orange brown, bedded at 10-20°.	SW	H	1.2					
								1.3					
		11						1.2					
		11						1.4					
		12						1.8					
		10						0.80					
		13			SANDSTONE: fine to medium grained, grey and light grey, bedded at 0-5°.	FR		1.2					
		9						1.2					
								1.2			(13.59m) Be, 0°, P, R, Clay Vn		
		14						1.2			(13.90m) J, 40°, P, R, Cn		
		8						1.2			(14.29m) Be, 0°, P, R, Clay Vn		
								1.4					
		15						1.3					
		7						1.4					

JK 9.024 LIB GLB Log JK CORED BOREHOLE - MASTER 37721P GOSFORD.GPJ <-DrawingFile>> 25/07/2025 10:53 10.01.00.01 Dangel Lab and In Situ Tool - DGD | Lib: JK 9.024 2019-05-31 Proj: JK 9.01.0 2018-03-20

CORED BOREHOLE LOG

Client: 43 BEANE STREET PTY LTD												
Project: PROPOSED RESIDENTIAL DEVELOPMENT												
Location: 43-45 BEANE STREET, GOSFORD, NSW												
Job No.: 37721P					Core Size: NMLC			R.L. Surface: ~22.3 m				
Date: 7/7/25					Inclination: VERTICAL			Datum: AHD				
Plant Type: JK309					Bearing: N/A			Logged/Checked By: J.L.O./P.W.				
Water Loss/Level	Barrel Lift	RL (m AHD)	Depth (m)	Graphic Log	CORE DESCRIPTION Rock Type, grain characteristics, colour, texture and fabric, features, inclusions and minor components	Weathering	Strength	POINT LOAD STRENGTH INDEX I _s (50) VL-0.1 L-0.3 M-1 H-3 VH-10 EH	SPACING (mm) 600 200 60 20	DEFECT DETAILS		Formation
										DESCRIPTION Type, orientation, defect shape and roughness, defect coatings and seams, openness and thickness		
										Specific	General	
80% RETURN			6		SANDSTONE: fine to medium grained, grey and light grey, bedded at 0-5°. (continued)	FR	H	1.2 1.3 1.3 1.2 1.6 1.1 1.5 1.2 0.90	</			

BOREHOLE LOG

Client: 43 BEANE STREET PTY LTD
Project: PROPOSED RESIDENTIAL DEVELOPMENT
Location: 43-45 BEANE STREET, GOSFORD, NSW

Job No.: 37721P **Method:** SPIRAL AUGER **R.L. Surface:** ~23.0 m
Date: 8/7/25 **Datum:** AHD
Plant Type: JK309 **Logged/Checked By:** J.L.O./P.W.

Groundwater Record	SAMPLES				Field Tests	RL (m AHD)	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel Density	Hand Penetrometer Readings (kPa)	Remarks
	ES	U50	DB	DS										
DRY ON COMPLETION OF AUGERING										FILL: Silty clay, low to medium plasticity, trace of fine to coarse grained sandstone, concrete fragments and slag.	w-PL			GRASS COVER
					N = 8 2,4,4		1		CL-CI	Silty CLAY: low to medium plasticity, light grey and orange brown, with extremely weathered fabric.	w<PL	VSt - Hd	360 380 400	RESIDUAL
							2		-	Extremely Weathered sandstone: silty CLAY, low to medium plasticity, red brown and light grey, with very low strength bands, claystone and iron indurated bands.	XW	Hd		TERRIGAL FORMATION
							3							VERY LOW 'TC' BIT RESISTANCE WITH MODERATE RESISTANCE BANDS
														VERY LOW RESISTANCE
							4			REFER TO CORED BOREHOLE LOG				Groundwater monitoring well installed to 16.1m. Class 18 machine slotted 50mm Dia. PVC standpipe 16.1m to 12.18m. Casing 0.1m to 12.18m. 2mm sand filter pack 16.18m to 11.6m. Bentonite seal 11.6m to 10.6m. Backfilled with sand and cuttings to the surface. Completed with a concreted gatic cover.
							5							Twin Well Groundwater monitoring well installed to 7.8m. Class 18 machine slotted 50mm Dia. PVC standpipe 7.8m to 6.3m. Casing 0.1m to 6.3m. 2mm sand filter pack 7.8m to 6.0m. Bentonite seal 6.0m to 5.0m. Backfilled with sand.
							6							

CORED BOREHOLE LOG

Client: 43 BEANE STREET PTY LTD
Project: PROPOSED RESIDENTIAL DEVELOPMENT
Location: 43-45 BEANE STREET, GOSFORD, NSW

Job No.: 37721P **Core Size:** NMLC **R.L. Surface:** ~23.0 m
Date: 8/7/25 **Inclination:** VERTICAL **Datum:** AHD
Plant Type: JK309 **Bearing:** N/A **Logged/Checked By:** J.L.O./P.W.

Water Loss/Level	Barrel Lift	RL (m AHD)	Depth (m)	Graphic Log	CORE DESCRIPTION Rock Type, grain characteristics, colour, texture and fabric, features, inclusions and minor components	Weathering	Strength	POINT LOAD STRENGTH INDEX I _s (50)	DEFECT DETAILS		Formation
									SPACING (mm)	DESCRIPTION Type, orientation, defect shape and roughness, defect coatings and seams, openness and thickness	
0% RETURN											
70% RETURN											
80% RETURN											
AFTER 10 DAYS											
70% RETURN											
START CORING AT 3.50m											
NO CORE 0.20m											
19 4											
SANDSTONE: fine to medium grained, red brown, iron indurated.											
Extremely Weathered sandstone: silty CLAY, low plasticity, light grey and brown.											
SANDSTONE: fine grained, red brown, iron indurated, with extremely weathered and very low strength claystone bands and iron indurated bands, bedded at 0-5°.											
18 5											
17 6											
NO CORE 0.20m											
16 7											
SANDSTONE: fine grained, light grey and red brown, with extremely weathered and very low strength claystone bands, bedded at 0-5°.											
15 8											
NO CORE 0.24m											
14 9											
SANDSTONE: fine to medium grained, light grey, with siltstone lenses, bedded at 0-5°.											

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CORED BOREHOLE LOG

Client: 43 BEANE STREET PTY LTD												
Project: PROPOSED RESIDENTIAL DEVELOPMENT												
Location: 43-45 BEANE STREET, GOSFORD, NSW												
Job No.: 37721P				Core Size: NMLC				R.L. Surface: ~23.0 m				
Date: 8/7/25				Inclination: VERTICAL				Datum: AHD				
Plant Type: JK309				Bearing: N/A				Logged/Checked By: J.L.O./P.W.				
Water Loss/Level	Barrel Lift	RL (m AHD)	Depth (m)	Graphic Log	CORE DESCRIPTION Rock Type, grain characteristics, colour, texture and fabric, features, inclusions and minor components	Weathering	Strength	POINT LOAD STRENGTH INDEX I _s (50)	SPACING (mm)	DEFECT DETAILS		Formation
										Specific	General	
70% RETURN		12	11		SANDSTONE: fine to medium grained, light grey, with siltstone lenses, bedded at 0-5°. (continued)	MW	VL	0.080 0.10				



ENVIRONMENTAL LOGS EXPLANATION NOTES

INTRODUCTION

These notes have been provided to amplify the environmental report in regard to classification methods, field procedures and certain matters relating to the logging of soil and rock. Not all notes are necessarily relevant to all reports.

Where geotechnical borehole logs are utilised for environmental purpose, reference should also be made to the explanatory notes included in the geotechnical report. Environmental logs are not suitable for geotechnical purposes.

The ground is a product of continuing natural and man-made processes and therefore exhibits a variety of characteristics and properties which vary from place to place and can change with time. Environmental studies include gathering and assimilating limited facts about these characteristics and properties in order to understand or predict the behaviour of the ground on a particular site under certain conditions. This report may contain such facts obtained by inspection, excavation, probing, sampling, testing or other means of investigation. If so, they are directly relevant only to the ground at the place where and time when the investigation was carried out.

DESCRIPTION AND CLASSIFICATION METHODS

The methods of description and classification of soils and rocks used in this report are based on Australian Standard 1726:2017 'Geotechnical Site Investigations'. In general, descriptions cover the following properties – soil or rock type, colour, structure, strength or density, and inclusions. Identification and classification of soil and rock involves judgement and the Company infers accuracy only to the extent that is common in current geoenvironmental practice.

Soil types are described according to the predominating particle size and behaviour as set out in the attached soil classification table qualified by the grading of other particles present (eg. sandy clay) as set out below:

Soil Classification	Particle Size
Clay	< 0.002mm
Silt	0.002 to 0.075mm
Sand	0.075 to 2.36mm
Gravel	2.36 to 63mm
Cobbles	63 to 200mm
Boulders	> 200mm

Non-cohesive soils are classified on the basis of relative density, generally from the results of Standard Penetration Test (SPT) as below:

Relative Density	SPT 'N' Value (blows/300mm)
Very loose (VL)	< 4
Loose (L)	4 to 10
Medium dense (MD)	10 to 30
Dense (D)	30 to 50
Very Dense (VD)	> 50

Cohesive soils are classified on the basis of strength (consistency) either by use of a hand penetrometer, vane shear, laboratory testing and/or tactile engineering examination. The strength terms are defined as follows.

Classification	Unconfined Compressive Strength (kPa)	Indicative Undrained Shear Strength (kPa)
Very Soft (VS)	≤ 25	≤ 12
Soft (S)	> 25 and ≤ 50	> 12 and ≤ 25
Firm (F)	> 50 and ≤ 100	> 25 and ≤ 50
Stiff (St)	> 100 and ≤ 200	> 50 and ≤ 100
Very Stiff (VSt)	> 200 and ≤ 400	> 100 and ≤ 200
Hard (Hd)	> 400	> 200
Friable (Fr)	Strength not attainable – soil crumbles	

Rock types are classified by their geological names, together with descriptive terms regarding weathering, strength, defects, etc. Where relevant, further information regarding rock classification is given in the text of the report. In the Sydney Basin, 'shale' is used to describe fissile mudstone, with a weakness parallel to bedding. Rocks with alternating inter-laminations of different grain size (eg. siltstone/claystone and siltstone/fine grained sandstone) are referred to as 'laminite'.

INVESTIGATION METHODS

The following is a brief summary of investigation methods currently adopted by the Company and some comments on their use and application. All methods except test pits, hand auger drilling and portable Dynamic Cone Penetrometers require the use of a mechanical rig which is commonly mounted on a truck chassis or track base.

Test Pits: These are normally excavated with a backhoe or a tracked excavator, allowing close examination of the insitu soils and 'weaker' bedrock if it is safe to descend into the pit. The depth of penetration is limited to about 3m for a backhoe and up to 6m for a large excavator. Limitations of test pits are the problems associated with disturbance and difficulty of reinstatement and the consequent effects on close-by structures. Care must be taken if construction is to be carried out near test pit locations to either properly recompact the backfill during construction or to design and construct the

structure so as not to be adversely affected by poorly compacted backfill at the test pit location.

Hand Auger Drilling: A borehole of 50mm to 100mm diameter is advanced by manually operated equipment. Refusal of the hand auger can occur on a variety of materials such as obstructions within any fill, tree roots, hard clay, gravel or ironstone, cobbles and boulders, and does not necessarily indicate rock level.

Continuous Spiral Flight Augers: The borehole is advanced using 75mm to 115mm diameter continuous spiral flight augers, which are withdrawn at intervals to allow sampling and insitu testing. This is a relatively economical means of drilling in clays and in sands above the water table. Samples are returned to the surface by the flights or may be collected after withdrawal of the auger flights, but they can be very disturbed and layers may become mixed. Information from the auger sampling (as distinct from specific sampling by SPTs or undisturbed samples) is of limited reliability due to mixing or softening of samples by groundwater, or uncertainties as to the original depth of the samples. Augering below the groundwater table is of even lesser reliability than augering above the water table.

Rock Augering: Use can be made of a Tungsten Carbide (TC) bit for auger drilling into rock to indicate rock quality and continuity by variation in drilling resistance and from examination of recovered rock cuttings. This method of investigation is quick and relatively inexpensive but provides only an indication of the likely rock strength and predicted values may be in error by a strength order. Where rock strengths may have a significant impact on construction feasibility or costs, then further investigation by means of cored boreholes may be warranted.

Wash Boring: The borehole is usually advanced by a rotary bit, with water being pumped down the drill rods and returned up the annulus, carrying the drill cuttings. Only major changes in stratification can be assessed from the cuttings, together with some information from “feel” and rate of penetration.

Mud Stabilised Drilling: Either Wash Boring or Continuous Core Drilling can use drilling mud as a circulating fluid to stabilise the borehole. The term ‘mud’ encompasses a range of products ranging from bentonite to polymers. The mud tends to mask the cuttings and reliable identification is only possible from intermittent intact sampling (eg. from SPT and U50 samples) or from rock coring, etc.

Continuous Core Drilling: A continuous core sample is obtained using a diamond tipped core barrel. Provided full core recovery is achieved (which is not always possible in very low strength rocks and granular soils), this technique provides a very reliable (but relatively expensive) method of investigation. In rocks, NMLC or HQ triple tube core barrels, which give a core of about 50mm and 61mm diameter, respectively, is usually used with water flush. The length of core recovered is compared to the length drilled and any length not recovered is shown as NO CORE. The location of NO CORE recovery is determined on site by the supervising engineer; where the location is uncertain, the loss is placed at the bottom of the drill run.

Standard Penetration Tests: Standard Penetration Tests (SPT) are used mainly in non-cohesive soils, but can also be used in cohesive soils, as a means of indicating density or strength and also of obtaining a relatively undisturbed sample. The test procedure is

described in Australian Standard 1289.6.3.1–2004 (R2016) ‘*Methods of Testing Soils for Engineering Purposes, Soil Strength and Consolidation Tests – Determination of the Penetration Resistance of a Soil – Standard Penetration Test (SPT)*’.

