REPORT TO

SUSTAINABLE DEVELOPMENT GROUP LTD

ON

PRELIMINARY SITE INVESTIGATION (PSI)

FOR

PROPOSED MIXED USE DEVELOPMENT

AT

461 CHAPEL ROAD, BANKSTOWN, NSW

Date: 28 March 2025

Ref: E37149PLrpt

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Executive Summary

Sustainable Development Group Ltd ('the client') commissioned JK Environments (JKE) to undertake a Preliminary Site Investigation (PSI) for the proposed mixed use development at 461 Chapel Road, Bankstown, NSW ('the site'). The purpose of the investigation is to make a preliminary assessment of site contamination.

The investigation included a review of historical information and soil sampling from three boreholes. The site has historically occupied by a church and community centre since at least 1930. Various buildings were extended and new ones constructed between the 1950's and 2014.

Based on the scope of work undertaken for this investigation, JKE identified the following potential contamination sources:

- Fill material across the site;
- Use of pesticides beneath the buildings and/or around the site;
- Hazardous building materials may be present as a result of former building and demolition activities; and
- An off-site photography (possible printing) business has historically been located approximately 30m north-west of the site.

The boreholes encountered fill at the surface or beneath the pavement in all boreholes and extended to depths of approximately 0.4m to 0.6m. The fill typically comprised silty clayey gravel and silty clay with inclusions of igneous gravel, ash and building rubble (bricks, concrete, glass, ceramic fragments). The fill was underlain by natural silty clay and interbedded sandstone and siltstone bedrock.

All of the soil analysis results were less than the human health-based Site Assessment Criteria (SAC). The zinc result in the BH2 (0-0.2m) sample exceeded the ecological based SAC. We note that the SAC adopted for this PSI is the most conservative and that BH2 is located within an area which will be excavated for the proposed basement. Based on this, the elevated zinc result is not considered to represent a risk to receptors.

We note that variable concentrations of lead and zinc, together with trace concentrations of TRH were encountered in the fill. Although not indicative of contamination that would pose a risk to receptors, these results do indicate that fill at the site is variable.

Based on the results of the waste classification assessment, and at the time of reporting, the fill material is assigned the preliminary classification of General Solid Waste (non-putrescible) and the natural soil and bedrock at the site is likely to meet the definition of Virgin Excavated Natural Material (VENM). These classifications will need to be confirmed through additional assessment.

The boreholes encountered some demolition waste in the fill and the off-site photography/printing business may represent a risk to groundwater at the site. Further investigation, in the form of a Detailed Site Investigation (DSI), will be required to better assess the soil and groundwater contamination conditions, including the potential for asbestos impact in the fill at the site, and to establish whether remediation is required.

JKE is of the opinion that the historical land uses and potential sources of contamination identified would not preclude the proposed development, and we consider that the site can be made suitable for the proposed development via remediation, should it be required. The following is recommended to better assess the risks associated with potential contamination at the site:

- A sampling, analysis and quality plan (SAQP) should be prepared prior to the commencement of the DSI;
- A DSI is to be undertaken to address the data gaps associated with limited soil sampling and no groundwater sampling for the PSI, characterise the site contamination conditions and establish whether the site is suitable for the proposed development, or whether remediation is required; and
- A hazardous building materials survey should be undertaken prior to demolition of the buildings. Following demolition of the buildings (and preferably prior to removal of the hardstand), an asbestos clearance certificate should be obtained.

The conclusions and recommendations should be read in conjunction with the limitations presented in the body of this report.

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Attachments

Abbreviations

Asbestos Fines/Fibrous Asbestos	**AF/FA**
Ambient Background Concentrations	**ABC**
Added Contaminant Limits	**ACL**
Asbestos Containing Material	**ACM**
Area of Environmental Concern	**AEC**
Australian Height Datum	**AHD**
Acid Sulfate Soil	**ASS**
Before You Dig Australia	**BYDA**
Below Ground Level	**BGL**
Benzo(a)pyrene Toxicity Equivalent Factor	**BaP TEQ**
Bureau of Meteorology	**BOM**
Benzene, Toluene, Ethylbenzene, Xylene	**BTEX**
Contaminated Land Management	**CLM**
Contaminant(s) of Potential Concern	**CoPC**
Chain of Custody	**COC**
Conceptual Site Model	**CSM**
Development Application	**DA**
Data Quality Indicator	**DQI**
Data Quality Objective	**DQO**
Detailed Site Investigation	**DSI**
Ecological Investigation Level	**EIL**
Ecological Screening Level	**ESL**
Environmental Management Plan	**EMP**
Excavated Natural Material	**ENM**
Environment Protection Authority	**EPA**
Fibre Cement Fragment(s)	**FCF**
Health Investigation Level	**HIL**
Health Screening Level	**HSL**
Health Screening Level-Site Specific Assessment	**HSL-SSA**
International Organisation of Standardisation	**ISO**
JK Environments	**JKE**
JK Geotechnics	**JKG**
Lab Control Spike	**LCS**
Map Grid of Australia	**MGA**
National Association of Testing Authorities	**NATA**
National Environmental Protection Measure	**NEPM**
Organochlorine Pesticides	**OCP**
Organophosphate Pesticides	**OPP**
Polycyclic Aromatic Hydrocarbons	**PAH**
Potential ASS	**PASS**
Polychlorinated Biphenyls	**PCB**
Per-and Polyfluoroalkyl Substances	**PFAS**
Photo-ionisation Detector	**PID**
Protection of the Environment Operations	**POEO**
Practical Quantitation Limit	**PQL**
Quality Assurance	**QA**
Quality Control	**QC**
Remediation Action Plan	**RAP**
Relative Percentage Difference	**RPD**
Reduced/Relative Level	**RL**
Site Assessment Criteria	**SAC**
Sampling, Analysis and Quality Plan	**SAQP**
State Environmental Planning Policy	**SEPP**

Source, Pathway, Receptor	**SPR**
Specific Contamination Concentration	**SCC**
Standard Penetration Test	**SPT**
Standing Water Level	**SWL**
Trip Blank	**TB**
Toxicity Characteristic Leaching Procedure	**TCLP**
Total Recoverable Hydrocarbons	**TRH**
Trip Spike	**TS**
Upper Confidence Limit	**UCL**
United States Environmental Protection Agency	**USEPA**
Underground Storage Tank	**UST**
Virgin Excavated Natural Material	**VENM**
Volatile Organic Compounds	**VOC**
Work Health and Safety	**WHS**

Units

Litres	**L**
Metres BGL	**mBGL**
Metres	**m**
Millivolts	**mV**
Millilitres	**ml or mL**
Milliequivalents	**meq**
micro Siemens per Centimetre	**µS/cm**
Micrograms per Litre	**µg/L**
Milligrams per Kilogram	**mg/kg**
Milligrams per Litre	**mg/L**
Parts Per Million	**ppm**
Percentage	**%**
Percentage weight for weight	**%w/w**

1 INTRODUCTION

Sustainable Development Group Ltd ('the client') commissioned JK Environments (JKE) to undertake a Preliminary Site Investigation (PSI) for the proposed mixed use development at 461 Chapel Road, Bankstown, NSW ('the site'). The purpose of the investigation is to make a preliminary assessment of site contamination. The site location is shown on Figure 1 and the investigation was confined to the site boundaries as shown on Figure 2.

This report has been prepared to support the lodgement of a Development Application (DA) for the proposed development, with regards to Chapter 4 of State Environmental Planning Policy (Resilience and Hazards) 2021[1] (formerly known as SEPP55).

A geotechnical investigation was undertaken in conjunction with this PSI by JK Geotechnics (JKG). The results of the geotechnical investigation are presented in a separate report (Project Ref: 37148PE). This report should be read in conjunction with the JKG report.

1.1 Proposed Development Details

JKE understand the proposed development will comprise demolition of the existing structures on site followed by construction of an multi-storey mixed use building overlying a single level basement. To achieve the finished floor level of the basement, we anticipate that excavation to a maximum depth of approximately 4m below current surface levels will be required, with locally deeper excavations in the order of approximately 2m deep required for any lift over-run pits.

1.2 Aims and Objectives

The primary aims of the investigation were to identify any past or present potentially contaminating activities at the site, identify the potential for site contamination, and make a preliminary assessment of the soil contamination conditions. The objectives were to:

- Provide an appraisal of the past site use(s) based on a review of historical records;
- Assess the current site conditions and use(s) via a site walkover inspection;
- Identify potential contamination sources/areas of environmental concern (AEC) and contaminants of potential concern (CoPC);
- Assess the soil contamination conditions via implementation of a preliminary sampling and analysis program;
- Prepare a conceptual site model (CSM);
- Assess the potential risks posed by contamination to the receptors identified in the CSM (Tier 1 assessment);
- Provide a preliminary waste classification for off-site disposal of soil;
- Assess whether the site is suitable or can be made suitable for the proposed development (from a contamination viewpoint); and
- Assess whether further intrusive investigation and/or remediation is required.

[1] *State Environmental Planning Policy (Resilience and Hazards) 2021* (NSW) (referred to as SEPP Resilience and Hazards 2021)

1.3 Scope of Work

The investigation was undertaken generally in accordance with a combined JKG and JKE proposal (Ref: P70355PE) of 11 October 2024 and written acceptance from the client in the form of short form consultancy agreement dated 21 November 2024. The scope of work included the following:

- Review of site information, including background and site history information from various sources outlined in the report;
- Preparation of a CSM;
- Design and implementation of a sampling, analysis and quality plan (SAQP);
- Interpretation of the analytical results against the adopted Site Assessment Criteria (SAC);
- Data Quality Assessment; and
- Preparation of a report including a Tier 1 risk assessment.

The scope of work was undertaken with reference to the National Environmental Protection (Assessment of Site Contamination) Measure 1999 as amended (2013)[2], other guidelines made under or with regards to the Contaminated Land Management Act (1997)[3] and SEPP Resilience and Hazards 2021. A list of reference documents/guidelines is included in the appendices.

[2] National Environment Protection Council (NEPC), (2013). *National Environmental Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013).* (referred to as NEPM 2013)

[3] Contaminated Land Management Act 1997 (NSW) (referred to as CLM Act 1997)

2 SITE INFORMATION

2.1 Site Identification

Table 2-1: Site Identification

Current Site Owner (certificate of title):	Anglican Church Property Trust Diocese of Sydney
Site Address:	461 Chapel Road, Bankstown
Lot & Deposited Plan:	Lots 26 to 28, Section A in DP 7058
Current Land Use:	Church and Community Centre
Proposed Land Use:	Residential and Commercial (Mixed Use)
Local Government Area:	Canterbury-Bankstown
Current Zoning:	B4 Mixed Use
Site Area (m^2) (approx.):	2,200
RL (AHD in m) (approx.):	30
Geographical Location (decimal degrees) (approx.):	Latitude: -33.913584 Longitude: 151.035186
Site Location Plan:	Figure 1
Sample Location Plan:	Figure 2

2.2 Site Location and Regional Setting

The site is located in a predominantly commercial and residential area of Bankstown, on the corner of Chapel Road and French Avenue. The site is located approximately 1km north of Salt Pan Creek.

2.3 Topography

The site is located in an area of relatively flat topography which gently grades down to the south. The site itself falls slightly to the south with some areas that have been levelled to accommodate existing buildings.

2.4 Site Inspection

A walkover inspection of the site was undertaken by JKE on 2 December 2024. The inspection was limited to accessible areas of the site and immediate surrounds. An internal inspection of buildings was not undertaken.

A summary of the inspection findings is outlined in the following subsections:

2.4.1 Current Site Use and/or Indicators of Former Site Use

At the time of the fieldwork, the site was occupied predominantly by a church and community centre. Various buildings were located across the site (see below for detail) with paved and unpaved driveways and car parking areas between.

2.4.2 Buildings, Structures and Roads

A brick church building occupied the approximate central-west section of the site and adjoined a single storey brick house in the approximate central-north section of the site. The eves of both buildings had been stickered with 'Warning Asbestos'. A large, single storey, timber and fibro clad building extended along the south site boundary that was occupied by a community centre. A concrete pad was observed at the eastern end of the community centre that appeared to be a former toilet block and included sewer pipes that had been blocked off.

A small, timber clad amenities block was located immediately east of the church and was elevated on brick piers. A second demountable amenities building was located in the south-east corner of the site. A single space, brick garage building was located in the central-west section of the site.

A partially paved and gravel car park was located in the north-east section of the site, on the north side of the garage. A concrete paved driveway/footpath extended between the church and community centre buildings to a partially Asphaltic Concrete (AC) paved area around the amenities buildings.

A concrete pad with blocked off pipework and signs of former brick walls was observed at the eastern end of the community centre. The pad appeared to have been occupied by a recently demolished bathroom.

2.4.3 Boundary Conditions, Soil Stability and Erosion

The site was generally open to the north and west (i.e. was not fenced) and did not include exposed soils.

2.4.4 Presence of Drums/Chemical Storage and Waste

No obvious signs of chemical storage were observed at the site. Demolition waste was observed in a metal skip bin in the north-east section of the site.

2.4.5 Evidence of Cut and Fill

Localised cut and fill appeared to have been undertaken beneath the church, house and community centre buildings.

2.4.6 Visible or Olfactory Indicators of Contamination (odours, spills etc)

No obvious signs of contamination were observed, however, we note that Asbestos Containing Material (ACM) is likely to be present in several of the buildings at the site and that recent demolition appears to have been undertaken.

2.4.7 Drainage and Services

Stormwater services were observed across the open portions of the site and are likely to collect surface water. Localised sewer services were observed, including vent pipes associated with both amenities buildings.

2.4.8 Sensitive Environments

Sensitive environments such as wetlands, ponds, creeks or extensive areas of natural vegetation were not identified on site or in the immediate surrounds.

2.4.9 Landscaped Areas and Visible Signs of Plant Stress

A grassed area was located in the north-west section of the site that included concrete footpaths and small to medium sized trees. No obvious signs of stress or dieback were observed.

2.5 Surrounding Land Use

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

- North – A Quaran College and some terraced houses were located on the north side of French Avenue;
- South – a mixed commercial and residential area that included a restaurant, various medical practitioners, Bankstown Medicare Clinic, retail premises and high-rise apartments;
- East – beauticians and architectural businesses occupied the commercial space immediately east of the site. High rise apartment buildings were located further to the east; and
- West – Chapel Road shopping centre was located to the west of the site and included various retail premises, supermarkets and restaurants.

JKE did not observe any land uses in the immediate surrounds that were identified as potential contamination sources for the site.

2.6 Underground Services

The 'Before You Dig Australia' (BYDA) plans were reviewed for the investigation in order to establish whether any major underground services exist at the site or in the immediate vicinity that could act as a preferential pathway for contamination migration. Major services were not identified that would be expected to act as preferential pathways for contamination migration.

2.7 Section 10.7 Planning Certificate

The section 10.7 (2 and 5) planning certificates were reviewed for Lot 27 Section A in DP 7058 for the investigation. Copies of the certificates are attached in the appendices. A summary of the relevant information is outlined below:

- Council is not aware of the land being affected by any matters as prescribed by Section 59 (2) of the CLM Act 1997;
- The land is not affected by a policy relating to acid sulfate soil (ASS); and

- The land is not affected by a heritage item or within a heritage conservation area under the relevant Principal Environmental Planning Instrument.

3 GEOLOGY AND HYDROGEOLOGY

3.1 Regional Geology

Regional geological information was reviewed for the investigation. The information was sourced from the Lotsearch report attached in the appendices. The report indicates that the site is underlain by Ashfield Shale of the Wianamatta Group, which typically consists of black to dark grey shale and laminite.

3.2 Acid Sulfate Soil (ASS) 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.

3.3 Hydrogeology

Hydrogeological information presented in the Lotsearch report 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 was no registered bores within 1,000m of the site and 10 bores within the report buffer of 2,000m. In summary:

- The nearest registered bore was located approximately 1,070m from the site. This was utilised for monitoring purposes;
- All of the bores were registered for monitoring purposes;
- The drillers log information from the closest registered bores typically identified clay soil overlying shallow shale and sandstone bedrock.

The information reviewed for the PSI indicates that the subsurface conditions at the site are likely to consist of relatively low permeability (residual) soils overlying shallow bedrock. The potential for viable groundwater abstraction and use of groundwater under these conditions is considered to be low. There is a reticulated water supply in the area and consumption of groundwater is not expected to occur. Use of groundwater is not proposed as part of the development.

Considering the local topography and surrounding land features, JKE anticipate groundwater to flow towards the south towards Salt Pan Creek.

3.4 Receiving Water Bodies

Surface water bodies were not identified in the immediate vicinity of the site. The closest surface water body is Salt Pan Creek located approximately 1km to the south of the site. Due to the regional geological conditions and the distance from the site, this water body is not considered to be an unlikely potential receptor in relation to groundwater migration.

4 SITE HISTORY INFORMATION

4.1 Review of Historical Aerial Photographs

Historical aerial photographs were reviewed for the investigation. The information was sourced from the Lotsearch report. JKE has reviewed the photographs, and summarised relevant information in the following table:

Table 4-1: Summary of Historical Aerial Photographs

Year	Details
1930	**On-site:** The site appeared to be occupied by a building in the central section of the site and a second building in the south-west section. The details of the remainder of the site were difficult to distinguish. **Off-site:** French Avenue and Chapel Road had been constructed to the north and west of the site, respectively. Residential areas that appeared to included houses were located to the west, south and east of the site. The area north of French Avenue appeared vacant.
1943	**On-site:** A building occupied the central section of the site that appeared consistent with the east portion of the existing (2024) church. A building occupied the south-west section of the site that appeared consistent with the west portion of the existing (2024) community hall. The remainder of the site appeared grassed with some scattered trees. **Off-site:** Additional residential development had been undertaken in all directions from the site, including north of French Avenue. Some larger, possibly commercial, buildings had been constructed to the south-west of the site. Trenches had been excavated at the rear of one building.
1951	**On-site:** An adjoining building had been constructed off the church that appeared similar to the existing (2024) house. A small building had been constructed east of the house that appeared similar to the existing (2024) garage. **Off-site:** Additional residential development had been undertaken to the north of French Avenue and additional commercial development had been undertaken to the south-west of the site.
1955-56	**On-site:** The community centre building had been extended to the east. **Off-site:** The surrounds appeared similar to the 1951 photograph, except that some small commercial building to the south-west of the site had been demolished and replaced other commercial buildings.
1961	**On-site:** The church had been extended west to the site boundary. A small building had been constructed adjoining the eastern end of the community centre and appeared similar to the recently demolished bathroom. **Off-site:** several residential properties to the south of the site had been demolished and some commercial development had been undertaken.
1965	**On-site:** The site appeared generally similar to the previous photograph. **Off-site:** The residential area to the west of the site had been demolished and a large commercial building had been constructed, together with on-grade car parking.
1970	**On-site:** The site appeared generally similar to the previous photograph. **Off-site:** additional commercial development had been undertaken to the south-west of the site. The residential areas to the south and south-east of the site had been demolished and large scale

Year	Details
	commercial development had been undertaken. A large building had been constructed that appeared similar to the existing (2024) Bankstown Medicare Clinic.
1978	**On-site:** A small building had been constructed east of the church that appeared similar to the existing (2024) amenities building. **Off-site:** Additional commercial buildings had been constructed to the south of the site.
1982	The site and surrounding features appeared generally similar to the previous photograph.
1986	**On-site:** The site appeared generally similar to the previous photograph **Off-site:** The residential properties immediately east of the site had been demolished and a new commercial building had been constructed that appeared similar to the existing (2024) building.
1991	The site and surrounding features appeared generally similar to the previous photograph, except that the majority of houses to the north-west of the site had been demolished and the area appeared to be a car park.
1994-2005	The site and surrounding features appeared generally similar to the previous photograph.
2014	**On-site:** A small building was located in the south-east corner of the site that appeared similar to the existing (2024) demountable amenities building. **Off-site:** Major redevelopment appeared to be underway to the west of the site across a similar footprint to the existing (2024) shopping centre. Additional commercial redevelopment had been undertaken to the south of the site, including two high rise buildings that appeared similar to the existing (2024) buildings. A high-rise building had been constructed to the north of the site.
2024	**On-site:** The site appeared generally similar to the previous photograph. **Off-site:** The redevelopment to the west had been completed and appeared similar to the existing (2024) shopping centre. High rise buildings had been constructed to the east of the site that appeared similar to the existing (2024) apartment buildings.

4.2 Review of Historical Land Title Records

Historical land title records were reviewed for the investigation. The record search was undertaken by InfoTrack. Copies of the title records are attached in the appendices. The title records indicate the following:

- The site was privately owned from 1913 to 1923; and
- The site has been owned by the Church of England Property Trust Diocese of Sydney/Anglican Church Property Trust Diocese of Sydney since 1923.

The historical land title records did not identify any potentially contaminating land uses as listed under Table 1 of the Managing Land Contamination Planning Guidelines SEPP55 Remediation of Land (1998)[4].

[4] DUAP/EPA, (1998). *Managing Land Contamination Planning Guidelines, SEPP55 Remediation of Land* (referred to as SEPP55 Planning Guidelines)

4.3 SafeWork NSW Records

A review of SafeWork NSW records for the site is currently underway. The results will be provided when received.

4.4 NSW EPA and Department of Defence Records

A review of the NSW EPA and Department of Defence databases was undertaken for the PSI. Information from the following databases were sourced from the Lotsearch report:

- Records maintained in relation to contaminated land under Section 58 of the CLM Act 1997;
- Records of sites notified in accordance with the Guidelines on the Duty to Report Contamination under Section 60 of the CLM Act 1997 (2015)[5];
- Licensed activities under the Protection of the Environment Operations Act (1997)[6];
- Sites being investigated under the NSW EPA per-and polyfluoroalkyl substances (PFAS) investigation program;
- Sites being investigated by the Department of Defence for PFAS contamination; and
- Sites being managed by the Department of Defence for PFAS contamination.

The search included the site and surrounding areas in the report buffer. A summary of the information is provided below:

Table 4-2: NSW EPA and Department of Defence Records

Records	On-site	Off-site
Records under Section 58 of the CLM Act 1997	None	There was one property listed in the report buffer and included a penalty notice for contravenance of licence. This property was a Sydney Trains property located approximately 430m to the south and down-gradient of the site (Bankstown Railway Station). Due to the distance and down-gradient location, the property is not considered to represent an off-site source of contamination.
Records under the Duty to Report Contamination under Section 60 of the CLM Act 1997	None	None
Licences under the POEO Act 1997	None	Current and historical licenses were identified for several properties within the report buffer, including railways systems activities and the application of herbicides along waterways. However, these activities are considered unlikely to pose a contamination risk to the site or represent and off-site source of contamination.

[5] NSW EPA, (2015). *Guidelines on the Duty to Report Contamination under Section 60 of the CLM Act 1997.* (referred to as Duty to Report Contamination)

[6] Protection of the Environment Operations Act 1997 (NSW) (referred to as POEO Act 1997)

Records	On-site	Off-site
Records relating to the NSW EPA PFAS Investigation Program	None	None
Records relating to the Department of Defence PFAS management and investigation programs	None	None

4.5 Historical Business Directory and Additional Lotsearch Information

Historical business records and other relevant information were reviewed for the investigation. The information was sourced from the Lotsearch report and summarised in the following table:

Table 4-3: Historical Business Directory and other Records

Records	On-site	Off-site
Historical dry cleaners, motor garages and service stations	None	Various motor garages were located immediately south of the site in the 1960's and 1970's. These were down gradient of the site and not considered to represent off-site sources of contamination. A motor dealer/garage was located west of Chapel Street from the 1960's to the 1990's. The property was cross gradient from the site and has since been redeveloped, therefore, it was unlikely to represent an off-site source of contamination. Other motor garages and dry cleaners were located more than 250m from the site and were not considered to represent off-site sources of contamination due to the distance from the site. There was one listed in the report buffer between 1950-1990. This property was a service station located approximately 500m to the west and down-gradient of the site. Due to the distance and down-gradient location, the property is not considered to represent an off-site source of contamination.
Other historical businesses that could represent potential sources of contamination	None	A photography business was located approximately 30m to the north-west of the site from the 1960's to 1990's. The business may have included printing services and may represent an off-site source of contamination.

Records	On-site	Off-site
National waste management site database	None	One soft plastics drop off facility was located at a Woolworths approximately 450m to the south-east of the site. This facility is not considered to represent a potential contamination source.
National liquid fuel facilities	None	Three service stations were located within the report buffer. The nearest was approximately 700m to the north-west. Based on the distance from the site, these properties are not considered to represent potential sources of contamination.
Mapped heritage items	None	Various heritage items were mapped in the report buffer. These are not considered to have any relevance in the context of the PSI objectives.
Mapped ecological constraints	None	Various ecological items were mapped in the report buffer. These are not considered to have any relevance in the context of the PSI objectives.
Mapped naturally occurring asbestos	None	None

4.6 Summary of Site History Information

A time line summary of the historical land uses and activities is presented in the following table. The information presented in the table is based on a weight of evidence assessment of the site history documentation and observations made by JKE.

Table 4-4: Summary of Historical Land Uses / Activities

Year(s)	On-site - Potential Land Use / Activities	Off-site - Potential Land Use / Activities
Pre 1920's	Possible vacant or residential use. Potential levelling/filling of the site may have occurred. Construction may have occurred using hazardous building materials such as fibre cement containing asbestos, and lead-based paints. Pesticide application may have occurred beneath the buildings.	Vacant with some residential development
1920's	The site was developed as a church and community centre. Potential levelling/filling of the site may have occurred. Construction may have occurred using hazardous building materials such as fibre cement containing asbestos, and lead-based paints. Pesticide application may have occurred beneath the buildings.	Surrounding vacant areas were gradually developed for residential purposes.

Year(s)	On-site - Potential Land Use / Activities	Off-site - Potential Land Use / Activities
1930-Present	The house adjoining the church was constructed prior to 1951, as was the garage. The church and community centre were extended in the 1950's. Various amenities buildings were constructed in the south-east section of the site between the 1960's and 2014. Potential levelling/filling of the site may have occurred. Construction may have occurred using hazardous building materials such as fibre cement containing asbestos, and lead-based paints. Pesticide application may have occurred beneath the buildings.	The surrounds were developed for residential use and redevelopment occurred from the 1960's for commercial purposes that included various mechanical workshops and medical centres. A photography business was located approximately 30m to the north-west of the site from the 1960's to 1990's. The area west of Chapel Street was developed around 2014 as a shopping centre.

4.7 Integrity of Site History Information

The majority of the site history information was obtained from government organisations as outlined in the relevant sections of this report. The veracity of the information from these sources is considered to be relatively high. A certain degree of information loss can be expected given the lack of specific land use details over time. JKE has relied upon the Lotsearch report and have not independently verified any information contained within. However, it is noted that the Lotsearch report is generated based on databases maintained by various government agencies and is expected to be reliable.

5 CONCEPTUAL SITE MODEL

NEPM (2013) defines a CSM as a representation of site related information regarding contamination sources, receptors and exposure pathways between those sources and receptors. The CSM for the site is presented in the following sub-sections and is based on the site information (including the site inspection information) and the review of site history information. Reference should also be made to the figures attached in the appendices.

A review of the CSM in relation to source, pathway and receptor (SPR) linkages has been undertaken as part of the Tier 1 risk assessment process, as outlined in Section 10.

5.1 Potential Contamination Sources/AEC and CoPC

The potential contamination sources/AEC and CoPC are presented in the following table:

Table 5-1: Potential (and/or known) Contamination Sources/AEC and Contaminants of Potential Concern

Source / AEC	CoPC
Fill material – The site appears to have been historically filled to achieve the existing levels. The fill may have been imported from various sources and could be contaminated. Fill can also become contaminated via building/demolition activities, followed by movement/use of site-won soils during earthworks.	Heavy metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc), petroleum hydrocarbons (referred to as total recoverable hydrocarbons – TRHs), benzene, toluene, ethylbenzene and xylene (BTEX), polycyclic aromatic hydrocarbons (PAHs), organochlorine pesticides (OCPs), organophosphate pesticides (OPPs), polychlorinated biphenyls (PCBs) and asbestos.
Use of pesticides – Pesticides may have been used beneath the buildings and/or around the site.	Heavy metals and OCPs.
Hazardous Building Material – Hazardous building materials may be present as a result of former building and demolition activities. These materials may also be present in the existing buildings/ structures on site, in particular the eves of the church and house. We note that recent demolition of a toilet block in the south-east section of the site appeared to be over a concrete pavement.	Asbestos, lead and PCBs.
Off-site area 1 – A photography (possible printing) business was historically located approximately 30m north-west of the site.	TRHs and Volatile Organic Compounds (VOCs).

5.2 Mechanism for Contamination, Affected Media, Receptors and Exposure Pathways

The mechanisms for contamination, affected media, receptors and exposure pathways relevant to the potential contamination sources/AEC are outlined in the following CSM table:

Table 5-2: CSM

Potential mechanism for contamination	The potential mechanisms for contamination are most likely to include 'top-down' impacts and spills. There is a potential for sub-surface releases to have occurred if deep fill (or other buried industrial infrastructure) is present, although this is considered to be the least likely mechanism for contamination. The mechanisms for contamination from off-site sources could have occurred via 'top down' impacts and spills, or sub-surface release. Impacts to the site could occur via the migration of contaminated groundwater.
Affected media	Soil and groundwater have been identified as potentially affected media. The potential for soil vapour impacts is considered to be relatively low and would be dependent on groundwater impact from the off-site photography/printing business. Soil vapour would need to be considered in the event significant concentrations of volatile contaminants were identified in groundwater.
Receptor identification	Human receptors include site occupants/users (including adults and children), construction workers and intrusive maintenance workers. Off-site human receptors include adjacent land users. Ecological receptors include terrestrial organisms and plants within unpaved areas (including the proposed landscaped areas). Whilst the nearest receiving water bodies are some distance from the site, groundwater could enter the stormwater system and impact down gradient receptors during construction dewatering or in a drained basement scenario. Hence ecological receptors in water bodies are considered to be applicable in the context of the proposed development.
Potential exposure pathways	Potential exposure pathways relevant to the human receptors include ingestion, dermal absorption and inhalation of dust (all contaminants) and vapours (volatile TRH, naphthalene and BTEX). The potential for exposure would typically be associated with the construction and excavation works, and future use of the site. Potential exposure pathways for ecological receptors include primary/direct contact and ingestion. Exposure during future site use could occur via direct contact with soil in unpaved areas such as gardens, inhalation of airborne asbestos fibres during soil disturbance, or inhalation of vapours within enclosed spaces such as buildings and basements. Exposure to groundwater discharged into stormwater infrastructure and eventually into receiving waters is also valid.
Potential exposure mechanisms	The following have been identified as potential exposure mechanisms for site contamination: • Vapour intrusion into the proposed basement and/or building (either from soil contamination or volatilisation of contaminants from groundwater); • Contact (dermal, ingestion or inhalation) with exposed soils in landscaped areas and/or unpaved areas; • Contact/ingestion of groundwater in down-gradient, receiving waters, as a result of dewatering.

Presence of preferential pathways for contaminant movement	No obvious preferential pathways for contaminant migration were identified at the site.

6 SAMPLING, ANALYSIS AND QUALITY PLAN

6.1 Data Quality Objectives (DQO)

Data Quality Objectives (DQOs) were developed to define the type and quality of data required to achieve the project objectives outlined in Section 1.2. The DQOs were prepared with reference to the process outlined in Schedule B2 of NEPM (2013). The seven-step DQO approach for this project is outlined in the following sub-sections.

The DQO process is validated in part by the Data Quality Assurance/Quality Control (QA/QC) Evaluation. The Data (QA/QC) Evaluation is summarised in Section 8.1 and the detailed evaluation is provided in the appendices.

6.1.1 Step 1 - State the Problem

The CSM identified potential sources of contamination/AEC at the site that may pose a risk to human health and the environment. Investigation data is required to assess the contamination status of the site, assess the risks posed by the contaminants in the context of the proposed development/intended land use, and assess whether remediation is required.

A waste classification is required prior to off-site disposal of excavated soil/bedrock.

The DQOs were developed by the author of this report and checked by the reviewer. Both the author and reviewer were joint decision-makers in relation to Step 2 of the DQO process.

The investigation was constrained by access limitations associated with the existing structures on site. The investigation was also designed as a preliminary investigation and did not include groundwater sampling/analysis.

6.1.2 Step 2 - Identify the Decisions of the Study

The objectives of the investigation are outlined in Section 1.2. The decisions to be made reflect these objectives and are as follows:

- Did the site inspection, or does the historical information identify potential contamination sources/AEC at the site?
- Are any results above the SAC?
- Do potential risks associated with contamination exist, and if so, what are they?
- Is remediation required?
- Is the site suitable for the proposed development, or can the site be made suitable subject to further characterisation and/or remediation?

6.1.3 Step 3 - Identify Information Inputs

The primary information inputs required to address the decisions outlined in Step 2 include the following:

- Site information, including site observations and site history documentation;
- Preliminary/limited sampling of soil;

- Observations of sub-surface variables such as soil type, photo-ionisation detector (PID) concentrations, odours and staining;
- Laboratory analysis of soils for the CoPC identified in the CSM; and
- Field and laboratory QA/QC data.

6.1.4 Step 4 - Define the Study Boundary

The sampling was confined to the site boundaries as shown in Figure 2 and sampling/subsurface observations were limited vertically to the depth of the boreholes to a maximum of approximately 12m (spatial boundary). The sampling was completed between 2 and 4 December 2024 (temporal boundary). The assessment of potential risk to adjacent land users has been made based on data collected within the site boundary.

Sampling was not undertaken within the existing building footprint due to access constraints.

6.1.5 Step 5 - Develop an Analytical Approach (or Decision Rule)

6.1.5.1 Tier 1 Screening Criteria

The laboratory data will be assessed against relevant Tier 1 screening criteria (referred to as SAC), as outlined in Section 7. Exceedances of the SAC do not necessarily indicate a requirement for remediation or a risk to human health and/or the environment. Exceedances are considered in the context of the CSM and valid SPR-linkages.

For this investigation, the individual results have been assessed as either above or below the SAC. Statistical evaluation of the dataset via calculation of mean values and/or 95% upper confidence limit (UCL) values has not been undertaken due to the spatial distribution of the data and the number of samples submitted for analysis.

6.1.5.2 Field and Laboratory QA/QC

Field QA/QC included analysis of intra-laboratory duplicates, trip spike and trip blank samples. Further details regarding the sampling and analysis undertaken, and the acceptable limits adopted, is provided in the Data Quality (QA/QC) Evaluation in the appendices.

The suitability of the laboratory data is assessed against the laboratory QA/QC criteria which is outlined in the attached laboratory reports. These criteria were developed and implemented in accordance with the laboratory's National Association of Testing Authorities, Australia (NATA) accreditation and align with the acceptable limits for QA/QC samples as outlined in NEPM (2013) and other relevant guidelines.

In the event that acceptable limits are not met by the laboratory analysis, other lines of evidence are reviewed (e.g. field observations of samples, preservation, handling etc) and, where required, consultation with the laboratory is undertaken in an effort to establish the cause of the non-conformance. Where uncertainty exists, JKE typically adopt the most conservative concentration reported (or in some cases, consider the data from the affected sample as an estimate).

6.1.5.3 Appropriateness of Practical Quantitation Limits (PQLs)

The PQLs of the analytical methods are considered in relation to the SAC to confirm that the PQLs are less than the SAC. In cases where the PQLs are greater than the SAC, a discussion of this is provided.

6.1.6 Step 6 – Specify Limits on Decision Errors

To limit the potential for decision errors, a range of quality assurance processes are adopted. A quantitative assessment of the potential for false positives and false negatives in the analytical results is undertaken with reference to Schedule B(3) of NEPM (2013) using the data quality assurance information collected.

Decision errors can be controlled through the use of hypothesis testing. The test can be used to show either that the baseline condition is false or that there is insufficient evidence to indicate that the baseline condition is false. The null hypothesis is an assumption that is assumed to be true in the absence of contrary evidence. For this investigation, the null hypothesis has been adopted which is that, there is considered to be a complete SPR linkage for the CoPC identified in the CSM unless this linkage can be proven not to (or unlikely to) exist. The null hypothesis has been adopted for this investigation.

Quantitative limits on decision errors were not established as the sample plan was not probabilistic.

6.1.7 Step 7 - Optimise the Design for Obtaining Data

The most resource-effective design will be used in an optimum manner to achieve the investigation objectives. Adjustment of the investigation design can occur following consultation or feedback from project stakeholders. For this investigation, the design was optimised via consideration of the various lines of evidence used to select the sample locations, the media being sampled, and also by the way in which the data were collected.

The sampling plan and methodology are outlined in the following sub-sections.

6.2 Soil Sampling Plan and Methodology

The soil sampling plan and methodology adopted for this investigation is outlined in the table below:

Table 6-1: Soil Sampling Plan and Methodology

Aspect	Input
Sampling Density	Samples were collected from three locations as shown on the attached Figure 2. Sampling locations were placed in accessible areas noting the access limitation associated with existing buildings. The sampling plan was not designed to meet the minimum sampling density for hotspot identification, as outlined in the NSW EPA Sampling Design Part 1 – Application (2022)[7] contaminated land guidelines.
Sampling Plan	The sampling locations were placed on a judgemental sampling plan and were broadly positioned for site coverage, and to align with the JKG investigation. This sampling plan was considered suitable to make a preliminary assessment of potential risks associated with the AEC and CoPC identified in the CSM, and assess whether further investigation is warranted.

[7] NSW EPA, (2022). *Sampling design part 1 - application.* (referred to as EPA Sampling Design Guidelines 2022)

Aspect	Input
Set-out and Sampling Equipment	Sampling locations were set out using tape measure. In-situ sampling locations were checked for underground services by an external contractor prior to sampling. Samples were collected using a drill rig equipped with spiral flight augers. Soil samples were obtained from a Standard Penetration Test (SPT) split-spoon sampler, or directly from the auger when conditions did not allow use of the SPT sampler.
Sample Collection and Field QA/QC	Soil samples were obtained on between 2 and 4 December 2024 in accordance with standard field procedures. Soil samples were collected from the fill and natural profiles based on field observations. The sample depths are shown on the logs attached in the appendices. Samples were placed in glass jars with plastic caps and teflon seals with minimal headspace. Samples for asbestos analysis were placed in zip-lock plastic bags. During sampling, soil at selected depths was split into primary and duplicate samples for field QA/QC analysis. The field splitting procedure included splitting the soil by hand and alternately filling the sampling containers to obtain a representative split sample.
Field Screening	A portable Photoionisation Detector (PID) fitted with a 10.6mV lamp was used to screen the samples for the presence of volatile organic compounds (VOCs). PID screening for VOCs was undertaken on soil samples using the soil sample headspace method. VOC data was obtained from partly filled zip-lock plastic bags following equilibration of the headspace gases. PID calibration records are maintained on file by JKE. The field screening for asbestos quantification included the following: • A representative bulk sample was collected from fill at 1m intervals, or from each distinct fill profile. The quantity of material for each sample varied based on whatever return could be achieved using the auger. The bulk sample intervals are shown on the attached borehole logs; • Each sample was weighed using an electronic scale; • Each bulk sample was passed through a sieve with a 7.1mm aperture and inspected for the presence of fibre cement. Any soil clumps/nodules were disaggregated; • The condition of fibre cement or any other suspected asbestos materials was noted on the field records; and • If observed, any fragments of fibre cement in the bulk sample were collected, placed in a zip-lock bag and assigned a unique identifier. Calculations for asbestos content were undertaken based on the requirements outlined in Schedule B1 of NEPM (2013), as summarised in Section 7.1.
Decontami-nation and Sample Preservation	Sampling personnel used disposable nitrile gloves during sampling activities. Re-usable sampling equipment was decontaminated using Decon and potable water. Soil samples were preserved by immediate storage in an insulated sample container with ice or ice bricks. On completion of the fieldwork, the samples were stored temporarily in fridges in the JKE warehouse before being delivered in the insulated sample container to a NATA registered laboratory for analysis under standard chain of custody (COC) procedures.

6.2.1 Laboratory Analysis

Samples were analysed by an appropriate, NATA Accredited laboratory using the analytical methods detailed in Schedule B(3) of NEPM 2013. Reference should be made to the laboratory reports attached in the appendices for further details.

Table 6-2: Laboratory Details

Samples	Laboratory	Report Reference
All primary samples and field QA/QC samples including (intra-laboratory duplicates, trip blanks and trip spike samples)	Envirolab Services Pty Ltd NSW, NATA Accreditation Number – 2901 (ISO/IEC 17025 compliance)	368155 and 368155-A

7 SITE ASSESSMENT CRITERIA (SAC)

The SAC were derived from the NEPM 2013 and other guidelines as discussed in the following sub-sections. The guideline values for individual contaminants are presented in the attached report tables and further explanation of the various criteria adopted is provided in the appendices.

7.1 Soil

Soil data were compared to relevant Tier 1 screening criteria in accordance with NEPM (2013) as outlined below.

7.1.1 Human Health

- Health Investigation Levels (HILs) for a 'residential with minimal opportunities for access to soil' exposure scenario (HIL-B);
- Health Screening Levels (HSLs) for a 'low-high density residential' exposure scenario (HSL-A & HSL-B). HSLs were calculated based on conservative assumptions including a 'sand' type and a depth interval of 0m to 1m;
- HSLs for direct contact presented in the CRC Care Technical Report No. 10 – Health screening levels for hydrocarbons in soil and groundwater Part 1: Technical development document (2011)[8]; and
- Asbestos was assessed against the HSL-B criteria. A summary of the asbestos criteria is provided in the table below:

Table 7-1: Details for Asbestos SAC

Guideline	Applicability
Asbestos in Soil	The HSL-B criteria were adopted for the assessment of asbestos in soil. The SAC adopted for asbestos were derived from the NEPM 2013 and are based on the Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia (2021)[9]. The SAC include the following: • No visible asbestos at the surface/in the top 10cm of soil; • <0.04% w/w bonded asbestos containing material (ACM) in soil; and • <0.001% w/w asbestos fines/fibrous asbestos (AF/FA) in soil. Concentrations for bonded ACM concentrations in soil are based on the following equation which is presented in Schedule B1 of NEPM (2013): $$\text{\% w/w asbestos in soil} = \frac{\text{\% asbestos content x bonded ACM (kg)}}{\text{Soil volume (L) x soil density (kg/L)}}$$ However, we are of the opinion that the actual soil volume in a 10L bucket varies considerably due to the presence of voids, particularly when assessing cohesive soils. Therefore, each bucket sample was weighed using electronic scales and the above equation was adjusted as follows (we note that the units have also converted to grams):

[8] Cooperative Research Centre for Contamination Assessment and Remediation of the Environment (CRC Care), (2011). Technical Report No. 10 - *Health screening levels for hydrocarbons in soil and groundwater Part 1: Technical development document*

[9] Western Australian (WA) Department of Health (DoH), (2021). *Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia*. (referred to as WA DoH 2021)

Guideline	Applicability
	% w/w asbestos in soil = $\frac{\text{**% asbestos content x bonded ACM (g)**}}{\text{Soil weight (g)}}$

7.1.2 Environment (Ecological – terrestrial ecosystems)

- Ecological Investigation Levels (EILs) and Ecological Screening Levels (ESLs) for an 'urban residential and public open space' (URPOS) exposure scenario. These have only been applied to the top 2m of soil as outlined in NEPM (2013). The criterion for benzo(a)pyrene has been increased from the value presented in NEPM (2013) based on the Canadian Soil Quality Guidelines[10];
- ESLs were adopted based on the soil type;
- EILs for selected metals were calculated based on the most conservative added contaminant limit (ACL) values presented in Schedule B(1) of NEPM (2013) and published ambient background concentration (ABC) values presented in the document titled Trace Element Concentrations in Soils from Rural and Urban Areas of Australia (1995)[11]. This method is considered to be adequate for the Tier 1 screening.

7.1.3 Management Limits for Petroleum Hydrocarbons

Management limits for petroleum hydrocarbons (as presented in Schedule B1 of NEPM 2013) were considered.

7.1.4 Waste Classification

Data for the waste classification assessment were assessed in accordance with the Waste Classification Guidelines, Part 1: Classifying Waste (2014)[12] as outlined in the following table:

Table 7-2: Waste Categories

Category	Description
General Solid Waste (non-putrescible)	• If Specific Contaminant Concentration (SCC) ≤ Contaminant Threshold (CT1) then Toxicity Characteristics Leaching Procedure (TCLP) not needed to classify the soil as general solid waste; and • If TCLP ≤ TCLP1 and SCC ≤ SCC1 then treat as general solid waste.
Restricted Solid Waste (non-putrescible)	• If SCC ≤ CT2 then TCLP not needed to classify the soil as restricted solid waste; and • If TCLP ≤ TCLP2 and SCC ≤ SCC2 then treat as restricted solid waste.
Hazardous Waste	• If SCC > CT2 then TCLP must be undertaken to classify the soil as hazardous waste; and • If TCLP > TCLP2 and/or SCC > SCC2 then treat as hazardous waste.
Virgin Excavated Natural Material (VENM)	Natural material (such as clay, gravel, sand, soil or rock fines) that meet the following:

[10] Canadian Council of Ministers of the Environment, (1999). *Canadian soil quality guidelines for the protection of environmental and human health: Benzo(a)Pyrene (1997)* (referred to as the Canadian Soil Quality Guidelines)

[11] Olszowy, H., Torr, P., and Imray, P., (1995), *Trace Element Concentrations in Soils from Rural and Urban Areas of Australia. Contaminated Sites Monograph Series No. 4*. Department of Human Services and Health, Environment Protection Agency, and South Australian Health Commission

[12] NSW EPA, (2014). *Waste Classification Guidelines, Part 1: Classifying Waste.* (referred to as Waste Classification Guidelines 2014)

Category	Description
	• That has been excavated or quarried from areas that are not contaminated with manufactured chemicals, or with process residues, as a result of industrial, commercial mining or agricultural activities; • That does not contain sulfidic ores or other waste; and • Includes excavated natural material that meets such criteria for virgin excavated natural material as may be approved from time to time by a notice published in the NSW Government Gazette.

8 RESULTS

8.1 Summary of Data (QA/QC) Evaluation

The data evaluation is presented in the appendices. In summary, JKE is of the opinion that the data are adequately precise, accurate, representative, comparable and complete to serve as a basis for interpretation to achieve the investigation objectives.

8.2 Subsurface Conditions

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

Table 8-1: Summary of Subsurface Conditions

Profile	Description
Pavement	AC pavement, approximately 20mm thick, was encountered at the surface in BH1.
Fill	Fill was encountered at the surface or beneath the pavement in all boreholes and extended to depths of approximately 0.4m to 0.6m. The fill typically comprised silty clayey gravel and silty clay with inclusions of igneous gravel, ash and building rubble (bricks, concrete, glass, ceramic fragments).
Natural Soil	Natural silty clay was encountered beneath the fill in all boreholes and extended to depths of approximately 1.8m to 2.3m. The natural soil was typically grey, red-brown and brown and contained traces of ironstone gravel.
Bedrock	Interbedded sandstone and siltstone bedrock was encountered beneath the natural soil and extended to the termination of the boreholes at a depth of approximately 12m. The bedrock was typically grey and contained iron indurated bands.
Groundwater	Groundwater seepage was not encountered in the boreholes during augering to a maximum depth of approximately 5.8m. Water was introduced as part of the rock coring process, so the water levels immediately post-drilling are not reliable and are not reported here.

8.3 Field Screening

A summary of the field screening results is presented in the following table:

Table 8-2: Summary of Field Screening

Aspect	Details
PID Screening of Soil Samples for VOCs	PID soil sample headspace readings are presented in attached report tables and the COC documents attached in the appendices. All results were less than 1ppm isobutylene equivalents which indicates a lack of PID detectable VOCs.
Bulk Screening for Asbestos	The bulk field screening results are summarised in the attached report Table S5. All of the results were below the SAC. There were no asbestos materials identified in any of the samples.
Groundwater Depth & Flow	No groundwater seepage was encountered in the boreholes during augering to a maximum depth of approximately 5.8m. Reference is to be made to the JKG report for further discussion on groundwater.

Aspect	Details
	Based on the regional topography, groundwater is expected to flow to the south towards Salt Pan Creek.

8.4 Soil Laboratory Results

The soil laboratory results were assessed against the SAC presented in Section 7.1. Individual SAC are shown in the report tables attached in the appendices. A summary of the results is presented below:

8.4.1 Human Health and Environmental (Ecological) Assessment

Table 8-3: Summary of Soil Laboratory Results – Human Health and Environmental (Ecological)

Analyte	N	Max. (mg/kg)	N> Human Health SAC	N> Ecological SAC	Comments
Arsenic	5	10	0	0	-
Cadmium	5	0.5	0	NSL	-
Chromium (total)	5	24	0	0	-
Copper	5	60	0	0	-
Lead	5	310	0	0	-
Mercury	5	0.2	0	NSL	-
Nickel	5	19	0	0	-
Zinc	5	720	0	1	The zinc concentration in the fill sample from BH2 (0-0.2m) exceeded the ecological SAC.
Total PAHs	5	2.1	0	NSL	-
Benzo(a)pyrene	5	0.2	NSL	0	-
Carcinogenic PAHs (as BaP TEQ)	5	<0.5	0	NSL	-
Naphthalene	5	<1	0	NSL	-
DDT+DDE+DDD	5	<0.1	0	NSL	-
DDT	5	<0.1	NSL	0	-
Aldrin and dieldrin	5	<0.1	0	NSL	-
Chlordane	5	<0.1	0	NSL	-

Analyte	N	Max. (mg/kg)	N> Human Health SAC	N> Ecological SAC	Comments
Heptachlor	5	<0.1	0	NSL	-
Chlorpyrifos (OPP)	5	<0.1	0	NSL	-
PCBs	5	<0.1	0	NSL	-
TRH F1	5	<25	0	0	-
TRH F2	5	<50	0	0	-
TRH F3	5	110	0	0	-
TRH F4	5	<100	0	0	-
Benzene	5	<0.2	0	0	-
Toluene	5	<0.5	0	0	-
Ethylbenzene	5	<1	0	0	-
Xylenes	5	<1	0	0	-
Asbestos (in soil) (%w/w)		ACM = <0.01% AF/FA = <0.001%	0	NA	-

Notes:

N: Total number (primary samples)

NSL: No set limit

NL: Not limiting

8.4.2 Waste Classification Assessment

The laboratory results were assessed against the criteria presented in Section 7.1.4. The results are presented in the report tables attached in the appendices. A summary of the results is presented in the following table:

Table 8-4: Summary of Soil Laboratory Results Compared to CT and SCC Criteria

Analyte	N	N > CT Criteria	N > SCC Criteria	Comments
Arsenic	5	0	0	-
Cadmium	5	0	0	-
Chromium	5	0	0	-
Copper	5	NSL	NSL	-

Analyte	N	N > CT Criteria	N > SCC Criteria	Comments
Lead	5	1	0	The lead concentration of 310mg/kg in the BH2 (0-0.2m) sample exceeded the CT1 criterion of 100mg/kg.
Mercury	5	0	0	-
Nickel	5	0	0	-
Zinc	5	NSL	NSL	-
TRH (C_6-C_9)	5	0	0	-
TRH (C_{10}-C_{36})	5	0	0	-
BTEX	5	0	0	-
Total PAHs	5	0	0	-
Benzo(a)pyrene	5	0	0	-
OCPs & OPPs	5	0	0	-
PCBs	5	0	0	-
Asbestos	5	-	-	Asbestos was not detected in the samples analysed.

N: Total number (primary samples)

NSL: No set limit

Table 8-5: Summary of Soil Laboratory Results Compared to TCLP Criteria

Analyte	N	N > TCLP Criteria	Comments
Lead	1	0	The fill sample with a lead concentration above the CT1 criterion was analysed for TCLP lead.

N: Total number (primary samples)

9 WASTE CLASSIFICATION ASSESSMENT

9.1 Waste Classification of Fill

Based on the results of the waste classification assessment, and at the time of reporting, the fill material is assigned the preliminary classification of **General Solid Waste (non-putrescible)**. This classification will need to be confirmed through additional assessment.

9.2 Classification of Natural Soil and Bedrock

Based on the scope of work undertaken for this assessment, and at the time of reporting, JKE is of the opinion that the natural soil and bedrock at the site is likely to meet the definition of **VENM** for off-site disposal or re-use purposes. This classification will need to be confirmed through additional assessment.

10 DISCUSSION

10.1 Contamination Sources/AEC and Potential for Site Contamination

Based on the scope of work undertaken for this investigation, JKE identified the following potential contamination sources/AEC:

- Fill material across the site;
- Use of pesticides beneath the buildings and/or around the site;
- Hazardous building materials may be present as a result of former building and demolition activities; and
- An off-site photography (possible printing) business historically located approximately 30m north-west of the site.

Considering the above, and based on a qualitative assessment of various lines of evidence as discussed throughout this report, JKE is of the opinion that there is a potential for site contamination. The preliminary soil data collected for the investigation is discussed further in the following subsection, as part of the Tier 1 risk assessment.

10.2 Tier 1 Risk Assessment and Review of CSM

For a contaminant to represent a risk to a receptor, the following three conditions must be present:

1. Source – The presence of a contaminant;
2. Pathway – A mechanism or action by which a receptor can become exposed to the contaminant; and
3. Receptor – The human or ecological entity which may be adversely impacted following exposure to contamination.

If one of the above components is missing, the potential for adverse risks is relatively low.

10.2.1 Soil

All of the results were less than the human health-based SAC.

The zinc result in the BH2 (0-0.2m) sample exceeded the ecological based SAC. We note that the SAC adopted for this PSI is the most conservative and that BH2 is located within an area which will be excavated for the proposed basement. Based on this, the elevated zinc result is not considered to represent a risk to receptors.

We note that variable concentrations of lead and zinc, together with trace concentrations of TRH were encountered in the fill. Although not indicative of contamination that would pose a risk to receptors, these results do indicate that fill at the site is variable.

The limited intrusive investigation confirmed the CSM that the site has been filled. The fill contained anthropogenic inclusions such as ash and demolition material. In order to characterise the fill, the NSW EPA nominates a minimum sampling density which needs to be met as part of a Detailed Site Investigation (DSI) process.

Sampling beneath the buildings was outside the scope of the PSI, therefore the potential for pesticide impacts in the underlying soils cannot be ruled out.

10.2.2 Groundwater

Soil contaminant concentrations were generally low and are considered unlikely to represent a risk to groundwater. However, further assessment will be required to confirm this and to assess whether the identified off-site potential contamination source has impacted the groundwater.

The PSI has identified that an assessment of groundwater contamination conditions is required.

10.3 Decision Statements

The decision statements are addressed below:

> *Did the site inspection, or does the historical information identify potential contamination sources/AEC at the site?*

Yes, as summarised in Section 10.1.

> *Are any results above the SAC?*

Yes, the zinc result in surficial fill from BH2 exceeded the ecological based SAC, however, this result is not considered to represent a risk as discussed in Section 10.2.1

> *Do potential risks associated with contamination exist, and if so, what are they?*

No risks have been identified associated with actual contamination, however, risks associated with potential contamination remain.

> *Is remediation required?*

Based on the preliminary data reviewed for the PSI, there is currently no trigger for remediation. However, it is noted that the site has not been appropriately characterised in light of the CSM.

> *Is the site suitable for the proposed development, or can the site be made suitable subject to further characterisation and/or remediation?*

JKE consider that the site can be made suitable through further assessment in the form of a Detailed Site Investigation (DSI) to better assess the requirement for remediation. A DSI is needed to characterise the contamination conditions and assess whether the site needs to be remediated, or to confirm that the site is suitable in its current state without the need for remediation.