The test is carried out in a borehole by driving a 50mm diameter split sample tube with a tapered shoe, under the impact of a 63.5kg hammer with a free fall of 760mm. It is normal for the tube to be driven in three successive 150mm increments and the ‘N’ value is taken as the number of blows for the last 300mm. In dense sands, very hard clays or weak rock, the full 450mm penetration may not be practicable and the test is discontinued.

The test results are reported in the following form:

- In the case where full penetration is obtained with successive blow counts for each 150mm of, say, 4, 6 and 7 blows, as

N = 13
4, 6, 7

- In a case where the test is discontinued short of full penetration, say after 15 blows for the first 150mm and 30 blows for the next 40mm, as

N > 30
15, 30/40mm

The results of the test can be related empirically to the engineering properties of the soil.

A modification to the SPT is where the same driving system is used with a solid 60° tipped steel cone of the same diameter as the SPT hollow sampler. The solid cone can be continuously driven for some distance in soft clays or loose sands, or may be used where damage would otherwise occur to the SPT. The results of this Solid Cone Penetration Test (SCPT) are shown as ‘N_c’ on the borehole logs, together with the number of blows per 150mm penetration.

LOGS

The borehole or test pit logs presented herein are an interpretation of the subsurface conditions, and their reliability will depend to some extent on the frequency of sampling and the method of drilling or excavation. Ideally, continuous undisturbed sampling or core drilling will enable the most reliable assessment, but is not always practicable or possible to justify on economic grounds. In any case, the boreholes or test pits represent only a very small sample of the total subsurface conditions.

The terms and symbols used in preparation of the logs are defined in the following pages.

Interpretation of the information shown on the logs, and its application to design and construction, should therefore take into account the spacing of boreholes or test pits, the method of drilling or excavation, the frequency of sampling and testing and the possibility of other than ‘straight line’ variations between the boreholes or test pits. Subsurface conditions between boreholes or test pits may vary significantly from conditions encountered at the borehole or test pit locations.

GROUNDWATER

Where groundwater levels are measured in boreholes, there are several potential problems:

- Although groundwater may be present, in low permeability soils it may enter the hole slowly or perhaps not at all during the time it is left open.
- A localised perched water table may lead to an erroneous indication of the true water table.
- Water table levels will vary from time to time with seasons or recent weather changes and may not be the same at the time of construction.
- The use of water or mud as a drilling fluid will mask any groundwater inflow. Water has to be blown out of the hole and drilling mud must be washed out of the hole or 'reverted' chemically if reliable water observations are to be made.

More reliable measurements can be made by installing standpipes which are read after the groundwater level has stabilised at intervals ranging from several days to perhaps weeks for low permeability soils. Piezometers, sealed in a particular stratum, may be advisable in low permeability soils or where there may be interference from perched water tables or surface water.

FILL

The presence of fill materials can often be determined only by the inclusion of foreign objects (eg. bricks, steel, etc) or by distinctly unusual colour, texture or fabric. Identification of the extent of fill materials will also depend on investigation methods and frequency. Where natural soils similar to those at the site are used for fill, it may be difficult with limited testing and sampling to reliably assess the extent of the fill.

The presence of fill materials is usually regarded with caution as the possible variation in density and material type is much greater than with natural soil deposits. Consequently, there is an increased risk of adverse environmental characteristics or behaviour. If the volume and nature of fill is of importance to a project, then frequent test pit excavations are preferable to boreholes.

LABORATORY TESTING

Laboratory testing has not been undertaken to confirm the soil classification and rock strengths indicated on the environmental logs unless noted in the report.

SYMBOL LEGENDS

SOIL



FILL



TOPSOIL



CLAY (CL, CI, CH)



SILT (ML, MH)



SAND (SP, SW)



GRAVEL (GP, GW)



SANDY CLAY (CL, CI, CH)



SILTY CLAY (CL, CI, CH)



CLAYEY SAND (SC)



SILTY SAND (SM)



GRAVELLY CLAY (CL, CI, CH)



CLAYEY GRAVEL (GC)



SANDY SILT (ML, MH)



PEAT AND HIGHLY ORGANIC SOILS (Pt)

ROCK



CONGLOMERATE



SANDSTONE



SHALE/MUDSTONE



SILTSTONE



CLAYSTONE



COAL



LAMINITE



LIMESTONE



PHYLLITE, SCHIST



TUFF



GRANITE, GABBRO



DOLERITE, DIORITE



BASALT, ANDESITE



QUARTZITE

OTHER MATERIALS



BRICKS OR PAVERS



CONCRETE



ASPHALTIC CONCRETE

CLASSIFICATION OF COARSE AND FINE GRAINED SOILS

Major Divisions		Group Symbol	Typical Names	Field Classification of Sand and Gravel	Laboratory Classification	
Coarse grained soil (more than 60% of soil excluding oversize fraction is greater than 0.075mm)	GRAVEL (more than half of coarse fraction is larger than 2.36mm)	GW	Gravel and gravel-sand mixtures, little or no fines	Wide range in grain size and substantial amounts of all intermediate sizes, not enough fines to bind coarse grains, no dry strength	≤ 5% fines	$C_u > 4$ $1 < C_c < 3$
		GP	Gravel and gravel-sand mixtures, little or no fines, uniform gravels	Predominantly one size or range of sizes with some intermediate sizes missing, not enough fines to bind coarse grains, no dry strength	≤ 5% fines	Fails to comply with above
		GM	Gravel-silt mixtures and gravel-sand-silt mixtures	‘Dirty’ materials with excess of non-plastic fines, zero to medium dry strength	≥ 12% fines, fines are silty	Fines behave as silt
		GC	Gravel-clay mixtures and gravel-sand-clay mixtures	‘Dirty’ materials with excess of plastic fines, medium to high dry strength	≥ 12% fines, fines are clayey	Fines behave as clay
	SAND (more than half of coarse fraction is smaller than 2.36mm)	SW	Sand and gravel-sand mixtures, little or no fines	Wide range in grain size and substantial amounts of all intermediate sizes, not enough fines to bind coarse grains, no dry strength	≤ 5% fines	$C_u > 6$ $1 < C_c < 3$
		SP	Sand and gravel-sand mixtures, little or no fines	Predominantly one size or range of sizes with some intermediate sizes missing, not enough fines to bind coarse grains, no dry strength	≤ 5% fines	Fails to comply with above
		SM	Sand-silt mixtures	‘Dirty’ materials with excess of non-plastic fines, zero to medium dry strength	≥ 12% fines, fines are silty	N/A
		SC	Sand-clay mixtures	‘Dirty’ materials with excess of plastic fines, medium to high dry strength	≥ 12% fines, fines are clayey	

Laboratory Classification Criteria

A well graded coarse grained soil is one for which the coefficient of uniformity $C_u > 4$ and the coefficient of curvature $1 < C_c < 3$. Otherwise, the soil is poorly graded. These coefficients are given by:

$$C_u = \frac{D_{60}}{D_{10}} \quad \text{and} \quad C_c = \frac{(D_{30})^2}{D_{10} D_{60}}$$

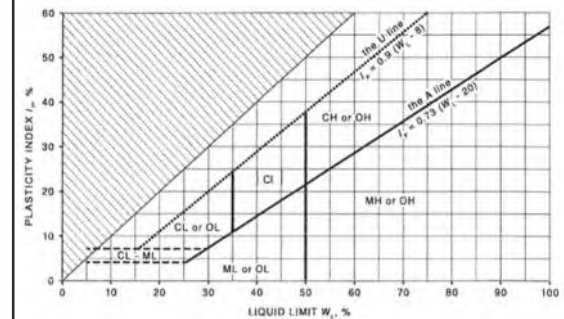
Where D_{10} , D_{30} and D_{60} are those grain sizes for which 10%, 30% and 60% of the soil grains, respectively, are smaller.

NOTES:

- For a coarse grained soil with a fines content between 5% and 12%, the soil is given a dual classification comprising the two group symbols separated by a dash; for example, for a poorly graded gravel with between 5% and 12% silt fines, the classification is GP-GM.
- Where the grading is determined from laboratory tests, it is defined by coefficients of curvature (C_c) and uniformity (C_u) derived from the particle size distribution curve.
- Clay soils with liquid limits $> 35\%$ and $\leq 50\%$ may be classified as being of medium plasticity.
- The U line on the Modified Casagrande Chart is an approximate upper bound for most natural soils.

Major Divisions		Group Symbol	Typical Names	Field Classification of Silt and Clay			Laboratory Classification
				Dry Strength	Dilatancy	Toughness	% < 0.075mm
fine grained soils (more than 35% of soil excluding oversize fraction is less than 0.075mm)	SILT and CLAY (low to medium plasticity)	ML	Inorganic silt and very fine sand, rock flour, silty or clayey fine sand or silt with low plasticity	None to low	Slow to rapid	Low	Below A line
		CL, CI	Inorganic clay of low to medium plasticity, gravelly clay, sandy clay	Medium to high	None to slow	Medium	Above A line
		OL	Organic silt	Low to medium	Slow	Low	Below A line
	SILT and CLAY (high plasticity)	MH	Inorganic silt	Low to medium	None to slow	Low to medium	Below A line
		CH	Inorganic clay of high plasticity	High to very high	None	High	Above A line
		OH	Organic clay of medium to high plasticity, organic silt	Medium to high	None to very slow	Low to medium	Below A line
	Highly organic soil	Pt	Peat, highly organic soil	—	—	—	—

Modified Casagrande Chart for Classifying Silts and Clays according to their Behaviour





LOG SYMBOLS

Log Column	Symbol	Definition		
Groundwater Record		Standing water level. Time delay following completion of drilling/excavation may be shown.		
		Extent of borehole/test pit collapse shortly after drilling/excavation.		
		Groundwater seepage into borehole or test pit noted during drilling or excavation.		
Samples	ES	Sample taken over depth indicated, for environmental analysis.		
	U50	Undisturbed 50mm diameter tube sample taken over depth indicated.		
	DB	Bulk disturbed sample taken over depth indicated.		
	DS	Small disturbed bag sample taken over depth indicated.		
	ASB	Soil sample taken over depth indicated, for asbestos analysis.		
	ASS	Soil sample taken over depth indicated, for acid sulfate soil analysis.		
	SAL	Soil sample taken over depth indicated, for salinity analysis.		
	PFAS	Soil sample taken over depth indicated, for analysis of Per- and Polyfluoroalkyl Substances.		
Field Tests	N = 17 4, 7, 10	Standard Penetration Test (SPT) performed between depths indicated by lines. Individual figures show blows per 150mm penetration. 'Refusal' refers to apparent hammer refusal within the corresponding 150mm depth increment.		
	N _c =	5	Solid Cone Penetration Test (SCPT) performed between depths indicated by lines. Individual figures show blows per 150mm penetration for 60° solid cone driven by SPT hammer. 'R' refers to apparent hammer refusal within the corresponding 150mm depth increment.	
		7		
		3R		
	VNS = 25 PID = 100	Vane shear reading in kPa of undrained shear strength. Photoionisation detector reading in ppm (soil sample headspace test).		
Moisture Condition (Fine Grained Soils) (Coarse Grained Soils)	w > PL	Moisture content estimated to be greater than plastic limit.		
	w ≈ PL	Moisture content estimated to be approximately equal to plastic limit.		
	w < PL	Moisture content estimated to be less than plastic limit.		
	w ≈ LL	Moisture content estimated to be near liquid limit.		
	w > LL	Moisture content estimated to be wet of liquid limit.		
	D	DRY – runs freely through fingers.		
	M	MOIST – does not run freely but no free water visible on soil surface.		
W	WET – free water visible on soil surface.			
Strength (Consistency) Cohesive Soils	VS	VERY SOFT – unconfined compressive strength ≤ 25kPa.		
	S	SOFT – unconfined compressive strength > 25kPa and ≤ 50kPa.		
	F	FIRM – unconfined compressive strength > 50kPa and ≤ 100kPa.		
	St	STIFF – unconfined compressive strength > 100kPa and ≤ 200kPa.		
	VSt	VERY STIFF – unconfined compressive strength > 200kPa and ≤ 400kPa.		
	Hd	HARD – unconfined compressive strength > 400kPa.		
	Fr	FRIABLE – strength not attainable, soil crumbles.		
	()	Bracketed symbol indicates estimated consistency based on tactile examination or other assessment.		
Density Index/ Relative Density (Cohesionless Soils)		Density Index (I_D) Range (%)	SPT 'N' Value Range (Blows/300mm)	
	VL	VERY LOOSE	≤ 15	0 – 4
	L	LOOSE	> 15 and ≤ 35	4 – 10
	MD	MEDIUM DENSE	> 35 and ≤ 65	10 – 30
	D	DENSE	> 65 and ≤ 85	30 – 50
	VD	VERY DENSE	> 85	> 50
	()	Bracketed symbol indicates estimated density based on ease of drilling or other assessment.		



Log Column	Symbol	Definition
Hand Penetrometer Readings	300 250	Measures reading in kPa of unconfined compressive strength. Numbers indicate individual test results on representative undisturbed material unless noted otherwise.
Remarks	'V' bit 'TC' bit T_{60} Soil Origin	Hardened steel 'V' shaped bit. Twin pronged tungsten carbide bit. Penetration of auger string in mm under static load of rig applied by drill head hydraulics without rotation of augers. The geological origin of the soil can generally be described as: RESIDUAL – soil formed directly from insitu weathering of the underlying rock. No visible structure or fabric of the parent rock. EXTREMELY WEATHERED – soil formed directly from insitu weathering of the underlying rock. Material is of soil strength but retains the structure and/or fabric of the parent rock. ALLUVIAL – soil deposited by creeks and rivers. ESTUARINE – soil deposited in coastal estuaries, including sediments caused by inflowing creeks and rivers, and tidal currents. MARINE – soil deposited in a marine environment. AEOLIAN – soil carried and deposited by wind. COLLUVIAL – soil and rock debris transported downslope by gravity, with or without the assistance of flowing water. Colluvium is usually a thick deposit formed from a landslide. The description 'slopewash' is used for thinner surficial deposits. LITTORAL – beach deposited soil.

Classification of Material Weathering

Term		Abbreviation		Definition
Residual Soil		RS		Material is weathered to such an extent that it has soil properties. Mass structure and material texture and fabric of original rock are no longer visible, but the soil has not been significantly transported.
Extremely Weathered		XW		Material is weathered to such an extent that it has soil properties. Mass structure and material texture and fabric of original rock are still visible.
Highly Weathered	Distinctly Weathered (Note 1)	HW	DW	The whole of the rock material is discoloured, usually by iron staining or bleaching to the extent that the colour of the original rock is not recognisable. Rock strength is significantly changed by weathering. Some primary minerals have weathered to clay minerals. Porosity may be increased by leaching, or may be decreased due to deposition of weathering products in pores.
Moderately Weathered		MW		The whole of the rock material is discoloured, usually by iron staining or bleaching to the extent that the colour of the original rock is not recognisable, but shows little or no change of strength from fresh rock.
Slightly Weathered		SW		Rock is partially discoloured with staining or bleaching along joints but shows little or no change of strength from fresh rock.
Fresh		FR		Rock shows no sign of decomposition of individual minerals or colour changes.

NOTE 1: The term 'Distinctly Weathered' is used where it is not practicable to distinguish between 'Highly Weathered' and 'Moderately Weathered' rock. 'Distinctly Weathered' is defined as follows: 'Rock strength usually changed by weathering. The rock may be highly discoloured, usually by iron staining. Porosity may be increased by leaching, or may be decreased due to deposition of weathering products in pores'. There is some change in rock strength.

Rock Material Strength Classification

Term	Abbreviation	Uniaxial Compressive Strength (MPa)	Guide to Strength	
			Point Load Strength Index $Is_{(50)}$ (MPa)	Field Assessment
Very Low Strength	VL	0.6 to 2	0.03 to 0.1	Material crumbles under firm blows with sharp end of pick; can be peeled with knife; too hard to cut a triaxial sample by hand. Pieces up to 30mm thick can be broken by finger pressure.
Low Strength	L	2 to 6	0.1 to 0.3	Easily scored with a knife; indentations 1mm to 3mm show in the specimen with firm blows of the pick point; has dull sound under hammer. A piece of core 150mm long by 50mm diameter may be broken by hand. Sharp edges of core may be friable and break during handling.
Medium Strength	M	6 to 20	0.3 to 1	Scored with a knife; a piece of core 150mm long by 50mm diameter can be broken by hand with difficulty.
High Strength	H	20 to 60	1 to 3	A piece of core 150mm long by 50mm diameter cannot be broken by hand but can be broken by a pick with a single firm blow; rock rings under hammer.
Very High Strength	VH	60 to 200	3 to 10	Hand specimen breaks with pick after more than one blow; rock rings under hammer.
Extremely High Strength	EH	> 200	> 10	Specimen requires many blows with geological pick to break through intact material; rock rings under hammer.



Appendix F: Laboratory Reports & COC Documents

CERTIFICATE OF ANALYSIS 385541

Client Details

Client	JK Environments
Attention	Katrina Taylor
Address	PO Box 976, North Ryde BC, NSW, 1670

Sample Details

Your Reference	<u>E37722PT, Gosford, NSW</u>
Number of Samples	14 Soil
Date samples received	10/07/2025
Date completed instructions received	10/07/2025

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	17/07/2025
Date of Issue	16/07/2025
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

Priya Samarawickrama, Senior Chemist
 Tabitha Roberts, Senior Chemist

Authorised By

Nancy Zhang, Laboratory Manager

Misc Inorg - Soil					
Our Reference		385541-1	385541-2	385541-10	385541-12
Your Reference	UNITS	BH1	BH1	BH3	BH3
Depth		0.1-0.2	0.9-1.0	0-0.2	1-1.2
Date Sampled		04/07/2025	04/07/2025	08/07/2025	08/07/2025
Type of sample		Soil	Soil	Soil	Soil
Date prepared	-	11/07/2025	11/07/2025	11/07/2025	11/07/2025
Date analysed	-	11/07/2025	11/07/2025	11/07/2025	11/07/2025
pH 1:5 soil:water	pH Units	5.8	4.7	7.0	4.8
Chloride, Cl 1:5 soil:water	mg/kg	<10	20	<10	<10
Sulphate, SO4 1:5 soil:water	mg/kg	160	41	26	36
Resistivity in soil*	ohm m	74	220	100	250

Texture and Salinity*					
Our Reference		385541-1	385541-2	385541-10	385541-12
Your Reference	UNITS	BH1	BH1	BH3	BH3
Depth		0.1-0.2	0.9-1.0	0-0.2	1-1.2
Date Sampled		04/07/2025	04/07/2025	08/07/2025	08/07/2025
Type of sample		Soil	Soil	Soil	Soil
Date prepared	-	11/07/2025	11/07/2025	11/07/2025	11/07/2025
Date analysed	-	11/07/2025	11/07/2025	11/07/2025	11/07/2025
Electrical Conductivity 1:5 soil:water	µS/cm	130	46	96	39
Texture Value	-	14	[NA]	8.0	8.5
Texture	-	SANDY LOAM	[NA]	LIGHT MEDIUM CLAY	LIGHT CLAY
ECe	dS/m	<2	[NA]	<2	<2
Class	-	NON SALINE	[NA]	NON SALINE	NON SALINE

CEC		
Our Reference		385541-2
Your Reference	UNITS	BH1
Depth		0.9-1.0
Date Sampled		04/07/2025
Type of sample		Soil
Date prepared	-	15/07/2025
Date analysed	-	15/07/2025
Exchangeable Ca	meq/100g	0.2
Exchangeable K	meq/100g	0.2
Exchangeable Mg	meq/100g	0.4
Exchangeable Na	meq/100g	<0.1
Cation Exchange Capacity	meq/100g	<1

Method ID	Methodology Summary
Inorg-001	pH - Measured using pH meter and electrode. Please note that the results for water analyses are indicative only, as analysis outside of the APHA storage times.
Inorg-002	Conductivity and Salinity - measured using a conductivity cell.
Inorg-002	Conductivity and Salinity - measured using a conductivity cell at 25oC in accordance with APHA 22nd ED 2510 and Rayment & Lyons. Resistivity is calculated from Conductivity (non NATA). Resistivity (calculated) may not correlate with results otherwise obtained using Resistivity-Current method, depending on the nature of the soil being analysed.
Inorg-081	Anions - a range of Anions are determined by Ion Chromatography, in accordance with APHA latest edition, 4110-B. Waters samples are filtered on receipt prior to analysis. Alternatively determined by colourimetry/turbidity using Discrete Analyser.
INORG-123	Determined using a "Texture by Feel" method.
Metals-020	Determination of exchangeable cations and cation exchange capacity in soils using 1M Ammonium Chloride exchange and ICP-OES analytical finish.

QUALITY CONTROL: Misc Inorg - Soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			11/07/2025	1	11/07/2025	11/07/2025		11/07/2025	[NT]
Date analysed	-			11/07/2025	1	11/07/2025	11/07/2025		11/07/2025	[NT]
pH 1:5 soil:water	pH Units		Inorg-001	[NT]	1	5.8	6.3	8	100	[NT]
Chloride, Cl 1:5 soil:water	mg/kg	10	Inorg-081	<10	1	<10	<10	0	91	[NT]
Sulphate, SO4 1:5 soil:water	mg/kg	10	Inorg-081	<10	1	160	140	13	95	[NT]
Resistivity in soil*	ohm m	1	Inorg-002	<1	1	74	66	11	[NT]	[NT]

QUALITY CONTROL: Texture and Salinity*					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			11/07/2025	[NT]	[NT]	[NT]	[NT]	11/07/2025	[NT]
Date analysed	-			11/07/2025	[NT]	[NT]	[NT]	[NT]	11/07/2025	[NT]
Electrical Conductivity 1:5 soil:water	µS/cm	1	Inorg-002	<1	[NT]	[NT]	[NT]	[NT]	99	[NT]

QUALITY CONTROL: CEC					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	385541-2
Date prepared	-			15/07/2025	[NT]	[NT]	[NT]	[NT]	15/07/2025	15/07/2025
Date analysed	-			15/07/2025	[NT]	[NT]	[NT]	[NT]	15/07/2025	15/07/2025
Exchangeable Ca	meq/100g	0.1	Metals-020	<0.1	[NT]	[NT]	[NT]	[NT]	91	95
Exchangeable K	meq/100g	0.1	Metals-020	<0.1	[NT]	[NT]	[NT]	[NT]	102	96
Exchangeable Mg	meq/100g	0.1	Metals-020	<0.1	[NT]	[NT]	[NT]	[NT]	92	93
Exchangeable Na	meq/100g	0.1	Metals-020	<0.1	[NT]	[NT]	[NT]	[NT]	82	83

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.

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.

Air volumes are typically provided by customers (often as flow rate(s) and sampling time(s) and/or simply volumes) sampled or exposure times (determines 'volume' passive badges are exposed to)). Hence in such circumstances the volume measurement is inevitably not covered by Envirolab's NATA accreditation. An exception may occur where Envirolab Newcastle does the sampling where accreditation exists for certain types of sampling and hence volume determination(s). Note air volumes are often used to determine concentrations for dust and/or analyses on filters, sorbents and in impingers. For canister sampling, the air volume is covered by Envirolab's NATA accreditation.

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.

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.

For Dust Deposit Gauge (DDG) analysis the sampling, sampling period and funnel exposure area do not fall under Envirolab's NATA accreditation (unless the Newcastle laboratory where responsible for the sampling), hence the annotation on the DDG units of reporting.

Urine Analysis - The BEI values listed are taken from the 2022 edition of "TLVs and BEIs Threshold Limits" by ACGIH.

SAMPLE RECEIPT ADVICE

Client Details

Client	JK Environments
Attention	Katrina Taylor

Sample Login Details

Your reference	E37722PT, Gosford, NSW
Envirolab Reference	385541
Date Sample Received	10/07/2025
Date Instructions Received	10/07/2025
Date Results Expected to be Reported	17/07/2025

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	14 Soil
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	19
Cooling Method	None
Sampling Date Provided	YES

Comments

Received bag labelled BH2/1.0-1.5 - assumed as BH2/1.2-1.5

Please direct any queries to:

Aileen Hie

Phone: 02 9910 6200
Fax: 02 9910 6201
Email: ahie@envirolab.com.au

Jacinta Hurst

Phone: 02 9910 6200
Fax: 02 9910 6201
Email: jhurst@envirolab.com.au

Analysis Underway, details on the following page:



Sample ID	Misc Inorg - Soil	Texture and Salinity*	CEC	On Hold
BH1-0.1-0.2	✓	✓		
BH1-0.9-1.0	✓	✓	✓	
BH1-1.9-2.0				✓
BH1-2.9-3.0				✓
BH1-3.9-4.0				✓
BH2-0-0.2				✓
BH2-0.3-0.5				✓
BH2-0.5-0.85				✓
BH2-1.2-1.5				✓
BH3-0-0.2	✓	✓		
BH3-0.5-0.95				✓
BH3-1-1.2	✓	✓		
BH3-1.3-1.5				✓
BH3-2.4-2.6				✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.

Requests for longer term sample storage must be received in writing.

Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.

TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

SAMPLE AND CHAIN OF CUSTODY FORM

TO: ENVIROLAB SERVICES PTY LTD 12 ASHLEY STREET CHATSWOOD NSW 2067 P: (02) 99106200 F: (02) 99106201 Attention: Aileen					JKE Job Number: E37722PT Date Results Required: STANDARD Page: 1 OF 1					FROM:  JKE Environments REAR OF 115 WICKS ROAD MACQUARIE PARK, NSW 2113 P: 02-9888 5000 F: 02-9888 5001 Attention: Katrina Taylor ktaylor@jkenvironments.com.au								
Location: Gosford, NSW					Sample Preserved in Esky on Ice													
Sampler: VR/JLO					Tests Required													
Date Sampled	Lab Ref:	Sample Number	Depth (m)	Sample Container	Sample Description	Aggression: pH, EC, Sulfate, Chloride, Resistivity	ECe (texture)	CEC										
4/07/2025	1	BH1	0.1-0.2	P	F: Gravelly Sandy Clay	X	X											
4/07/2025	2	BH1	0.9-1.0	P	Silty Clay	X		X										
4/07/2025	3	BH1	1.9-2.0	P	XW Sandstone													
4/07/2025	4	BH1	2.9-3.0	P	XW Sandstone													
4/07/2025	5	BH1	3.9-4.0	P	Sandstone													
7/07/2025	6	BH1	0-0.2	P	F: Gravelly Silty Sand													
7/07/2025	7	BH1	0.3-0.5	P	Silty Clay													
7/07/2025	8	BH2	0.5-0.85	P	Silty Clay													
7/07/2025	9	BH2	1.2-1.5	P	XW Sandstone													
8/07/2025	10	BH3	0-0.2	P	F: Silty Clay	X	X											
8/07/2025	11	BH1	0.5-0.95	P	Silty Clay													
8/07/2025	12	BH3	1-1.2	P	Silty Clay	X	X											
8/07/2025	13	BH3	1.3-1.5	P	XW Sandstone													
8/07/2025	14	BH3	2.4-2.6	P	XW Sandstone													
						 Envirolab Services 12 Ashley St Chatswood NSW 2067 Ph: (02) 9910 6200 Job No: 385541 Date Received: 10/7/25 Time Received: 1450 Received By: KC Temp: Cool/Ambient Cooling: Ice/Icepack Security: Intact/Broken/None												
Remarks (comments/detection limits required):						Sample Containers: G - 250mg Glass Jar A - Ziplock Asbestos Bag P - Plastic Bag												
Relinquished By: VR				Date: 10/7/25		Time: 12-30pm				Received By: ELS K. Chavez				Date: 10/7/25				