10.4 Data Gaps

An assessment of data gaps is provided in the following table:

Table 10-1: Data Gap Assessment

Data Gap	Assessment
SafeWork records not reviewed	These records have been requested and will be included in the final report.
Groundwater not assessed	Based on the site history and the results reported, the potential for groundwater contamination to pose a risk to the receptors is considered to be low, however, cannot be discounted. Groundwater must be assessed as part of the DSI.
Soil sampling density below minimum guideline density	Sampling was limited to accessible areas of the site and did not meet the minimum sampling density recommended in the EPA Sampling Design Guidelines 2022. Additionally, asbestos quantification was limited due to the use of boreholes and the preliminary nature of the investigation and sampling did not occur from beneath the buildings. The investigation identified fill containing ash and demolition waste. Additional work to address this data gap must occur as part of the DSI.

11 CONCLUSIONS AND RECOMMENDATIONS

The investigation included a review of historical information and soil sampling from three boreholes. The site has historically occupied by a church and community centre since at least 1930.

The boreholes encountered some demolition waste in the fill and the off-site photography/printing business may represent a risk to groundwater at the site. Further investigation, in the form of a DSI, will be required to better assess the soil and groundwater contamination conditions, including the potential for asbestos impact in the fill at the site, and to establish whether remediation is required.

JKE is of the opinion that the historical land uses and potential sources of contamination identified would not preclude the proposed development, and we consider that the site can be made suitable for the proposed development via remediation, should it be required. The following is recommended to better assess the risks associated with potential contamination at the site:

- A sampling, analysis and quality plan (SAQP) should be prepared prior to the commencement of the DSI;
- A DSI is to be undertaken to address the data gaps outlined in Section 10.4, characterise the site contamination conditions and establish whether the site is suitable for the proposed development, or whether remediation is required; and
- A hazardous building materials survey should be undertaken prior to demolition of the buildings. Following demolition of the buildings (and preferably prior to removal of the hardstand), an asbestos clearance certificate should be obtained.

At the stage, JKE consider that there is no requirement to report any contamination under the NSW EPA Guidelines on the Duty to Report Contamination under Section 60 of the CLM Act 1997 (2015)[13]. This should be reviewed after completion of the DSI and subsequent remediation (if required).

JKE consider that the report objectives outlined in Section 1.2 have been addressed.

[13] NSW EPA, (2015). *Guidelines on the Duty to Report Contamination under Section 60 of the CLM Act 1997* (referred to as Duty to Report Contamination)

12 LIMITATIONS

The report limitations are outlined below:

- JKE accepts no responsibility for any unidentified contamination 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;
- Previous use of this site may have involved excavation for the foundations of buildings, services, and similar facilities. In addition, unrecorded excavation and burial of material may have occurred on the site. Backfilling of excavations could have been undertaken with potentially contaminated material that may be discovered in discrete, isolated locations across the site during construction work;
- 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 contamination sources or may have been impacted by site contamination, 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 landuse. JKE should be contacted immediately in such circumstances;
- Material considered to be suitable from a geotechnical point of view may be unsatisfactory from a soil contamination viewpoint, and vice versa; and
- 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.

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, eg addition of basement levels; 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 investigation. If the subject site is sold, ownership of the investigation report should be transferred by JKE to the new site owners who will be informed of the conditions and limitations under which the investigation was undertaken. No person should apply an investigation 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 contaminant concentrations may also vary over time through contaminant migration, natural attenuation of organic contaminants, ongoing contaminating activities and placement or removal of fill material. The conclusions of an investigation 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 investigations 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 contamination, the likely impact on the proposed development and appropriate remediation 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 investigation 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.

Investigation Limitations
Although information provided by a site investigation can reduce exposure to the risk of the presence of contamination, no environmental site investigation can eliminate the risk. Even a rigorous professional investigation may not detect all contamination on a site. Contaminants may be present in areas that were not surveyed or sampled, or may migrate to areas which showed no signs of contamination when sampled. Contaminant analysis cannot possibly cover every type of contaminant which may occur; only the most likely contaminants are screened.

Misinterpretation of Site Investigations by Design Professionals

Costly problems can occur when other design professionals develop plans based on misinterpretation of an investigation 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 Investigation Report

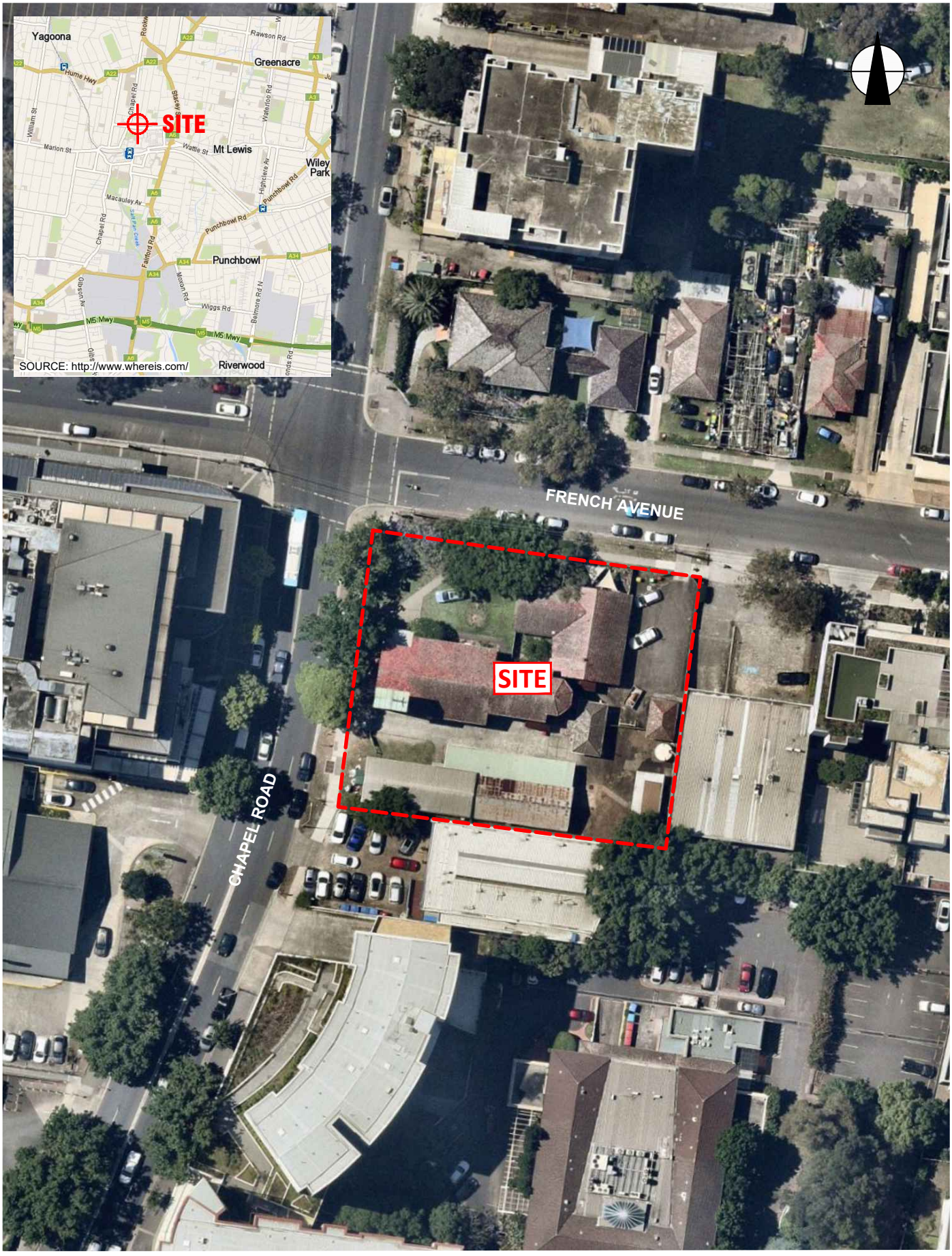
Borehole and test pit logs are prepared by environmental scientists, engineers or geologists based upon interpretation of field conditions and laboratory evaluation of field samples. Logs are normally provided in our reports and these should not be re-drawn for inclusion in site remediation or other 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 investigation. 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 investigation. 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 investigation 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 investigation 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 investigation, 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



AERIAL IMAGE SOURCE: MAPS.AU.NEARMAP.COM

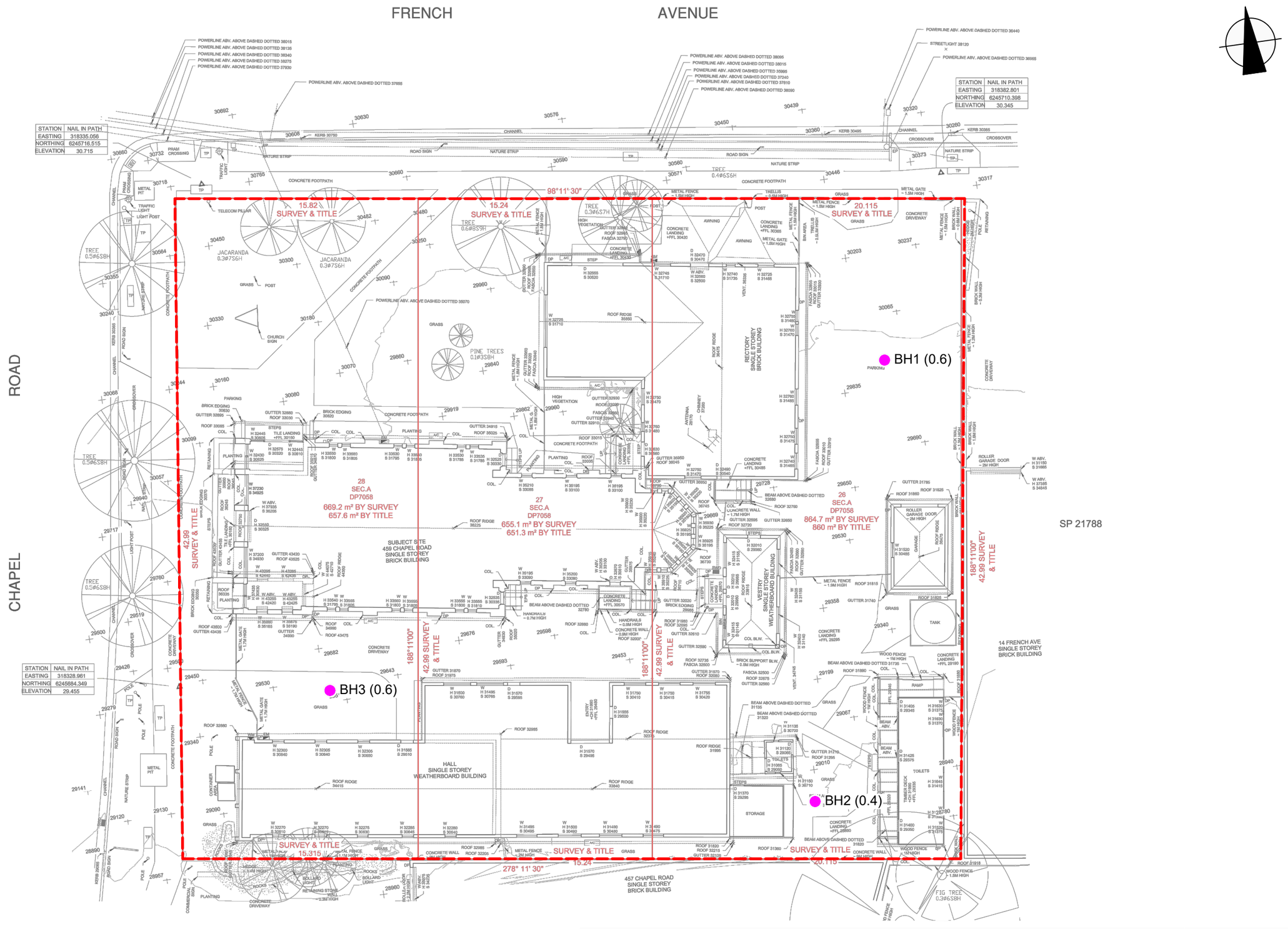
This plan should be read in conjunction with the Environmental report.

Title:	**SITE LOCATION PLAN**
Location:	461 CHAPEL ROAD, BANKSTOWN, NSW
Project No:	E37149PL
Figure No:	1

JKEnvironments

PLOT DATE: 20/12/2024 10:50:59 AM DWG FILE: K:\SC EIS JOBS\37000'S\E37149PL BANKSTOWN\CAD\E37149PL.DWG

© JK ENVIRONMENTS



LEGEND

- APPROXIMATE SITE BOUNDARY
- BH(Fill Depth) BOREHOLE LOCATION, NUMBER AND DEPTH OF FILL (m)

0 2.5 5 7.5 10 12.5

SCALE 1:250 @A3 METRES

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

Title: **SAMPLE LOCATION PLAN**

Location: 461 CHAPEL ROAD, BANKSTOWN, NSW

Project No: E37149PL

Figure No: 2

JKEnvironments

PLOT DATE: 20/12/2024 10:51:06 AM DWG FILE: K:\SC EIS JOBS\37000'S\E37149PL BANKSTOWN\CAD\E37149PL.DWG

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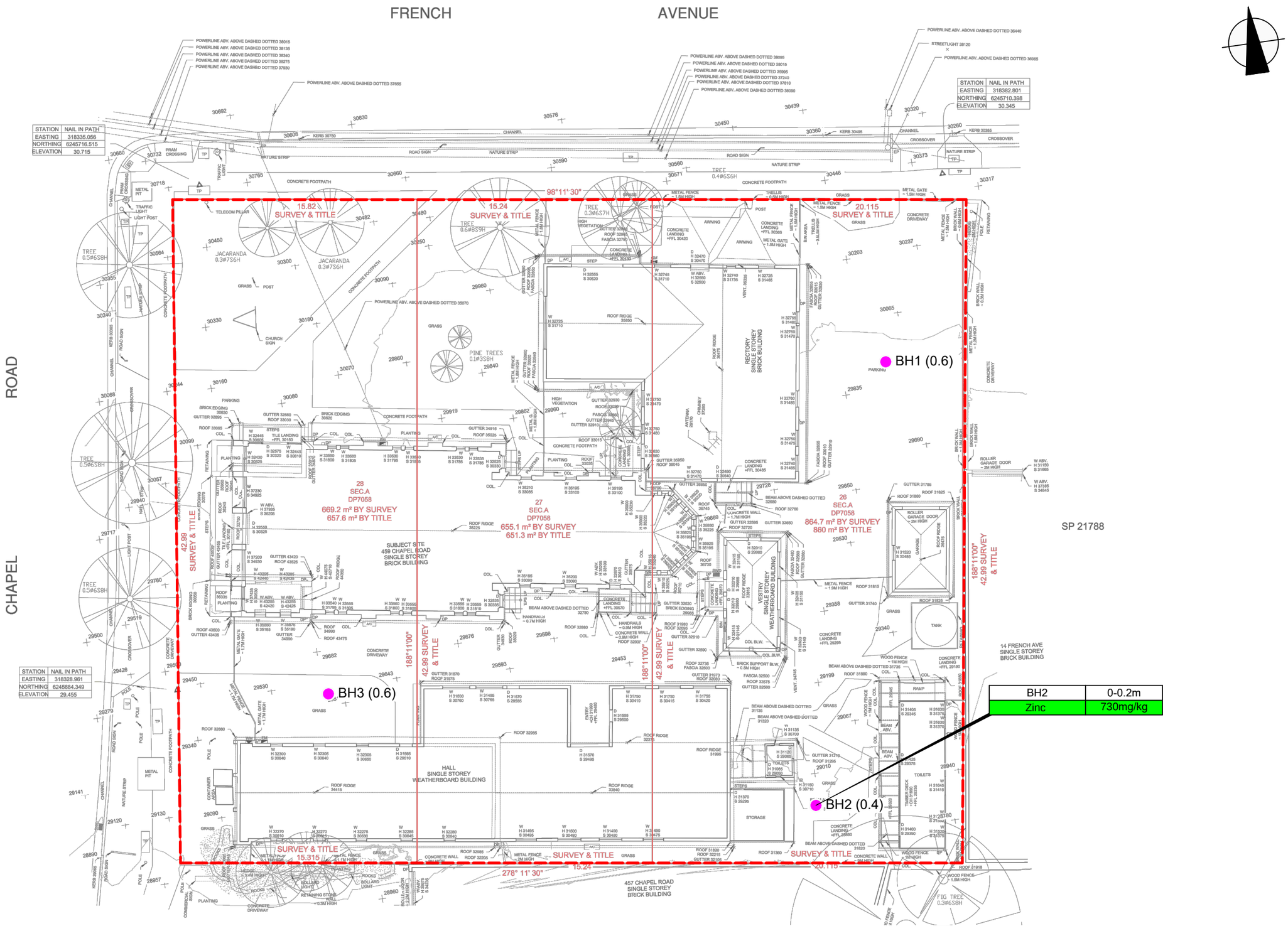


LEGEND

- APPROXIMATE SITE BOUNDARY
- BH(Fill Depth) BOREHOLE LOCATION, NUMBER AND DEPTH OF FILL (m)

SAMPLE ID	DEPTH (metres)
CHEMICAL	CONCENTRATION

SOIL/SURFACE SAMPLE EXCEEDANCE

SOIL/SURFACE CONTAMINATION ABOVE SAC FOR ECOLOGICAL RISK

0 2.5 5 7.5 10 12.5

SCALE 1:250 @A3 METRES

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

Title: **SAC EXCEEDANCE PLAN**

Location: 461 CHAPEL ROAD, BANKSTOWN, NSW

Project No: E37149PL

Figure No: 3

JKEnvironments

PLOT DATE: 20/12/2024 1:02:24 PM DWG FILE: K:\5C EIS JOBS\37000\SIE37149PL BANKSTOWN\CAD\E37149PL.DWG

© JK ENVIRONMENTS

Appendix B: Site Information and Site History

Lotsearch Environmental Risk and Planning Report

LOTSEARCH

LOTSEARCH ENVIRO PROFESSIONAL

Date: 26 Nov 2024 09:28:52

Reference: LS067580 EP

Address: 461 Chapel Road, Bankstown, NSW 2200

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	24/07/2024	24/07/2024	Quarterly	-	-	-	-
Topographic Data	NSW Department of Customer Service - Spatial Services	21/05/2024	21/05/2024	Annually	-	-	-	-
List of NSW contaminated sites notified to EPA	Environment Protection Authority NSW	21/11/2024	08/11/2024	Monthly	1000m	0	0	0
Contaminated Land Records of Notice	Environment Protection Authority NSW	21/11/2024	21/11/2024	Monthly	1000m	0	0	0
Former Gasworks	Environment Protection Authority NSW	21/11/2024	14/07/2021	Quarterly	1000m	0	0	0
Notices under the POEO Act 1997	Environment Protection Authority NSW	30/10/2024	30/10/2024	Monthly	1000m	0	0	1
National Waste Management Facilities Database	Geoscience Australia	29/04/2024	29/11/2022	Annually	1000m	0	0	1
National Liquid Fuel Facilities	Geoscience Australia	16/10/2024	07/09/2020	Annually	1000m	0	0	3
EPA PFAS Investigation Program	Environment Protection Authority NSW	18/11/2024	14/06/2024	Monthly	2000m	0	0	0
Defence PFAS Investigation & Management Program - Investigation Sites	Australian Department of Defence	28/10/2024	28/10/2024	Monthly	2000m	0	0	0
Defence PFAS Investigation & Management Program - Management Sites	Australian Department of Defence	28/10/2024	28/10/2024	Monthly	2000m	0	0	0
Airservices Australia National PFAS Management Program	Airservices Australia	28/10/2024	28/10/2024	Monthly	2000m	0	0	0
Defence Controlled Areas	Australian Department of Defence	22/10/2024	22/10/2024	Quarterly	2000m	0	0	0
Defence 3 Year Regional Contamination Investigation Program	Australian Department of Defence	18/11/2024	02/09/2022	Quarterly	2000m	0	0	0
National Unexploded Ordnance (UXO)	Australian Department of Defence	22/10/2024	22/10/2024	Quarterly	2000m	0	0	0
EPA Other Sites with Contamination Issues	Environment Protection Authority NSW	13/11/2023	15/12/2022	Annually	1000m	0	0	0
Licensed Activities under the POEO Act 1997	Environment Protection Authority NSW	11/10/2024	11/10/2024	Monthly	1000m	0	0	2
Delicensed POEO Activities still regulated by the EPA	Environment Protection Authority NSW	11/10/2024	11/10/2024	Monthly	1000m	0	0	0
Former POEO Licensed Activities now revoked or surrendered	Environment Protection Authority NSW	11/10/2024	11/10/2024	Monthly	1000m	0	0	4
UBD Business Directories (Premise & Intersection Matches)	Hardie Grant			Not required	150m	0	87	131
UBD Business Directories (Road & Area Matches)	Hardie Grant			Not required	150m	-	93	93
UBD Business Directory Dry Cleaners & Motor Garages/Service Stations (Premise & Intersection Matches)	Hardie Grant			Not required	500m	0	57	177
UBD Business Directory Dry Cleaners & Motor Garages/Service Stations (Road & Area Matches)	Hardie Grant			Not required	500m	-	27	77
Points of Interest	NSW Department of Customer Service - Spatial Services	19/11/2024	19/11/2024	Quarterly	1000m	1	2	88
Tanks (Areas)	NSW Department of Customer Service - Spatial Services	19/11/2024	19/11/2024	Quarterly	1000m	0	0	1
Tanks (Points)	NSW Department of Customer Service - Spatial Services	19/11/2024	19/11/2024	Quarterly	1000m	0	0	1
Major Easements	NSW Department of Customer Service - Spatial Services	21/11/2024	21/11/2024	Quarterly	1000m	0	0	16
State Forest	Forestry Corporation of NSW	12/12/2023	11/12/2023	Annually	1000m	0	0	0
Hydrogeology Map of Australia	Geoscience Australia	17/04/2024	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	11/11/2024	28/06/2024	Quarterly	1000m	0	0	0
National Groundwater Information System (NGIS) Boreholes	Bureau of Meteorology; Water NSW	28/05/2024	20/06/2023	Annually	2000m	0	0	10
NSW Seamless Geology Single Layer: Rock Units	NSW Department of Primary Industries and Regional Development	17/05/2024	01/05/2024	Annually	1000m	1	3	4
NSW Seamless Geology Single Layer: Geological Boundaries and Faults	NSW Department of Primary Industries and Regional Development	17/05/2024	01/05/2024	Annually	1000m	0	0	0
NSW Seamless Geology Single Layer: Trendlines	NSW Department of Primary Industries and Regional Development	17/05/2024	01/05/2024	Annually	1000m	0	0	0
NSW Seamless Geology Single Layer: Fold Axes	NSW Department of Primary Industries and Regional Development	17/05/2024	01/05/2024	Annually	1000m	0	0	0
Naturally Occurring Asbestos Potential	NSW Department of Regional NSW	26/04/2024	14/03/2024	Annually	1000m	0	0	0
Atlas of Australian Soils	Australian Bureau of Agriculture and Resource Economics and Sciences (ABARES)	12/01/2024	17/02/2011	Annually	1000m	1	1	1
Soil Landscapes of Central and Eastern NSW	NSW Department of Climate Change, Energy, the Environment and Water	12/12/2023	27/07/2020	Annually	1000m	1	2	4
Environmental Planning Instrument Acid Sulfate Soils	NSW Department of Planning, Housing and Infrastructure	20/11/2024	18/10/2024	Monthly	500m	0	-	-
Atlas of Australian Acid Sulfate Soils	CSIRO	12/01/2024	21/02/2013	Annually	1000m	1	1	1
Dryland Salinity - National Assessment	Australian Bureau of Agricultural and Resource Economics and Sciences	03/06/2024	24/05/2024	Annually	1000m	0	0	0
Dryland Salinity Potential of Western Sydney	NSW Department of Climate Change, Energy, the Environment and Water	26/04/2024	26/02/2024	Annually	1000m	1	2	5
Mining Subsidence Districts	NSW Department of Customer Service	21/11/2024	21/11/2024	Quarterly	1000m	0	0	0
Current Mining Titles	NSW Department of Regional NSW	21/11/2024	21/11/2024	Monthly	1000m	0	0	0
Mining Title Applications	NSW Department of Regional NSW	21/11/2024	21/11/2024	Monthly	1000m	0	0	0
Historic Mining Titles	NSW Department of Regional NSW	21/11/2024	21/11/2024	Monthly	1000m	7	7	7
Environmental Planning Instrument SEPP State Significant Precincts	NSW Department of Planning, Housing and Infrastructure	20/11/2024	08/09/2023	Monthly	1000m	0	0	0
Environmental Planning Instrument Land Zoning	NSW Department of Planning, Housing and Infrastructure	20/11/2024	08/11/2024	Monthly	1000m	1	2	73
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	1
State Heritage Register - Curtilages	NSW Department of Planning, Industry and Environment	25/11/2024	06/09/2024	Quarterly	1000m	0	0	1
Environmental Planning Instrument Local Heritage	NSW Department of Planning, Housing and Infrastructure	20/11/2024	08/11/2024	Monthly	1000m	0	0	17
Bush Fire Prone Land	NSW Rural Fire Service	21/11/2024	19/07/2024	Monthly	1000m	0	0	0
NSW Native Vegetation Type Map	NSW Department of Climate Change, Energy, the Environment and Water	02/09/2024	30/11/2023	Quarterly	1000m	1	1	5
Ramsar Wetlands of Australia	Australian Department of Climate Change, Energy, the Environment and Water	16/05/2024	11/04/2024	Annually	1000m	0	0	0
Collaborative Australian Protected Areas Database (CAPAD) 2022 - Terrestrial	Australian Department of Climate Change, Energy, The Environment and Water	04/03/2024	30/06/2022	Annually	1000m	0	0	0
Collaborative Australian Protected Areas Database (CAPAD) 2022 - Marine	Australian Department of Climate Change, Energy, The Environment and Water	04/03/2024	30/06/2022	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
Groundwater Dependent Ecosystems	Bureau of Meteorology	28/05/2024	28/05/2024	Annually	1000m	0	0	0
Inflow Dependent Ecosystems Likelihood	Bureau of Meteorology	28/05/2024	28/05/2024	Annually	1000m	0	0	0
NSW BioNet Species Sightings	NSW Department of Climate Change, Energy, the Environment and Water	10/09/2024	10/09/2024	Monthly	10000m	-	-	-

Site Diagram

461 Chapel Road, Bankstown, NSW 2200

Legend

- Site Boundary
- Internal Parcel Boundaries

Total Area: 2164m²

Total Perimeter: 187m

Disclaimers:

Measurements are approximate only and may have been simplified or smaller lengths removed for readability.

Parcels that make up a small percentage of the total site area have not been labelled for increased legibility.

Scale:

0 5 10
Meters

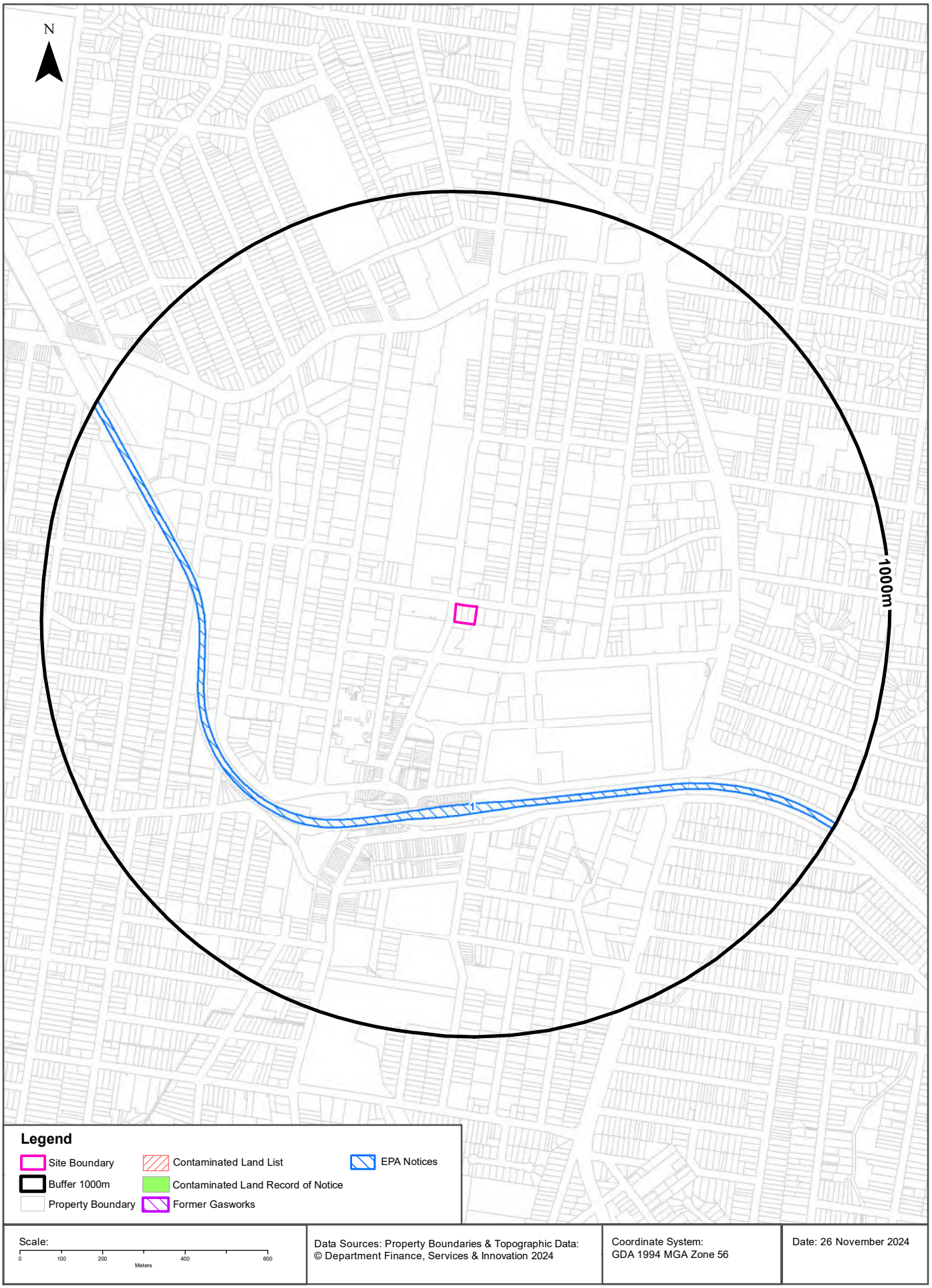
Data Sources: Property Boundaries & Topographic Data: © Department Finance, Services & Innovation 2024

Coordinate System: GDA 1994 MGA Zone 56

Date: 26 November 2024

Contaminated Land

461 Chapel Road, Bankstown, NSW 2200



Contaminated Land

461 Chapel Road, Bankstown, NSW 2200

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

461 Chapel Road, Bankstown, NSW 2200

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

461 Chapel Road, Bankstown, NSW 2200

EPA Notices

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

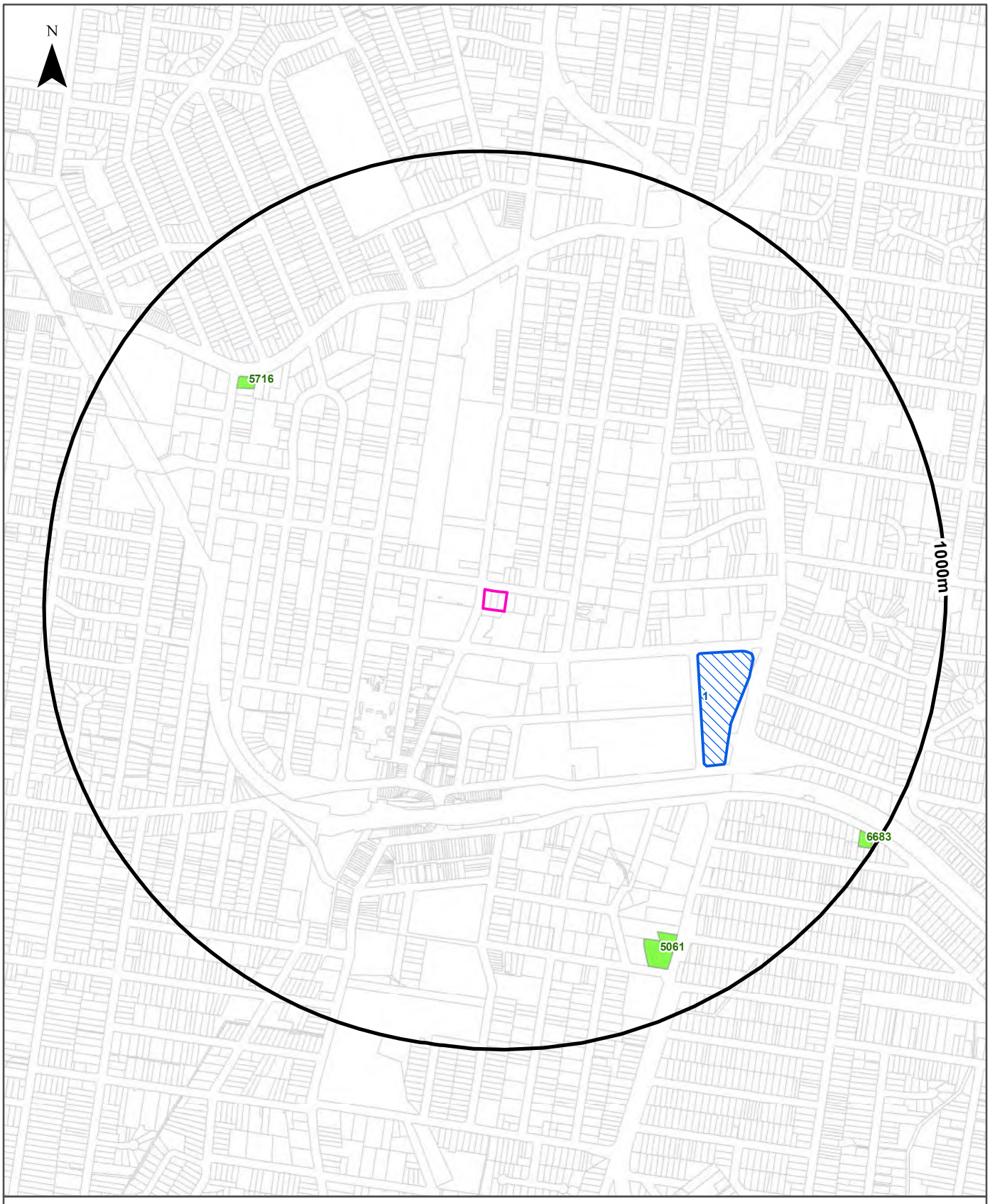
Map ID	Number	Type	Name	Address	Status	Issued Date	Act	Offence	Offence Date	Loc Conf	Dist	Dir
1	3173530755	Penalty Notice	SYDNEY TRAINS	SYDNEY TRAINS, HAYMARKET, NSW 1238	Issued	10/11/2021	Protection of the Environment Operations Act 1997 - 64(1)	Contravene condition of licence - Corporation	31/05/2021	Network of Features	432m	South

NSW EPA Notice Data Source: Environment Protection Authority

© State of New South Wales through the Environment Protection Authority

Waste Management & Liquid Fuel Facilities

461 Chapel Road, Bankstown, NSW 2200



Legend

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

Scale:	Data Sources: Property Boundaries & Topographic Data: © Department Finance, Services & Innovation 2024	Coordinate System: GDA 1994 MGA Zone 56	Date: 26 November 2024

Waste Management & Liquid Fuel Facilities

461 Chapel Road, Bankstown, NSW 2200

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	2 RICKARD ROAD, BANKSTOWN	DROP-OFF	SOFT PLASTICS DROP-OFF FACILITY	OPERATIONAL	Premise Match	452m	South East

Source: Waste Management Facilities Database
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National Liquid Fuel Facilities

National Liquid Fuel Facilties within the dataset buffer:

Map Id	Owner	Name	Address	Suburb	Class	Operational Status	Operator	Revision Date	Loc Conf	Dist	Direction
5716	BP	BP YAGOONA	405 HUME HIGHWAY	YAGOONA	PETROL STATION	OPERATIONAL			Premise Match	699m	North West
5061	7-ELEVEN	7-ELEVEN BANKSTOWN	180 STACEY AND STANLEY STREET	BANKSTOWN	PETROL STATION	OPERATIONAL			Premise Match	808m	South East
6683	METRO FUEL	METRO PETROLEUM BANKSTOWN SOUTH	160 SOUTH TERRACE	BANKSTOWN	PETROL STATION	OPERATIONAL			Premise Match	950m	South East

National Liquid Fuel Facilities Data Source: Geoscience Australia
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PFAS Investigation & Management Programs

461 Chapel Road, Bankstown, NSW 2200

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

461 Chapel Road, Bankstown, NSW 2200

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

461 Chapel Road, Bankstown, NSW 2200

EPA Other Sites with Contamination Issues

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

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

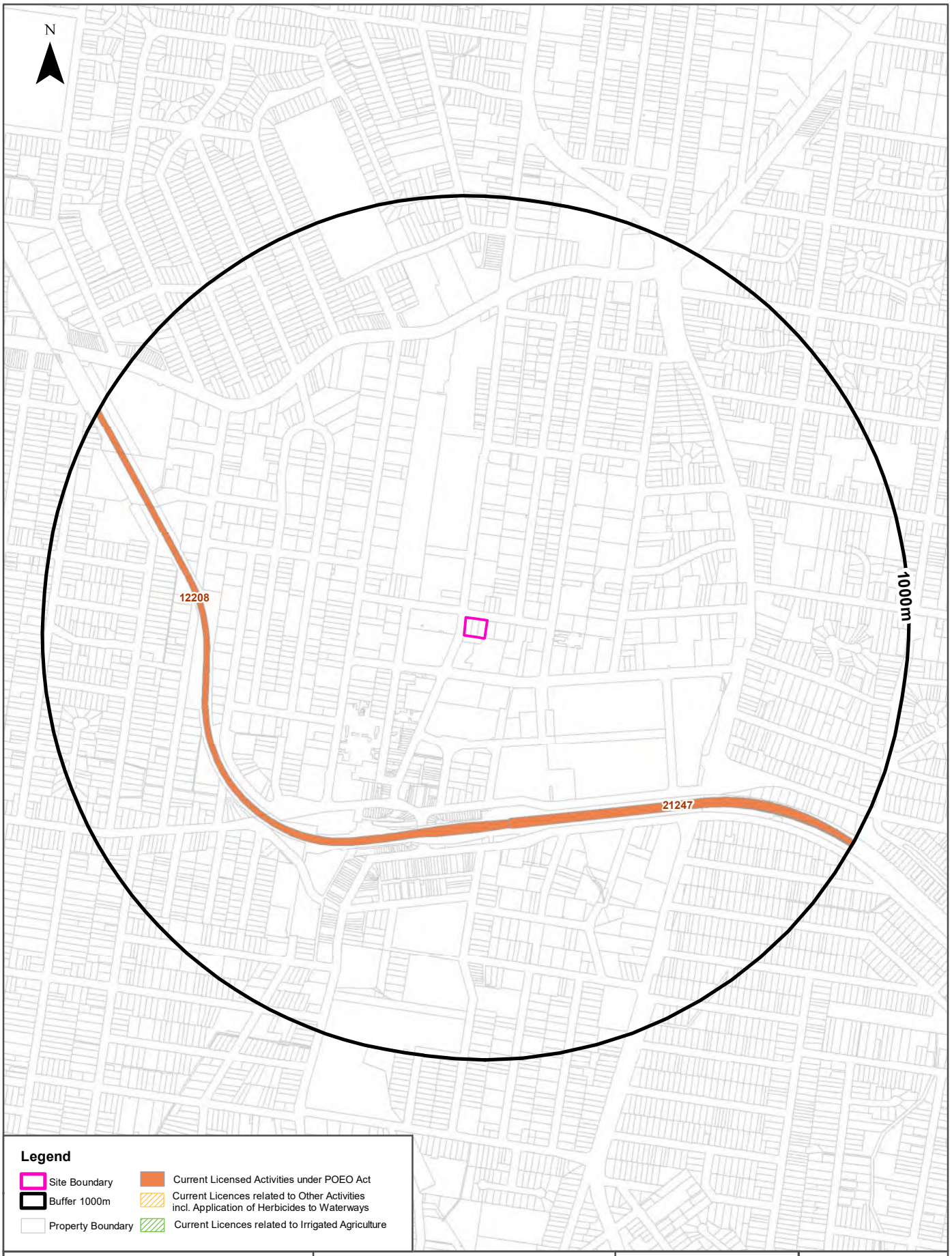
Sites within the dataset buffer:

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

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

Current EPA Licensed Activities

461 Chapel Road, Bankstown, NSW 2200



EPA Activities

461 Chapel Road, Bankstown, NSW 2200

Licensed Activities under the POEO Act 1997

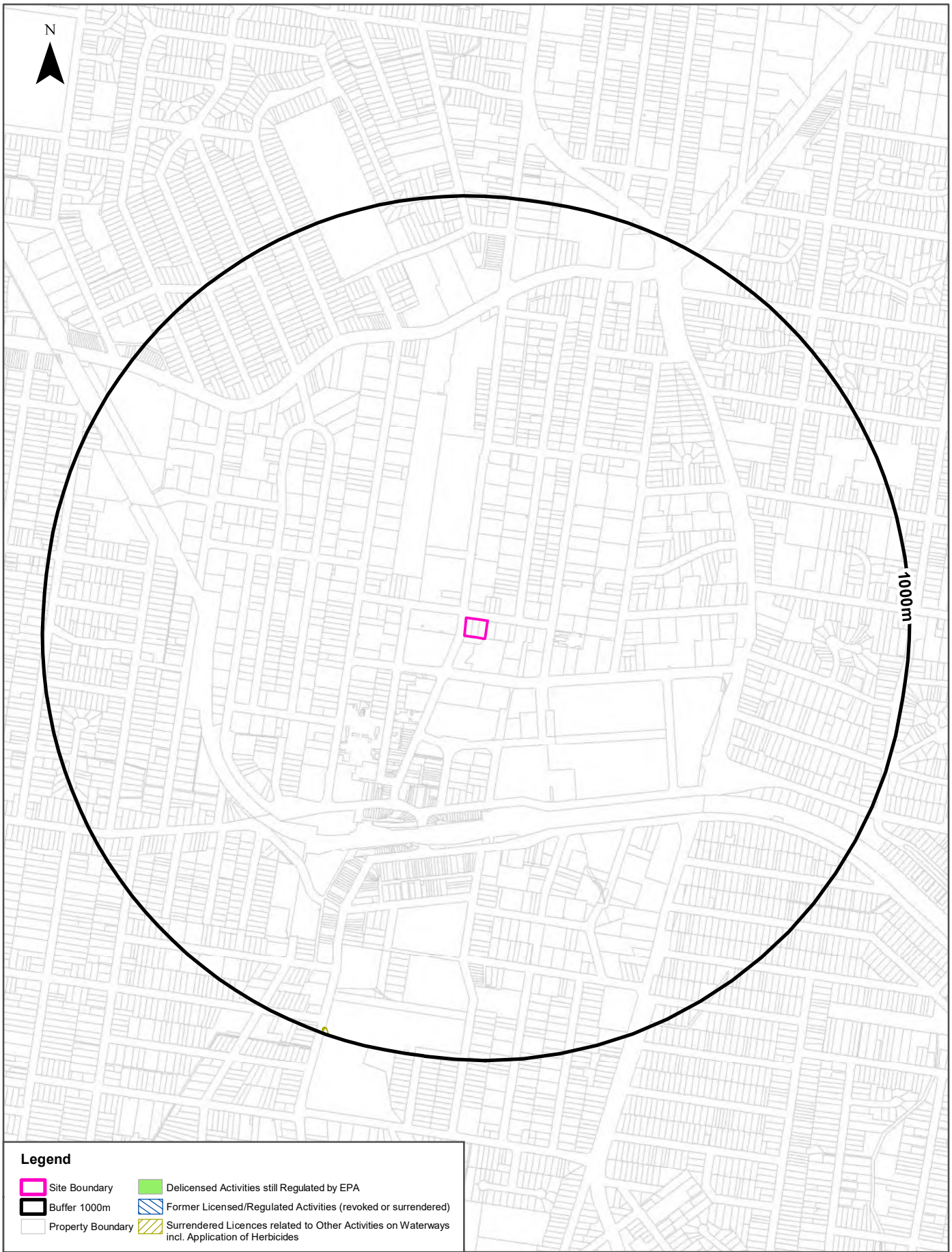
Licensed activities under the Protection of the Environment Operations Act 1997, within the dataset buffer:

EPL	Organisation	Name	Address	Suburb	Activity	Loc Conf	Distance	Direction
21247	Metro Trains Sydney Pty Ltd		SYDNEY METRO, ROUSE HILL, NSW 2155		Railway systems activities	Network of Features	430m	South East
12208	SYDNEY TRAINS		SYDNEY TRAINS, HAYMARKET, NSW 1238		Railway systems activities	Network of Features	432m	South

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

Delicensed & Former Licensed EPA Activities

461 Chapel Road, Bankstown, NSW 2200



EPA Activities

461 Chapel Road, Bankstown, NSW 2200

Delicensed Activities still regulated by the EPA

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

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

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

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

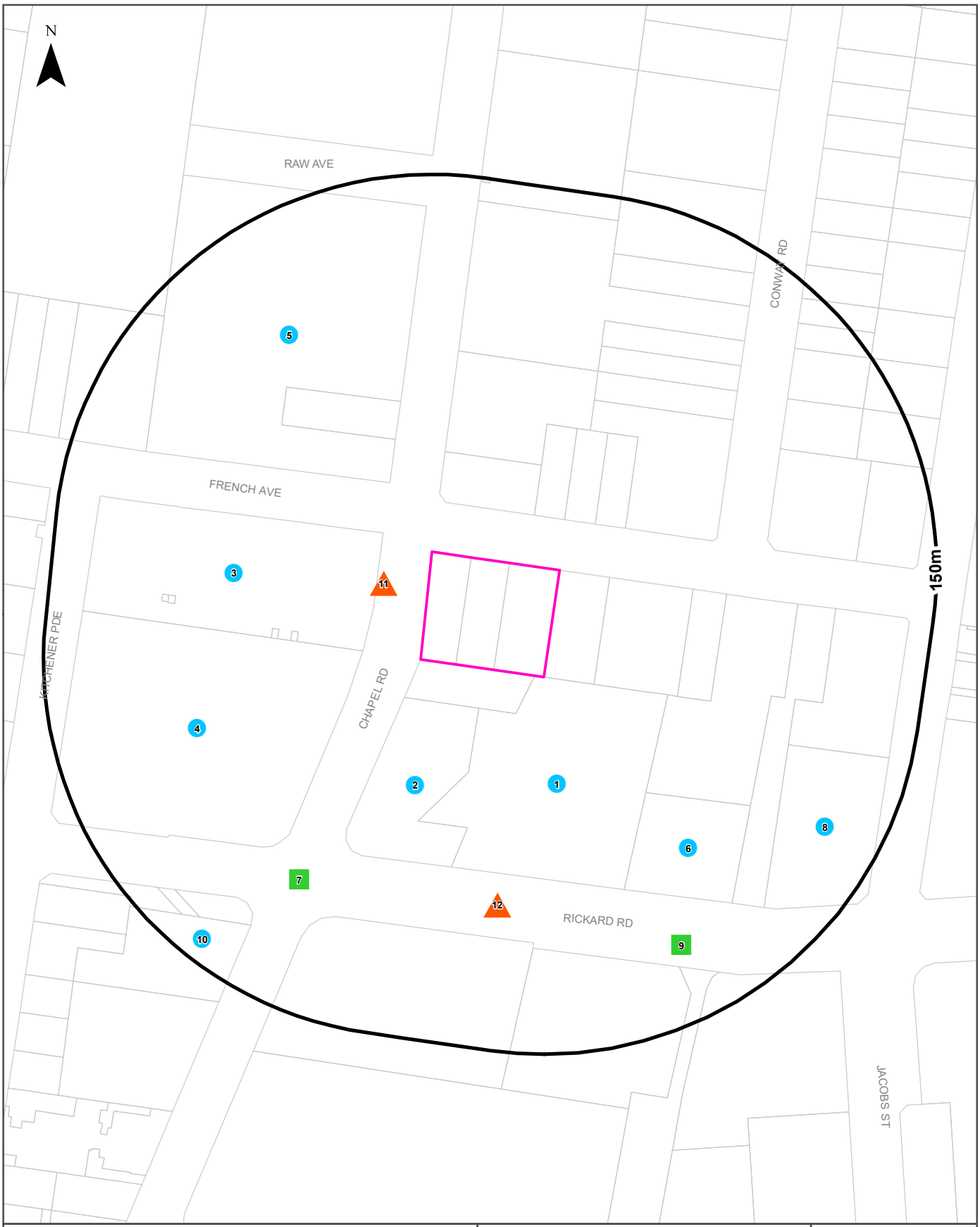
Former Licensed activities under the Protection of the Environment Operations Act 1997, now revoked or surrendered, within the dataset buffer:

Licence No	Organisation	Location	Status	Issued Date	Activity	Loc Conf	Distance	Direction
4653	LUHRMANN ENVIRONMENT MANAGEMENT PTY LTD	WATERWAYS THROUGHOUT NSW	Surrendered	06/09/2000	Other Activities / Non Scheduled Activity - Application of Herbicides	Network of Features	986m	South
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	986m	South
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	986m	South
7498	BANKSTOWN CITY COUNCIL	-, Waterways throughout Bankstown City Council, BANKSTOWN	Surrendered	07/09/2000	Other Activities / Non Scheduled Activity - Application of Herbicides	Network of Features	986m	South

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

Historical Business Directories

461 Chapel Road, Bankstown, NSW 2200



Legend

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

Scale: 0 25 50 75 100 Meters

Coordinate System: GDA 1994 MGA Zone 56

Date: 26 November 2024

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

Historical Business Directories

461 Chapel Road, Bankstown, NSW 2200

Business Directory Records 1950-1991
Premise or Road Intersection Matches

Potentially contaminative business activities extracted from Universal Business Directories from years 1991, 1986, 1982, 1978, 1975, 1970, 1965, 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	Motor Steering Specialists	Master Ride Shack Absorber & Steering Specialists, 69 Rickard Rd., Bankstown	126919	1965	Premise Match	0m	South
	Motor Shock Absorber Specialists	Master Ride Shock Absorber & Steering Specialists, 69 Rickard Rd., Bankstown	126283	1965	Premise Match	0m	South
	MOTOR SHOCK ABSORBER SPECIALISTS	Master Ride Shock Absorber & Steering Specialists, 69 Rickard Rd., Bankstown	351337	1961	Premise Match	0m	South
	MOTOR STEERING SPECIALISTS	Master Ride Shock Absorber & Steering Specialists, 69 Rickard Rd., Bankstown	352011	1961	Premise Match	0m	South
2	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Total (Bankstown) Service Station, 445 Chapel Rd., Bankstown. 2200	50952	1978	Premise Match	16m	South West
	MOTOR GARAGES &/OR ENGINEERS.	Total (Bankstown) Service Station., 445 Chapel Rd., Bankstown. 2200	59648	1975	Premise Match	16m	South West
	MOTOR SERVICE STATIONS-PETROL,OIL,Etc.	Bankstown Central Service Station., 445 Chapel Rd., BANKSTOWN	340817	1970	Premise Match	16m	South West
	ELECTRICAL CONTRACTORS &/OR ELECTRICIANS	Hillman, V. E., 445 Chapel Rd., Bankstown	37616	1950	Premise Match	16m	South West
3	MOTOR CAR/TRUCK DEALERS-NEW/USED (M520)	Mason, Allan Motors Pty. Ltd., 466 Chapel Rd., Bankstown, 2200	336116	1970	Premise Match	20m	West
	MOTOR ACCESSORIES/DEALERS (M448)	Triumph Motors (N.S.W.)., 462 Chapel Rd., Bankstown	334876	1970	Premise Match	20m	West
	MOTOR ACCESSORIES-W'SALE(M460)	Triumph Motors (N.S.W.)., 462 Chapel Rd., Bankstown	335096	1970	Premise Match	20m	West
	MOTOR CAR/TRUCK DEALERS-NEW/USED (M520)	Triumph Motors (N.S.W.)., 462 Chapel Rd., Bankstown	336317	1970	Premise Match	20m	West
	MOTOR SPARE PARTS MFRS. &/OR WHOLESALERS (M732)	Triumph Motors (N.S.W.)., 462 Chapel Rd., Bankstown	342227	1970	Premise Match	20m	West
	Motor Car/Truck Dealers - New/Used	Maddens Motors (Bankstown) Pty. Ltd., 466 Chapel Rd., Bankstown	120779	1965	Premise Match	20m	West
	JOINERY MANUFACTURERS	Futuristic Furniture Co. & Joinery Works, 462 Chapel Rd. Bankstown	329848	1961	Premise Match	20m	West
	CARPENTERS	Futuristic Furniture Co. & Joinery Works, 462 Chapel Rd., Bankstown	284105	1961	Premise Match	20m	West
	FURNITURE-GENERAL-MFRS. &/OR WHOLESALERS	Futuristic Furniture Co. & Joinery Works, 462 Chapel Rd., Bankstown	317506	1961	Premise Match	20m	West
	SHOP/OFFICE FITTERS	Futuristic Furniture Co. & Joinery Works, 462 Chapel Rd., Bankstown	250048	1961	Premise Match	20m	West
	CABINETMAKERS	Futuristic Furniture and Joinery Works, 462 Chapel Rd., Bankstown	14898	1950	Premise Match	20m	West
	FURNITURE MANUFACTURERS & WHOLESALERS-GENERAL	Futuristic Furniture and Joinery Works, 462 Chapel Rd., Bankstown	52720	1950	Premise Match	20m	West
	CARPENTERS & JOINERS	Futuristic Furniture Co. and Joinery Works, 462 Chapel Rd., Bankstown	17892	1950	Premise Match	20m	West
4	Motor Garages & Service Stations	Bankstown Shell Service Station, 440 Chapel Rd, Bankstown 2200	53535	1991	Premise Match	23m	West