CERTIFICATE OF ANALYSIS 385689

Client Details

Client	JK Environments
Attention	Katrina Taylor
Address	PO Box 976, North Ryde BC, NSW, 1670

Sample Details

Your Reference	<u>E37722PT Gosford, NSW</u>
Number of Samples	5 Water
Date samples received	11/07/2025
Date completed instructions received	11/07/2025

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.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	18/07/2025
Date of Issue	18/07/2025
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

Jack Wallis, Senior Chemist
 Loren Bardwell, Development Chemist
 Nick Sarlamis, Assistant Operation Manager
 Sean McAlary, Senior Chemist
 Stuart Chen, Asbestos Approved Identifier/Report coordinator
 Tabitha Roberts, Senior Chemist
 Timothy Toll, Senior Chemist

Authorised By

Nancy Zhang, Laboratory Manager

VOCs in water				
Our Reference		385689-1	385689-2	385689-3
Your Reference	UNITS	MW1a	MW2a	MW3a
Date Sampled		11/07/2025	11/07/2025	11/07/2025
Type of sample		Water	Water	Water
Date Extracted	-	14/07/2025	14/07/2025	14/07/2025
Date Analysed	-	15/07/2025	15/07/2025	15/07/2025
Dichlorodifluoromethane	µg/L	<10	<10	<10
Chloromethane	µg/L	<10	<10	<10
Vinyl Chloride	µg/L	<10	<10	<10
Bromomethane	µg/L	<10	<10	<10
Chloroethane	µg/L	<10	<10	<10
Trichlorofluoromethane	µg/L	<10	<10	<10
1,1-Dichloroethene	µg/L	<1	<1	<1
Trans-1,2-dichloroethene	µg/L	<1	<1	<1
1,1-dichloroethane	µg/L	<1	<1	<1
Cis-1,2-dichloroethene	µg/L	<1	<1	<1
Bromochloromethane	µg/L	<1	<1	<1
Chloroform	µg/L	1	22	10
2,2-dichloropropane	µg/L	<1	<1	<1
1,2-dichloroethane	µg/L	<1	<1	<1
1,1,1-trichloroethane	µg/L	<1	<1	<1
1,1-dichloropropene	µg/L	<1	<1	<1
Cyclohexane	µg/L	<1	<1	<1
Carbon tetrachloride	µg/L	<1	<1	<1
Benzene	µg/L	<1	<1	<1
Dibromomethane	µg/L	<1	<1	<1
1,2-dichloropropane	µg/L	<1	<1	<1
Trichloroethene	µg/L	<1	<1	<1
Bromodichloromethane	µg/L	<1	<1	1
trans-1,3-dichloropropene	µg/L	<1	<1	<1
cis-1,3-dichloropropene	µg/L	<1	<1	<1
1,1,2-trichloroethane	µg/L	<1	<1	<1
Toluene	µg/L	<1	<1	<1
1,3-dichloropropane	µg/L	<1	<1	<1
Dibromochloromethane	µg/L	<1	<1	<1
1,2-dibromoethane	µg/L	<1	<1	<1
Tetrachloroethene	µg/L	<1	<1	<1
1,1,1,2-tetrachloroethane	µg/L	<1	<1	<1
Chlorobenzene	µg/L	<1	<1	<1
Ethylbenzene	µg/L	<1	<1	<1

VOCs in water				
Our Reference		385689-1	385689-2	385689-3
Your Reference	UNITS	MW1a	MW2a	MW3a
Date Sampled		11/07/2025	11/07/2025	11/07/2025
Type of sample		Water	Water	Water
Bromoform	µg/L	<1	<1	<1
m+p-xylene	µg/L	<2	<2	<2
Styrene	µg/L	<1	<1	<1
1,1,2,2-tetrachloroethane	µg/L	<1	<1	<1
o-xylene	µg/L	<1	<1	<1
1,2,3-trichloropropane	µg/L	<1	<1	<1
Isopropylbenzene	µg/L	<1	<1	<1
Bromobenzene	µg/L	<1	<1	<1
n-propyl benzene	µg/L	<1	<1	<1
2-chlorotoluene	µg/L	<1	<1	<1
4-chlorotoluene	µg/L	<1	<1	<1
1,3,5-trimethyl benzene	µg/L	<1	<1	<1
Tert-butyl benzene	µg/L	<1	<1	<1
1,2,4-trimethyl benzene	µg/L	<1	<1	<1
1,3-dichlorobenzene	µg/L	<1	<1	<1
Sec-butyl benzene	µg/L	<1	<1	<1
1,4-dichlorobenzene	µg/L	<1	<1	1
4-isopropyl toluene	µg/L	<1	<1	<1
1,2-dichlorobenzene	µg/L	<1	<1	<1
n-butyl benzene	µg/L	<1	<1	<1
1,2-dibromo-3-chloropropane	µg/L	<1	<1	<1
1,2,4-trichlorobenzene	µg/L	<1	<1	<1
Hexachlorobutadiene	µg/L	<1	<1	<1
1,2,3-trichlorobenzene	µg/L	<1	<1	<1
Surrogate Dibromofluoromethane	%	86	92	92
Surrogate Toluene-d8	%	99	99	99
Surrogate 4-Bromofluorobenzene	%	95	96	95

vTRH(C6-C10)/BTEXN in Water						
Our Reference		385689-1	385689-2	385689-3	385689-4	385689-5
Your Reference	UNITS	MW1a	MW2a	MW3a	WDUP1	TS1
Date Sampled		11/07/2025	11/07/2025	11/07/2025	11/07/2025	11/07/2025
Type of sample		Water	Water	Water	Water	Water
Date extracted	-	14/07/2025	14/07/2025	14/07/2025	14/07/2025	14/07/2025
Date analysed	-	15/07/2025	15/07/2025	15/07/2025	15/07/2025	15/07/2025
TRH C ₆ - C ₉	µg/L	<10	22	<10	19	[NA]
TRH C ₆ - C ₁₀	µg/L	<10	24	13	21	[NA]
TRH C ₆ - C ₁₀ less BTEX (F1)	µg/L	<10	24	13	21	[NA]
Benzene	µg/L	<1	<1	<1	<1	96%
Toluene	µg/L	<1	<1	<1	<1	100%
Ethylbenzene	µg/L	<1	<1	<1	<1	97%
m+p-xylene	µg/L	<2	<2	<2	<2	99%
o-xylene	µg/L	<1	<1	<1	<1	101%
Naphthalene	µg/L	<1	<1	<1	<1	[NA]
Surrogate Dibromofluoromethane	%	86	92	92	93	95
Surrogate Toluene-d8	%	99	99	99	100	99
Surrogate 4-Bromofluorobenzene	%	95	96	95	96	97

svTRH (C10-C40) in Water					
Our Reference		385689-1	385689-2	385689-3	385689-4
Your Reference	UNITS	MW1a	MW2a	MW3a	WDUP1
Date Sampled		11/07/2025	11/07/2025	11/07/2025	11/07/2025
Type of sample		Water	Water	Water	Water
Date extracted	-	14/07/2025	14/07/2025	14/07/2025	14/07/2025
Date analysed	-	15/07/2025	15/07/2025	15/07/2025	15/07/2025
TRH C ₁₀ - C ₁₄	µg/L	<50	68	<50	62
TRH C ₁₅ - C ₂₈	µg/L	<100	250	<100	240
TRH C ₂₉ - C ₃₆	µg/L	<100	<100	<100	<100
Total +ve TRH (C10-C36)	µg/L	<50	320	<50	300
TRH >C ₁₀ - C ₁₆	µg/L	<50	70	<50	65
TRH >C ₁₀ - C ₁₆ less Naphthalene (F2)	µg/L	<50	70	<50	65
TRH >C ₁₆ - C ₃₄	µg/L	<100	240	<100	240
TRH >C ₃₄ - C ₄₀	µg/L	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	µg/L	<50	310	<50	300
Surrogate o-Terphenyl	%	92	90	91	88

PAHs in Water					
Our Reference		385689-1	385689-2	385689-3	385689-4
Your Reference	UNITS	MW1a	MW2a	MW3a	WDUP1
Date Sampled		11/07/2025	11/07/2025	11/07/2025	11/07/2025
Type of sample		Water	Water	Water	Water
Date extracted	-	14/07/2025	14/07/2025	14/07/2025	14/07/2025
Date analysed	-	16/07/2025	16/07/2025	17/07/2025	16/07/2025
Naphthalene	µg/L	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	µg/L	<0.1	<0.1	<0.1	<0.1
Acenaphthene	µg/L	<0.1	<0.1	<0.1	<0.1
Fluorene	µg/L	<0.1	<0.1	<0.1	<0.1
Phenanthrene	µg/L	<0.1	<0.1	<0.1	<0.1
Anthracene	µg/L	<0.1	<0.1	<0.1	<0.1
Fluoranthene	µg/L	<0.1	<0.1	<0.1	<0.1
Pyrene	µg/L	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	µg/L	<0.1	<0.1	<0.1	<0.1
Chrysene	µg/L	<0.1	<0.1	<0.1	<0.1
Benzo(b,j+k)fluoranthene	µg/L	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	µg/L	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-c,d)pyrene	µg/L	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	µg/L	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	µg/L	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene TEQ	µg/L	<0.5	<0.5	<0.5	<0.5
Total +ve PAH's	µg/L	<0.1	<0.1	<0.1	<0.1
Surrogate <i>p</i> -Terphenyl-d14	%	86	80	88	78

All metals in water-dissolved					
Our Reference		385689-1	385689-2	385689-3	385689-4
Your Reference	UNITS	MW1a	MW2a	MW3a	WDUP1
Date Sampled		11/07/2025	11/07/2025	11/07/2025	11/07/2025
Type of sample		Water	Water	Water	Water
Date prepared	-	14/07/2025	14/07/2025	14/07/2025	14/07/2025
Date analysed	-	14/07/2025	14/07/2025	14/07/2025	14/07/2025
Arsenic-Dissolved	µg/L	<1	<1	<1	<1
Cadmium-Dissolved	µg/L	<0.1	<0.1	<0.1	<0.1
Chromium-Dissolved	µg/L	<1	<1	<1	<1
Copper-Dissolved	µg/L	<1	<1	<1	<1
Mercury-Dissolved	µg/L	<0.05	<0.05	<0.05	<0.05
Nickel-Dissolved	µg/L	4	4	4	4
Lead-Dissolved	µg/L	<1	<1	<1	<1
Zinc-Dissolved	µg/L	24	25	30	26
Aluminium-Dissolved	µg/L	30	<10	40	[NA]
Silver-Dissolved	µg/L	<1	<1	<1	[NA]
Antimony-Dissolved	µg/L	<1	<1	<1	[NA]
Barium-Dissolved	µg/L	64	52	33	[NA]
Beryllium-Dissolved	µg/L	<0.5	<0.5	<0.5	[NA]
Boron-Dissolved	µg/L	100	40	100	[NA]
Cobalt-Dissolved	µg/L	7	4	3	[NA]
Iron-Dissolved	µg/L	290	1,000	330	[NA]
Lithium-Dissolved	µg/L	9	15	16	[NA]
Manganese-Dissolved	µg/L	85	260	24	[NA]
Molybdenum-Dissolved	µg/L	<1	6	<1	[NA]
Selenium-Dissolved	µg/L	<1	<1	<1	[NA]
Strontium-Dissolved	µg/L	20	63	4	[NA]
Uranium-Dissolved	µg/L	<0.5	<0.5	<0.5	[NA]
Vanadium-Dissolved	µg/L	<1	<1	<1	[NA]

Metals in Waters - Acid extractable			
Our Reference		385689-1	385689-2
Your Reference	UNITS	MW1a	MW2a
Date Sampled		11/07/2025	11/07/2025
Type of sample		Water	Water
Date prepared	-	14/07/2025	14/07/2025
Date analysed	-	14/07/2025	14/07/2025
Phosphorus - Total	mg/L	<0.05	<0.05

Miscellaneous Inorganics				
Our Reference		385689-1	385689-2	385689-3
Your Reference	UNITS	MW1a	MW2a	MW3a
Date Sampled		11/07/2025	11/07/2025	11/07/2025
Type of sample		Water	Water	Water
Date prepared	-	11/07/2025	11/07/2025	11/07/2025
Date analysed	-	11/07/2025	11/07/2025	11/07/2025
Acidity as CaCO ₃	mg/L	69	16	60
pH	pH Units	5.7	6.9	5.3
Electrical Conductivity	µS/cm	260	370	270
Redox Potential*	mV	442	223	307
Dissolved Oxygen*	mg/L	7.8	7.8	7.9
Turbidity	NTU	[NT]	25	[NT]
Total Dissolved Solids (grav)	mg/L	110	240	480
Total Suspended Solids	mg/L	880	17	19,000
Total Organic Carbon	mg/L	2	7	5
Sodium Adsorption Ratio	-	3.0	2.9	4.5
Silica (Reactive - SiO ₂)	mg/L	38	7.8	42
Ammonia as N in water	mg/L	0.03	0.097	[NA]
Nitrate as N in water	mg/L	0.70	0.52	[NA]
Nitrite as N in water	mg/L	0.055	0.70	[NA]
NOx as N in water	mg/L	0.75	1.2	[NA]
Total Nitrogen in water	mg/L	0.8	1.5	[NA]
TKN in water	mg/L	<0.1	0.2	[NA]
Phosphate as P in water	mg/L	0.01	<0.005	[NA]
Organic Nitrogen as N	mg/L	<0.2	<0.2	[NA]