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
4	Motor Car Dealers New &/or Used	Purnell Bros Pty Ltd, 444 Chapel Rd, Bankstown 2200	52601	1991	Premise Match	23m	West
	MOTOR GARAGES & SERVICE STATIONS.	Bankstown Shell Service Station, 440 Chapel Rd., Bankstown. 2200	64013	1986	Premise Match	23m	West
	MOTOR CAR &/OR TRUCK DEALERS-NEW &/OR USED.	Purnell Bros. Pty. Ltd., 444 Chapel Rd., Bankstown. 2200	62269	1986	Premise Match	23m	West
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS. (M6860)	Bankstown Service Station, 440 Chapel Rd., Bankstown. 2200.	56092	1982	Premise Match	23m	West
	MOTOR CAR &/OR TRUCK DEALERS - NEW &/OR USED. (M5840)	Purnell Bros. Pty. Ltd., 444 Chapel Rd., Bankstown. 2200.	54980	1982	Premise Match	23m	West
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Bankstown Service Station, 440 Chapel Rd., Bankstown. 2200	49375	1978	Premise Match	23m	West
	MOTOR CAR &/OR TRUCK DEALERS-NEW &/OR USED.	Purnell Bros. Pty. Ltd., 444 Chapel Rd., Bankstown. 2200	48457	1978	Premise Match	23m	West
	MOTOR GARAGES &/OR ENGINEERS.	Bankstown Service Station., 440 Chapel Rd., Bankstown. 2200	58408	1975	Premise Match	23m	West
	MOTOR SERVICE STATIONS - PETROL, OIL	Bankstown Service Station., 440 Chapel Rd., Bankstown. 2200	61424	1975	Premise Match	23m	West
	MOTOR STEERING SPECIALISTS.	Master Ride Steering Service., 45 Kitchener Pde., Bankstown. 2200	62594	1975	Premise Match	23m	West
	MOTOR CAR &/OR TRUCK DEALERS- NEW &/OR USED.	Purnell Bros. Pty. Ltd., 444 Chapel Rd., Bankstown. 2200.	57363	1975	Premise Match	23m	West
	MOTOR STEERING SPECIALISTS (M736)	Master Ride Steering Service., 45 Kitchener Pde., Bankstown, 2200	342331	1970	Premise Match	23m	West
	DENTISTS (D140)	Stenmark, J. O., 460a Chapel Rd., Bankstown	289055	1970	Premise Match	23m	West
	Motor Service Stations - Petrol, Oil, Etc.	Civic Centre Motors (Bankstown) Pty. Ltd., 444 Chapel Rd. Bankstown	125427	1965	Premise Match	23m	West
	Motor Car/Truck Dealers - New/Used	Civic Centre Motors (Bankstown) Pty. Ltd., 444 Chapel Rd., Bankstown	120570	1965	Premise Match	23m	West
	Motor Panel Beaters	McDonald, R., 444 Chapel Rd, Bankstown	124815	1965	Premise Match	23m	West
	Motor Painters	McDonald, R., 444 Chapel Rd., Bankstown	124058	1965	Premise Match	23m	West
	Motor Trimmers	Murray, Arthur, 444 Chapel Rd., Bankstown	127263	1965	Premise Match	23m	West
	Upholsterers	Murray, Arthur, 444 Chapel Rd., Bankstown	154946	1965	Premise Match	23m	West
	Dentists	Stenmark, J. O., 460a Chapel Rd., Bankstown	73754	1965	Premise Match	23m	West
	Motor Body Builders	Wood, Syd Pty. Ltd., 440 Chapel Rd., Bankstown	120038	1965	Premise Match	23m	West
	Motor Body Repairs/Converters	Wood, Syd. Pty. Ltd., 440 Chapel Rd., Bankstown	120254	1965	Premise Match	23m	West
	Motor Painters	Wood, Syd. Pty. Ltd., 440 Chapel Rd., Bankstown	124353	1965	Premise Match	23m	West
	Motor Panel Beaters	Wood, Syd. Pty. Ltd., 440 Chapel Rd., Bankstown	125130	1965	Premise Match	23m	West
	MOTOR CAR/TRUCK DEALERS—NEW/USED	Bankstown Motors, 444 Chapel Rd., Bankstown	344861	1961	Premise Match	23m	West
	MOTOR TRIMMERS	Murray, Arthur, 444 Chapel Rd., Bankstown	352321	1961	Premise Match	23m	West
	UPHOLSTERERS	Murray, Arthur, 444 Chapel Rd., Bankstown	260502	1961	Premise Match	23m	West
	MOTOR BODY BUILDERS	Wood Syd Pty Ltd 440 Chapel Rd., Bankstown P.O. Box 10—Bankstown	344237	1961	Premise Match	23m	West
	MOTOR BODY BUILDERS	Wood, Syd Pty. Ltd., 440 Chapel Rd., Bankstown	344238	1961	Premise Match	23m	West
	MOTOR BODY REPAIRS/CONVERTERS	Wood, Syd. Pty. Ltd., 440 Chapel Rd., Bankstown	344465	1961	Premise Match	23m	West
	MOTOR PAINTERS	Wood, Syd. Pty. Ltd., 440 Chapel Rd., Bankstown	349285	1961	Premise Match	23m	West
	MOTOR PANEL BEATERS	Wood, Syd. Pty. Ltd., 440 Chapel Rd., Bankstown	350085	1961	Premise Match	23m	West

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
4	WASHING MACHINE SALES & SERVICE	Eswood Co., 440 Chapel Rd., Bankstown	112364	1950	Premise Match	23m	West
	MOTOR BODY BUILDERS	Wood, Syd Pty. Ltd., 440 Chapel Rd., Bankstown	82214	1950	Premise Match	23m	West
5	Photographers Commercial &/or Industrial	Stockholm Photo Service, 474 Chapel Rd., Bankstown. 2200	57250	1991	Premise Match	32m	North West
	SCHOOLS, COLLEGES - TECHNICAL.	Bankstown Technical College, 500 Chapel Rd., Bankstown. 2200	84766	1986	Premise Match	32m	North West
	PHOTOGRAPHERS – GENERAL.	Stockholm Photo Service, 474 Chapel Rd., Bankstown. 2200	72997	1986	Premise Match	32m	North West
	PHOTOGRAPHERS COMMERCIAL &/OR INDUSTRIAL.	Stockholm Photo Service, 474 Chapel Rd., Bankstown. 2200	72874	1986	Premise Match	32m	North West
	ARTISTS-COMMERCIAL & INDUSTRIAL.	Sutton Design & Art, 474 Chapel Rd., Bankstown. 2200	3912	1986	Premise Match	32m	North West
	SCHOOLS, COLLEGES-TECHNICAL, (S1425)	Bankstown Technical College, 500 Chapel Rd., Bankstown. 2200.	73362	1982	Premise Match	32m	North West
	PHOTOGRAPHERS - GENERAL(P3540)	Stockholm Photo Service, 474 Chapel Rd., Bankstown. 2200.	63637	1982	Premise Match	32m	North West
	PHOTOGRAPHERS-COMMERCIAL. (P3480)	Stockholm Photo Service, 474 Chapel Rd., Bankstown. 2200.	63530	1982	Premise Match	32m	North West
	SCHOOLS, COLLEGES-TECHNICAL.	Bankstown Technical College, 500 Chapel Rd., Bankstown. 2200	64907	1978	Premise Match	32m	North West
	PHOTOGRAPHERS-COMMERCIAL.	Stockholm Photo Service, 474 Chapel Rd., Bankstown. 2200	56596	1978	Premise Match	32m	North West
	PHOTOGRAPHERS-GENERAL.	Stockholm Photo Service, 474 Chapel Rd., Bankstown. 2200	56659	1978	Premise Match	32m	North West
	PHOTOGRAPHERS-GENERAL	Stockholm Photo Service., 474 Chapel Rd., Bankstown 2200	66788	1975	Premise Match	32m	North West
	PHOTOGRAPHERS-COMMERCIAL	Stockholm Photo Service., 474 Chapel Rd., Bankstown. 2200	66699	1975	Premise Match	32m	North West
	SCHOOLS/COLLEGES-TECHNICAL(S146)	Bankstown Technical College, 500 Chapel Rd., Bankstown	359581	1970	Premise Match	32m	North West
	PHOTOGRAPHERS-COMMERCIAL(P272)	Stockholm Photo Service., 474 Chapel Rd., Bankstown	347965	1970	Premise Match	32m	North West
	PHOTOGRAPHERS-PORTRAIT (P284)	Stockholm Photo Service., 474 Chapel Rd., Bankstown	348129	1970	Premise Match	32m	North West
	Schools/Colleges - Technical	Bankstown Techncial College., 500 Chapel Rd., Bankstown	143009	1965	Premise Match	32m	North West
	Photographers - Commercial	Stockholm Photo Service, 474 Chapel Rd., Bankstown	132380	1965	Premise Match	32m	North West
	Photographers - Portrait	Stockholm Photo Service., 474 Chapel Rd., Bankstown	132511	1965	Premise Match	32m	North West
	SCHOOLS/COLLEGES-TECHNICAL	Bankstown Technical College, 500 Chapel Rd., Bankstown	248478	1961	Premise Match	32m	North West
	FOOTWEAR MANUFACTURERS-BOOTS & SHOES	Raven, J., 482 Chapel Rd., Bankstown	46897	1950	Premise Match	32m	North West
6	Carriers &/or Cartage Contractors	Allied Express Transport Pty. Ltd., 61 Rickard Rd., Bankstown 2200	38298	1991	Premise Match	61m	South East
	Courier Services	Allied Express Transport Pty. Ltd., 61 Rickard Rd., Bankstown 2200	40944	1991	Premise Match	61m	South East
	MOTOR ACCESSORIES DEALERS.	Bennett & Barked Ltd., 65 Rickard Rd., Bankstown. 2200	56090	1975	Premise Match	61m	South East
	MOTOR SPARE PARTS MFRS. &/OR W/SALERS.	Bennett & Barked Ltd., 65 Rickard Rd., Bankstown. 2200	62405	1975	Premise Match	61m	South East
	MOTOR ACCESSORIES/DEALERS (M448)	Bennett & Barked Ltd., 65 Rickard Rd., Bankstown	334537	1970	Premise Match	61m	South East
	Motor Accessories - Dealers	Bennett & Barkell Ltd., 65 Rickard Rd., Bankstown	119323	1965	Premise Match	61m	South East
	Motor Spare Parts Mfrs. &/or Wholesalers	Bennett & Barkell Ltd., 65 Rickard Rd., Bankstown	126719	1965	Premise Match	61m	South East
7	MOTOR GARAGES & ENGINEERS(M6S6)	Thompson, B. Service Station., Rickard Ave. & Chapel Rd., BANKSTOWN	338726	1970	Road Intersection	100m	South West

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
7	Motor Garages & Engineers	Thompson, B. Service Station, Rickard Ave. & Chapel Rd. Bankstown	122201	1965	Road Intersection	100m	South West
	MOTOR GARAGES & ENGINEERS	Thompson, B. Service Station, Rickard Ave. & Chapel Rd. BANKSTOWN	348280	1961	Road Intersection	100m	South West
8	ARMATURE WINDERS. (A6840)	Artis & Gibson Pty. Ltd., 55 Rickard Rd., Bankstown. 2200.	3307	1982	Premise Match	101m	South East
	MOTOR ELECTRICIANS, (M6580)	Artis & Gibson Pty. Ltd., 55 Rickard Rd., Bankstown. 2200.	55432	1982	Premise Match	101m	South East
	ARMATURE WINDERS.	Artis & Gibson Pty. Ltd., 55 Rickard Rd., Bankstown. 2200	3150	1978	Premise Match	101m	South East
	MOTOR ELECTRICIANS	Artis & Gibson Pty. Ltd., 55 Rickard Rd., Bankstown. 2200	48956	1978	Premise Match	101m	South East
	MOTOR ELECTRICIANS.	Artarmon. Artis & Gibson Pty. Ltd., 55 Rickard Rd., Bankstown. 2200.	57913	1975	Premise Match	101m	South East
	ARMATURE WINDERS.	Artis & Gibson Pty. Ltd., 55 Rickard Rd., Bankstown. 2200.	2881	1975	Premise Match	101m	South East
	ARMATURE WINDERS (A465)	Artis & Gibson Pty. Ltd., 55 Rickard Rd., Bankstown	262235	1970	Premise Match	101m	South East
	BATTERY SALES & SERVICE (B230)	Artis & Gibson Pty. Ltd., 55 Rickard Rd., Bankstown	265314	1970	Premise Match	101m	South East
	MOTOR ELECTRICIANS (M620)	Artis & Gibson Pty. Ltd., 55 Rickard Rd., Bankstown	336810	1970	Premise Match	101m	South East
	ARMATURE WINDERS (A465)	Maher, R B Pty. Ltd., 2 Jacob St., Bankstown	262259	1970	Premise Match	101m	South East
	ELECTRIC MOTORS-REPAIRERS/HIRERS (E220)	Maher, R. 8. Pty. Ltd., 2 Jacobs St., Bankstown	294289	1970	Premise Match	101m	South East
	ELECTRIC COIL-WINDING/TRANSFORMER SPECIALISTS (E080)	Maher, R. B. Pty. Ltd., 2 Jacob St., Bankstown	293488	1970	Premise Match	101m	South East
	ELECTRIC MOTOR WINDING/REWINDING SPECIALISTS (E205)	Maher, R. B. Pty. Ltd., 2 Jacob St., Bankstown.	294122	1970	Premise Match	101m	South East
	ELECTRIC MOTOR INSTALLATION/MAINTENANCE SPECIALISTS (E200)	Maher, R. B. Pty. Ltd., 2 Jacobs St., Bankstown	294060	1970	Premise Match	101m	South East
	ENGINEERS-ELECTRICAL (E570)	Maher, R. B. Pty. Ltd., 2 Jacobs St., Bankstown	298218	1970	Premise Match	101m	South East
	Armature Winders	Artis & Gibson Pty. Ltd., 55 Rickard Rd., Bankstown	46886	1965	Premise Match	101m	South East
	Battery Service Stations	Artis & Gibson Pty. Ltd., 55 Rickard Rd., Bankstown	50149	1965	Premise Match	101m	South East
	Motor Electricians	Artis & Gibson Pty. Ltd., 55 Rickard Rd., Bankstown	121671	1965	Premise Match	101m	South East
	Armature Winders	Maher, R. B. Pty. Ltd., 2 Jacob St., Bankstown	46914	1965	Premise Match	101m	South East
	Electric Coil-Winding/Transformer Specialists	Maher, R. B. Pty. Ltd., 2 Jacob St., Bankstown	77281	1965	Premise Match	101m	South East
	Electric Motor Winding/Rewinding Specialists	Maher, R. B. Pty. Ltd., 2 Jacob St., Bankstown	77936	1965	Premise Match	101m	South East
	Electric Motor Installation/Maintenance Specialists	Maher, R. B. Pty. Ltd., 2 Jacobs St., Bankstown	77874	1965	Premise Match	101m	South East
	Electric Motors - Repairers/Hirers	Maher, R. B. Pty. Ltd., 2 Jacobs St., Bankstown	78109	1965	Premise Match	101m	South East
	Engineers - Electrical	Maher, R. B. Pty. Ltd., 2 Jacobs St., Bankstown	81516	1965	Premise Match	101m	South East
	ELECTRIC MOTOR WINDING/REWINDING SPECIALISTS	Maher R B 2 Jacob St., Bankstown	301011	1961	Premise Match	101m	South East
	ELECTRIC COIL-WINDING/TRANSFORMER SPECIALISTS	Maher, R. B., 2 Jacob St., Bankstown	300270	1961	Premise Match	101m	South East
	ELECTRIC MOTOR INSTALLATION/MAINTENANCE SPECIALISTS	Maher, R. B., 2 Jacob St., Bankstown	300910	1961	Premise Match	101m	South East
	ELECTRIC MOTOR WINDING/REWINDING SPECIALISTS	Maher, R. B., 2 Jacob St., Bankstown	300977	1961	Premise Match	101m	South East

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
8	ELECTRIC MOTORS-REPAIRERS/HIRERS	Maher, R. B., 2 Jacob St., Bankstown	301162	1961	Premise Match	101m	South East
	ENGINEERS-ELECTRICAL	Maher, R. B., 2 Jacob St., Bankstown	305528	1961	Premise Match	101m	South East
	HIRE CAR SERVICES	Smith, A. E., 55 Rickard Rd., Bankstown	62308	1950	Premise Match	101m	South East
9	AMBULANCES (A335)	Canterbury-Bankstown District Ambulance, Cnr Rickard Rd.& The Appian Way, Bankstown.	261334	1970	Road Intersection	120m	South East
	Ambulances	Canterbury-Bankstown District Ambulance., Cnr. Rickard Rd. & The Appian Way, Bankstown	46098	1965	Road Intersection	120m	South East
10	SEWAGE TREATMENT PLANT &/OR EQUIPMENT MFRS. &/OR IMPS. &/OR CONTRACTORS.	Smith & Loveless Australasia Pty. Ltd. 432-434 Chapel Road, Bankstown. 2200	85734	1986	Premise Match	125m	South West
	WATER TREATMENT EQUIPMENT MFRS. &/OR DISTS.	Smith & Loveless Australasia Pty. Ltd. 432-434 Chapel Road, Bankstown. 2200	98410	1986	Premise Match	125m	South West
	MARINE EQUIPMENT MFRS. &/OR DISTS.	Smith & Loveless, 432 Chapel Rd., Bankstown. 2200	52907	1986	Premise Match	125m	South West
	OIL TREATING EQUIPMENT MFRS.	Smith & Loveless, 432 Chapel Rd., Bankstown. 2200	70602	1986	Premise Match	125m	South West
	POLLUTION CONTROL EQUIPMENT MFRS. &/OR DISTS.	Smith & Loveless, 432 Chapel Rd., Bankstown. 2200	75473	1986	Premise Match	125m	South West
	PUMP MFRS. &/OR DISTS.	Smith & Loveless, 432 Chapel Rd., Bankstown. 2200	78538	1986	Premise Match	125m	South West
	PUMPS &/OR PUMPING EQUIPMENT MFRS.' &/OR DISTS.	Smith & Loveless, 432 Chapel Rd., Bankstown. 2200	78602	1986	Premise Match	125m	South West
	SEWAGE TREATMENT PLANT &/OR EQUIPMENT MFRS. &/OR IMPS. &/OR CONTRACTORS.	Smith & Loveless, 432 Chapel Rd., Bankstown. 2200	85749	1986	Premise Match	125m	South West
	WATER TREATMENT EQUIPMENT MFRS. &/OR DISTS.	Smith & Loveless, 432 Chapel Rd., Bankstown. 2200	98441	1986	Premise Match	125m	South West
	COURIER SERVICES, (C8615)	Allied Couriers, 434 Chapel Rd., Bankstown. 2200.	18304	1982	Premise Match	125m	South West
	BUILDERS &/OR BUILDING CONTRACTORS. (B6920)	Hodge, Robert, 434 Chapel Rd., Bankstown. 2200.	9286	1982	Premise Match	125m	South West

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Business Directory Records 1950-1991
Road or Area Matches

Potentially contaminative business activities extracted from Universal Business Directories from years 1991, 1986, 1982, 1978, 1975, 1970, 1965, 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
11	VIDEO RECORDER &/OR CASSETTE SALES &/OR HIRE &/OR SERVICE.	Video-Ezy, 414 Chapel Rd. Bankstown. 2200	97862	1986	Road Match	0m
	ENGINEERS-AIR CONDITIONING.(E6030)	Clark & Wootten Pty. Ltd., Chapel Rd., Bankstown, 2200.	26695	1982	Road Match	0m
	AIR CONDITIONING SALES &/ORSERVICE. (A3660)	Clark & Wootten Pty. Ltd., Chapel Rd., Bankstown. 2200.	2042	1982	Road Match	0m
	AIR CONDITIONING UNIT&/OR MACHINERY MFRS, &/OR DISTS.(A3720)	Clark & Wootten Pty. Ltd., Chapel Rd., Bankstown. 2200.	2123	1982	Road Match	0m
	ENGINEERS-HOTWATER HEATING &/OR VENTILATING. (E7230)	Clark & Wootten Pty. Ltd., Chapel Rd., Bankstown. 2200.	28534	1982	Road Match	0m
	CLOTHING - INDUSTRIAL &PROTECTIVE MFRS. &/OR W/SALERS. (C5168)	Dunlop Footwear & Garments Division, Chapel Rd., Bankstown. 2200.	16778	1982	Road Match	0m
	CLOTHING - MENS & BOYS WEAR MFRS. &/OR W/SALERS. (C5657)	Dunlop Footwear & Garments Division, Chapel Rd., Bankstown. 2200.	16895	1982	Road Match	0m
	CLOTHING - SHIRT & PYJAMA MFRS. &/OR W/SALERS. (C5696)	Dunlop Footwear & Garments Division, Chapel Rd., Bankstown. 2200.	16984	1982	Road Match	0m
	CLOTHING - SPORTSWEAR MFRS.&/OR W/SALERS. (C5701)	Dunlop Footwear & Garments Division, Chapel Rd., Bankstown. 2200.	17058	1982	Road Match	0m
	RUBBER CEMENT &/OR SOLUTIONMFRS. (R7280)	Dunlop Footwear & Garments Division, Chapel Rd., Bankstown. 2200.	72486	1982	Road Match	0m
	RUBBER GLOVE MFRS. (R7420)	Dunlop Footwear & Garments Division, Chapel Rd., Bankstown. 2200.	72488	1982	Road Match	0m
	RUBBER GOODS MFRS. &/OR DISTS. (R7490)	Dunlop Footwear & Garments Division, Chapel Rd., Bankstown. 2200.	72508	1982	Road Match	0m
	RUBBER SOLE &/OR HEEL MFRS.(R8085)	Dunlop Footwear & Garments Division, Chapel Rd., Bankstown. 2200.	72652	1982	Road Match	0m
	SAFETY EQUIPMENT MFRS. &/OR DISTS. (S0195)	Dunlop Footwear & Garments Division, Chapel Rd., Bankstown. 2200.	72811	1982	Road Match	0m
	FOOTWEAR MFRS. - BOOTS &/OR SHOES. (F5350)	Dunlop Footwear & Garments Division, Chapel Rd., Bankstown.2200.	32166	1982	Road Match	0m
	FOOTWEAR MFRS. - SANDALS.(F5475)	Dunlop Footwear & Garments Division, Chapel Rd., Bankstown.2200.	32225	1982	Road Match	0m
	FOOTWEAR MFRS. &/OR REPAIRERS &/OR SUPPLIERS. (F5425)	Dunlop Footwear & Garments Division, Chapel Rd., Bankstown.2200.	32208	1982	Road Match	0m
	FOOTWEAR MFRS.- CHILDRENS&/OR INFANTS. (F5375)	Dunlop Footwear & Garments Division, Chapel Rd., Bankstown.2200.	32199	1982	Road Match	0m
	FOOTWEAR W/SALERS. &/OR DISTS. (F5650)	Dunlop Footwear & Garments Division, Chapel Rd., Bankstown.2200.	32694	1982	Road Match	0m
	ENGINEERS - CIVIL. (E6420)	McCarthy, A. W., Chapel St., Bankstown. 2200.	26835	1982	Road Match	0m
	ENGINEERS - CONSULTING. (E6600)	McCarthy, A. W., Chapel St., Bankstown. 2200.	27035	1982	Road Match	0m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Als & Dots Service Station, Chapel Rd., Bankstown. 2200	49231	1978	Road Match	0m
	ENGINEERS-HOT WATER HEATING &/OR VENTILATING.	Clark & Woollen Pty. Ltd., Chapel Rd., Bankstown. 2200	25594	1978	Road Match	0m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
11	AIR CONDITIONING UNIT &/OR MACHINERY MFRS. &/OR DISTS.	Clark & Wootten Pty. Ltd., Chapel Rd., Bankstown. 2200	2040	1978	Road Match	0m
	ENGINEERS-AIR CONDITIONING	Clark & Woottlen Pty. Ltd., Chapel Rd., Bankstown. 2200	23717	1978	Road Match	0m
	AIR CONDITIONING SALES &/OR SERVICE.	Clark &, Wootten Pty. Ltd., Chapel Rd., Bankstown. 2200	1975	1978	Road Match	0m
	RUBBERS GOODS MFRS &/OR DISTS	Dunlop Foot wear & Garments Division, Chapel Rd., Bankstown. 2200	64050	1978	Road Match	0m
	CLOTHING - MENS & BOYS WEAR MFRS. &/OR W/SALERS.	Dunlop Footwear & Garments Division, Chapel Rd., Bankstown. 2200	15150	1978	Road Match	0m
	FOOTWEAR MFRS. -BOOTS &/OR SHOES.	Dunlop Footwear & Garments Division, Chapel Rd., Bankstown. 2200	29147	1978	Road Match	0m
	FOOTWEAR MFRS. -SANDALS.	Dunlop Footwear & Garments Division, Chapel Rd., Bankstown. 2200	29216	1978	Road Match	0m
	FOOTWEAR MFRS., REPAIRERS &/OR SUPPLIERS.	Dunlop Footwear & Garments Division, Chapel Rd., Bankstown. 2200	29199	1978	Road Match	0m
	FOOTWEAR MFRS.- CHILDRENS &/OR INFANTS.	Dunlop Footwear & Garments Division, Chapel Rd., Bankstown. 2200	29185	1978	Road Match	0m
	FOOTWEAR W/SALERS &/OR DISTS.	Dunlop Footwear & Garments Division, Chapel Rd., Bankstown. 2200	29541	1978	Road Match	0m
	RUBBER GLOVE MFRS.	Dunlop Footwear & Garments Division, Chapel Rd., Bankstown. 2200	64026	1978	Road Match	0m
	RUBBER SOLE &/OR HEEL MFRS.	Dunlop Footwear & Garments Division, Chapel Rd., Bankstown. 2200	64207	1978	Road Match	0m
	CLOTHING - SPORTSWEAR MFRS. &/OR W/SALERS.	Dunlop Footwear & Garments Division. Chapel Rd., Bankstown. 2200	15364	1978	Road Match	0m
	CLOTHING-SHIRT & PYJAMA MFRS. &/OR W/SALERS.	Dunlop Footwear & Garments Division. Chapel Rd., Bankstown. 2200	15278	1978	Road Match	0m
	SAFETY EQUIPMENT MFRS, &/OR DISTS.	Dunlop Footwear & Garments Division. Chapel Rd., Bankstown. 2200	64352	1978	Road Match	0m
	CLOTHING-INDUSTRIALS, PROTECTIVE MFRS. &/OR W/SALERS.	Dunlop Footwear & Garments Division., Chapel Rd., Bankstown. 2200	14988	1978	Road Match	0m
	RUBBER CEMENT &/OR SOLUTION MFRS.	Dunlop Footwear & Garments Division., Chapel Rd., Bankstown. 2200	64020	1978	Road Match	0m
	MOTOR GARAGES &/OR ENGINEERS.	Als & Dots Service Station., Chapel Rd., Bankstown. 2200	58322	1975	Road Match	0m
	CLOTHING - INDUSTRIAL & PROTECTIVE MFRS. &/OR W/SALERS.	Dunlop Footwear & Garments Division, Chapel Rd., Bankstown. 2200	17292	1975	Road Match	0m
	CLOTHING - MENS & BOYS WEAR MFRS. &/OR W/SALERS.	Dunlop Footwear & Garments Division, Chapel Rd., Bankstown. 2200	17486	1975	Road Match	0m
	CLOTHING-SHIRT & PYJAMA MFRS.&/OR W/SALERS	Dunlop Footwear & Garments Division, Chapel Rd., Bankstown. 2200	17646	1975	Road Match	0m
	CLOTHING-SPORTSWEAR LADIES MFRS.&/OR W/SALERS	Dunlop Footwear & Garments Division, Chapel Rd., Bankstown. 2200	17762	1975	Road Match	0m
	FOOTWEAR MFRS. - CHILDRENS &/OR INFANTS.	Dunlop Footwear & Garments Division, Chapel Rd., Bankstown. 2200.	33794	1975	Road Match	0m
	FOOTWEAR MFRS., REPAIRERS &/OR SUPPLIERS.	Dunlop Footwear & Garments Division, Chapel Rd., Bankstown. 2200.	33814	1975	Road Match	0m
	FOOTWEAR MFRS.-BOOTS &/OR SHOES.	Dunlop Footwear & Garments Division, Chapel Rd., Bankstown. 2200.	33746	1975	Road Match	0m
	FOOTWEAR MFRS.-SANDALS.	Dunlop Footwear & Garments Division, Chapel Rd., Bankstown. 2200.	33837	1975	Road Match	0m
	FOOTWEAR W/SALERS &/OR DISTS.	Dunlop Footwear & Garments Division, Chapel Rd., Bankstown. 2200.	34219	1975	Road Match	0m
	RUBBER CEMENT &/OR SOLUTION MFRS.	Dunlop Footwear & Garments Division., Chapel Rd., Bankstown. 2200	74756	1975	Road Match	0m
	Rubber Glove Mfrs.	Dunlop Footwear & Garments Division., Chapel Rd., Bankstown. 2200	74766	1975	Road Match	0m
	RUBBER GOODS MFRS. &/OR DISTS	Dunlop Footwear & Garments Division., Chapel Rd., Bankstown. 2200	74798	1975	Road Match	0m
	RUBBER SOLE &/OR HEEL MFRS.	Dunlop Footwear & Garments Division., Chapel Rd., Bankstown. 2200	74959	1975	Road Match	0m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
11	SAFETY EQUIPMENT MFRS. &/OR DISTS.	Dunlop Footwear & Garments Division., Chapel Rd., Bankstown. 2200	75124	1975	Road Match	0m
	MOTOR GARAGES & ENGINEERS(M6S6)	Al's & Dot's Service Station., Chapel Rd., BANKSTOWN	337182	1970	Road Match	0m
	RUBBER CEMENT/SOLUTION MFRS.(R455)	Dunlop Footwear & Garments Division, Chapel Rd., Bankstown	358027	1970	Road Match	0m
	RUBBER FOOTWEAR MFRS. (R470)	Dunlop Footwear & Garments Division, Chapel Rd., Bankstown	358038	1970	Road Match	0m
	RUBBER GOODS MANUFACTURERS &/OR DISTRIBUTORS	Dunlop Footwear & Garments Division, Chapel Rd., Bankstown	358086	1970	Road Match	0m
	RUBBER SOLE/HEEL MFRS. (R520)	Dunlop Footwear & Garments Division, Chapel Rd., Bankstown	358228	1970	Road Match	0m
	SAFETY EQUIPMENT MFRS. &/OR DISTS. (S024)	Dunlop Footwear & Garments Division, Chapel Rd., Bankstown	358449	1970	Road Match	0m
	CLOTHING MFRS. &/OR W/SALERS. - LADIES FROCKS &/OR SUITS.	Dunlop Footwear & Garments Division., Chapel Rd., Bankstown	282917	1970	Road Match	0m
	CLOTHING MFRS. &/OR W/SALERS. - SHIRT &/OR PYJAMA	Dunlop Footwear & Garments Division., Chapel Rd., Bankstown	283477	1970	Road Match	0m
	CLOTHING MFRS. &/OR W/SALERS. - SPORTSWEAR	Dunlop Footwear & Garments Division., Chapel Rd., Bankstown	283604	1970	Road Match	0m
	CLOTHING MFRS. &/OR W'SALERS - LADIES' COATS & COSTUMES	Dunlop Footwear & Garments Division., Chapel Rd., Bankstown	282751	1970	Road Match	0m
	CLOTHING MFRS. &/OR W'SALERS - LADIES' SKIRTS	Dunlop Footwear & Garments Division., Chapel Rd., Bankstown	283201	1970	Road Match	0m
	CLOTHING MFRS. &/OR W'SALERS-GENERAL (C438)	Dunlop Footwear & Garments Division., Chapel Rd., Bankstown	282423	1970	Road Match	0m
	CLOTHING MFRS. &/OR W'SALERS-INDUSTRIAL	Dunlop Footwear & Garments Division., Chapel Rd., Bankstown	282552	1970	Road Match	0m
	CLOTHING MFRS. &/OR W'SALERS-MEN'S & BOYS' WEAR (C459)	Dunlop Footwear & Garments Division., Chapel Rd., Bankstown	283288	1970	Road Match	0m
	FOOTWEAR MFRS., REPAIRERS &/OR SUPPLIERS	Dunlop Footwear & Garments Division., Chapel Rd., Bankstown	305213	1970	Road Match	0m
	FOOTWEAR MFRS.-BOOTS/SHOES (F460)	Dunlop Footwear & Garments Division., Chapel Rd., Bankstown	305293	1970	Road Match	0m
	FOOTWEAR MFRS.-CHILDREN'S/INFANTS' (F465)	Dunlop Footwear & Garments Division., Chapel Rd., Bankstown	305376	1970	Road Match	0m
	FOOTWEAR MFRS.-SANDALS (F480)	Dunlop Footwear & Garments Division., Chapel Rd., Bankstown	305403	1970	Road Match	0m
	FOOTWEAR WHOLESALERS &/OR DISTRIBUTORS (F505)	Dunlop Footwear & Garments Division., Chapel Rd., Bankstown	305813	1970	Road Match	0m
	FOOTWEAR MFRS.-SLIPPERS (F490)	Dunlop Rubber AuSt. Ltd., Chapel Rd., Bankstown	305423	1970	Road Match	0m
	MOTOR CAR/TRUCK DEALERS-NEW/USED (M520)	Purnell Bros. Pty. Ltd., 425 Chapel Rd., Bankstown	336207	1970	Road Match	0m
	NEWSPAPERS/PERIODICALS (N130)	Voice Newspaper (The)., Chapel Rd., Bankstown	344301	1970	Road Match	0m
	Welders - Electric &/or Oxy	Hewitt, B. R. Pty. Ltd, Chapel Rd, Bankstown	156538	1965	Road Match	0m
	Cranes - Mobile - Proprietors & Hirers	Howitt, B. R. Pty. Ltd., Chapel Rd., Bankstown	71082	1965	Road Match	0m
	Engineers - Structural	Howitt, B. R. Pty. Ltd., Chapel Rd., Bankstown	84331	1965	Road Match	0m
	Haulage Contractors	Howitt, B. R. Pty. Ltd., Chapel Rd., Bankstown	99799	1965	Road Match	0m
	STEEL ERECTORS	Howitt, B. R. Pty. Ltd., Chapel Rd., Bankstown	148026	1965	Road Match	0m
	STEEL FABRICATORS	Howitt, B. R. Pty. Ltd., Chapel Rd., Bankstown	148164	1965	Road Match	0m
	MOTOR GARAGES & ENGINEERS	Gill's Garage, Chapel Rd., Bankstown	347222	1961	Road Match	0m
	MOTOR GARAGES & ENGINEERS	Purnell Bros., 477 Chapel Rd. BANKSTOWN	347955	1961	Road Match	0m
	DRIVE YOURSELF CAR SERVICES	Bankstown Drive Yourself, 477 Chapel Rd., Bankstown	34931	1950	Road Match	0m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
11	MOTOR ACCESSORIES-DEALER	Gills Service Station, Chapel Rd., Bankstown	81609	1950	Road Match	0m
	ENGINEERS-GENERAL &/OR MANUFACTURING &/OR MECHANICAL	Keenkraft Mfg Co, Chapel Rd., Bankstown	40900	1950	Road Match	0m
	MOTOR CAR & TRUCK DEALERS-USED	Purnell Bros., 477 Chapel Rd., Bankstown	82522	1950	Road Match	0m
	MOTOR GARAGES &/OR ENGINEERS	Purnell Bros., 477 Chapel Rd., Bankstown	84242	1950	Road Match	0m
	MOTOR PANEL BEATERS	Purnell Bros., 477 Chapel Rd., Bankstown	85457	1950	Road Match	0m
	MOTOR PAINTERS	Purnell Bros., 477 Chapel St., Bankstown	84984	1950	Road Match	0m
12	MOTOR GARAGES &/OR ENGINEERS.	Thompsons, B. Service Station., Rickard Rd., Bankstown. 2200	59635	1975	Road Match	79m

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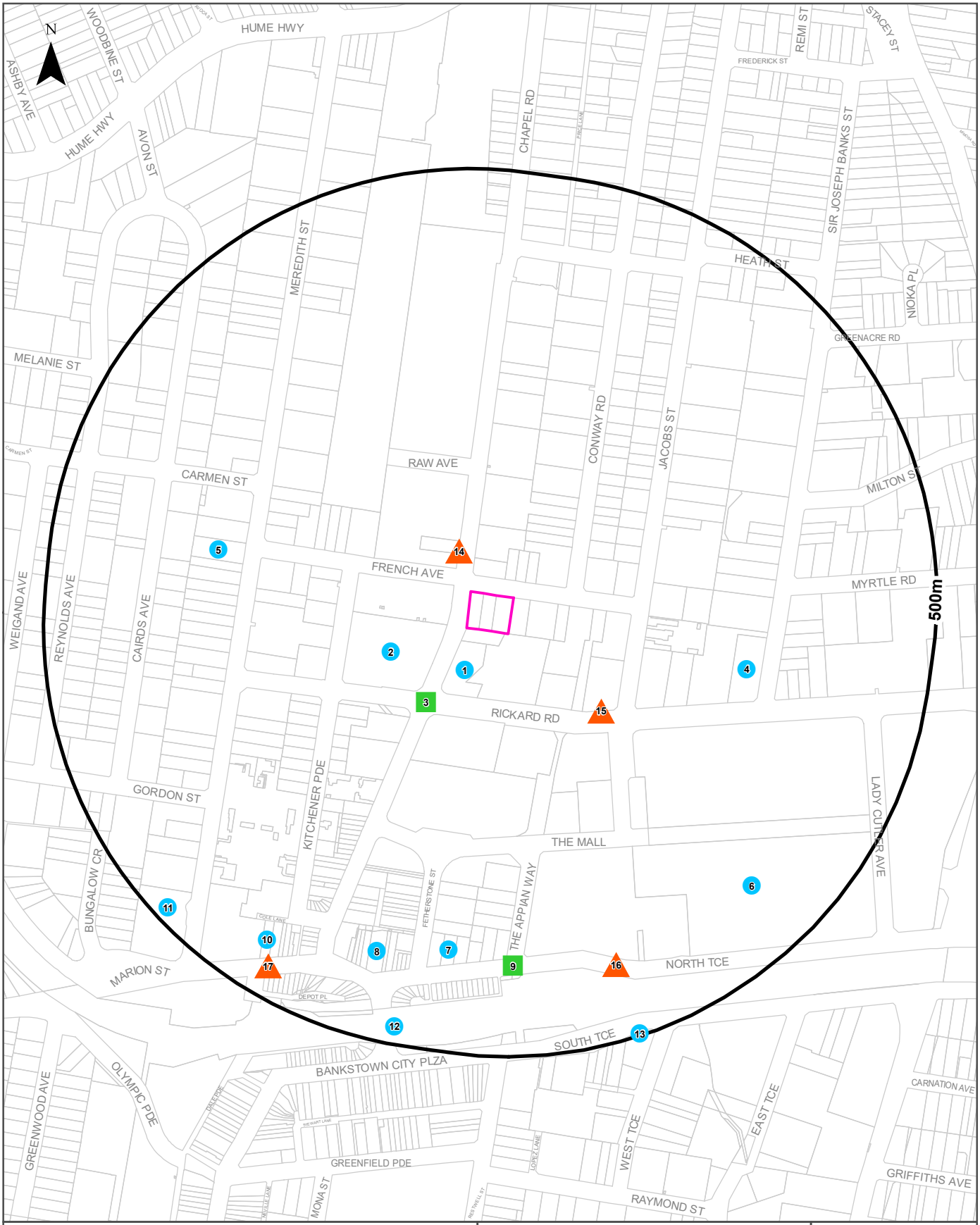
Dry Cleaners, Motor Garages & Service Stations

461 Chapel Road, Bankstown, NSW 2200



Legend

- Site Boundary
- Buffer 500m
- Property Boundary
- Business directory records mapped to a specific premise
- Business directory records mapped to a road intersection
- Business directory records mapped to a road corridor
- Business directory records mapped to a general area

Scale: 0 80 160 240 320 Meters

Coordinate System: GDA 1994 MGA Zone 56

Date: 26 November 2024

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

Historical Business Directories

461 Chapel Road, Bankstown, NSW 2200

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

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

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

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
1	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Total Bankstown Service Station., 445 Chapel Rd., Bankstown. 2200	58972	1980	Premise Match	16m	South West
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Total (Bankstown) Service Station., 445 Chapel Rd., Bankstown. 2200.	46473	1979	Premise Match	16m	South West
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Total (Bankstown) Service Station, 445 Chapel Rd., Bankstown. 2200	50952	1978	Premise Match	16m	South West
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Total (Bankstown) Service Station., 445 Chapel Rd., Bankstown 2200	35032	1976	Premise Match	16m	South West
	MOTOR GARAGES &/OR ENGINEERS.	Total (Bankstown) Service Station., 445 Chapel Rd., Bankstown. 2200	59648	1975	Premise Match	16m	South West
	MOTOR GARAGES &/OR ENGINEERS.	Total (Bankstown) Service Station., 445 Chapel Rd Bankstown	7529	1972	Premise Match	16m	South West
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Total (Bankstown) Service Station., 445 Chapel Rd Bankstown	16407	1972	Premise Match	16m	South West
	MOTOR GARAGES &/OR ENGINEERS.	Total (Bankstown) Service Station., 445 Chapel Rd Bankstown	56292	1971	Premise Match	16m	South West
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Total (Bankstown) Service Station., 445 Chapel Rd., Bankstown	63004	1971	Premise Match	16m	South West
	MOTOR SERVICE STATIONS-PETROL,OIL,Etc.	Bankstown Central Service Station., 445 Chapel Rd., BANKSTOWN	340817	1970	Premise Match	16m	South West
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Bankstown Central Service Station., 445 Chapel Rd Bankstown	47481	1969	Premise Match	16m	South West
	MOTOR GARAGES & ENGINEERS.	Burns I. Mrs., 445 Chapel Rd Bankstown	28852	1962	Premise Match	16m	South West
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Burns I. Mrs., 445 Chapel Rd Bankstown	37866	1962	Premise Match	16m	South West
2	MOTOR GARAGES & SERVICE STATIONS.	Bankstown Shell Service Station, 440 Chapel Rd., Bankstown. 2200	18565	1993	Premise Match	23m	West
	Motor Garages & Service Stations	Bankstown Shell Service Station, 440 Chapel Rd, Bankstown 2200	53535	1991	Premise Match	23m	West
	MOTOR GARAGES & SERVICE STATIONS.	Bankstown Shell Service Station, 440 Chapel Rd., Bankstown. 2200	5964	1990	Premise Match	23m	West
	MOTOR GARAGE & SERVICE STATIONS.	Bankstown Shell Service Station, 440 Chapel Rd., Bankstown. 2200	64460	1989	Premise Match	23m	West
	MOTOR GARAGES & SERVICE STATIONS.	Bankstown Shell Service Station, 440 Chapel Rd., Bankstown. 2200	53563	1988	Premise Match	23m	West
	MOTOR GARAGES & SERVICE STATIONS.	Bankstown Shell Service Station, 440 Chapel Rd., Bankstown. 2200	64013	1986	Premise Match	23m	West

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
2	MOTOR GARAGES & SERVICE STATIONS.	Bankstown Service Station, 440 Chapel Rd., Bankstown. 2200	39032	1985	Premise Match	23m	West
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Bankstown Service Station, 440 Chapel Rd., Bankstown. 2200	27639	1984	Premise Match	23m	West
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Bankstown Service Station., 440 Chapel Rd., Bankstown 2200	9000	1983	Premise Match	23m	West
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS. (M6860)	Bankstown Service Station, 440 Chapel Rd., Bankstown. 2200.	56092	1982	Premise Match	23m	West
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Bankstown Service Station., 440 Chapel Rd., Bankstown. 2200	63760	1981	Premise Match	23m	West
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Bankstown Service Station., 440 Chapel Rd., Bankstown. 2200	50231	1980	Premise Match	23m	West
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Bankstown Service Station., 440 Chapel Rd., Bankstown. 2200.	40860	1979	Premise Match	23m	West
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Bankstown Service Station, 440 Chapel Rd., Bankstown. 2200	49375	1978	Premise Match	23m	West
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Bankstown Service Station., 440 Chapel Rd., Bankstown 2200	25087	1976	Premise Match	23m	West
	MOTOR GARAGES &/OR ENGINEERS.	Bankstown Service Station., 440 Chapel Rd., Bankstown. 2200	58408	1975	Premise Match	23m	West
	MOTOR SERVICE STATIONS - PETROL, OIL	Bankstown Service Station., 440 Chapel Rd., Bankstown. 2200	61424	1975	Premise Match	23m	West
	MOTOR GARAGES &/OR ENGINEERS.	Bankstown Service Station., 440 Chapel Rd Bankstown	7510	1972	Premise Match	23m	West
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Bankstown Service Station., 440 Chapel Rd Bankstown	16396	1972	Premise Match	23m	West
	MOTOR GARAGES &/OR ENGINEERS.	Bankstown Service Station., 440 Chapel Rd Bankstown	56273	1971	Premise Match	23m	West
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Bankstown Service Station., 440 Chapel Rd., Bankstown	62993	1971	Premise Match	23m	West
	Motor Service Stations - Petrol, Oil, Etc.	Civic Centre Motors (Bankstown) Pty. Ltd., 444 Chapel Rd. Bankstown	125427	1965	Premise Match	23m	West
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Civic Centre Motors (Bankstown) Pty. Ltd., 444 Chapel Rd Bankstown	51722	1964	Premise Match	23m	West
	MOTOR GARAGES & ENGINEERS.	Wright K., 444 Chapel Rd Bankstown	28875	1962	Premise Match	23m	West
	MOTOR GARAGES & ENGINEERS	Bankstown Service Station, 444 Chapel Rd. Bankstown	13575	1959	Premise Match	23m	West
	MOTOR SERVICE STATIONS-PETROL,. OIL, ETC.	Bankstown Service Station., 444 Chapel Rd Bankstown	20255	1959	Premise Match	23m	West
	MOTOR SERVICE STATIONS-PETROL,. OIL, ETC.	Bankstown Service Station., 444 Chapel Rd Bankstown	20254	1959	Premise Match	23m	West
	MOTOR GARAGE/ENGINEERS.	Bankstown Motors., 444 Chapel Rd Bankstown	595	1958	Premise Match	23m	West
	MOTOR GARAGE/ENGINEERS.	Bankstown Service Station., 444 Chapel Rd Bankstown	596	1958	Premise Match	23m	West
	MOTOR GARAGE/ENGINEERS.	Wood Col., 444 Chapel Rd Bankstown	9320	1958	Premise Match	23m	West

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
2	MOTOR GARAGES &/OR ENGINEERS.	Bankstown Motors., 444 Chapel Rd Bankstown	57218	1956	Premise Match	23m	West
	MOTOR SERVICE STATIONS-PETROL, ETC.	Bankstown Service Station., 444 Chapel Rd Bankstown	61785	1956	Premise Match	23m	West
	MOTOR GARAGES &/OR ENGINEERS.	Wood Col., 444 Chapel Rd Bankstown	57113	1956	Premise Match	23m	West
	MOTOR GARAGES &/OR ENGINEERS.	Wood Col., 444 Chapel Rd Bankstown	61729	1956	Premise Match	23m	West
	MOTOR GARAGES &/OR ENGINEERS.	Bankstown Motors., 444 Chapel Rd Bankstown	44780	1954	Premise Match	23m	West
3	MOTOR GARAGES & ENGINEERS(M6S6)	Thompson, B. Service Station., Rickard Ave. & Chapel Rd., BANKSTOWN	338726	1970	Road Intersection	100m	South West
	Motor Garages & Engineers	Thompson, B. Service Station, Rickard Ave. & Chapel Rd. Bankstown	122201	1965	Road Intersection	100m	South West
	MOTOR GARAGES & ENGINEERS	Thompson, B. Service Station, Rickard Ave. & Chapel Rd. BANKSTOWN	348280	1961	Road Intersection	100m	South West
	MOTOR GARAGES & ENGINEERS	Thompson's Service Station, Cnr. Rickhard St. & Chapel Rd. Bankstown	13596	1959	Road Intersection	100m	South West
	MOTOR GARAGE/ENGINEERS.	Thompsons Barry Service Station., Cnr Rickard St & Chapel Rd Bankstown	9155	1958	Road Intersection	100m	South West
	MOTOR GARAGE/ENGINEERS.	Thompson's Service Station., Cnr Rickhard St & Chapel Rd Bankstown	9153	1958	Road Intersection	100m	South West
	MOTOR GARAGES &/OR ENGINEERS.	Thompsons Barry Service Station., Cnr Ricard St & Chapel Rd., Bankstown	61577	1956	Road Intersection	100m	South West
	MOTOR GARAGES &/OR ENGINEERS.	Thompson's Service Station., Cnr Rickhard St & Chapel Rd Bankstown	61575	1956	Road Intersection	100m	South West
	MOTOR GARAGES &/OR ENGINEERS.	Thompson's Service Station., Cnr Rickhard St & Chapel Rd Bankstown	54209	1954	Road Intersection	100m	South West
4	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Gill L. G., 37 Rickard Rd., Bankstown 2200	30082	1976	Premise Match	268m	East
	MOTOR GARAGES &/OR ENGINEERS.	Gill, L. G., 37 Rickard Rd., Bankstown. 2200	58920	1975	Premise Match	268m	East
	MOTOR GARAGES &/OR ENGINEERS.	Gill L. G., 37 Rickard Rd., Bankstown	7519	1972	Premise Match	268m	East
	MOTOR GARAGES &/OR ENGINEERS.	Gill L G., 37 Richard Rd Bankstown	56282	1971	Premise Match	268m	East
	MOTOR GARAGES & ENGINEERS(M6S6)	Gill, L. G., 37 Rickard Rd., BANKSTOWN	337863	1970	Premise Match	268m	East
	MOTOR GARAGES & ENGINEERS.	Gill L. G., 37 Rickard Rd Bankstown	37558	1969	Premise Match	268m	East
	MOTOR GARAGES & ENGINEERS	Gill L. G., 37 Rickard Rd Bankstown	21000	1968	Premise Match	268m	East
	MOTOR GARAGES & ENGINEERS.	Gill L. G., 37 Rickard Rd Bankstown	6568	1967	Premise Match	268m	East
	MOTOR GARAGES & ENGINEERS.	Gill L. G., 37 Rickard Rd., Bankstown	55616	1966	Premise Match	268m	East
	Motor Garages & Engineers	Gill, L. G., 37 Rickard Rd. Bankstown	122192	1965	Premise Match	268m	East
	MOTOR GARAGES & ENGINEERS	Gill L. G., 37 Rickard Rd Bankstown	43402	1964	Premise Match	268m	East
5	MOTOR GARAGES & ENGINEERS.	C. & S. Motor Engineering., 68 Meredith St Bankstown	28853	1962	Premise Match	271m	West
	MOTOR GARAGES & ENGINEERS	C. & S. Motor Engineering, 68 Meredith St. BANKSTOWN	346788	1961	Premise Match	271m	West
	MOTOR GARAGES & ENGINEERS	C. & S. Motor Engineering, 68 Meredith St. Bankstown	13576	1959	Premise Match	271m	West
	MOTOR GARAGE/ENGINEERS.	C. & S. Motor Engineering., 68 Meredith St., Bankstown	758	1958	Premise Match	271m	West
	MOTOR GARAGES &/OR ENGINEERS.	C. & S. Motor Engineering., 68 Meredith St Bankstown	57364	1956	Premise Match	271m	West
	MOTOR GARAGES &/OR ENGINEERS.	C. & S. Motor Engineering., 68 Meredith St Bankstown	48992	1954	Premise Match	271m	West
	MOTOR GARAGES &/OR ENGINEERS.	C. & S. Motor Engineering., 68 Meredith St Bankstown	36703	1953	Premise Match	271m	West

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
5	MOTOR GARAGES &/OR ENGINEERS.	C. & S. Motor Engineering (Cochrane Propr.)., 68 Meredith St Bankstown	31424	1952	Premise Match	271m	West
	MOTOR GARAGES &/OR ENGINEERS	C. and S. Motor Engineering (Cochrane, Propr.), 68 Meredith St., Bankstown	83534	1950	Premise Match	271m	West
6	DRY CLEANERS & PRESSERS.	Lawrence Dry Cleaners, T34 Bankstown Sq., Bankstown. 2200	53171	1988	Premise Match	291m	South East
	DRY CLEANERS & PRESSERS.	Lawrence Dry Cleaners, T34 Bankstown Sq., Bankstown. 2200	25382	1986	Premise Match	291m	South East
	DRY CLEANERS & PRESSERS.	Lawrence Dry Cleaners, T34 Bankstown Sq., Bankstown. 2200	34605	1985	Premise Match	291m	South East
	DRY CLEANERS & PRESSERS.	Lawrence Dry Cleaners, T34 Bankstown Sq., Bankstown. 2200	22047	1984	Premise Match	291m	South East
	DRY CLEANERS & PRESSERS.	Lawrence Dry Cleaners., T34 Bankstown Sq Bankstown 2200	8630	1983	Premise Match	291m	South East
	DRY CLEANERS & PRESSERS.(D8500)	Lawrence Dry Cleaners, T34 Bankstown Sq., Bankstown. 2200.	23902	1982	Premise Match	291m	South East
	DRY CLEANERS & PRESSERS.	Lawrence Dry Cleaners., T34 Bankstown Sq., Bankstown. 2200	63414	1981	Premise Match	291m	South East
	DRY CLEANERS, PRESSERS &/OR DYERS.	Lawrence Dry Cleaners., T34 Bankstown Sq., Bankstown. 2200	46820	1980	Premise Match	291m	South East
	DRY CLEANERS, PRESSERS &/OR DYERS.	Lawrence Drycleaners T34 Bankstown Sq., Bankstown. 2200.	35433	1979	Premise Match	291m	South East
	DRY CLEANERS, PRESSERS &/OR DYERS	Lawrence Drycleaners, T34 Bankstown Sq., Bankstown. 2200	20847	1978	Premise Match	291m	South East
	DRY CLEANERS, PRESSERS &/OR DYERS.	Lawrance Drycleaners., T34 Clock Crt. Bankstown Sq. Bankstown 2200	23589	1976	Premise Match	291m	South East
	DRY CLEANERS, PRESSERS &/OR DYERS.	Lawrence Drycleaners, T34 Clock Crt., Bankstown Sq., Bankstown. 2200	24114	1975	Premise Match	291m	South East
	DRY CLEANERS, PRESSERS &/OR DYERS.	Lawrence Dry Cleaners T11 Clock Court, Bankstown Sq., Bankstown 2200	2999	1972	Premise Match	291m	South East
7	DRY CLEANERS & PRESSERS.	Compass Dry Cleaners, 4 Compass Centre, Bankstown. 2200	53043	1988	Premise Match	362m	South
	DRY CLEANERS & PRESSERS.	Compass Dry Cleaners, 4 Compass Centre, Bankstown. 2200	25268	1986	Premise Match	362m	South
	DRY CLEANERS & PRESSERS.	Compass Dry Cleaners, 4 Compass Centre, Bankstown. 2200	34483	1985	Premise Match	362m	South
	DRY CLEANERS & PRESSERS.	Budget Dry Cleaners, 4 Compass Centre, Bankstown. 2200	21910	1984	Premise Match	362m	South
	DRY CLEANERS & PRESSERS.	Budget Dry Cleaners, 4 Compass Centre, Bankstown. 2200	65736	1983	Premise Match	362m	South
	DRY CLEANERS & PRESSERS.(D8500)	Budget Dry Cleaners, 4 Compass Centre, Bankstown. 2200.	23776	1982	Premise Match	362m	South
	DRY CLEANERS & PRESSERS.	Budget Dry Cleaners., 4 Compass Centre Bankstown. 2200	63263	1981	Premise Match	362m	South
	DRY CLEANERS, PRESSERS &/OR DYERS.	Budget Dry Cleaners., 4 Compass Centre., Bankstown. 2200	46698	1980	Premise Match	362m	South
	DRY CLEANERS, PRESSERS &/OR DYERS.	Budget Dry Cleaners., 4 Compass Centre., Bankstown. 2200.	35296	1979	Premise Match	362m	South
	DRY CLEANERS, PRESSERS &/OR DYERS	Budget Dry Cleaners, 4 Compass Centre Bankstown. 2200	20724	1978	Premise Match	362m	South
	DRY CLEANERS, PRESSERS &/OR DYERS.	Budget Dry Cleaners., 4 Compass Centre, Bankstown 2200	23432	1976	Premise Match	362m	South
	DRY CLEANERS, PRESSERS &/OR DYERS.	Budget Dry Cleaners, 4 Compass Centre, Bankstown. 2200	23956	1975	Premise Match	362m	South
	DRY CLEANERS, PRESSERS &/OR DYERS	Budget Dry Cleaners., 4 Compass Centre, Bankstown	50960	1971	Premise Match	362m	South

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
7	DRY CLEANERS,PRESSERS /DYERS (D710)	Budget Dry Cleaners., 4 Compass Centre., Bankstown	292229	1970	Premise Match	362m	South
	DRY CLEANERS, PRESSERS/ DYERS	Budget Drycleaners., 9 Compass Centre Fetherstone St Bankstown	37037	1969	Premise Match	362m	South
	DRY CLEANERS, PRESSERS/DYERS	Budget Drycleaners., 9 Compass Centre Fetherstone St Bankstown	20502	1968	Premise Match	362m	South
	DRY CLEANERS, PRESSERS/ DYERS	Budget Drycleaners., 9 Compass Centre Fetherstone St Bankstown	2008	1967	Premise Match	362m	South
	DRY CLEANERS, PRESSERS/ DYERS	Budget Drycleaners, 9 Compass Centre, Fetherstone St., Bankstown	52593	1966	Premise Match	362m	South
	Dry Cleaners, Pressers/Dyers	Budget Dry Cleaners, 4 Compass Centre, Bankstown	76106	1965	Premise Match	362m	South
8	DRY CLEANERS, PRESSERS & DYERS	Nu-Way, 115 North Ter., Bankstown	35577	1950	Premise Match	370m	South
9	MOTOR GARAGES &/OR ENGINEERS.	Lavender Jack., Cnr North Ter & Appin Way Bnkstwn	31859	1952	Road Intersection	393m	South
	MOTOR GARAGES &/OR ENGINEERS	Lavender, Jack, Cnr. North Ter. and Appin Way, Bankstown	83988	1950	Road Intersection	393m	South
	MOTOR GARAGES &/OR ENGINEERS.	Gills Service Station., Cnr Appian Way And North Ter Bankstown	22383	1948-49	Road Intersection	393m	South
10	DRY CLEANERS, PRESSERS &/OR DYERS.	Goodlook Dry Cleaners., 23 Marion St Bankstown	2918	1972	Premise Match	415m	South West
	DRY CLEANERS, PRESSERS &/OR DYERS	Goodlook Dry Cleaners., 23 Marion St Bankstown	51069	1971	Premise Match	415m	South West
	DRY CLEANERS,PRESSERS /DYERS (D710)	Goodlook Dry Cleaners., 23 Marion St., Bankstown	292320	1970	Premise Match	415m	South West
	DRY CLEANERS, PRESSERS/ DYERS	Goodlook Dry Cleaners., 23 Marion St Bankstown	37124	1969	Premise Match	415m	South West
	DRY CLEANERS, PRESSERS/DYERS	Goodlook Dry Cleaners., 23 Marion St Bankstown	20584	1968	Premise Match	415m	South West
	DRY CLEANERS, PRESSERS/ DYERS	Goodlook Dry Cleaners., 23 Marion St Bankstown	6140	1967	Premise Match	415m	South West
	DRY CLEANERS, PRESSERS/ DYERS	Goodlook. Dry Cleaners., 23 Marion St Bankstown	52669	1966	Premise Match	415m	South West
	DRY CLEANERS, PRESSERS/DYERS	Good Look Dry Cleaners., 23 Marion St Bankstown	10067	1959	Premise Match	415m	South West
	DRY CLEANERS, PRESSERS & DYERS	Good Look Dry Cleaners., 23 Marion St Bankstown	255	1958	Premise Match	415m	South West
	DRY CLEANERS, PRESSERS & DYERS.	Good Look Dry Cleaners., 23 Marion St Bankstown	54846	1956	Premise Match	415m	South West
	DRY CLEANERS, PRESSERS & DYERS.	Good Look Dry Cleaners., 23 Marion St Bankstown	44378	1954	Premise Match	415m	South West
	DRY CLEANERS, PRESSERS & DYERS.	Good Look., 23 Marion St., Bankstown	27073	1952	Premise Match	415m	South West
	DRY CLEANERS, PRESSERS & DYERS	“Good Look”, 23 Marion St., Bankstown	35027	1950	Premise Match	415m	South West
11	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Precision Service Centre Pty. Ltd., Cnr Marion & Meredith Sts Bankstown	16404	1972	Premise Match	451m	South West
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Precision Service Centre Pty. Ltd., Cnr Marion & Meredith Sts., Bankstown	63001	1971	Premise Match	451m	South West
	MOTOR SERVICE STATIONS-PETROL,OIL,Etc.	Precision Service Centre Pty. Ltd., Cnr. Marion & Meredith Sts., BANKSTOWN	341404	1970	Premise Match	451m	South West
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Precision Service Centre Pty. Ltd., Cnr Marion & Meredith Sts Bankstown	47491	1969	Premise Match	451m	South West
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Precision Service Centre Pty. Ltd., Cnr Marion & Meredith Sts Bankstown	30915	1968	Premise Match	451m	South West
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Precision Service Centre Pty. Ltd., Cnr Marion & Meredith Sts Bankstown	15396	1967	Premise Match	451m	South West

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
11	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Precision Service Centre Pty. Ltd., Cnr Marion & Meredith Sts Bankstown	61065	1966	Premise Match	451m	South West
	Motor Service Stations - Petrol, Oil, Etc.	Precision Service Centre Pty. Ltd., Cnr. Marion & Meredith Sts. Bankstown	125431	1965	Premise Match	451m	South West
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Precision Service Centre Pty. Ltd., Cnr Marion & Meredith Sts Bankstown	51726	1964	Premise Match	451m	South West
	MOTOR GARAGES &/OR ENGINEERS.	Horsewell Service Station., 2 Meredith St Bankstown	57826	1956	Premise Match	451m	South West
	MOTOR GARAGES &/OR ENGINEERS.	Horsewell Service Station., 2 Meredith St Bankstown	57082	1956	Premise Match	451m	South West
12	DRY CLEANERS, PRESSERS/ DYERS	Tiffany's Dry Cleaners., 1 Railway Bridge Off 118 North Ter Bankstown	37353	1969	Premise Match	478m	South
	DRY CLEANERS, PRESSERS/DYERS	Tiffany's Dry Cleaners., 1 Railway Bridge Off 118 North Ter Bankstown	20808	1968	Premise Match	478m	South
	DRY CLEANERS, PRESSERS/ DYERS	Tiffany's Dry Cleaners., 1 Railway Bridge Off 118 North Ter Bankstown	6363	1967	Premise Match	478m	South
	DRY CLEANERS, PRESSERS/ DYERS	Tiffany's Dry Cleaners., 1 Railway Bridge Off 118 North Ter., Bankstown	55413	1966	Premise Match	478m	South
13	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Bankstown Auto Port., 246 South Tce., Bankstown. 2200	8996	1983	Premise Match	495m	South
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS. (M6860)	Bankstown Auto Port, 246 South Ter., Bankstown 2200	56088	1982	Premise Match	495m	South
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Bankstown Auto Port., 246 South Ter., Bankstown. 2200	63756	1981	Premise Match	495m	South
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Bankstown Auto Port., 252 South Ter Bankstown	16395	1972	Premise Match	495m	South
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Bankstown Auto Port., 252 South Ter Bankstown	62992	1971	Premise Match	495m	South
	MOTOR SERVICE STATIONS-PETROL,OIL,Etc.	Bankstown Auto Port., 252 South Ter., BANKSTOWN	340816	1970	Premise Match	495m	South
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Bankstown Auto Port., 252 South Ter Bankstown	47480	1969	Premise Match	495m	South
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Bankstown Auto Port., 252 South Ter Bankstown	30906	1968	Premise Match	495m	South
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Bankstown Auto Port., 252 South Ter Bankstown	15387	1967	Premise Match	495m	South
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Bankstown Auto Port., 252 South Ter Bankstown	61057	1966	Premise Match	495m	South
	Motor Service Stations - Petrol, Oil, Etc.	Bankstown Auto Port, 258 South Ter. Bankstown	125424	1965	Premise Match	495m	South
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Bankstown Auto Port., 258 South Ter Bankstown	51719	1964	Premise Match	495m	South
	MOTOR GARAGES & ENGINEERS.	Bankstown Auto Port., 258 South Ter Bankstown	28849	1962	Premise Match	495m	South
	MOTOR GARAGES & ENGINEERS.	Bankstown Auto Port., 258 South Ter Bankstown	28844	1962	Premise Match	495m	South
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Bankstown Auto Port., 258 South Ter Bankstown	37863	1962	Premise Match	495m	South
	MOTOR GARAGES & ENGINEERS.	Supreme Service Station., 258 South Ter Bankstown	28871	1962	Premise Match	495m	South
	MOTOR GARAGES & ENGINEERS	Bankstown Auto Port 258 South Ter., BANKSTOWN	346594	1961	Premise Match	495m	South

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
13	MOTOR GARAGES & ENGINEERS	Bankstown Auto Port, 258 South Ter. BANKSTOWN	346595	1961	Premise Match	495m	South
	MOTOR GARAGES & ENGINEERS	Supreme Service Station, 258 South Ter. BANKSTOWN	348241	1961	Premise Match	495m	South
	MOTOR GARAGES & ENGINEERS	Bankstown Auto Port, 258 South Ter. Bankstown	13573	1959	Premise Match	495m	South
	MOTOR GARAGES & ENGINEERS	Bankstown Auto Port, 258 South Ter. Bankstown	13570	1959	Premise Match	495m	South
	MOTOR GARAGES & ENGINEERS	Supreme Service Station, 258 South Ter. Bankstown	13593	1959	Premise Match	495m	South
	MOTOR SERVICE STATIONS-PETROL,. OIL, ETC.	Supreme Service Station., 258 South Ter., Bankstown	20263	1959	Premise Match	495m	South
	MOTOR GARAGE/ENGINEERS.	Supreme Service Station., 258 South Ter Bankstown	5050	1958	Premise Match	495m	South
	MOTOR SERVICE STATIONS-PETROL, ETC.	Supreme Service Station., 258 South Terrace Bankstown	9861	1958	Premise Match	495m	South
	MOTOR GARAGES &/OR ENGINEERS.	Supreme Service Station., 258 South Ter Bankstown	61544	1956	Premise Match	495m	South
	MOTOR SERVICE STATIONS-PETROL, ETC.	Supreme Service Station., 258 South Terrace Bankstown	65	1956	Premise Match	495m	South
	MOTOR GARAGES &/OR ENGINEERS.	Supreme Service Station., 258 South Ter Bankstown	54184	1954	Premise Match	495m	South
	MOTOR GARAGES &/OR ENGINEERS.	Supreme Service Station., 258 South Ter Bankstown	40755	1953	Premise Match	495m	South
	MOTOR GARAGES &/OR ENGINEERS.	Supreme Service Station., 258 South Ter Bankstown	32306	1952	Premise Match	495m	South
	MOTOR GARAGES &/OR ENGINEERS	Supreme Service Station, 258 South Ter., Bankstown	84445	1950	Premise Match	495m	South
	MOTOR SERVICE STATIONS-PETROL, Etc.	Supreme Service Station, 258 South Ter., Bankstown	86445	1950	Premise Match	495m	South
	MOTOR GARAGES &/OR ENGINEERS.	Supreme Service Station., 258 South Ter Bankstown	17670	1948-49	Premise Match	495m	South
	MOTOR SERVICE STATIONS-PETROL, ETC.	Supreme Service Station., 258 South Ter Bankstown	26816	1948-49	Premise Match	495m	South
	MOTOR SERVICE STATIONS-PETROL, ETC.	Supreme Service Station., 258 South Ter Bankstown	23079	1948-49	Premise Match	495m	South
	MOTOR GARAGES &/OR ENGINEERS.	Supreme Service Station., 258 South Ter., Bankstown	22922	1948-49	Premise Match	495m	South

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

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

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

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
14	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Als & Dots Service Station, Chapel Rd., Bankstown. 2200	49231	1978	Road Match	0m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Als & Dots Service Station., Chapel Rd., Bankstown 2200	23932	1976	Road Match	0m
	MOTOR GARAGES &/OR ENGINEERS.	Als & Dots Service Station., Chapel Rd., Bankstown. 2200	58322	1975	Road Match	0m
	MOTOR GARAGES &/OR ENGINEERS.	Al's & Dot's Service Station., Chapel Rd Bankstown	7508	1972	Road Match	0m
	MOTOR GARAGES &/OR ENGINEERS.	Al's & Dot's Service Station., Chapel Rd Bankstown	56271	1971	Road Match	0m
	MOTOR GARAGES & ENGINEERS(M6S6)	Al's & Dot's Service Station., Chapel Rd., BANKSTOWN	337182	1970	Road Match	0m
	MOTOR GARAGES & ENGINEERS.	Gill's Garage., Chapel Rd Bankstown	28859	1962	Road Match	0m
	MOTOR GARAGES & ENGINEERS.	Purnell Bros., 477 Chapel Rd Bankstown	28866	1962	Road Match	0m
	MOTOR GARAGES & ENGINEERS	Gill's Garage, Chapel Rd., Bankstown	347222	1961	Road Match	0m
	MOTOR GARAGES & ENGINEERS	Purnell Bros., 477 Chapel Rd. BANKSTOWN	347955	1961	Road Match	0m
	MOTOR GARAGES & ENGINEERS	Gill's Garage, Chapel Rd. Bankstown	13581	1959	Road Match	0m
	MOTOR GARAGES & ENGINEERS	Purnell Bros., 477 Chapel Rd. Bankstown	13588	1959	Road Match	0m
	MOTOR GARAGE/ENGINEERS.	Gill's Garage., Chapel Rd Bankstown	4163	1958	Road Match	0m
	MOTOR GARAGE/ENGINEERS.	Purnell Bros., 477 Chapel Rd Bankstown	4798	1958	Road Match	0m
	MOTOR GARAGES &/OR ENGINEERS.	Gill's Garage., Chapel Rd Bankstown	57701	1956	Road Match	0m
	MOTOR GARAGES &/OR ENGINEERS.	Purnell Bros., 477 Chapel Rd Bankstown	61327	1956	Road Match	0m
	MOTOR GARAGES &/OR ENGINEERS.	Gill's Garage., Chapel Rd Bankstown	49312	1954	Road Match	0m
	MOTOR GARAGES &/OR ENGINEERS.	Purnell Bros., 477 Chapel Rd Bankstown	49887	1954	Road Match	0m
	MOTOR GARAGES &/OR ENGINEERS.	Gill's Garage., Chapel Rd Bankstown	40041	1953	Road Match	0m
	MOTOR GARAGES &/OR ENGINEERS.	Purnell Bros., 477 Chapel Rd., Bankstown	40538	1953	Road Match	0m
	MOTOR GARAGES &/OR ENGINEERS.	Purnell Bros., 477 Chapel Rd Bankstown	32113	1952	Road Match	0m
	MOTOR GARAGES &/OR ENGINEERS	Purnell Bros., 477 Chapel Rd., Bankstown	84242	1950	Road Match	0m
	MOTOR GARAGES &/OR ENGINEERS.	Gills Service Station., Chapel Rd Bankstown	22384	1948-49	Road Match	0m
	MOTOR SERVICE STATIONS-PETROL, ETC.	Gills Service Station., Chapel Rd Bankstown	23280	1948-49	Road Match	0m
	MOTOR GARAGES &/OR ENGINEERS.	Purnell Bros., 477 Chapel Rd Bankstown	22765	1948-49	Road Match	0m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
15	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Thompsons B. Service Station., Rickard Rd., Bankstown 2200	35020	1976	Road Match	79m
	MOTOR GARAGES &/OR ENGINEERS.	Thompsons, B. Service Station., Rickard Rd., Bankstown. 2200	59635	1975	Road Match	79m
16	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	United Tyre Service., North Ter Bankstown	16409	1972	Road Match	380m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	United Tyre Service, North Ter, Bankstown	65588	1971	Road Match	380m
	MOTOR SERVICE STATIONS-PETROL,OIL,Etc.	United Tyre Service., North Ter., BANKSTOWN	341593	1970	Road Match	380m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	United Tyre Service., North Ter Bankstown	47495	1969	Road Match	380m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	United Tyre Service., North Ter Bankstown	30919	1968	Road Match	380m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	United Tyre Service., North Ter Bankstown	15400	1967	Road Match	380m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	United Tyre Service., North Ter Bankstown	61069	1966	Road Match	380m
	Dry Cleaners, Pressers/Dyers	Nu-Way Dry Cleaners Pty. Ltd., North Ter., Bankstown	76269	1965	Road Match	380m
	Motor Service Stations - Petrol, Oil, Etc.	United Tyre Service, North Ter. Bankstown	125434	1965	Road Match	380m
	DRY CLEANERS, PRESSERS/ DYERS.	Nu-Way Dry Cleaners Pty. Ltd., North Ter Bankstown	43108	1964	Road Match	380m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	United Tyre Service., North Ter Bankstown	51729	1964	Road Match	380m
	MOTOR GARAGES & ENGINEERS.	Johnson's Service Station., North Ter Bankstown	28862	1962	Road Match	380m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	United Tyre Service., North Ter Bankstown	37874	1962	Road Match	380m
	MOTOR GARAGES & ENGINEERS	Johnson’s Service Station, North Ter. Bankstown	347463	1961	Road Match	380m
	MOTOR GARAGES & ENGINEERS	Johnson's Service Station, North Ter. Bankstown	13583	1959	Road Match	380m
	MOTOR GARAGE/ENGINEERS.	Johnsons Service Station., North Ter Bankstown	4367	1958	Road Match	380m
	MOTOR GARAGES &/OR ENGINEERS.	Johnsons Service Station., North Ter Bankstown	57891	1956	Road Match	380m
	MOTOR GARAGES &/OR ENGINEERS.	Fox & Co Pty Ltd., North Ter Bankstown	44617	1954	Road Match	380m
	MOTOR GARAGES &/OR ENGINEERS.	Fox. & Co. Pty. Ltd., North Ter Bankstown	49269	1954	Road Match	380m
	MOTOR GARAGES &/OR ENGINEERS.	Johnsons Service Station., North Ter Bankstown	49495	1954	Road Match	380m
	MOTOR GARAGES &/OR ENGINEERS.	Fox & Co Pty Ltd., North Ter Bankstown	36444	1953	Road Match	380m
	MOTOR GARAGES &/OR ENGINEERS.	Fox & Co. Pty. Ltd., North Ter., Bankstown	40004	1953	Road Match	380m
	MOTOR GARAGES &/OR ENGINEERS.	Johnsons Service Station., North Ter Bankstown	40200	1953	Road Match	380m
	MOTOR GARAGES &/OR ENGINEERS.	Fox & Co Pty Ltd., North Ter., Bankstown	27378	1952	Road Match	380m
	MOTOR GARAGES &/OR ENGINEERS.	Fox & Co. Pty. Ltd., North Ter Bankstown	31648	1952	Road Match	380m
	MOTOR GARAGES &/OR ENGINEERS.	Johnsons Service Station., North Ter Bankstown	31808	1952	Road Match	380m
	MOTOR GARAGES &/OR ENGINEERS	Johnsons Service Station, North Ter., Bankstown	83930	1950	Road Match	380m
	MOTOR SERVICE STATIONS-PETROL, Etc.	Johnsons Service Station, North Ter., Bankstown	86090	1950	Road Match	380m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
16	DRY CLEANERS, PRESSERS & DYERS	Jones, Dry Cleaners Pty. Ltd. North Ter., Bankstown	35361	1950	Road Match	380m
17	MOTOR GARAGE & SERVICE STATIONS.	Davis N. Service Station, Marion St., Bankstown. 2200	64940	1989	Road Match	425m
	MOTOR GARAGES & SERVICE STATIONS.	Davis N. Service Station, Marion St., Bankstown. 2200	59150	1988	Road Match	425m
	MOTOR GARAGES & SERVICE STATIONS.	Davis N. Service Station, Marion St., Bankstown. 2200	64543	1986	Road Match	425m
	MOTOR GARAGES & SERVICE STATIONS.	Davis N. Service Station, Marion St., Bankstown. 2200	39547	1985	Road Match	425m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Davis N. Service Station, Marion St., Bankstown. 2200	28130	1984	Road Match	425m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Davis N. Service Station., Marion St., Bankstown. 2200	14553	1983	Road Match	425m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Precision Service Centre Pty. Ltd., Marion St., Bankstown 2200	21414	1983	Road Match	425m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS. (M6860)	Davis N. Service Station, Marion St., Bankstown. 2200	56617	1982	Road Match	425m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS. (M6860)	Precision Service Centre Pty. Ltd., Marion St., Bankstown. 2200.	57403	1982	Road Match	425m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Davis, N. Service Station., Marion St., Bankstown. 2200.	3169	1981	Road Match	425m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Precision Service Centre Pty. Ltd., Marion St., Bankstown 2200	3944	1981	Road Match	425m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Davis N. Service Station., Marion St., Bankstown. 2200	52811	1980	Road Match	425m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Precision Service Centre Pty Ltd., Marion St., Bankstown. 2200	58682	1980	Road Match	425m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Davis N. Service Station., Marion St., Bankstown. 2200.	41356	1979	Road Match	425m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Precision Service Centre Pty. Ltd., Marion St., Bankstown. 2200.	46178	1979	Road Match	425m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Davis N. Service Station, Marion St., Bankstown. 2200	49890	1978	Road Match	425m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Precision Service Centre Pty. Ltd., Marion St., Bankstown. 2200	50682	1978	Road Match	425m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Davis N. Service Station., Marion St., Bankstown 2200	29827	1976	Road Match	425m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Precision Service Centre Pty. Ltd., Marion St., Bankstown 2200	34750	1976	Road Match	425m
	MOTOR SERVICE STATIONS - PETROL, OIL	Davis N. Service Station, Marion St., Bankstown. 2200	61668	1975	Road Match	425m
	MOTOR SERVICE STATIONS - PETROL, OIL	Precision Service Centre Pty. Ltd., Marion St., Bankstown. 2200	61904	1975	Road Match	425m

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Aerial Imagery 2024

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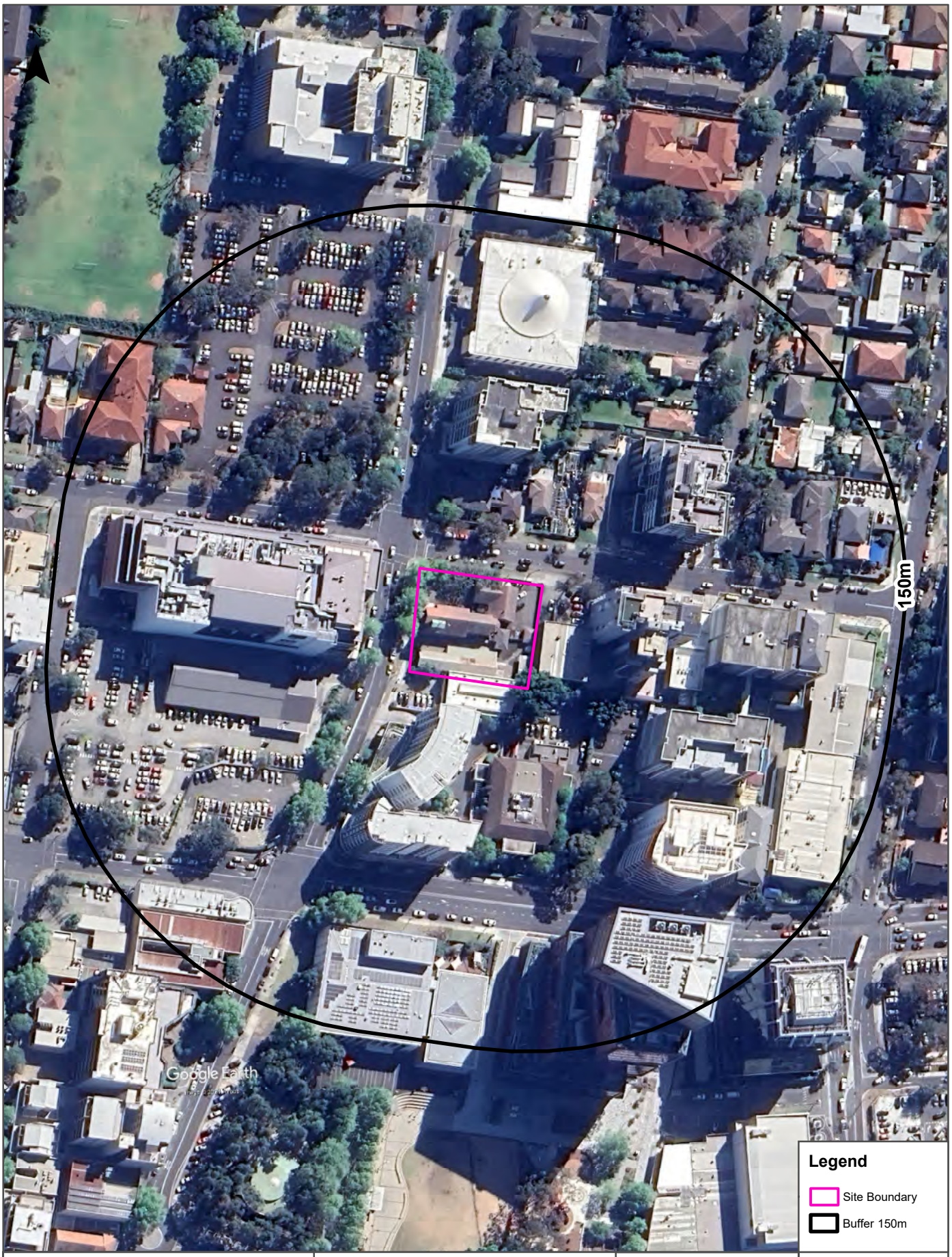

Scale:
0 25 50 75 100
Meters

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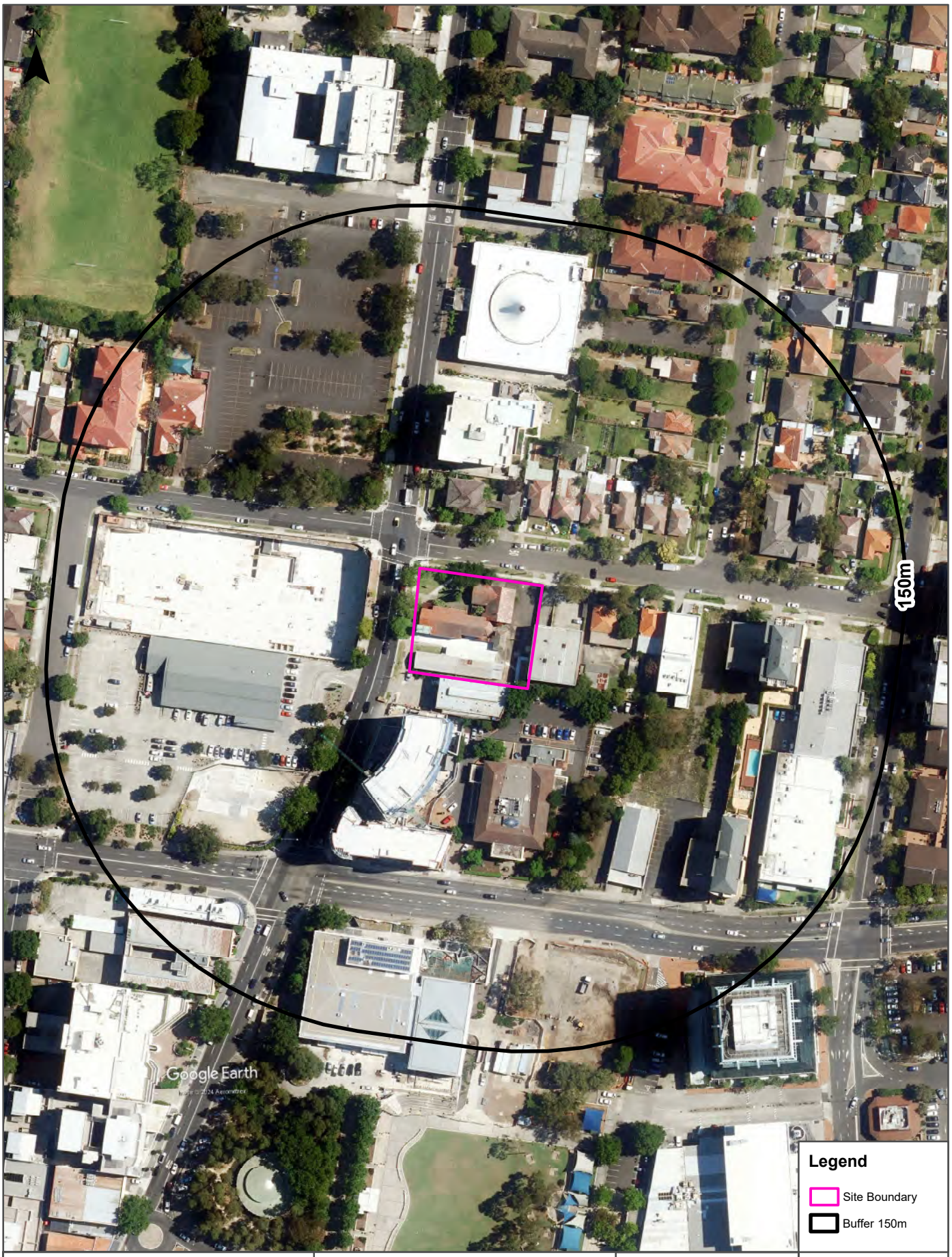
Coordinate System:
GDA 1994 MGA Zone 56

Date: 25 November 2024

Aerial Imagery 2014

461 Chapel Road, Bankstown, NSW 2200



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Coordinate System:
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Date: 25 November 2024

Aerial Imagery 2005

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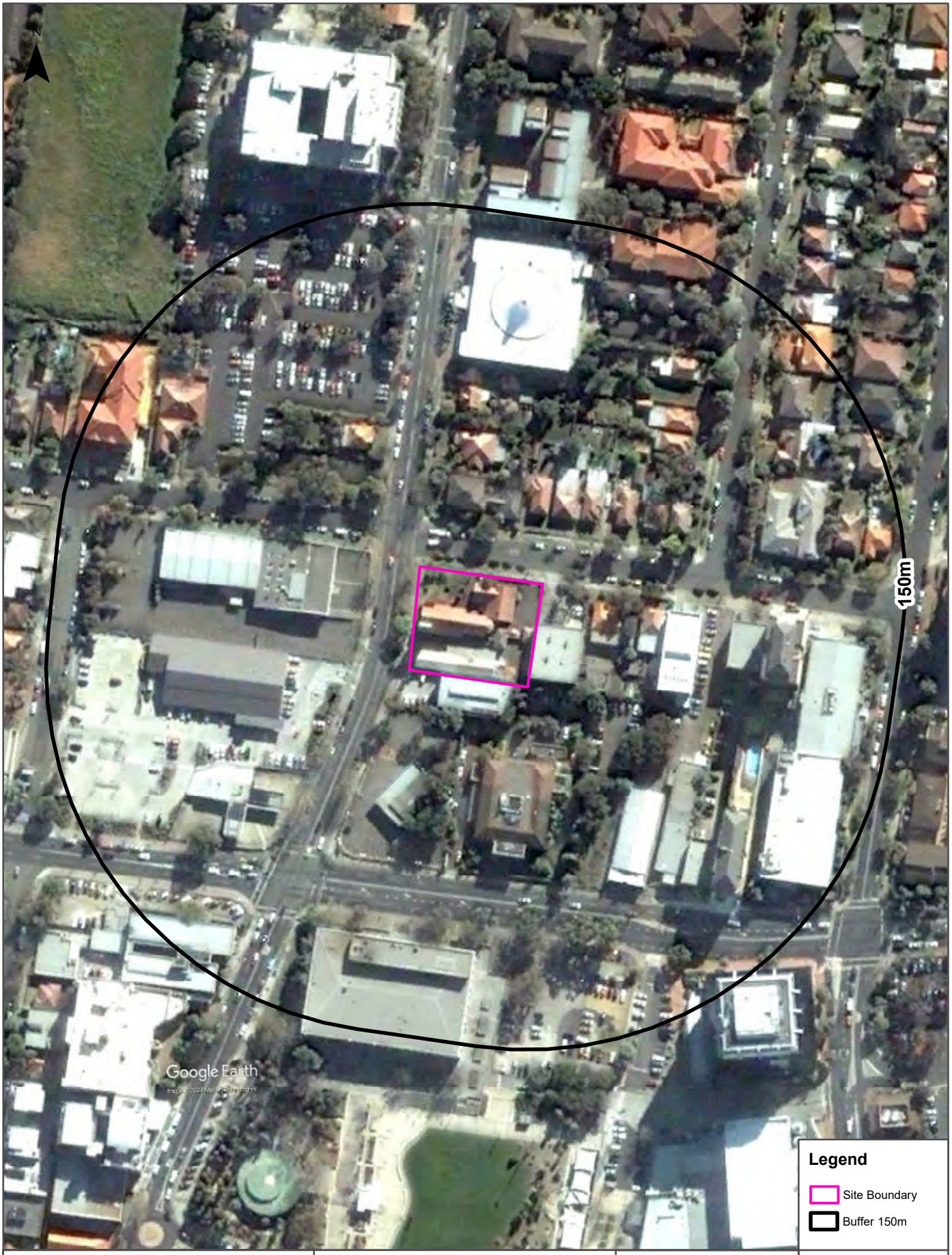

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Meters

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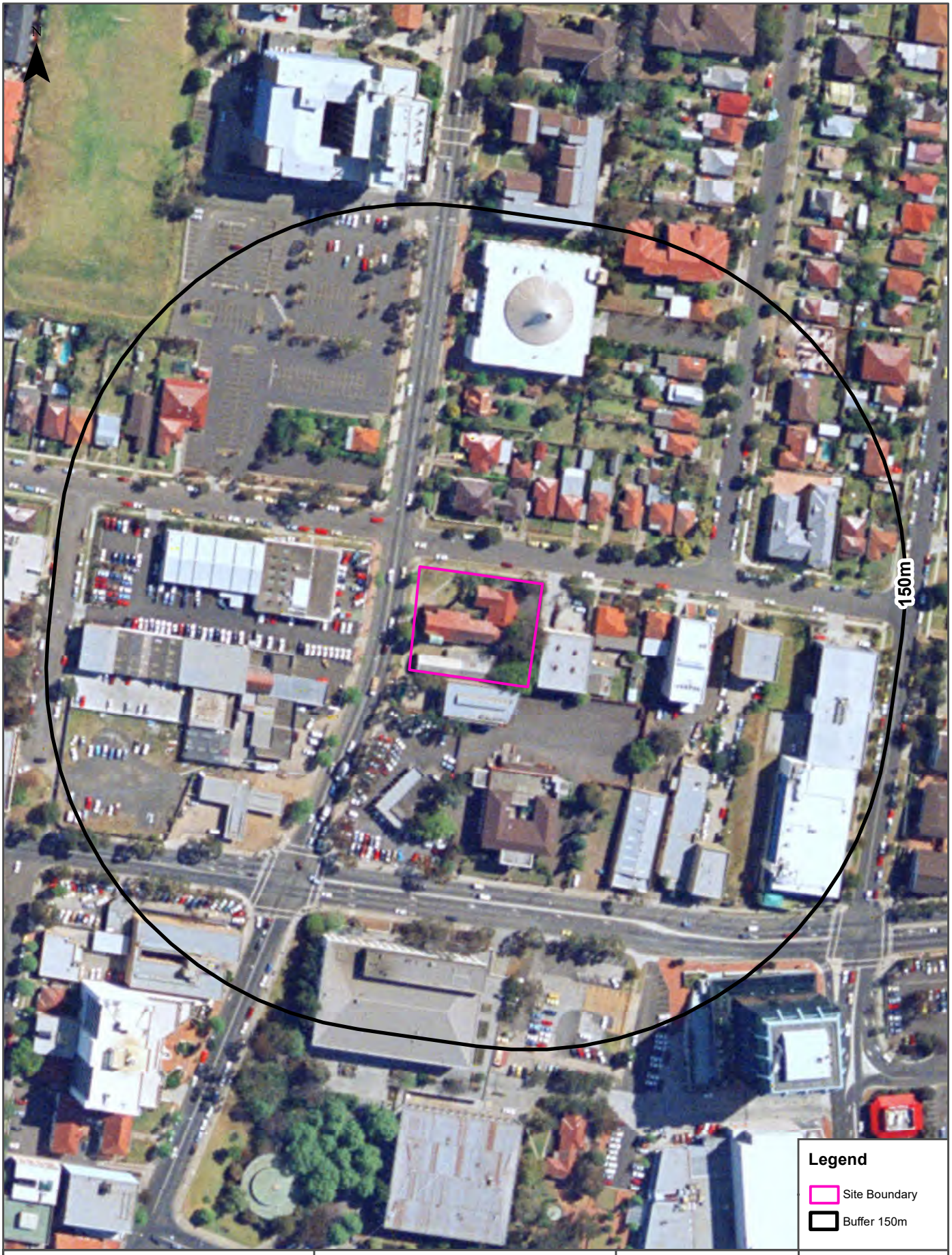
Coordinate System:
GDA 1994 MGA Zone 56

Date: 25 November 2024

Aerial Imagery 1994

461 Chapel Road, Bankstown, NSW 2200



Aerial Imagery 1991

461 Chapel Road, Bankstown, NSW 2200

Scale:	Data Sources: Aerial Imagery:	Coordinate System:	Date: 22 November 2024
0 25 50 75 100 Meters	© NSW Department of Customer Service	GDA 1994 MGA Zone 56	

Aerial Imagery 1986

461 Chapel Road, Bankstown, NSW 2200

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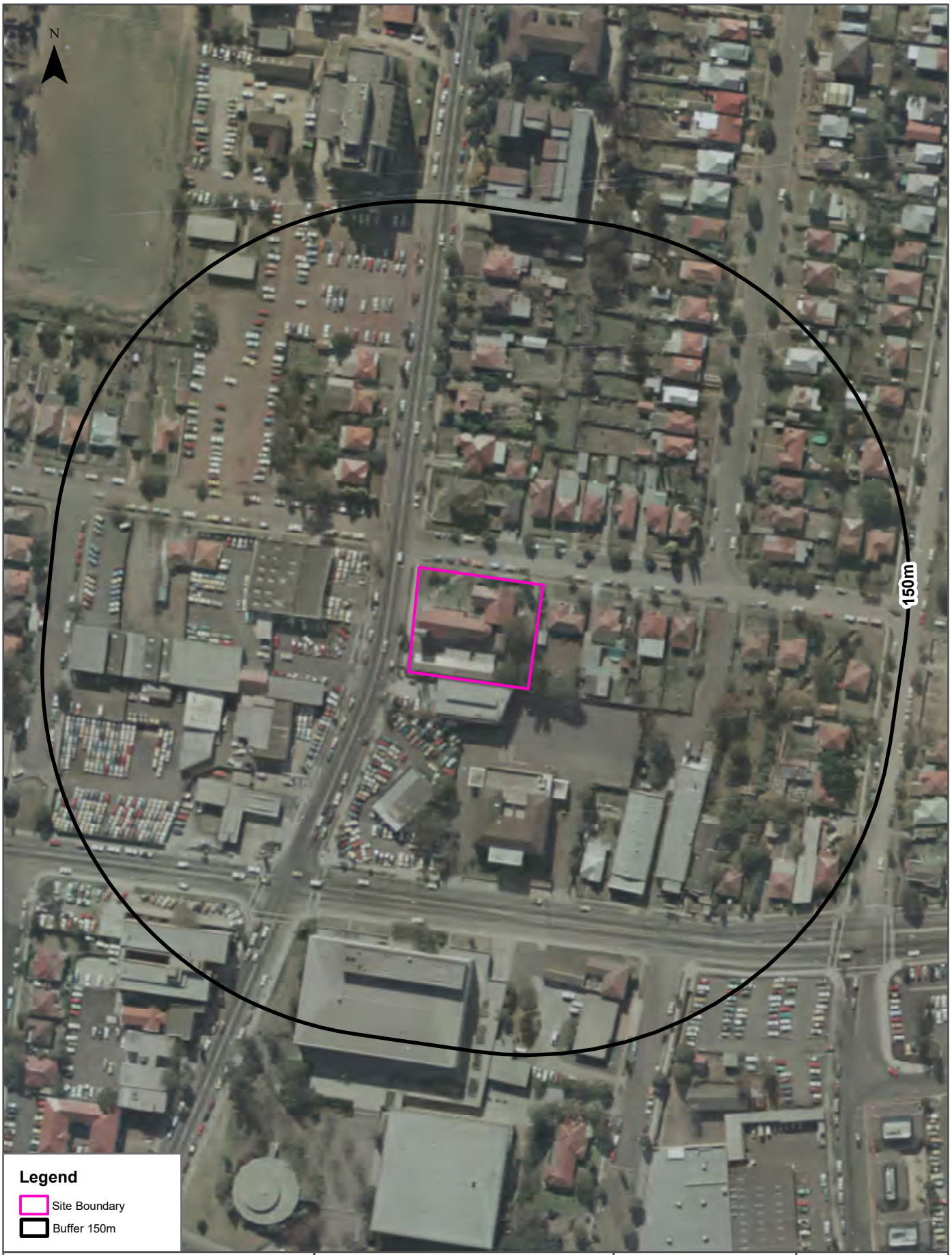
Aerial Imagery 1982

461 Chapel Road, Bankstown, NSW 2200



Scale:	Data Sources: Aerial Imagery: © NSW Department of Customer Service	Coordinate System: GDA 1994 MGA Zone 56	Date: 22 November 2024

0 25 50 75 100
Meters

Aerial Imagery 1978

461 Chapel Road, Bankstown, NSW 2200

Scale:	Data Sources: Aerial Imagery:	Coordinate System:	Date: 22 November 2024
0 25 50 75 100 Meters	© NSW Department of Customer Service	GDA 1994 MGA Zone 56	

Aerial Imagery 1970

461 Chapel Road, Bankstown, NSW 2200

Data Sources: Aerial Imagery:
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Date: 22 November 2024

Aerial Imagery 1965

461 Chapel Road, Bankstown, NSW 2200

Aerial Imagery 1961

461 Chapel Road, Bankstown, NSW 2200

Scale:	Data Sources: Aerial Imagery:	Coordinate System:	Date: 22 November 2024
0 25 50 75 100 Meters	© NSW Department of Customer Service	GDA 1994 MGA Zone 56	

Aerial Imagery 1955, 1956

461 Chapel Road, Bankstown, NSW 2200

Scale:	Data Sources: Aerial Imagery:	Coordinate System:	Date: 22 November 2024
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Aerial Imagery 1951

461 Chapel Road, Bankstown, NSW 2200

Scale: 0 25 50 75 100 Meters	Data Sources: Aerial Imagery: © NSW Department of Customer Service	Coordinate System: GDA 1994 MGA Zone 56	Date: 22 November 2024

Aerial Imagery 1943

461 Chapel Road, Bankstown, NSW 2200

Data Source Aerial Imagery:	Coordinate System:	Date: 22 November 2024
© NSW Department of Customer Service	GDA 1994 MGA Zone 56	

Aerial Imagery 1930

461 Chapel Road, Bankstown, NSW 2200

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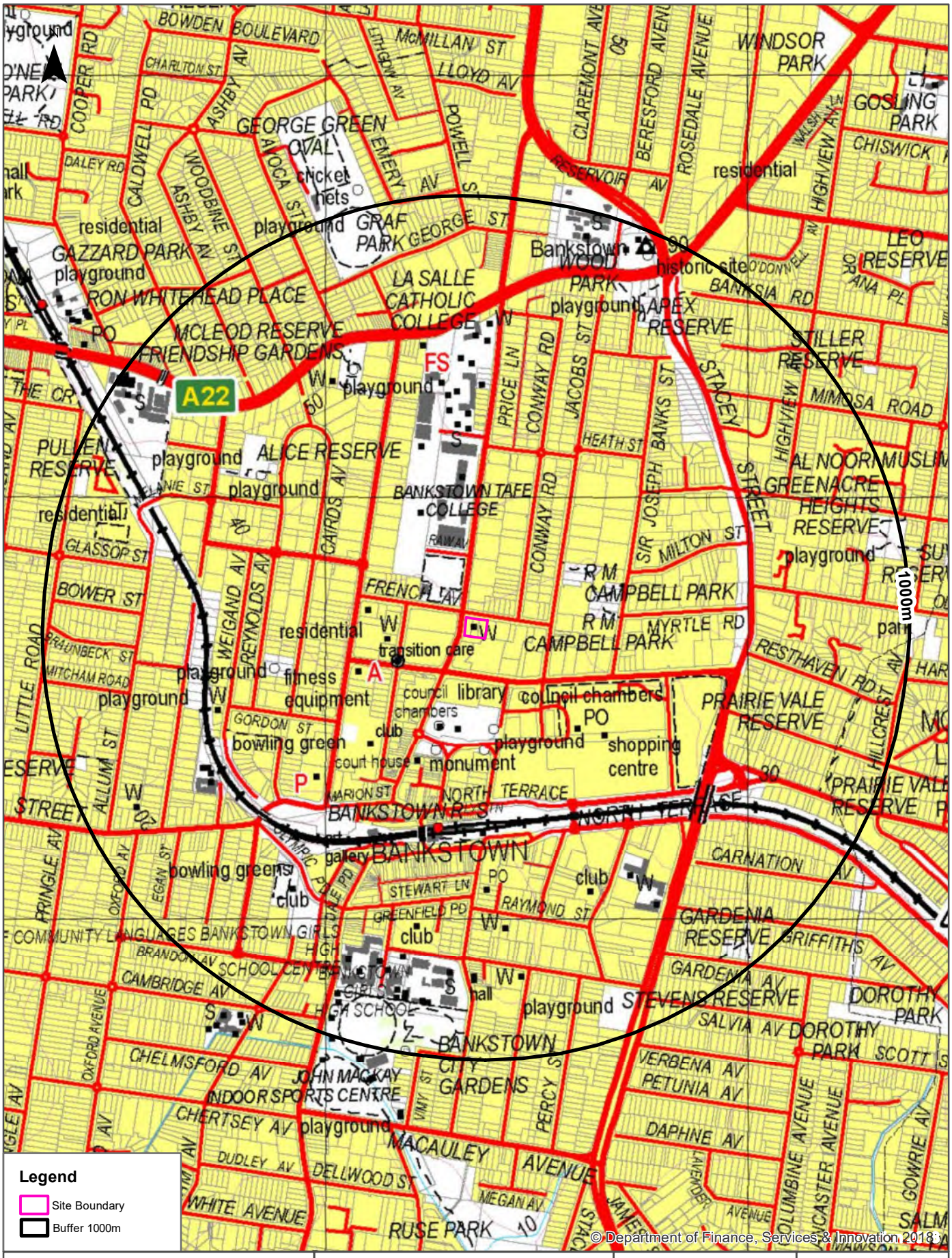
Scale: 0 25 50 75 100 Meters

Topographic Map 2015

461 Chapel Road, Bankstown, NSW 2200



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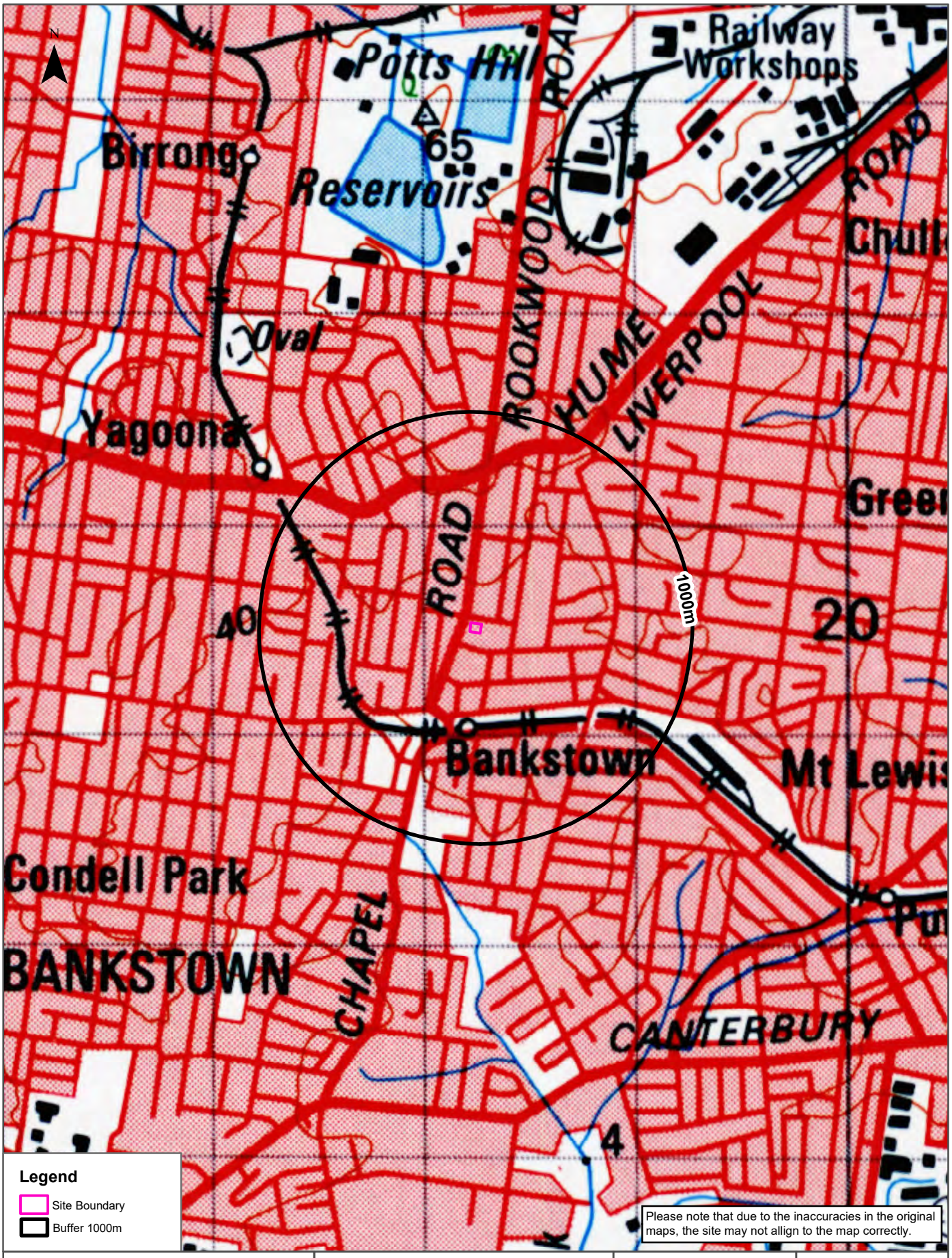
Historical Map 1975

461 Chapel Road, Bankstown, NSW 2200



Scale:
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Meters

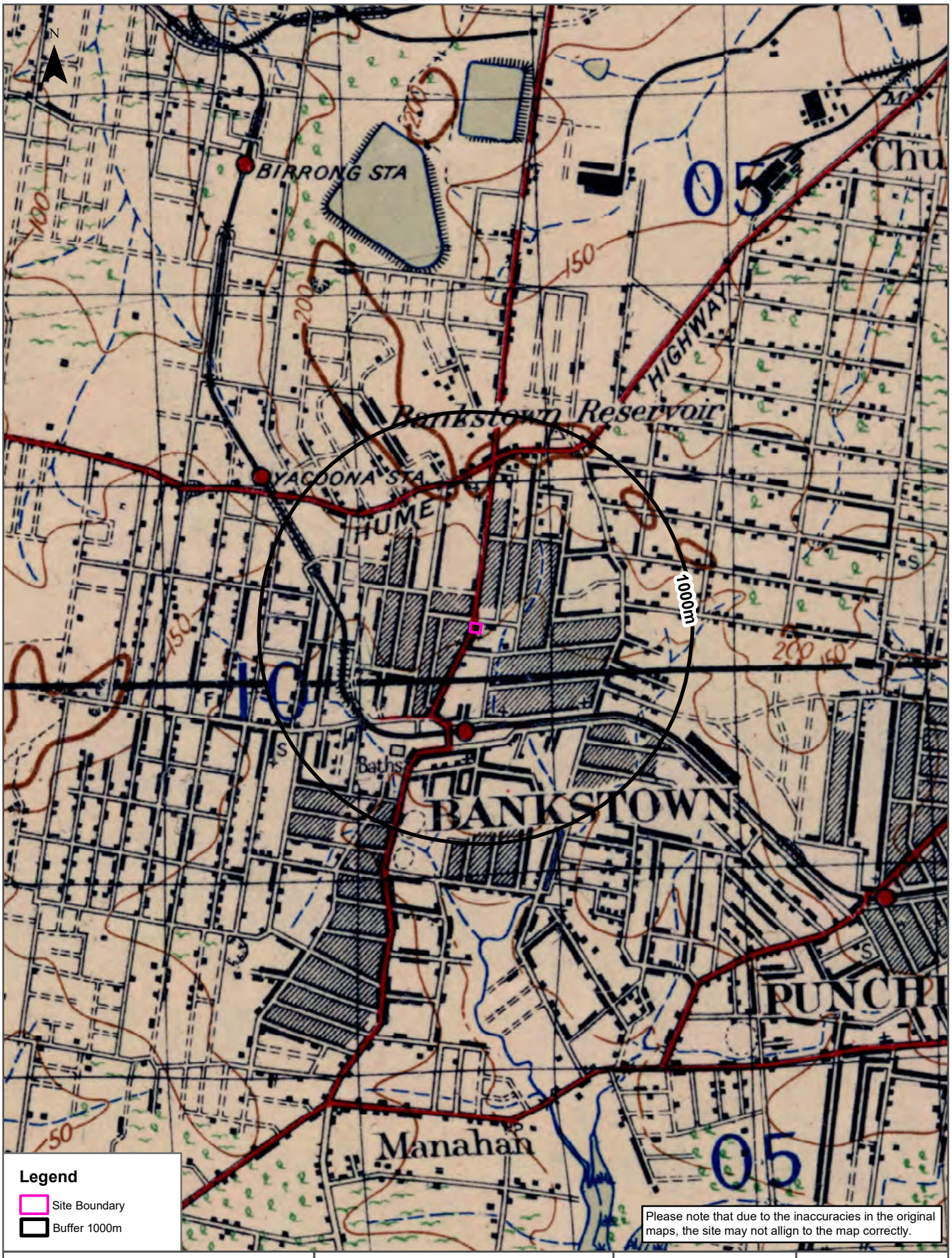
Data Sources: NATMAP 1:100,000
Topographic Maps Geoscience Australia

Coordinate System:
GDA 1994 MGA Zone 56

Date: 22 November 2024

Historical Map c.1936

461 Chapel Road, Bankstown, NSW 2200



Scale:
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Meters

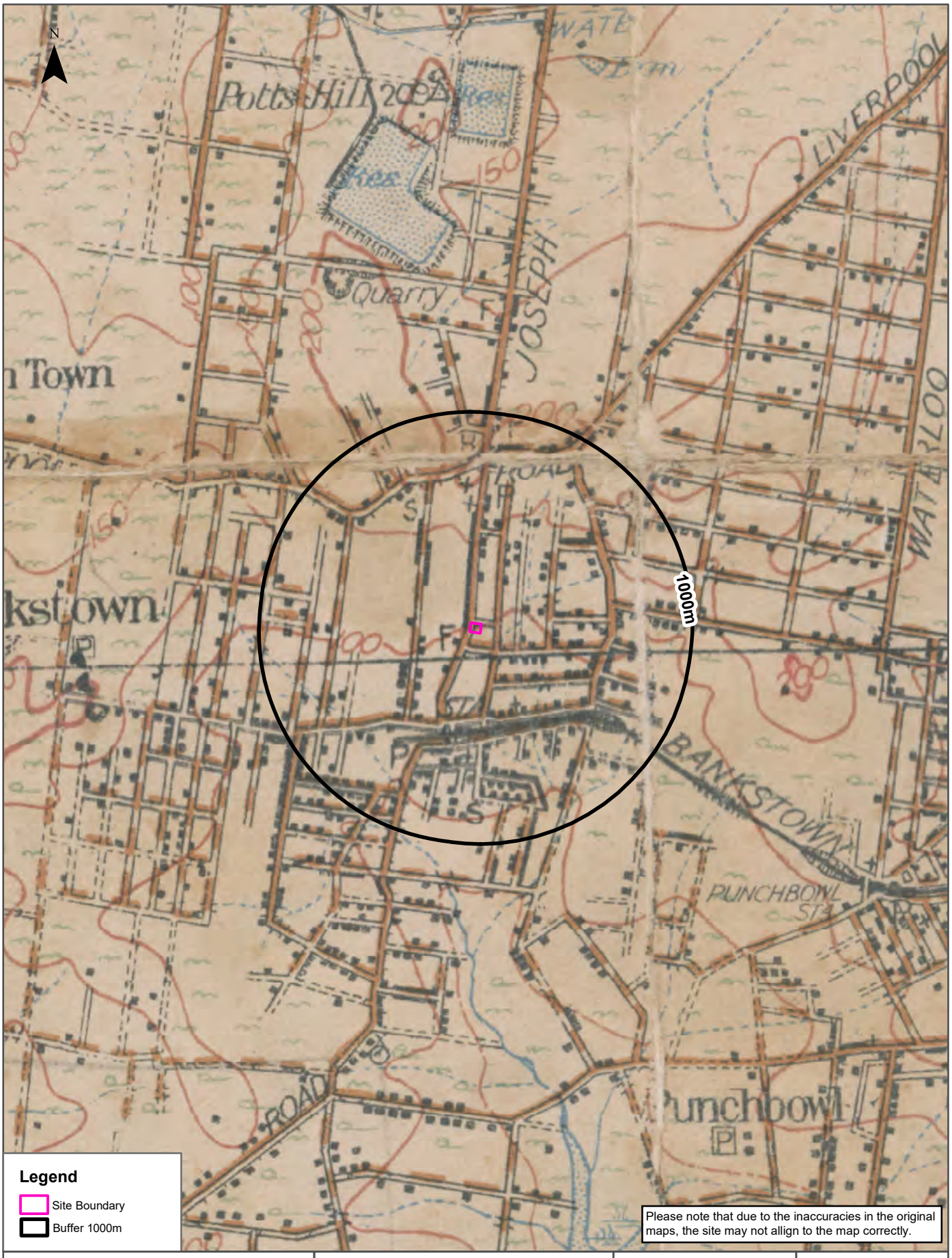
Data Sources: Australia 1:63360
Produced by Australian Section Imperial General Staff

Coordinate System:
GDA 1994 MGA Zone 56

Date: 22 November 2024

Historical Map c.1917

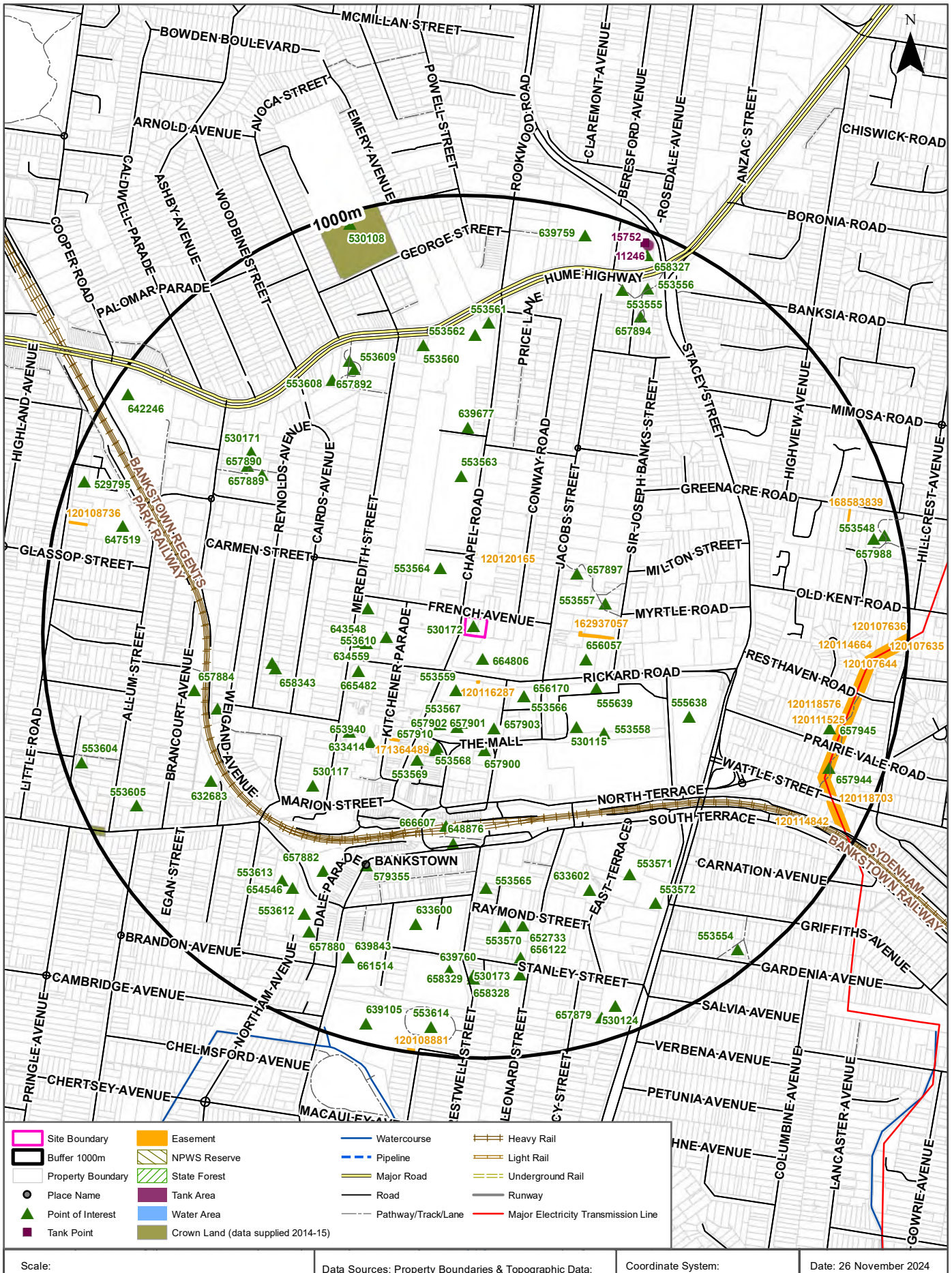
461 Chapel Road, Bankstown, NSW 2200



Scale: 0 280 560 840 1,120 Meters	Data Sources: Australia 1:63360 Produced by Australian Section Imperial General Staff	Coordinate System: GDA 1994 MGA Zone 56	Date: 22 November 2024

Topographic Features

461 Chapel Road, Bankstown, NSW 2200



Scale: 0 100 200 400 600 Meters

Data Sources: Property Boundaries & Topographic Data: © Department Finance, Services & Innovation 2024

Coordinate System: GDA 1994 MGA Zone 56

Date: 26 November 2024

Topographic Features

461 Chapel Road, Bankstown, NSW 2200

Points of Interest

What Points of Interest exist within the dataset buffer?