Ion Balance				
Our Reference		385689-1	385689-2	385689-3
Your Reference	UNITS	MW1a	MW2a	MW3a
Date Sampled		11/07/2025	11/07/2025	11/07/2025
Type of sample		Water	Water	Water
Date prepared	-	11/07/2025	11/07/2025	11/07/2025
Date analysed	-	11/07/2025	11/07/2025	11/07/2025
Calcium - Dissolved	mg/L	6.6	13	2
Potassium - Dissolved	mg/L	9.4	8.6	5.7
Sodium - Dissolved	mg/L	34	49	38
Magnesium - Dissolved	mg/L	2	5.2	2
Hardness (calc) equivalent CaCO ₃	mg/L	24	54	14
Hydroxide Alkalinity (OH ⁻) as CaCO ₃	mg/L	<5	<5	<5
Bicarbonate Alkalinity as CaCO ₃	mg/L	27	100	10
Carbonate Alkalinity as CaCO ₃	mg/L	<5	<5	<5
Total Alkalinity as CaCO ₃	mg/L	27	100	10
Sulphate, SO ₄	mg/L	25	33	32
Chloride, Cl	mg/L	31	26	30
Ionic Balance	%	5.0	0	10

Microbiologocal Testing			
Our Reference		385689-1	385689-2
Your Reference	UNITS	MW1a	MW2a
Date Sampled		11/07/2025	11/07/2025
Type of sample		Water	Water
Date of testing	-	12/07/2025	12/07/2025
E. coli	cfu/100mL	<10	<100
Thermotolerant Coliforms	cfu/100mL	<10	<100

PFAS in Waters Trace Extended				
Our Reference		385689-1	385689-2	385689-3
Your Reference	UNITS	MW1a	MW2a	MW3a
Date Sampled		11/07/2025	11/07/2025	11/07/2025
Type of sample		Water	Water	Water
Date prepared	-	16/07/2025	16/07/2025	16/07/2025
Date analysed	-	16/07/2025	16/07/2025	16/07/2025
Perfluorobutanesulfonic acid	µg/L	0.002	0.002	0.0008
Perfluoropentanesulfonic acid	µg/L	<0.001	<0.001	<0.001
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.0032	0.0008	0.0005
Perfluoroheptanesulfonic acid	µg/L	<0.001	<0.001	<0.001
Perfluorooctanesulfonic acid PFOS	µg/L	0.0088	0.0022	0.001
Perfluorodecanesulfonic acid	µg/L	<0.002	<0.002	<0.002
Perfluorobutanoic acid	µg/L	<0.002	<0.01	<0.004
Perfluoropentanoic acid	µg/L	<0.002	<0.004	0.008
Perfluorohexanoic acid	µg/L	0.001	0.0005	0.004
Perfluoroheptanoic acid	µg/L	0.0009	<0.002	0.0007
Perfluorooctanoic acid PFOA	µg/L	0.0047	0.0031	0.001
Perfluorononanoic acid	µg/L	<0.001	<0.001	<0.001
Perfluorodecanoic acid	µg/L	<0.002	<0.002	<0.002
Perfluoroundecanoic acid	µg/L	<0.002	<0.002	<0.002
Perfluorododecanoic acid	µg/L	<0.005	<0.005	<0.005
Perfluorotridecanoic acid	µg/L	<0.01	<0.01	<0.01
Perfluorotetradecanoic acid	µg/L	<0.05	<0.05	<0.05
4:2 FTS	µg/L	<0.001	<0.001	<0.001
6:2 FTS	µg/L	0.002	<0.0004	0.020
8:2 FTS	µg/L	<0.0004	<0.0004	<0.0004
10:2 FTS	µg/L	<0.002	<0.002	<0.002
Perfluorooctane sulfonamide	µg/L	<0.01	<0.02	<0.01
N-Methyl perfluorooctane sulfonamide	µg/L	<0.05	<0.05	<0.05
N-Ethyl perfluorooctanesulfonamide	µg/L	<0.1	<0.1	<0.1
N-Me perfluorooctanesulfonamid oethanol	µg/L	<0.05	<0.05	<0.05
N-Et perfluorooctanesulfonamid oethanol	µg/L	<0.5	<0.5	<0.5
MePerfluorooctanesulf-amid oacetic acid	µg/L	<0.002	<0.002	<0.002
EtPerfluorooctanesulf- amid oacetic acid	µg/L	<0.002	<0.002	<0.002
Surrogate ¹³ C ₈ PFOS	%	104	101	97
Surrogate ¹³ C ₂ PFOA	%	92	80	89
Extracted ISTD ¹³ C ₃ PFBS	%	58	59	60
Extracted ISTD ¹⁸ O ₂ PFHxS	%	74	66	73
Extracted ISTD ¹³ C ₄ PFOS	%	68	81	80
Extracted ISTD ¹³ C ₄ PFBA	%	42	#	34

PFAS in Waters Trace Extended				
Our Reference		385689-1	385689-2	385689-3
Your Reference	UNITS	MW1a	MW2a	MW3a
Date Sampled		11/07/2025	11/07/2025	11/07/2025
Type of sample		Water	Water	Water
Extracted ISTD ¹³ C ₃ PFPeA	%	50	36	46
Extracted ISTD ¹³ C ₂ PFHxA	%	93	84	96
Extracted ISTD ¹³ C ₄ PFHpA	%	72	27	75
Extracted ISTD ¹³ C ₄ PFOA	%	85	57	91
Extracted ISTD ¹³ C ₅ PFNA	%	79	75	91
Extracted ISTD ¹³ C ₂ PFDA	%	73	73	82
Extracted ISTD ¹³ C ₂ PFUnDA	%	81	84	86
Extracted ISTD ¹³ C ₂ PFDoDA	%	75	106	84
Extracted ISTD ¹³ C ₂ PFTeDA	%	79	95	83
Extracted ISTD ¹³ C ₂ 4:2FTS	%	82	93	91
Extracted ISTD ¹³ C ₂ 6:2FTS	%	101	#	170
Extracted ISTD ¹³ C ₂ 8:2FTS	%	107	187	148
Extracted ISTD ¹³ C ₈ FOSA	%	68	34	49
Extracted ISTD d ₃ N MeFOSA	%	104	102	106
Extracted ISTD d ₅ N EtFOSA	%	104	105	107
Extracted ISTD d ₇ N MeFOSE	%	105	111	106
Extracted ISTD d ₉ N EtFOSE	%	106	104	108
Extracted ISTD d ₃ N MeFOSAA	%	83	87	94
Extracted ISTD d ₅ N EtFOSAA	%	123	117	152
Total Positive PFHxS & PFOS	µg/L	0.012	0.0030	0.001
Total Positive PFOS & PFOA	µg/L	0.014	0.0053	0.002
Total Positive PFAS	µg/L	0.022	0.0083	0.036

Method ID	Methodology Summary
Ext-008	Subcontracted to Sonic Food & Water Testing. NATA Accreditation No. 4034.
Inorg-001	pH - Measured using pH meter and electrode. Please note that the results for water analyses are indicative only, as analysis outside of the APHA storage times.
Inorg-002	Conductivity and Salinity - measured using a conductivity cell.
Inorg-005	Acidity - determined titrimetrically in accordance with APHA latest Edition, 2310-B.
Inorg-006	Alkalinity - determined titrimetrically in accordance with APHA latest edition, 2320-B.
Inorg-018	Total Dissolved Solids - determined gravimetrically. The solids are dried at 180+/-10°C. NOTE: Where the EC of the sample is <100µS/cm, the TDS will typically be below 70mg/L (as the sample is very likely to be at least drinking water quality). Therefore to ensure data quality for TDS, the TDS is typically calculated as per the equation below:- $\text{TDS} = \text{EC} * 0.6$
Inorg-019	Suspended Solids - determined gravimetrically by filtration of the sample. The samples are dried at 104+/-5°C.
Inorg-022	Turbidity - measured nephelometrically using a turbidimeter, in accordance with APHA latest edition, 2130-B.
Inorg-035	Analysed using an electrode. Please note that the results for water analyses are indicative only, samples are ideally analysed on collection.
Inorg-040	The concentrations of the major ions (mg/L) are converted to milliequivalents and summed. The ionic balance should be within +/- 15% ie total anions = total cations +/-15%.
Inorg-055	Nitrate - determined colourimetrically. Waters samples are filtered on receipt prior to analysis. Soils are analysed following a water extraction.
Inorg-055	Nitrite - determined colourimetrically based on APHA latest edition NO2- B. Waters samples are filtered on receipt prior to analysis. Soils are analysed following a water extraction.
Inorg-055/062/127	Total Nitrogen - Calculation sum of TKN and oxidised Nitrogen. Alternatively analysed by combustion and chemiluminescence.
Inorg-057	Ammonia - determined colourimetrically, based on APHA latest edition 4500-NH3 F. Waters samples are filtered on receipt prior to analysis. Soils are analysed following a KCl extraction.
Inorg-060	Phosphate determined colourimetrically based on EPA365.1 and APHA latest edition 4500 P E. Waters samples are filtered on receipt prior to analysis. Soils are analysed following a water extraction.
Inorg-062	TKN - determined colourimetrically based on APHA latest edition 4500 Norg. Alternatively, TKN can be derived from calculation (Total N - NOx).
Inorg-079	TOC determined using a TOC analyser using the combustion method. Dissolved requires filtering prior to determination. Analysis using APHA latest edition 5310B.
Inorg-081	Anions - a range of Anions are determined by Ion Chromatography, in accordance with APHA latest edition, 4110-B. Waters samples are filtered on receipt prior to analysis. Alternatively determined by colourimetry/turbidity using Discrete Analyser.
Inorg-112	Dissolved Oxygen using membrane electrode. Note this analysis should ideally be carried out immediately after sampling.
INORG-120	Reactive Silica (SiO2) determined colorimetrically. Waters samples are filtered on receipt prior to analysis.

Method ID	Methodology Summary
Metals-020	Determination of various metals by ICP-AES. Total Phosphate determined stoichiometrically from Phosphorus (assumed to be present as Phosphate). Where salts (oxides, chlorides etc.) are calculated from the element concentration stoichiometrically there is no guarantee that the salt form is completely soluble in the acids used in the preparation. Submission of low masses of sample e.g. for dust samples, may result in raised PQLs.
Metals-020	Calcium and Magnesium analysed by ICP-AES and SAR calculated.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Metals-022	Determination of various metals by ICP-MS. Please note for Bromine and Iodine, any forms of these elements that are present are included together in the one result reported for each of these two elements. Where salts (oxides, chlorides etc.) are calculated from the element concentration stoichiometrically there is no guarantee that the salt form is completely soluble in the acids used in the preparation.
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-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013.
Org-023	Water samples are analysed directly 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)-BTX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-029	Soil samples are extracted with basified Methanol. Waters and soil extracts are directly injected and/or concentrated/extracted using SPE. TCLPs/ASLP leachates are centrifuged, the supernatant is then analysed (including amendment with solvent) - as per the option in AS4439.3. Analysis is undertaken with LC-MS/MS. PFAS results include the sum of branched and linear isomers where applicable. Please note that PFAS results are corrected for Extracted Internal Standards (QSM terminology), which are mass labelled analytes added prior to sample preparation to assess matrix effects and verify processing of the sample. PFAS analytes without a commercially available mass labelled analogue are corrected vs a closely eluting mass labelled PFAS compound. Surrogates are also reported, in this context they are mass labelled PFAS compounds added prior to extraction but are used as monitoring compounds only (not used for result correction). Envicarb (or similar) is used discretionally to remove interfering matrix components. Please contact the laboratory if estimates of Measurement Uncertainty are required as per WA DER.

QUALITY CONTROL: VOCs in water					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W3	[NT]
Date Extracted	-			14/07/2025	1	14/07/2025	15/07/2025		14/07/2025	[NT]
Date Analysed	-			15/07/2025	1	15/07/2025	16/07/2025		15/07/2025	[NT]
Dichlorodifluoromethane	µg/L	10	Org-023	<10	1	<10	<10	0	[NT]	[NT]
Chloromethane	µg/L	10	Org-023	<10	1	<10	<10	0	[NT]	[NT]
Vinyl Chloride	µg/L	10	Org-023	<10	1	<10	<10	0	[NT]	[NT]
Bromomethane	µg/L	10	Org-023	<10	1	<10	<10	0	[NT]	[NT]
Chloroethane	µg/L	10	Org-023	<10	1	<10	<10	0	[NT]	[NT]
Trichlorofluoromethane	µg/L	10	Org-023	<10	1	<10	<10	0	[NT]	[NT]
1,1-Dichloroethene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Trans-1,2-dichloroethene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,1-dichloroethane	µg/L	1	Org-023	<1	1	<1	<1	0	101	[NT]
Cis-1,2-dichloroethene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Bromochloromethane	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Chloroform	µg/L	1	Org-023	<1	1	1	1	0	97	[NT]
2,2-dichloropropane	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,2-dichloroethane	µg/L	1	Org-023	<1	1	<1	<1	0	95	[NT]
1,1,1-trichloroethane	µg/L	1	Org-023	<1	1	<1	<1	0	95	[NT]
1,1-dichloropropene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Cyclohexane	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Carbon tetrachloride	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Benzene	µg/L	1	Org-023	<1	1	<1	<1	0	101	[NT]
Dibromomethane	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,2-dichloropropane	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Trichloroethene	µg/L	1	Org-023	<1	1	<1	<1	0	102	[NT]
Bromodichloromethane	µg/L	1	Org-023	<1	1	<1	<1	0	101	[NT]
trans-1,3-dichloropropene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
cis-1,3-dichloropropene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,1,2-trichloroethane	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Toluene	µg/L	1	Org-023	<1	1	<1	<1	0	105	[NT]
1,3-dichloropropane	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Dibromochloromethane	µg/L	1	Org-023	<1	1	<1	<1	0	102	[NT]
1,2-dibromoethane	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Tetrachloroethene	µg/L	1	Org-023	<1	1	<1	<1	0	100	[NT]
1,1,1,2-tetrachloroethane	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Chlorobenzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Ethylbenzene	µg/L	1	Org-023	<1	1	<1	<1	0	103	[NT]
Bromoform	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
m+p-xylene	µg/L	2	Org-023	<2	1	<2	<2	0	104	[NT]
Styrene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,1,2,2-tetrachloroethane	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]