Map Id	Feature Type	Label	Distance	Direction
530172	Place Of Worship	ANGLICAN CHURCH	0m	On-site
664806	General Hospital	BANKSTOWN DAY HOSPITAL	50m	South
553564	Parking Area	Parking Area	130m	North West
553559	Library	BANKSTOWN LIBRARY AND KNOWLEDGE CENTRE	134m	South
656170	Tourist Information Centre	BANKSTOWN VISITOR CENTRE	167m	South East
553566	Local Government Chambers	BANKSTOWN CITY COUNCIL	167m	South East
553610	Place Of Worship	UNITING CHURCH	184m	West
553567	Park	PAUL KEATING PARK	208m	South
657903	Picnic Area	PLAYGROUND	216m	South
657902	Outdoor Theatre	Outdoor Theatre	219m	South
657901	Local Government Chambers	BANKSTOWN COUNCIL CHAMBERS	222m	South
643548	Retirement Village	BANKSTOWN UNITING CENTRE	233m	West
553611	Community Facility	BANKSTOWN PCYC	234m	West
657897	Park	R M CAMPBELL PARK	239m	North East
656057	Community Medical Centre	SYDNEY SLEEP CLINIC BANKSTOWN	245m	East
634559	Nursing Home	UNITING BANKSTOWN	250m	West
665482	Ambulance Station	BANKSTOWN TACTICAL OPS UNIT	265m	West
657900	Picnic Area	PHIL ENGISCH RESERVE	267m	South
657910	Monument	BOMBING OF DARWIN MEMORIAL	275m	South
657911	Monument	BANKSTOWN CITY MEMORIAL	282m	South
553557	Park	R M CAMPBELL PARK	283m	East
553568	Park	COURTHOUSE RESERVE	285m	South
555639	Parking Area	Parking Area	292m	South East
530115	Post Office	CENTRO BANKSTOWN POST OFFICE	304m	South East
553569	Court House	BANKSTOWN LOCAL COURT	317m	South West
553563	Technical College	BANKSTOWN TAFE COLLEGE	333m	North
653940	Club	BANKSTOWN RSL CLUB	340m	South West
633414	Sports Field	BOWLING GREEN	357m	South West
553558	Shopping Centre	BANKSTOWN SQUARE SHOPPING CENTRE	363m	South East
639677	Primary School	ST FELIX CATHOLIC PRIMARY SCHOOL	448m	North
658343	Sports Court	FITNESS EQUIPMENT	455m	West

Map Id	Feature Type	Label	Distance	Direction
666607	Railway Station	BANKSTOWN RAILWAY STATION	456m	South
657885	Park	PLAYGROUND	461m	West
648876	Bus Interchange	BANKSTOWN BUS INTERCHANGE	494m	South
530117	Police Station	BANKSTOWN POLICE STATION	508m	South West
555638	Parking Area	Parking Area	520m	South East
657890	Picnic Area	PLAYGROUND	590m	North West
579355	Suburb	BANKSTOWN	594m	South West
553565	Post Office	BANKSTOWN POST OFFICE	596m	South
530110	Place Of Worship	ORTHODOX CHURCH	611m	West
657889	Park	PLAYGROUND	629m	North West
530171	Park	ALICE RESERVE	642m	North West
657892	Picnic Area	PLAYGROUND	644m	North West
553608	Place Of Worship	UNITING CHURCH	645m	North West
633602	Club	BANKSTOWN POLISH CLUB	649m	South East
553560	Fire Station	BANKSTOWN FIRE STATION	653m	North
657884	Park	PLAYGROUND	654m	West
657882	Art Gallery	BANKSTOWN ARTS CENTRE	654m	South West
553571	Place Of Worship	ORTHODOX CHURCH	659m	South East
553609	Park	MCLEOD RESERVE FRIENDSHIP GARDENS	667m	North West
553562	High School	LA SALLE CATHOLIC COLLEGE	669m	North
553570	Place Of Worship	SALVATION ARMY CHURCH	687m	South
652733	Community Medical Centre	BANKSTOWN COMMUNITY HEALTH CENTRE	691m	South
632683	Combined Primary-Secondary School	AL AMANAH COLLEGE BANKSTOWN CAMPUS	695m	South West
633600	Club	BANKSTOWN SPORTS CLUB	697m	South
553561	Place Of Worship	CATHOLIC CHURCH	699m	North
654546	Club	BANKSTOWN SPORTS BOWLS	726m	South West
553613	Sports Field	BOWLING GREENS	727m	South West
553572	Combined Primary-Secondary School	ST EUPHEMIA COLLEGE	749m	South East
553612	Park	GRIFFITH PARK	763m	South West
656122	Community Medical Centre	BANKSTOWN COMMUNITY HEALTH CENTRE STANLEY STREET	765m	South
639760	Primary School	BANKSTOWN PUBLIC SCHOOL	796m	South
657880	Park	PLAYGROUND	796m	South West
658329	Community Facility	BANKSTOWN ACTIVITY CENTRE	803m	South
530173	Place Of Worship	BAPTIST CHURCH	805m	South
657894	Park	PLAYGROUND	806m	North East
658328	Community Facility	1ST 3RD BANKSTOWN SCOUT HALL	810m	South
661514	High School	SATURDAY SCHOOL OF COMMUNITY LANGUAGES BANKSTOWN G	815m	South

Map Id	Feature Type	Label	Distance	Direction
639843	High School	BANKSTOWN GIRLS HIGH SCHOOL	815m	South
647519	Nursing Home	BUPA BANKSTOWN	843m	West
553555	Park	WOOD PARK	845m	North East
657945	Park	PRAIRIE VALE RESERVE	846m	East
657944	Park	PRAIRIE VALE RESERVE	873m	East
553556	Park	APEX RESERVE	873m	North East
553605	Place Of Worship	SEVENTH DAY ADVENTIST CHURCH	877m	South West
530124	Park	STEVENS RESERVE	927m	South
553614	Park	BANKSTOWN CITY GARDENS	934m	South
657988	Park	PLAYGROUND	937m	East
639759	Primary School	BANKSTOWN NORTH PUBLIC SCHOOL	941m	North
658327	Historic Site	BANKSTOWN RESERVOIR	945m	North East
657879	Park	PLAYGROUND	945m	South
553554	Park	GARDENIA RESERVE	953m	South East
639105	Sports Field	BANKSTOWN OVAL	953m	South
553604	Park	GAIL RESERVE	957m	West
642246	Primary School	YAGOONA PUBLIC SCHOOL	961m	North West
529795	Park	PULLEN RESERVE	961m	West
553548	Park	GREENACRE HEIGHTS RESERVE	963m	East
530108	Sports Field	GRAF PARK	973m	North

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Topographic Features

461 Chapel Road, Bankstown, NSW 2200

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
15752	Water	Operational	104068	22/07/2018	954m	North East

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
11246	Water	Feature on Previous LPI Tank Area Supply	BANKSTOWN RESERVOIR	01/11/2014	969m	North East

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
120116287	Primary	Undefined		105m	South
120120165	Primary	Undefined		147m	North
162937057	Primary	Right of way	4.06m	221m	East
171364489	Primary	Right of way	3.05m	294m	South West
120111688	Primary	Undefined		731m	South West
120118703	Primary	Undefined		857m	East
120118576	Primary	Undefined		860m	East
168583839	Secondary	Easement for Access		878m	East
120114664	Primary	Undefined		883m	East
120111525	Primary	Undefined		885m	East
120114842	Primary	Undefined		901m	South East
120108736	Primary	Undefined		926m	West
120107635	Primary	Undefined		932m	East

Map Id	Easement Class	Easement Type	Easement Width	Distance	Direction
120107644	Primary	Undefined		950m	East
120107636	Primary	Undefined		992m	East
120108881	Primary	Undefined		993m	South

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

461 Chapel Road, Bankstown, NSW 2200

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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Elevation Contours (m AHD)

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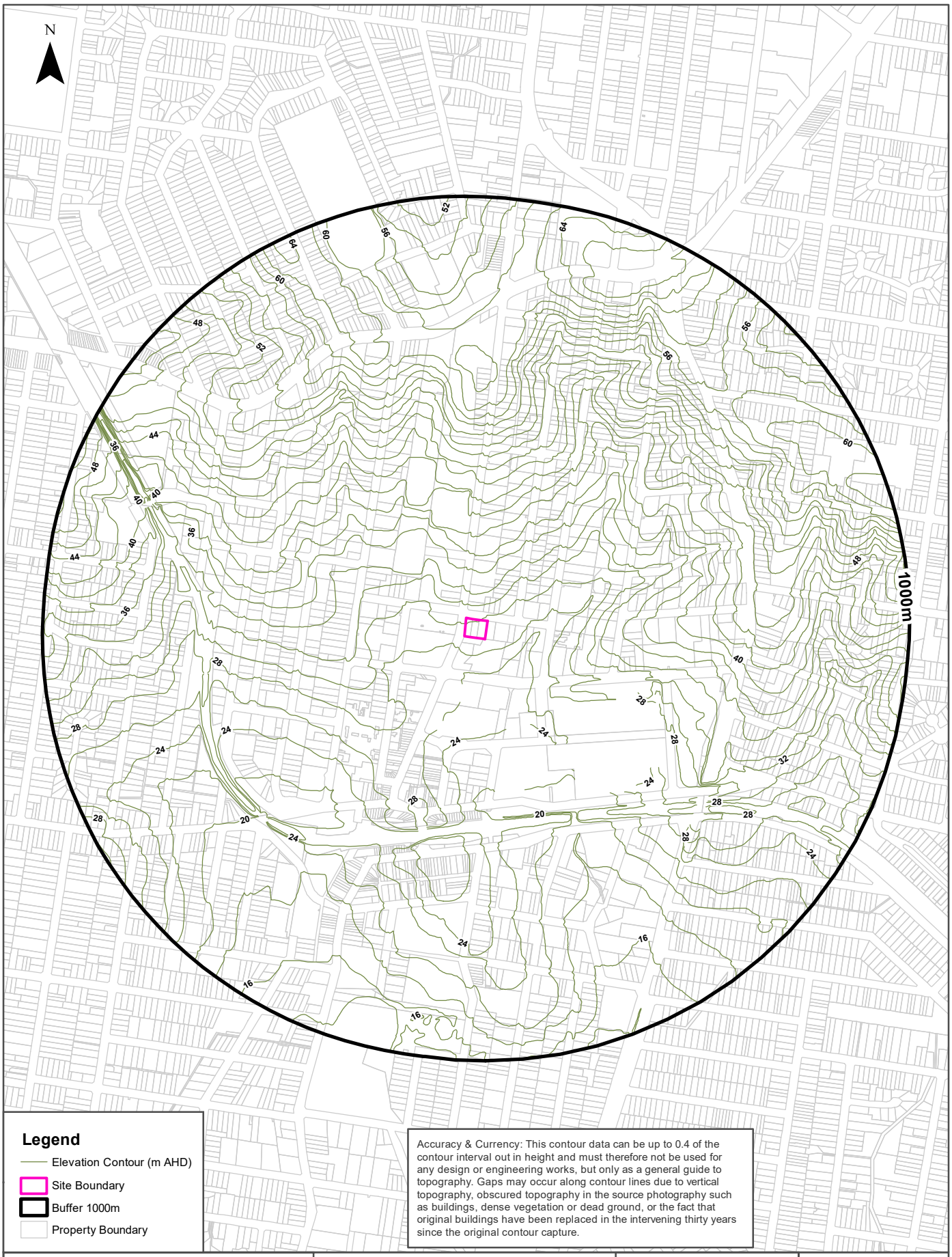

Hydrogeology & Groundwater

461 Chapel Road, Bankstown, NSW 2200

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

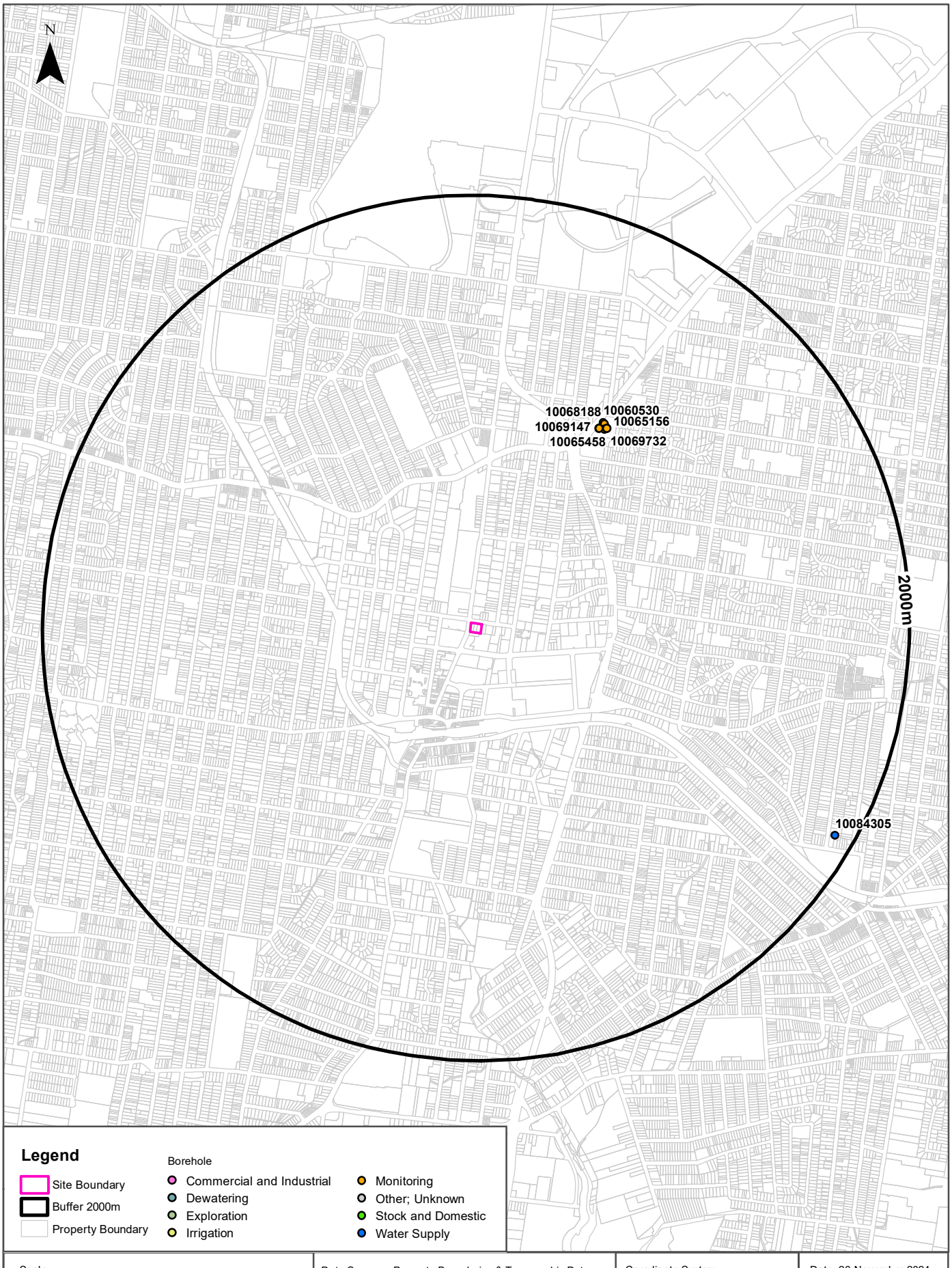
Temporary water restrictions relating to the Botany Sands aquifer within the dataset buffer:

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

Groundwater Boreholes

461 Chapel Road, Bankstown, NSW 2200



Hydrogeology & Groundwater

461 Chapel Road, Bankstown, NSW 2200

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
10069147	GW112130	Monitoring	Functional	28/01/2003	10.50		AHD				1068m	North East
10097195	GW109734	Monitoring	Unknown	03/11/2003	4.00		AHD	1120		1.80	1069m	North East
10069732	GW112134	Monitoring	Functional	29/01/2003	3.70		AHD				1078m	North East
10065458	GW112133	Monitoring	Functional	29/01/2003	4.00		AHD				1086m	North East
10070979	GW112131	Monitoring	Functional	28/01/2003	13.00		AHD				1086m	North East
10098688	GW109735	Monitoring	Unknown	04/12/2003	11.00		AHD	10.36		9.10	1088m	North East
10065156	GW112135	Monitoring	Functional	28/11/2001	4.50		AHD				1093m	North East
10068188	GW112132	Monitoring	Functional	02/04/2013	10.00		AHD				1099m	North East
10060530	GW112136	Monitoring	Functional	30/01/2003	13.00		AHD				1102m	North East
10084305	GW107854	Water Supply	Functioning	23/04/2004	234.00		AHD	8750	0.200	36.00	1911m	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

461 Chapel Road, Bankstown, NSW 2200

Driller's Logs

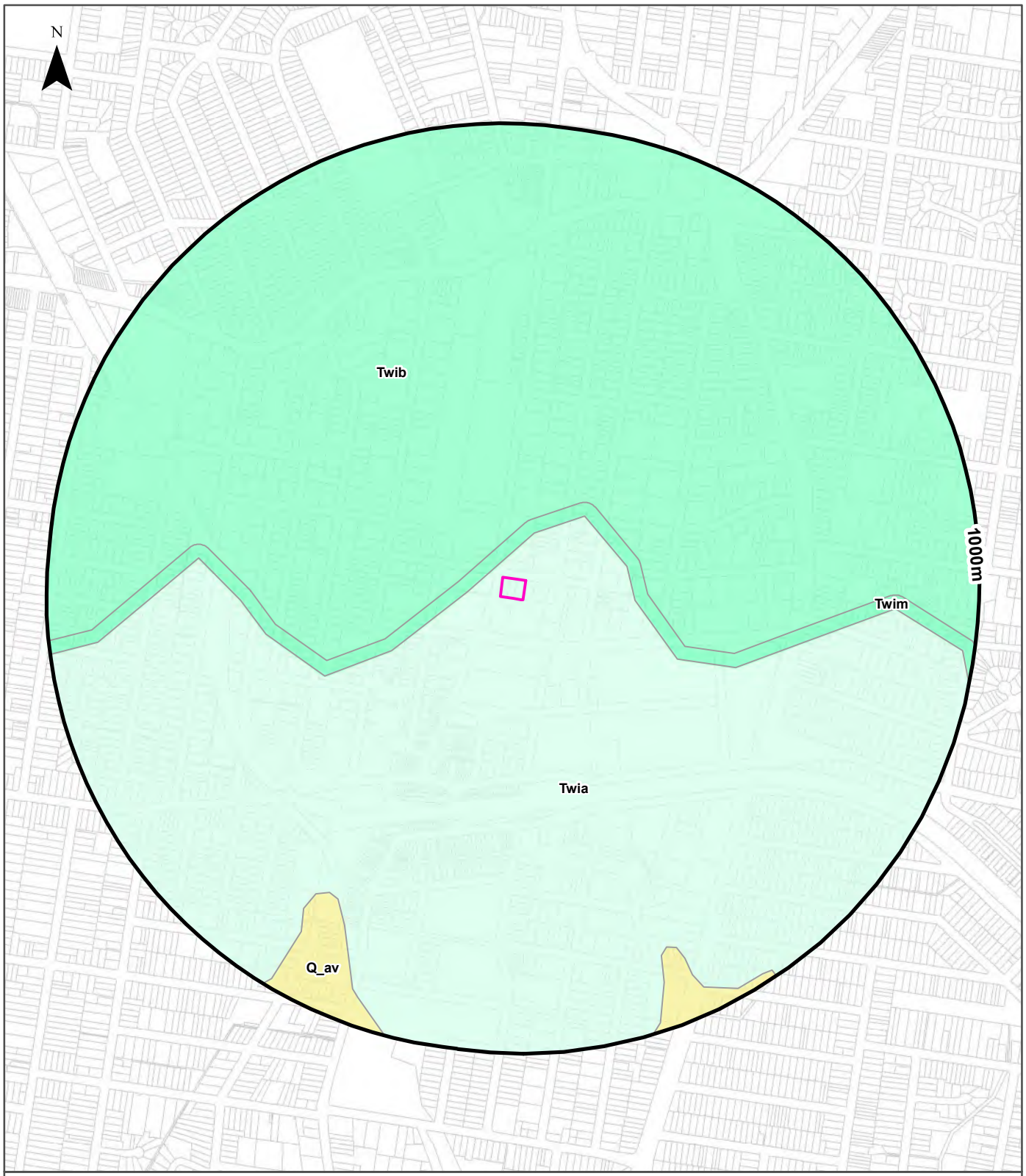
Drill log data relevant to the boreholes within the dataset buffer:

NGIS Bore ID	Drillers Log	Distance	Direction
10097195	0.00m-0.20m CONCRETE 0.20m-2.40m FILL 2.40m-4.00m CLAY	1069m	North East
10098688	0.00m-0.15m CONCRETE 0.15m-2.10m FILL 2.10m-4.30m CLAY 4.30m-11.00m SHALE	1088m	North East
10084305	0.00m-1.50m clay, brown 1.50m-14.00m shale, brown 14.00m-21.00m shale, grey 21.00m-21.50m shale, hard 21.50m-24.00m dolerite, very hard 24.00m-77.50m shale, hard 77.50m-101.00m sandstone, grey 101.00m-102.00m sandstone, fine quartz 102.00m-122.00m sandstone, grey 122.00m-124.50m sandstone fine quartz 124.50m-133.50m sandstone, grey 133.50m-138.00m sandstone, dark grey 138.00m-180.00m sandstone, grey 180.00m-186.50m sandstone, light grey siltstone grey 186.50m-193.00m sandstone, light grey, & quartz, water bearing 193.00m-207.50m sandstone, light grey 207.50m-234.00m sandstone, light grey light brown	1911m	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

Geology

461 Chapel Road, Bankstown, NSW 2200



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: 0 100 200 400 600 Meters

Data Sources: Property Boundaries & Topographic Data: © Department Finance, Services & Innovation 2024

Coordinate System: GDA 1994 MGA Zone 56

Date: 26 November 2024

Geology

461 Chapel Road, Bankstown, NSW 2200

Geological Units

Geological units within the dataset buffer:

Code	Unit Name	Description	Stratigraphy	Age Range	Dominant Lithology	Dist	Dir
Twia	Ashfield Shale	Black to light grey shale and laminite.	/Wianamatta Group//Ashfield Shale//	Middle Triassic (base) to Middle Triassic (top)	Shale	0m	On-site
Twim	Minchinbury Sandstone	Fine- to medium-grained lithic sandstone.	/Wianamatta Group//Minchinbury Sandstone//	Middle Triassic (base) to Middle Triassic (top)	Sandstone	27m	West
Twib	Bringelly Shale	Shale, carbonaceous claystone, laminite, lithic sandstone, rare coal.	/Wianamatta Group//Bringelly Shale//	Middle Triassic (base) to Middle Triassic (top)	Shale	57m	North
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	753m	South

Geology

461 Chapel Road, Bankstown, NSW 2200

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

461 Chapel Road, Bankstown, NSW 2200

Naturally Occurring Asbestos Potential

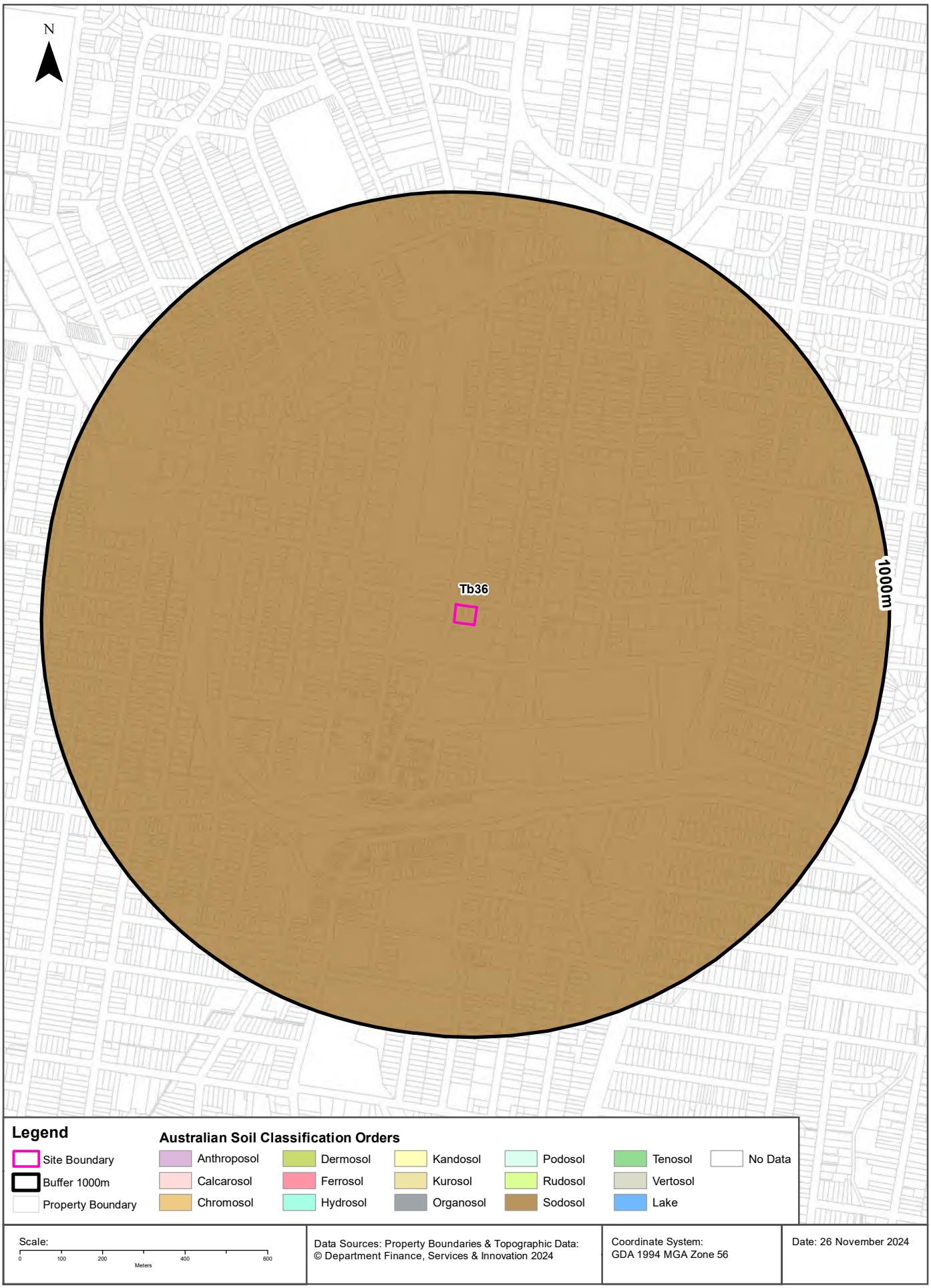
Naturally Occurring Asbestos Potential within the dataset buffer:

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

Naturally Occurring Asbestos Potential Data Source: © State of New South Wales through NSW Department of Industry, Resources & Energy

Atlas of Australian Soils

461 Chapel Road, Bankstown, NSW 2200



Soils

461 Chapel Road, Bankstown, NSW 2200

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
Tb36	Sodosol	Undulating: chief soils are hard acidic yellow mottled soils (Dy3.41) usually containing some ironstone gravels throughout the profile. Associated are small areas of units Pb12 and Pb13.	0m	On-site

Atlas of Australian Soils Data Source: CSIRO
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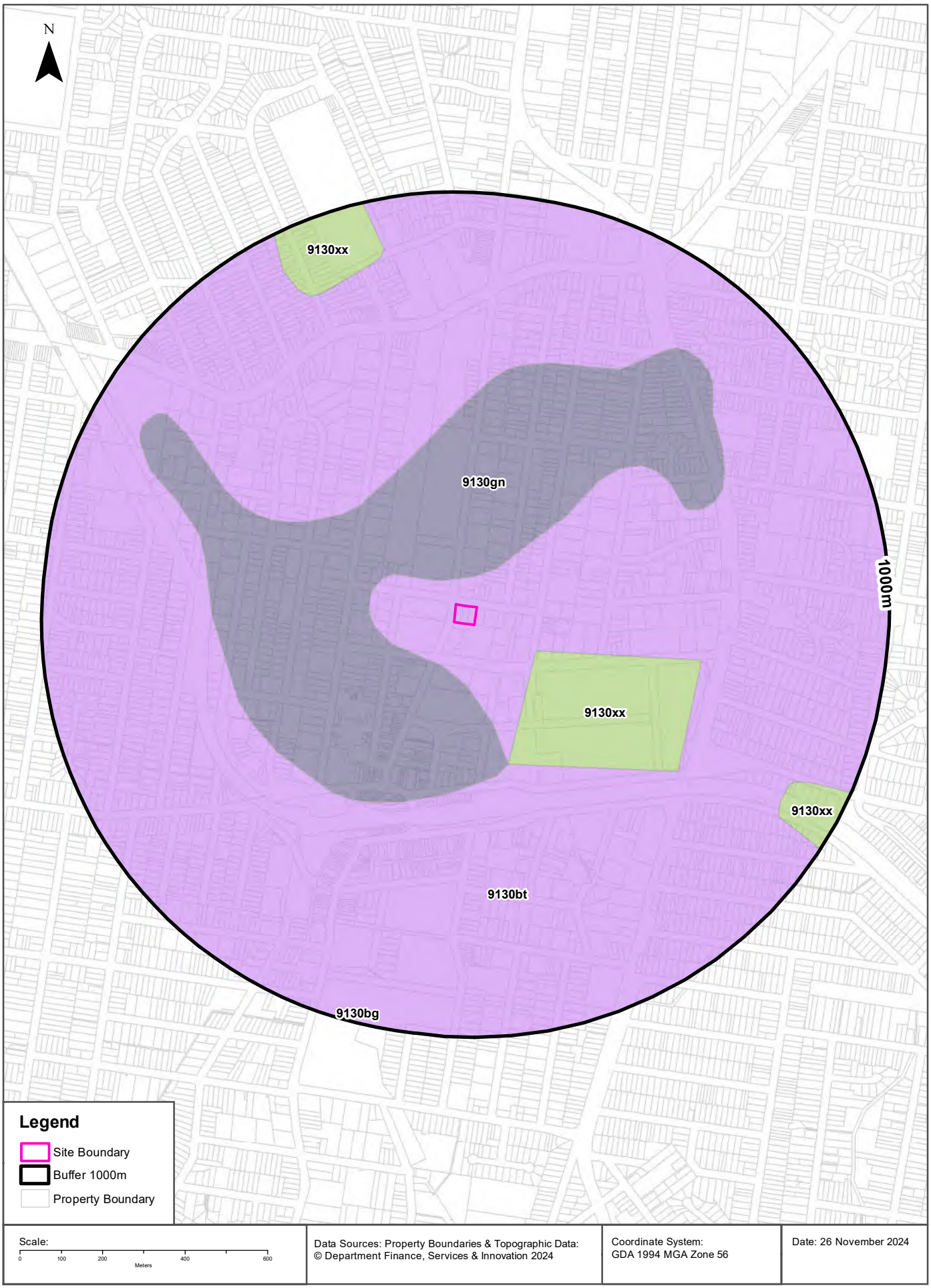
Soil Landscapes of Central and Eastern NSW

461 Chapel Road, Bankstown, NSW 2200



Soils

461 Chapel Road, Bankstown, NSW 2200

Soil Landscapes of Central and Eastern NSW

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

Soil Code	Name	Distance	Direction
9130bt	Blacktown	0m	On-site
9130gn	Glenorie	63m	North West
9130xx	Disturbed Terrain	161m	South East
9130bg	Birrong	1000m	South

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

461 Chapel Road, Bankstown, NSW 2200

Environmental Planning Instrument - Acid Sulfate Soils

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

Soil Class	Description	EPI Name
N/A		

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

Soil Class	Description	EPI Name	Distance	Direction
N/A				

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Atlas of Australian Acid Sulfate Soils

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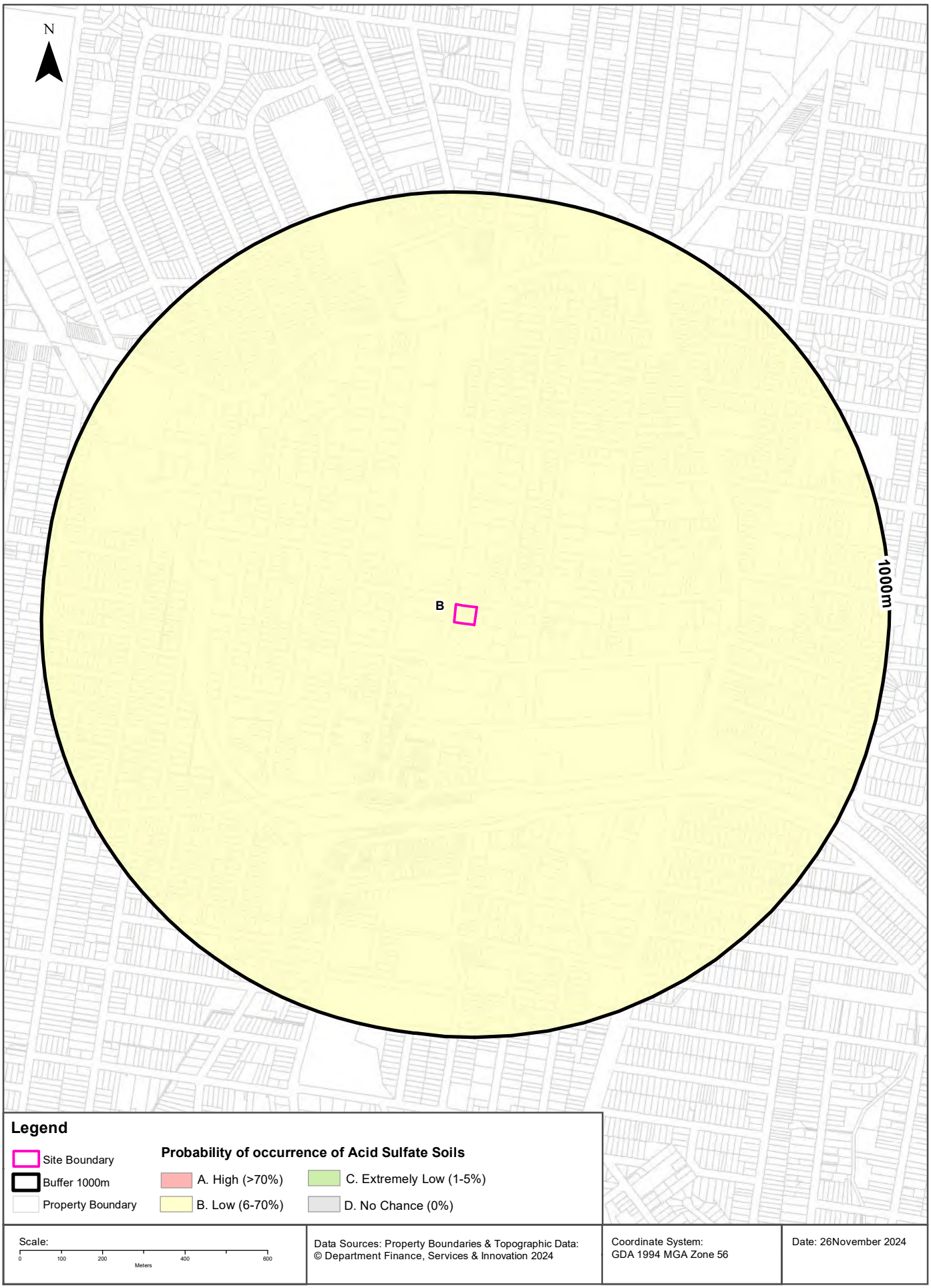

Acid Sulfate Soils

461 Chapel Road, Bankstown, NSW 2200

Atlas of Australian Acid Sulfate Soils

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

Class	Description	Distance	Direction
B	Low Probability of occurrence. 6-70% chance of occurrence.	0m	On-site

Atlas of Australian Acid Sulfate Soils Data Source: CSIRO
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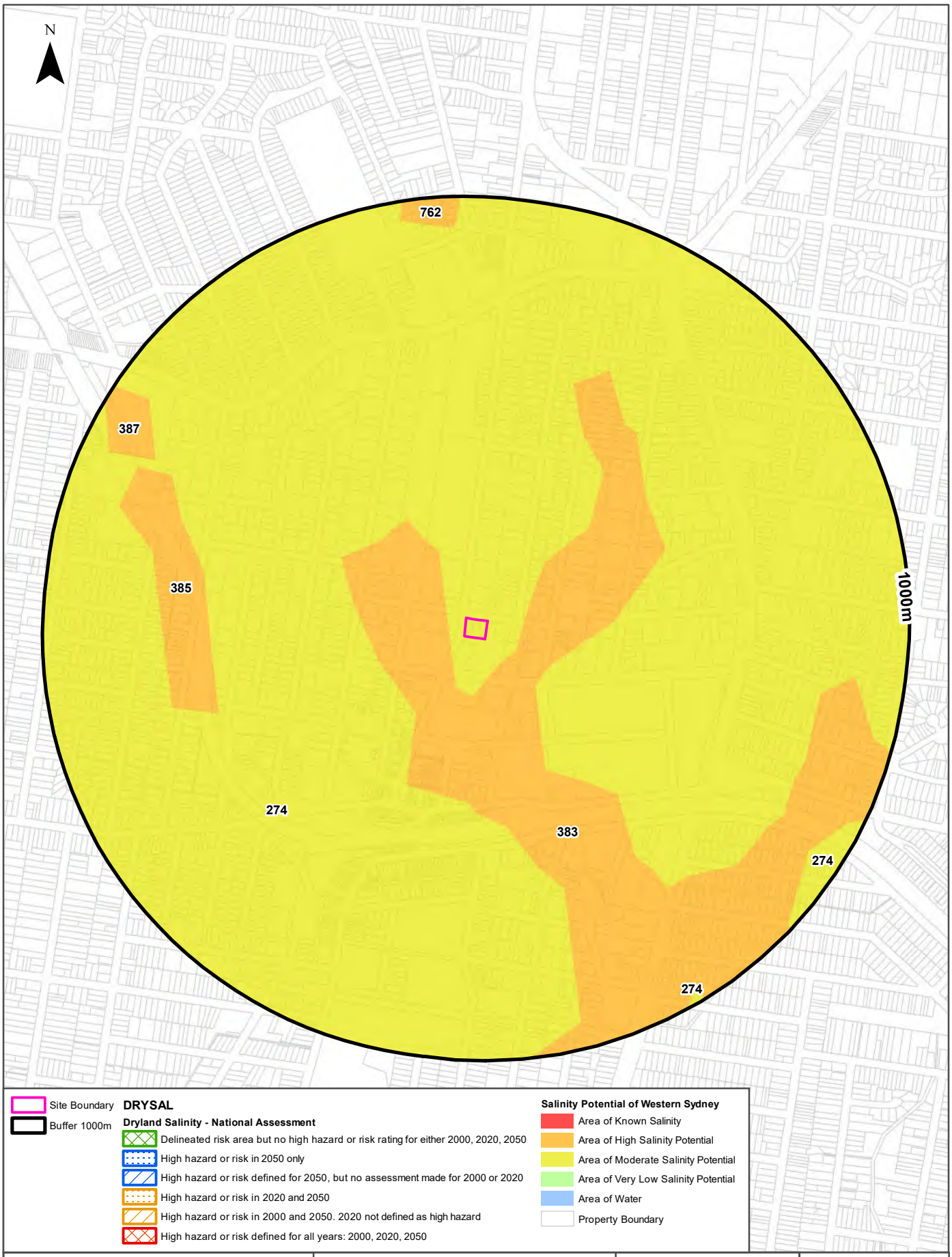
Dryland Salinity

461 Chapel Road, Bankstown, NSW 2200



Dryland Salinity

461 Chapel Road, Bankstown, NSW 2200

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.

Dryland Salinity Potential of Western Sydney

Dryland Salinity Potential of Western Sydney within the dataset buffer?

Feature Id	Classification	Description	Distance	Direction
274	MODERATE	Area of Moderate Salinity Potential	0m	On-site
383	HIGH	Area of High Salinity Potential	36m	South East
385	HIGH	Area of High Salinity Potential	600m	West
387	HIGH	Area of High Salinity Potential	826m	North West
762	HIGH	Area of High Salinity Potential	925m	North

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

461 Chapel Road, Bankstown, NSW 2200

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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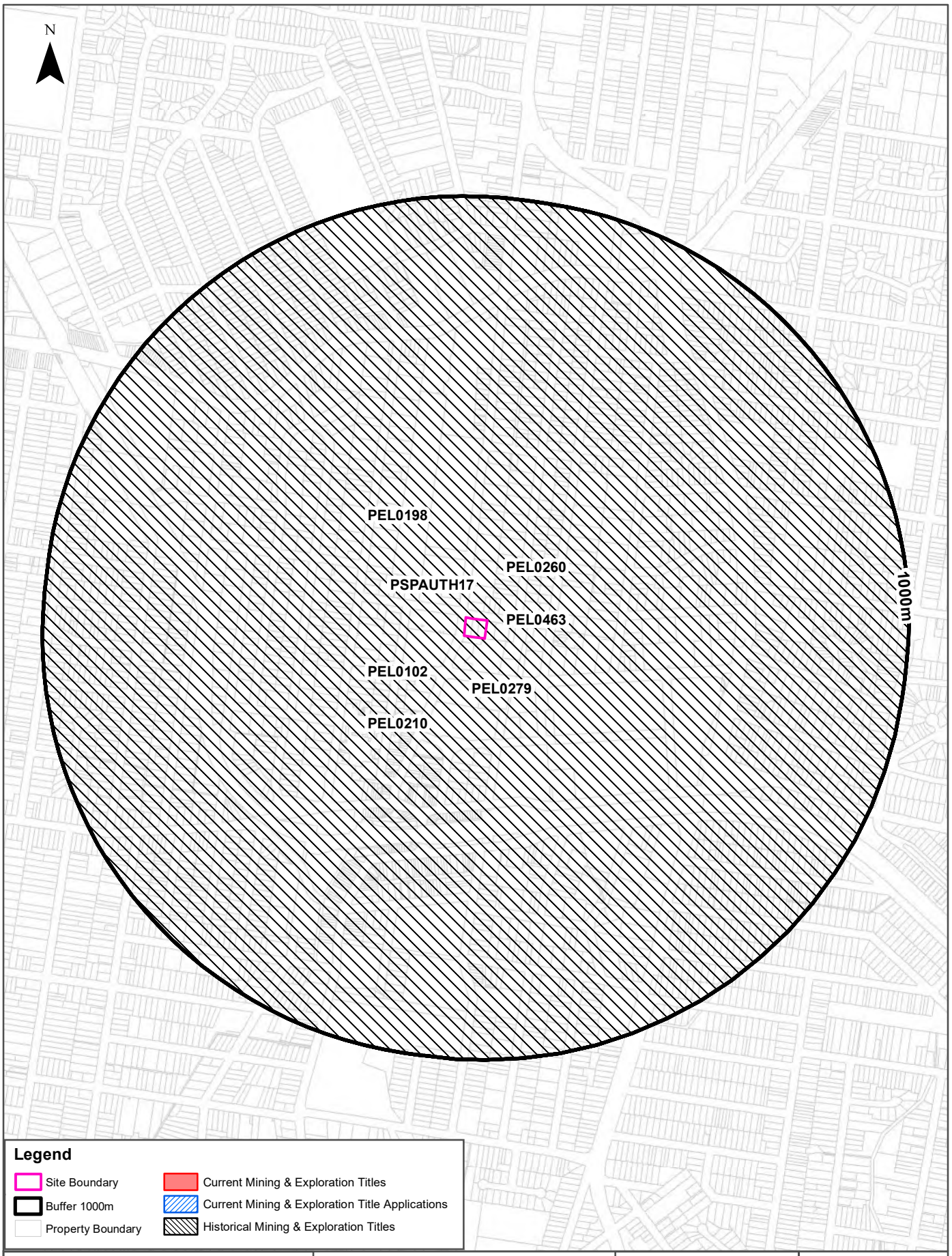
Mining & Exploration Titles

461 Chapel Road, Bankstown, NSW 2200



Mining

461 Chapel Road, Bankstown, NSW 2200

Current Mining & Exploration Titles

Current Mining & Exploration Titles within the dataset buffer:

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

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

Current Mining & Exploration Title Applications

Current Mining & Exploration Title Applications within the dataset buffer:

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

Current Mining & Exploration Title Applications Data Source: © State of New South Wales through NSW Department of Industry

Mining

461 Chapel Road, Bankstown, NSW 2200

Historical Mining & Exploration Titles

Historical Mining & Exploration Titles within the dataset buffer:

Title Ref	Holder	Start Date	End Date	Resource	Minerals	Dist	Dir
PEL0279	THE ELECTRICITY COMMISSION OF NSW (TRADING AS PACIFIC POWER)	19910504	19931111	PETROLEUM	Petroleum	0m	On-site
PSPAUTH17	MACQUARIE ENERGY PTY LTD	20070803	20080703	PETROLEUM	Petroleum	0m	On-site
PEL0210	THE AUSTRALIAN GAS LIGHT COMPANY (AGL), NORTH BULLI COLLIERIES PTY LTD			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
PEL0463	DART ENERGY (APOLLO) PTY LTD	20091010	20150603	PETROLEUM	Petroleum	0m	On-site
PEL0102	AUSTRALIAN OIL AND GAS CORPORATION LTD			PETROLEUM	Petroleum	0m	On-site
PEL0198	JOHN STREVENS (TERRIGAL) NL			PETROLEUM	Petroleum	0m	On-site

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

State Environmental Planning Policy

461 Chapel Road, Bankstown, NSW 2200

State Significant Precincts

What SEPP State Significant Precincts exist within the dataset buffer?

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

State Environment Planning Policy Data Source: NSW Crown Copyright - Planning & Environment
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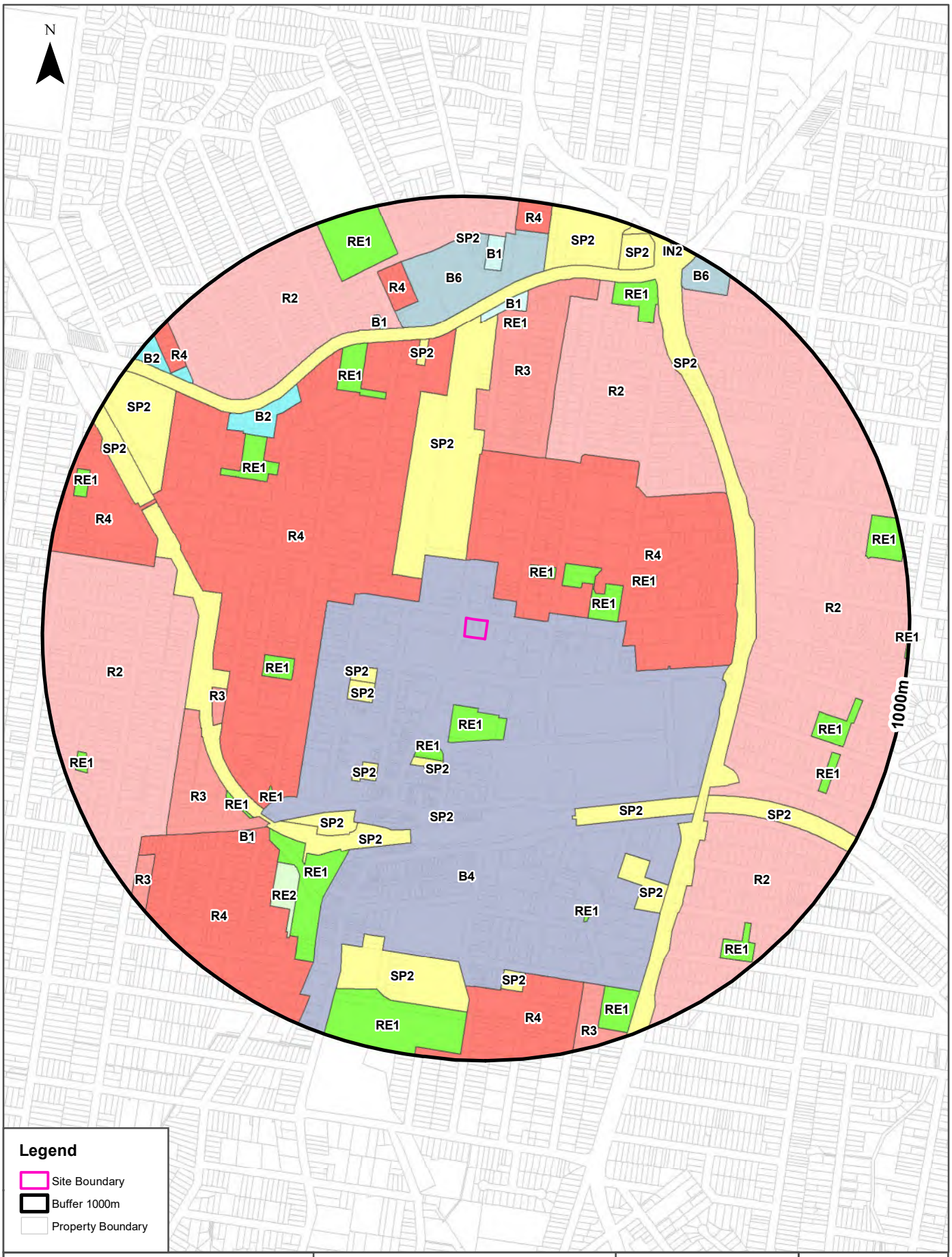
EPI Planning Zones

461 Chapel Road, Bankstown, NSW 2200



Data Sources: Property Boundaries & Topographic Data: © Department Finance, Services & Innovation 2024
Planning: NSW Crown Copyright - Planning & Environment

Coordinate System: GDA 1994 MGA Zone 56

Date: 26 November 2024

Environmental Planning Instrument

461 Chapel Road, Bankstown, NSW 2200

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		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		0m	On-site
R4	High Density Residential		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		57m	North East
R4	High Density Residential		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		120m	North West
SP2	Infrastructure	Educational Establishment	Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		138m	North
RE1	Public Recreation		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		145m	North East
RE1	Public Recreation		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		164m	South
RE1	Public Recreation		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		195m	East
SP2	Infrastructure	Emergency Services Facility	Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		221m	West
SP2	Infrastructure	Road Infrastructure Facility	Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		240m	South West
RE1	Public Recreation		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		267m	South
SP2	Infrastructure	Public Administration Building	Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		301m	South
RE1	Public Recreation		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		352m	East
SP2	Infrastructure	Telecommunications Facility	Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		366m	South West
R3	Medium Density Residential		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		400m	North
RE1	Public Recreation		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		406m	West
R2	Low Density Residential		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		410m	North East
SP2	Infrastructure	Road Infrastructure Facility	Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		425m	South
SP2	Infrastructure	Rail Infrastructure Facility	Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		454m	South East
SP2	Infrastructure	Rail Infrastructure Facility	Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		475m	West
SP2	Infrastructure	Road Infrastructure Facility	Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		487m	South West

Zone	Description	Purpose	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
RE1	Public Recreation		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		555m	North West
RE1	Public Recreation		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		562m	North West
SP2	Infrastructure	Road Infrastructure Facility	Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		570m	North East
RE1	Public Recreation		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		573m	South West
R3	Medium Density Residential		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		577m	West
RE1	Public Recreation		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		580m	South West
SP2	Infrastructure	Educational Establishment	Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		606m	South East
SP2	Infrastructure	Emergency Services Facility	Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		607m	North
R2	Low Density Residential		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		619m	East
B2	Local Centre		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		625m	North West
R2	Low Density Residential		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		632m	West
R3	Medium Density Residential		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		641m	South West
SP2	Infrastructure	Rail Infrastructure Facility	Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		645m	South East
R4	High Density Residential		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		649m	South West
RE1	Public Recreation		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		660m	South West
R2	Low Density Residential		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		663m	South East
RE1	Public Recreation		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		673m	South
RE2	Private Recreation		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		676m	South West
B1	Neighbourhood Centre		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		680m	South West
B6	Enterprise Corridor		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		698m	North
B1	Neighbourhood Centre		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		700m	North
RE1	Public Recreation		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		700m	North
R2	Low Density Residential		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		704m	North West
B1	Neighbourhood Centre		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		711m	North

Zone	Description	Purpose	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
SP2	Infrastructure	Educational Establishment	Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		738m	South
R4	High Density Residential		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		748m	North
R4	High Density Residential		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		751m	West
SP2	Infrastructure	Place of Public Worship	Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		784m	South
SP2	Infrastructure	Educational Establishment	Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		785m	North West
SP2	Infrastructure	Rail Infrastructure Facility	Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		791m	North West
RE1	Public Recreation		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		794m	North East
R4	High Density Residential		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		797m	South
RE1	Public Recreation		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		804m	East
B1	Neighbourhood Centre		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		828m	North
SP2	Infrastructure	Educational Establishment	Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		840m	North
R3	Medium Density Residential		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		847m	South
RE1	Public Recreation		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		852m	North
B2	Local Centre		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		856m	North West
RE1	Public Recreation		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		861m	South
RE1	Public Recreation		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		863m	East
RE1	Public Recreation		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		869m	South
SP2	Infrastructure	Water Supply System	Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		891m	North East
R4	High Density Residential		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		893m	North West
R3	Medium Density Residential		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		897m	South West
SP2	Infrastructure	Road Infrastructure Facility	Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		902m	North
RE1	Public Recreation		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		905m	South East
RE1	Public Recreation		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		907m	East
B6	Enterprise Corridor		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		915m	North East

Zone	Description	Purpose	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
R4	High Density Residential		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		928m	North
RE1	Public Recreation		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		938m	West
RE1	Public Recreation		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		946m	West
IN2	Light Industrial		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		980m	North East
RE1	Public Recreation		Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	14/06/2024		990m	East

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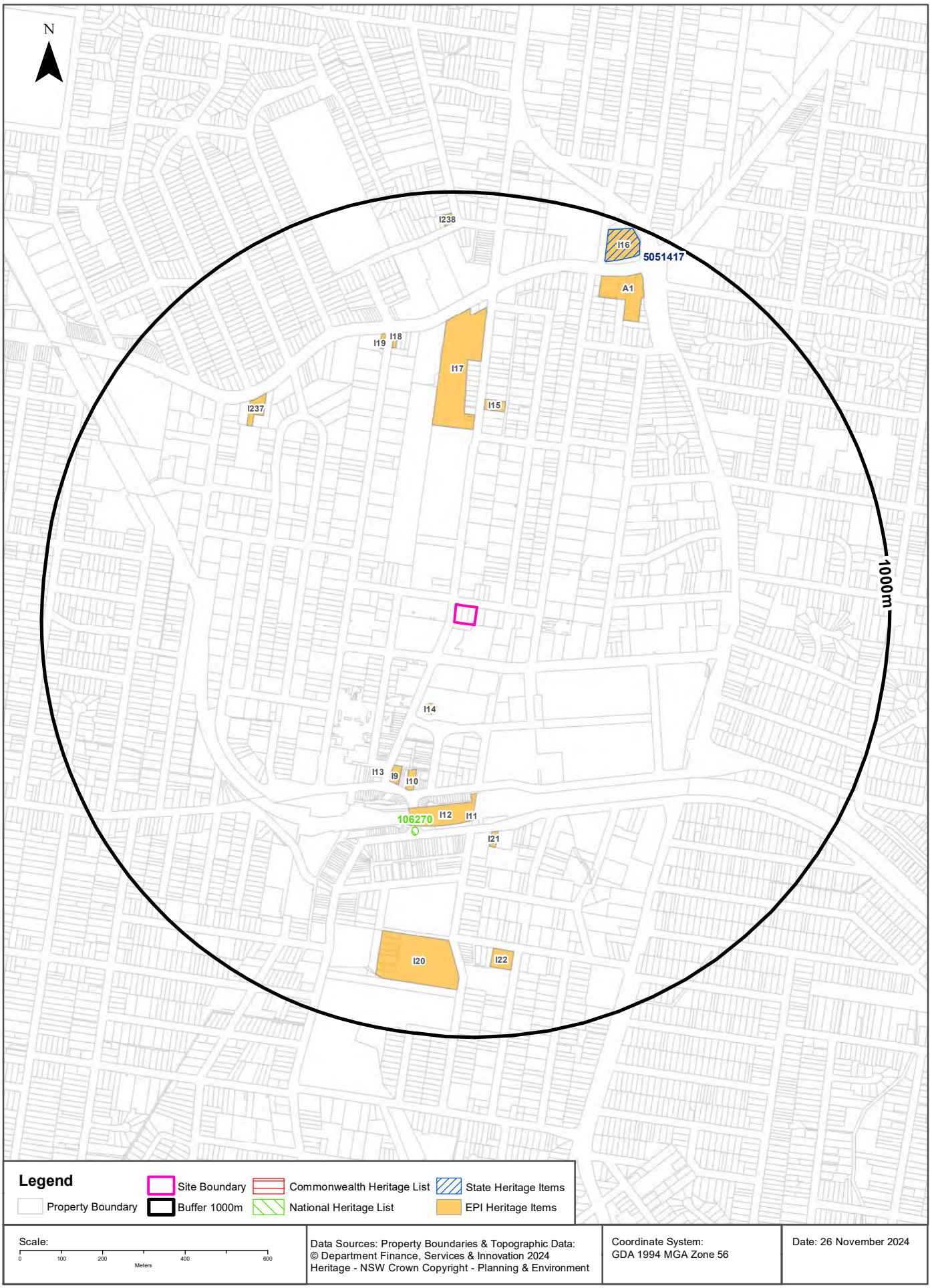
Heritage Items

461 Chapel Road, Bankstown, NSW 2200



Heritage

461 Chapel Road, Bankstown, NSW 2200

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
106270	Vietnamese Boat People Monument	Saigon Place, Bankstown NSW	1/16/003/0011	Historic	Nominated place		506m	South

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
5051417	Bankstown Reservoir (Elevated)	Beresford Avenue, Bankstown	CANTERBURY-BANKSTOWN	18/11/1999	01316	2015	895m	North East

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
I14	Council Chambers	Item - General	Local	Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	23/06/2023	205m	South
I10	Shop (former accommodation house)	Item - General	Local	Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	23/06/2023	370m	South

Map Id	Name	Classification	Significance	EPI Name	Published Date	Commenced Date	Currency Date	Distance	Direction
I9	Bankstown Hotel	Item - General	Local	Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	23/06/2023	372m	South West
I13	Shop, "Rosen Chambers"	Item - General	Local	Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	23/06/2023	395m	South West
I12	Bankstown Railway Station building and platform	Item - General	Local	Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	23/06/2023	408m	South
I17	St Felix de Valois Pioneer Cemetery	Item - General	Local	Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	23/06/2023	426m	North
I11	Bankstown Parcels Office (former)	Item - General	Local	Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	23/06/2023	454m	South
I15	House	Item - General	Local	Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	23/06/2023	478m	North
I21	Shop	Item - General	Local	Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	23/06/2023	502m	South
I18	Shop	Item - General	Local	Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	23/06/2023	638m	North
I19	Shop	Item - General	Local	Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	23/06/2023	645m	North
I237	Shop (former Brancourt's Garage and Motor Showroom)	Item - General	Local	Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	23/06/2023	656m	North West
I20	Bankstown Public School	Item - General	Local	Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	23/06/2023	765m	South
A1	Site of Speed the Plough Inn	Item - Archaeological	Local	Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	23/06/2023	780m	North East
I22	Bankstown Chinese Baptist Church	Item - General	Local	Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	23/06/2023	784m	South
I16	Bankstown Reservoir	Item - General	State	Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	23/06/2023	895m	North East
I238	House (former Bankstown Police Station)	Item - General	Local	Canterbury-Bankstown Local Environmental Plan 2023	23/06/2023	23/06/2023	23/06/2023	917m	North

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Natural Hazards

461 Chapel Road, Bankstown, NSW 2200

Bush Fire Prone Land

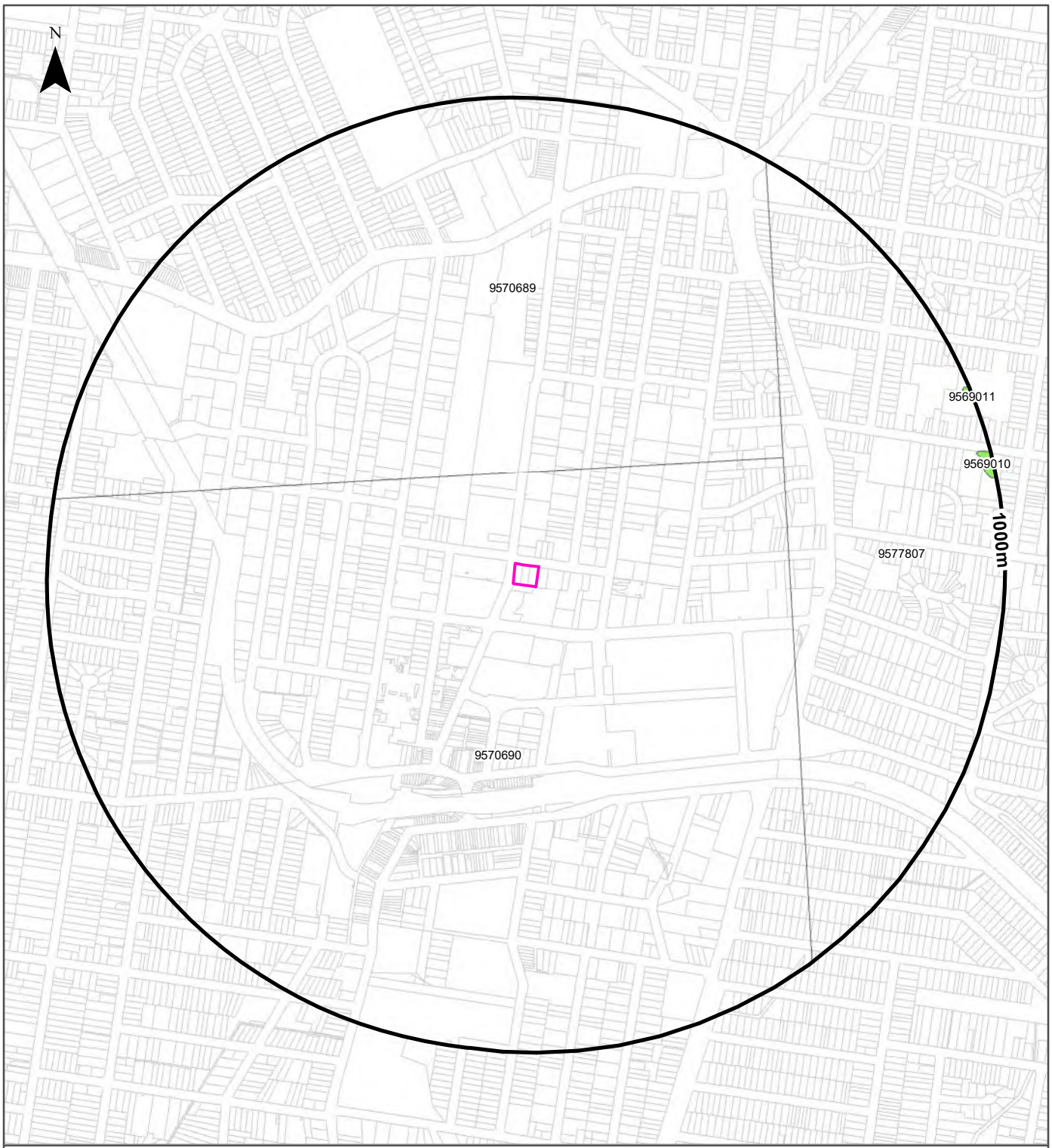
What are the nearest Bush Fire Prone Land Categories that exist within the dataset buffer?

Bush Fire Prone Land Category	Distance	Direction
No records in buffer		

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

Ecological Constraints - Vegetation & Ramsar Wetlands

461 Chapel Road, Bankstown, NSW 2200



- Site Boundary
- ReportBuffer
- Property Boundary
- Ramsar Wetland

Native Vegetation

- Alpine Complex
- Arid Shrublands (Acacia sub-formation)
- Arid Shrublands (Chenopod sub-formation)
- Dry Sclerophyll Forests (Shrub/grass sub-formation)
- Dry Sclerophyll Forests (Shrubby sub-formation)
- Forested Wetlands
- Freshwater Wetlands
- Grasslands
- Grassy Woodlands
- Heathlands
- Rainforests
- Saline Wetlands
- Semi-arid Woodlands (Grassy sub-formation)
- Semi-arid Woodlands (Shrubby sub-formation)
- Wet Sclerophyll Forests (Grassy sub-formation)
- Wet Sclerophyll Forests (Shrubby sub-formation)
- Non vegetated
- Unattributed
- Not classified
- Other

Scale: 0 100 200 400 600 Meters

Data Sources: Property Boundaries & Topographic Data: © Department Finance, Services & Innovation 2024

Coordinate System: GDA 1994 MGA Zone 56

Date: 26 November 2024

Ecological Constraints

461 Chapel Road, Bankstown, NSW 2200

Native Vegetation

What native vegetation exists within the dataset buffer?

Map ID	Vegetation Formation	Plant Community Type and Vegetation Formation	Vegetation Class	Dist	Dir
9570690	Not classified	(Not classified) Not classified	Not classified	0m	On-site
9570689	Not classified	(Not classified) Not classified	Not classified	195m	North
9577807	Not classified	(Not classified) Not classified	Not classified	535m	East
9569010	Dry Sclerophyll Forests (Shrub/grass sub-formation)	(Dry Sclerophyll Forests (Shrub/grass sub-formation)) Castlereagh Ironbark Forest	Cumberland Dry Sclerophyll Forests	969m	East
9569011	Dry Sclerophyll Forests (Shrub/grass sub-formation)	(Dry Sclerophyll Forests (Shrub/grass sub-formation)) Castlereagh Ironbark Forest	Cumberland Dry Sclerophyll Forests	983m	North East

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

461 Chapel Road, Bankstown, NSW 2200

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

461 Chapel Road, Bankstown, NSW 2200

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

461 Chapel Road, Bankstown, NSW 2200

Groundwater Dependent Ecosystems Atlas

Type	GDE Potential	Geomorphology	Ecosystem Type	Aquifer Geology	Distance	Direction
N/A	No records in buffer					

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

461 Chapel Road, Bankstown, NSW 2200

Inflow Dependent Ecosystems Likelihood

Type	IDE Likelihood	Geomorphology	Ecosystem Type	Aquifer Geology	Distance	Direction
N/A	No records in buffer					

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

461 Chapel Road, Bankstown, NSW 2200

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	Litoria aurea	Green and Golden Bell Frog	Not Sensitive	Endangered	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	Magpie 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 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	Arenaria interpres	Ruddy Turnstone	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 melanotos	Pectoral Sandpiper	Not Sensitive	Not Listed	Not Listed	ROKAMBA;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	Certhionyx variegatus	Pied Honeyeater	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Charadrius leschenaultii	Greater Sand-plover	Not Sensitive	Vulnerable	Vulnerable	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Chlidonias leucopterus	White-winged Black Tern	Not Sensitive	Not Listed	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Circus assimilis	Spotted Harrier	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Columba vitiensis godmanae	White-throated Pigeon (Lord Howe Is. subsp.)	Not Sensitive	Extinct	Extinct	

Kingdom	Class	Scientific	Common	Sensitivity Class	State Conservation Status	Federal Conservation Status	Migratory Species Agreements
Animalia	Aves	Cuculus optatus	Oriental Cuckoo	Not Sensitive	Not Listed	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Daphoenositta chrysoptera	Varied Sittella	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Drymodes brunneopygia	Southern Scrub-robin	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Ephippiorhynchus asiaticus	Black-necked Stork	Not Sensitive	Endangered	Not Listed	
Animalia	Aves	Epthianura albifrons	White-fronted Chat	Not Sensitive	Endangered Population, Vulnerable	Not Listed	
Animalia	Aves	Falco hypoleucos	Grey Falcon	Category 2	Vulnerable	Vulnerable	
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	Gelochelidon nilotica	Gull-billed Tern	Not Sensitive	Not Listed	Not Listed	CAMBA
Animalia	Aves	Glossopsitta pusilla	Little Lorikeet	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	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	Ixobrychus flavicollis	Black Bittern	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Lathamus discolor	Swift Parrot	Not Sensitive	Endangered	Critically Endangered	
Animalia	Aves	Limicola falcinellus	Broad-billed Sandpiper	Not Sensitive	Vulnerable	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Limosa lapponica	Bar-tailed Godwit	Not Sensitive	Not Listed	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Limosa lapponica baueri	Bar-tailed Godwit (baueri)	Not Sensitive	Not Listed	Vulnerable	
Animalia	Aves	Limosa limosa	Black-tailed Godwit	Not Sensitive	Vulnerable	Endangered	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Lophochroa leadbeateri	Pink Cockatoo	Category 2	Vulnerable	Not Listed	
Animalia	Aves	Lophoictinia isura	Square-tailed Kite	Category 3	Vulnerable	Not Listed	
Animalia	Aves	Manorina melanotis	Black-eared Miner	Not Sensitive	Critically 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	Motacilla flava	Yellow Wagtail	Not Sensitive	Not Listed	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Neochmia ruficauda	Star Finch	Not Sensitive	Extinct	Endangered	
Animalia	Aves	Neophema pulchella	Turquoise Parrot	Category 3	Vulnerable	Not Listed	
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	Not Listed	Critically Endangered	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Numenius phaeopus	Whimbrel	Not Sensitive	Not Listed	Not Listed	ROKAMBA;CAMBA; JAMBA

Kingdom	Class	Scientific	Common	Sensitivity Class	State Conservation Status	Federal Conservation Status	Migratory Species Agreements
Animalia	Aves	Onychoprion fuscata	Sooty Tern	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Oxyura australis	Blue-billed Duck	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	Petroica boodang	Scarlet Robin	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Petroica phoenicea	Flame Robin	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Petroica rodinogaster	Pink Robin	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Philomachus pugnax	Ruff	Not Sensitive	Not Listed	Not Listed	ROKAMBA;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	Polytelis anthopeplus monarchoides	Regent Parrot (eastern subspecies)	Category 3	Endangered	Vulnerable	
Animalia	Aves	Ptilinopus regina	Rose-crowned 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	Rostratula australis	Australian Painted Snipe	Not Sensitive	Endangered	Endangered	
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	Stictonetta naevosa	Freckled Duck	Not Sensitive	Vulnerable	Not Listed	
Animalia	Aves	Thalasseus bergii	Crested Tern	Not Sensitive	Not Listed	Not Listed	JAMBA
Animalia	Aves	Thinornis cucullatus cucullatus	Eastern Hooded Dotterel	Not Sensitive	Critically Endangered	Vulnerable	
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	Not Listed	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Tringa stagnatilis	Marsh Sandpiper	Not Sensitive	Not Listed	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Tyto longimembris	Eastern Grass Owl	Category 3	Vulnerable	Not Listed	
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	Gastropoda	Meridolum corneovirens	Cumberland Plain Land Snail	Not Sensitive	Endangered	Not Listed	
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	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	

Kingdom	Class	Scientific	Common	Sensitivity Class	State Conservation Status	Federal Conservation Status	Migratory Species Agreements
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	Notomys cervinus	Fawn Hopping-mouse	Not Sensitive	Extinct	Not Listed	
Animalia	Mammalia	Perameles nasuta	Long-nosed Bandicoot	Not Sensitive	Endangered Population	Not Listed	
Animalia	Mammalia	Petaurus norfolcensis	Squirrel Glider	Not Sensitive	Vulnerable	Not Listed	
Animalia	Mammalia	Phascogale tapoatafa	Brush-tailed Phascogale	Not Sensitive	Vulnerable	Not Listed	
Animalia	Mammalia	Phascolarctos cinereus	Koala	Not Sensitive	Endangered	Endangered	
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 Sheathtail-bat	Not Sensitive	Vulnerable	Not Listed	
Animalia	Mammalia	Scoteanax rueppellii	Greater Broad-nosed Bat	Not Sensitive	Vulnerable	Not Listed	
Animalia	Mammalia	Vespadelus troughtoni	Eastern Cave Bat	Not Sensitive	Vulnerable	Not Listed	
Animalia	Reptilia	Aspidites ramsayi	Woma	Not Sensitive	Vulnerable	Not Listed	
Animalia	Reptilia	Caretta caretta	Loggerhead Turtle	Not Sensitive	Endangered	Endangered	
Animalia	Reptilia	Chelonia mydas	Green Turtle	Not Sensitive	Vulnerable	Vulnerable	
Animalia	Reptilia	Hemiaspis damelii	Grey Snake	Not Sensitive	Endangered	Endangered	
Animalia	Reptilia	Hoplocephalus stephensii	Stephens' Banded 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	
Fungi	Flora	Hygrocybe austropratensis		Not Sensitive	Endangered	Not Listed	
Plantae	Flora	Acacia bynoeana	Bynoe's Wattle	Not Sensitive	Endangered	Vulnerable	
Plantae	Flora	Acacia prominens	Gosford Wattle	Not Sensitive	Endangered Population	Not Listed	
Plantae	Flora	Acacia pubescens	Downy Wattle	Not Sensitive	Vulnerable	Vulnerable	
Plantae	Flora	Acacia terminalis subsp. Eastern Sydney	Sunshine wattle	Not Sensitive	Endangered	Endangered	
Plantae	Flora	Allocasuarina diminuta subsp. mimica		Not Sensitive	Endangered Population	Not Listed	
Plantae	Flora	Allocasuarina glareicola		Not Sensitive	Endangered	Endangered	
Plantae	Flora	Caesia parviflora var. minor	Small Pale Grass-lily	Not Sensitive	Endangered	Not Listed	
Plantae	Flora	Caladenia tessellata	Thick Lip Spider Orchid	Category 2	Vulnerable	Vulnerable	

Kingdom	Class	Scientific	Common	Sensitivity Class	State Conservation Status	Federal Conservation Status	Migratory Species Agreements
Plantae	Flora	Callistemon linearifolius	Netted Bottle Brush	Category 3	Vulnerable	Not Listed	
Plantae	Flora	Deyeuxia appressa		Not Sensitive	Endangered	Endangered	
Plantae	Flora	Dillwynia tenuifolia		Not Sensitive	Vulnerable	Not Listed	
Plantae	Flora	Epacris purpurascens var. purpurascens		Not Sensitive	Vulnerable	Not Listed	
Plantae	Flora	Eucalyptus alligatrix subsp. alligatrix		Not Sensitive	Vulnerable	Vulnerable	
Plantae	Flora	Eucalyptus camfieldii	Camfield's Stringybark	Not Sensitive	Vulnerable	Vulnerable	
Plantae	Flora	Eucalyptus leucoxylon subsp. pruinosa	Yellow Gum	Not Sensitive	Vulnerable	Not Listed	
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	Grevillea beadleana	Beadle's Grevillea	Category 3	Endangered	Endangered	
Plantae	Flora	Grevillea parviflora subsp. parviflora	Small-flower Grevillea	Not Sensitive	Vulnerable	Vulnerable	
Plantae	Flora	Hibbertia fumana		Not Sensitive	Critically Endangered	Not Listed	
Plantae	Flora	Hibbertia puberula		Not Sensitive	Endangered	Not Listed	
Plantae	Flora	Hibbertia sp. Bankstown		Not Sensitive	Critically Endangered	Critically Endangered	
Plantae	Flora	Hibbertia stricta subsp. furcatula		Not Sensitive	Endangered	Not Listed	
Plantae	Flora	Isotoma fluviatilis subsp. fluviatilis		Category 3	Not Listed	Extinct	
Plantae	Flora	Leucopogon exolasius	Woronora Beard-heath	Not Sensitive	Vulnerable	Vulnerable	
Plantae	Flora	Macadamia integrifolia	Macadamia Nut	Not Sensitive	Not Listed	Vulnerable	
Plantae	Flora	Macadamia tetraphylla	Rough-shelled Bush Nut	Not Sensitive	Vulnerable	Vulnerable	
Plantae	Flora	Marsdenia viridiflora subsp. viridiflora	Native Pear	Not Sensitive	Endangered Population	Not Listed	
Plantae	Flora	Maundia triglochinoides		Not Sensitive	Vulnerable	Not Listed	
Plantae	Flora	Melaleuca deanei	Deane's Paperbark	Not Sensitive	Vulnerable	Vulnerable	
Plantae	Flora	Persoonia hirsuta	Hairy Geebung	Category 3	Endangered	Endangered	
Plantae	Flora	Persoonia nutans	Nodding Geebung	Not Sensitive	Endangered	Endangered	
Plantae	Flora	Pimelea curviflora var. curviflora		Not Sensitive	Vulnerable	Vulnerable	
Plantae	Flora	Pimelea spicata	Spiked Rice-flower	Not Sensitive	Endangered	Endangered	
Plantae	Flora	Pomaderris brunnea	Brown Pomaderris	Not Sensitive	Endangered	Vulnerable	
Plantae	Flora	Pomaderris prunifolia	Plum-leaf Pomaderris	Not Sensitive	Endangered Population	Not Listed	
Plantae	Flora	Prostanthera saxicola		Not Sensitive	Endangered Population	Not Listed	
Plantae	Flora	Pterostylis saxicola	Sydney Plains Greenhood	Category 2	Endangered	Endangered	
Plantae	Flora	Pultenaea aristata	Prickly Bush-pea	Not Sensitive	Vulnerable	Vulnerable	
Plantae	Flora	Pultenaea parviflora		Not Sensitive	Endangered	Vulnerable	

Kingdom	Class	Scientific	Common	Sensitivity Class	State Conservation Status	Federal Conservation Status	Migratory Species Agreements
Plantae	Flora	Pultenaea pedunculata	Matted Bush-pea	Not Sensitive	Endangered	Not Listed	
Plantae	Flora	Rhodamnia rubescens	Scrub Turpentine	Not Sensitive	Critically Endangered	Critically Endangered	
Plantae	Flora	Syzygium moorei	Durobby	Not Sensitive	Vulnerable	Vulnerable	
Plantae	Flora	Syzygium paniculatum	Magenta Lilly Pilly	Not Sensitive	Endangered	Vulnerable	
Plantae	Flora	Tetratheca glandulosa		Not Sensitive	Vulnerable	Not Listed	
Plantae	Flora	Tetratheca juncea	Black-eyed Susan	Not Sensitive	Vulnerable	Vulnerable	
Plantae	Flora	Thesium australe	Austral Toadflax	Not Sensitive	Vulnerable	Vulnerable	
Plantae	Flora	Tylophora woollsii	Cryptic Forest Twiner	Not Sensitive	Endangered	Endangered	
Plantae	Flora	Wahlenbergia multicaulis	Tadgell's Bluebell	Not Sensitive	Endangered Population	Not Listed	
Plantae	Flora	Wilsonia backhousei	Narrow-leafed Wilsonia	Not Sensitive	Vulnerable	Not Listed	
Plantae	Flora	Zannichellia palustris		Not Sensitive	Endangered	Not Listed	

Source: NSW BioNet Species Sightings
Creative Commons 4.0 © NSW Department of Climate Change, Energy, the Environment and Water

Location Confidences

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

LC Code	Location Confidence
Premise Match	Georeferenced to the site location / premise or part of site
Area Match	Georeferenced to an approximate or general area
Road Match	Georeferenced to a road or rail corridor
Road Intersection	Georeferenced to a road intersection
Buffered Point	A point feature buffered to x metres
Adjacent Match	Land adjacent to a georeferenced feature
Network of Features	Georeferenced to a network of features
Suburb Match	Georeferenced to a suburb boundary
As Supplied	Spatial data supplied by provider

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

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   (a) the Report is compiled from or using content (**Third Party Content**) which is comprised of:
      (i) content provided to Lotsearch by third party content suppliers with whom Lotsearch has contractual arrangements or content which is freely available or methodologies licensed to Lotsearch by third parties with whom Lotsearch has contractual arrangements (**Third Party Content Suppliers**); and
      (ii) content which is derived from content described in paragraph (i);
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   (c) the Third Party Content Suppliers do not constitute an exhaustive set of all repositories or sources of information available in relation to the property which is the subject of the Report (**Property**) and accordingly neither Lotsearch nor Third Party Content Suppliers gives any warranty in relation to the accuracy or completeness of the Third Party Content incorporated into the report including any contaminated land assessment or other assessment included as part of a Report;
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12. These Terms are subject to New South Wales law.

Land Title Records

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

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

Summary of Owners Report

Re: - 461 Chapel Road Bankstown

Description: - Lots 26 to 28 Section A D.P. 7058

As regards Lot 26 Section A D.P. 7058

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
20.10.1913 (1913 to 1914)	Ethel Child (Married Woman)	Volume 2412 Folio 67
02.11.1914 (1914 to 1917)	John Kent (Esquire) – now deceased. Wilfrid Law Docker (Esquire) Henry Wallace Mort (Clerk in Holy Orders)	Volume 2412 Folio 67

As regards Lots 27 & 28 Section A D.P. 7058

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
07.03.1914 (1914 to 1917)	John Kent (Esquire) – now deceased. Wilfrid Law Docker (Esquire) Henry Wallace Mort (Clerk in Holy Orders)	Volume 2453 Folio 164

Continued as regards thew whole of the subject lands.

Date of Acquisition and term held	Registered Proprietor(s) & Occupations where available	Reference to Title at Acquisition and sale
25.10.1917 (1917 to 1920)	Wilfrid Law Docker (Esquire) – now deceased. Henry Wallace Mort (Clerk in Holy Orders) James Montague Sandy (Merchant)	Volume 2412 Folio 67 & Volume 2453 Folio 164
28.04.1920 (1920 to 1923)	Henry Wallace Mort (Clerk in Holy Orders) James Montague Sandy (Merchant) – now deceased. Keith Brougham Docker (Public Accountant)	Volume 2412 Folio 67 & Volume 2453 Folio 164
20.02.1923 (1923 to date)	# Church of England Property Trust Diocese of Sydney Now # Anglican Church Property Trust Diocese of Sydney	Volume 2412 Folio 67 Now 26/A/7058 & Volume 2453 Folio 164 Now Auto Consol 2453-164

# Denotes Current Registered Proprietor

- Government Gazette 6th November 2015 Folio 3568 – Heritage Order.

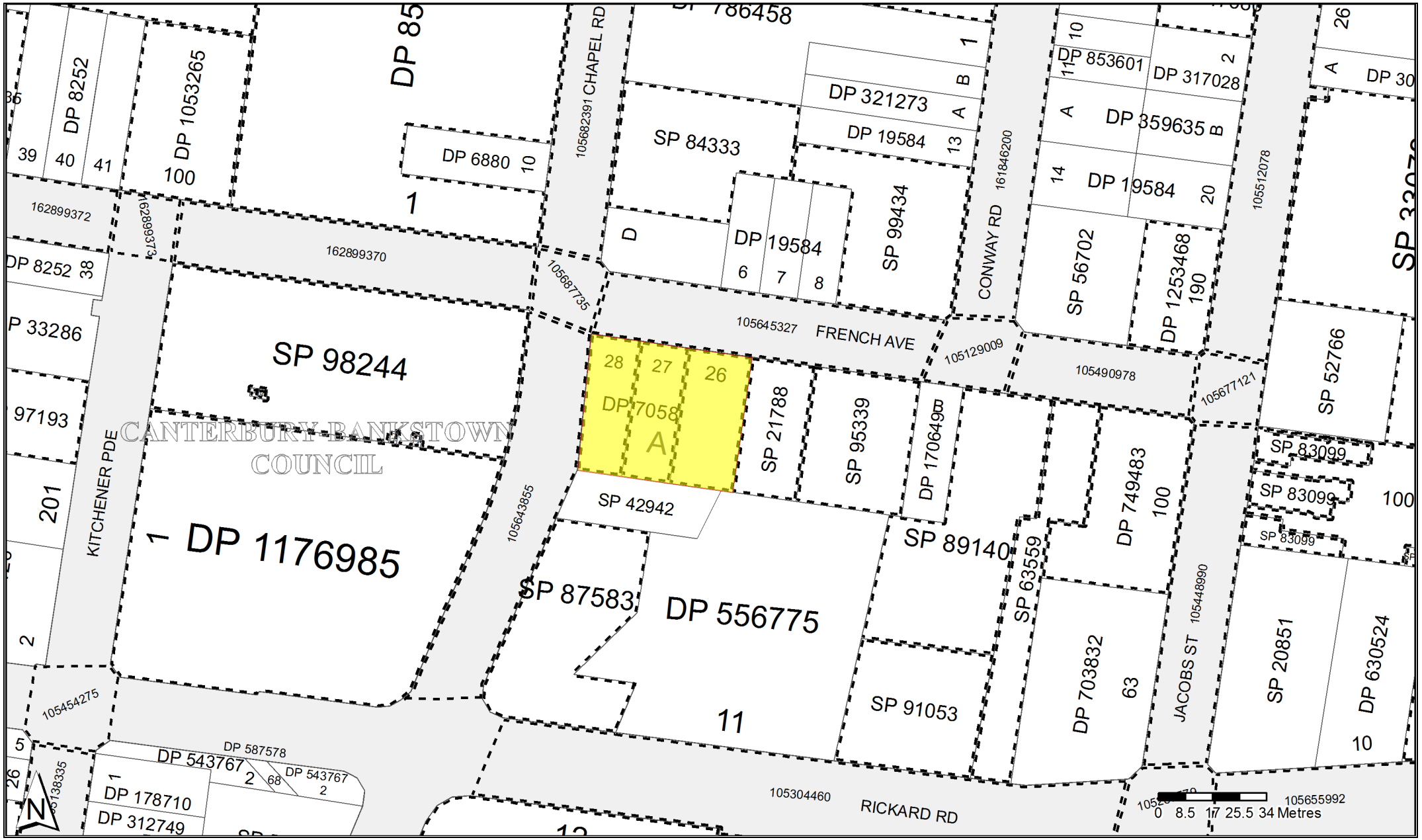
Leases & Easements: - NIL

Yours Sincerely
Mark Groll
10 December 2024

Cadastral Records Enquiry Report : Lot 26 Section A DP 7058

Ref : 461 Chapel Road Bankstown

Locality : BANKSTOWN
Parish : BANKSTOWN
LGA : CANTERBURY-BANKSTOWN
County : CUMBERLAND



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

Req:R445714 /Doc:DP 0007058 P /Rev:10-Oct-1994 /NSW LRS /Pgs:ALL /Prt:22-Nov-2024 18:38 /Seq:3 of 5
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Part of Section A

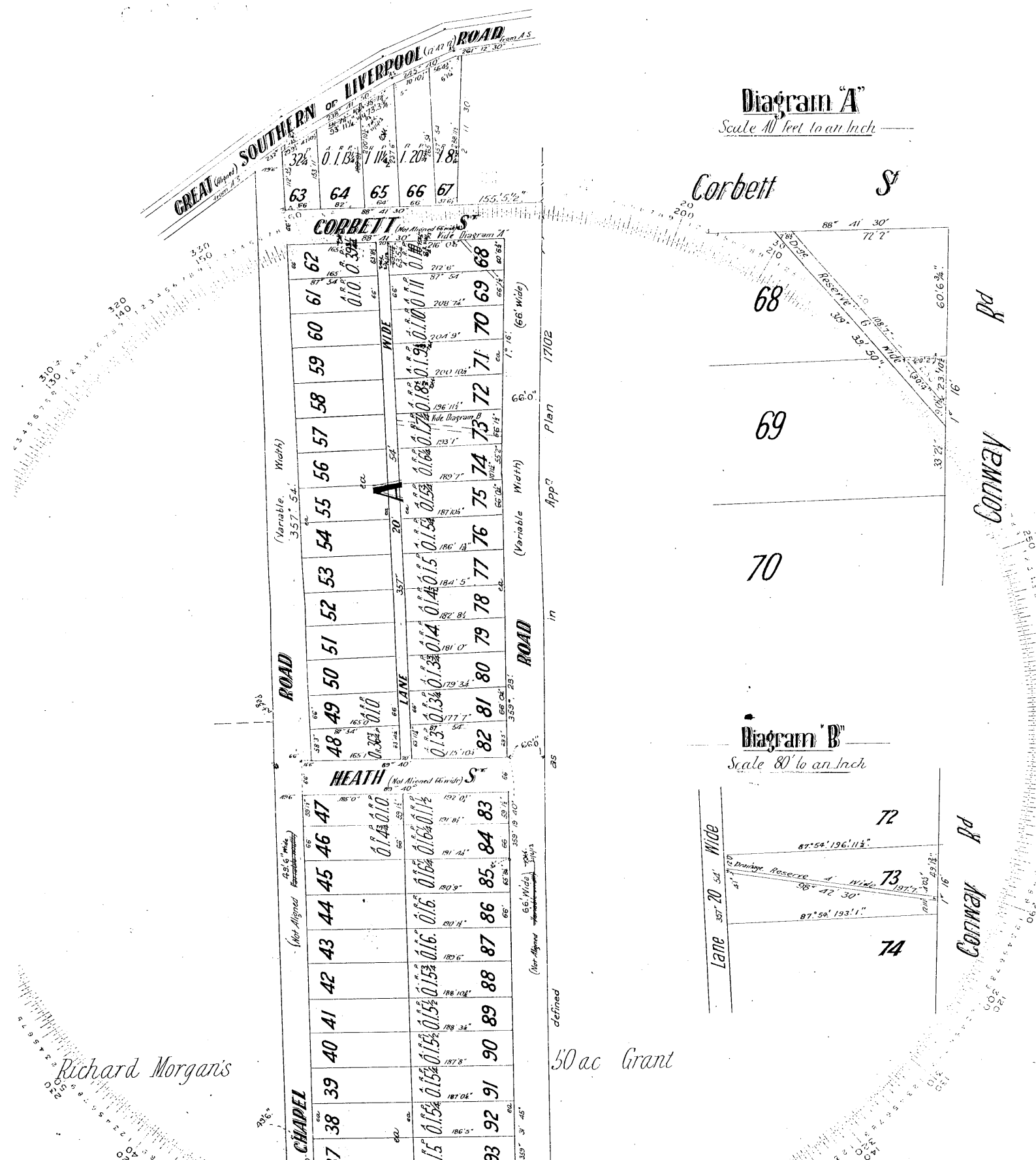
GREENACRE PARK ESTATE

DP 7058 (E)

Municipality of Bankstown

Parish of Bankstown County of Cumberland

Scale 160 feet to an Inch



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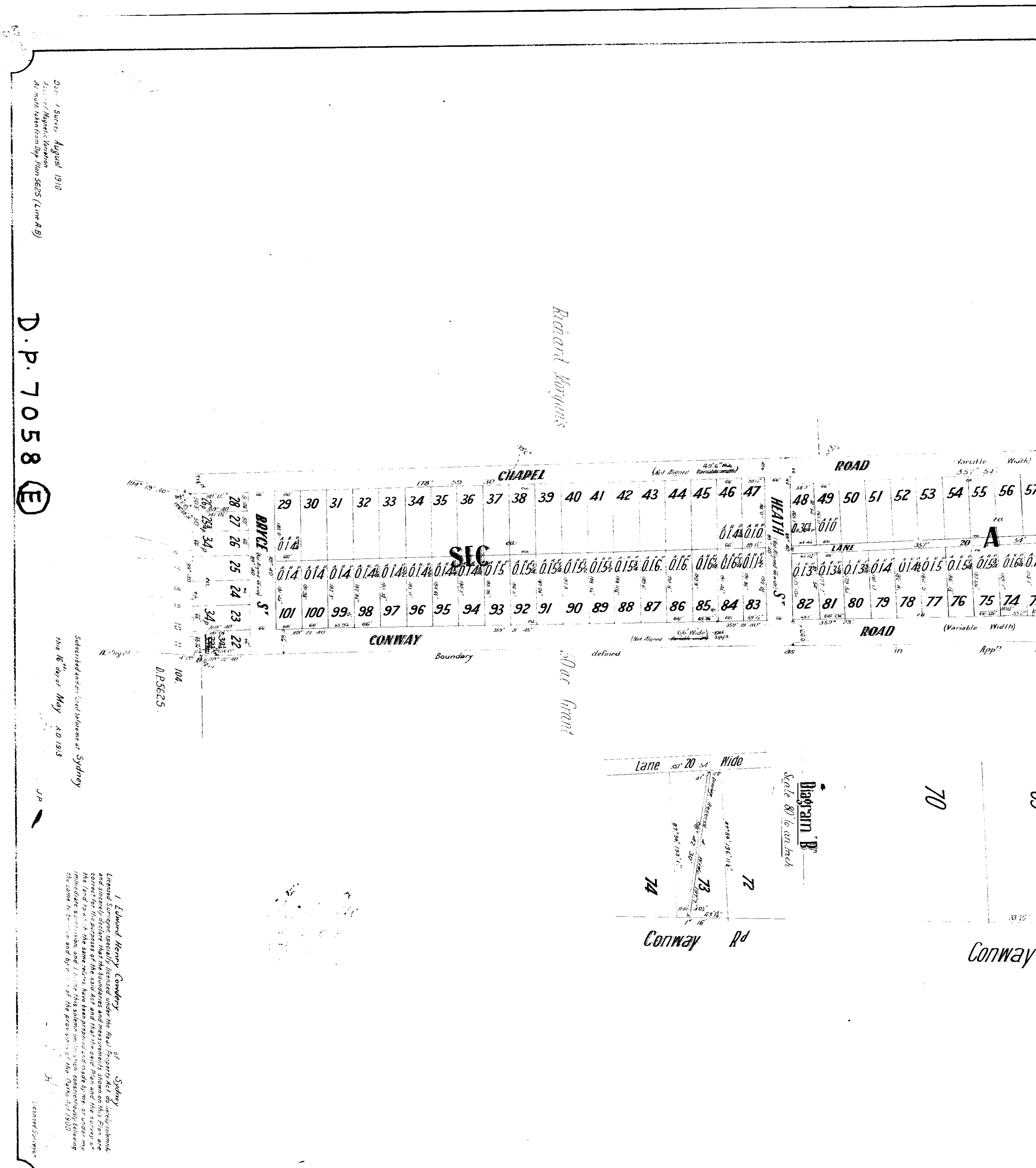
A30457

Plan of
Part of Section A
GREENACRE PARK ESTATE
Municipality of Bankstown
Parish of Bankstown County of Cumberland

Scale 160 feet to an Inch

BP 7058 E



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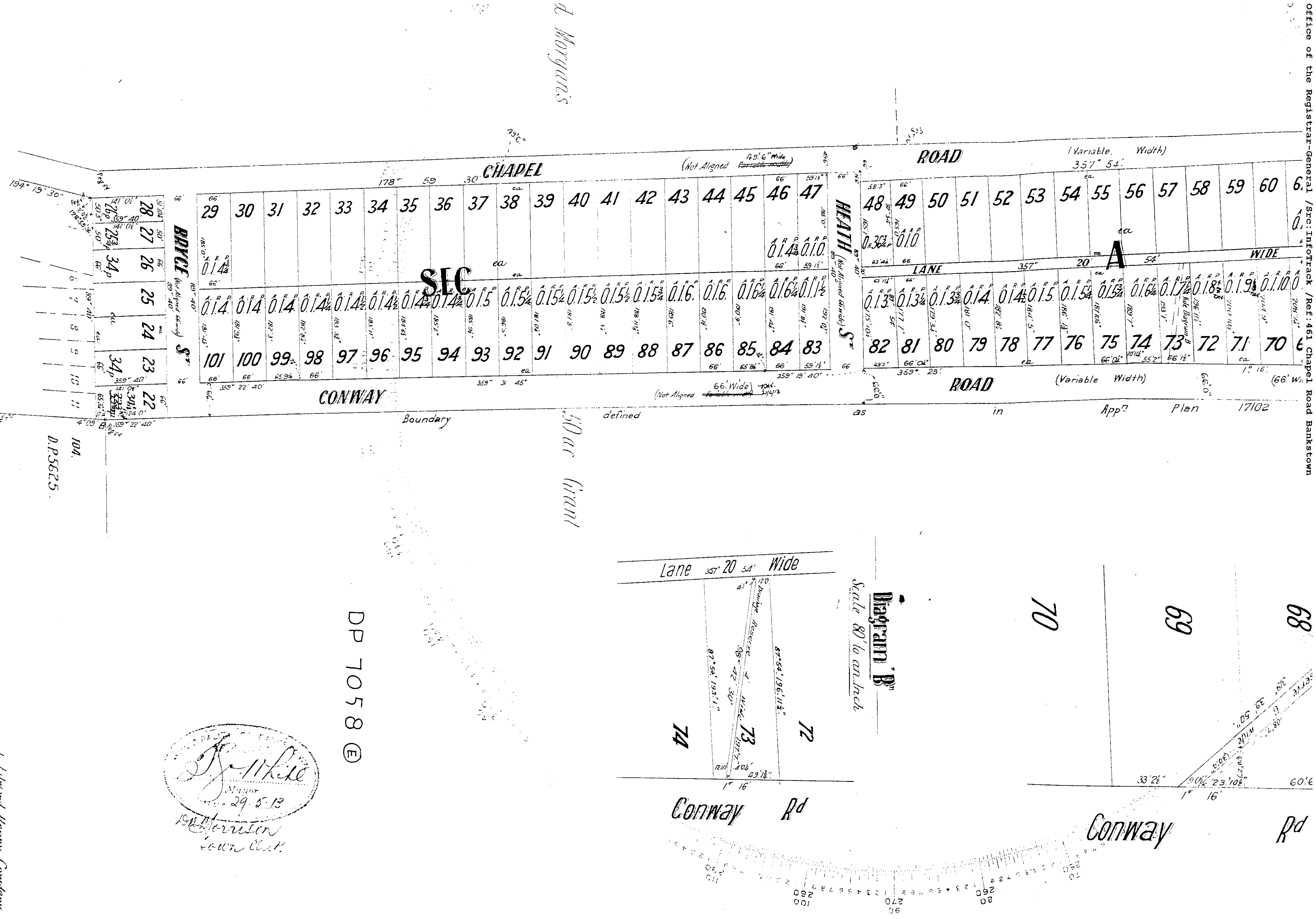

I Edward Henry Cowdery
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COUNCIL NOTICES

BANKSTOWN CITY COUNCIL

HERITAGE ACT 1977

Interim Heritage Order No 1

Under section 25 of the *Heritage Act 1977* Bankstown City Council does by this order:

I. make an interim heritage order to cover the item of the environmental heritage specified or described in Schedule 'A'; and

II. declare that the Interim Heritage Order shall apply to the curtilage or site of such item, being the land described in Schedule 'B'.

This Interim Heritage Order will lapse six months from the date that it is made unless the local council has passed a resolution before that date either:

1) in the case of an item which, in the council's opinion, is of local significance, to place the item on the heritage schedule of a local environmental plan with appropriate provisions for protecting and managing the item; and

2) in the case of an item which in the council's opinion, is of State heritage significance, nominate the item for inclusion on the State Heritage Register.

Sydney, 28 October 2015

MATTHEW STEWART, General Manager, Bankstown City Council

Schedule 'A'

The property known as No 459 Chapel Road, Bankstown, on the land described in Schedule 'B'.

Schedule 'B'

All those pieces or parcels of land known as Lot 26 Sec A in DP 7058, Lot 27 Sec A in DP 7058 and Lot 28 Sec A in DP 7058. [8234]

BYRON SHIRE COUNCIL

ROADS ACT 1993

Naming of Roads

Notice is hereby given that Byron Shire Council, pursuant to section 162 of the *Roads Act 1993*, has officially named the road(s) as shown hereunder:

Name	Locality
STACEYS WAY	Tyagarah

Description

Unnamed Road is on Council land but not in a dedicated road reserve, with access to this unnamed road available from Yarun Road which runs parallel to the Pacific Highway. (Tyagarah Airfield Access Road)

KEN GAINGER, General Manager, Byron Shire Council, 70–90 Station Street, Mullumbimby 2482

GNB Ref: 0115 [8235]

BYRON SHIRE COUNCIL

ROADS ACT 1993

Naming of Roads

Notice is hereby given that Byron Shire Council, pursuant to section 162 of the *Roads Act 1993*, has officially named the road(s) as shown hereunder:

Name	Locality
COOLALIE PLACE	

Description

Road reserve entry to Orara Court Lilli Pilli. The name will result in new addressing of each property as Coolalie Place (#1 to #4) and the sign be erected at Orara Court, which would benefit locating properties. Council however would not become responsible for the road or its maintenance that is up the community title.

KEN GAINGER, General Manager, Byron Shire Council, 70–90 Station Street, Mullumbimby 2482

GNB Ref: 0116 [8236]

BYRON SHIRE COUNCIL

ROADS ACT 1993

Naming of Roads

Notice is hereby given that Byron Shire Council, pursuant to section 162 of the *Roads Act 1993*, has officially named the road(s) as shown hereunder:

Name	Locality
ARAKWAL COURT	Byron Bay

Description

Cul-de-sac St Finbarr's Primary School and Byron Bay High School off Bangalow Road

KEN GAINGER, General Manager, Byron Shire Council, 70-90 Station Street, Mullumbimby 2482

GNB Ref: 0117 [8237]

Historical Search

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
22/11/2024 6:38PM

FOLIO: 26/A/7058

First Title(s): SEE PRIOR TITLE(S)
Prior Title(s): VOL 2412 FOL 67

Recorded	Number	Type of Instrument	C.T. Issue
16/9/1989		TITLE AUTOMATION PROJECT	LOT RECORDED FOLIO NOT CREATED
4/9/1990		CONVERTED TO COMPUTER FOLIO	FOLIO CREATED CT NOT ISSUED
18/3/1994	U80995	CHANGE OF NAME	EDITION 1
11/11/2015	AJ974370	DEPARTMENTAL DEALING	

*** END OF SEARCH ***

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Received: 22/11/2024 18:38:23

NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: 26/A/7058

SEARCH DATE	TIME	EDITION NO	DATE
22/11/2024	6:37 PM	1	18/3/1994

LAND

LOT 26 OF SECTION A IN DEPOSITED PLAN 7058
LOCAL GOVERNMENT AREA CANTERBURY-BANKSTOWN
PARISH OF BANKSTOWN COUNTY OF CUMBERLAND
TITLE DIAGRAM DP7058

FIRST SCHEDULE

ANGLICAN CHURCH PROPERTY TRUST DIOCESE OF SYDNEY (CN U80995)

SECOND SCHEDULE (2 NOTIFICATIONS)

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1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
2 A56560 COVENANT AND CONDITION

NOTATIONS

HERITAGE ORDER

AJ974370 NOTE: ACQUIRED FOR COUNCIL PURPOSES VIDE GAZ. 6.11.2015 FOL. 3568

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

* Any entries preceded by an asterisk do not appear on the current edition of the Certificate of Title. Warning: the information appearing under notations has not been formally recorded in the Register. InfoTrack an approved NSW Information Broker hereby certifies that the information contained in this document has been provided electronically by the Registrar General in accordance with Section 96B(2) of the Real Property Act 1900.

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Received: 22/11/2024 18:37:44

NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE
22/11/2024 6:38PM

FOLIO: AUTO CONSOL 2453-164

Recorded	Number	Type of Instrument	C.T. Issue
27/6/1994		CONSOL HISTORY RECORD CREATED FOR AUTO CONSOL 2453-164 PARCELS IN CONSOL ARE: 27-28/A/7058.	
18/3/1997	2874864	REQUEST	EDITION 1
11/11/2015	AJ974370	DEPARTMENTAL DEALING	

*** END OF SEARCH ***

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Received: 22/11/2024 18:38:23

NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: AUTO CONSOL 2453-164

SEARCH DATE	TIME	EDITION NO	DATE
22/11/2024	6:37 PM	1	18/3/1997

LAND

LAND DESCRIBED IN SCHEDULE OF PARCELS
LOCAL GOVERNMENT AREA CANTERBURY-BANKSTOWN
PARISH OF BANKSTOWN COUNTY OF CUMBERLAND
TITLE DIAGRAM DP7058

FIRST SCHEDULE

ANGLICAN CHURCH PROPERTY TRUST DIOCESE OF SYDNEY (CN U80995)

SECOND SCHEDULE (2 NOTIFICATIONS)

1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
2 A86667 COVENANT

NOTATIONS

HERITAGE ORDER

AJ974370 NOTE: ACQUIRED FOR COUNCIL PURPOSES VIDE GAZ. 6.11.2015 FOL. 3568

UNREGISTERED DEALINGS: NIL

SCHEDULE OF PARCELS

LOTS 27-28 SEC. A IN DP7058.

*** END OF SEARCH ***

* Any entries preceded by an asterisk do not appear on the current edition of the Certificate of Title. Warning: the information appearing under notations has not been formally recorded in the Register. InfoTrack an approved NSW Information Broker hereby certifies that the information contained in this document has been provided electronically by the Registrar General in accordance with Section 96B(2) of the Real Property Act 1900.

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Section 10.7 Certificates

City of Canterbury Bankstown,
PO BOX 8
BANKSTOWN NSW 1885
Telephone: (02) 9707 9000
Email: council@cbcity.nsw.gov.au

E37149PL:142279

Jk Environments
PO Box 976
NORTH RYDE BC NSW 1670

PLANNING CERTIFICATE

Section 10.7(2)(5) of the Environmental Planning and Assessment Act 1979

Certificate No: 20249107
22 November 2024

Land which Certificate is issued for:

Lot 27 Sec A DP 7058

459 Chapel Road, BANKSTOWN NSW 2200

Note: The information in this certificate is provided pursuant to Section 10.7(2) and (5) of the Environmental Planning and Assessment Act 1979 (the Act), and as prescribed by Schedule 2 of the Environmental Planning and Assessment Regulation 2021 (the Regulation). The information has been extracted from Council's records, as it existed at the date listed on the certificate.

Planning certificates are issued on the Strata Plan, not the lot number. The information on a planning certificate is the same for all the lots in the same Strata Plan property. Your Strata may or may not have a Lot 0. A Planning Certificate issued for Lot 0 has the same information as other lots in that same Strata Plan property.

Please note that the accuracy of the information contained within the certificate may change after the date of this certificate due to changes in Legislation, planning controls or the environment of the land.