QUALITY CONTROL: VOCs in water					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W3	[NT]
o-xylene	µg/L	1	Org-023	<1	1	<1	<1	0	103	[NT]
1,2,3-trichloropropane	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Isopropylbenzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Bromobenzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
n-propyl benzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
2-chlorotoluene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
4-chlorotoluene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,3,5-trimethyl benzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Tert-butyl benzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,2,4-trimethyl benzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,3-dichlorobenzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Sec-butyl benzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,4-dichlorobenzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
4-isopropyl toluene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,2-dichlorobenzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
n-butyl benzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,2-dibromo-3-chloropropane	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,2,4-trichlorobenzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Hexachlorobutadiene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
1,2,3-trichlorobenzene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-023	84	1	86	92	7	99	[NT]
Surrogate Toluene-d8	%		Org-023	99	1	99	99	0	100	[NT]
Surrogate 4-Bromofluorobenzene	%		Org-023	95	1	95	96	1	98	[NT]

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Water					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W3	[NT]
Date extracted	-			14/07/2025	1	14/07/2025	15/07/2025		14/07/2025	[NT]
Date analysed	-			15/07/2025	1	15/07/2025	16/07/2025		15/07/2025	[NT]
TRH C ₆ - C ₉	µg/L	10	Org-023	<10	1	<10	<10	0	103	[NT]
TRH C ₆ - C ₁₀	µg/L	10	Org-023	<10	1	<10	<10	0	103	[NT]
Benzene	µg/L	1	Org-023	<1	1	<1	<1	0	101	[NT]
Toluene	µg/L	1	Org-023	<1	1	<1	<1	0	105	[NT]
Ethylbenzene	µg/L	1	Org-023	<1	1	<1	<1	0	103	[NT]
m+p-xylene	µg/L	2	Org-023	<2	1	<2	<2	0	104	[NT]
o-xylene	µg/L	1	Org-023	<1	1	<1	<1	0	103	[NT]
Naphthalene	µg/L	1	Org-023	<1	1	<1	<1	0	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-023	84	1	86	92	7	99	[NT]
Surrogate Toluene-d8	%		Org-023	99	1	99	99	0	100	[NT]
Surrogate 4-Bromofluorobenzene	%		Org-023	95	1	95	96	1	98	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Water					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
Date extracted	-			14/07/2025	[NT]	[NT]	[NT]	[NT]	14/07/2025	[NT]
Date analysed	-			15/07/2025	[NT]	[NT]	[NT]	[NT]	15/07/2025	[NT]
TRH C ₁₀ - C ₁₄	µg/L	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	133	[NT]
TRH C ₁₅ - C ₂₈	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	135	[NT]
TRH C ₂₉ - C ₃₆	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	124	[NT]
TRH >C ₁₀ - C ₁₆	µg/L	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	133	[NT]
TRH >C ₁₆ - C ₃₄	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	135	[NT]
TRH >C ₃₄ - C ₄₀	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	124	[NT]
Surrogate o-Terphenyl	%		Org-020	99	[NT]	[NT]	[NT]	[NT]	87	[NT]

QUALITY CONTROL: PAHs in Water					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
Date extracted	-			14/07/2025	[NT]	[NT]	[NT]	[NT]	14/07/2025	[NT]
Date analysed	-			16/07/2025	[NT]	[NT]	[NT]	[NT]	16/07/2025	[NT]
Naphthalene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	82	[NT]
Acenaphthylene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Acenaphthene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	90	[NT]
Fluorene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	84	[NT]
Phenanthrene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	84	[NT]
Anthracene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluoranthene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	84	[NT]
Pyrene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	88	[NT]
Benzo(a)anthracene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chrysene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	74	[NT]
Benzo(b,j+k)fluoranthene	µg/L	0.2	Org-022/025	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(a)pyrene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	78	[NT]
Indeno(1,2,3-c,d)pyrene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dibenzo(a,h)anthracene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	91	[NT]	[NT]	[NT]	[NT]	92	[NT]

QUALITY CONTROL: All metals in water-dissolved					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W3	[NT]
Date prepared	-			14/07/2025	1	14/07/2025	14/07/2025		14/07/2025	[NT]
Date analysed	-			14/07/2025	1	14/07/2025	14/07/2025		14/07/2025	[NT]
Arsenic-Dissolved	µg/L	1	Metals-022	<1	1	<1	<1	0	95	[NT]
Cadmium-Dissolved	µg/L	0.1	Metals-022	<0.1	1	<0.1	<0.1	0	95	[NT]
Chromium-Dissolved	µg/L	1	Metals-022	<1	1	<1	<1	0	84	[NT]
Copper-Dissolved	µg/L	1	Metals-022	<1	1	<1	<1	0	89	[NT]
Mercury-Dissolved	µg/L	0.05	Metals-021	<0.05	1	<0.05	<0.05	0	92	[NT]
Nickel-Dissolved	µg/L	1	Metals-022	<1	1	4	4	0	89	[NT]
Lead-Dissolved	µg/L	1	Metals-022	<1	1	<1	<1	0	101	[NT]
Zinc-Dissolved	µg/L	1	Metals-022	<1	1	24	20	18	88	[NT]
Aluminium-Dissolved	µg/L	10	Metals-022	<10	1	30	30	0	97	[NT]
Silver-Dissolved	µg/L	1	Metals-022	<1	1	<1	<1	0	99	[NT]
Antimony-Dissolved	µg/L	1	Metals-022	<1	1	<1	<1	0	83	[NT]
Barium-Dissolved	µg/L	1	Metals-022	<1	1	64	55	15	90	[NT]
Beryllium-Dissolved	µg/L	0.5	Metals-022	<0.5	1	<0.5	<0.5	0	96	[NT]
Boron-Dissolved	µg/L	20	Metals-022	<20	1	100	80	22	97	[NT]
Cobalt-Dissolved	µg/L	1	Metals-022	<1	1	7	6	15	88	[NT]
Iron-Dissolved	µg/L	10	Metals-022	<10	1	290	250	15	83	[NT]
Lithium-Dissolved	µg/L	1	Metals-022	<1	1	9	8	12	98	[NT]
Manganese-Dissolved	µg/L	5	Metals-022	<5	1	85	75	12	80	[NT]
Molybdenum-Dissolved	µg/L	1	Metals-022	<1	1	<1	<1	0	94	[NT]
Selenium-Dissolved	µg/L	1	Metals-022	<1	1	<1	<1	0	93	[NT]
Strontium-Dissolved	µg/L	1	Metals-022	<1	1	20	18	11	80	[NT]
Uranium-Dissolved	µg/L	0.5	Metals-022	<0.5	1	<0.5	<0.5	0	100	[NT]
Vanadium-Dissolved	µg/L	1	Metals-022	<1	1	<1	<1	0	84	[NT]

QUALITY CONTROL: Metals in Waters - Acid extractable					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	385689-2
Date prepared	-			14/07/2025	1	14/07/2025	14/07/2025		14/07/2025	14/07/2025
Date analysed	-			14/07/2025	1	14/07/2025	14/07/2025		14/07/2025	14/07/2025
Phosphorus - Total	mg/L	0.05	Metals-020	<0.05	1	<0.05	<0.05	0	98	95

QUALITY CONTROL: Miscellaneous Inorganics						Duplicate		Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	385689-2
Date prepared	-			11/07/2025	1	11/07/2025	11/07/2025		11/07/2025	11/07/2025
Date analysed	-			11/07/2025	1	11/07/2025	11/07/2025		11/07/2025	11/07/2025
Acidity as CaCO ₃	mg/L	5	Inorg-005	<5	1	69	[NT]		102	[NT]
pH	pH Units		Inorg-001	[NT]	1	5.7	5.7	0	100	[NT]
Electrical Conductivity	µS/cm	1	Inorg-002	<1	1	260	260	0	99	[NT]
Redox Potential*	mV		Inorg-035	[NT]	1	442	[NT]		102	[NT]
Dissolved Oxygen*	mg/L	0.1	Inorg-112	<0.1	1	7.8	[NT]		[NT]	[NT]
Turbidity	NTU	0.1	Inorg-022	<0.1	1	[NT]	[NT]		99	[NT]
Total Dissolved Solids (grav)	mg/L	5	Inorg-018	<5	1	110	[NT]		82	[NT]
Total Suspended Solids	mg/L	5	Inorg-019	<5	1	880	[NT]		88	[NT]
Total Organic Carbon	mg/L	1	Inorg-079	<1	1	2	[NT]		92	[NT]
Sodium Adsorption Ratio	-	0.01	Metals-020	[NT]	1	3.0	[NT]		102	[NT]
Silica (Reactive - SiO ₂)	mg/L	0.1	INORG-120	<0.1	1	38	39	3	88	91
Ammonia as N in water	mg/L	0.005	Inorg-057	<0.005	1	0.03	[NT]		103	[NT]
Nitrate as N in water	mg/L	0.005	Inorg-055	<0.005	1	0.70	[NT]		99	[NT]
Nitrite as N in water	mg/L	0.005	Inorg-055	<0.005	1	0.055	[NT]		92	[NT]
NOx as N in water	mg/L	0.005	Inorg-055	<0.005	1	0.75	[NT]		99	[NT]
Total Nitrogen in water	mg/L	0.1	Inorg-055/062/127	<0.1	1	0.8	[NT]		106	[NT]
TKN in water	mg/L	0.1	Inorg-062	<0.1	1	<0.1	[NT]		[NT]	[NT]
Phosphate as P in water	mg/L	0.005	Inorg-060	<0.005	1	0.01	[NT]		108	[NT]
Organic Nitrogen as N	mg/L	0.2	Inorg-055/062/127	<0.2	1	<0.2	[NT]		[NT]	[NT]

QUALITY CONTROL: Ion Balance						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			11/07/2025	1	11/07/2025	11/07/2025		11/07/2025	[NT]
Date analysed	-			11/07/2025	1	11/07/2025	11/07/2025		11/07/2025	[NT]
Calcium - Dissolved	mg/L	0.5	Metals-020	<0.5	1	6.6	[NT]		93	[NT]
Potassium - Dissolved	mg/L	0.5	Metals-020	<0.5	1	9.4	[NT]		91	[NT]
Sodium - Dissolved	mg/L	0.5	Metals-020	<0.5	1	34	[NT]		99	[NT]
Magnesium - Dissolved	mg/L	0.5	Metals-020	<0.5	1	2	[NT]		92	[NT]
Hardness (calc) equivalent CaCO ₃	mg/L	3	Metals-020	<3	1	24	[NT]		[NT]	[NT]
Hydroxide Alkalinity (OH ⁻) as CaCO ₃	mg/L	5	Inorg-006	<5	1	<5	<5	0	[NT]	[NT]
Bicarbonate Alkalinity as CaCO ₃	mg/L	5	Inorg-006	<5	1	27	27	0	[NT]	[NT]
Carbonate Alkalinity as CaCO ₃	mg/L	5	Inorg-006	<5	1	<5	<5	0	[NT]	[NT]
Total Alkalinity as CaCO ₃	mg/L	5	Inorg-006	<5	1	27	27	0	120	[NT]
Sulphate, SO4	mg/L	1	Inorg-081	<1	1	25	26	4	93	[NT]
Chloride, Cl	mg/L	1	Inorg-081	<1	1	31	32	3	92	[NT]
Ionic Balance	%		Inorg-040	[NT]	1	5.0	[NT]		[NT]	[NT]

QUALITY CONTROL: PFAS in Waters Trace Extended					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
Date prepared	-			16/07/2025	[NT]	[NT]	[NT]	[NT]	16/07/2025	[NT]
Date analysed	-			16/07/2025	[NT]	[NT]	[NT]	[NT]	16/07/2025	[NT]
Perfluorobutanesulfonic acid	µg/L	0.0004	Org-029	<0.0004	[NT]	[NT]	[NT]	[NT]	92	[NT]
Perfluoropentanesulfonic acid	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	91	[NT]
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.0002	Org-029	<0.0002	[NT]	[NT]	[NT]	[NT]	92	[NT]
Perfluoroheptanesulfonic acid	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	93	[NT]
Perfluorooctanesulfonic acid PFOS	µg/L	0.0002	Org-029	<0.0002	[NT]	[NT]	[NT]	[NT]	95	[NT]
Perfluorodecanesulfonic acid	µg/L	0.002	Org-029	<0.002	[NT]	[NT]	[NT]	[NT]	93	[NT]
Perfluorobutanoic acid	µg/L	0.002	Org-029	<0.002	[NT]	[NT]	[NT]	[NT]	92	[NT]
Perfluoropentanoic acid	µg/L	0.002	Org-029	<0.002	[NT]	[NT]	[NT]	[NT]	97	[NT]
Perfluorohexanoic acid	µg/L	0.0004	Org-029	<0.0004	[NT]	[NT]	[NT]	[NT]	93	[NT]
Perfluoroheptanoic acid	µg/L	0.0004	Org-029	<0.0004	[NT]	[NT]	[NT]	[NT]	90	[NT]
Perfluorooctanoic acid PFOA	µg/L	0.0002	Org-029	<0.0002	[NT]	[NT]	[NT]	[NT]	92	[NT]
Perfluorononanoic acid	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	96	[NT]
Perfluorodecanoic acid	µg/L	0.002	Org-029	<0.002	[NT]	[NT]	[NT]	[NT]	96	[NT]
Perfluoroundecanoic acid	µg/L	0.002	Org-029	<0.002	[NT]	[NT]	[NT]	[NT]	94	[NT]
Perfluorododecanoic acid	µg/L	0.005	Org-029	<0.005	[NT]	[NT]	[NT]	[NT]	97	[NT]
Perfluorotridecanoic acid	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	93	[NT]
Perfluorotetradecanoic acid	µg/L	0.05	Org-029	<0.05	[NT]	[NT]	[NT]	[NT]	99	[NT]
4:2 FTS	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	100	[NT]
6:2 FTS	µg/L	0.0004	Org-029	<0.0004	[NT]	[NT]	[NT]	[NT]	104	[NT]
8:2 FTS	µg/L	0.0004	Org-029	<0.0004	[NT]	[NT]	[NT]	[NT]	102	[NT]
10:2 FTS	µg/L	0.002	Org-029	<0.002	[NT]	[NT]	[NT]	[NT]	101	[NT]
Perfluorooctane sulfonamide	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	101	[NT]
N-Methyl perfluorooctane sulfonamide	µg/L	0.05	Org-029	<0.05	[NT]	[NT]	[NT]	[NT]	95	[NT]
N-Ethyl perfluorooctanesulfon amide	µg/L	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	95	[NT]
N-Me perfluorooctanesulfonamid oethanol	µg/L	0.05	Org-029	<0.05	[NT]	[NT]	[NT]	[NT]	104	[NT]
N-Et perfluorooctanesulfonamid oethanol	µg/L	0.5	Org-029	<0.5	[NT]	[NT]	[NT]	[NT]	97	[NT]
MePerfluorooctanesulf-amid oacetic acid	µg/L	0.002	Org-029	<0.002	[NT]	[NT]	[NT]	[NT]	102	[NT]
EtPerfluorooctanesulf- amid oacetic acid	µg/L	0.002	Org-029	<0.002	[NT]	[NT]	[NT]	[NT]	93	[NT]
Surrogate ¹³ C ₈ PFOS	%		Org-029	99	[NT]	[NT]	[NT]	[NT]	99	[NT]
Surrogate ¹³ C ₂ PFOA	%		Org-029	99	[NT]	[NT]	[NT]	[NT]	101	[NT]

QUALITY CONTROL: PFAS in Waters Trace Extended						Duplicate		Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
Extracted ISTD ¹³ C ₃ PFBS	%		Org-029	74	[NT]	[NT]	[NT]	[NT]	75	[NT]
Extracted ISTD ¹⁸ O ₂ PFHxS	%		Org-029	88	[NT]	[NT]	[NT]	[NT]	85	[NT]
Extracted ISTD ¹³ C ₄ PFOS	%		Org-029	81	[NT]	[NT]	[NT]	[NT]	78	[NT]
Extracted ISTD ¹³ C ₄ PFBA	%		Org-029	92	[NT]	[NT]	[NT]	[NT]	93	[NT]
Extracted ISTD ¹³ C ₃ PFPeA	%		Org-029	87	[NT]	[NT]	[NT]	[NT]	87	[NT]
Extracted ISTD ¹³ C ₂ PFHxA	%		Org-029	92	[NT]	[NT]	[NT]	[NT]	91	[NT]
Extracted ISTD ¹³ C ₄ PFHpA	%		Org-029	86	[NT]	[NT]	[NT]	[NT]	87	[NT]
Extracted ISTD ¹³ C ₄ PFOA	%		Org-029	91	[NT]	[NT]	[NT]	[NT]	89	[NT]
Extracted ISTD ¹³ C ₅ PFNA	%		Org-029	91	[NT]	[NT]	[NT]	[NT]	87	[NT]
Extracted ISTD ¹³ C ₂ PFDA	%		Org-029	97	[NT]	[NT]	[NT]	[NT]	93	[NT]
Extracted ISTD ¹³ C ₂ PFUnDA	%		Org-029	107	[NT]	[NT]	[NT]	[NT]	106	[NT]
Extracted ISTD ¹³ C ₂ PFDoDA	%		Org-029	98	[NT]	[NT]	[NT]	[NT]	91	[NT]
Extracted ISTD ¹³ C ₂ PFTeDA	%		Org-029	74	[NT]	[NT]	[NT]	[NT]	60	[NT]
Extracted ISTD ¹³ C ₂ 4:2FTS	%		Org-029	126	[NT]	[NT]	[NT]	[NT]	122	[NT]
Extracted ISTD ¹³ C ₂ 6:2FTS	%		Org-029	105	[NT]	[NT]	[NT]	[NT]	99	[NT]
Extracted ISTD ¹³ C ₂ 8:2FTS	%		Org-029	127	[NT]	[NT]	[NT]	[NT]	115	[NT]
Extracted ISTD ¹³ C ₈ FOSA	%		Org-029	90	[NT]	[NT]	[NT]	[NT]	85	[NT]
Extracted ISTD d ₃ N MeFOSA	%		Org-029	110	[NT]	[NT]	[NT]	[NT]	105	[NT]
Extracted ISTD d ₅ N EtFOSA	%		Org-029	107	[NT]	[NT]	[NT]	[NT]	103	[NT]
Extracted ISTD d ₇ N MeFOSE	%		Org-029	112	[NT]	[NT]	[NT]	[NT]	107	[NT]

QUALITY CONTROL: PFAS in Waters Trace Extended					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	[NT]
Extracted ISTD d ₉ N EtFOSE	%		Org-029	111	[NT]	[NT]	[NT]	[NT]	108	[NT]
Extracted ISTD d ₃ N MeFOSAA	%		Org-029	111	[NT]	[NT]	[NT]	[NT]	98	[NT]
Extracted ISTD d ₅ N EtFOSAA	%		Org-029	140	[NT]	[NT]	[NT]	[NT]	145	[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.

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.

Air volumes are typically provided by customers (often as flow rate(s) and sampling time(s) and/or simply volumes) sampled or exposure times (determines 'volume' passive badges are exposed to)). Hence in such circumstances the volume measurement is inevitably not covered by Envirolab's NATA accreditation. An exception may occur where Envirolab Newcastle does the sampling where accreditation exists for certain types of sampling and hence volume determination(s). Note air volumes are often used to determine concentrations for dust and/or analyses on filters, sorbents and in impingers. For canister sampling, the air volume is covered by Envirolab's NATA accreditation.

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.

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.

For Dust Deposit Gauge (DDG) analysis the sampling, sampling period and funnel exposure area do not fall under Envirolab's NATA accreditation (unless the Newcastle laboratory where responsible for the sampling), hence the annotation on the DDG units of reporting.

Urine Analysis - The BEI values listed are taken from the 2022 edition of "TLVs and BEIs Threshold Limits" by ACGIH.

Report Comments

Microbiology analysed by Sonic Food & Water Testing. Report No. W2515691.

The time between collection and the commencement of testing should not exceed 24 hours. Samples tested outside this time may have their results compromised

For PFAS Extracted Internal Standards denoted with # or outside the 50-150% acceptance range, the respective target analyte results may be unaffected, in other circumstances the PQL has been raised to accommodate the outlier(s).

sample #1 and#3 turbidity cannot be tested due to high sediments present.

SAMPLE RECEIPT ADVICE

Client Details

Client	JK Environments
Attention	Katrina Taylor

Sample Login Details

Your reference	E37722PT Gosford, NSW
Envirolab Reference	385689
Date Sample Received	11/07/2025
Date Instructions Received	11/07/2025
Date Results Expected to be Reported	18/07/2025

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	5 Water
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	5
Cooling Method	Ice
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

Aileen Hie

Phone: 02 9910 6200
Fax: 02 9910 6201
Email: ahie@envirolab.com.au

Jacinta Hurst

Phone: 02 9910 6200
Fax: 02 9910 6201
Email: jhurst@envirolab.com.au

Analysis Underway, details on the following page:



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

Sample ID	VOCs in water	vTRH(C6-C10)/BTEXN in Water	svTRH (C10-C40) in Water	PAHs in Water	All metals in water-dissolved	Metals in Waters -Acid extractable	Acidity as CaCO3	pH	Electrical Conductivity	Redox Potential*	Dissolved Oxygen*	Turbidity	Total Dissolved Solids(grav)	Total Suspended Solids	Total Organic Carbon	Sodium Adsorption Ratio	Silica (Reactive - SiO2)	Ammonia as N in water	Nitrate as N in water	Nitrite as N in water	NOx as N in water	Total Nitrogen in water	TKN in water	Phosphate as P in water	Organic Nitrogen as N	Calcium - Dissolved	Potassium - Dissolved	Sodium - Dissolved	Magnesium - Dissolved	Hardness (calc) equivalent CaCO3	Hydroxide Alkalinity (OH-) as CaCO3	Bicarbonate Alkalinity as CaCO3	Carbonate Alkalinity as CaCO3	Total Alkalinity as CaCO3	Sulphate, SO4	Chloride, Cl	Ionic Balance		
MW1a	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
MW2a	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
MW3a	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓									✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
WDUP1		✓	✓	✓	✓																																		
TS1		✓																																					

Sample ID	Microbiological Testing	PFAS in Waters Trace Extended
MW1a	✓	✓
MW2a	✓	✓
MW3a		✓
WDUP1		
TS1		

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.

Requests for longer term sample storage must be received in writing.

Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.

TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

SAMPLE AND CHAIN OF CUSTODY FORM

TO: ENVIROLAB SERVICES PTY LTD 12 ASHLEY STREET CHATSWOOD NSW 2067 P: (02) 99106200 F: (02) 99106201 Attention: Aileen		JKE Job Number: E37722PT Date Results Required: STANDARD Page: 1		FROM:  REAR OF 115 WICKS ROAD MACQUARIE PARK, NSW 2113 P: 02-9888 5000 Attention: KTaylor@jkenvironments.com.au															
Location: Gosford, NSW		Sample Preserved in Esky on Ice																	
Sampler: VR		Tests Required																	
Date Sampled	Lab Ref:	Sample Number	Sample Containers	PID	Sample Description	Alkalinity suite	EC, pH, redox, DO	Turbidity	TDS, TSS, TOC, SAR	Ionic balance, including hardness	#3	Additional metals: Al, Ag, Sb, Ba, Be, B, Co, Fe, Li, Mn, Mo, Se, Sr, U, V	Silica (reactive) dissolved silica	Nutrient suite	Faecal coliforms + Escherichia (E) coli	PFAS (Trace Level - extended)	BTX	VOCs	
11/07/2025	1	MW1a	##	91.7	Water	X	X	X	X	X	X	X	X	X	X	X	X	X	
11/07/2025	2	MW2a	##	13	Water	X	X	X	X	X	X	X	X	X	X	X	X	X	
11/07/2025	3	MW2a	## (exc. Sterile jar)	0	Water	X	X	X	X	X	X	X	X	X	X	X	X	X	
11/07/2025	4	WDUP1	##	-	Water						X	X	X						
11/07/2025	5	TS1	V	-	Trip Spike							X					X		
			V	-						X				X					
										X		X							
												X							
			V	-								X							
			V	-								X							
			V	-								X			X				
				-								X			X				
Remarks (comments/detection limits required):						Sample Containers: ## Each sample includes: x2 amber bottles, x4 HCl preserved glass vials, x1 unpreserved plastic bottles, x2 nitric acid preserved bottles (1 is field filtered), x1 sulphuric acid preserved bottle and x1 sterile container, x2 PFAS Bottles V - BTEX Vial													
Relinquished By: OB		Date: 11/7/25		Time: 12:00		Received By: ELS SYD K. Chavez		Date: 11/7/25											



Envirolab Services
 12 Ashley St
 Chatswood NSW 2067
 Ph: (02) 9910 6200

Job No: 385689
Date Received: 11/7/25
Time Received: 1555
Received By: [Signature]
Temp: Cool/Ambient 5°C
Cooling: Ice/Icepack
Security: Intact/Broken/None



Appendix G: Report Explanatory Notes

Standard Sampling Procedure (SSP)

These protocols specify the basic procedures to be used when sampling soils or groundwater for environmental site assessments undertaken by JKE. The purpose of these protocols is to provide standard methods for: sampling, decontamination procedures for sampling equipment, sample preservation, sample storage and sample handling. Deviations from these procedures must be recorded.

A. Soil Sampling:

- Prepare a borehole/test pit log or made a note of the sample description for stockpiles.
- Layout sampling equipment on clean plastic sheeting to prevent direct contact with ground surface. The work area should be at a distance from the drill rig/excavator such that the machine can operate in a safe manner.
- Ensure all sampling equipment has been decontaminated prior to use.
- Remove any surface debris from the immediate area of the sampling location.
- Collect samples and place in appropriate sampling containers provided by the lab.
- Label the sampling containers with the JKE job number, sample location (eg. BH1), sampling depth interval and date. If more than one sample container is used, this should also be indicated (eg. 2 = Sample jar 1 of 2 jars).
- Record the lithology of the sample and sample depth on the borehole/test pit log generally in accordance with AS1726-1993¹⁶.
- Store the sample in a sample container cooled with ice or chill packs. On completion of the sampling the sample container should be delivered to the lab immediately or stored in the refrigerator prior to delivery to the lab. All samples are preserved in accordance with the standards outlined in the report.
- Check for the presence of groundwater after completion of each borehole using an electronic dip metre or water whistle. Boreholes should be left open until the end of fieldwork. All groundwater levels in the boreholes should be rechecked on the completion of the fieldwork.
- Backfill the boreholes/test pits with the excavation cuttings or clean sand prior to leaving the site.

B. Groundwater Sampling

Groundwater samples are more sensitive than soil samples and therefore adherence to this protocol is particularly important to obtain reliable, reproducible results. The recommendations detailed in AS/NZS 5667.1:1998 are considered to form a minimum standard. The basis of this protocol is to maintain the security of the borehole and obtain accurate and representative groundwater samples. The following procedure should be used for collection of groundwater samples from previously installed groundwater monitoring wells.

- After monitoring well installation, at least three bore volumes should be pumped from the monitoring wells (well development) to remove any water introduced during the drilling process and/or the water that is disturbed during installation of the monitoring well. This should be completed prior to purging and sampling.
- Groundwater monitoring wells should then be left to recharge for at least three days before purging and sampling. Prior to purging or sampling, the condition of each well should be observed and any anomalies recorded on the field data sheets. The following information should be noted: the condition of the well, noting any signs of damage, tampering or complete destruction; the condition and operation of the well lock; the condition of the protective casing and the cement footing (raised or cracked); and, the presence of water between protective casing and well.
- Take the groundwater level from the collar of the piezometer/monitoring well using an electronic dip meter. The collar level should be taken (if required) during the site visit using a dumpy level and staff.

¹⁶ Standards Australia, (1993), *Geotechnical Site Investigations*. (AS1726-1993)

- Purging and sampling of piezometers/monitoring wells is done on the same site visit when using micro-purge (or other low flow) techniques.
- Layout and organize all equipment associated with groundwater sampling in a location where they will not interfere with the sampling procedure and will not pose a risk of contaminating samples. Equipment generally required includes:
 - Micropore filtration system or Stericup single-use filters (for heavy metals samples);
 - Filter paper for Micropore filtration system; Bucket with volume increments;
 - Sample containers: teflon bottles with 1 ml nitric acid, 75mL glass vials with 1 mL hydrochloric acid, 1 L amber glass bottles;
 - Bucket with volume increments;
 - Flow cell;
 - pH/EC/Eh/T meters;
 - Plastic drums used for transportation of purged water;
 - Esky and ice;
 - Nitrile gloves;
 - Distilled water (for cleaning);
 - Electronic dip meter;
 - Low flow pump pack and associated tubing; and
 - Groundwater sampling forms.
- If single-use stericup filtration is not used, clean the Micropore filtration system thoroughly with distilled water prior to use and between each sample. Filter paper should be changed between samples. 0.45um filter paper should be placed below the glass fibre filter paper in the filtration system.
- Ensure all non-disposable sampling equipment is decontaminated or that new disposable equipment is available prior to any work commencing at a new location. The procedure for decontamination of groundwater equipment is outlined at the end of this section.
- Disposable gloves should be used whenever samples are taken to protect the sampler and to assist in avoidance of contamination.
- Groundwater samples are obtained from the monitoring wells using low flow/micro-purge sampling equipment to reduce the disturbance of the water column and loss of volatiles.
- During pumping to purge the well, the pH, temperature, conductivity, dissolved oxygen, redox potential and groundwater levels are monitored (where possible) using calibrated field instruments to assess the development of steady state conditions. Steady state conditions are generally considered to have been achieved when the difference in the pH measurements was less than 0.2 units and the difference in conductivity was less than 10%.
- All measurements are recorded on specific data sheets.
- Once steady state conditions are considered to have been achieved, groundwater samples are obtained directly from the pump tubing and placed in appropriate glass bottles or plastic bottles.
- All samples are preserved in accordance with water sampling requirements detailed in the NEPM 2013 and placed in an insulated container with ice. Groundwater samples are preserved by immediate storage in an insulated sample container with ice as outlined in the report text.
- Record the sample on the appropriate log in accordance with AS1726:1993. At the end of each water sampling complete a chain of custody form.



Appendix H: Groundwater Field Records



PID FIELD CALIBRATION FORM

Client: <u>43 Beane Street Pty Ltd.</u>			
Project: <u>Groundwater Analysis</u>			
Location: <u>43-45 Beane Street, Gosford, NSW</u>			
Job Number: <u>E37722PT</u>			
PID			
Make: <u>Mini RAE Lite +</u>	Model: <u>PGM7530</u>	Unit: <u>P102</u>	Date of last factory calibration: <u>04/07/2025</u>
Date of calibration: <u>8/7/25</u>		Name of Calibrator: <u>VR</u>	
Calibration gas: <u>Iso-butylene</u>		Calibration Gas Concentration: <u>100.0 ppm</u>	
Measured reading: <u>99.2 ppm</u>		Error in measured reading: <u>± ppm</u>	
Measured reading Acceptable <u>(Yes/No)</u> :			
PID			
Make: <u>Mini RAE Lite +</u>	Model: <u>PGM7530</u>	Unit: <u>P102</u>	Date of last factory calibration: <u>04/07/25</u>
Date of calibration: <u>10/7/25</u>		Name of Calibrator: <u>VR</u>	
Calibration gas: <u>Iso-butylene</u>		Calibration Gas Concentration: <u>100.0 ppm</u>	
Measured reading: <u>99.3 ppm</u>		Error in measured reading: <u>± ppm</u>	
Measured reading Acceptable <u>(Yes/No)</u> :			
PID			
Make:	Model:	Unit:	Date of last factory calibration:
Date of calibration:		Name of Calibrator:	
Calibration gas: <u>Iso-butylene</u>		Calibration Gas Concentration: <u>100.0 ppm</u>	
Measured reading: <u>ppm</u>		Error in measured reading: <u>± ppm</u>	
Measured reading Acceptable (Yes/No):			
PID			
Make:	Model:	Unit:	Date of last factory calibration:
Date of calibration:		Name of Calibrator:	
Calibration gas: <u>Iso-butylene</u>		Calibration Gas Concentration: <u>100.0 ppm</u>	
Measured reading: <u>ppm</u>		Error in measured reading: <u>± ppm</u>	
Measured reading Acceptable (Yes/No):			
PID			
Make:	Model:	Unit:	Date of last factory calibration:
Date of calibration:		Name of Calibrator:	
Calibration gas: <u>Iso-butylene</u>		Calibration Gas Concentration: <u>100.0 ppm</u>	
Measured reading: <u>ppm</u>		Error in measured reading: <u>± ppm</u>	
Measured reading Acceptable (Yes/No):			



WELL FINISH DETAILS

WELL DEVELOPMENT DETAILS	
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69	70
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81	82
83	84
85	86
87	88
89	90
91	92
93	94
95	96
97	98
99	100

Comments:

Comments: Odours (YES / NO), NAPL/PSH (YES / NO), Sheen (YES / NO), Steady State Achieved (YES / NO)
YSI Used:

Tested By: <u>WZ</u>	Remarks: - Steady state conditions - Difference in the pH less than 0.2 units, difference in the conductivity less than 10% and SWL stable/not in drawdown - Minimum 3 monitoring well volumes purged, unless well purged until it is effectively dry
Date Tested: <u>9/7/25</u>	
Checked By: <u>KF</u>	
Date: <u>15-7-25</u>	

$P10 = 11.3$
 $SWL = 5.59m$

JK Environments		
Client:	43 Beane Street Pty Ltd.	Job No.: E37722PT
Project:	Groundwater Analysis	Well No.: MW2A
Location:	43-45 Beane Street, Gosford, NSW	Depth (m): 10m

WELL FINISH DETAILS		
Gatic Cover ☒	Standpipe ☐	Other (describe) ☐

WELL DEVELOPMENT DETAILS			
Method:	Development Pump	SWL - Before (m):	5.52m
Date:	9/7/25	Time - Before:	9.35am
Undertaken By:	VR	SWL - After (m):	6.06m
Total Vol. Removed:	~ 80 Litres.	Time - After:	10.15am
PID Reading (ppm):	11.6		

Comments:

DEVELOPMENT MEASUREMENTS						
Volume Removed (L)	SWL	Temp (°C)	DO (mg/L)	EC (µS/cm)	pH	Eh (mV)
0.5L (Boiler)	5.49m	19.1	8.1	21.1	4.83	91.1
5	-	20.3	7.1	312.2	4.55	89.2
10	-	20.4	6.4	316.7	4.57	86.5
15	-	20.3	5.3	318.0	4.68	82.6
20	6.04m	20.4	4.7	318.9	4.75	78.9
25	-	20.4	3.8	300.5	4.79	71.2
30	-	20.4	2.5	306.9	4.69	70.9
35	-	20.4	2.1	308.6	4.66	69.9
40	6.00m	20.4	1.7	305.8	4.64	69.9
45	-	20.4	4.1	307.9	4.56	81.5
50	-	20.4	3.0	307.8	4.55	80.8
55	-	20.4	2.5	307.8	4.53	80.5
60	6.41m	20.4	2.1	306.1	4.53	79.9
65	-	20.4	2.7	305.9	4.57	77.4
70	-	20.4	2.0	303.9	4.61	76.9
75	-	20.4	1.5	307.1	4.57	78.1
80	6.06m	20.4	1.4	303.4	4.60	76.1

Comments: Odours (YES / NO), NAPL/PSH (YES / NO), Sheen (YES / NO), Steady State Achieved (YES / NO)
YSI Used: YSI 4 High Silt load Over 3x well volumes removed High Recharge

Tested By: VR		Remarks: - Steady state conditions - Difference in the pH less than 0.2 units, difference in the conductivity less than 10% and SWL stable/not in drawdown - Minimum 3 monitoring well volumes purged, unless well purged until it is effectively dry
Date Tested: 9/7/25		
Checked By: KF		
Date: 15-2-25		



Tested By: <u>ML</u>	Remarks: - Steady state conditions - Difference in the pH less than 0.2 units, difference in the conductivity less than 10% and SWL stable/not in drawdown - Minimum 3 monitoring well volumes purged, unless well purged until it is effectively dry
Date Tested: <u>9/7/25</u>	
Checked By: <u>KF</u>	
Date: <u>12-7-25</u>	



WATER QUALITY METER CALIBRATION FORM

Client: <u>43 Beane Street Pty Ltd</u>		
Project: <u>Groundwater Analysis</u>		
Location: <u>43-45 Beane Street, Gosford, NSW</u>		
Job Number: <u>E37722PT</u>		
DISSOLVED OXYGEN		
Make: <u>YSI</u>	Model: <u>YSI 4</u>	
Date of calibration: <u>8/7/25</u>	Name of Calibrator: <u>VR</u>	
Span value: 70% to 130%		
Measured value: <u>8.81</u>		
Measured reading Acceptable (Yes/No): <u>(Yes)</u>		
pH		
Make: <u>YSI</u>	Model: <u>YSI 4</u>	
Date of calibration: <u>8/7/25</u>	Name of Calibrator: <u>VR</u>	
Buffer 1: Theoretical pH = 7.01 ± 0.01	Expiry date: <u>01/26</u>	Lot No: <u>CC297024</u>
Buffer 2: Theoretical pH = 4.01 ± 0.01	Expiry date: <u>02/26</u>	Lot No: <u>CS021224</u>
Measured reading of Buffer 1: <u>7.01</u>		
Measured reading of Buffer 2: <u>4.07</u>		
Slope: <u>NA</u>	Measured reading Acceptable (Yes/No): <u>(Yes)</u>	
EC		
Make: <u>YSI</u>	Model: <u>YSI 4</u>	
Date: <u>8/7/25</u>	Name of Calibrator: <u>VR</u>	Temperature: <u>15</u> °C
Calibration solution:	Expiry date: <u>12/25</u>	Lot No: <u>CW161024</u>
Theoretical conductivity at temperature (see solution container): <u>1143</u> µS/cm		
Measured conductivity: <u>1139</u> µS/cm	Measured reading Acceptable (Yes/No): <u>(Yes)</u>	
REDOX		
Make: <u>YSI</u>	Model: <u>YSI 4</u>	
Date of calibration: <u>8/7/25</u>	Name of Calibrator: <u>VR</u>	
Calibration solution: <u>Rome</u>	Expiry date: <u>12/25</u>	Lot No: <u>0675</u>
Theoretical redox value: <u>240</u> mV		
Measured redox reading: <u>241.8</u> mV	Measured reading Acceptable (Yes/No): <u>(Yes)</u>	

YSI 1	51x field Filtered
Tested By: VR	Remarks:
Date Tested: 11/7/25	- Steady state conditions - difference in the pH less than 0.2 units, difference in conductivity less than 10% 10% and SWL stable/not in drawdown
Checked By: RT	
Date: 15-7-25	

WELL FINISH

WELL PURGE DETAILS:

PURGING / SAMPLING MEASUREMENTS	
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89	90
91	92
93	94
95	96
97	98
99	100

Comments: Odours (YES / NO), NAPL/PSH (YES / NO), Sheen (YES / NO), Steady State Achieved (YES / NO)

Sampling Containers Used: 2 x glass amber, 4 x BTEX vials, 2 x HNO3 plastic, 1 x H2SO4 plastic, 1 x unpreserved plastic, 2 x PFAS.

YSI used:

YSI 1

High Silt load

↳ k field
Gltend

↓
half Bill

No Sterile jar due to lack of sample.

Tested By: VR	Remarks: - Steady state conditions - difference in the pH less than 0.2 units, difference in conductivity less than 10% 10% and SWL stable/not in drawdown
Date Tested: 11/7/25	
Checked By: KS	
Date: 15-7-25	



WATER QUALITY METER CALIBRATION FORM

Client: 43 Beane Street Pty Ltd.		
Project: Groundwater Analysis		
Location: 43-45 Beane Street, Gosford, NSW		
Job Number: E37722PT		
DISSOLVED OXYGEN		
Make: YSI	Model: YSI 1	
Date of calibration: 10/7/25	Name of Calibrator: VR	
Span value: 70% to 130%		
Measured value: 99.7		
Measured reading Acceptable (Yes/No): ☒ Yes		
pH		
Make: YSI	Model: YSI 1	
Date of calibration: 10/7/25	Name of Calibrator: VR	
Buffer 1: Theoretical pH = 7.01 ± 0.01	Expiry date: 01/26	Lot No: CC291024
Buffer 2: Theoretical pH = 4.01 ± 0.01	Expiry date: 02/26	Lot No: CS021224
Measured reading of Buffer 1: 7.00		
Measured reading of Buffer 2: 3.97		
Slope:	Measured reading Acceptable (Yes/No): ☒ Yes	
EC		
Make: YSI	Model: YSI 1	
Date: 10/7/25	Name of Calibrator: VR	Temperature: 16 °C
Calibration solution: Rame Scientific	Expiry date: 12/25	Lot No: CW161024
Theoretical conductivity at temperature (see solution container): 1170 µS/cm		
Measured conductivity: 1170 µS/cm	Measured reading Acceptable (Yes/No): ☒ Yes	
REDOX		
Make: YSI	Model: YSI 1	
Date of calibration: 10/7/25	Name of Calibrator: VR	
Calibration solution: Hanna 240 ORP	Expiry date: 12/25	Lot No: 0675
Theoretical redox value: 240mV		
Measured redox reading: 240.9 mV	Measured reading Acceptable (Yes/No): ☒ Yes	