CAMILLE LATTOUF
MANAGER CITY STRATEGY AND DESIGN

City of Canterbury Bankstown,
PO BOX 8
BANKSTOWN NSW 1885
Telephone: (02) 9707 9000
Email: council@cbcity.nsw.gov.au

**INFORMATION PROVIDED UNDER SECTION 10.7 (2)
OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT, 1979.**

1 ENVIRONMENTAL PLANNING INSTRUMENTS AND DEVELOPMENT CONTROL PLANS

1.1 Relevant Planning Instruments

Canterbury Bankstown Local Environmental Plan 2023

1.2 Relevant Development Control Plans

Canterbury Bankstown Development Control Plan 2023

1.3 State Environmental Planning Policies

Note: The following information indicates those State Environmental Planning Policies (SEPP) which may apply to the subject land. A summary explanation of each SEPP can be sourced from the Department of Planning and Environment (DPE) website at www.planning.nsw.gov.au. The full wording of each SEPP can also be accessed via the NSW Legislation website at https://legislation.nsw.gov.au/.

State Environmental Planning Policies:
State Environmental Planning Policy (Sustainable Buildings) 2022
State Environmental Planning Policy No 65—Design Quality of Residential Apartment Development
State Environmental Planning Policy (Exempt and Complying Development Codes) 2008
State Environmental Planning Policy (Housing) 2021
State Environmental Planning Policy (Industry and Employment) 2021
- Chapter 3: Advertising and Signage

State Environmental Planning Policy (Planning Systems) 2021
- Chapter 2: State and regional development
- Chapter 3: Aboriginal Land
- Chapter 4: Concurrences and consents

State Environmental Planning Policy (Precincts - Central River City) 2021
State Environmental Planning Policy (Precincts - Eastern Harbour City) 2021
State Environmental Planning Policy (Precincts - Regional) 2021
State Environmental Planning Policy (Precincts - Western Parkland City) 2021
State Environmental Planning Policy (Primary Production) 2021
State Environmental Planning Policy (Resilience and Hazards) 2021
- Chapter 2: Coastal Management
- Chapter 3: Hazardous and offensive development
- Chapter 4: Remediation of Land

State Environmental Planning Policy (Resources and Energy) 2021
- Chapter 2: Mining, petroleum production and extractive industries
- Chapter 3: Extractive industries in Sydney area

State Environmental Planning Policy (Transport and Infrastructure) 2021
- Chapter 2: Infrastructure
- Chapter 3: Educational establishments and child care facilities
- Chapter 4: Major infrastructure corridors

State Environmental Planning Policy (Biodiversity and Conservation) 2021
- Chapter 2: Vegetation in non-rural areas
- Chapter 3: Koala habitat protection 2020
- Chapter 6: Bushland in urban areas
- Chapter 7: Canal estate development
- Chapter 10: Sydney Harbour Catchment
- Chapter 11: Georges River Catchment

Encompassed within the Biodiversity and Conservation SEPP is the former Greater Metropolitan Regional Environmental Plan No. 2 - Georges River Catchment which applies to the site. The SEPP aims to protect the water quality of the Georges River and its tributaries and the environmental quality of the whole catchment. The objectives of the plan are to be achieved through coordinated land use planning and development control. The plan establishes the framework within which local, State and Federal agencies will consult so that there is a consistent approach to planning and development within the catchment

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1.4 Proposed Environmental Planning Instruments (including any Planning Proposals) that are or have been the subject of community consultation or on public exhibition under the Act
Not applicable.

2 Zoning and Land Use Under Relevant Planning Instruments
Note: The information below will assist in determining how the subject land may be developed. It is recommended that you read this section in conjunction with a full copy of any relevant environmental planning instrument as there may be additional provisions that affect how the land may be developed.

2.1 Land Use Zone

Canterbury Bankstown Local Environmental Plan 2023

Date effective from

23 June 2023

Land Use Zone

ZONE B4 MIXED USE

1. Permitted without consent
Home occupations

2. Permitted with consent
Artisan food and drink industries; Boarding houses; Building identification signs; Business identification signs; Centre-based child care facilities; Commercial premises; Community facilities; Educational establishments; Entertainment facilities; Function centres; Hotel or motel accommodation; Information and education facilities; Local distribution premises; Medical centres; Oyster aquaculture; Passenger transport facilities; Recreation facilities (indoor); Registered clubs; Residential flat buildings; Respite day care centres; Restricted premises; Roads; Seniors housing; Shop top housing; Tank-based aquaculture; Any other development not specified in item 1 or 3

3. Prohibited
Agriculture; Air transport facilities; Airstrips; Animal boarding or training establishments; Boat building and repair facilities; Boat launching ramps; Boat sheds; Camping grounds; Caravan parks; Cemeteries; Charter and tourism boating facilities; Correctional centres; Crematoria; Depots; Eco-tourist facilities; Electricity generating works; Exhibition homes; Exhibition villages; Extractive industries; Farm buildings; Forestry; Freight transport facilities; Heavy industrial storage establishments; Highway service centres; Home occupations (sex services); Industrial retail outlets; Industrial training facilities; Industries; Jetties; Marinas; Mooring pens; Moorings; Open cut mining; Pond-based aquaculture; Port facilities; Residential accommodation; Rural industries; Service stations; Sewerage systems; Sex services premises; Signage; Storage premises; Transport depots; Truck depots; Vehicle body repair workshops; Vehicle repair stations; Warehouse or distribution centres; Waste or resource management facilities; Water recreation structures; Water supply systems; Wharf or boating facilities; Wholesale supplies

2.2 Additional Permitted Uses
Not applicable

Note: Due to the subdivision and/or consolidation of land, the Lot and Deposited Plans referenced in Schedule 1 of the relevant Local Environmental Plan may change. It is your responsibility to confirm the applicability of Additional Permitted Uses before undertaking any development on the site that relies upon provisions in Schedule 1.

2.3 Minimum Land Dimensions for the Erection of a Dwelling House
For land zoned R2, R3 or R4 and on land identified as 'Area 2' on the Clause Application Map within the Canterbury Bankstown Local Environmental Plan 2023, the minimum lot size required for dwelling houses on a battle-axe lot or other lot with an access handle is 600m^2. For land without an access handle, please

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refer to the Minimum Lot Sizes Map of the Local Environmental Plan for minimum lot sizes for dwelling houses.

2.4 Area of Outstanding Biodiversity Value
Not applicable

2.5 Conservation Area and/or Environmental Heritage
The land is not affected by a heritage item or within a heritage conservation area under the relevant Principal Environmental Planning Instrument.

3 Contribution Plans
Canterbury Bankstown Local Infrastructure Contributions Plan 2022
This Development Contributions Plan was prepared and adopted under the Environmental Planning and Assessment Act, 1979 and Environmental Planning and Assessment Regulation 2021.

The Plan allows the Council or other consent authority to levy contributions on selected new development to pay for local public infrastructure (such as parks, roads and libraries), required to meet the needs of our growing and changing City. A copy of the development contributions plan can be viewed on Council's website.

Housing and Productivity Contribution
The Housing and Productivity Contribution applies to development applications for new residential, commercial and industrial development and is collected by Council on behalf of the NSW State Government. The Contributions will help deliver essential State infrastructure such as schools, hospitals, major roads, public transport infrastructure and regional open space.

The subject land is within Greater Sydney to which the Environmental Planning and Assessment (Housing and Productivity Contribution) Order 2023 applies. For more information visit https://www.planning.nsw.gov.au/policy-and-legislation/infrastructure/infrastructure-funding/improving-the-infrastructure-contributions-system

4 Complying Development
Whether or not the land is land on which complying development may be carried out under each of the Codes for complying development because of the provisions of clauses 1.17A(1) (c) to (e), (2), (3) and (4), 1.18(1)(c3) and 1.19 of State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 and, if no complying development may be carried out on that land under that Policy, the reasons why complying development may not be carried out on that land.

Note that in order for complying development to be able to be carried out, it must be permissible in the relevant zone in the first place.

Housing Code (if in a residential zone)	Yes
Rural Housing Code (if in a rural residential zone)	Not applicable
Low Rise Housing Diversity Code	Yes
Housing Alterations Code	Yes
General Development Code	Yes
Greenfield Housing Code	Not applicable
Inland Code	Not applicable
Commercial and Industrial (New Building and Alterations) Code	Yes
Commercial and Industrial Alterations Code	Yes

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Container Recycling Facilities Code	Yes
Demolition Code	Yes
Subdivision Code	Yes
Fire Safety Code	Yes

**Note: The reason(s) why complying development may not be carried may only apply to part of, or all of, the property. For more information go to the NSW ePlanning Spatial Viewer and search the property address https://www.planningportal.nsw.gov.au/spatialviewer/#/find-a-property/address.*

4.1 Variation of Complying Development Codes

A variation to the Complying Development Code applies to certain lots in Zone R2 Low Density Residential areas which are no more than 450m^2 in area and are located in land to which the former Bankstown Local Environmental Plan 2015 applied. For further information on the variation to the Complying Development Code, please refer to State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 at the NSW Legislation website at https://legislation.nsw.gov.au/

5 Exempt Development

Whether or not the land is land on which exempt development may be carried out under each of the exempt development codes under State Environmental Planning Policy (Exempt and Complying Development Codes)2008 because of the provisions of clauses 1.16(1)(b1)-(d) or 1.16A, the development (new or alterations proposed to the existing structures) must meet the following criteria:

General Exempt Development Code
Yes

Advertising and Signage Exempt Development Code
Yes

Temporary Uses and Structures Exempt Development Code
Yes

Note: Despite the above, if the exempt development meets the requirements and standards specified by the State Environmental Planning Policy (Exempt and Complying Development) 2008 and that development (a) has been granted an exemption under section 57(2) of the Heritage Act 1977, or (b) is subject to an exemption under section 57(1A) or (3) of that Act, the development is exempt development. For further information refer to the Heritage NSW website at https://www.heritage.nsw.gov.au/.

Important Disclaimer: Clause 4 and 5 of this Certificate only contain information in respect of that required by clause 4 and 5 of Schedule 2 of the Environmental Planning and Assessment Regulation 2021, in relation to Complying and Exempt Development under State Environmental Planning Policy (Exempt and Complying Development Codes) 2008. Other provisions contained in the SEPP, including but not limited to, minimum allotment size requirements, specified development standards or any other general exclusions, may preclude Exempt or Complying Development under the SEPP from being able to be carried out. You will need to refer to the SEPP for complete details. It is your responsibility to ensure that you comply with all other general requirements of the SEPP. Failure to comply with these provisions may mean that any Complying Development Certificate issued, or work carried out as Exempt Development under the provisions of the SEPP is invalid.

6 Affected Building Notices and Building Product Rectification Orders

Not applicable

7 Land Reserved for Acquisition

There is no environmental planning instrument, or proposed environmental planning instrument, applying to the land that makes provision for the acquisition of the land (or any part thereof) by a public authority, as referred to in Section 3.15 of the Environmental Planning and Assessment Act 1979.

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8 Road Widening and Road Realignment

Whether or not the land is affected by a road widening or road realignment proposal under Division 2 or Part 3 of the Roads Act 1993 or an environmental planning instrument:

The land is not affected by a road widening or road realignment proposal under Division 2 or Part 3 of the Roads Act 1993, or an environmental planning instrument.

Whether or not the land is affected by a road widening or road realignment proposal under any resolution of Council:

The land is not affected by a road widening or road realignment proposal under any resolution of Council.

9 Flooding

The land, or part of the land, is **not** within the flood planning area (FPA) or probable maximum flood (PMF). The land, or part of the land, is **not** subject to flood related development controls.

10 Council and Other Public Authority Policies on Hazard Risk Restrictions

Whether or not the land is affected by a policy adopted by Council or adopted by any other public authority (and notified to the Council for the express purpose of its adoption by that authority being referred to) that restricts the development of the land because of the likelihood of:

Land Slip
The land is not affected by a policy restriction relating to landslip

Tidal Inundation
The land is not affected by a policy restriction relating to tidal inundation

Subsidence
The land is not affected by a policy restriction relating to subsidence

Acid Sulfate Soils
The land is not affected by a policy restriction relating to acid sulfate soils.

Contamination
Council has adopted by resolution a policy concerning the management of contaminated land. The policy applies to all land in the Canterbury-Bankstown Local Government Area and will restrict development of the land if the circumstances set out in the policy prevail. A copy of the policy is available on Council's website at www.cbcity.nsw.gov.au.

Council is not aware of the land being affected by any matters as prescribed by Section 59 (2) of the *Contaminated Land Management Act 1997*.

Please refer to the *NSW Environment Protection Authority (EPA)* for more information.

Salinity
Not applicable

Coastal Hazards
Not applicable

Sea Level Rise
Not applicable

Unhealthy Building Land
The land is not affected by a policy restriction relating to Unhealthy Building Land.

Any Other Risk (including Aircraft Noise)
Not applicable

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11 **Bush Fire Prone Land**
Not applicable

12 **Loose-Fill Asbestos Ceiling Insulation**
Not applicable

13 **Mine Subsidence**
The subject land is not within a mine subsidence district within the meaning of Section 20 of the *Coal Mine Subsidence Compensation Act 2017*.

14 **Paper Subdivision Information**
Not applicable

15 **Property Vegetation Plans**
Not applicable

16 **Biodiversity Stewardship Sites**
Not applicable

17 **Biodiversity Certified Land**
Not applicable

18 **Orders Under Trees (Disputes Between Neighbours) Act 2006**
Not applicable

19 **Annual Charges Under Local Government Act 1993 For Coastal Protection Services That Relate to Existing Coastal Protection Works**
Not applicable

20 **Western Sydney Aerotropolis**
Not applicable

21 **Development Consent Conditions for Seniors Housing**
Not applicable

22 **Site Compatibility Certificates and Development Consent Conditions For Affordable Rental Housing**
Not applicable

23 **Water or sewerage services**
Council has not received a notice from a public water utility that water or sewerage services are, or are to be, provided to the land under the Water Industry Competition Act 2006, a statement to that effect.

Note— A public water utility may not be the provider of some or all of the services to the land. If a water or sewerage service is provided to the land by a licensee under the Water Industry Competition Act 2006, a contract for the service will be deemed to have been entered into between the licensee and the owner of the land. A register relating to approvals and licences necessary for the provision of water or sewerage services under the Water Industry Competition Act 2006 is maintained by the Independent Pricing and Regulatory Tribunal and provides information about the areas serviced, or to be serviced, under that Act. Purchasers should check the register to understand who will service the property. Outstanding charges for water or sewerage services provided under the Water Industry Competition Act 2006 become the responsibility of the purchaser.

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INFORMATION PROVIDED UNDER SECTION 10.7 (5) OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT, 1979.

Note: *When information pursuant to Section 10.7(5) of the Act is requested the Council is under no obligation to furnish any of the information supplied herein pursuant to that Section. Council draws your attention to Section 10.7(6), which states that a Council shall not incur any liability in respect of any advice provided in good faith pursuant to sub-section (5). The absence of any reference to any matter affecting the land shall not imply that the land is not affected by any matter not referred to in this Certificate.*

(a) **Additional Flood Planning Advice**

In addition to Section 9 of this certificate, the following information may assist in interpreting the Canterbury Bankstown Development Control Plan 2023:

Not applicable.

(b) **Tree Preservation Order**

A tree preservation order applies to the whole of the City of Canterbury Bankstown.

(c) **Additional Contaminated Land Advice**

On 22 August 2017 Council adopted a policy on contaminated land. This policy will restrict development of land:

a) which is affected by contamination;
a) which has been used for certain purposes;
b) in respect of which there is not sufficient information about contamination;
c) which is proposed to be used for certain purposes;
d) in other circumstances contained in the policy.

(d) **General Advice Regarding Use of Property**

Persons considering commencing a use of or purchasing a property are advised to seek confirmation that the current, or intended, use (as the case may be) has been approved by Council, or does not require Council approval. It is pointed out that the question of "existing use rights" within the meaning of the Environmental Planning and Assessment Act, 1979, is a complex matter, and that the commencement of a use without Council approval (where required) is unlawful and may be subject to enforcement action.

(e) **Other Matters**

Not applicable.

Appendix C: Laboratory Results Summary Tables

ABBREVIATIONS AND EXPLANATIONS

Abbreviations used in the Tables:

ABC:	Ambient Background Concentration
ACM:	Asbestos Containing Material
ADWG:	AustralianDrinking Water Guidelines
AF:	Asbestos Fines
ANZG	Australian and New Zealand Guidelines
B(a)P:	Benzo(a)pyrene
CEC:	Cation Exchange Capacity
CRC:	Cooperative Research Centre
CT:	Contaminant Threshold
EILs:	Ecological Investigation Levels
ESLs:	Ecological Screening Levels
FA:	Fibrous Asbestos
GIL:	Groundwater Investigation Levels
GSW:	General Solid Waste
HILs:	Health Investigation Levels
HSLs:	Health Screening Levels
HSL-SSA:	Health Screening Level-SiteSpecific Assessment
kg/L	kilograms per litre
NA:	Not Analysed
NC:	Not Calculated
NEPM:	National Environmental Protection Measure
NHMRC:	National Health and Medical Research Council
NL:	Not Limiting
NSL:	No Set Limit
OCP:	Organochlorine Pesticides
OPP:	Organophosphorus Pesticides
PAHs:	Polycyclic Aromatic Hydrocarbons
%w/w:	weight per weight
ppm:	Parts per million
PCBs:	Polychlorinated Biphenyls
PCE:	Perchloroethylene (Tetrachloroethylene or Teterachloroethene)
pH_{KCL} :	pH of filtered 1:20, 1M KCL extract, shaken overnight
pH_{ox} :	pH of filtered 1:20 1M KCl after peroxide digestion
PQL:	Practical Quantitation Limit
RS:	Rinsate Sample
RSL:	Regional Screening Levels
RSW:	Restricted Solid Waste
SAC:	Site Assessment Criteria
SCC:	Specific Contaminant Concentration
S_{Cr}:	Chromium reducible sulfur
S_{POS}:	Peroxide oxidisable Sulfur
SSA:	Site Specific Assessment
SSHSLs:	Site Specific Health Screening Levels
TAA:	Total Actual Acidity in 1M KCL extract titrated to pH6.5
TB:	Trip Blank
TCA:	1,1,1 Trichloroethane (methyl chloroform)
TCE:	Trichloroethylene (Trichloroethene)
TCLP:	Toxicity Characteristics Leaching Procedure
TPA:	Total Potential Acidity, 1M KCL peroxide digest
TS:	Trip Spike
TRH:	Total Recoverable Hydrocarbons
TSA:	Total Sulfide Acidity (TPA-TAA)
UCL:	Upper Level Confidence Limit on Mean Value
USEPA	United States Environmental Protection Agency
VOCC:	Volatile Organic Chlorinated Compounds
WHO:	World Health Organisation

Table Specific Explanations:

HIL Tables:

- The chromium results are for Total Chromium which includes Chromium III and VI. For initial screening purposes, we have assumed that the samples contain only Chromium VI unless demonstrated otherwise by additional analysis.
- Carcinogenic PAHs is a toxicity weighted sum of analyte concentrations for a specific list of PAH compounds relative to B(a)P. It is also refered to as the B(a)P Toxic Equivalence Quotient (TEQ).
- Statistical calculations are undertaken using ProUCL (USEPA). Statistical calculation is usually undertaken using data from fill samples.

EIL/ESL Table:

- ABC Values for selected metals have been adopted from the published background concentrations presented in Olszowy et. al., (1995), Trace Element Concentrations in Soils from Rural and Urban New South Wales (the 25th percentile values for old suburbs with high traffic have been quoted).

Waste Classification and TCLP Table:

- Data assessed using the NSW EPA Waste Classification Guidelines, Part 1: Classifying Waste (2014).
- The assessment of Total Moderately Harmful pesticides includes: Dichlorovos, Dimethoate, Fenitrothion, Ethion, Malathion and Parathion.
- Assessment of Total Scheduled pesticides include: HBC, alpha-BHC, gamma-BHC, beta-BHC, Heptachlor, Aldrin, Heptachlor Epoxide, gamma-Chlordane, alpha-chlordane, pp-DDE, Dieldrin, Endrin, pp-DDD, pp-DDT, Endrin Aldehyde.

QA/QC Table:

- Field blank, Inter and Intra laboratory duplicate results are reported in mg/kg.
- Trip spike results are reported as percentage recovery.
- Field rinsate results are reported in µg/L.

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TABLE S1
SOIL LABORATORY RESULTS COMPARED TO NEPM 2013.
HIL-B: 'Residential with minimal opportunities for soil access; including dwellings with fully/permanently paved yards like high-rise buildings'

All data in mg/kg unless stated otherwise			HEAVY METALS								PAHs		ORGANOCHLORINE PESTICIDES (OCPs)							OP PESTICIDES (OPPs)	TOTAL PCBs	ASBESTOS FIBRES
			Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc	Total PAHs	Carcinogenic PAHs	HCB	Endosulfan	Methoxychlor	Aldrin & Dieldrin	Chlordane	DDT, DDD & DDE	Heptachlor	Chlorpyrifos		
PQL - Envirolab Services			4	0.4	1	1	1	0.1	1	1	-	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	100
Site Assessment Criteria (SAC)			500	150	500	30000	1200	120	1200	60000	400	4	15	400	500	10	90	600	10	340	1	Detected/Not Detected
Sample Reference	**Sample Depth**	**Sample Description**																				
BH1	0.02-0.3	F: Silty Clayey Gravel	**7**	<0.4	**16**	**22**	**28**	<0.1	**11**	**21**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH1	0.3-0.6	F: Silty Clay	**9**	<0.4	**24**	**16**	**16**	<0.1	**5**	**24**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH2	0-0.2	F: Silty Clay	**10**	**0.5**	**24**	**60**	**310**	**0.1**	**10**	**730**	**2.1**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH2	0.3-0.4	F: Silty Clay	**6**	<0.4	**18**	**12**	**19**	<0.1	**4**	**25**	<0.05	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH3	0-0.1	F: Silty Clay	**4**	<0.4	**15**	**29**	**100**	<0.1	**19**	**98**	**1.4**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	Not Detected
BH3	0-0.1	Lab duplicate	<4	<0.4	**16**	**23**	**81**	**0.2**	**13**	**73**	**1.9**	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NA
SDUP1	0.02-0.3	Duplicate	**4**	<0.4	**9**	**16**	**20**	<0.1	**10**	**17**	<0.05	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Number of Samples			7	7	7	7	7	7	7	7	7	7	6	6	6	6	6	6	6	6	6	5
Maximum Value			10	0.5	24	60	310	0.2	19	730	2.1	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	Not Detected

Concentration above the SAC — **VALUE**
Concentration above the PQL — **Bold**
Asbestos Detected — **Detected**

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TABLE S2
SOIL LABORATORY RESULTS COMPARED TO HSLs
All data in mg/kg unless stated otherwise

					C_6-C_{10} (F1)	>C_{10}-C_{16} (F2)	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene	Field PID Measurement
PQL - Envirolab Services					25	50	0.2	0.5	1	1	1	ppm
NEPM 2013 HSL Land Use Category					**HSL-A/B: LOW/HIGH DENSITY RESIDENTIAL**							
Sample Reference	**Sample Depth**	**Sample Description**	**Depth Category**	**Soil Category**								
BH1	0.02-0.3	F: Silty Clayey Gravel	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.1
BH1	0.3-0.6	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.3
BH2	0-0.2	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.1
BH2	0.3-0.4	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	1
BH3	0-0.1	F: Silty Clay	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	0.5
BH3	0-0.1	Lab duplicate	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	-
SDUP1	0.02-0.3	Duplicate	0m to <1m	Sand	<25	<50	<0.2	<0.5	<1	<1	<1	-
Total Number of Samples					7	7	7	7	7	7	7	5
Maximum Value					<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	1

Concentration above the SAC **VALUE**
Concentration above the PQL **Bold**
The guideline corresponding to the concentration above the SAC is highlighted in grey in the Site Assessment Criteria Table below

HSL SOIL ASSESSMENT CRITERIA

Sample Reference	**Sample Depth**	**Sample Description**	**Depth Category**	**Soil Category**	C_6-C_{10} (F1)	>C_{10}-C_{16} (F2)	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene
BH1	0.02-0.3	F: Silty Clayey Gravel	0m to <1m	Sand	45	110	0.5	160	55	40	3
BH1	0.3-0.6	F: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
BH2	0-0.2	F: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
BH2	0.3-0.4	F: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
BH3	0-0.1	F: Silty Clay	0m to <1m	Sand	45	110	0.5	160	55	40	3
BH3	0-0.1	Lab duplicate	0m to <1m	Sand	45	110	0.5	160	55	40	3
SDUP1	0.02-0.3	Duplicate	0m to <1m	Sand	45	110	0.5	160	55	40	3

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TABLE S3
SOIL LABORATORY RESULTS COMPARED TO MANAGEMENT LIMITS
All data in mg/kg unless stated otherwise

			C_6-C_{10} (F1) plus BTEX	>C_{10}-C_{16} (F2) plus napthalene	>C_{16}-C_{34} (F3)	>C_{34}-C_{40} (F4)
PQL - Envirolab Services			25	50	100	100
NEPM 2013 Land Use Category			**RESIDENTIAL, PARKLAND & PUBLIC OPEN SPACE**			
Sample Reference	**Sample Depth**	**Soil Texture**				
BH1	0.02-0.3	Coarse	<25	<50	<100	<100
BH1	0.3-0.6	Fine	<25	<50	<100	<100
BH2	0-0.2	Fine	<25	<50	**110**	<100
BH2	0.3-0.4	Fine	<25	<50	<100	<100
BH3	0-0.1	Fine	<25	<50	<100	<100
BH3	0-0.1	Fine	<25	<50	**110**	<100
SDUP1	0.02-0.3	Coarse	<25	<50	<100	<100
Total Number of Samples			7	7	7	7
Maximum Value			<PQL	<PQL	110	<PQL

Concentration above the SAC **VALUE**
Concentration above the PQL **Bold**

MANAGEMENT LIMIT ASSESSMENT CRITERIA

Sample Reference	**Sample Depth**	**Soil Texture**	C_6-C_{10} (F1) plus BTEX	>C_{10}-C_{16} (F2) plus napthalene	>C_{16}-C_{34} (F3)	>C_{34}-C_{40} (F4)
BH1	0.02-0.3	Coarse	700	1000	2500	10000
BH1	0.3-0.6	Fine	800	1000	3500	10000
BH2	0-0.2	Fine	800	1000	3500	10000
BH2	0.3-0.4	Fine	800	1000	3500	10000
BH3	0-0.1	Fine	800	1000	3500	10000
BH3	0-0.1	Fine	800	1000	3500	10000
SDUP1	0.02-0.3	Coarse	700	1000	2500	10000

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TABLE S4
SOIL LABORATORY RESULTS COMPARED T0 DIRECT CONTACT CRITERIA
All data in mg/kg unless stated otherwise

Analyte		C_6-C_{10}	>C_{10}-C_{16}	>C_{16}-C_{34}	>C_{34}-C_{40}	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene	PID
PQL - Envirolab Services		25	50	100	100	0.2	0.5	1	1	1	
CRC 2011 -Direct contact Criteria		4,400	3,300	4,500	6,300	100	14,000	4,500	12,000	1,400	
Site Use		**RESIDENTIAL WITH ACCESSIBLE SOIL- DIRECT SOIL CONTACT**									
Sample Reference	**Sample Depth**										
BH1	0.02-0.3	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.1**
BH1	0.3-0.6	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.3**
BH2	0-0.2	<25	<50	**110**	<100	<0.2	<0.5	<1	<1	<1	**0.1**
BH2	0.3-0.4	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**1**
BH3	0-0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	**0.5**
BH3	0-0.1	<25	<50	**110**	<100	<0.2	<0.5	<1	<1	<1	-
SDUP1	0.02-0.3	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<1	-
Total Number of Samples		7	7	7	7	7	7	7	7	7	5
Maximum Value		<PQL	<PQL	110	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	1

Concentration above the SAC **VALUE**
Concentration above the PQL **Bold**

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TABLE S5
ASBESTOS QUANTIFICATION - FIELD OBSERVATIONS AND LABORATORY RESULTS
HSL-B: Residential with minimal opportunities for soil access

FIELD DATA															LABORATORY DATA											
Date Sampled	Sample reference	Sample Depth	Visible ACM in top 100mm	Approx. Volume of Soil (L)	Soil Mass (g)	Mass ACM (g)	Mass Asbestos in ACM (g)	[Asbestos from ACM in soil] (%w/w)	Mass ACM <7mm (g)	Mass Asbestos in ACM <7mm (g)	[Asbestos from ACM <7mm in soil] (%w/w)	Mass FA (g)	Mass Asbestos in FA (g)	[Asbestos from FA in soil] (%w/w)	Lab Report Number	Sample refeference	Sample Depth	Sample Mass (g)	Asbestos ID in soil (AS4964) >0.1g/kg	Trace Analysis	Total Asbestos (g/kg)	Asbestos ID in soil <0.1g/kg	ACM >7mm Estimation (g)	FA and AF Estimation (g)	ACM >7mm Estimation %(w/w)	FA and AF Estimation %(w/w)
SAC			**No**					**0.04**			**0.001**			**0.001**											**0.04**	**0.001**
2/12/2024	BH1	0.02-0.3	No	<10	8,070	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	368155	BH1	0.02-0.3	839.71	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
3/12/2024	BH2	0-0.2	No	10	12,130	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	368155	BH1	0.3-0.6	788.37	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
3/12/2024	BH2	0.2-0.4	No	<10	2,040	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	368155	BH2	0-0.2	715.72	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
3/12/2024	BH3	0-0.2	No	1	13,480	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	368155	BH2	0.3-0.4	713.11	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
3/12/2024	BH3	0.2-0.6	No	<10	1,400	No ACM observed	--	--	No ACM <7mm observed	--	--	No FA observed	--	--	368155	BH3	0-0.1	774.8	No asbestos detected at reporting limit of 0.1g/kg: Organic fibres detected	No asbestos detected	<0.1	No visible asbestos detected	–	–	<0.01	<0.001
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Concentration above the SAC **VALUE**

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TABLE S6
SOIL LABORATORY RESULTS COMPARED TO NEPM 2013 EILs AND ESLs
All data in mg/kg unless stated otherwise

Land Use Category				URBAN RESIDENTIAL AND PUBLIC OPEN SPACE																	
							AGED HEAVY METALS-EILs						EILs		ESLs							
				pH	CEC (cmolc/kg)	Clay Content (% clay)	Arsenic	Chromium	Copper	Lead	Nickel	Zinc	Naphthalene	DDT	C_6-C_{10} (F1)	>C_{10}-C_{16} (F2)	>C_{16}-C_{34} (F3)	>C_{34}-C_{40} (F4)	Benzene	Toluene	Ethylbenzene	Total Xylenes	B(a)P
PQL - Envirolab Services				-	1	-	4	1	1	1	1	1	1	0.1	25	50	100	100	0.2	0.5	1	1	0.05
Ambient Background Concentration (ABC)				-	-	-	NSL	13	28	163	5	122	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL	NSL
Sample Reference	**Sample Depth**	**Sample Description**	**Soil Texture**																			
BH1	0.02-0.3	F: Silty Clayey Gravel	Coarse	NA	NA	NA	**7**	**16**	**22**	**28**	**11**	**21**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH1	0.3-0.6	F: Silty Clay	Fine	NA	NA	NA	**9**	**24**	**16**	**16**	**5**	**24**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH2	0-0.2	F: Silty Clay	Fine	NA	NA	NA	**10**	**24**	**60**	**310**	**10**	**730**	<1	<0.1	<25	<50	**110**	<100	<0.2	<0.5	<1	<1	**0.2**
BH2	0.3-0.4	F: Silty Clay	Fine	NA	NA	NA	**6**	**18**	**12**	**19**	**4**	**25**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
BH3	0-0.1	F: Silty Clay	Fine	NA	NA	NA	**4**	**15**	**29**	**100**	**19**	**98**	<1	<0.1	<25	<50	<100	<100	<0.2	<0.5	<1	<1	**0.1**
BH3	0-0.1	Lab duplicate	Fine	NA	NA	NA	<4	**16**	**23**	**81**	**13**	**73**	<1	<0.1	<25	<50	**110**	<100	<0.2	<0.5	<1	<1	**0.2**
SDUP1	0.02-0.3	Duplicate	Coarse	NA	NA	NA	**4**	**9**	**16**	**20**	**10**	**17**	<1	NA	<25	<50	<100	<100	<0.2	<0.5	<1	<1	<0.05
Total Number of Samples				0	0	0	7	7	7	7	7	7	7	6	7	7	7	7	7	7	7	7	7
Maximum Value				NA	NA	NA	10	24	60	310	19	730	<PQL	<PQL	<PQL	<PQL	110	<PQL	<PQL	<PQL	<PQL	<PQL	0.2

Concentration above the SAC **VALUE**
Concentration above the PQL **Bold**
The guideline corresponding to the elevated value is highlighted in grey in the EIL and ESL Assessment Criteria Table below

EIL AND ESL ASSESSMENT CRITERIA

Sample Reference	**Sample Depth**	**Sample Description**	**Soil Texture**	pH	CEC (cmolc/kg)	Clay Content (% clay)	Arsenic	Chromium	Copper	Lead	Nickel	Zinc	Naphthalene	DDT	C_6-C_{10} (F1)	>C_{10}-C_{16} (F2)	>C_{16}-C_{34} (F3)	>C_{34}-C_{40} (F4)	Benzene	Toluene	Ethylbenzene	Total Xylenes	B(a)P
BH1	0.02-0.3	F: Silty Clayey Gravel	Coarse	NA	NA	NA	100	200	90	1300	35	190	170	180	180	120	300	2800	50	85	70	105	20
BH1	0.3-0.6	F: Silty Clay	Fine	NA	NA	NA	100	200	90	1300	35	190	170	180	180	120	1300	5600	65	105	125	45	20
BH2	0-0.2	F: Silty Clay	Fine	NA	NA	NA	100	200	90	1300	35	190	170	180	180	120	1300	5600	65	105	125	45	20
BH2	0.3-0.4	F: Silty Clay	Fine	NA	NA	NA	100	200	90	1300	35	190	170	180	180	120	1300	5600	65	105	125	45	20
BH3	0-0.1	F: Silty Clay	Fine	NA	NA	NA	100	200	90	1300	35	190	170	180	180	120	1300	5600	65	105	125	45	20
BH3	0-0.1	Lab duplicate	Fine	NA	NA	NA	100	200	90	1300	35	190	170	180	180	120	1300	5600	65	105	125	45	20
SDUP1	0.02-0.3	Duplicate	Coarse	NA	NA	NA	100	200	90	1300	35	190	170	--	180	120	300	2800	50	85	70	105	20

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TABLE S7
SOIL LABORATORY RESULTS COMPARED TO WASTE CLASSIFICATION GUIDELINES
All data in mg/kg unless stated otherwise

			HEAVY METALS								PAHs		OC/OP PESTICIDES				Total	TRH					BTEX COMPOUNDS				ASBESTOS FIBRES
			Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc	Total PAHs	B(a)P	Total Endosulfans	Chloropyrifos	Total Moderately Harmful	Total Scheduled	PCBs	C_6-C_9	C_{10}-C_{14}	C_{15}-C_{28}	C_{29}-C_{36}	Total C_{10}-C_{36}	Benzene	Toluene	Ethyl benzene	Total Xylenes	
PQL - Envirolab Services			4	0.4	1	1	1	0.1	1	1	-	0.05	0.1	0.1	0.1	0.1	0.1	25	50	100	100	50	0.2	0.5	1	1	100
General Solid Waste CT1			100	20	100	NSL	100	4	40	NSL	200	0.8	60	4	250	50	50	650		NSL		10,000	10	288	600	1,000	-
General Solid Waste SCC1			500	100	1900	NSL	1500	50	1050	NSL	200	10	108	7.5	250	50	50	650		NSL		10,000	18	518	1,080	1,800	-
Restricted Solid Waste CT2			400	80	400	NSL	400	16	160	NSL	800	3.2	240	16	1000	50	50	2600		NSL		40,000	40	1,152	2,400	4,000	-
Restricted Solid Waste SCC2			2000	400	7600	NSL	6000	200	4200	NSL	800	23	432	30	1000	50	50	2600		NSL		40,000	72	2,073	4,320	7,200	-
Sample Reference	**Sample Depth**	**Sample Description**																									
BH1	0.02-0.3	F: Silty Clayey Gravel	**7**	<0.4	**16**	**22**	**28**	<0.1	**11**	**21**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH1	0.3-0.6	F: Silty Clay	**9**	<0.4	**24**	**16**	**16**	<0.1	**5**	**24**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH2	0-0.2	F: Silty Clay	**10**	**0.5**	**24**	**60**	**310**	**0.1**	**10**	**730**	**2.1**	**0.2**	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH2	0.3-0.4	F: Silty Clay	**6**	<0.4	**18**	**12**	**19**	<0.1	**4**	**25**	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH3	0-0.1	F: Silty Clay	**4**	<0.4	**15**	**29**	**100**	<0.1	**19**	**98**	**1.4**	**0.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	Not Detected
BH3	0-0.1	Lab duplicate	<4	<0.4	**16**	**23**	**81**	**0.2**	**13**	**73**	**1.9**	**0.2**	<0.1	<0.1	<0.1	<0.1	<0.1	<25	<50	<100	**100**	**100**	<0.2	<0.5	<1	<1	NA
SDUP1	0.02-0.3	Duplicate	**4**	<0.4	**9**	**16**	**20**	<0.1	**10**	**17**	<0.05	<0.05	NA	NA	NA	NA	NA	<25	<50	<100	<100	<50	<0.2	<0.5	<1	<1	NA
Total Number of Samples			7	7	7	7	7	7	7	7	7	7	6	6	6	6	6	7	7	7	7	7	7	7	7	7	5
Maximum Value			10	0.5	24	60	310	0.2	19	730	2.1	0.2	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	<PQL	100	100	<PQL	<PQL	<PQL	<PQL	Not Detected

Concentration above the CT1 — **VALUE**
Concentration above SCC1 — **VALUE**
Concentration above the SCC2 — **VALUE**
Concentration above PQL — **Bold**
Asbestos Detected > Special Waste (asbestos) — **Detected**

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TABLE S8
SOIL LABORATORY TCLP RESULTS
All data in mg/L unless stated otherwise

			Lead
PQL - Envirolab Services			0.03
TCLP1 - General Solid Waste			5
TCLP2 - Restricted Solid Waste			20
TCLP3 - Hazardous Waste			>20
Sample Reference	**Sample Depth**	**Sample Description**	
BH2	0-0.2	F: Silty Clay	**0.1**
Total Number of samples			1
Maximum Value			0.10

General Solid Waste	**VALUE**
Restricted Solid Waste	**VALUE**
Hazardous Waste	**VALUE**
Concentration above PQL	**Bold**

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TABLE S9
SOIL QA/QC SUMMARY

			TRH C6 - C10	TRH >C10-C16	TRH >C16-C34	TRH >C34-C40	Benzene	Toluene	Ethylbenzene	m+p-xylene	o-Xylene
	PQL Envirolab SYD		*25*	*50*	*100*	*100*	*0.2*	*0.5*	*1*	*2*	*1*
	PQL Envirolab VIC		*25*	*50*	*100*	*100*	*0.2*	*0.5*	*1.0*	*2.0*	*1.0*
Intra	BH1	0.02-0.3	<25	<50	<100	<100	<0.2	<0.5	<1	<2	<1
laboratory	SDUP1	0.02-0.3	<25	<50	<100	<100	<0.2	<0.5	<1	<2	<1
duplicate	MEAN		nc	nc	nc	nc	nc	nc	nc	nc	nc
	RPD %		nc	nc	nc	nc	nc	nc	nc	nc	nc
Field	TB	-	<25	<50	<100	<100	<0.2	<0.5	<1	<2	<1
Blank	2/12/24										
Trip	TS		-	-	-	-	91%	98%	99%	109%	97%
Spike	2/12/24										

			Naphthalene	Acenaphthylene	Acenaph-thene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo(a)anthracene	Chrysene	Benzo(b,j+k)fluoranthene	Benzo(a)pyrene	Indeno(1,2,3-c,d)pyrene	Dibenzo(a,h)anthra-cene	Benzo(g,h,i)perylene
	PQL Envirolab SYD		*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.2*	*0.05*	*0.1*	*0.1*	*0.1*
	PQL Envirolab VIC		*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.2*	*0.1*	*0.1*	*0.1*	*0.1*
Intra	BH1	0.02-0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.05	<0.1	<0.1	<0.1
laboratory	SDUP1	0.02-0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.05	<0.1	<0.1	<0.1
duplicate	MEAN		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
	RPD %		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
Field	TB	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.05	<0.1	<0.1	<0.1
Blank	2/12/24																
Trip	TS		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spike	2/12/24																

			HCB	alpha- BHC	gamma- BHC	beta- BHC	Heptachlor	delta- BHC	Aldrin	Heptachlor Epoxide	Gamma- Chlordane	alpha- chlordane	Endosulfan I	pp- DDE	Dieldrin	Endrin	pp- DDD	Endosulfan II	pp- DDT	Endrin Aldehyde	Endosulfan Sulphate	Methoxychlor
	PQL Envirolab SYD		*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*
	PQL Envirolab VIC		*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*
Intra	BH1	0.02-0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
laboratory	SDUP1	0.02-0.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
duplicate	MEAN		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
	RPD %		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
Field	TB	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Blank	2/12/24																					
Trip	TS		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spike	2/12/24																					

			Azinphos-methyl (Guthion	Bromophos-ethyl	Chlorpyriphos	Chlorpyriphos-methyl	Diazinon	Dichlorvos	Dimethoate	Ethion	Fenitrothion	Malathion	Parathion	Ronnel	Total PCBS
	PQL Envirolab SYD		*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*
	PQL Envirolab VIC		*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*
Intra	BH1	0.02-0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
laboratory	SDUP1	0.02-0.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
duplicate	MEAN		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
	RPD %		nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc
Field	TB	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Blank	2/12/24														
Trip	TS		-	-	-	-	-	-	-	-	-	-	-	-	-
Spike	2/12/24														

			Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Zinc
	PQL Envirolab SYD		*4*	*0.4*	*1*	*1*	*1*	*0.1*	*1*	*1*
	PQL Envirolab VIC		*4.0*	*0.4*	*1.0*	*1.0*	*1.0*	*0.1*	*1.0*	*1.0*
Intra	BH1	0.02-0.3	7	<0.4	16	22	28	<0.1	11	21
laboratory	SDUP1	0.02-0.3	4	<0.4	9	16	20	<0.1	10	17
duplicate	MEAN		5.5	nc	12.5	19	24	nc	10.5	19
	RPD %		55%	nc	56%	32%	33%	nc	10%	21%
Field	TB	-	<4	<0.4	<1	<1	<1	<0.1	<1	<1
Blank	2/12/24									
Trip	TS		-	-	-	-	-	-	-	-
Spike	2/12/24									

Result outside of QA/QC acceptance criteria 🟨

Rinsate metals results in mg/L

Appendix D: Borehole Logs

JKGeotechnics

BOREHOLE LOG

Borehole No. 1

Client: SUSTAINABLE DEVELOPMENT GROUP LIMITED

Project: PROPOSED RESIDENTIAL BUILDING

Location: 461 CHAPEL ROAD, BANKSTOWN, NSW

Job No.: 37148PE **Method:** SPIRAL AUGER **R.L. Surface:** ~29.9 m

Date: 2/12/24 **Datum:** AHD

Plant Type: JK308 **Logged/Checked By:** C.A.R./M.E.

Groundwater Record	SAMPLES ES	SAMPLES U50	SAMPLES DB	SAMPLES DS	Field Tests	RL (m AHD)	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel Density	Hand Penetrometer Readings (kPa)	Remarks
DRY ON COMPLETION OF AUGERING									-	ASPHALTIC CONCRETE: 20mm.t FILL: Silty clayey gravel, fine to medium grained igneous, dark grey.	M			
										FILL: Silty clay, medium plasticity, grey and orange brown, with fine to medium grained igneous gravel.	w~PL			
					N = 4 1,2,2	29	1		CH	Silty CLAY: high plasticity, grey and red brown, trace of root fibres.	w>PL	St	140 150 160	RESIDUAL
ON COMPLETION OF CORING										Silty CLAY: high plasticity, grey and light brown, trace of root fibres.		VSt		
					N = 16 3,5,11	28	2		-	SILTSTONE: dark grey, with occasional iron indurated bands.	DW	L	300 330 280	ASHFIELD SHALE LOW 'TC' BIT RESISTANCE
						27	3			REFER TO CORED BOREHOLE LOG				GROUNDWATER MONITORING WELL INSTALLED TO 7.8m. CLASS 18 MACHINE SLOTTED 50mm DIA. PVC STANDPIPE 2.8m TO 7.8m. CASING 0m TO 2.8m. 2mm SAND FILTER PACK 2.5m TO 7.8m. BENTONITE SEAL 0m TO 2.5m. COMPLETED WITH A CONCRETED GATIC COVER.
						26	4							
						25	5							
						24	6							
						23								

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CORED BOREHOLE LOG

Borehole No. 1

Client: SUSTAINABLE DEVELOPMENT GROUP LIMITED

Project: PROPOSED RESIDENTIAL BUILDING

Location: 461 CHAPEL ROAD, BANKSTOWN, NSW

Job No.: 37148PE | **Core Size:** NMLC | **R.L. Surface:** ~29.9 m

Date: 2/12/24 | **Inclination:** VERTICAL | **Datum:** AHD

Plant Type: JK308 | **Bearing:** N/A | **Logged/Checked By:** C.A.R./M.E.

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)	DEFECT DETAILS SPACING (mm) (600, 200, 60, 20) DESCRIPTION Type, orientation, defect shape and roughness, defect coatings and seams, openness and thickness Specific / General	Formation
					START CORING AT 2.80m					
90% RETURN		27	3		NO CORE 0.60m					
		26	4		Extremely Weathered siltstone: silty CLAY, medium plasticity, grey brown and dark grey, with occasional very low strength siltstone bands and iron indurated bands.	XW	Hd	0.030 0.020		Ashfield Shale
		25	5		SILTSTONE: grey, bedded at 0-10°.	HW	VL	0.040	(4.35m) J, 70°, P, S, Fe Sn (4.47m) J, 90°, P, S, Fe Sn (4.72m) XWS, 0°, 140 mm.t (4.84m) Be, 0°, P, S, Clay FILLED, 8 mm.t (4.97m) XWS, 0°, 50 mm.t	
					SANDSTONE: fine to medium grained, grey brown, with occasional siltstone lenses, bedded at 0-5°.	MW				
					SILTSTONE: dark grey, bedded at 0-5°.	SW	L	0.20	(5.38m) XWS, 0°, 25 mm.t (5.44m) XWS, 0°, 20 mm.t	
		24	6		NO CORE 0.50m					
		23	7		SILTSTONE: dark grey and grey, bedded at 0-5°.	SW	L - M	0.50 0.20 0.90	(6.60m) XWS, 0°, 20 mm.t (6.79m) XWS, 0°, 30 mm.t (6.90m) XWS, 0°, 80 mm.t	Ashfield Shale
		22	8				M - H	1.0 1.5	(7.64m) Be x 2, 0°, P/Ir, R, Clay Ct (7.82m) Be x 2, 0°, P, R, Cb Sn	
								1.1 0.90	(8.17m) XWS, 0°, 40 mm.t (8.23m) XWS, 0°, 30 mm.t (8.40m) XWS, 0°, 75 mm.t (8.53m) J, 80°, P, R, Cn (8.59m) Be, 5°, P, R, Clay Ct	
		21			LAMINITE: fine grained, grey and dark grey, thinly to moderately bedded at 0-10°.	FR		0.80		

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CORED BOREHOLE LOG

Borehole No. 1 3 / 3

Client: SUSTAINABLE DEVELOPMENT GROUP LIMITED

Project: PROPOSED RESIDENTIAL BUILDING

Location: 461 CHAPEL ROAD, BANKSTOWN, NSW

Job No.: 37148PE **Core Size:** NMLC **R.L. Surface:** ~29.9 m

Date: 2/12/24 **Inclination:** VERTICAL **Datum:** AHD

Plant Type: JK308 **Bearing:** N/A **Logged/Checked By:** C.A.R./M.E.

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	DEFECT DETAILS SPACING (mm) DESCRIPTION Type, orientation, defect shape and roughness, defect coatings and seams, openness and thickness Specific / General	Formation
90% RETURN		20	10		LAMINITE: fine grained, grey and dark grey, thinly to moderately bedded at 0-10°. *(continued)*	FR	M - H	0.70 1.6 1.4	(9.88m) Be, 0°, P, S, Clay Ct	Ashfield Shale
		19	11		SILTSTONE: dark grey and grey, with occasional sandstone laminae, bedded at 0-10°.			0.90 0.50 0.90	(10.38m) Be, 0°, P, S, Cb Sn (10.60m) Be, 0°, P, R, Clay FILLED, 2 mm.t	
100% RETURN		18	12					1.1 1.5		
					END OF BOREHOLE AT 12.03 m					
		17	13							
		16	14							
		15	15							
		14								

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BOREHOLE LOG

Borehole No. 2

Client: SUSTAINABLE DEVELOPMENT GROUP LIMITED

Project: PROPOSED RESIDENTIAL BUILDING

Location: 461 CHAPEL ROAD, BANKSTOWN, NSW

Job No.: 37148PE **Method:** SPIRAL AUGER **R.L. Surface:** ~28.9 m

Date: 3/12/24 **Datum:** AHD

Plant Type: JK308 **Logged/Checked By:** C.A.R./M.E.

Groundwater Record	SAMPLES ES	SAMPLES U50	SAMPLES DB	SAMPLES DS	Field Tests	RL (m AHD)	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel Density	Hand Penetrometer Readings (kPa)	Remarks
DRY ON COMPLETION OF AUGERING										FILL: Silty clay, low plasticity, dark grey, trace of fine to medium grained igneous gravel, glass, ceramic and concrete fragments, ash and roots and root fibres.	w>PL			GRASS COVER
									CH	FILL: Silty clay, medium to high plasticity, grey brown, trace of fine grained igneous gravel, brick and ceramic fragments, and ash.	w>PL	St - VSt	180 260 210	RESIDUAL
					N = 7 2,3,4	28	1			Silty CLAY: high plasticity, light grey, red brown and light brown, trace of fine to medium grained ironstone gravel.				
										as above, but light grey.		VSt - Hd	330 300 410	
ON COMPLETION OF CORING					N = 25 3,7,18	27	2		-	SANDSTONE: fine to medium grained, grey brown, with iron indurated bands.	DW	VL - L		ASHFIELD SHALE VERY LOW TO LOW 'TC' BIT RESISTANCE
										SILTSTONE: grey and grey brown, with iron indurated bands.		L		LOW RESISTANCE
						26	3							
						25	4							
						24	5							GROUNDWATER MONITORING WELL INSTALLED TO 7.5m. CLASS 18 MACHINE SLOTTED 50mm DIA. PVC STANDPIPE 2.5m TO 7.5m. CASING 0m TO 2.5m. 2mm SAND FILTER PACK 2.8m TO 7.5m. BENTONITE SEAL 0m TO 2.8m. COMPLETED WITH A CONCRETED GATIC COVER.
						23	6			REFER TO CORED BOREHOLE LOG				
						22								

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CORED BOREHOLE LOG

Borehole No. 2

Client: SUSTAINABLE DEVELOPMENT GROUP LIMITED

Project: PROPOSED RESIDENTIAL BUILDING

Location: 461 CHAPEL ROAD, BANKSTOWN, NSW

Job No.: 37148PE | **Core Size:** NMLC | **R.L. Surface:** ~28.9 m

Date: 3/12/24 | **Inclination:** VERTICAL | **Datum:** AHD

Plant Type: JK308 | **Bearing:** N/A | **Logged/Checked By:** C.A.R./M.E.

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)	DEFECT DETAILS: SPACING (mm) (600, 200, 60, 20)	DEFECT DETAILS: DESCRIPTION (Specific / General)	Formation
					START CORING AT 5.80m						
		23	6		NO CORE 0.41m						
					SILTSTONE: dark grey, bedded at 0-5°, with occasional sandstone bands.	SW	M - H	0.50, 0.90, 1.5		(6.29m) Be, 0°, P, R, Fe Sn (6.31m) Be, 0°, P, R, Fe Sn	
		22	7							(6.66-7.82m) Defects too numerous to log individually and likely consist of closely spaced sub-horizontal bbedding partings and inclined joints.	
		21	8					0.70		(8.05m) J, 90°, Ir, S, Cn (8.24m) XWS, 0°, 20 mm.t (8.30m) J, 90°, Ir, S, Cn (8.35-8.50m) Fracturing in bedrock possibly associated with sub-vertical joint and barrel lift during drilling.	
90% RETURN		20	9		LAMINITE: fine grained, grey and dark grey, very thinly to thinly bedded at 0-10°.	FR		0.80, 1.4, 1.1		(8.62m) J, 90°, P, Po, Cn (9.30m) XWS, 0°, 20 mm.t	
		19	10		SILTSTONE: grey and dark grey, bedded at 0-10°.		M	1.0		(9.71m) XWS, 0°, 50 mm.t (9.95m) XWS, 0°, 120 mm.t (10.13m) J x 2, 70°, P, R, Cn	
					as above, but with occasional sandstone laminae.			0.30, 0.40			
		18	11					0.70		(10.60-11.35m) J, 90°, Ir, R, Cn	
								0.50			
		17	12					0.80, 0.40			
					END OF BOREHOLE AT 12.04 m						

Ashfield Shale

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BOREHOLE LOG

Borehole No. 3

Client: SUSTAINABLE DEVELOPMENT GROUP LIMITED

Project: PROPOSED RESIDENTIAL BUILDING

Location: 461 CHAPEL ROAD, BANKSTOWN, NSW

Job No.: 37148PE **Method:** SPIRAL AUGER **R.L. Surface:** ~29.5 m

Date: 3/12/24 TO 4/12/24 **Datum:** AHD

Plant Type: JK308 **Logged/Checked By:** C.A.R./M.E.

Groundwater Record	SAMPLES ES	SAMPLES U50	SAMPLES DB	SAMPLES DS	Field Tests	RL (m AHD)	Depth (m)	Graphic Log	Unified Classification	DESCRIPTION	Moisture Condition/ Weathering	Strength/ Rel Density	Hand Penetrometer Readings (kPa)	Remarks
DRY ON COMPLETION OF AUGERING						29				FILL: Silty clay, low plasticity, dark brown, trace of igneous and alluvial gravel, fine to medium grained sand, and concrete, glass, plastic and ceramic fragments.	w>PL			GRASS COVER
					N = 7 2,3,4		1		CH	Silty CLAY: high plasticity, light brown, grey and red brown, trace of fine grained ironstone gravel, and root fibres.	w>PL	St - VSt	200 220 210	RESIDUAL
					N = 8 1,4,4	28	2			as above, but light grey and light brown, and without root fibres.			190 200 210	
1 DAY AFTER CORING						27	3		-	SANDSTONE: fine to medium grained, grey brown, with iron indurated bands and extremely weathered bands.	DW	VL - L		ASHFIELD SHALE VERY LOW TO LOW 'TC' BIT RESISTANCE
						26				SILTSTONE: dark grey, with extremely weathered bands.		L		LOW RESISTANCE
						25	4			REFER TO CORED BOREHOLE LOG				GROUNDWATER MONITORING WELL INSTALLED TO 9.0m. CLASS 18 MACHINE SLOTTED 50mm DIA. PVC STANDPIPE 3.0m TO 9.0m. CASING 0m TO 3.0m. 2mm SAND FILTER PACK 3.0m TO 9.0m. BENTONITE SEAL 2.0m TO 3.0m. BACKFILLED WITH SAND TO THE SURFACE. COMPLETED WITH A CONCRETED GATIC COVER.
						24	5							
						23	6							

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CORED BOREHOLE LOG

Borehole No. 3 **2 / 3**

Client: SUSTAINABLE DEVELOPMENT GROUP LIMITED

Project: PROPOSED RESIDENTIAL BUILDING

Location: 461 CHAPEL ROAD, BANKSTOWN, NSW

Job No.: 37148PE **Core Size:** NMLC **R.L. Surface:** ~29.5 m

Date: 3/12/24 TO 4/12/24 **Inclination:** VERTICAL **Datum:** AHD

Plant Type: JK308 **Bearing:** N/A **Logged/Checked By:** C.A.R./M.E.

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)	DEFECT DETAILS: SPACING (mm) (600, 200, 60, 20)	DEFECT DETAILS: DESCRIPTION (Specific / General)	Formation
		26			START CORING AT 3.67m						
90% RETURN		25	4		Extremely Weathered siltstone: silty CLAY, medium plasticity, dark grey and grey brown, with very low strength siltstone bands and iron indurated bands.	XW	Hd				Ashfield Shale
		24	5								
ON 10/12/24		23	6		SILTSTONE: dark grey and grey, bedded at 0-5°.	MW	L - M	0.20 0.50 0.50		(5.72m) XWS, 0°, 70 mm.t (5.83m) Be, 0°, P, R, Cn (5.86m) Be, 0°, P, S, Clay FILLED, 2 mm.t (6.03m) Be, 0°, P, S, Cn (6.34m) XWS, 0°, 80 mm.t (6.45m) Be, 0°, P, S, Clay FILLED, 5 mm.t (6.48m) Be, 0°, P, S, Clay FILLED, 5 mm.t	
		22	7		Extremely Weathered siltstone, silty CLAY, medium plasticity, dark grey and grey.	XW	Hd	0.30		(6.95m) XWS, 0°, 10 mm.t	
					SILTSTONE: dark grey and grey, bedded at 0-5°.	SW	M	0.80		(7.15m) Be, 0°, P, S, Clay FILLED, 2 mm.t (7.63m) Be, 5°, P, R, Cn (7.71m) Be, 0°, P, S, Clay FILLED, 8 mm.t	
		21	8		NO CORE 0.11m			0.80 0.30		(8.03m) XWS, 0°, 25 mm.t	
					SILTSTONE: dark grey and grey, with occasional sandstone laminae, bedded at 0-5°.	SW	M			(8.32-8.94m) Defects too numerous to log individually and likely consist of closely spaced sub-horizontal bedding partings and inclined joints	Ashfield Shale
		20	9			FR		0.30 0.50		(9.32m) Be, 0°, Ir, R, Cn (9.45m) Be, 0°, Ir, R, Cn	
							M - H	0.80 1.2		(9.97m) Be, 0°, P, R, Clay Ct	

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CORED BOREHOLE LOG

Borehole No. 3

Client: SUSTAINABLE DEVELOPMENT GROUP LIMITED

Project: PROPOSED RESIDENTIAL BUILDING

Location: 461 CHAPEL ROAD, BANKSTOWN, NSW

Job No.: 37148PE | **Core Size:** NMLC | **R.L. Surface:** ~29.5 m

Date: 3/12/24 TO 4/12/24 | **Inclination:** VERTICAL | **Datum:** AHD

Plant Type: JK308 | **Bearing:** N/A | **Logged/Checked By:** C.A.R./M.E.

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)	DEFECT DETAILS: SPACING (mm) (600, 200, 60, 20)	DEFECT DETAILS: DESCRIPTION (Type, orientation, defect shape and roughness, defect coatings and seams, openness and thickness) Specific / General	Formation
90% RETURN		19	11		SILTSTONE: dark grey and grey, with occasional sandstone laminae, bedded at 0-5°. *(continued)*	FR	M - H	0.60, 1.1		(10.19m) Be, 0°, P, R, Cn	Ashfield Shale
							M	0.40, 0.60, 0.60		(10.74m) Be, 0°, P, S, Cb Sn (11.03m) Be, 0°, P, S, Clay FILLED, 2 mm.t (11.11m) XWS, 0°, 15 mm.t (11.48m) CS, 0°, 30 mm.t (11.54m) Be, 0°, P, S, Cn	
		18	12								
		17	13		END OF BOREHOLE AT 12.00 m						
		16	14								
		15	15								
		14	16								
		13									

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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 65% 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	

Major Divisions		Group Symbol	Typical Names	Field Classification of Silt and Clay			Laboratory Classification
				Dry Strength	Dilatancy	Toughness	% < 0.075mm
ine 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	–	–	–	–

Laboratory Classification Criteria

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

$$C_U = \frac{D_{60}}{D_{10}} \qquad and \qquad C_C = \frac{(D_{30})^2}{D_{10}\, D_{60}}$$

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:

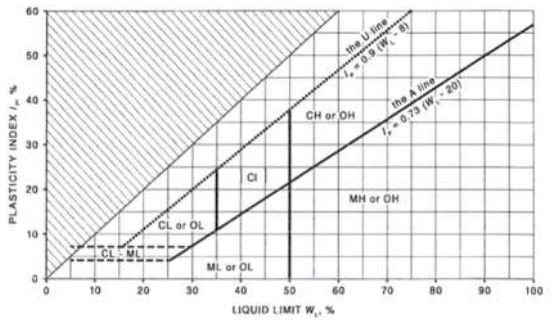
1 For a coarse grained soil with a fines content between 5% and 12%, the soil is given a dual classification comprising the two group symbols separated by a dash; for example, for a poorly graded gravel with between 5% and 12% silt fines, the classification is GP-GM.

2 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.

3 Clay soils with liquid limits > 35% and ≤ 50% may be classified as being of medium plasticity.

4 The U line on the Modified Casagrande Chart is an approximate upper bound for most natural soils.

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 7 3R	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.
	VNS = 25	Vane shear reading in kPa of undrained shear strength.
	PID = 100	Photoionisation detector reading in ppm (soil sample headspace test).
Moisture Condition (Fine Grained Soils)	w > PL	Moisture content estimated to be greater than plastic limit.
	$w \approx$ PL	Moisture content estimated to be approximately equal to plastic limit.
	w < PL	Moisture content estimated to be less than plastic limit.
	$w \approx$ LL	Moisture content estimated to be near liquid limit.
	w > LL	Moisture content estimated to be wet of liquid limit.
(Coarse Grained Soils)	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)	VL	VERY LOOSE – Density Index (I_D) Range (%) ≤ 15 – SPT 'N' Value Range (Blows/300mm) 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	Hardened steel 'V' shaped bit.
	'TC' bit	Twin pronged tungsten carbide bit.
	T_{60}	Penetration of auger string in mm under static load of rig applied by drill head hydraulics without rotation of augers.
	Soil Origin	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 E: Laboratory Report(s) & COC Documents

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CERTIFICATE OF ANALYSIS 368155

Client Details

Client	JK Environments
Attention	Harry Leonard
Address	PO Box 976, North Ryde BC, NSW, 1670

Sample Details

Your Reference	**E37149PL, Bankstown NSW**
Number of Samples	13 Soil
Date samples received	05/12/2024
Date completed instructions received	05/12/2024

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

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

Report Details

Date results requested by	12/12/2024
Date of Issue	11/12/2024

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Asbestos Approved By
Analysed by Asbestos Approved Analyst: Amanda Lee
Authorised by Asbestos Approved Signatory: Lucy Zhu

Results Approved By
Giovanni Agosti, Group Technical Manager
Lucy Zhu, Asbestos Supervisor
Steven Luong, Senior Chemist
Timothy Toll, Senior Chemist

Authorised By
Nancy Zhang, Laboratory Manager

vTRH(C6-C10)/BTEXN in Soil						
Our Reference		368155-1	368155-2	368155-5	368155-6	368155-8
Your Reference	UNITS	BH1	BH1	BH2	BH2	BH3
Depth		0.02-0.3	0.3-0.6	0-0.2	0.3-0.4	0-0.1
Date Sampled		02/12/2024	02/12/2024	03/12/2024	03/12/2024	03/12/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	06/12/2024	06/12/2024	06/12/2024	06/12/2024	06/12/2024
Date analysed	-	09/12/2024	09/12/2024	09/12/2024	09/12/2024	09/12/2024
TRH C_6 - C_9	mg/kg	<25	<25	<25	<25	<25
TRH C_6 - C_{10}	mg/kg	<25	<25	<25	<25	<25
vTRH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	<25	<25	<25	<25
Benzene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1	<1
Total +ve Xylenes	mg/kg	<1	<1	<1	<1	<1
Surrogate aaa-Trifluorotoluene	%	99	115	91	103	105

vTRH(C6-C10)/BTEXN in Soil				
Our Reference		368155-11	368155-12	368155-13
Your Reference	UNITS	SDUP1	TS	TB
Depth		0.02-0.3	-	-
Date Sampled		02/12/2024	02/12/2024	02/12/2024
Type of sample		Soil	Soil	Soil
Date extracted	-	06/12/2024	06/12/2024	06/12/2024
Date analysed	-	09/12/2024	09/12/2024	09/12/2024
TRH C_6 - C_9	mg/kg	<25	[NA]	<25
TRH C_6 - C_{10}	mg/kg	<25	[NA]	<25
vTRH C_6 - C_{10} less BTEX (F1)	mg/kg	<25	[NA]	<25
Benzene	mg/kg	<0.2	91%	<0.2
Toluene	mg/kg	<0.5	98%	<0.5
Ethylbenzene	mg/kg	<1	99%	<1
m+p-xylene	mg/kg	<2	109%	<2
o-Xylene	mg/kg	<1	97%	<1
Naphthalene	mg/kg	<1	[NA]	<1
Total +ve Xylenes	mg/kg	<1	[NA]	<1
Surrogate aaa-Trifluorotoluene	%	110	97	103

svTRH (C10-C40) in Soil						
Our Reference		368155-1	368155-2	368155-5	368155-6	368155-8
Your Reference	UNITS	BH1	BH1	BH2	BH2	BH3
Depth		0.02-0.3	0.3-0.6	0-0.2	0.3-0.4	0-0.1
Date Sampled		02/12/2024	02/12/2024	03/12/2024	03/12/2024	03/12/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	06/12/2024	06/12/2024	06/12/2024	06/12/2024	06/12/2024
Date analysed	-	07/12/2024	07/12/2024	07/12/2024	07/12/2024	07/12/2024
TRH C_{10} - C_{14}	mg/kg	<50	<50	<50	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100	<100	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} -C_{16}	mg/kg	<50	<50	<50	<50	<50
TRH >C_{10} -C_{16} less Naphthalene (F2)	mg/kg	<50	<50	<50	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100	110	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100	<100	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50	110	<50	<50
Surrogate o-Terphenyl	%	88	88	89	86	86

svTRH (C10-C40) in Soil			
Our Reference		368155-11	368155-13
Your Reference	UNITS	SDUP1	TB
Depth		0.02-0.3	-
Date Sampled		02/12/2024	02/12/2024
Type of sample		Soil	Soil
Date extracted	-	06/12/2024	06/12/2024
Date analysed	-	07/12/2024	07/12/2024
TRH C_{10} - C_{14}	mg/kg	<50	<50
TRH C_{15} - C_{28}	mg/kg	<100	<100
TRH C_{29} - C_{36}	mg/kg	<100	<100
Total +ve TRH (C10-C36)	mg/kg	<50	<50
TRH >C_{10} -C_{16}	mg/kg	<50	<50
TRH >C_{10} -C_{16} less Naphthalene (F2)	mg/kg	<50	<50
TRH >C_{16} -C_{34}	mg/kg	<100	<100
TRH >C_{34} -C_{40}	mg/kg	<100	<100
Total +ve TRH (>C10-C40)	mg/kg	<50	<50
Surrogate o-Terphenyl	%	95	89

PAHs in Soil						
Our Reference		368155-1	368155-2	368155-5	368155-6	368155-8
Your Reference	UNITS	BH1	BH1	BH2	BH2	BH3
Depth		0.02-0.3	0.3-0.6	0-0.2	0.3-0.4	0-0.1
Date Sampled		02/12/2024	02/12/2024	03/12/2024	03/12/2024	03/12/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	06/12/2024	06/12/2024	06/12/2024	06/12/2024	06/12/2024
Date analysed	-	06/12/2024	06/12/2024	06/12/2024	06/12/2024	06/12/2024
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	0.4	<0.1	0.3
Pyrene	mg/kg	<0.1	<0.1	0.4	<0.1	0.3
Benzo(a)anthracene	mg/kg	<0.1	<0.1	0.2	<0.1	0.1
Chrysene	mg/kg	<0.1	<0.1	0.2	<0.1	0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2	0.3	<0.2	0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	0.2	<0.05	0.1
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	0.2	<0.1	0.2
Total +ve PAH's	mg/kg	<0.05	<0.05	2.1	<0.05	1.4
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	84	84	84	88	85

PAHs in Soil			
Our Reference		368155-11	368155-13
Your Reference	UNITS	SDUP1	TB
Depth		0.02-0.3	-
Date Sampled		02/12/2024	02/12/2024
Type of sample		Soil	Soil
Date extracted	-	06/12/2024	06/12/2024
Date analysed	-	06/12/2024	06/12/2024
Naphthalene	mg/kg	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1
Total +ve PAH's	mg/kg	<0.05	<0.05
Benzo(a)pyrene TEQ calc (zero)	mg/kg	<0.5	<0.5
Benzo(a)pyrene TEQ calc(half)	mg/kg	<0.5	<0.5
Benzo(a)pyrene TEQ calc(PQL)	mg/kg	<0.5	<0.5
Surrogate p-Terphenyl-d14	%	90	86

Organochlorine Pesticides in soil						
Our Reference		368155-1	368155-2	368155-5	368155-6	368155-8
Your Reference	UNITS	BH1	BH1	BH2	BH2	BH3
Depth		0.02-0.3	0.3-0.6	0-0.2	0.3-0.4	0-0.1
Date Sampled		02/12/2024	02/12/2024	03/12/2024	03/12/2024	03/12/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	06/12/2024	06/12/2024	06/12/2024	06/12/2024	06/12/2024
Date analysed	-	06/12/2024	06/12/2024	06/12/2024	06/12/2024	06/12/2024
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve DDT+DDD+DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total Positive Aldrin+Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	79	75	76	76	75

Organophosphorus Pesticides in Soil						
Our Reference		368155-1	368155-2	368155-5	368155-6	368155-8
Your Reference	UNITS	BH1	BH1	BH2	BH2	BH3
Depth		0.02-0.3	0.3-0.6	0-0.2	0.3-0.4	0-0.1
Date Sampled		02/12/2024	02/12/2024	03/12/2024	03/12/2024	03/12/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	06/12/2024	06/12/2024	06/12/2024	06/12/2024	06/12/2024
Date analysed	-	06/12/2024	06/12/2024	06/12/2024	06/12/2024	06/12/2024
Dichlorvos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Mevinphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phorate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Diazinon	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Disulfoton	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion-Methyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Malathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenthion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Parathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methidathion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fenamiphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phosalone	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Azinphos-methyl (Guthion)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Coumaphos	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate 4-Chloro-3-NBTF	%	79	75	76	76	75

PCBs in Soil						
Our Reference		368155-1	368155-2	368155-5	368155-6	368155-8
Your Reference	UNITS	BH1	BH1	BH2	BH2	BH3
Depth		0.02-0.3	0.3-0.6	0-0.2	0.3-0.4	0-0.1
Date Sampled		02/12/2024	02/12/2024	03/12/2024	03/12/2024	03/12/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	06/12/2024	06/12/2024	06/12/2024	06/12/2024	06/12/2024
Date analysed	-	06/12/2024	06/12/2024	06/12/2024	06/12/2024	06/12/2024
Aroclor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1221	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aroclor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Total +ve PCBs (1016-1260)	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate 2-Fluorobiphenyl	%	77	79	85	85	80

Acid Extractable metals in soil						
Our Reference		368155-1	368155-2	368155-5	368155-6	368155-8
Your Reference	UNITS	BH1	BH1	BH2	BH2	BH3
Depth		0.02-0.3	0.3-0.6	0-0.2	0.3-0.4	0-0.1
Date Sampled		02/12/2024	02/12/2024	03/12/2024	03/12/2024	03/12/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	06/12/2024	06/12/2024	06/12/2024	06/12/2024	06/12/2024
Date analysed	-	06/12/2024	06/12/2024	06/12/2024	06/12/2024	06/12/2024
Arsenic	mg/kg	7	9	10	6	4
Cadmium	mg/kg	<0.4	<0.4	0.5	<0.4	<0.4
Chromium	mg/kg	16	24	24	18	15
Copper	mg/kg	22	16	60	12	29
Lead	mg/kg	28	16	310	19	100
Mercury	mg/kg	<0.1	<0.1	0.1	<0.1	<0.1
Nickel	mg/kg	11	5	10	4	19
Zinc	mg/kg	21	24	730	25	98

Acid Extractable metals in soil			
Our Reference		368155-11	368155-13
Your Reference	UNITS	SDUP1	TB
Depth		0.02-0.3	-
Date Sampled		02/12/2024	02/12/2024
Type of sample		Soil	Soil
Date prepared	-	06/12/2024	06/12/2024
Date analysed	-	06/12/2024	06/12/2024
Arsenic	mg/kg	4	<4
Cadmium	mg/kg	<0.4	<0.4
Chromium	mg/kg	9	<1
Copper	mg/kg	16	<1
Lead	mg/kg	20	<1
Mercury	mg/kg	<0.1	<0.1
Nickel	mg/kg	10	<1
Zinc	mg/kg	17	<1

Moisture						
Our Reference		368155-1	368155-2	368155-5	368155-6	368155-8
Your Reference	UNITS	BH1	BH1	BH2	BH2	BH3
Depth		0.02-0.3	0.3-0.6	0-0.2	0.3-0.4	0-0.1
Date Sampled		02/12/2024	02/12/2024	03/12/2024	03/12/2024	03/12/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	06/12/2024	06/12/2024	06/12/2024	06/12/2024	06/12/2024
Date analysed	-	09/12/2024	09/12/2024	09/12/2024	09/12/2024	09/12/2024
Moisture	%	17	21	21	21	14

Moisture			
Our Reference		368155-11	368155-13
Your Reference	UNITS	SDUP1	TB
Depth		0.02-0.3	-
Date Sampled		02/12/2024	02/12/2024
Type of sample		Soil	Soil
Date prepared	-	06/12/2024	06/12/2024
Date analysed	-	09/12/2024	09/12/2024
Moisture	%	11	<0.1

Asbestos ID - soils NEPM - ASB-001						
Our Reference		368155-1	368155-2	368155-5	368155-6	368155-8
Your Reference	UNITS	BH1	BH1	BH2	BH2	BH3
Depth		0.02-0.3	0.3-0.6	0-0.2	0.3-0.4	0-0.1
Date Sampled		02/12/2024	02/12/2024	03/12/2024	03/12/2024	03/12/2024
Type of sample		Soil	Soil	Soil	Soil	Soil
Date analysed	-	10/12/2024	10/12/2024	10/12/2024	10/12/2024	10/12/2024
Sample mass tested	g	839.71	788.37	715.72	713.11	774.8
Sample Description	-	Brown clayey soil & rocks	Brown clayey soil & rocks	Brown clayey soil & rocks	Brown clayey soil & rocks	Brown fine-grained soil & rocks
Asbestos ID in soil (AS4964) >0.1g/kg	-	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected	No asbestos detected at reporting limit of 0.1g/kg Organic fibres detected
Trace Analysis	-	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected	No asbestos detected
Total Asbestos[#1]	g/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Asbestos ID in soil <0.1g/kg*	-	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected	No visible asbestos detected
ACM >7mm Estimation*	g	–	–	–	–	–
FA and AF Estimation*	g	–	–	–	–	–
ACM >7mm Estimation*	%(w/w)	<0.01	<0.01	<0.01	<0.01	<0.01
FA and AF Estimation*#2	%(w/w)	<0.001	<0.001	<0.001	<0.001	<0.001
Asbestos comments	-	Nil	Nil	Nil	Nil	Nil

Method ID	Methodology Summary
ASB-001	Asbestos ID - Qualitative identification of asbestos in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques including Synthetic Mineral Fibre and Organic Fibre as per Australian Standard 4964-2004.
ASB-001	Asbestos ID - Identification of asbestos in soil samples using Polarised Light Microscopy and Dispersion Staining Techniques. Minimum 500mL soil sample was analysed as recommended by "National Environment Protection (Assessment of site contamination) Measure, Schedule B1 and "The Guidelines from the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia - May 2009" with a reporting limit of 0.1g/kg (0.01% w/w) as per Australian Standard AS4964-2004. Results reported denoted with * are outside our scope of NATA accreditation. NOTE#1 Total Asbestos g/kg was analysed and reported as per Australian Standard AS4964 (This is the sum of ACM >7mm, <7mm and FA/AF relative to the sample mass tested) NOTE#2 The screening level of 0.001% w/w asbestos in soil for FA and AF only applies where the FA and AF are able to be quantified by gravimetric procedures. This screening level is not applicable to free fibres. Estimation = Estimated asbestos weight Results reported with "--" is equivalent to no visible asbestos identified using Polarised Light microscopy and Dispersion Staining Techniques.
Inorg-008	Moisture content determined by heating at 105+/-5 °C for a minimum of 12 hours.
Metals-020	Determination of various metals by ICP-AES.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.

Method ID	Methodology Summary
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis. Note, the Total +ve TRH PQL is reflective of the lowest individual PQL and is therefore "Total +ve TRH" is simply a sum of the positive individual TRH fractions (>C10-C40).
Org-021/022/025	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD and/or GC-MS/GC-MSMS. Note, the Total +ve PCBs PQL is reflective of the lowest individual PQL and is therefore" Total +ve PCBs" is simply a sum of the positive individual PCBs.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS.
Org-022/025	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-MS/GC-MSMS. Note, the Total +ve reported DDD+DDE+DDT PQL is reflective of the lowest individual PQL and is therefore simply a sum of the positive individually report DDD+DDE+DDT.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS and/or GC-MS/MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013. For soil results:- 1. 'EQ PQL'values are assuming all contributing PAHs reported as <PQL are actually at the PQL. This is the most conservative approach and can give false positive TEQs given that PAHs that contribute to the TEQ calculation may not be present. 2. 'EQ zero'values are assuming all contributing PAHs reported as <PQL are zero. This is the least conservative approach and is more susceptible to false negative TEQs when PAHs that contribute to the TEQ calculation are present but below PQL. 3. 'EQ half PQL'values are assuming all contributing PAHs reported as <PQL are half the stipulated PQL. Hence a mid-point between the most and least conservative approaches above. Note, the Total +ve PAHs PQL is reflective of the lowest individual PQL and is therefore "Total +ve PAHs" is simply a sum of the positive individual PAHs.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	[NT]
Date extracted	-			06/12/2024	8	06/12/2024	06/12/2024		06/12/2024	[NT]
Date analysed	-			09/12/2024	8	09/12/2024	09/12/2024		09/12/2024	[NT]
TRH C_6 - C_9	mg/kg	25	Org-023	<25	8	<25	<25	0	113	[NT]
TRH C_6 - C_{10}	mg/kg	25	Org-023	<25	8	<25	<25	0	113	[NT]
Benzene	mg/kg	0.2	Org-023	<0.2	8	<0.2	<0.2	0	119	[NT]
Toluene	mg/kg	0.5	Org-023	<0.5	8	<0.5	<0.5	0	115	[NT]
Ethylbenzene	mg/kg	1	Org-023	<1	8	<1	<1	0	116	[NT]
m+p-xylene	mg/kg	2	Org-023	<2	8	<2	<2	0	108	[NT]
o-Xylene	mg/kg	1	Org-023	<1	8	<1	<1	0	111	[NT]
Naphthalene	mg/kg	1	Org-023	<1	8	<1	<1	0	[NT]	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	99	8	105	109	4	110	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	[NT]
Date extracted	-			06/12/2024	8	06/12/2024	06/12/2024		06/12/2024	[NT]
Date analysed	-			07/12/2024	8	07/12/2024	07/12/2024		07/12/2024	[NT]
TRH C_{10} - C_{14}	mg/kg	50	Org-020	<50	8	<50	<50	0	103	[NT]
TRH C_{15} - C_{28}	mg/kg	100	Org-020	<100	8	<100	<100	0	99	[NT]
TRH C_{29} - C_{36}	mg/kg	100	Org-020	<100	8	<100	100	0	86	[NT]
TRH >C_{10} -C_{16}	mg/kg	50	Org-020	<50	8	<50	<50	0	103	[NT]
TRH >C_{16} -C_{34}	mg/kg	100	Org-020	<100	8	<100	110	10	99	[NT]
TRH >C_{34} -C_{40}	mg/kg	100	Org-020	<100	8	<100	<100	0	86	[NT]
Surrogate o-Terphenyl	%		Org-020	90	8	86	87	1	131	[NT]

QUALITY CONTROL: PAHs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	[NT]
Date extracted	-			06/12/2024	8	06/12/2024	06/12/2024		06/12/2024	[NT]
Date analysed	-			06/12/2024	8	06/12/2024	06/12/2024		06/12/2024	[NT]
Naphthalene	mg/kg	0.1	Org-022/025	<0.1	8	<0.1	<0.1	0	92	[NT]
Acenaphthylene	mg/kg	0.1	Org-022/025	<0.1	8	<0.1	<0.1	0	[NT]	[NT]
Acenaphthene	mg/kg	0.1	Org-022/025	<0.1	8	<0.1	<0.1	0	86	[NT]
Fluorene	mg/kg	0.1	Org-022/025	<0.1	8	<0.1	<0.1	0	90	[NT]
Phenanthrene	mg/kg	0.1	Org-022/025	<0.1	8	<0.1	0.1	0	98	[NT]
Anthracene	mg/kg	0.1	Org-022/025	<0.1	8	<0.1	<0.1	0	[NT]	[NT]
Fluoranthene	mg/kg	0.1	Org-022/025	<0.1	8	0.3	0.3	0	100	[NT]
Pyrene	mg/kg	0.1	Org-022/025	<0.1	8	0.3	0.3	0	104	[NT]
Benzo(a)anthracene	mg/kg	0.1	Org-022/025	<0.1	8	0.1	0.1	0	[NT]	[NT]
Chrysene	mg/kg	0.1	Org-022/025	<0.1	8	0.1	0.2	67	102	[NT]
Benzo(b,j+k)fluoranthene	mg/kg	0.2	Org-022/025	<0.2	8	0.2	0.3	40	[NT]	[NT]
Benzo(a)pyrene	mg/kg	0.05	Org-022/025	<0.05	8	0.1	0.2	67	86	[NT]
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-022/025	<0.1	8	<0.1	0.1	0	[NT]	[NT]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-022/025	<0.1	8	<0.1	<0.1	0	[NT]	[NT]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-022/025	<0.1	8	0.2	0.2	0	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	83	8	85	79	7	91	[NT]

QUALITY CONTROL: Organochlorine Pesticides in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	[NT]
Date extracted	-			06/12/2024	8	06/12/2024	06/12/2024		06/12/2024	[NT]
Date analysed	-			06/12/2024	8	06/12/2024	06/12/2024		06/12/2024	[NT]
alpha-BHC	mg/kg	0.1	Org-022/025	<0.1	8	<0.1	<0.1	0	96	[NT]
HCB	mg/kg	0.1	Org-022/025	<0.1	8	<0.1	<0.1	0	[NT]	[NT]
beta-BHC	mg/kg	0.1	Org-022/025	<0.1	8	<0.1	<0.1	0	92	[NT]
gamma-BHC	mg/kg	0.1	Org-022/025	<0.1	8	<0.1	<0.1	0	[NT]	[NT]
Heptachlor	mg/kg	0.1	Org-022/025	<0.1	8	<0.1	<0.1	0	96	[NT]
delta-BHC	mg/kg	0.1	Org-022/025	<0.1	8	<0.1	<0.1	0	[NT]	[NT]
Aldrin	mg/kg	0.1	Org-022/025	<0.1	8	<0.1	<0.1	0	110	[NT]
Heptachlor Epoxide	mg/kg	0.1	Org-022/025	<0.1	8	<0.1	<0.1	0	118	[NT]
gamma-Chlordane	mg/kg	0.1	Org-022/025	<0.1	8	<0.1	<0.1	0	[NT]	[NT]
alpha-chlordane	mg/kg	0.1	Org-022/025	<0.1	8	<0.1	<0.1	0	[NT]	[NT]
Endosulfan I	mg/kg	0.1	Org-022/025	<0.1	8	<0.1	<0.1	0	[NT]	[NT]
pp-DDE	mg/kg	0.1	Org-022/025	<0.1	8	<0.1	<0.1	0	98	[NT]
Dieldrin	mg/kg	0.1	Org-022/025	<0.1	8	<0.1	<0.1	0	110	[NT]
Endrin	mg/kg	0.1	Org-022/025	<0.1	8	<0.1	<0.1	0	104	[NT]
Endosulfan II	mg/kg	0.1	Org-022/025	<0.1	8	<0.1	<0.1	0	[NT]	[NT]
pp-DDD	mg/kg	0.1	Org-022/025	<0.1	8	<0.1	<0.1	0	110	[NT]
Endrin Aldehyde	mg/kg	0.1	Org-022/025	<0.1	8	<0.1	<0.1	0	[NT]	[NT]
pp-DDT	mg/kg	0.1	Org-022/025	<0.1	8	<0.1	<0.1	0	[NT]	[NT]
Endosulfan Sulphate	mg/kg	0.1	Org-022/025	<0.1	8	<0.1	<0.1	0	102	[NT]
Methoxychlor	mg/kg	0.1	Org-022/025	<0.1	8	<0.1	<0.1	0	[NT]	[NT]
Mirex	mg/kg	0.1	Org-022/025	<0.1	8	<0.1	<0.1	0	[NT]	[NT]
Surrogate 4-Chloro-3-NBTF	%		Org-022/025	76	8	75	72	4	88	[NT]

QUALITY CONTROL: Organophosphorus Pesticides in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	[NT]
Date extracted	-			06/12/2024	8	06/12/2024	06/12/2024		06/12/2024	[NT]
Date analysed	-			06/12/2024	8	06/12/2024	06/12/2024		06/12/2024	[NT]
Dichlorvos	mg/kg	0.1	Org-022/025	<0.1	8	<0.1	<0.1	0	92	[NT]
Mevinphos	mg/kg	0.1	Org-022/025	<0.1	8	<0.1	<0.1	0	[NT]	[NT]
Phorate	mg/kg	0.1	Org-022/025	<0.1	8	<0.1	<0.1	0	[NT]	[NT]
Dimethoate	mg/kg	0.1	Org-022/025	<0.1	8	<0.1	<0.1	0	[NT]	[NT]
Diazinon	mg/kg	0.1	Org-022/025	<0.1	8	<0.1	<0.1	0	[NT]	[NT]
Disulfoton	mg/kg	0.1	Org-022/025	<0.1	8	<0.1	<0.1	0	[NT]	[NT]
Chlorpyrifos-methyl	mg/kg	0.1	Org-022/025	<0.1	8	<0.1	<0.1	0	[NT]	[NT]
Parathion-Methyl	mg/kg	0.1	Org-022/025	<0.1	8	<0.1	<0.1	0	[NT]	[NT]
Ronnel	mg/kg	0.1	Org-022/025	<0.1	8	<0.1	<0.1	0	92	[NT]
Fenitrothion	mg/kg	0.1	Org-022/025	<0.1	8	<0.1	<0.1	0	118	[NT]
Malathion	mg/kg	0.1	Org-022/025	<0.1	8	<0.1	<0.1	0	110	[NT]
Chlorpyriphos	mg/kg	0.1	Org-022/025	<0.1	8	<0.1	<0.1	0	98	[NT]
Fenthion	mg/kg	0.1	Org-022/025	<0.1	8	<0.1	<0.1	0	[NT]	[NT]
Parathion	mg/kg	0.1	Org-022/025	<0.1	8	<0.1	<0.1	0	104	[NT]
Bromophos-ethyl	mg/kg	0.1	Org-022/025	<0.1	8	<0.1	<0.1	0	[NT]	[NT]
Methidathion	mg/kg	0.1	Org-022/025	<0.1	8	<0.1	<0.1	0	[NT]	[NT]
Fenamiphos	mg/kg	0.1	Org-022/025	<0.1	8	<0.1	<0.1	0	[NT]	[NT]
Ethion	mg/kg	0.1	Org-022/025	<0.1	8	<0.1	<0.1	0	98	[NT]
Phosalone	mg/kg	0.1	Org-022/025	<0.1	8	<0.1	<0.1	0	[NT]	[NT]
Azinphos-methyl (Guthion)	mg/kg	0.1	Org-022/025	<0.1	8	<0.1	<0.1	0	[NT]	[NT]
Coumaphos	mg/kg	0.1	Org-022/025	<0.1	8	<0.1	<0.1	0	[NT]	[NT]
Surrogate 4-Chloro-3-NBTF	%		Org-022/025	76	8	75	72	4	88	[NT]

QUALITY CONTROL: PCBs in Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	[NT]
Date extracted	-			06/12/2024	8	06/12/2024	06/12/2024		06/12/2024	[NT]
Date analysed	-			06/12/2024	8	06/12/2024	06/12/2024		06/12/2024	[NT]
Aroclor 1016	mg/kg	0.1	Org-021/022/025	<0.1	8	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1221	mg/kg	0.1	Org-021/022/025	<0.1	8	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1232	mg/kg	0.1	Org-021/022/025	<0.1	8	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1242	mg/kg	0.1	Org-021/022/025	<0.1	8	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1248	mg/kg	0.1	Org-021/022/025	<0.1	8	<0.1	<0.1	0	[NT]	[NT]
Aroclor 1254	mg/kg	0.1	Org-021/022/025	<0.1	8	<0.1	<0.1	0	109	[NT]
Aroclor 1260	mg/kg	0.1	Org-021/022/025	<0.1	8	<0.1	<0.1	0	[NT]	[NT]
Surrogate 2-Fluorobiphenyl	%		Org-021/022/025	74	8	80	78	3	85	[NT]

QUALITY CONTROL: Acid Extractable metals in soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-9	[NT]
Date prepared	-			06/12/2024	8	06/12/2024	06/12/2024		06/12/2024	[NT]
Date analysed	-			06/12/2024	8	06/12/2024	06/12/2024		06/12/2024	[NT]
Arsenic	mg/kg	4	Metals-020	<4	8	4	<4	0	115	[NT]
Cadmium	mg/kg	0.4	Metals-020	<0.4	8	<0.4	<0.4	0	100	[NT]
Chromium	mg/kg	1	Metals-020	<1	8	15	16	6	105	[NT]
Copper	mg/kg	1	Metals-020	<1	8	29	23	23	99	[NT]
Lead	mg/kg	1	Metals-020	<1	8	100	81	21	106	[NT]
Mercury	mg/kg	0.1	Metals-021	<0.1	8	<0.1	0.2	67	106	[NT]
Nickel	mg/kg	1	Metals-020	<1	8	19	13	38	104	[NT]
Zinc	mg/kg	1	Metals-020	<1	8	98	73	29	105	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Where matrix spike recoveries fall below the lower limit of the acceptance criteria (e.g. for non-labile or standard Organics <60%), positive result(s) in the parent sample will subsequently have a higher than typical estimated uncertainty (MU estimates supplied on request) and in these circumstances the sample result is likely biased significantly low.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Report Comments

Asbestos-ID in soil: NEPM
This report is consistent with the reporting recommendations in the National Environment Protection (Assessment of Site Contamination) Measure, Schedule B1, May 2013. This is reported outside our scope of NATA accreditation.

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 RECEIPT ADVICE

Client Details

Client	JK Environments
Attention	Harry Leonard

Sample Login Details

Your reference	E37149PL, Bankstown NSW
Envirolab Reference	368155
Date Sample Received	05/12/2024
Date Instructions Received	05/12/2024
Date Results Expected to be Reported	12/12/2024

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	13 Soil
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	3
Cooling Method	Ice
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**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
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Sample ID	vTRH(C6-C10)/BTEXN in Soil	svTRH (C10-C40) in Soil	PAHs in Soil	Organochlorine Pesticides in soil	Organophosphorus Pesticides in Soil	PCBs in Soil	Acid Extractable metalsin soil	Asbestos ID - soils NEPM - ASB-001	On Hold
BH1-0.02-0.3	✓	✓	✓	✓	✓	✓	✓	✓	
BH1-0.3-0.6	✓	✓	✓	✓	✓	✓	✓	✓	
BH1-0.8-0.95									✓
BH1-1.2-1.3									✓
BH2-0-0.2	✓	✓	✓	✓	✓	✓	✓	✓	
BH2-0.3-0.4	✓	✓	✓	✓	✓	✓	✓	✓	
BH2-0.8-0.95									✓
BH3-0-0.1	✓	✓	✓	✓	✓	✓	✓	✓	
BH3-0.4-0.5									✓
BH3-0.8-0.95									✓
SDUP1-0.02-0.3	✓	✓	✓				✓		
TS	✓								
TB	✓	✓	✓				✓		

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:		FROM:
ENVIROLAB SERVICES PTY LTD	JKE Job Number: E37149PL	JKEnvironments
12 ASHLEY STREET		REAR OF 115 WICKS ROAD
CHATSWOOD NSW 2067		MACQUARIE PARK, NSW 2113
P: (02) 99106200	Date Results Required: STANDARD	P: 02-9888 5000 F: 02-9888 5001
F: (02) 99106201		
Attention: Aileen	Page: 1 of 1	Attention: Harry Leonard

Location:	Bankstown, NSW	Sample Preserved in Esky on Ice
Sampler:	LR	Tests Required

Date Sampled	Lab Ref:	Sample Number	Depth (m)	Sample Container	PID	Sample Description	Combo 6aNEPM	Combo 6	Combo 6a	Combo 6	Asbestos (detection)	BTEX						
02.12.2024	1	BH1	0.02-0.3	G, A	0.1	F: Silty Clayey Gravel	X											
02.12.2024	2	BH1	0.3-0.6	G, A	0.3	F: Silty Clay	X											
02.12.2024	3	BH1	0.8-0.95	G, A	0.4	Silty Clay												
02.12.2024	4	BH1	1.2-1.3	A	0	Silty Clay												
03.12.2024	5	BH2	0-0.2	G, A	0.1	F: Silty Clay	X											
03.12.2024	6	BH2	0.3-0.4	G, A	1	F: Silty Clay	X											
03.12.2024	7	BH2	0.8-0.95	G, A	0.4	Silty Clay												
03.12.2024	8	BH1	0-0.1	G, A	0.5	F: Silty Clay	X											
03.12.2024	9	BH1	0.4-0.5	G, A	0.7	F Silty Clay												
03.12.2024	10	BH3	0.8-0.95	G, A	0.4	Silty Clay												
02.12.2024	11	SDUP1	0.02-0.3	G	-	Duplicate				X								
02.12.2024	12	TS	-	V	-	Trip Spike						X						
02.12.2024	13	TB	-	V	-	Trip Blank				X								
					-													
			-		-													
			-		-													
			-		-													
			-		-													
			-															
			-		-													
			-		-													

Remarks (comments/detection limits required):	Sample Containers: G - 250mg Glass Jar A - Ziplock Asbestos Bag P - Plastic Bag

Relinquished By: HL	Date: 4/12/2024	Time: 1450	Received By: EW SYD	Date: 5/12/24

ENVIROLAB GROUP

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

Job No: 368155

Date Received: 5/12/24
Time Received: 1450
Received By: EW
Temp: Cool/Ambient
Cooling: Ice/Icepack 3°C.
Security: Intact/Broken/None

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www.envirolab.com.au

CERTIFICATE OF ANALYSIS 368155-A

Client Details

Client	JK Environments
Attention	Todd Hore
Address	PO Box 976, North Ryde BC, NSW, 1670

Sample Details

Your Reference	**E37149PL, Bankstown NSW**
Number of Samples	Additional TCLP testing
Date samples received	05/12/2024
Date completed instructions received	12/12/2024

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Report Details

Date results requested by	19/12/2024
Date of Issue	19/12/2024

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Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Asbestos Approved By
Analysed by Asbestos Approved Analyst:
Authorised by Asbestos Approved Signatory:

Results Approved By
Tabitha Roberts, Senior Chemist

Authorised By
Nancy Zhang, Laboratory Manager

Metals from Leaching Fluid pH 2.9 or 5		
Our Reference		368155-A-5
Your Reference	UNITS	BH2
Depth		0-0.2
Date Sampled		03/12/2024
Type of sample		Soil
Date extracted	-	18/12/2024
Date analysed	-	18/12/2024
pH of soil for fluid# determ.	pH units	7.8
pH of soil TCLP (after HCl)	pH units	2.0
Extraction fluid used		1
pH of final Leachate	pH units	5.0
Lead	mg/L	0.1

Method ID	Methodology Summary
Inorg-004	Toxicity Characteristic Leaching Procedure (TCLP) using AS 4439. Please note that the mass used may be scaled down from default based on sample mass available. Samples are stored at 2-6oC before and after leachate preparation.
Metals-020	Determination of various metals by ICP-AES following buffer determination as per USEPA 1311 and hence AS 4439.3. Extraction Fluid 1 refers to the pH 5.0 buffer and Extraction Fluid 2 is the pH 2.9 buffer.

QUALITY CONTROL: Metals from Leaching Fluid pH 2.9 or 5					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			18/12/2024	[NT]	[NT]	[NT]	[NT]	18/12/2024	[NT]
Date analysed	-			18/12/2024	[NT]	[NT]	[NT]	[NT]	18/12/2024	[NT]
Lead	mg/L	0.03	Metals-020	<0.03	[NT]	[NT]	[NT]	[NT]	104	[NT]

Result Definitions

NT	Not tested
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PQL	Practical Quantitation Limit
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>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
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Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Where matrix spike recoveries fall below the lower limit of the acceptance criteria (e.g. for non-labile or standard Organics <60%), positive result(s) in the parent sample will subsequently have a higher than typical estimated uncertainty (MU estimates supplied on request) and in these circumstances the sample result is likely biased significantly low.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

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 RECEIPT ADVICE

Client Details

Client	JK Environments
Attention	Todd Hore

Sample Login Details

Your reference	E37149PL, Bankstown NSW
Envirolab Reference	368155-A
Date Sample Received	05/12/2024
Date Instructions Received	12/12/2024
Date Results Expected to be Reported	19/12/2024

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	Additional TCLP testing
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	3
Cooling Method	Ice
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**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
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Sample ID	pH of soil for fluid#determ.	pH of soil TCLP (after HCl)	Extraction fluid used	pH of final Leachate	Lead	On Hold
BH1-0.02-0.3						✓
BH1-0.3-0.6						✓
BH1-0.8-0.95						✓
BH1-1.2-1.3						✓
BH2-0-0.2	✓	✓	✓	✓	✓	
BH2-0.3-0.4						✓
BH2-0.8-0.95						✓
BH3-0-0.1						✓
BH3-0.4-0.5						✓
BH3-0.8-0.95						✓
SDUP1-0.02-0.3						✓
TS						✓
TB						✓

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.

ELS Reference #: #368155-A
TAT Requested : Standard
Due : 19/12/2024
SP.

Sarah Park

From: Todd Hore <THore@jkenvironments.com.au>
Sent: Thursday, 12 December 2024 3:50 PM
To: Aileen Hie
Cc: Envirolab Sydney Sample Receipt
Subject: 368155

Follow Up Flag: Follow up
Flag Status: Flagged

CAUTION: This email originated from outside of the organisation. Do not act on instructions, click links or open attachments unless you recognise the sender and know the content is authentic and safe.

Hey Aileen,
Can you please schedule the following additional analyses for E37149PL Bankstown:

- 368155-5 – TCLP lead.

Please complete the above on a standard turnaround.

Regards
Todd Hore
Senior Associate | Environmental Engineer

T: +61 2 9888 5000
D: +61 414 863 307
E: THore@jkenvironments.com.au
www.jkenvironments.com.au

PO Box 976
NORTH RYDE BC NSW 1670
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JKEnvironments

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Appendix F: Report Explanatory Notes

QA/QC Definitions

The QA/QC terms used in this report are defined below. The definitions are in accordance with US EPA publication SW-846, entitled *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods* (1994)[14] methods and those described in *Environmental Sampling and Analysis, A Practical Guide,* (1991)[15]. The NEPM (2013) is consistent with these documents.

A. Practical Quantitation Limit (PQL), Limit of Reporting (LOR) & Estimated Quantitation Limit (EQL)

These terms all refer to the concentration above which results can be expressed with a minimum 95% confidence level. The laboratory reporting limits are generally set at ten times the standard deviation for the Method Detection Limit for each specific analyte. For the purposes of this report the LOR, PQL, and EQL are considered to be equivalent.

When assessing laboratory data it should be borne in mind that values at or near the PQL have two important limitations: *"The uncertainty of the measurement value can approach, and even equal, the reported value. Secondly, confirmation of the analytes reported is virtually impossible unless identification uses highly selective methods. These issues diminish when reliably measurable amounts of analytes are present. Accordingly, legal and regulatory actions should be limited to data at or above the reliable detection limit*" (Keith, 1991).

B. Precision

The degree to which data generated from repeated measurements differ from one another due to random errors. Precision is measured using the standard deviation or Relative Percent Difference (RPD).

C. Accuracy

Accuracy is a measure of the agreement between an experimental result and the true value of the parameter being measured (i.e. the proximity of an averaged result to the true value, where all random errors have been statistically removed). The assessment of accuracy for an analysis can be achieved through the analysis of known reference materials or assessed by the analysis of surrogates, field blanks, trip spikes and matrix spikes. Accuracy is typically reported as percent recovery.

D. Representativeness

Representativeness expresses the degree to which sample data accurately and precisely represents a characteristic of a population, parameter variations at a sampling point, or an environmental condition. Representativeness is primarily dependent upon the design and implementation of the sampling program. Representativeness of the data is partially ensured by the avoidance of contamination, adherence to sample handing and analysis protocols and use of proper chain-of-custody and documentation procedures.

E. Completeness

Completeness is a measure of the number of valid measurements in a data set compared to the total number of measurements made and overall performance against DQIs. The following information is assessed for completeness:

- Chain-of-custody forms;
- Sample receipt form;
- All sample results reported;
- All blank data reported;

[14] US EPA, (1994). *SW-846: Test Methods for Evaluating Solid Waste, Physical/Chemical Methods.* (US EPA SW-846)

[15] Keith., H, (1991). *Environmental Sampling and Analysis, A Practical Guide*

- All laboratory duplicate and RPDs calculated;
- All surrogate spike data reported;
- All matrix spike and lab control spike (LCS) data reported and RPDs calculated;
- Spike recovery acceptable limits reported; and
- NATA stamp on reports.

F. Comparability

Comparability is the evaluation of the similarity of conditions (e.g. sample depth, sample homogeneity) under which separate sets of data are produced. Data comparability checks include a bias assessment that may arise from the following sources:

- Collection and analysis of samples by different personnel; Use of different techniques;
- Collection and analysis by the same personnel using the same methods but at different times; and
- Spatial and temporal changes (due to environmental dynamics).

G. Blanks

The purpose of laboratory and field blanks is to check for artefacts and interferences that may arise during sampling, transport and analysis.

H. Matrix Spikes

Samples are spiked with laboratory grade standards to detect interactive effects between the sample matrix and the analytes being measured. Matrix Spikes are reported as a percent recovery and are prepared for 1 in every 20 samples. Sample batches that contain less than 20 samples may be reported with a Matrix Spike from another batch. The percent recovery is calculated using the formula below. Acceptable recovery limits are 70% to 130%.

$$\frac{\text{(Spike Sample Result – Sample Result) x 100}}{\text{Concentration of Spike Added}}$$

I. Surrogate Spikes

Samples are spiked with a known concentration of compounds that are chemically related to the analyte being investigated but unlikely to be detected in the environment. The purpose of the Surrogate Spikes is to check the accuracy of the analytical technique. Surrogate Spikes are reported as percent recovery.

J. Duplicates

Laboratory duplicates measure precision, expressed as Relative Percent Difference. Duplicates are prepared from a single field sample and analysed as two separate extraction procedures in the laboratory. The RPD is calculated using the formula where D1 is the sample concentration and D2 is the duplicate sample concentration:

$$\frac{(D1 - D2) \times 100}{\{(D1 + D2)/2\}}$$

Appendix G: Data (QA/QC) Evaluation

Data (QA/QC) Evaluation

A. INTRODUCTION

This Data (QA/QC) Evaluation forms part of the validation process for the DQOs documented in Section 6.1 of this report. Checks were made to assess the data in terms of precision, accuracy, representativeness, comparability and completeness. These 'PARCC' parameters are referred to collectively as DQIs and are defined in the Report Explanatory Notes attached in the report appendices.

1. Field and Laboratory Considerations

The quality of the analytical data produced for this project has been considered in relation to the following:

- Sample collection, storage, transport and analysis;
- Laboratory PQLs;
- Field QA/QC results; and
- Laboratory QA/QC results.

2. Field QA/QC Samples and Analysis

The results for the field QA/QC samples are detailed in the laboratory summary tables (Table S9) attached to the investigation report and are discussed in the subsequent sections of this Data (QA/QC) Evaluation report. A summary of the field QA/QC samples collected and analysed for this investigation is provided in the following table:

Sample Type	Number Analysed	Frequency (of Sample Type)
Intra-laboratory duplicate (soil)	1	Approximately 20% of primary samples
Trip spikes	1	One for the investigation to demonstrate adequacy of preservation, storage and transport methods
Trip blanks	1	One for the investigation to demonstrate adequacy of storage and transport methods

3. Data Assessment Criteria

JKE adopted the following criteria for assessing the field and laboratory QA/QC analytical results:

Field Duplicates

Acceptable targets for precision of field duplicates in this report will be 30% or less, consistent with NEPM (2013). RPD failures will be considered qualitatively on a case-by-case basis taking into account factors such as the concentrations used to calculate the RPD (i.e. RPD exceedance where concentrations are close to the PQL are typically not as significant as those where concentrations are reported at least five or 10 times the PQL), sample type, collection methods and the specific analyte where the RPD exceedance was reported.

Field/Trip Blanks

Acceptable targets for field blank samples in this report will be less than the PQL for organic analytes. Metals will be considered on a case-by-case basis with regards to typical background concentrations in soils.

Trip Spikes

Acceptable targets for trip spike samples in this report will be 70% to 130%.

Laboratory QA/QC

The suitability of the laboratory data is assessed against the laboratory QA/QC criteria which is outlined in the laboratory reports. These criteria were developed and implemented in accordance with the laboratory's NATA accreditation and align with the acceptable limits for QA/QC samples as outlined in NEPM (2013) and other relevant guidelines.

A summary of the acceptable limits adopted by the primary laboratory (Envirolab) is provided below:

RPDs

- Results that are <5 times the PQL, any RPD is acceptable; and
- Results >5 times the PQL, RPDs between 0-50% are acceptable.

Laboratory Control Samples (LCS) and Matrix Spikes

- 70-130% recovery acceptable for metals and inorganics;
- 60-140% recovery acceptable for organics; and
- 10-140% recovery acceptable for VOCs.

Surrogate Spikes

- 60-140% recovery acceptable for general organics; and
- 10-140% recovery acceptable for VOCs.

Method Blanks

- All results less than PQL.

B. DATA EVALUATION

1. Sample Collection, Storage, Transport and Analysis

Samples were collected by trained field staff in accordance with our standard sampling procedures. Field sampling procedures were designed to be consistent with relevant guidelines, including NEPM (2013) and other guidelines made under the CLM Act 1997.

Appropriate sample preservation, handling and storage procedures were adopted. Laboratory analysis was undertaken within specified holding times generally in accordance with Schedule B(3) of NEPM (2013) and the laboratory NATA accredited methodologies. Envirolab noted that the asbestos results were reported to be consistent with the recommendations in NEPM (2013), however this level of reporting is outside the scope of their NATA accreditation. In the absence of other available analytical methods for asbestos, this was found to be acceptable for the purpose of this investigation.

Review of the project data also indicated that:

- COC documentation was adequately maintained;
- Sample receipt advice documentation was provided for all sample batches;
- All analytical results were reported; and
- Consistent units were used to report the analysis results.

2. Laboratory PQLs

Appropriate PQLs were adopted for the analysis and all PQLs were below the SAC.

3. Field QA/QC Sample Results

Field Duplicates

The results indicated that field precision was acceptable. RPD non-conformances were reported for some analytes as discussed below:

- Elevated RPDs were reported for several arsenic, chromium, copper and lead in SDUP1/BH1 (0.02-0.3m).

Values outside the acceptable limits have been attributed to sample heterogeneity and the difficulties associated with obtaining homogenous duplicate samples of heterogeneous matrices. As both the primary and duplicate sample results were less than the SAC, the exceedances are not considered to have had an adverse impact on the data set as a whole.

Field/Trip Blanks

During the investigation, one soil trip blank was placed in the esky during sampling and transported back to the laboratory. The results were all less than the PQLs, therefore cross contamination between samples that may have significance for data validity did not occur.

Trip Spikes

The results ranged from 91% to 109% and indicated that field preservation methods were appropriate.

4. Laboratory QA/QC

The analytical methods implemented by the laboratory were performed in accordance with their NATA accreditation and were consistent with Schedule B(3) of NEPM (2013). The frequency of data reported for the laboratory QA/QC (i.e. duplicates, spikes, blanks, LCS) was considered to be acceptable for the purpose of this investigation. JKE note that due to the limited number of samples submitted for analysis, matrix spikes were not reported. This is not considered to have an impact on the data quality for this investigation.

C. DATA QUALITY SUMMARY

JKE is of the opinion that the data are adequately precise, accurate, representative, comparable and complete to serve as a basis for interpretation to achieve the investigation objectives.

Some of the results from field duplicates indicated some uncertainty in quantification for heavy metals. As The concentrations were generally low and the variance is considered to be associated with heterogeneous fill, therefore the uncertainty is not considered to materially impact the report findings.

Appendix H: Guidelines and Reference Documents

Acid Sulfate Soils Management Advisory Committee (ASSMAC), (1998). Acid Sulfate Soils Manual

Australian and New Zealand Governments (ANZG), (2018). Australian and New Zealand Guidelines for Fresh and Marine Water Quality. Australian and New Zealand Governments and Australian state and territory governments, Canberra ACT, Australia

Canadian Council of Ministers of the Environment, (1999). Canadian soil quality guidelines for the protection of environmental and human health: Benzo(a)Pyrene (1997)

CRC Care, (2011). Technical Report No. 10 – Health screening levels for hydrocarbons in soil and groundwater Part 1: Technical development document

Contaminated Land Management Act 1997 (NSW)

Department of Land and Water Conservation, (1997). 1:25,000 Acid Sulfate Soil Risk Map Series

Heads of EPAs Australia and New Zealand (HEPA), (2020). PFAS National Environmental Management Plan Version 2.0 - January 2020

Managing Land Contamination, Planning Guidelines SEPP55 – Remediation of Land (1998)

National Health and Medical Research Council (NHMRC), (2021). National Water Quality Management Strategy, Australian Drinking Water Guidelines 2011

NSW Department of Environment and Conservation, (2007). Guidelines for the Assessment and Management of Groundwater Contamination

NSW EPA, (2014). Waste Classification Guidelines - Part 1: Classifying Waste

NSW EPA, (2015). Guidelines on the Duty to Report Contamination under Section 60 of the CLM Act 1997

NSW EPA, (2017). Guidelines for the NSW Site Auditor Scheme, 3rd Edition

NSW EPA, (2020). Consultants Reporting on Contaminated Land, Contaminated Land Guidelines

NSW EPA, (2022). *Sampling design part 1 - application*, Contaminated Land Guidelines

National Environment Protection Council (NEPC), (2013). National Environmental Protection (Assessment of Site Contamination) Measure 1999 as amended (2013)

Olszowy, H., Torr, P., and Imray, P., (1995). Trace Element Concentrations in Soils from Rural and Urban Areas of Australia. Contaminated Sites Monograph Series No. 4. Department of Human Services and Health, Environment Protection Agency, and South Australian Health Commission

Protection of the Environment Operations Act 1997 (NSW)

State Environmental Planning Policy (Resilience and Hazards) 2021 (NSW)

World Health Organisation (WHO), (2008). Petroleum Products in Drinking-water, Background document for the development of WHO Guidelines for Drinking Water Quality

Western Australia Department of Health, (2021). Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia