Detailed Site Investigation

1st Dundas Scout Hall, Dundas Valley NSW 2117

Prepared For	Abril
Site:	1st Dundas Scout Hall, Dundas Valley NSW 2117
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Abbreviations

ACM	Asbestos Containing Material
AEC	Area of Environmental Concern
AHD	Australian Height Datum
AMP	Asbestos Management Plan
ASC NEPM	National Environment Protection (Assessment of Site Contamination) Measure
ASS	Acid Sulfate Soils
BGS	Below ground surface
BTEX	Benzene, Toluene, Ethylbenzene and Xylenes
COPC	Contaminant of Potential Concern
Council	City of Parramatta
CSM	Conceptual Site Model
DA	Development Application
DQI	Data Quality Indicator
DQO	Data Quality Objective
DSI	Detailed Site Investigation
EIL	Ecological Investigation Level
ESL	Ecological Screening Level
EP&A	Environmental Planning and Assessment
Trinitas	Trinitas Group Pty Ltd
HIL	Health Investigation Level
HSL	Health Screening Level
IL	Investigation Level
LOR	Limit of Reporting
NATA	National Association of Testing Authorities, Australia
NEPC	National Environment Protection Council
NSW EPA	Environment Protection Authority of New South Wales
NSW OEH	Office of Environment and Heritage of New South Wales
OCP	Organochlorine Pesticide
PAH	Polycyclic Aromatic Hydrocarbons
PCB	Polychlorinated Biphenyl
PPE	Personal Protective Equipment
QA	Quality Assurance
QC	Quality Control
RAP	Remedial Action Plan
RPD	Relative Percentage Difference
SEPP	State Environmental Planning Policy
SWMS	Safe Work Method Statement
TRH	Total Recoverable Hydrocarbon
PFAS	Per- and Polyfluoroalkyl Substances
VENM	Virgin Excavated Natural Material

1. Executive Summary

Trinitas Group Pty Ltd (Trinitas) was commissioned by Abril (The Client) to prepare a Detailed Site Investigation (DSI) as a requirement for the Development Application for proposed development at the property located at Yates Avenue, Dundas Valley NSW 2117 (the "Site"). The Site is located within the City of Parramatta Local Government Area (LGA). The location of the Site is depicted in **Figure 1**.

The objectives of the DSI included but not limited to:

- Assess the site for any potential contamination through desktop study and information obtained during Asbestos Material Survey.
- Identify Areas of Environmental Concern ("**AECs**") and Contaminants of Potential Concern ("**CoPCs**") for the Site and develop a preliminary Conceptual Site Model ("**CSM**").
- Assess the presence of contamination including asbestos in/on soil across the Site.
- Assess the suitability of the Site for the proposed land use (from a contamination viewpoint).

The scope of work for the DSI is detailed below:

- Review of the proposed development plan.
- Desktop review of previous reports, historical site records, and aerial photographs (where available), publicly available data and information available on web-searches, background information relevant to the study area, survey data, and environmental setting of site.
- Conduct field and laboratory investigations.
- Assess NATA accredited laboratory results.
- Preparation of this report "a phase II – detailed site investigation (DSI).

Based on the findings of this report and previous asbestos material survey undertaken at the Site, the following conclusions have been made:

- The soil analytical results for Heavy Metals, BTEXN, OCPs, OPPs, PAHs and PCBs were below the adopted public open space HIL - C criteria with the exception of asbestos (bonded and friable) within the following test pit locations;
  - TP05_0.3
  - TP07_0.3
  - TP08_0.2
- Bonded and Friable asbestos was identified during the Asbestos Material Survey of the fire damaged property.
- Groundwater sampling during the soil investigation was not undertaken.

Based on the concluding statements, Trinitas considers that the site is not suitable for the current and ongoing use as public open space land use setting and remediation is deemed necessary.

2. Introduction

2.1. General

Trinitas Group Pty Ltd (Trinitas) was commissioned by Abril (the "Client") to prepare a Detailed Site Investigation (DSI) with intrusive soil sampling as a requirement for submission of development application for the proposed development at the property located at corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117 (the "Site"). The Site is located within the City of Parramatta Local Government Area (LGA). The location of the Site is depicted in **Figure 1**.

Information supplied by the Client indicates the proposed development works will include the demolition and removal of the existing building structures at the Site. Trinitas have not been provided with the details relating to further works at the Site.

This DSI has been prepared with reference to the NSW *State Environmental Planning Policy, Resilience and Hazards*, NSW EPA guidelines under the *Contaminated Land Management (CLM) Act 1997,* and the National Environment Protection Council *National Environment Protection (Assessment of Site Contamination) Measure 1999*, amended in 2013 (NEPCC 2013).

2.2. Objectives

The objectives of the DSI were to:

- Assess the potential for contamination on the Site through a desktop study and information gathered during Asbestos Material Survey undertaken by Trinitas Group. Reference to '*31082023 1st Dundas Scout Hall-New Asbestos Inspection V1'*
- Identify Areas of Environmental Concern ("**AECs**") and Contaminants of Potential Concern ("**CoPCs**") for the Site and develop a preliminary Conceptual Site Model ("**CSM**") for the Site.
- Assess the presence of contamination including asbestos in/on soil across the Site.
- Assess the suitability of the Site for the proposed land use (from a contamination viewpoint).
- Provide recommendations for further assessments, remediation and/or management, waste classification, a validation plan and report, and an environmental management plan, if required.

2.3. Scope of Work

The scope of work for the DSI is detailed below:

- Review of the proposed development plan.
- Desktop review of previous reports, historical site records, and aerial photographs (where available), publicly available data and web-based information searches, background information relevant to the study area, survey data, and environmental setting
- Conduct field and laboratory investigations.
- Assess NATA accredited laboratory results.
- Preparation of a detailed site investigation, this DSI.

Should this DSI identify contamination at the Site, the below additional steps may be required to manage the site contamination within the proposed works area:

- Preparation of a Remedial Action Plan (RAP) to provide remediation options and strategies to make the site suitable for the proposed public open space/recreational land use (if required).

- Preparation of a waste classification report for offsite disposal of soils, during remediation works completed within the site.
- Provision of remediation oversight works (if required).
- Preparation of a Validation Plan and Report to document that remediation and validation works were completed to a satisfactory standard (if required).
- Preparation of an Environmental Management Plan (EMP) if contamination is expected to remain onsite and requires long term management (if required).

2.4. Legislative Framework

Trinitas performed the works with the usual care and professionalism of the consulting industry. The works associated with the works were performed in general accordance with the following guidance:

- Australian Standard (AS) 4482.1 (2005) Guide to Investigation and Sampling of Sites with Potentially Contaminated Soil, Part 1: Non-volatile and Semi-Volatile Compounds.
- AS 4482.2 (1999) Guide to the Sampling and Investigation of Potentially Contaminated Soil, Part 2: Volatile Substances.
- Environmental Planning and Assessment Act 1979 (EP&A Act).
- Environmental Planning and Assessment Regulation 2000 (EP&A Regulation).
- Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act).
- National Environment Protection Council Act 1994 (NEPC Act).
- National Environmental Protection Council (NEPC) (1999) National Environment Protection (Assessment of Site Contamination) Measure, as amended April 2013 (ASC NEPM 2013).
- NSW Environment Protection Authority (NSW EPA) (2022) Sampling Design Guidelines.
- NSW EPA (2014) Waste Classification Guidelines: Part 1 – Classifying Waste (NSW Waste Classification Guidelines).
- NSW EPA (2015) Guidelines on the Duty to Report Contamination Under the Contaminated Land Management Act 1997.
- NSW EPA (2017) Guidelines for the NSW Auditor Scheme (3rd Edition) (NSW Auditor Guidelines).
- NSW EPA (2020) Consultants Reporting on Contaminated Land – Contaminated Land Guidelines.
- NSW State Environmental Planning Policy Resilience and Hazards 2021.
- NSW Work Health and Safety Act 2011 (WHS Act).
- NSW Work Health and Safety Regulation 2017.
- Protection of the Environment Operations Act 1997 (POEO Act).
- Protection of the Environment Operations (Waste) Regulation 2014.
- Western Australian (WA) Department of Health (DOH) (2021) Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia.
- Parramatta Local Environmental Plan 2023

3. Site Description

3.1. Site Location and Identification

General Site details are included below in **Table 1** and **Figures 1** (**Appendix A**).

Table 1. Project Information

Item	Description
Site Address:	The Site is located at Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117. The Site location is depicted in **Figure 1**.
Approximate Site Area:	1,158 m^2
Site Identification Details:	The Site is legally defined as Lot R and DP 36696
Zoning	RE1 – Public Recreation
Current Land Use:	The Site is currently occupied by a Scout Hall (community facility).
Future Land Use:	Trinitas has not been provided with any such information.
Surrounding Land Uses:	The Site is bound by; • **North:** Ponds Creek – W1 Natural Waterways. • **South:** Fullford Street – R2 - Low Density Residential • **East:** Yates Avenue – R2 - Low Density Residential • **West:** Dundas Park – RE1 - Public Recreation
GPS Location	The centre of the Site with Latitude -33.795218, Longitude 151.056985 (nearmaps.com)
Proposed Development	It is understood the proposed development comprises the demolition of the current fire damaged structure on the Site.

3.2. Site Environmental Setting

3.2.1. Site Topography and Drainage

Review of the NSW spatial tool (eSpade) indicates that the Site is situated in an area of undulating to rolling low hills with local relief 20–80 m and slopes of 10–25%. Side slopes with narrow to wide outcropping sandstone rock benches (10–100 m), often forming broken scarps of <5 m.

3.2.2. Regional Geology

Review of the **1:100000 Sydney Map Sheet 9060 Geological Survey of NSW 1993 and** NSW spatial tool (eSpade) indicates that the site is likely to be underlain by consolidated sedimentary rocks from the Middle Triassic (base) to Middle Triassic (top). The key lithology is Wianamatta Group – Ashfield shale.

3.2.3 Acid Sulfate Soils

Review of the NSW spatial tool (eSpade) indicates that the site is not located in an area of no known acid sulfate soil occurrence. Government Office of Environment and Heritage Acid Sulphate Soils Risk mapping indicates the Site is located in an area of no known occurrence of Acid Sulphate Soils risk.

3.2.4 Hydrogeology and Hydrology

Review of the Hydrogeology Map of Australia: Commonwealth of Australia (Geoscience Australia) indicates that the groundwater systems are porous, extensive aquifers of low to moderate productivity.

There are no registered boreholes at the Site. The are twenty-one (21) registered boreholes within 2000m of the Site. Borehole data (where available) indicates an estimated standing water level of approximately 2.24-3.71m below ground level.

The nearest boreholes to the site are:

- GW106041 – monitoring bore, 1742m Southwest, SWL 2.82 m;
- GW106044 - monitoring bore, 1757m southwest SWL 3.71m;
- GW106042 - monitoring bore, 1758m southwest SWL 2.24m;
- GW106043 - monitoring bore, 1765m southwest SWL 3.4m;

3.2.5. Salinity

Review of the Office of Environment and Heritage Dryland Salinity Potential (2002) indicates that the Site is located in an area of moderate salinity potential.

4. Site History

A desktop review of Site history information has been conducted to identify any potential sources of contamination and the likely contaminants of potential concern (CoPC). The following sections outline the methodology and results of the Site history desktop review.

4.1. Historical Aerial Photographs

Historical aerial photographs were obtained and presented in a LotSearch Report for the Site, including years spanning 1930 to present.

A summary of the features observed on the site and the surrounding land (150m radius) is presented in **Table 2** below. The historical aerial photographs were observed for information on past land use and changes to the site and immediate surrounds, in particular, those of a potentially contaminating nature.

Table 2. Historical Aerial Photograph Summary

Year	Site Features	Surrounding Features
1930 - 1956	The site consists of bush land	The site is surrounded by farmland
1961	As above	Low density residential buildings and roads emerged around the site
1965 - 1970	As above	No significant change
1978	A building structure is present within the site. This building appears to the current building present on site.	A lot of development has been done during this period to the Southwest of the site.
1982	As Above	The bushland within the immediate surrounding have been removed. More trees emerged to the South of the Site
1994	The roof colour changed which indicates some renovation work has occurred.	No Significant change
2000	The roof colour has changed again which indicates some renovation work has occurred.	No Significant change
2007	No change	Pedestrian way has emerged to the west
2011 – Present	No Change	No significant change

4.2. Historical Business Directory

A historical title deeds search was used to obtain ownership and occupancy information including company names and the occupations of individuals. A summary of the title deeds and possible land uses with reference to the aerial photographs and the Historical Business Directory search results in the LotSearch Report is presented in **Table 3**.

There is no record of motor garages, motor stations and/or dry cleaners at the site. The site is currently being used as a community facility (Scout Hall).

Further Historical industrial activity including dry cleaners, motor garages & service stations from 1948 – 1993 has been identified within 500m of the site.

Table 3. Summary of Representative Historical Title Deeds and Historical Business Directory

Business Activity	Premise	Year	Distance to Property Boundary or Road Intersection (m)	Direction
MEDICAL PRACTITIONERS	Liu, Y. C., 2 Alexander St., Dundas Valley 2117	1978-1986	94m	North
GROCERS-RETAIL	Foodland, 38 Yates Avenue, Dundas Valley 2117	1982-1986	99m	Northwest
BUTCHERS - RETAIL	Yates Avenue Butchery, 40 Yates Avenue, Dundas Valley 2117	1978-1986	99m	Northwest
TAKE-AWAY FOODS	Dundas Valley Chinese, 30 Yates Avenue, Dundas Valley 2117	1986	109m	Northwest
CHEMISTS-PHARMACEUTICAL	Yates Avenue Pharmacy, 32 Yates Avenue, Dundas Valley 2117	1982-1986	109m	Northwest
ACCOUNTANTS & AUDITORS	Lynch, D. V., 14 Bain Place, Dundas	1961	115m	Northwest
Material Handling Equipment Mfrs &/or Imps &/or Dists	Dave Industries, 18 Ryan St., Dundas 2117	1986-1991	147	South
MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Valley Service Station Pty. Ltd., Corner Quarry & Kissing Point Roads Dundas	1965-1971	388m	Southwest
MOTOR GARAGES & ENGINEERS	Valley Service Station Pty. Ltd., Corner Quarry & Kissing Pt Roads Dundas	1962-1964	388m	Southwest
MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Valley Service Station, Corner Quarry & Kissing Pt Roads Dundas	1961-1962	388m	Southwest

Business Activity	Premise	Year	Distance to Property Boundary or Road Intersection (m)	Direction
MOTOR GARAGES & ENGINEERS	Valley Service Station, Corner Quarry & Kissing Pt Roads Dundas	1961	388m	Southwest
MOTOR GARAGES & SERVICE STATIONS	Dundas Self Service Shell, Kissing Point Road, Dundas. 2117	1982-1993	450m	-
MOTOR GARAGES & SERVICE STATIONS	BP Valley Service Station, Kissing Point Road, Dundas. 2117	1979-1989	450m	-
MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Dundas Auto Port., Kissing Point Road, Dundas 2117	1980-1981	450m	-

4.3. NSW EPA Register of Other Sites with Contaminated Issues and contaminated Sites

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

Table 4. Identified contaminated sites

Site ID	Site	Site Address	Data Set	Distance (m)	Direction
9	Dundas Park	Quarry Road, Dundas Valley	James Hardie Asbestos Waste Sites	0m	Onsite

The NSW EPA provides a 'List of NSW contaminated sites notified to the EPA' for sites that have been notified to the NSW EPA about contamination under Section 60 of the Contaminated Land Management Act 1997. It should be noted that not all contaminated sites in NSW are listed.

The Contaminated Land Record of Notices, published by NSW EPA, contains a database of:

- Orders made under Part 3 of the *Contaminated Land Management Act 1997* (CLM Act);
- Approved voluntary management proposals under the CLM Act that have not been fully carried out and where the approval of the NSW EPA has not been revoked;
- Site audit statements provided to the NSW EPA under section 53B of the CLM Act that relate to significantly contaminated land;
- Where practicable, copies of anything formerly required to be part of the public record; and

- Actions taken by EPA under section 35 or 36 of the *Environmentally Hazardous Chemicals Act 1985* (EHC Act).

A search of the list has been undertaken and presented in the LotSearch Report revealed no records of the contaminated sites notified to NSW EPA at nearby properties within 1000 m (refer to **Table 4**).

Table 5. contaminated sites notified to NSW EPA

Name	Address	Suburb	Notices	Distance (m)	Direction
N/A	-	-	-	-	-

4.4. Safework NSW Records Search

A search of the Stored Chemical Information Database held by SafeWork NSW has not been conducted for the Site. Historical photographic data does not suggest the presence of any storage systems; however, images are taken a minimum of approximately 3-4 years apart and as such significant data gaps exist, a search should be considered prior to any excavation works to clarify potential presence of any underground petroleum storage systems at the Site. It is suggested that a ground penetrating radar (GRR) survey to be conducted based on positive outcome of schedule 11- dangerous good search records held with Safework NSW.

4.5. Council Section 10.7 (2) and (5) Planning Certificate Search

Section 10.7(2) & (5) Certificate should be conducted through City of Parramatta Council by the Client.

4.6. Regulatory Notice Search Under the POEO and CLM Acts

The Protection of the Environment Operations Act public register, published by NSW Environmental Protection Authority (EPA), contains information regarding:

- Environmental protection licenses;
- Applications for new licenses and to transfer or vary existing licenses;
- Environment protection and noise control licenses;
- Convictions in prosecutions under the POEO Act;
- The result of civil proceedings;
- License review information;
- Exemptions from provisions of the POEO Act or Regulations;
- Approvals granted under Clause 9 of the POEO (Control of Burning) Regulation; and
- Approvals granted under Clause 7a of the POEO (Clean Air Regulation).

A search of the public database undertaken and presented in the LotSearch Report with the following current licensed activity register for the site outlined in **Table 6**.

Table 6. Contaminated Land: Records of Notice

Name	Address	Suburb	Notices	Distance (m)	Direction
N/A	-	-	-	-	-

Three former licensed activities under the POEO Act that were surrendered were identified within the 1000m buffer zone. Details are presented in **Table 7**.

Table 7. Licensed, Delicensed and Formerly Licensed Activities

Organisation	Location	Status	Activity	Distance (m)	Direction
LUHRMANN ENVIRONMENT MANAGEMENT PTY LTD	WATERWAYS THROUGHOUT NSW	Surrendered	Other Activities / Non - Scheduled Activity - Application of Herbicides	0m	Onsite
Robert Orchard	Various Waterways throughout New South Wales - SYDNEY NSW 2000	Surrendered	Other Activities / Non - Scheduled Activity - Application of Herbicides	0m	Onsite
SYDNEY WEED & PEST MANAGEMENT PTY LTD	WATERWAYS THROUGHOUT NSW - PROSPECT, NSW, 2148	Surrendered	Other Activities / Non - Scheduled Activity - Application of Herbicides	0m	Onsite

4.7. Integrity Assessment

Where available this site history assessment has utilised formal sources of information issued by NSW EPA, NSW Land & Property Information and Commercial Datasets by Lotsearch. Some additional sources were supplemented by information provided by the client, landowner, and observations made by Trinitas professionals during site inspections. Review of the site history summary demonstrates a relatively consistent timeline of land use activities and layout with less significant data gaps or inconsistencies to trigger further historical investigations. Hence, the sources and content of this assessment maybe should not be considered to provide an exhaustive, reliable and satisfactory level of accuracy to support this site history assessment and the identification of potential sources of environmental contamination. Further data sources from commercial suppliers and the client are recommended for a better understanding of the site history.

5. Sampling, Analysis and Quality Control Plan

Trinitas employed the following methodologies for the Site assessment in relation to identification of suspected asbestos contamination and other Contaminants of Potential Concern (CoPC).

5.1. Visual Inspection & Assessment

A site walkover was undertaken on the 1st of November 2023 by an environmental consultant representing Trinitas Group.

These assessments are summarised in the sections below. Photos from the Site visit can be found in **Appendix C**.

- The Site consists of a brick structure and cladding within the eaves.
- The building structure on site is fire damaged
- Small areas of exposed soils exist along the perimeter fence lines.
- No vegetation stress was observed.
- Burnt General rubbish is present inside the building in the form of furniture, plastic, and clothes.
- Broken/fire damaged eaves were observed at the Site.
- No paint chips, sulfidic ores or hydrocarbon odours / staining were observed on soil surfaces inspected.

5.2. Identification of Materials to Contain Asbestos

The site was attended by a Licenced Asbestos Assessor on 31st August 2023 representing Trinitas Group. Materials suspected to contain asbestos were collected and selected based on visual appearance and the opinion of the experienced consultant in attendance. The collected representative samples were sent to a NATA accredited laboratory for analysis in accordance with Australian Standard AS4964-2004 Method for the qualitative identification of asbestos in bulk samples.

5.3. Soil Sampling and Laboratory Analysis

Test pits were carried out and completed on the 1st November 2023 using a hand augur. The scope of work issued to Trinitas Group was to investigate the fill materials present at the Site. Fill material was identified to a maximum depth of 0.3m BGL. A total of eight (8) samples were collected in accordance with NSW EPA (2022) sampling design guidelines. Samples were collected in a judgmental pattern across the investigation areas to assess the soil profile for contamination, which includes sampling of fill soils.

The sampling was undertaken by an experienced Trinitas environmental consultant, trained in contaminated land sampling and assessment. Trinitas allowed for:

- Collection of soil samples in an approximate grid pattern across the Site. The samples were collected using auger, shovels, hand trowels, or other hand tools as appropriate.
- Soil samples collected for chemical analysis were placed into NATA accredited laboratory-supplied glass jars.
- A separate 500 mL soil sample was collected and placed into a zip-lock plastic bag for NEPM asbestos analysis.
- A clean pair of disposable nitrile gloves were worn when collecting each sample.
- The sample locations were recorded with a hand-held GPS or measured relative to Site features.

Each sample was dispatched to a NATA-accredited laboratory and analysed for asbestos identification and quantification in soil in accordance with the ASC NEPM (2013) guideline, and WA Department of Health (2021) Guidelines.

5.4. Quality Assurance and Quality Control

Sampling was carried out in accordance with the Trinitas Standard Operating Procedures ("**SOPs**"), which are based on current industry standards. Sampling was conducted on the day by Kieran Mackowski and Wajid Mahmood.

Field activities were undertaken by an experienced Environmental Consultant. The discrete soil samples were placed in laboratory supplied sterile glass jars with Teflon lined lids and/or laboratory supplied zip lock plastic bags. The sample containers were transferred to a cooler box which contained ice packs (or equivalent) present to maintain the samples at a temperature below approximately 4 °C.

QA/QC samples including Duplicates, Triplicates, Trip blanks and Trip Spikes samples were collected as part of this assessment. Equipment rinsate samples were not collected. No chemical concentrations have been reported above the land use criteria and cross contamination would not have affected the overall outcome of the investigation.

5.5. Laboratory Analysis

The soil samples collected were dispatched to the National Association of Testing Authorities ("**NATA**") accredited laboratory. The samples were analysed for:

- Heavy metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel, and zinc).
- Total Recoverable Hydrocarbons ("TRH").
- Benzene, Toluene, Ethylbenzene and Xylenes ("BTEX").
- Polycyclic Aromatic Hydrocarbons ("PAHs") including Naphthalene.
- Pesticides (OPPs/OCPs).
- Polychlorinated Biphenyl's (PCBs).
- Asbestos.

6. Data Quality Objectives

In order to determine the requirements for characterisation of the Site, Trinitas has adopted the data quality objectives (DQOs) planning process as recommended in the National Environment Protection (Assessment of Site Contamination) Measure 2013 (ASC NEPM, 2013), required in the EPA (2017) and with consideration to technical details outlined in US EPA (2006) and AS 4482.1. A review of all available soil data relevant to the Site was undertaken in order to develop a preliminary conceptual site model (CSM). The DQO are outlined in **Table 8**.

Table 8. Summary of Data Quality Objectives

Data Quality Objectives	Inputs
1. State the Problem	**Outline the contamination problem that will require collection of data, and to identify mechanisms to resolve the problem and to conceptualise the site.**
	The site was being used for Community Facility. Asbestos containing FC Sheeting was used as building material that was burnt during the fire event on 28th December 2022 which could have caused contamination within the site. The building structure is being demolished and requires assessment to ensure the site is suitable for the ongoing use as public open space land use setting.
2. Identify the Goal of the Study	**Identify the decisions that need to be made on the contamination problem.**
	Based on the objectives and scope of work outlined by the client, the follow remediation goals and tasks have been identified: • Has the nature, extent and source of any soil, contamination been defined in sampling methodology? • Does the level of impact (source) coupled with the fate and transport mechanism of identified CoPC represent an unacceptable risk to either human and/or ecological (environmental) receptors either within the site (onsite) or surrounding areas (offsite)? • Does the data collected provide sufficient information to allow the site to be sufficiently assessed for its intended land use? • Have the data gaps been determined, and do they require closure to enable the site to be adequately assessed for its land use suitability? • Has sufficient sampling, analysis and control methods been undertaken to make a judgement call on the most suitable assessment options available? The methodology outlined in this DSI must provide supportive information to the site assessment methodology and to ensure the data collected is representative of actual site conditions.

3. Identify Information Inputs	**Identify the inputs required to support any assumptions and to specify which inputs are required to suitably assess the site.**
	The following inputs were reviewed and assessed to provide decision making processes: • The current, future, and historic land use of the proposed development area. • The current, future, and historic condition of the landfill. • Observations made during the site investigation. • Evaluation of soil samples and comparison made of the laboratory results or field collected data using equipment to the adopted criteria. • Adoption of investigation methodology based on state and national guidelines and legislative frameworks, which are made or approved in accordance with the *NSW EPA Contaminated Land Management Act 1997,* and any other guidelines outlined in **Section 2.4**. At completion of the investigation works, a decision is required regarding the suitability of the site for the proposed land use, or if additional investigation or remediation is required to confirm that the site is suitable for the public open space/recreational land use setting.
4. Define the Boundaries of the Study	**Outline the spatial and temporal aspects of the investigation and to provide supporting evidence that representative data has been collected to assess the site.**
	The site is defined to be approximately 1,158 m^2. The depth of the investigation includes assessment of shallow fill soils up to 300ml BGL. The results are valid (temporal) from November to December 2023 and these findings will remain valid until a major change has occurred in regard to site activities, surrounding land use activities and/or further contamination (if present) does not migrate onto the site from off-site sources.
5. Develop the Analytic Approach	**Define the parameter of interest, specify the action level, and integrate previous DQO outputs into a single statement that describes a logical basis for adopted inputs.**
	The decision rules for the investigation were: • If the concentrations of contaminants in the soil exceed the adopted criteria, then further assessment within the site is required. • If the concentrations of contaminants in the soil data exceed the adopted criteria, define within the concluding statements and recommendation if the site could be made suitable for the proposed development, post remediation works or if further Tier 2 risk assessment is required to determine the risk associated with the identified contamination. • Decision criteria for QA/QC measures are defined by the Data Quality Objective (DQO) and Indicators (DQI) outlined in the detailed Data Quality Assessment (DQA).

6. Specify Performance or Acceptance Criteria	**Specify the acceptable limits on decision errors, which are used to establish performance goals for limiting uncertainties in the data.**
	Specific project limits were developed in accordance with National and NSW EPA approved guidance, which include appropriate laboratory and field Data Quality Indicators (DQI), as per **Appendix 5**. This was adopted to establish performance goals and to limit uncertainties for the collected data, thus determining if the data simulates actual site conditions. This included the following points to quantify tolerable limits: • The null hypothesis for the investigation was that the 95% Upper Confidence Limits (UCL) of the average concentration of contaminants of concern exceed the adopted land use criteria across the site. Acceptance of site suitability was based on the probability that: • The 95% UCL of the average concentration of the data set satisfied the given site criteria (thus, a limit on the decision error was 5% that a conclusive statement may be incorrect). • The standard deviation of the data set was less than 50% of the relevant criteria. • No single result exceeded the criteria by 250% or more. • Soil concentrations for the potential chemicals that were below investigation criteria were treated as acceptable and indicative of suitability for the proposed land use(s). If contaminant concentrations exceeded the adopted criteria, further investigation shall be considered prudent or shall be assessed in accordance with this DSI. If no contamination was detected, no further action is considered to be required.
7. Develop the Detailed Plan for Obtaining Data	**Identify the most cost-effective sampling and analysis plan to adequately assess the contamination status of the site.**
	In order to identify the most cost-effective sampling and analysis design and satisfy the DQOs, the following rational was adopted: • Soil investigation sampling of the area shall be undertaken in accordance with the minimal sampling density outlined in NSW EPA (2022a) Design Sampling Guidelines and NSW EPA approved guidelines. • Collection of soil sampling to determine the nature, extent, and condition of the soil materials within the site. • If contamination was identified within the site, then additional investigation may be warranted for deeper soils and/or further extent outside the investigation area to determine the extent of the contamination. At the completion of developing a detailed plan for obtaining data, a decision needs to be made if the adopted sampling plan is suitable or if amendment to the sampling plans is required to obtain representative data to adequately assess the contamination status of the site.

7. Data Quality Indicators

To ensure that the investigation data were of an acceptable quality, they were assessed against the quality indicators outlined in **Table 9**.

Table 9. Summary of Data Quality Indicators

QA/QC Measure	Field Data Quality Indicators	Laboratory Data Quality Indicator
Completeness – A measure of the amount of useable data from a data collection activity	Field data completeness would be deemed acceptable if: • All critical locations are sampled. • All samples are collected from the proposed grid and depth. • Standard Operating Procedures (SOP) used is appropriate and complied with. • Experienced field personnel are used. • Field documentation is complete and correct. • All laboratory documentation is presented, reviewed and found to be properly completed prior to submitting samples. • All equipment calibration certificate is reviewed and comply with manufacture specifications.	Laboratory data completeness would be deemed acceptable if: • All critical samples are analysed according to the sampling methodology. • All analytes are analysed according to the sampling methodology. • Were appropriate methods and Practical Quantitation Limits (PQL) used for analysis. • Sample documentation in the form of Chain of Custody and Sample Receipt Notification is accurate and complete. • Holding times are met in accordance with NEPC Schedule B3. • All equipment calibration certificate are reviewed and comply with manufacture specifications.
Comparability – The confidence (expressed qualitatively) that data may be considered to be equivalent for each sampling and analytical event	Field comparability is deemed acceptable if: • SOP for sampling design and methodology are consistent between sampling events. • Experienced field personnel are used. • Seasonal variation is taken into consideration (i.e., temperature, rainfall, wind). • Sample types collected are consistent between sampling events where necessary. • All equipment calibration certificate is reviewed and comply with manufacture specifications.	Laboratory comparability is deemed acceptable if: • Sample analytical methods are consistent between sampling events. • Samples PQLs are consistent between sampling events. • The same laboratory was used between sampling events. • Analytical results are presented with the same units.
Representativeness – The confidence (expressed qualitatively) that data	Field representativeness is deemed acceptable if:	Laboratory representativeness is deemed acceptable if: • All samples are analysed according to the sampling methodology.

QA/QC Measure	Field Data Quality Indicators	Laboratory Data Quality Indicator
are representative of each medium present on site	• Appropriate media are sampled according to the sampling methodology. • All media identified in the sampling methodology are sampled.	
Precision – A quantitative measure of the variability (or reproducibility) of data	Field precision would be deemed acceptable if: • SOPs are appropriate and complied with. • Duplicate samples are collected and analysed at a rate of 5% (1 duplicate sample analysed per 20 primary samples collected). • Laboratory-prepared volatile trip spike and trip blank are implemented at a rate of one per batch.	Laboratory data precision would be deemed acceptable if: • Relative Percent Differences (RPDs) are found to be less than 30% between the inter-lab and the intra-laboratory duplicates. • Trip spike laboratory analyses results show a recovery limit between 80 and 120%.
Accuracy – A quantitative measure of the closeness of reported data to the "true" value	Field data accuracy would be deemed acceptable if: • SOPs are appropriate and complied with. • Appropriate storage of primary and QA/QC samples in the field and during transport to the laboratory is implemented.	Laboratory data accuracy would be deemed acceptable if: • Surrogate recoveries for soil are generally within 70-130%. • Surrogate recoveries for water are generally within 40-130%. • Method blank are evaluated against the Limit of Reporting (LOR) and analysed by the lab at a rate of 1 per 20 primary samples. • Laboratory control are evaluated against accepted results with a general recovery between 60-140% with a rate of 1 sample per 20 primary samples. • Matrix Spikes are evaluated against the recovery percentage of an expected results. • Calibration of laboratory instruments against known standards.

8. Conceptual Site Model

Based on the Site history review, site walkover and this DSI, a CSM for the proposed works has been prepared. The CSM is discussed in the sections below.

8.1. Potential Sources, Pathways and Receptors of Contamination

The potential sources, pathways and receptors of contamination are provided in **Table 10** below .

Table 10. Potential Sources, Pathways and Receptors of Contamination

AEC	Potential Contaminating Activity	CoPCs	Risk of Contamination*
Fire Damaged building structure	Fire damaged asbestos containing material, building debris and fragments.	Heavy metals, PCBs and Asbestos	Asbestos material survey has identified bonded and friable asbestos within the building structure. Lead may be present on the floor. The risk of contaminated materials existing at the Site is high.
Building perimeter and underlying fill soils of onsite structures	Fire damaged asbestos containing material, potential waste or fill, building debris and fragments.	Heavy metals, PAH, TRH, BTEX, OPPs, PCBs Asbestos	Aerial photography of the Site indicates that buildings were erected circa 1978. The risk of uncontrolled contaminated fill materials existing at the Site is medium.

**It is important to note the risk of contamination provided is based on the qualitative risk of the contamination identified and does not represent the financial risk of the contamination; further site investigation required to get a better understanding of risk of contamination. #Heavy metals = arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc; TRH = Total Recoverable Hydrocarbons, BTEX = Benzene, Toluene, Ethylbenzene and Xylenes; PAH = Polycyclic Aromatic Hydrocarbons*

- The nearest sensitive human receptors are the adjoining residential properties to the South & East of the site and a primary school to the Southeast of the site.
- The nearest sensitive environmental receptor is the Ponds Creek located <15m to the west.

8.2. Potential Sources, Pathways and Receptors of Contamination

The potential sources, pathways and receptors of contamination are provided below in **Table 11**.

Table 11. Potential source and pathways for contaminants

Source	Pathway	Receptor	Comment
Importation of potentially contaminated fill	Ingestion and dermal contact	Current and future Site users	The Site perimeter is an exposed soil surface. There is high potential for Site users to come into contact with contaminated soil, therefore a complete pathway potentially exists.
	Inhalation of dust and vapours	Current and future Site users and surrounding Site users	The Site surface is primarily an exposed soil surface. There is high potential for Site users and surrounding land users to be exposed to dust and vapours from the Site, therefore a complete pathway potentially exists.
	Leaching of contaminants into ground surface	Soils across the Site	There is potential for surface and shallow soils to be contaminated as a result of historical Site activities, therefore a complete pathway potentially exists.
	Leaching of contaminants into groundwater	Groundwater beneath the Site; migration into the groundwater or down gradient sites	Given the historical and current Site use, surrounding land uses, exceedances in chemical concentration are highly unlikely. Therefore, a complete pathway is considered unlikely to exist.
Building Structure Contamination	Ingestion and dermal contact	Current and future Site users	Presence of bonded and friable asbestos within the fire damaged building structure indicates there is high potential for Site users to come into contact with contaminated soil, therefore a complete pathway potentially exists.
	Inhalation of dust and vapours	Current and future Site users and surrounding Site users	Presence of bonded and friable asbestos within the fire damaged building structure indicates there is high potential for Site users and surrounding site users to come into contact with contaminated soil, therefore a complete pathway potentially exists.

9. Site Assessment Criteria

The Site assessment criteria adopted for this project are predominantly based on the following references:

- NEPC (2013) National Environment Protection (Assessment of Site Contamination Measure) Measure 1999 (2013 amendment); and
- WA DoH (2021) Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia.

9.1. Health Investigation Levels

The NEPC (2013) guidelines describe four (4) broad land use settings for the assessment of potential human health risks for a broad range of metals and organic chemical or physical substances. These four Health Investigation Levels (HILs) categories are used to assess human health risk via all relevant exposure pathways for the broad land use categories and scenarios as outlined in **Table 12**. Based on information provided by the client and the current land use, Trinitas adopted the assessment of HIL C public open space/recreational as the site is currently occupied by public open space/recreational land use, as highlighted in **Table 12**.

Table 12. NEPC (2013) Land use categories

Land Use	Land Use description
HIL A – Low density residential	Residential with garden/accessible soil (home grown produce <10% fruit and vegetable intake, no poultry, also includes children's day care centres, preschools, and primary schools.
HIL B – High density residential	Residential with minimal opportunities for soil access includes dwellings with fully and permanently paved yard space such as high-rise buildings and flats.
HIL C – Public Open Space	**Public open space such as parks, playgrounds, playing fields (e.g. ovals), secondary schools and footpaths. It does not include undeveloped public open space (such as urban bushland and reserves) which should be subject to a Site-specific assessment where appropriate.**
HIL D – Commercial / Industrial	Commercial / industrial such as shops, offices, factories, and industrial Sites.

9.2. Health Screening Levels

Health Screening Levels (HSLs) have been developed for asbestos containing materials (ACM) within soil materials and selected petroleum compounds and fractions and are applicable to assessing human health risk via the inhalation and direct contact pathways. The HSLs depend on specific soil physicochemical properties, land use scenarios, and the characteristics of building structures.

NEPC (2013) provides the assessment criteria for Non-Friable Asbestos (NFA), Fibrous Asbestos (FA), and Asbestos Fines (AF) based on land use scenarios. The asbestos health screening criteria described in NEPC (2013) is outlined in **Table 13**.

NEPC (2013) presents Tier 1 screening criteria for BTEX, naphthalene, TRH fractions C_6-C_{10} and C_{10}-C_{16} for vapour intrusion. As there is a potential pathway of exposure in relation to direct contact and ingestion for both current and future users of the site, further tier 1 HSL screening criteria as per Friebel and Nadebaum's 'Health Screening levels for petroleum hydrocarbons in soil, Part 2: Application Document, Technical report No. 10 (2011)' has been adopted to include Vapour Risk to Intrusive Maintenance Workers (Shallow Trench 0.0 to <2 m), and HSL-C levels for direct human contact, outlined in **Table 14.**

Table 13. Health screening levels for asbestos contamination in soil

Form of Asbestos	Health Screening Level (weight for weight)			
	Residential A[1]	Residential B[2]	Recreational C[3]	Commercial / Industrial D[4]
Non-friable Asbestos (NFA)(Bonded)	0.01%	0.04%	**0.02%**	0.05%
FA and AF[5] (Friable Asbestos)	**0.001%**			
All Forms of Asbestos	**No visible asbestos for surface soil**			

9.3. Groundwater Investigation Levels

Groundwater investigation was not undertaken as part of this DSI, as there is a low likelihood that site activities would cause groundwater contamination. This was based on soil analytical results not identifying any major contamination within the fill.

9.4. Management Limits

'Petroleum hydrocarbon management limits' ('management limits') are a set of assessment criteria outlined in NEPM (2013) applicable to petroleum hydrocarbon compounds which aim to avoid or minimise the potential effects of:

- Formation of observable light non-aqueous phase liquids (LNAPL).
- Fire and explosive hazards.
- Effects on buried infrastructure (e.g., penetration of, or damage to, in-ground services by hydrocarbons).

9.5. Aesthetic Condition

The NEPM (2013) guideline requires that aesthetic quality of accessible soils be considered even if analytical testing demonstrates that concentrations of CoPCs are within the adopted land use criteria. It should be noted that there are no quantifiable guidelines in determining if soils are appropriately aesthetic and is dependent on the Environmental Consultants visual inspection and expertise. However, NEPM (2013) does indicate that professional judgement with regard to quantity, type and distribution of foreign materials (including asbestos) and/or odours in relation to the specific land use should be employed.

The following examples would trigger further aesthetic assessment:

- Hydrocarbon sheen on surface water.
- Anthropogenic soil staining.
- Extensive presence of asbestos containing material within the site.
- Odorous soils (i.e. hydrocarbon or hydrogen sulphide odours).

Table 14. Site Assessment Criteria for soil contamination and maximum soil results

Analyte	Health Investigation Levels (HILs)[1]	Health Screening Levels (HSLs)		Generic EILs/ESLs	Results**
	HIL C (mg/kg)	Vapour Intrusion (0 m to <1 m) - HSL C[2] (mg/kg)	HSL Intrusive Maintenance Worker (Shallow Trench)[2] (mg/kg)		Max total concentration detected. (mg/kg)
Arsenic (total)	300	-	-	40	15
Cadmium	100	-	-	-	0.6
Chromium (Total)	240	-	-	-	41
Copper	20,000	-	-	-	30
Lead	600	-	-	-	80
Mercury (inorganic)	400	-	-	-	<0.1
Nickel	800	-	-	-	33
Zinc	30,000	-	-	-	1400
Benzo (a)pyrene	4	-	-	1.4	<0.5
Carcinogenic PAHs (as BaP TEQ)[1]	1	-	-	-	<0.5
Total PAHs	400	-	-	-	2.4
PCBs (Total)	2	-	-	-	<1
Phenols	45,000	-	-	-	NT
DDT+DDE+DDD	400	-	-	-	<0.5
DTT	-	-	-	3	<0.5
Aldrin and Dieldrin	9	-	-	-	4.2
Chlordane	80	-	-	-	<1
Endosulfan	400	-	-	-	<1
Endrin	20	-	-	-	<0.5
Heptachlor	9	-	-	-	<0.5
Chlorpyrifos	300	-	-	-	<0.5
Benzene	-	NL	120	8	<0.1
Toluene	-	NL	18,000	10	<0.1
Ethyl Benzene	-	NL	5,300	1.5	<0.1
Xylene	-	NL	15,000	10	<0.1
Naphthalene	-	NL	1,900	10	<0.5
TRH: $C_6 - C_{10}$ (F1)	-	NL	5,100	125	<20
TRH: C_{10}-C_{16} (F2)	-	NL	3,800	25	<50
TRH: C_{16}- C_{34} (F3)	-	-	5,300	25	110
TRH: $C_{34} - C_{40}$ (F4)	-	-	7,400	-	<100

10. Data Quality Assessment

10.1. Personnel

Trinitas Environmental Consultants undertaking the field works were trained in the Standard Operating Procedures, and in the identification of asbestos.

10.2. Chain of Custody

Australian Standard AS 4482.1 defines the CoC documentation as the link in the transfer of samples between the time of collection and arrival at the laboratory.

The CoC utilised by Trinitas included the items recommended by the Standard:

- Person who transferred the samples
- Person who received the samples
- Date the samples were collected
- Date the samples were received at the laboratory; and
- Contact name and details for the Client.

Copies of the COCs completed during the course of this investigation are provided in *Appendix E – Analytical Reports and Chain of Custody.*

10.3. Record of Holding Times

Holding times for the analytes are summarized in **Table 15** below;

Table 15. Summary of holding times of the analytes

Analyte	Holding Time
TRH C10-C40	14 days
BTEX and TRH C6-C10	14 days
PAH	14 days
OCP	14 days
PCB	14 days
Metals	6 months
Asbestos ID	No limit
Asbestos (WA DOH)	No limit

10.4. Analytical Methods Used

Analysis was undertaken by a NATA, Australia accredited laboratory. Refer to *Appendix E – Analytical Reports and Chain of Custody* for the analytical methods used by the laboratory which in all cases were deemed appropriate for the required analyses.

10.5. Quality Assurance and Quality Control

Summary of Field Quality Assurance / Quality Control (QA/QC) Samples Collected;

Table 16. Summary of Field Quality Assurance / Quality Control

Field QA/QC	Frequency	Sample Details
Blind replicate samples	1 per 20	QD1

Field QA/QC	Frequency	Sample Details
Parent Sample (TP08_0.5 -1.5)		
Split (triplicate) samples	1 per 20	QT1
Parent Sample (TP08_0.5 -1.5)		
Trip Blanks	1 per soil sampling event	TB1
Trip Spikes	1 per soil sampling event	TS1

10.5.1. Blind Replicate Samples

- One (1) duplicate sample was collected to determine the variability of the sampling process. Samples were collected simultaneously from the same source and under identical conditions as the original sample.
- Australian Standard 4482.1 specifies the typical Relative Percentage Difference (RDP) values for blind replicate samples to be 30% - 50%. Combining the AS4482.1 acceptance criterion with the recommendations of the US EPA methodology, the control limits described below were used.

    1. A control limit of 50% for the RPD for original and blind replicate sample values greater than or equal to 5x the Detection Limit (DL);
    2. A control limit of ± the DL if either the sample or duplicate value is less than 5x the DL; and
    3. If both samples' values are less than the DL, the RPD is not calculated.

- All the analyte concentrations follow the conditions 2 and 3 described above and hence RPD values were calculated.
- The assessment variability of the primary and blind replicate samples showed all valid values.

10.5.2. Split Replicate Samples

- Triplicates samples were analyzed to measure the variability between laboratories.
- One (1) triplicate sample was submitted for analysis at ALS. This was compared to the primary sample analyzed by Eurofins.
- The assessment variability of the primary and split replicate samples showed all valid values.

10.5.3. Trip Blanks

- One (1) trip blank sample was prepared prior to the fieldwork. The sample was stored with the investigation samples throughout the sampling event. The trip blank sample was then packaged for shipment with the other representative samples and submitted for analysis. Trip blanks are used to determine if samples were contaminated during storage and / or transportation back to the laboratory (a measure of sample handling variability resulting in positive bias in contaminant concentration).
- The trip blank sample analyzed returned results below the detection limit, resulting in all valid values and no invalid values.

10.5.4. Trip Spikes

- One (1) trip spike (spiked BTEX) sample was analyzed in order to estimate the loss of volatile compounds during the storage, handling and transportation of the investigation samples.

- The sample was prepared by Eurofins prior to the field work and spiked with a concentration of 40 µg/L of BTEX. The samples were stored, handled, and transported in exactly the same way as the field samples.
- The trip spike sample analyzed returned results within the adopted criteria (60 - 140% of the original concentration), resulting in all valid values and no invalid values.

10.5.5. Rinsate Blank

Rinsate blank sample was not collected during the sampling. No chemical concentrations have exceeded the land use criteria and cross contamination would not have affected the overall outcome of the investigation.

10.6. Data Quality Assessment

Trinitas considers that both the field and laboratory quality control procedures adopted for this assessment were adequate and the data is directly useable for the purpose of this assessment.

11. Results of Field Investigation

The Site layout, sampling locations and areas of environmental concern are summarised in **Appendix A**, and a summary of the results are attached in **Appendix B**.

11.1. Analytical Results

Refer to *Appendix B – Results Table* for a full table of results for each sample location and *Appendix E – Analytical Reports and Chain of Custody* for the NATA accredited laboratory results.

11.1.1. Bonded Asbestos

As outlined in Appendix B – Result Table, 8 x 10 L screens were conducted during soil investigation with only one fibre cement fragments at sampling points i.e. *TP07_FC* yielded from the screens and sent to the laboratory for asbestos analysis. Multiple bores were penetrated close to each other to meet the 10L screening requirement. The sample reported a positive result for asbestos i.e., *0.001256% w/w*. The result was identified to be below the HSL - C criteria (0.02%) for bonded asbestos.

Table 17. Summary of the 10L Screening Results

Sample I.D.	Weight of FC material (g)	Weight of FC material (kg)	% asbestos in sample (assuming 15%)	Weight of soil sample (kg)	%w/w asbestos in soil
Insitu 10L Screen					
TP07_FC	134	0.134	0.0201	16	0.001256

11.1.2. Friable Asbestos

As outlined in *Appendix B – Result Table*, 8 x 500 mL samples were undertaken during soil investigation assessment of friable asbestos. Three samples (*TP05_0.3, TP07_0.3 and TP08_0.2*) reported concentrations of asbestos at (*0.034% w/w, 0.35%w/w and 0.45% w/w* respectively) which exceeded the HSL - C criteria of 0.001%. However, all results were not considered to be indicative of friable asbestos since the asbestos concentrations were attributed to the presence of fibre cement fragments (all comprising of two axes/dimensions >7 mm in size) within the 500 mL samples with the exception of *TP07_0.3*. All results were considered to be indicative of bonded ACM with the exception of *TP07_0.3* which reported the friable asbestos concentrations i.e., *0.35%w/w* which exceeded the HSL - C criteria of 0.001%.

11.1.3. Chemical Concentrations

All samples for BTEX, PAHs, OPP/OCPs (pesticides) and PCBs were less than (i.e., non-detect) the laboratory Limit of Reporting (<LOR). Trace levels of TRH F3 Fraction were detected in some of the samples which is considered within normal range associated within soils. Trace levels of Heavy Metals, which is considered within normal range associated within soils were reported.

Sample locations are illustrated in **Appendix A**, a summary of the results is outlined in **Appendix B**, and the photographic record is illustrated in **Appendix C**, LotSearch report is attached in **Appendix D** and Analytical laboratory reports are attached in **Appendix E**.

Observed Stratigraphy

During sampling and analysis, the following stratigraphy of the soils was observed. The below table is indicative only, detailed borehole logs are attached in **Appendix E**.

Table 18. Stratigraphy for the Site

Material	Depth range (m BGL)	Description
Fill materials	0 - 0.3	FILL: Sandy Gravel: medium to dark brown, with clay, dry.
Natural material	0.3	Clayey sand: fine-medium, brown, dry

12. Conclusions and Recommendations

Based on the findings of this report and previous investigation works at the Site, the following conclusions have been made:

- The soil analytical results for Heavy Metals, BTEXN, OCPs, OPPs, PAHs and PCBs were below the adopted public open space criteria with the exception of asbestos.
- Asbestos was reported within the soil and the fire damaged property.
- Groundwater assessment was not undertaken as part of this assessment. No chemical concentrations have been reported above the land use criteria, no contamination will leach to the groundwater.
- Client to notify Safework NSW prior to the excavation of soil materials

Based on the concluding statements, Trinitas consider the site is not suitable for the ongoing use as public open space land use setting and remediation of asbestos contaminated soil is deemed necessary.

13. References

- NSW Work Health and Safety Regulation (2017).
- How to Manage and Control Asbestos in the Workplace Code of Practice (2022).
- How to Safely Remove Asbestos Code of Practice (2022).
- Contaminated Land Management Act 1997.
- National Environment Protection (Assessment of Site Contamination) Measure 1999.
- enHEALTH Management of Asbestos in the Non-Occupational Environment (2005).
- Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia, May 2021.
- National Environment Protection (Assessment of Site Contamination) Measure. Schedule B (1) - Guideline on Investigation Levels for Soil and Groundwater (May 2013).
- NSW Environment Protection Authority (EPA) Waste Classification Guidelines – Part 1: Classification of waste (November 2014).
- The NSW EPA, Sampling Design Guidelines (2022).
- The NSW EPA, Sampling Design Guidelines (2022).
- Australian Standard AS4964-2004 Method for the qualitative identification of asbestos in bulk samples.
- National Environment Protection Council (NEPC) (2013) National Environment Protection (Assessment of Site Contamination) Amendment Measure 2013 (No. 1), Schedule B2: Guideline on Site Characterisation.
- NSW Environment Protection Authority (EPA) (2017) Contaminated Sites: Guidelines for the NSW Auditor Scheme (3rd Edition).
- US Environmental Protection Agency (USEPA) (2006) Guidance on Systematic Planning Using the Data Quality Objectives Process, EPA QA/G-4, (Ref. EPA/240/B-06/001).
- Australian Standard AS 4482.1—2005, Guide to the investigation and sampling of sites with potentially contaminated soil, Part 1: Non-volatile and semi-volatile compounds.
- Sydney 1:100,000 Geological Series Sheet 9130 (Edition I) 1983
- NSW EPA Contaminated Land Guidelines - Consultants Reporting on Contaminated Land (2020)
- https://realtimedata.waternsw.com.au (groundwater bore search)
- https://www.environment.nsw.gov.au/eSpade2Webapp(NSW Govt Spatial Tool)

14. Statement of Limitations

Overview

Contaminated site investigations are generally designed based on a number of factors:

- Objective and scope of works.
- State and national guidelines.
- Accessibility/ site restrictions.
- Visual and Olfactory observations.
- Historical land use.
- Proposed land use.

Investigation designs can also be influenced by the following factors:

- Stage of a development process.
- Purpose of the investigation (due diligence, environmental compliance etc.).
- Available budget.
- Client's risk management strategy.
- Available timescale.

Although the investigation is designed to identify and/or delineate potential contamination there are a number of uncertainties that can result in additional investigative work, increased remedial work and costs, re-development delays and changes in land values. These uncertainties are an inherent part of dealing with land contamination. This section is designed to outline some of the uncertainties and limitations that are generally encountered.

Document Preparation

Trinitas Group has prepared this report for the purpose set out in **Section 1** and as agreed to by the Client. Trinitas Group cannot be held responsible to the Client and/or others for any matters outside the agreed scope of services. Any advice, opinions or recommendations are considered current to the date of this document.

No warranties or guarantees are expressed or should be inferred by any third parties. This document may not be relied upon by other parties without written consent from Trinitas Group. Where consent is provided, other parties should review the scope of service, objectives, and limitation to determine if the document is appropriate for their requirements. They should make their own enquiries and obtain independent advice to determine the accuracy and appropriateness of this report for their use and interpretation.

It should be understood that where this document has been developed for a specific purpose, for example a due diligence document for a property vendor, it may not be suitable for other purposes such as satisfying the needs of a purchaser or assessing contamination risks for classifying the site.

Scope of Services

For each scope of services, a specific approach to the assessment is developed. The scope is usually driven by key objectives set by the client's needs and refined based on the project/site specific requirements.

Any data, evaluations, discussions, conclusions and/or options presented have been designed, obtained, and presented based on the Scope of services. Should the instructions provided be inaccurate, insufficient, or incomplete the document outcomes could change. The scope of services may also be limited by factors such as time, budget, access, site constraints and/or reliance third party data and information made available to Trinitas Group.

Reliance on Data

This document has been prepared by Trinitas Group with all reasonable skill, care, and diligence, and taking account of the timescale and resources allocated to it by agreement with the Client. Information documented herein is based on the interpretation of data collected (data, surveys, analyses, designs, plans and other information), which has been accepted in good faith as being accurate and valid at the time of writing the document.

It should be noted that many investigations are based upon an assessment of potentially contaminating processes which may have occurred historically on the site. This assessment is based upon historical records associated with the site. Such records may be inaccurate, absent, or contradictory. In addition, documents may exist which are not readily available for public viewing.

Except where it has been stated in this document, Trinitas Group has not verified the accuracy or completeness of the data relied upon. Statements, opinions, facts, information, conclusions and/or recommendations made in this document ("conclusions") are based in whole or part on the data obtained, those conclusions are contingent upon the accuracy and completeness of the data. Trinitas Group cannot be held liable should any data, information or condition be incorrect or have been concealed, withheld, misrepresented, or otherwise not fully disclosed to Trinitas Group leading to incorrect conclusions.

Report Separation

This report has been prepared using all the data provided (within the report and within its appendices/attachments. Any reliance upon this report should assess and review the report in its entirety. The executive summary, individual sections and/or appendices/attachments should not be cut out, should not be removed from the report, and should not be used independently.

Report logs, figures, laboratory data, drawings, etc. are generated for this report by Trinitas Group consultants (unless otherwise stated) based on their individual interpretation of the site conditions at the time the site visit was undertaken. Although Trinitas Group consultants undergo training to achieve a standard of field reporting, individual interpretation still varies slightly. Information should not under any circumstances be redrawn for inclusion in other documents or separated from this report in any way.

Environmental Conclusions

In accordance with the scope of services, Trinitas Group may have conducted environmental field monitoring and/or testing in the preparation of this report. The nature and extent of monitoring and/or testing conducted is described in the report.

Trinitas Group has utilised state and national guidelines, Australian Standards, professional judgement and a degree of skill and care to develop standard operating procedures (SOP), which are considered to be in line with industry best practice. Any monitoring, testing, sampling, and report preparation has been undertaken in accordance with Trinitas Group's SOP and performed in a professional manner.

All sites have varying degrees of heterogeneity in the vertical and lateral soil and groundwater horizons. No monitoring, common testing or sampling techniques can eliminate the possibility that monitoring or testing results/samples are not totally representative of soil and/or groundwater conditions encountered.

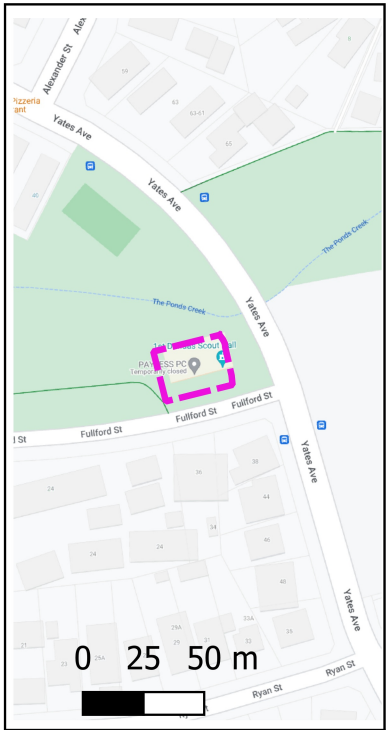
The sampling results obtained are therefore representative of the conditions at the point at which the sample was taken. Additional data derived from indirect field measurements and sometimes other reports may also be used in the interpretation of environmental conditions. However, the environmental field monitoring and/or testing are merely indicative of the environmental conditions of the site at the time samples were taken. Any evaluations, discussions and conclusions are based on the data results presented. No liability can be accepted for changes in ground conditions in between exploratory locations (bore holes/test pits etc.). It should also be recognised that site conditions, including the extent and concentration of contaminants, can change with time.

Other Limitations

Trinitas Group's interpretations are based upon its professional judgement, experience, and training. These opinions are also based upon data derived from testing and analysis described in this document. Trinitas Group believes that its opinions, options, conclusions and/or recommendations are reasonably supported by the testing and analysis that have been done, and that those opinions have been developed according to the professional standard of care for the environment consulting profession in this area at this time. That standard of care may change, and new methods and practices of exploration, testing, analysis, and remediation may develop in the future, which might produce different results. Trinitas Group's professional opinions contained in this document may be subject to modification if additional information is obtained, through further investigation, observations, or validation testing and analysis during remedial activities.

Should events or emergent circumstances or facts become apparent after the submissions date of the report, Trinitas Group cannot be held liable to update or reverse the report to take this into account.

Appendix A – Figures



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- Subject Area
- Test Pit Location

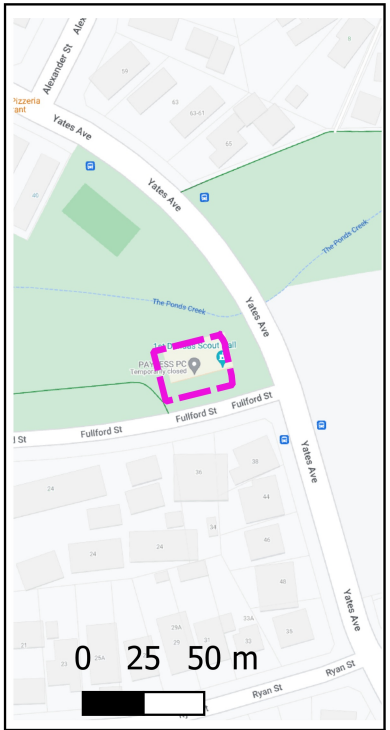
Projection: GDA94 MGA Zone 56

Drafted by: WM **Date:** 01/11/23

Figure No.: 1-1 **Ver.:** 1

Project No.: Dundas Vally

Title:
Test Pit Locations at 1st Dundas Scout Hall, Dundas Valley
Image: Near Map



TRINITAS GROUP

- Subject Area
- Test Pit Location
- Bonded Asbestos
- Friable Asbestos

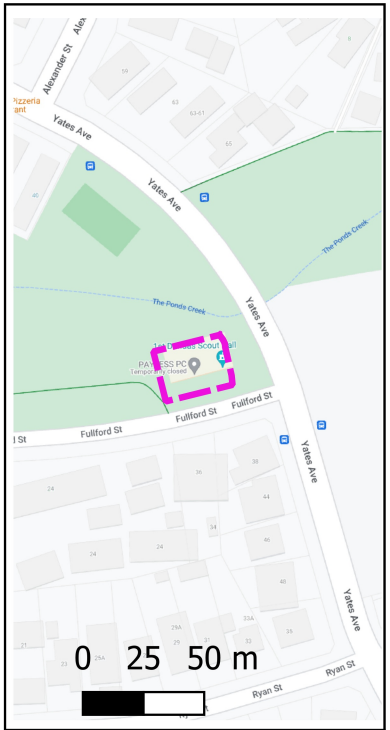
Projection: GDA94 MGA Zone 56

Drafted by: WM **Date:** 04/12/23

Figure No.: 1-1 **Ver.:** 1

Project No.: Dundas Vally

Title:
Friable and Bonded Asbestos Locations at 1st Dundas Scout Hall, Dundas Valley
Image: Near Map



TRINITAS GROUP

- Subject Area
- Test Pit Location
- Bonded Asbestos
- Friable Asbestos
- Above HSL - C

Projection: GDA94 MGA Zone 56

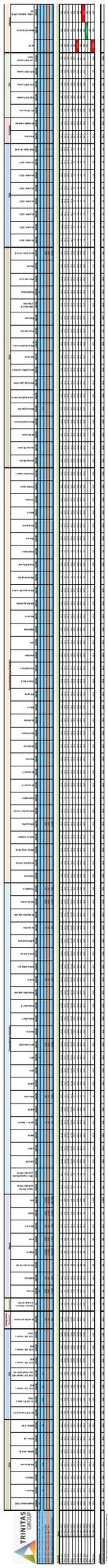
Drafted by: WM **Date:** 04/12/23

Figure No.: 1-1 **Ver.:** 1

Project No.: Dundas Vally

Title:
Friable and Bonded Asbestos Locations at 1st Dundas Scout Hall, Dundas Valley
Image: Near Map

Appendix B – Results Table


TRINITAS
GROUP

		Lab Report Number	1041686	1041686	
TRINITAS GROUP		Field ID	TP03_0.3	QD1	
		Date	01 Nov 2023	01 Nov 2023	
		Matrix Type	Soil	Soil	RPD
Analytes	**Unit**	EQL			
BTEX					
Naphthalene (VOC)	**mg/kg**	0.5	<0.5	<0.5	0
Benzene	**mg/kg**	0.1	<0.1	<0.1	0
Toluene	**mg/kg**	0.1	<0.1	<0.1	0
Ethylbenzene	**mg/kg**	0.1	<0.1	<0.1	0
Xylene (m & p)	**mg/kg**	0.2	<0.2	<0.2	0
Xylene (o)	**mg/kg**	0.1	<0.1	<0.1	0
Xylene Total	**mg/kg**	0.3	<0.3	<0.3	0
TRH					
C6-C10 Fraction (F1)	**mg/kg**	20	<20	<20	0
C6-C10 (F1 minus BTEX)	**mg/kg**	20	<20	<20	0
>C10-C16 Fraction (F2)	**mg/kg**	50	<50	<50	0
>C10-C16 Fraction (F2 minus Naphthalene)	**mg/kg**	50	<50	<50	0
>C16-C34 Fraction (F3)	**mg/kg**	100	<100	<100	0
>C34-C40 Fraction (F4)	**mg/kg**	100	<100	<100	0
>C10-C40 Fraction (Sum)	**mg/kg**	100	<100	<100	0
Halogenated Benzenes					
Hexachlorobenzene	**mg/kg**	0.05	<0.05	<0.05	0
Inorganics					
Moisture Content (dried @ 103°C)	**%**	1	13	14	7
Metals					
Arsenic	**mg/kg**	2	6.0	9.6	46
Cadmium	**mg/kg**	0.4	<0.4	<0.4	0
Chromium (III+VI)	**mg/kg**	5	18	18	0
Copper	**mg/kg**	5	9.4	12	24
Lead	**mg/kg**	5	24	23	4
Mercury	**mg/kg**	0.1	<0.1	<0.1	0
Nickel	**mg/kg**	5	6.9	5.6	21
Zinc	**mg/kg**	5	23	28	20
Organochlorine Pesticides					
Organochlorine pesticides EPAVic	**mg/kg**	0.1	<0.1	<0.1	0
Other organochlorine pesticides EPAVic	**mg/kg**	0.1	<0.1	<0.1	0
4,4-DDE	**mg/kg**	0.05	<0.05	<0.05	0
a-BHC	**mg/kg**	0.05	<0.05	<0.05	0
Aldrin	**mg/kg**	0.05	<0.05	<0.05	0
Aldrin + Dieldrin	**mg/kg**	0.05	<0.05	<0.05	0
b-BHC	**mg/kg**	0.05	<0.05	<0.05	0
Chlordane	**mg/kg**	0.1	<0.1	<0.1	0
d-BHC	**mg/kg**	0.05	<0.05	<0.05	0
DDD	**mg/kg**	0.05	<0.05	<0.05	0
DDT	**mg/kg**	0.05	<0.05	<0.05	0
DDT+DDE+DDD	**mg/kg**	0.05	<0.05	<0.05	0
Dieldrin	**mg/kg**	0.05	<0.05	<0.05	0
Endosulfan I	**mg/kg**	0.05	<0.05	<0.05	0
Endosulfan II	**mg/kg**	0.05	<0.05	<0.05	0
Endosulfan sulphate	**mg/kg**	0.05	<0.05	<0.05	0
Endrin	**mg/kg**	0.05	<0.05	<0.05	0
Endrin aldehyde	**mg/kg**	0.05	<0.05	<0.05	0
Endrin ketone	**mg/kg**	0.05	<0.05	<0.05	0
g-BHC (Lindane)	**mg/kg**	0.05	<0.05	<0.05	0
Heptachlor	**mg/kg**	0.05	<0.05	<0.05	0
Heptachlor epoxide	**mg/kg**	0.05	<0.05	<0.05	0
Methoxychlor	**mg/kg**	0.05	<0.05	<0.05	0
Toxaphene	**mg/kg**	0.5	<0.5	<0.5	0
Organophosphorous Pesticides					
Tokuthion	**mg/kg**	0.2	<0.2	<0.2	0
Azinophos methyl	**mg/kg**	0.2	<0.2	<0.2	0
Bolstar (Sulprofos)	**mg/kg**	0.2	<0.2	<0.2	0
Chlorfenvinphos	**mg/kg**	0.2	<0.2	<0.2	0
Chlorpyrifos	**mg/kg**	0.2	<0.2	<0.2	0
Chlorpyrifos-methyl	**mg/kg**	0.2	<0.2	<0.2	0
Coumaphos	**mg/kg**	2	<2	<2	0
Demeton-O	**mg/kg**	0.2	<0.2	<0.2	0
Demeton-S	**mg/kg**	0.2	<0.2	<0.2	0
Diazinon	**mg/kg**	0.2	<0.2	<0.2	0
Dichlorvos	**mg/kg**	0.2	<0.2	<0.2	0
Dimethoate	**mg/kg**	0.2	<0.2	<0.2	0
Disulfoton	**mg/kg**	0.2	<0.2	<0.2	0
Ethion	**mg/kg**	0.2	<0.2	<0.2	0
Ethoprop	**mg/kg**	0.2	<0.2	<0.2	0
Fenitrothion	**mg/kg**	0.2	<0.2	<0.2	0
Fensulfothion	**mg/kg**	0.2	<0.2	<0.2	0
Fenthion	**mg/kg**	0.2	<0.2	<0.2	0
EPN	**mg/kg**	0.2	<0.2	<0.2	0
Malathion	**mg/kg**	0.2	<0.2	<0.2	0
Merphos	**mg/kg**	0.2	<0.2	<0.2	0
Methyl parathion	**mg/kg**	0.2	<0.2	<0.2	0
Mevinphos (Phosdrin)	**mg/kg**	0.2	<0.2	<0.2	0
Monocrotophos	**mg/kg**	2	<2	<2	0
Naled (Dibrom)	**mg/kg**	0.2	<0.2	<0.2	0
Omethoate	**mg/kg**	2	<2	<2	0
Phorate	**mg/kg**	0.2	<0.2	<0.2	0
Pyrazophos	**mg/kg**	0.2	<0.2	<0.2	0
Ronnel	**mg/kg**	0.2	<0.2	<0.2	0
Terbufos	**mg/kg**	0.2	<0.2	<0.2	0
Trichloronate	**mg/kg**	0.2	<0.2	<0.2	0
Tetrachlorvinphos	**mg/kg**	0.2	<0.2	<0.2	0
PAH					
Acenaphthene	**mg/kg**	0.5	<0.5	<0.5	0
Acenaphthylene	**mg/kg**	0.5	<0.5	<0.5	0
Anthracene	**mg/kg**	0.5	<0.5	<0.5	0
Benzo(a)anthracene	**mg/kg**	0.5	<0.5	<0.5	0
Benzo(a) pyrene	**mg/kg**	0.5	<0.5	<0.5	0
Benzo(b+j)fluoranthene	**mg/kg**	0.5	<0.5	<0.5	0
Benzo(g,h,i)perylene	**mg/kg**	0.5	<0.5	<0.5	0
Benzo(k)fluoranthene	**mg/kg**	0.5	<0.5	<0.5	0
Chrysene	**mg/kg**	0.5	<0.5	<0.5	0
Dibenz(a,h)anthracene	**mg/kg**	0.5	<0.5	<0.5	0
Fluoranthene	**mg/kg**	0.5	<0.5	<0.5	0
Fluorene	**mg/kg**	0.5	<0.5	<0.5	0
Indeno(1,2,3-c,d)pyrene	**mg/kg**	0.5	<0.5	<0.5	0
Naphthalene	**mg/kg**	0.5	<0.5	<0.5	0
Phenanthrene	**mg/kg**	0.5	<0.5	<0.5	0
Pyrene	**mg/kg**	0.5	<0.5	<0.5	0
PAHs (Sum of total)	**mg/kg**	0.5	<0.5	<0.5	0
PCBs					
Arochlor 1016	**mg/kg**	0.1	<0.1	<0.1	0
Arochlor 1221	**mg/kg**	0.1	<0.1	<0.1	0
Arochlor 1232	**mg/kg**	0.1	<0.1	<0.1	0
Arochlor 1242	**mg/kg**	0.1	<0.1	<0.1	0
Arochlor 1248	**mg/kg**	0.1	<0.1	<0.1	0
Arochlor 1254	**mg/kg**	0.1	<0.1	<0.1	0
Arochlor 1260	**mg/kg**	0.1	<0.1	<0.1	0
PCBs (Sum of total)	**mg/kg**	0.1	<0.1	<0.1	0
Pesticides					
Parathion	**mg/kg**	0.2	<0.2	<0.2	0
Pirimiphos-methyl	**mg/kg**	0.2	<0.2	<0.2	0
TPH					
C6-C9 Fraction	**mg/kg**	20	<20	<20	0
C10-C14 Fraction	**mg/kg**	20	<20	<20	0
C15-C28 Fraction	**mg/kg**	50	<50	<50	0
C29-C36 Fraction	**mg/kg**	50	<50	<50	0
C10-C36 Fraction (Sum)	**mg/kg**	50	<50	<50	0

***RPDs have only been considered where a concentration is greater than 1 times the EQL.**

Trip Spikes

Lab Report Number	Matrix Type	Analysis Batch	Field ID	Sampled Date/Time	Chem Group	Chem Name	Spike Recovery %	Method Name	Lab Sample ID
1041686	Soil	2023-11-14	TS1	1/11/2023		Ethylbenzene	97	LTM-ORG-2010 TRH C6-C40	S23-No0014136
1041686	Soil	2023-11-14	TS1	1/11/2023		Xylene (m & p)	99	LTM-ORG-2010 TRH C6-C40	S23-No0014136
1041686	Soil	2023-11-14	TS1	1/11/2023		Toluene	97	LTM-ORG-2010 TRH C6-C40	S23-No0014136
1041686	Soil	2023-11-14	TS1	1/11/2023		Xylene Total	96	LTM-ORG-2010 TRH C6-C40	S23-No0014136
1041686	Soil	2023-11-14	TS1	1/11/2023		Benzene	100	LTM-ORG-2010 TRH C6-C40	S23-No0014136
1041686	Soil	2023-11-14	TS1	1/11/2023		Naphthalene (VOC)	86	LTM-ORG-2010 TRH C6-C40	S23-No0014136
1041686	Soil	2023-11-14	TS1	1/11/2023		Xylene (o)	95	LTM-ORG-2010 TRH C6-C40	S23-No0014136
1041686	Soil	2023-11-14	TS1	1/11/2023		C6-C10 Fraction (F1)	95	LTM-ORG-2010 TRH C6-C40	S23-No0014136
1041686	Soil	2023-11-14	TS1	1/11/2023		C6-C9 Fraction	94	LTM-ORG-2010 TRH C6-C40	S23-No0014136

Trip Spike Recoveries. Where no lab LCL and UCL is available, user defined limits between 30% and 150% have been adopted for non-compliance.

Matrix Spikes

Lab Report Number	Matrix Type	Analysis Batch	Field ID	Sampled Date/Time	Chem Group	Chem Name	Result	Method Name	Lab Sample ID
1041686	Soil	2023-11-14		1/11/2023	BTEX	Ethylbenzene	102	LTM-ORG-2010 BTEX and Volatile TRH	N23-No0011779-S
1041686	Soil	2023-11-14		1/11/2023	BTEX	Xylene (m & p)	108	LTM-ORG-2010 BTEX and Volatile TRH	N23-No0011779-S
1041686	Soil	2023-11-14		1/11/2023	BTEX	Toluene	99	LTM-ORG-2010 BTEX and Volatile TRH	N23-No0011779-S
1041686	Soil	2023-11-14		1/11/2023	BTEX	Xylene Total	106	LTM-ORG-2010 BTEX and Volatile TRH	N23-No0011779-S
1041686	Soil	2023-11-14		1/11/2023	BTEX	Benzene	95	LTM-ORG-2010 BTEX and Volatile TRH	N23-No0011779-S
1041686	Soil	2023-11-14		1/11/2023	BTEX	Naphthalene (VOC)	86	LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices	N23-No0011779-S
1041686	Soil	2023-11-14		1/11/2023	BTEX	Xylene (o)	103	LTM-ORG-2010 BTEX and Volatile TRH	N23-No0011779-S

Matrix Spike Recoveries. Where no lab LCL and UCL is available, user defined limits between 30% and 150% have been adopted for non-compliance.

Appendix C – Photographs

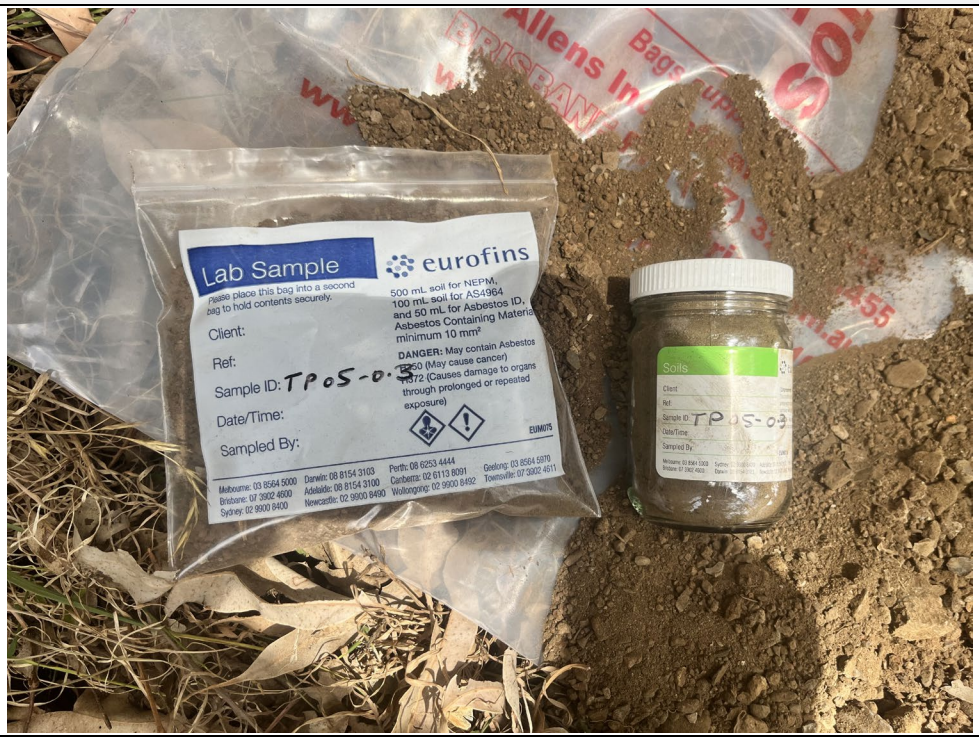
Item	Image	Comment
1.		Overview of the Site on day of Site walkthrough
2.		Overview of the Site on day of Site walkthrough
3.		Overview of the Site on day of Site walkthrough

Item	Image	Comment
4.		Overview of the subfloor on day of Site walkthrough
5.		Overview of the subfloor on day of Site walkthrough
6.		Overview of the site on day of Site walkthrough

Item	Image	Comment
7.		Overview of the site on day of Site walkthrough

Item 1	
Image	
Item 2	
Image	

Item 3	
Image	
Item 4	
Image	

Item 5	
Image	
Item 6	
Image	

Item 7	
Image	 Lab Sample eurofins Sample ID: TP08_02 Date/Time: Sampled By: EUM075

Appendix D – LotSearch Report

LOTSEARCH

LOTSEARCH ENVIRO PROFESSIONAL

Date: 30 Nov 2023 15:23:01

Reference: LS050643 EP

Address: Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

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	14/09/2023	14/09/2023	Quarterly	-	-	-	-
Topographic Data	NSW Department of Customer Service - Spatial Services	22/08/2022	22/08/2022	Annually	-	-	-	-
List of NSW contaminated sites notified to EPA	Environment Protection Authority	27/11/2023	09/11/2023	Monthly	1000m	0	0	0
Contaminated Land Records of Notice	Environment Protection Authority	27/11/2023	27/11/2023	Monthly	1000m	0	0	0
Former Gasworks	Environment Protection Authority	16/10/2023	14/07/2021	Quarterly	1000m	0	0	0
Notices under the POEO Act 1997	Environment Protection Authority	26/07/2023	26/07/2023	Monthly	1000m	0	0	0
National Waste Management Facilities Database	Geoscience Australia	26/05/2022	07/03/2017	Annually	1000m	0	0	0
National Liquid Fuel Facilities	Geoscience Australia	20/09/2023	07/09/2020	Annually	1000m	0	0	2
EPA PFAS Investigation Program	Environment Protection Authority	28/11/2023	21/11/2023	Monthly	2000m	0	0	0
Defence PFAS Investigation & Management Program - Investigation Sites	Department of Defence	28/11/2023	28/11/2023	Monthly	2000m	0	0	0
Defence PFAS Investigation & Management Program - Management Sites	Department of Defence	28/11/2023	28/11/2023	Monthly	2000m	0	0	0
Airservices Australia National PFAS Management Program	Airservices Australia	28/11/2023	28/11/2023	Monthly	2000m	0	0	0
Defence Controlled Areas	Department of Defence	10/10/2023	10/10/2023	Quarterly	2000m	0	0	0
Defence 3 Year Regional Contamination Investigation Program	Department of Defence	19/10/2023	02/09/2022	Quarterly	2000m	0	0	1
National Unexploded Ordnance (UXO)	Department of Defence	10/10/2023	10/10/2023	Quarterly	2000m	0	0	0
EPA Other Sites with Contamination Issues	Environment Protection Authority	13/11/2023	15/12/2022	Annually	1000m	1	1	1
Licensed Activities under the POEO Act 1997	Environment Protection Authority	28/11/2023	28/11/2023	Monthly	1000m	0	0	0
Delicensed POEO Activities still regulated by the EPA	Environment Protection Authority	28/11/2023	28/11/2023	Monthly	1000m	0	0	0
Former POEO Licensed Activities now revoked or surrendered	Environment Protection Authority	28/11/2023	28/11/2023	Monthly	1000m	3	3	3
UBD Business Directories (Premise & Intersection Matches)	Hardie Grant			Not required	150m	0	8	14
UBD Business Directories (Road & Area Matches)	Hardie Grant			Not required	150m	-	6	6
UBD Business Directory Dry Cleaners & Motor Garages/Service Stations (Premise & Intersection Matches)	Hardie Grant			Not required	500m	0	0	12
UBD Business Directory Dry Cleaners & Motor Garages/Service Stations (Road & Area Matches)	Hardie Grant			Not required	500m	-	0	64
Points of Interest	NSW Department of Customer Service - Spatial Services	13/11/2023	13/11/2023	Quarterly	1000m	1	4	54
Tanks (Areas)	NSW Department of Customer Service - Spatial Services	13/11/2023	13/11/2023	Quarterly	1000m	0	0	1
Tanks (Points)	NSW Department of Customer Service - Spatial Services	13/11/2023	13/11/2023	Quarterly	1000m	0	0	1
Major Easements	NSW Department of Customer Service - Spatial Services	19/10/2023	19/10/2023	Quarterly	1000m	0	0	7
State Forest	Forestry Corporation of NSW	16/08/2022	14/08/2022	Annually	1000m	0	0	0
NSW National Parks and Wildlife Service Reserves	NSW Office of Environment & Heritage	16/02/2023	31/12/2022	Annually	1000m	0	0	0
Hydrogeology Map of Australia	Commonwealth of Australia (Geoscience Australia)	29/08/2022	19/08/2019	None planned	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 2018	NSW Department of Planning, Industry and Environment	09/05/2023	23/02/2018	Annually	1000m	0	0	0
National Groundwater Information System (NGIS) Boreholes	Bureau of Meteorology; Water NSW	18/04/2023	13/07/2022	Annually	2000m	0	0	21
NSW Seamless Geology Single Layer: Rock Units	Department of Regional NSW	17/02/2022	01/05/2021	Annually	1000m	1	1	5
NSW Seamless Geology – Single Layer: Trendlines	Department of Regional NSW	17/02/2022	01/05/2021	Annually	1000m	0	0	2
NSW Seamless Geology – Single Layer: Geological Boundaries and Faults	Department of Regional NSW	17/02/2022	01/05/2021	Annually	1000m	0	0	0
Naturally Occurring Asbestos Potential	NSW Dept. of Industry, Resources & Energy	04/12/2015	24/09/2015	Annually	1000m	0	0	0
Atlas of Australian Soils	Australian Bureau of Agriculture and Resource Economics and Sciences (ABARES)	19/05/2017	17/02/2011	None planned	1000m	1	1	1
Soil Landscapes of Central and Eastern NSW	NSW Department of Planning, Industry and Environment	18/08/2022	27/07/2020	Annually	1000m	1	2	5
Environmental Planning Instrument Acid Sulfate Soils	NSW Department of Planning, Industry and Environment	02/11/2023	01/09/2023	Monthly	500m	1	-	-
Atlas of Australian Acid Sulfate Soils	CSIRO	19/01/2017	21/02/2013	None planned	1000m	1	1	1
Dryland Salinity - National Assessment	National Land and Water Resources Audit	18/07/2014	12/05/2013	Annually	1000m	0	0	0
Dryland Salinity Potential of Western Sydney	NSW Department of Planning, Industry and Environment	12/05/2017	01/01/2002	Annually	1000m	1	1	2
Mining Subsidence Districts	NSW Department of Customer Service - Subsidence Advisory NSW	16/10/2023	16/10/2023	Quarterly	1000m	0	0	0
Current Mining Titles	NSW Department of Industry	29/11/2023	29/11/2023	Monthly	1000m	0	0	0
Mining Title Applications	NSW Department of Industry	29/11/2023	29/11/2023	Monthly	1000m	0	0	0
Historic Mining Titles	NSW Department of Industry	29/11/2023	29/11/2023	Monthly	1000m	9	9	9
Environmental Planning Instrument SEPP State Significant Precincts	NSW Department of Planning, Industry and Environment	31/08/2023		Monthly	1000m	0	0	0
Environmental Planning Instrument Land Zoning	NSW Department of Planning, Industry and Environment	02/11/2023	20/10/2023	Monthly	1000m	1	7	80
Commonwealth Heritage List	Australian Government Department of the Agriculture, Water and the Environment	20/10/2023	13/04/2022	Annually	1000m	0	0	0
National Heritage List	Australian Government Department of the Agriculture, Water and the Environment	20/10/2023	13/04/2022	Annually	1000m	0	0	0
State Heritage Register - Curtilages	NSW Department of Planning, Industry and Environment	06/09/2023	03/03/2023	Quarterly	1000m	0	0	2
Environmental Planning Instrument Local Heritage	NSW Department of Planning, Industry and Environment	10/10/2023	22/09/2023	Monthly	1000m	0	0	29
Bush Fire Prone Land	NSW Rural Fire Service	27/11/2023	20/11/2023	Monthly	1000m	0	0	2
NSW Native Vegetation Type Map	NSW Department of Planning and Environment	26/05/2023	12/12/2022	Quarterly	1000m	1	2	4
Ramsar Wetlands of Australia	Australian Government Department of Agriculture, Water and the Environment	09/05/2023	01/11/2022	Annually	1000m	0	0	0
Groundwater Dependent Ecosystems	Bureau of Meteorology	28/10/2022	26/10/2022	Annually	1000m	0	0	1
Inflow Dependent Ecosystems Likelihood	Bureau of Meteorology	28/10/2022	26/10/2022	Annually	1000m	0	0	2
NSW BioNet Species Sightings	NSW Office of Environment & Heritage	29/11/2023	29/11/2023	Weekly	10000m	-	-	-

Site Diagram

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

Legend

- Site Boundary
- Internal Parcel Boundaries

Total Area: 1158m²

Total Perimeter: 140m

Scale: 0 5 10 Meters

Data Source Aerial Imagery:
© Aerometrex Pty Ltd

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.

Coordinate System:
GDA 1994 MGA Zone 56

Date: 30 November 2023

Contaminated Land

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

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

Contaminated Land

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

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

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

Contaminated Land

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

EPA Notices

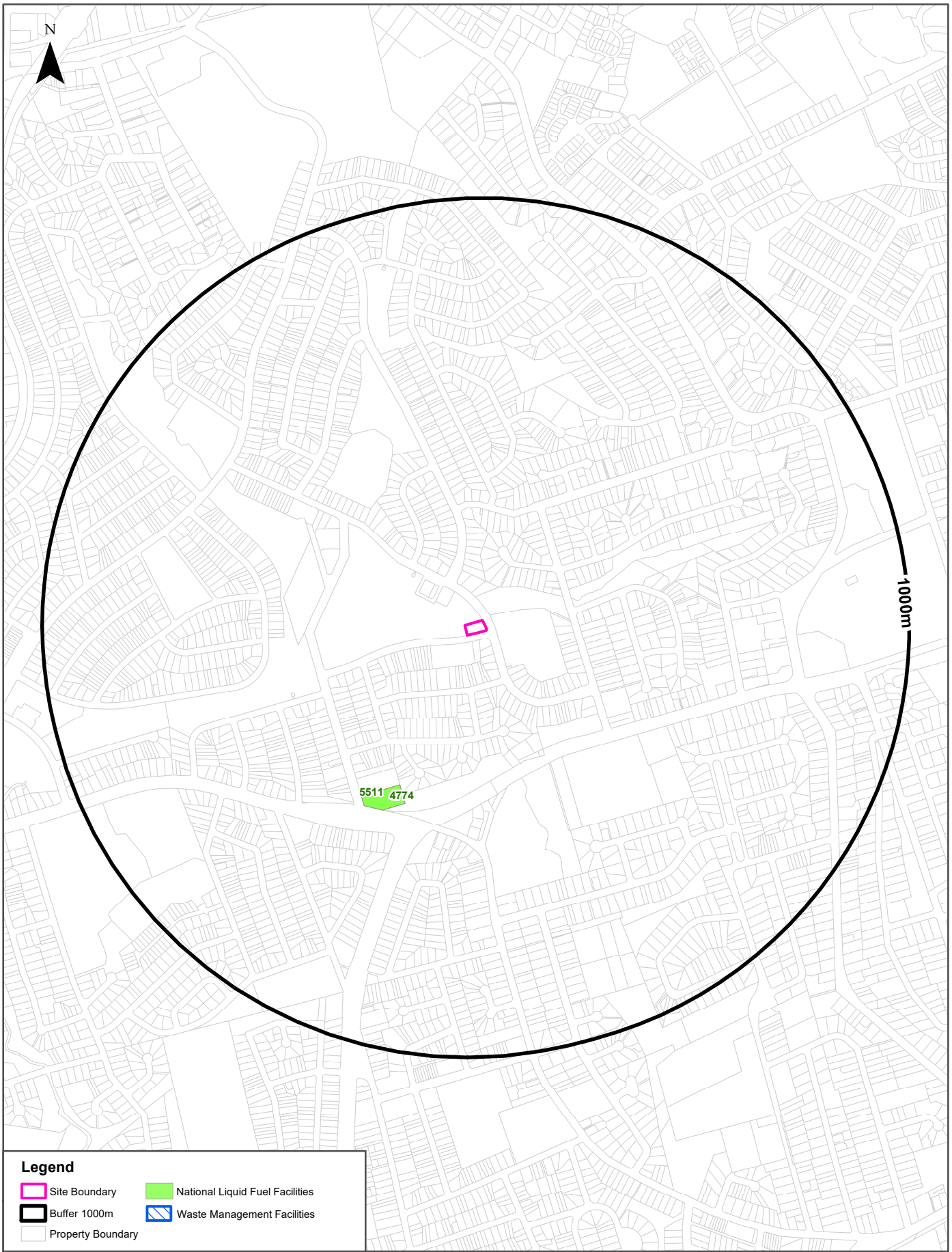
Penalty Notices, s.91 & s.92 Clean up Notices and s.96 Prevention Notices within the dataset buffer:

Number	Type	Name	Address	Status	Issued Date	Act	Offence	Offence Date	Loc Conf	Dist	Dir
N/A	No records in buffer										

NSW EPA Notice Data Source: Environment Protection Authority

Waste Management & Liquid Fuel Facilities

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117



Waste Management & Liquid Fuel Facilities

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

National Waste Management Site Database

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

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

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
4774	BP	BP Express Dundas	256 Kissing Point Road	Dundas Valley	Petrol Station	Operational		25/07/2011	Premise Match	388m	South West
5511	BP	BP DUNDAS	256 KISSING POINT ROAD	DUNDAS	PETROL STATION	OPERATIONAL			Premise Match	388m	South West

PFAS Investigation & Management Programs

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

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

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

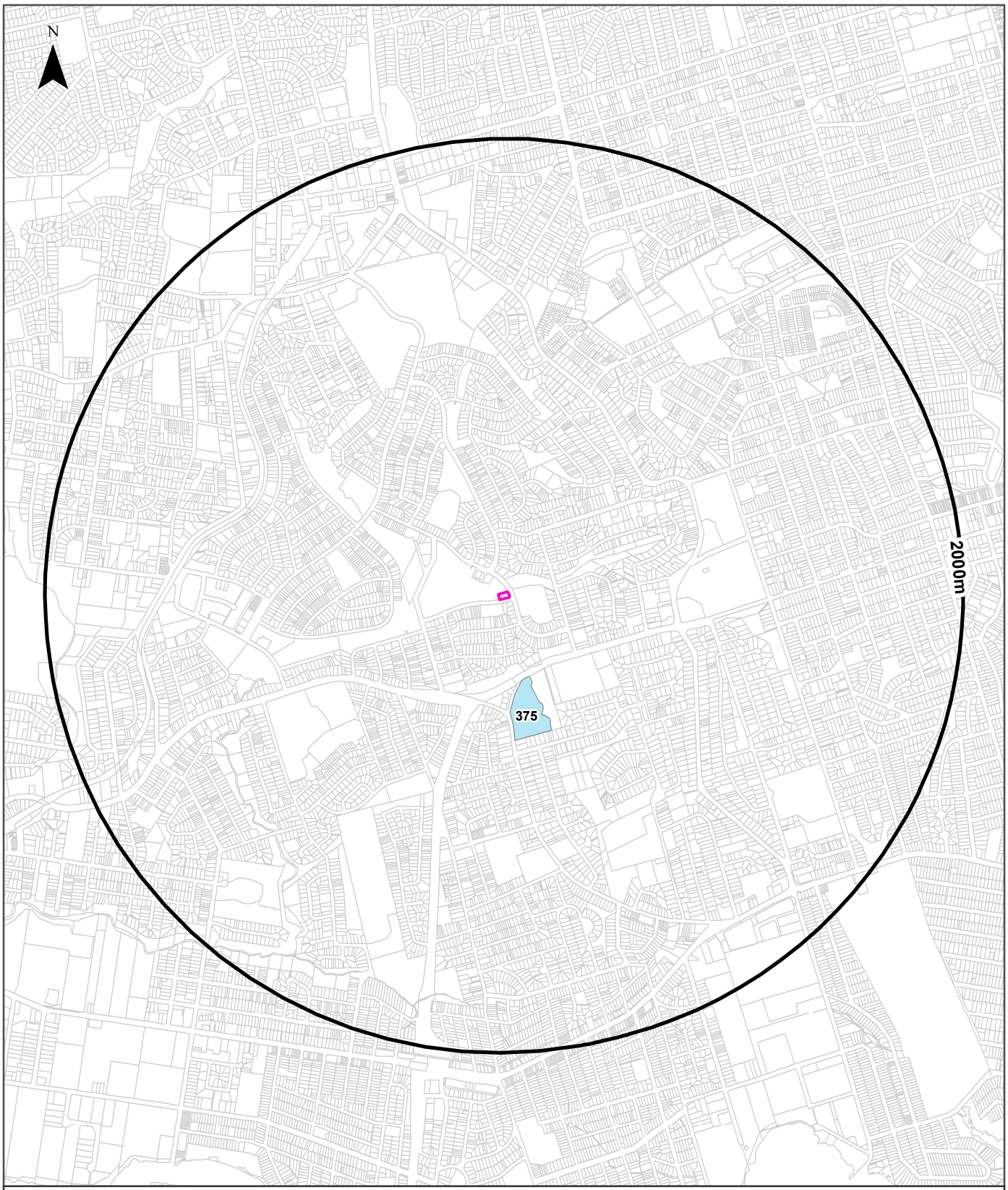
Sites being investigated or managed by Airservices Australia for PFAS contamination within the dataset buffer:

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

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117



Legend

- Site Boundary
- Buffer 2000m
- Property Boundaries

DCA

- Defence Controlled Area

Defence 3 Year RCIP

- Known Contamination
- No Known Contamination

UXO

- Substantial Potential
- Slight Potential
- Remote Potential
- Sea Dumping of Depth Charges

- Information
- Other
- Other Sea Dumping Sites

Scale: 0 200 400 800 1,200 Meters

Data Sources: Property Boundaries & Topographic Data: © Department Finance, Services & Innovation 2023

Coordinate System: GDA 1994 MGA Zone 56

Date: 30 November 2023

Defence Sites and Unexploded Ordnance

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

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
375	Timor Barracks - Dundas	Dundas, New South Wales	NO	Premise Match	358m	South

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

National Unexploded Ordnance (UXO)

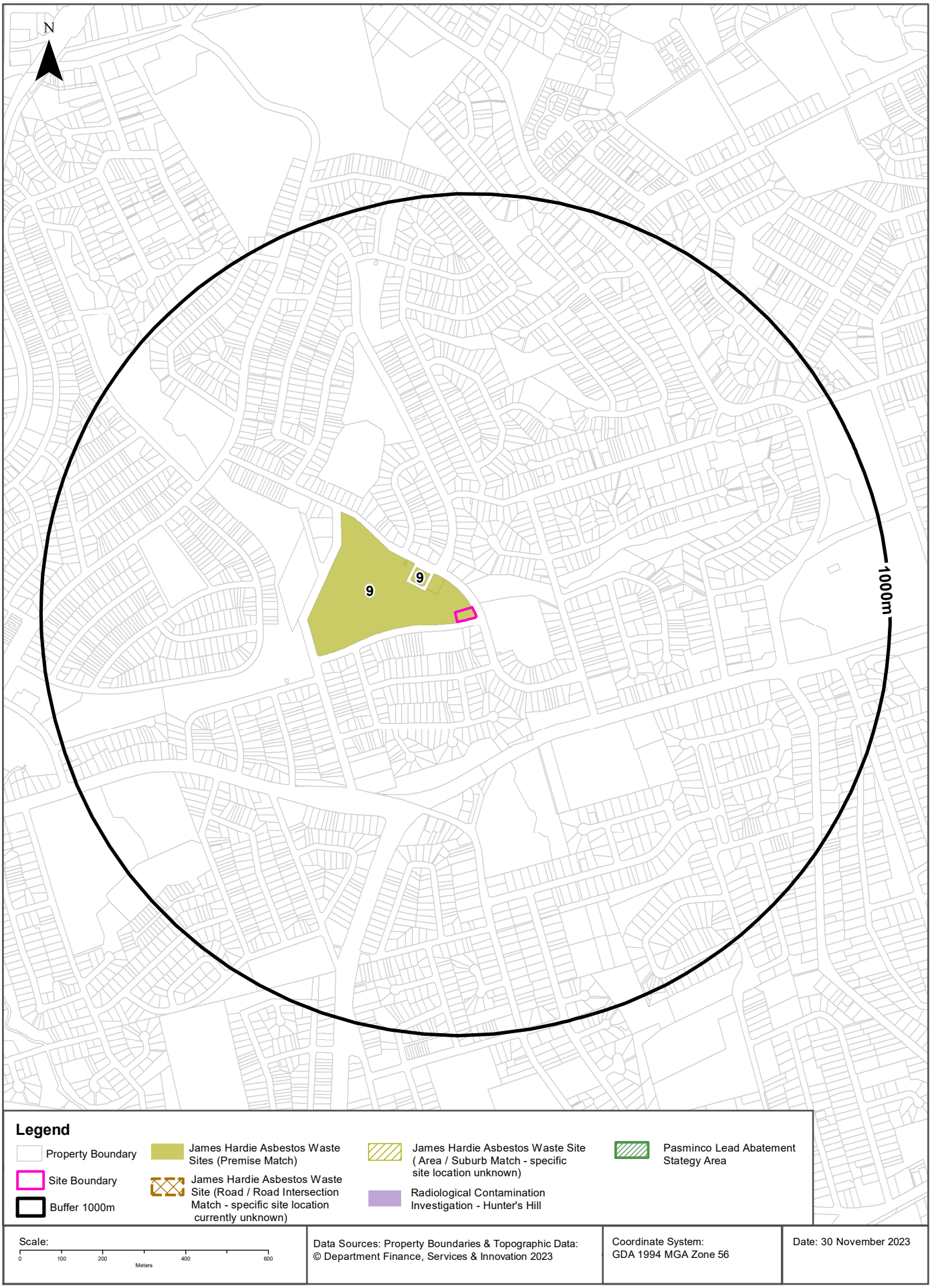
Sites which have been assessed by the Department of Defence for the potential presence of unexploded ordnance within the dataset buffer:

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

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117



EPA Other Sites with Contamination Issues

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

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
9	Dundas Park	Quarry rd, Dundas Valley	James Hardie Asbestos Waste Sites		Premise Match	0m	On-site

EPA Other Sites with Contamination Issues: Environment Protection Authority

EPA Activities

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

Licensed Activities under the POEO Act 1997

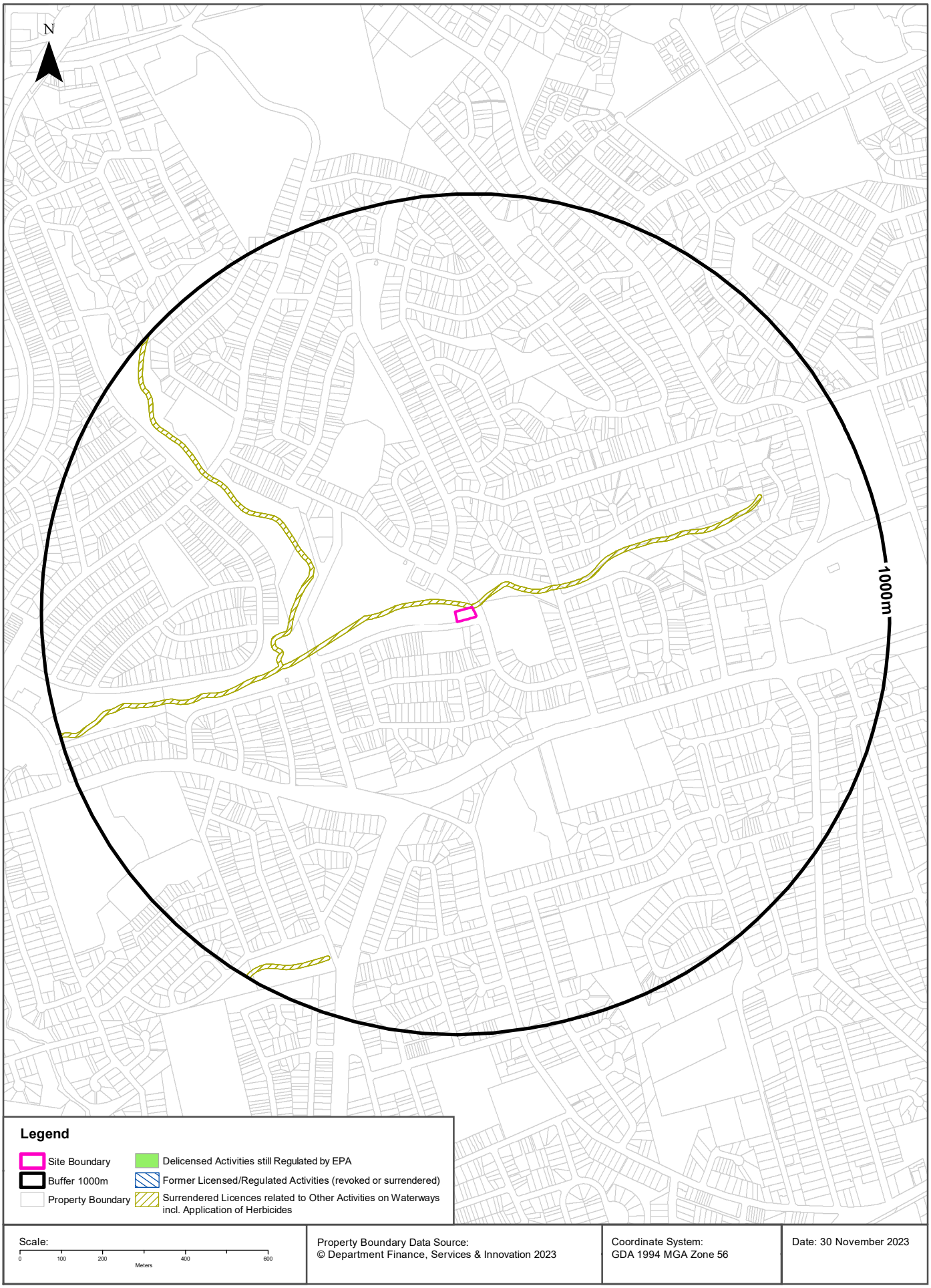
Licensed activities under the Protection of the Environment Operations Act 1997, within the dataset buffer:

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

POEO Licence Data Source: Environment Protection Authority

Delicensed & Former Licensed EPA Activities

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117



EPA Activities

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

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

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

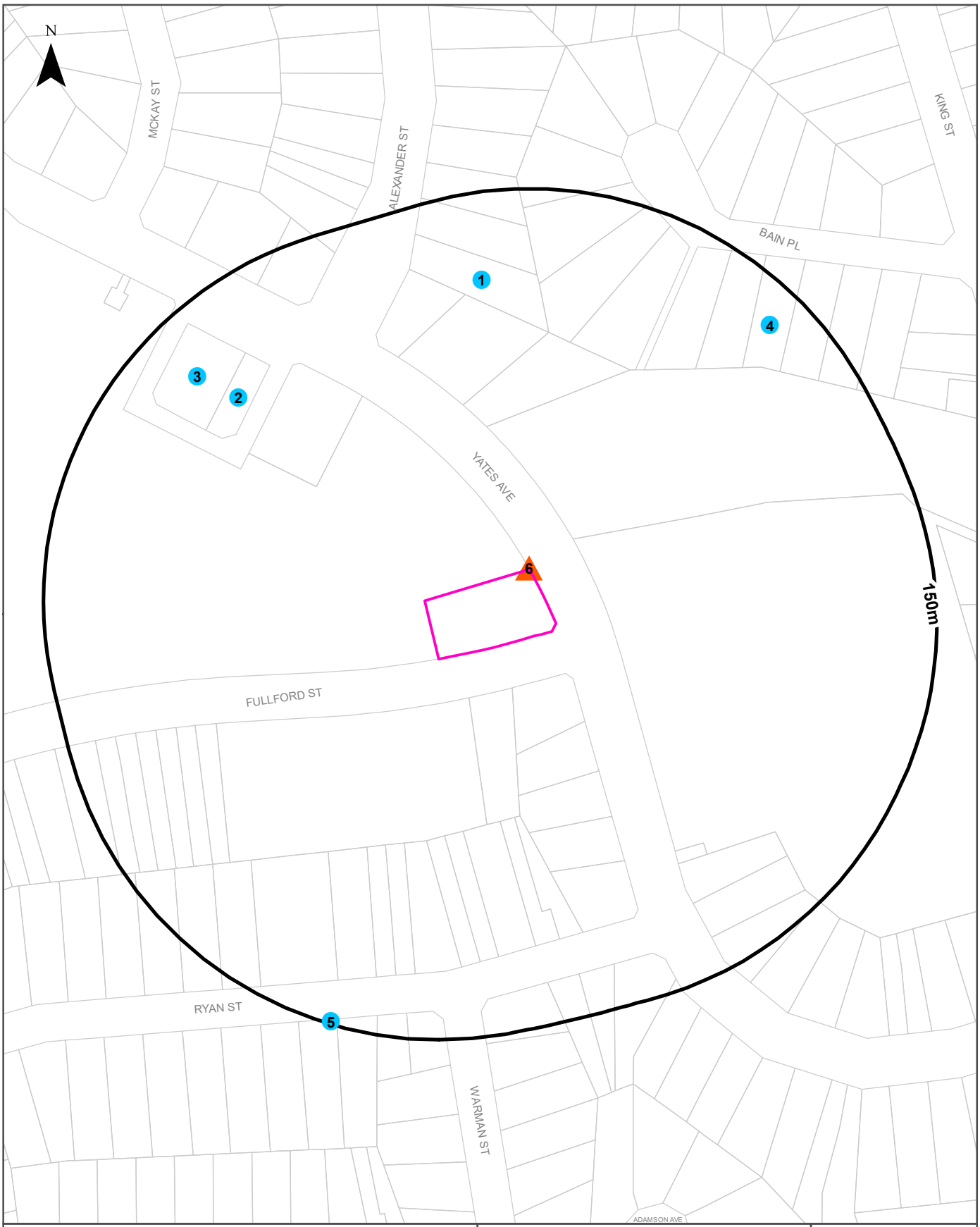
Former Licensed activities under the Protection of the Environment Operations Act 1997, now revoked or surrendered, within the dataset buffer:

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	0m	On-site
4838	Robert Orchard	Various Waterways throughout New South Wales - SYDNEY NSW 2000	Surrendered	07/09/2000	Other Activities / Non Scheduled Activity - Application of Herbicides	Network of Features	0m	On-site
6630	SYDNEY WEED & PEST MANAGEMENT PTY LTD	WATERWAYS THROUGHOUT NSW - PROSPECT, NSW, 2148	Surrendered	09/11/2000	Other Activities / Non Scheduled Activity - Application of Herbicides	Network of Features	0m	On-site

Former Licensed Activities Data Source: Environment Protection Authority

Historical Business Directories

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117



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: 30 November 2023

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

Historical Business Directories

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

Business Directory Records 1950-1991
Premise or Road Intersection Matches

Universal Business Directory records 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	MEDICAL PRACTITIONERS.	Liu, Y. C., 2 Alexander St., Dundas Valley. 2117	56115	1986	Premise Match	94m	North
	MEDICAL PRACTITIONERS. (M2020)	Liu, Y. C., 2 Alexander St., Dundas Valley. 2117.	49107	1982	Premise Match	94m	North
	MEDICAL PRACTITIONERS.	Liu, Y.C., 2 Alexander St., Dundas Valley. 2117	43489	1978	Premise Match	94m	North
2	GROCERS-RETAIL.	Foodland, 38 Yates Ave., Dundas Valley. 2117	40693	1986	Premise Match	99m	North West
	BUTCHERS-RETAIL.	Yates Avenue Butchery, 40 Yates Ave. Dundas Valley.2117	10856	1986	Premise Match	99m	North West
	GROCERS - RETAIL. (G7850)	Foodland, 38 Yates Ave., Dundas Valley. 2117.	37613	1982	Premise Match	99m	North West
	BUTCHERS - RETAIL. (B8040)	Yates Avenue Butchery, 40 Yates Ave. Dundas Valley. 2117.	11838	1982	Premise Match	99m	North West
	BUTCHERS-RETAIL.	Tooheys Butchery, 40 Yates Ave., Dundas Valley. 2117	9996	1978	Premise Match	99m	North West
3	TAKE-AWAY FOODS.	Dundas Valley Chinese, 30 Yates Ave., Dundas Valley. 2117.	90786	1986	Premise Match	109m	North West
	CHEMISTS-PHARMACEUTICAL.	Yates Avenue Pharmacy, 32 Yates Ave., Dundas Valley. 2117	15059	1986	Premise Match	109m	North West
	CHEMISTS - PHARMACEUTICAL.(C4110)	Yates Avenue Pharmacy, 32 Yates Ave., Dundas Valley. 2117.	15870	1982	Premise Match	109m	North West
4	ACCOUNTANTS & AUDITORS	Lynch, D. V., 14 Bain Pl., Dundas	265331	1961	Premise Match	115m	North East
5	Material Handling Equipment Mfrs &/or Imps &/or Dists	Dave Industries, 18 Ryan St., Dundas 2117	51395	1991	Premise Match	147m	South
	MATERIAL HANDLING EQUIPMENT MFRS. &/OR IMPS. &/OR DISTS.	Dave Industries, 18 Ryan St., Dundas. 2117	53068	1986	Premise Match	147m	South

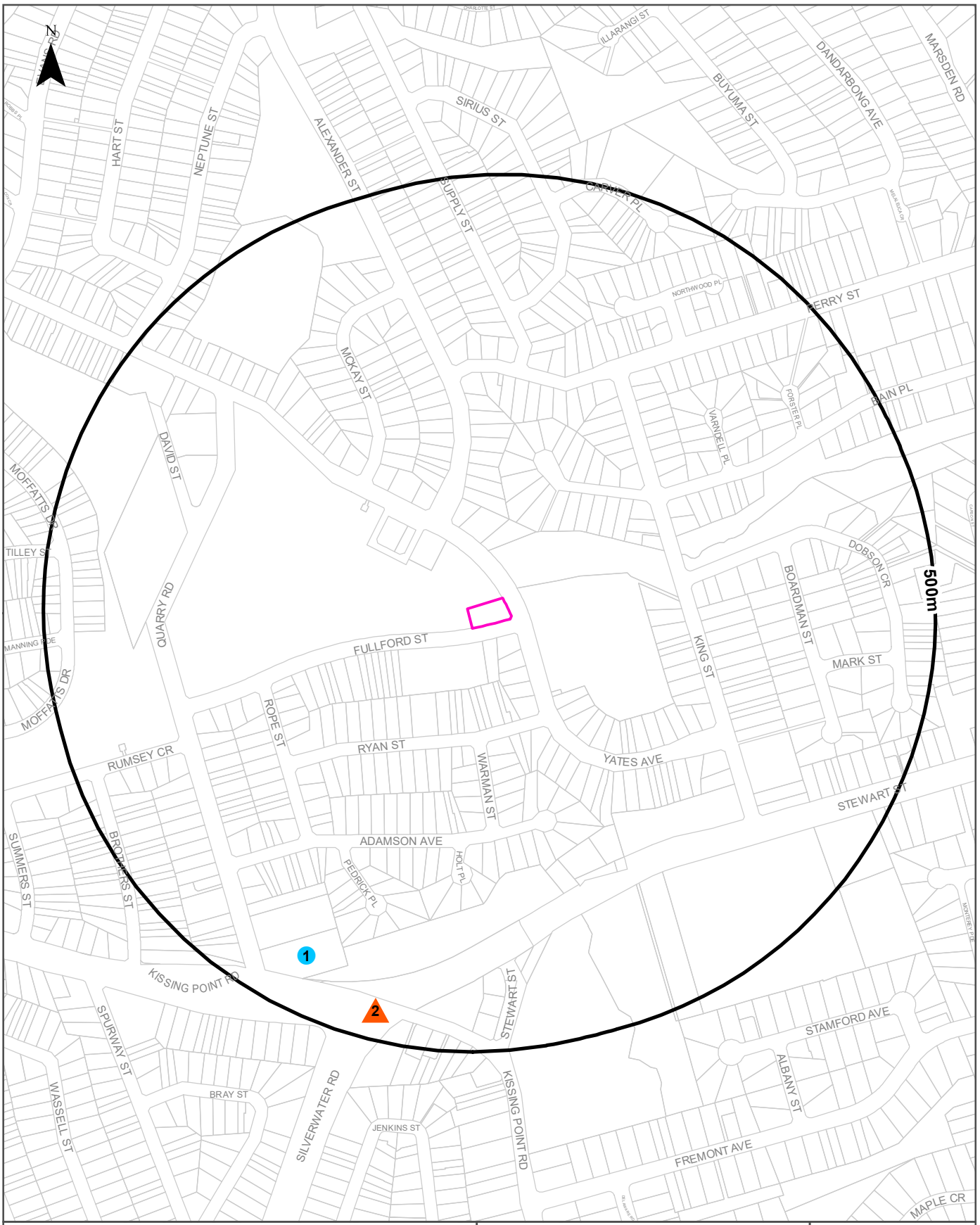
Business Directory Records 1950-1991
Road or Area Matches

Universal Business Directory records 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
6	TAKE-AWAY FOODS.	Dundas Valley Take Away, Yates Ave., Dundas. 2117.	90787	1986	Road Match	0m
	TAKE-AWAY FOODS. (T0235)	Dundas Valley Take Away, Yates Ave., Dundas. 2117.	78308	1982	Road Match	0m
	HAIRDRESSERS-GENTS.	Mitchell, M., Yates Ave., Dundas Valley. 2117	40743	1975	Road Match	0m
	HAIRDRESSERS (GENT.'S) (H070)	Mitcheli, M. Yates Ave., Dundas Valley	314205	1970	Road Match	0m
	GROCERS-RETAIL (G655)	United Food Stores., Yates Ave., Dundas Valley	313110	1970	Road Match	0m
	CHEMISTS-PHARMACEUTICAL	Yates Avenue Pharmacy., Yates Ave., Dundas Valley	281301	1970	Road Match	0m

Dry Cleaners, Motor Garages & Service Stations

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117



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: 30 November 2023

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

Historical Business Directories

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

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 SERVICE STATIONS-PETROL, OIL, ETC.	Valley Service Station Pty. Ltd., Cnr Quarry & Kissing Point Rds Dundas	2112	1971	Premise Match	388m	South West
	MOTOR SERVICE STATIONS-PETROL,OIL,Etc.	Valley Service Station Pty. Ltd., Cnr. Quarry & Kissing Point Rds., DUNDAS	341596	1970	Premise Match	388m	South West
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Valley Service Station Pty. Ltd., Cnr Quarry & Kissing Point Rds Dundas	47739	1969	Premise Match	388m	South West
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Valley Service Station Pty. Ltd., Cnr Quarry & Kissing Point Rd Dundas	31176	1968	Premise Match	388m	South West
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Valley Service Station Pty. Ltd., Cnr Quarry & Kissing Point Rds Dundas	15656	1967	Premise Match	388m	South West
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Valley Service Station Pty. Ltd., Cnr Quarry & Kissing Point Rds Dundas	1231	1966	Premise Match	388m	South West
	Motor Service Stations - Petrol, Oil, Etc.	Valley Service Station Pty. Ltd., Cnr. Quarry & Kissing Point Rds. Dundas	125654	1965	Premise Match	388m	South West
	MOTOR GARAGES & ENGINEERS	Valley Service Station Pty. Ltd., Cnr Quarry & Kissing Pt Rds Dundas	43760	1964	Premise Match	388m	South West
	MOTOR GARAGES & ENGINEERS.	Valley Service Station., Cnr Quarry Rd & Kissing Point Rd Dundas	29311	1962	Premise Match	388m	South West
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Valley Service Station., Cnr Quarry Rd & Kissing Point Rd Dundas	38120	1962	Premise Match	388m	South West
	MOTOR SERVICE STATIONS—PETROL, OIL, Etc.	Valley Service Station, Cnr. Quarry Rd. & Kissing Point Rd., DUNDAS	351243	1961	Premise Match	388m	South West
	MOTOR GARAGES & ENGINEERS	Valley Service Station, Cnr. Quarry Rd., & Kissing Point Rd., DUNDAS	348347	1961	Premise Match	388m	South West

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
2	MOTOR GARAGES & SERVICE STATIONS.	Dundas Self Service Shell, Kissing Point Rd., Dundas. 2117	18904	1993	Road Match	450m
	MOTOR GARAGES & SERVICE STATIONS.	Dundas Self Service Shell, Kissing Point Rd., Dundas. 2117	11506	1990	Road Match	450m
	MOTOR GARAGE & SERVICE STATIONS.	BP Valley Service Station, Kissing Point Rd., Dundas. 2117	64653	1989	Road Match	450m
	MOTOR GARAGE & SERVICE STATIONS.	Dundas Self Service Shell, Kissing Point Rd., Dundas. 2117	64962	1989	Road Match	450m
	MOTOR GARAGES & SERVICE STATIONS.	BP Valley Service Station, Kissing Point Rd., Dundas. 2117	53776	1988	Road Match	450m
	MOTOR GARAGES & SERVICE STATIONS.	Dundas Self Service Shell, Kissing Point Rd., Dundas. 2117	59176	1988	Road Match	450m
	MOTOR GARAGES & SERVICE STATIONS.	BP Valley Service Station, Kissing Point Rd., Dundas. 2117	64244	1986	Road Match	450m
	MOTOR GARAGES & SERVICE STATIONS.	Dundas Self Service Shell, Kissing Point Rd., Dundas. 2117	64568	1986	Road Match	450m
	MOTOR GARAGES & SERVICE STATIONS.	BP Valley Service Station, Kissing Point Rd., Dundas. 2117	39247	1985	Road Match	450m
	MOTOR GARAGES & SERVICE STATIONS.	Dundas Self Service Shell, Kissing Point Rd., Dundas. 2117	39575	1985	Road Match	450m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	BP Valley Service Station, Kissing Point Rd., Dundas. 2117	27854	1984	Road Match	450m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Dundas Self Service Shell, Kissing Point Rd., Dundas. 2117	28157	1984	Road Match	450m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	BP Valley Service Station., Kissing Point Rd., Dundas 2117	14286	1983	Road Match	450m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Dundas Self Service Shell., Kissing Point Rd., Dundas. 2117	14581	1983	Road Match	450m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS. (M6860)	BP Valley Service Station, Kissing Point Rd., Dundas. 2117.	56315	1982	Road Match	450m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS. (M6860)	Dundas Self Service Shell, Kissing Point Rd., Dundas. 2117.	56642	1982	Road Match	450m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	BP Valley Service Station., Kissing Point Rd., Dundas. 2117	63995	1981	Road Match	450m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Dundas Auto Port., Kissing Point Rd., Dundas. 2117.	3197	1981	Road Match	450m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	BP Valley Service Station., Kissing Point Rd., Dundas. 2117	51499	1980	Road Match	450m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Dundas Auto Port., Kissing Point Rd., Dundas. 2117	52838	1980	Road Match	450m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	BP Valley Service Station., Kissing Point Rd., Dundas. 2117.	41103	1979	Road Match	450m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
2	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Dundas Auto Port., Kissing Point Rd., Dundas. 2117.	41384	1979	Road Match	450m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	BP Valley Service Station, Kissing Point Rd., Dundas. 2117	49639	1978	Road Match	450m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Dundas Auto Port, Kissing Point Rd., Dundas. 2117	49918	1978	Road Match	450m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	BP Valley Service Station., Kissing Point Rd., Dundas 2117	25359	1976	Road Match	450m
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Dundas Auto Port., Kissing Point Rd., Dundas 2117	29860	1976	Road Match	450m
	MOTOR SERVICE STATIONS - PETROL, OIL	BP Valley Service Station., Kissing Point Rd., Dundas. 2117	61577	1975	Road Match	450m
	MOTOR SERVICE STATIONS - PETROL, OIL	Dundas Auto Port., Kissing Point Rd., Dundas. 2117	61678	1975	Road Match	450m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	BP Valley Service Station., Kissing Point Rd Dundas	16637	1972	Road Match	450m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Dundas Auto Port., Kissing Point Rd Dundas	16638	1972	Road Match	450m
	MOTOR GARAGES &/OR ENGINEERS.	Catt W. J., Kissing Point Rd Dundas	56677	1971	Road Match	450m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Dundas Auto Port., Kissing Point Rd Dundas	2109	1971	Road Match	450m
	MOTOR GARAGES & ENGINEERS(M6S6)	Catt, W. J., Kissing Point Rd., DUNDAS	337545	1970	Road Match	450m
	MOTOR SERVICE STATIONS-PETROL,OIL,Etc.	Dundas Auto Port., Kissing Point Rd., DUNDAS	341019	1970	Road Match	450m
	MOTOR GARAGES & ENGINEERS.	Catt W. J., Kissing Point Rd., Dundas	42084	1969	Road Match	450m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Dundas Auto Port., Kissing Point Rd Dundas	47736	1969	Road Match	450m
	MOTOR GARAGES & ENGINEERS	Catt W. J., Kissing Point Rd., Dundas	25626	1968	Road Match	450m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Dundas Auto Port., Kissing Point Rd Dundas	31173	1968	Road Match	450m
	MOTOR GARAGES & ENGINEERS.	Catt W. J., Kissing Point Rd Dundas	7069	1967	Road Match	450m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Dundas Auto Port., Kissing Point Rd Dundas	15653	1967	Road Match	450m
	MOTOR GARAGES & ENGINEERS.	Catt W. J., Kissing Point Rd., Dundas	56017	1966	Road Match	450m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Dundas Auto Port., Kissing Point Rd Dundas	1228	1966	Road Match	450m
	Motor Garages & Engineers	Catt, W. J., Kissing Point Rd. Dundas	122561	1965	Road Match	450m
	Motor Service Stations - Petrol, Oil, Etc.	Dundas Auto Port, Kissing Point Rd. Dundas	125652	1965	Road Match	450m
	MOTOR GARAGES & ENGINEERS	Catt W. J., Kissing Point Rd Dundas	43757	1964	Road Match	450m
	MOTOR GARAGES & ENGINEERS	Dundas Auto Port., Kissing Point Rd Dundas	43759	1964	Road Match	450m
	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Dundas Auto Port., Kissing Point Rd Dundas	51939	1964	Road Match	450m
	MOTOR GARAGES & ENGINEERS.	Catt W. J., Kissing Point Rd Dundas	29308	1962	Road Match	450m
	MOTOR GARAGES & ENGINEERS.	Dundas Auto Port., Kissing Point Rd Dundas	29310	1962	Road Match	450m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
2	MOTOR SERVICE STATIONS-PETROL, OIL, ETC.	Dundas Auto Port., Kissing Point Rd Dundas	38118	1962	Road Match	450m
	MOTOR GARAGES & ENGINEERS	Catt, W. J., Kissing Point Rd, Dundas	346842	1961	Road Match	450m
	MOTOR GARAGES & ENGINEERS	Dundas Auto Port Kissing Point Rd. DUNDAS	347073	1961	Road Match	450m
	MOTOR SERVICE STATIONS—PETROL, OIL, Etc.	Dundas Auto Port Kissing Point Rd. DUNDAS	350545	1961	Road Match	450m
	MOTOR GARAGES & ENGINEERS	Dundas Auto Port, Kissing Point Rd. DUNDAS	347074	1961	Road Match	450m
	MOTOR SERVICE STATIONS—PETROL, OIL, Etc.	Dundas Auto Port, Kissing Point Rd. DUNDAS	350546	1961	Road Match	450m
	MOTOR GARAGES & ENGINEERS	Catt W. J., Kissing Point Rd Dundas	13992	1959	Road Match	450m
	MOTOR GARAGE/ENGINEERS.	Catt W. J., Kissing Point Rd Dundas	801	1958	Road Match	450m
	MOTOR GARAGES &/OR ENGINEERS.	Catt W. J., Kissing Point Rd., Dundas	57400	1956	Road Match	450m
	MOTOR GARAGES &/OR ENGINEERS.	Catt W. J., Kissing Point Rd Dundas	49022	1954	Road Match	450m
	MOTOR GARAGES &/OR ENGINEERS.	Catt W. J., Kissing Point Rd Dundas	39780	1953	Road Match	450m
	MOTOR GARAGES &/OR ENGINEERS.	Catt W. J., Kissing Point Rd Dundas	31448	1952	Road Match	450m
	MOTOR GARAGES &/OR ENGINEERS	Catt, W. J., Kissing Point Rd., Dundas	83557	1950	Road Match	450m
	MOTOR SERVICE STATIONS-PETROL, Etc.	Catt, W. J., Kissing Point Rd., Dundas	85857	1950	Road Match	450m
	MOTOR GARAGES &/OR ENGINEERS.	Catt., W J Kissing Point Rd Dundas	17872	1948-49	Road Match	450m

Aerial Imagery 2023

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

Scale:	Data Source Aerial Imagery:	Coordinate System:	Date: 30 November 2023
0 20 40 60 80 Meters	© Aerometrex Pty Ltd	GDA 1994 MGA Zone 56	

Aerial Imagery 2020

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

Scale:	Data Source Aerial Imagery:	Coordinate System:	Date: 30 November 2023
0 20 40 60 80 Meters	© Aerometrex Pty Ltd	GDA 1994 MGA Zone 56	

Aerial Imagery 2016

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

Aerial Imagery 2011

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

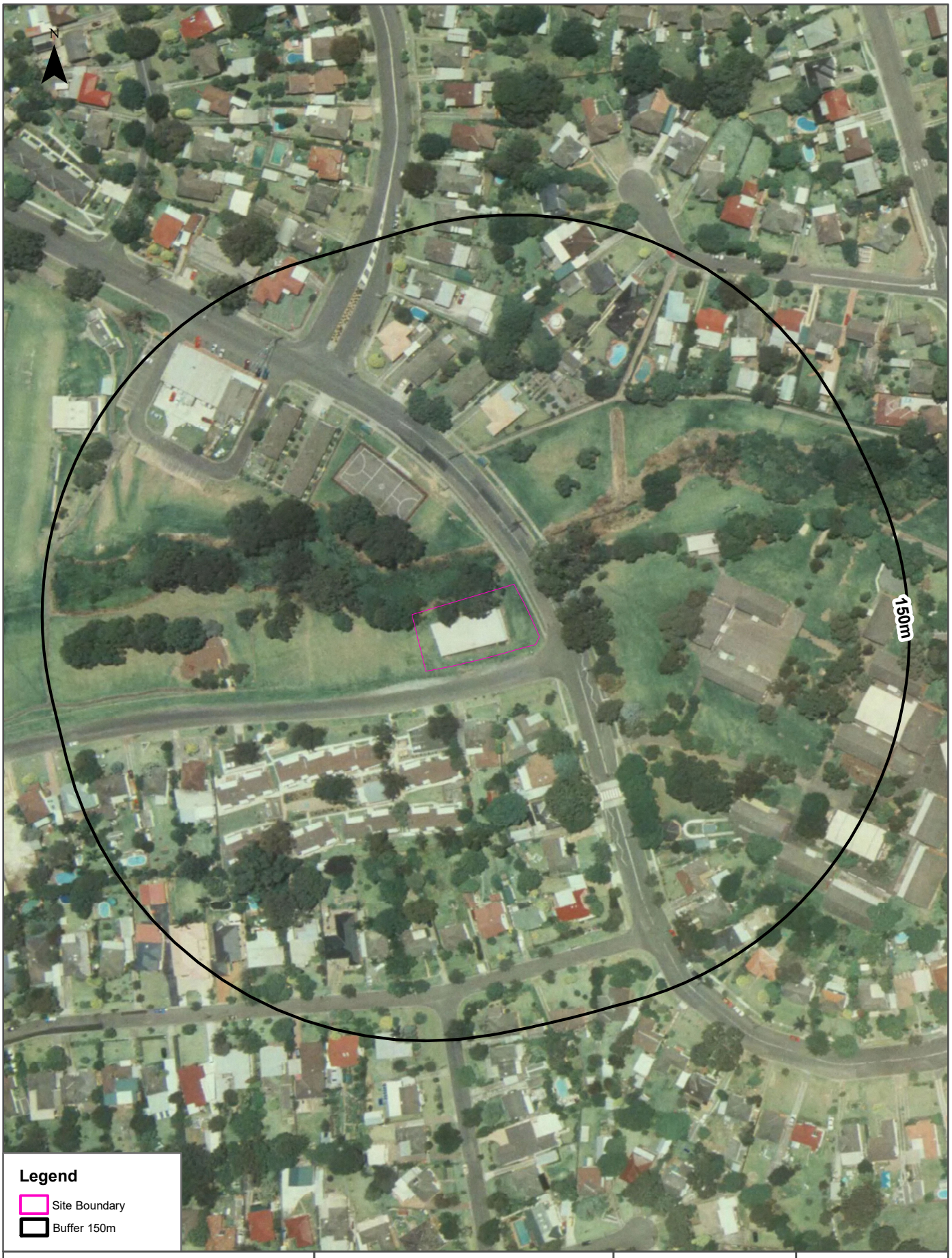
Scale: 0 20 40 60 80 Meters	Data Source Aerial Imagery: © Aerometrex Pty Ltd	Coordinate System: GDA 1994 MGA Zone 56	Date: 30 November 2023

Aerial Imagery 2007

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

Aerial Imagery 2000

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117



Scale:	Data Source Aerial Imagery:	Coordinate System:	Date: 30 November 2023
0 20 40 60 80 Meters	© Aerometrex Pty Ltd	GDA 1994 MGA Zone 56	

Aerial Imagery 1994

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

Scale: 0 20 40 60 80 Meters	Data Sources: Aerial Imagery: © NSW Department of Customer Service	Coordinate System: GDA 1994 MGA Zone 56	Date: 30 November 2023

Aerial Imagery 1991

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

Data Sources: Aerial Imagery:
© NSW Department of Customer Service

Coordinate System:
GDA 1994 MGA Zone 56

Date: 30 November 2023

Aerial Imagery 1986

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

Scale:	Data Sources: Aerial Imagery:	Coordinate System:	Date: 30 November 2023
0 20 40 60 80 Meters	© NSW Department of Customer Service	GDA 1994 MGA Zone 56	

Aerial Imagery 1982

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

Scale: 0 20 40 60 80 Meters	Data Sources: Aerial Imagery: © NSW Department of Customer Service	Coordinate System: GDA 1994 MGA Zone 56	Date: 30 November 2023

Aerial Imagery 1978

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

Scale:	Data Sources: Aerial Imagery:	Coordinate System:	Date: 30 November 2023
0 20 40 60 80 Meters	© NSW Department of Customer Service	GDA 1994 MGA Zone 56	

Aerial Imagery 1970

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

Scale: 0 20 40 60 80 Meters	Data Sources: Aerial Imagery: © NSW Department of Customer Service	Coordinate System: GDA 1994 MGA Zone 56	Date: 30 November 2023

Aerial Imagery 1965

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

Scale: 0 20 40 60 80 Meters	Data Sources: Aerial Imagery: © NSW Department of Customer Service	Coordinate System: GDA 1994 MGA Zone 56	Date: 30 November 2023

Aerial Imagery 1961

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

Scale: 0 20 40 60 80 Meters	Data Sources: Aerial Imagery: © NSW Department of Customer Service	Coordinate System: GDA 1994 MGA Zone 56	Date: 30 November 2023

Aerial Imagery 1955, 1956

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

Scale:
0 20 40 60 80
Meters

Data Sources: Aerial Imagery:
© NSW Department of Customer Service

Coordinate System:
GDA 1994 MGA Zone 56

Date: 30 November 2023

Aerial Imagery 1951

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

Scale:
0 20 40 60 80
Meters

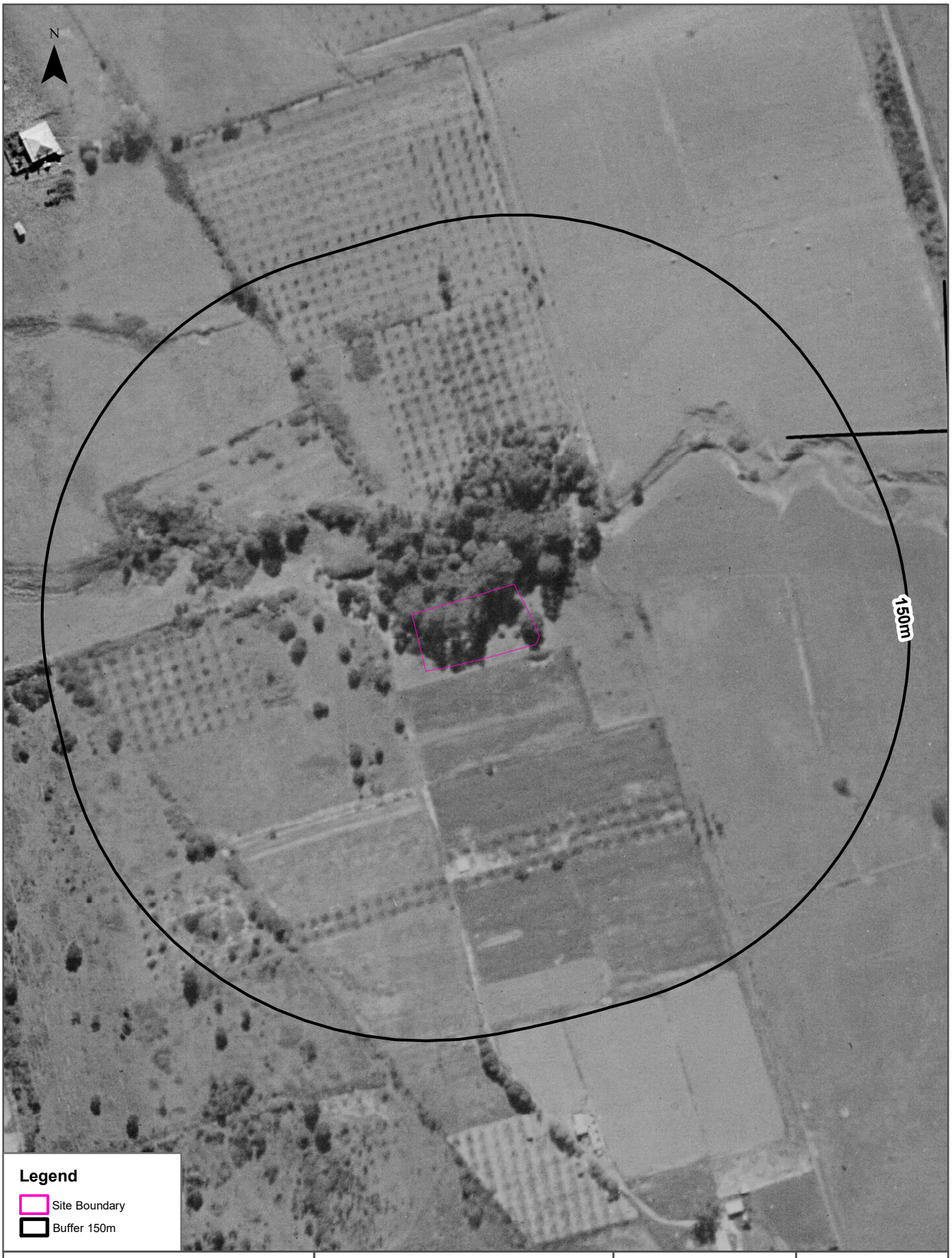
Data Sources: Aerial Imagery:
© NSW Department of Customer Service

Coordinate System:
GDA 1994 MGA Zone 56

Date: 30 November 2023

Aerial Imagery 1943

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117



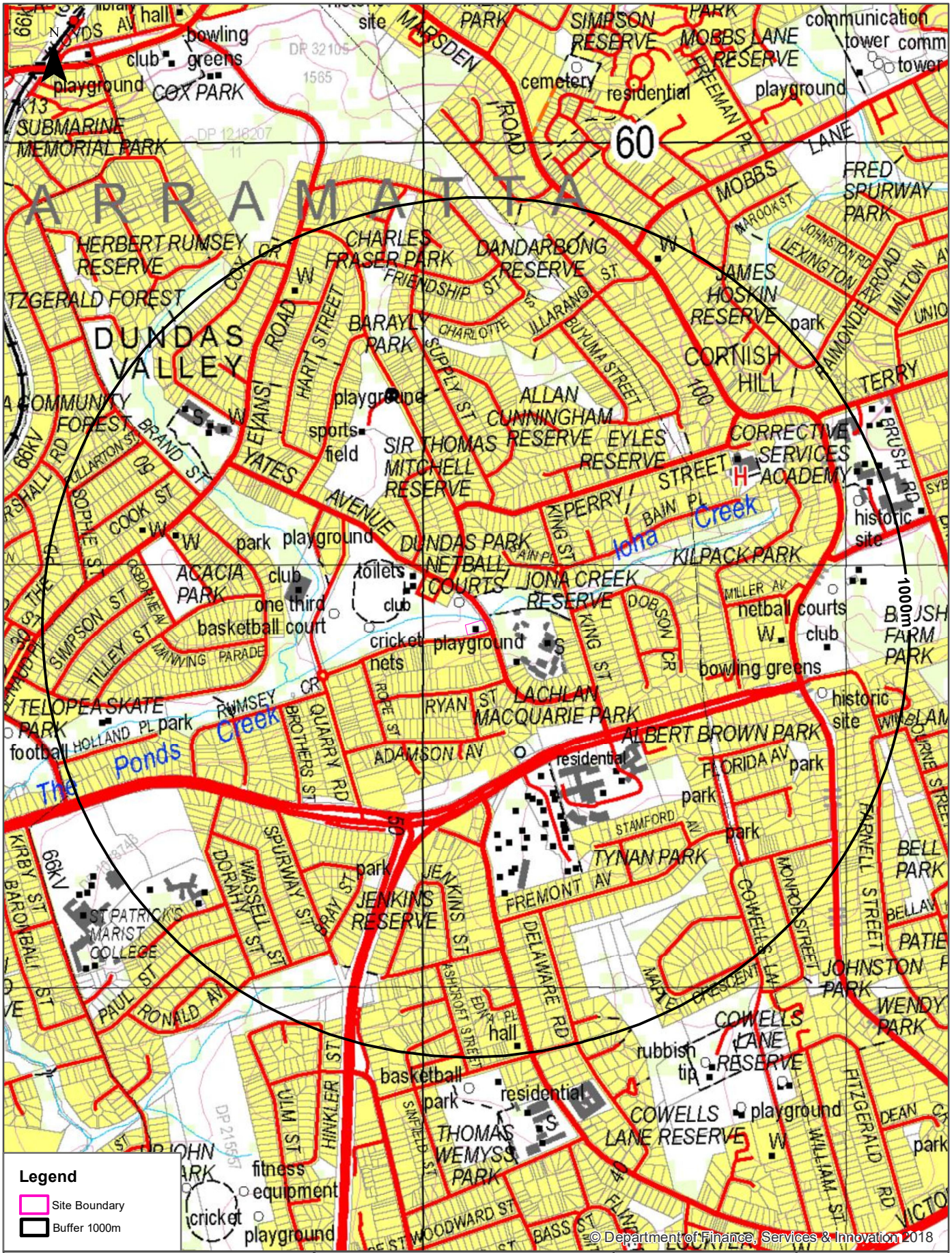
Aerial Imagery 1930

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

Scale: 0 20 40 60 80 Meters	Data Sources: Aerial Imagery: © Geoscience Australia	Coordinate System: GDA 1994 MGA Zone 56	Date: 30 November 2023

Topographic Map 2015

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117



Scale: 0 140 280 420 560 Meters

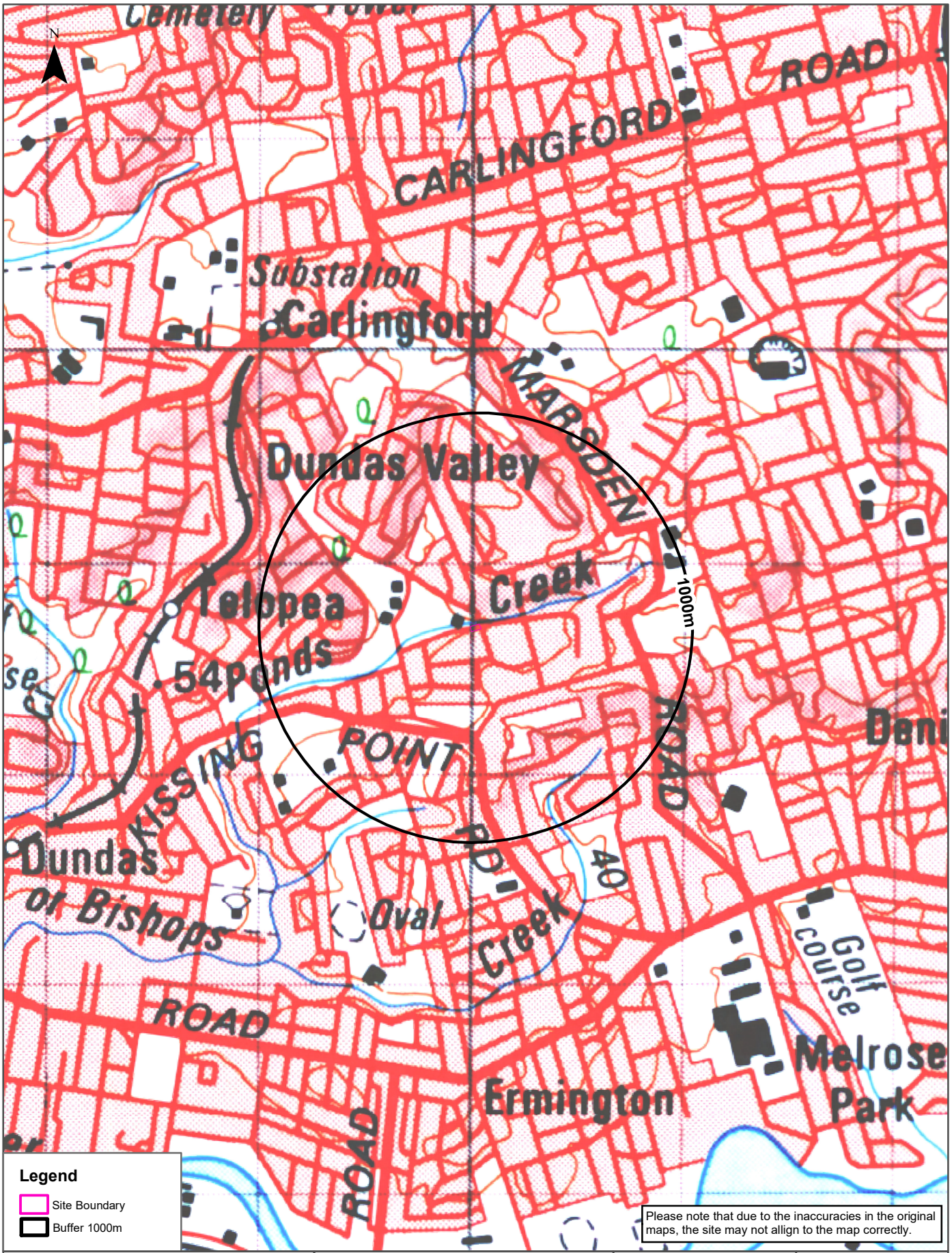
Data Sources: Topographic Map Data © NSW Land and Property Information

Coordinate System: GDA 1994 MGA Zone 56

Date: 30 November 2023

Historical Map 1975

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117



Scale: 0 280 560 840 1,120 Meters

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

Coordinate System:
GDA 1994 MGA Zone 56

Date: 30 November 2023

Historical Map c.1936

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

Scale:	Data Sources: Australia 1:63360 Produced by Australian Section Imperial General Staff	Coordinate System: GDA 1994 MGA Zone 56	Date: 30 November 2023

0 280 560 840 1,120
Meters

Historical Map c.1917

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

Scale: 0 280 560 840 1,120 Meters

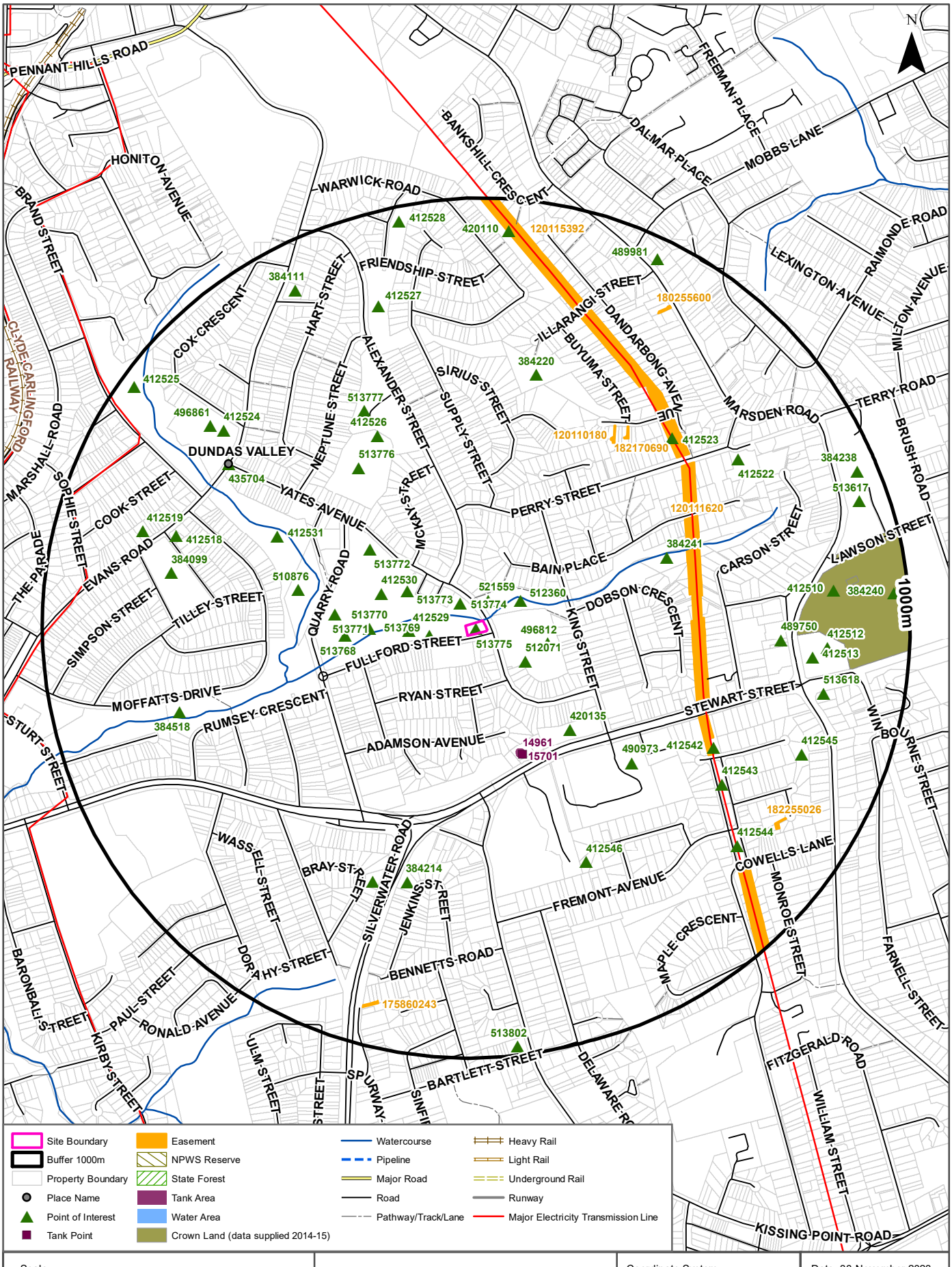
Data Sources: Australia 1:63360
Produced by Australian Section Imperial General Staff

Coordinate System:
GDA 1994 MGA Zone 56

Date: 30 November 2023

Topographic Features

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117



Site Boundary
Buffer 1000m
Property Boundary
Place Name
Point of Interest
Tank Point
Easement
NPWS Reserve
State Forest
Tank Area
Water Area
Crown Land (data supplied 2014-15)
Watercourse
Pipeline
Major Road
Road
Pathway/Track/Lane
Heavy Rail
Light Rail
Underground Rail
Runway
Major Electricity Transmission Line

Scale: 0 100 200 400 600 Meters

Data Sources: Property Boundaries & Topographic Data: © Department Finance, Services & Innovation 2023

Coordinate System: GDA 1994 MGA Zone 56

Date: 30 November 2023

Topographic Features

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

Points of Interest

What Points of Interest exist within the dataset buffer?

Map Id	Feature Type	Label	Distance	Direction
513775	Community Facility	DUNDAS SCOUT GROUP	0m	On-site
521559	Park	DUNDAS PARK	49m	North East
513774	Sports Court	DUNDAS PARK NETBALL COURTS	53m	North West
513769	Park	PLAYGROUND	87m	West
512360	Park	IONA CREEK RESERVE	101m	North East
512071	Preschool	YATES AVENUE PUBLIC SCHOOL PRESCHOOL	117m	South East
412529	Park	DUNDAS PARK	133m	West
496812	Primary School	YATES AVENUE PUBLIC SCHOOL	147m	East
513773	Club	DUNDAS UNITED RECREATION CLUB	160m	North West
412530	Sports Field	CURTIS OVAL	212m	West
513770	Sports Court	CRICKET NETS	226m	West
513768	Sports Field	SOCCER	285m	West
513772	Park	PLAYGROUND	288m	North West
420135	Park	LACHLAN MACQUARIE PARK	306m	South East
513771	Sports Court	ONE THIRD BASKETBALL COURT	309m	West
510876	Club	VIKING SPORTS CLUB	404m	West
513776	Sports Field	Sports Field	450m	North West
384241	Park	KILPACK PARK	458m	East
490973	Nursing Home	WESLEY TEBBUTT	464m	South East
412531	Park	Park	492m	North West
412526	Park	SIR THOMAS MITCHELL RESERVE	495m	North West
513777	Park	PLAYGROUND	562m	North West
412546	Park	TYNAN PARK	595m	South East
384220	Park	ALLAN CUNNINGHAM RESERVE	595m	North
384214	Park	JENKINS RESERVE	601m	South
412542	Park	ALBERT BROWN PARK	604m	South East
412523	Park	EYLES RESERVE	623m	North East
384215	Park	Park	625m	South
412543	Park	Park	665m	South East
435704	Locality	DUNDAS VALLEY	678m	North West
489750	Place Of Worship	BAPTIST CHURCH	696m	East

Map Id	Feature Type	Label	Distance	Direction
384518	Park	Park	705m	West
384099	Park	ACACIA PARK	706m	West
412522	General Hospital	ALLOWAH PRESBYTERIAN CHILDREN'S HOSPITAL	714m	North East
412518	Place Of Worship	ANGLICAN CHURCH	716m	West
412524	Place Of Worship	CATHOLIC CHURCH	735m	North West
496861	Primary School	ST BERNADETTE'S PRIMARY SCHOOL	766m	North West
412513	Sports Field	BOWLING GREENS	772m	East
412544	Park	Park	781m	South East
412527	Park	BARAYLY PARK	783m	North
412519	Place Of Worship	JEHOVAHS WITNESSES CHURCH	795m	West
412545	Park	Park	800m	East
412512	Club	BRUSH PARK BOWLING CLUB	805m	East
513618	Historic Site	RIVERVIEW HOUSE AND OUTBUILDINGS	809m	East
412510	Sports Court	NETBALL COURTS	825m	East
384111	Place Of Worship	FAITH BAPTIST CHURCH	889m	North West
420110	Park	DANDARBONG RESERVE	923m	North
513617	Historic Site	BRUSH FARM	931m	East
489981	Place Of Worship	UNITING CHURCH	950m	North East
384238	Academy	CORRECTIVE SERVICES ACADEMY	951m	East
412528	Park	CHARLES FRASER PARK	966m	North
412525	Park	RAPANEA COMMUNITY FOREST	966m	North West
384240	Park	BRUSH FARM PARK	966m	East
513802	Community Facility	1ST ERMINGTON SCOUT HALL	980m	South

Topographic Features

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

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
15701	Water	Operational	DUNDAS RESERVOIR	13/07/2018	288m	South

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
14961	Water	Feature on Previous LPI Tank Area Supply		13/06/2001	305m	South

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
120111620	Primary	Undefined		483m	East
120110180	Primary	Undefined		520m	North East
182170690	Primary	Right of way	variable	545m	North East
120115392	Primary	Undefined		599m	North
182255026	Primary	Right of way	variable	820m	South East
180255600	Primary	Right of way	3.5m	837m	North East
175860243	Primary	Right of way	4.99m & var	889m	South

Topographic Features

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

State Forest

What State Forest exist within the dataset buffer?

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

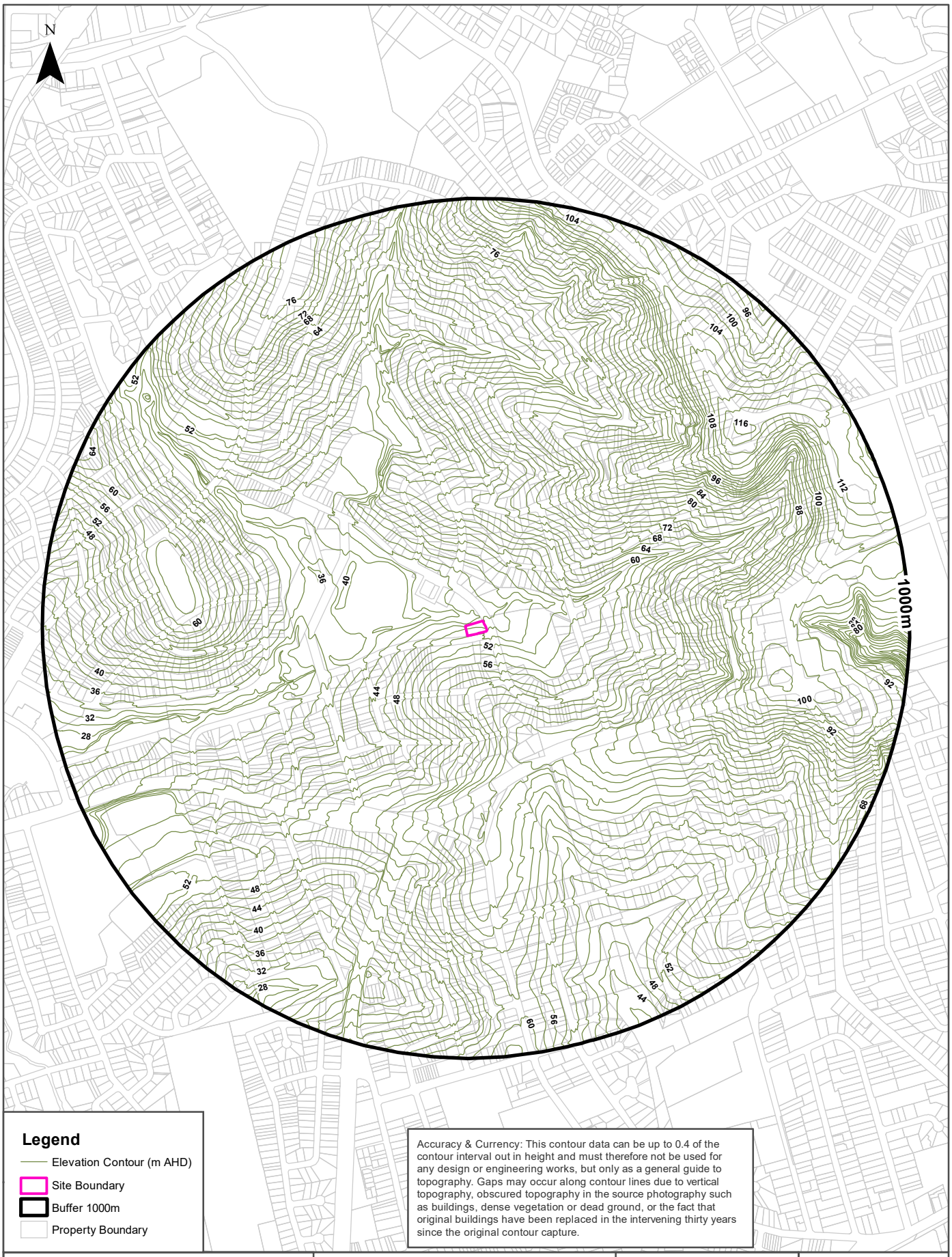
National Parks and Wildlife Service Reserves

What NPWS Reserves exist within the dataset buffer?

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

Elevation Contours (m AHD)

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117



Hydrogeology & Groundwater

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

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)

Temporary Water Restriction (Botany Sands Groundwater Source) Order 2018

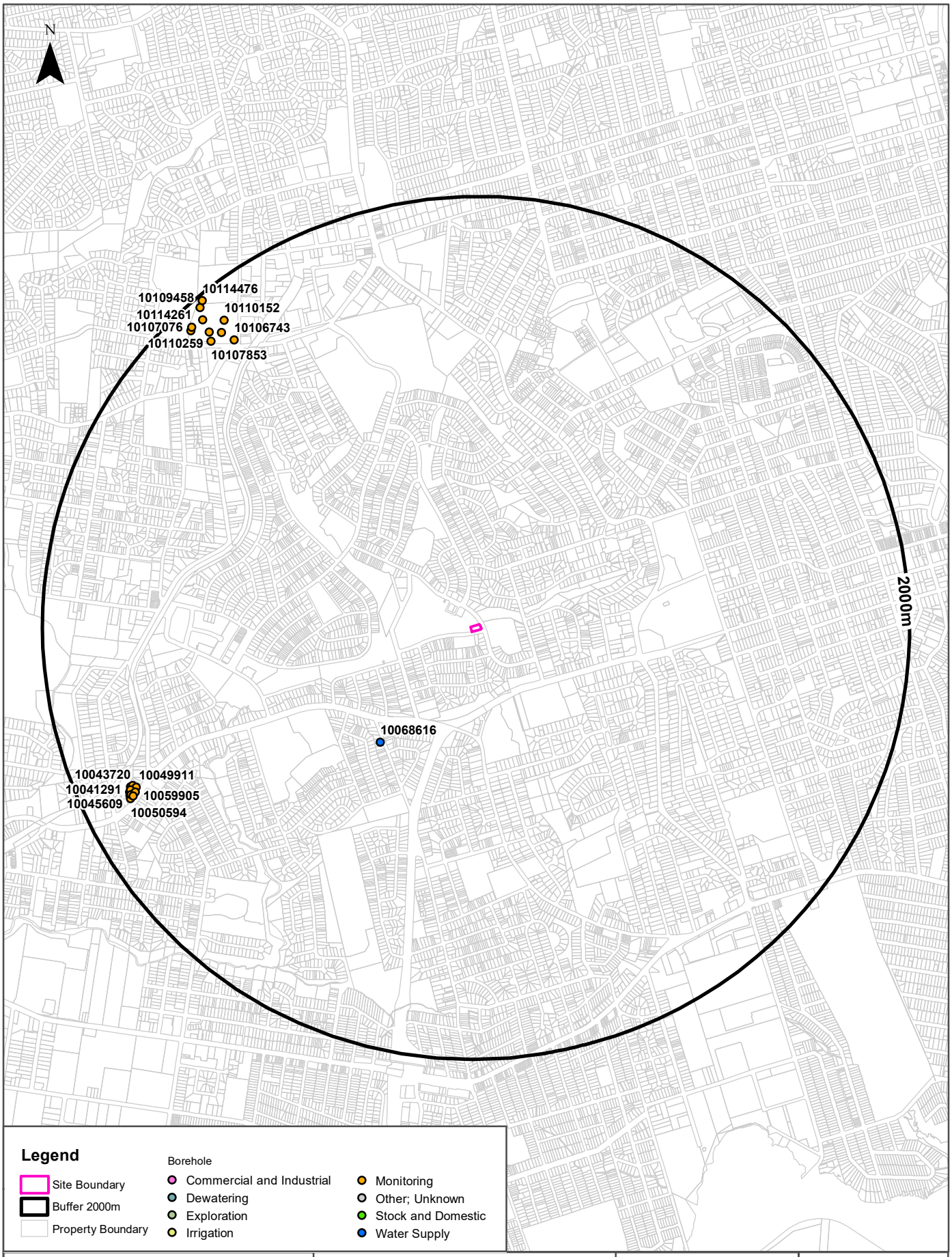
Temporary water restrictions relating to the Botany Sands aquifer within the dataset buffer:

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

Temporary Water Restriction (Botany Sands Groundwater Source) Order 2018 Data Source : NSW Department of Primary Industries

Groundwater Boreholes

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117



Hydrogeology & Groundwater

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

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
10068616	GW200688	Water Supply	Unknown	09/01/2007	6.00		AHD				670m	South West
10051631	GW110087	Monitoring	Unknown	18/05/2005	10.00		AHD				1728m	South West
10106743	GW115353	Monitoring	Functional	01/03/2007	5.10		AHD				1736m	North West
10049911	GW110088	Monitoring	Unknown	18/05/2005	10.00		AHD				1738m	South West
10059905	GW106041	Monitoring	Unknown	08/11/2002	8.50		AHD			2.82	1742m	South West
10043720	GW110089	Monitoring	Unknown	19/05/2005	10.00		AHD				1751m	South West
10058471	GW106044	Monitoring	Unknown	04/11/2002	10.50		AHD			3.71	1757m	South West
10060513	GW106042	Monitoring	Unknown	06/11/2002	7.10		AHD			2.24	1758m	South West
10041291	GW110086	Monitoring	Unknown	19/05/2005	9.00		AHD				1765m	South West
10059620	GW106043	Monitoring	Unknown	06/11/2002	10.10		AHD			3.40	1765m	South West
10045609	GW110085	Monitoring	Unknown	19/05/2005	10.00		AHD				1769m	South West
10050594	GW110084	Monitoring	Unknown	18/05/2005	10.00		AHD				1774m	South West
10106120	GW115354	Monitoring	Functional	07/03/2007	5.00		AHD				1801m	North West
10107853	GW115352	Monitoring	Functional	01/03/2007	4.90		AHD				1802m	North West
10110152	GW115355	Monitoring	Functional	06/03/2007	5.00		AHD				1837m	North West
10110259	GW115361	Monitoring	Functional	07/03/2007	5.00		AHD				1839m	North West
10107076	GW115360	Monitoring	Removed	05/03/2005	6.00		AHD				1902m	North West
10112942	GW115356	Monitoring	Functional	08/03/2007	5.00		AHD				1902m	North West
10114261	GW115359	Monitoring	Functional	01/03/2007	8.20		AHD				1911m	North West
10109458	GW115358	Monitoring	Functional	05/03/2007	5.00		AHD				1955m	North West
10114476	GW115357	Monitoring	Functional	05/03/2007	5.00		AHD				1972m	North West

Hydrogeology & Groundwater

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

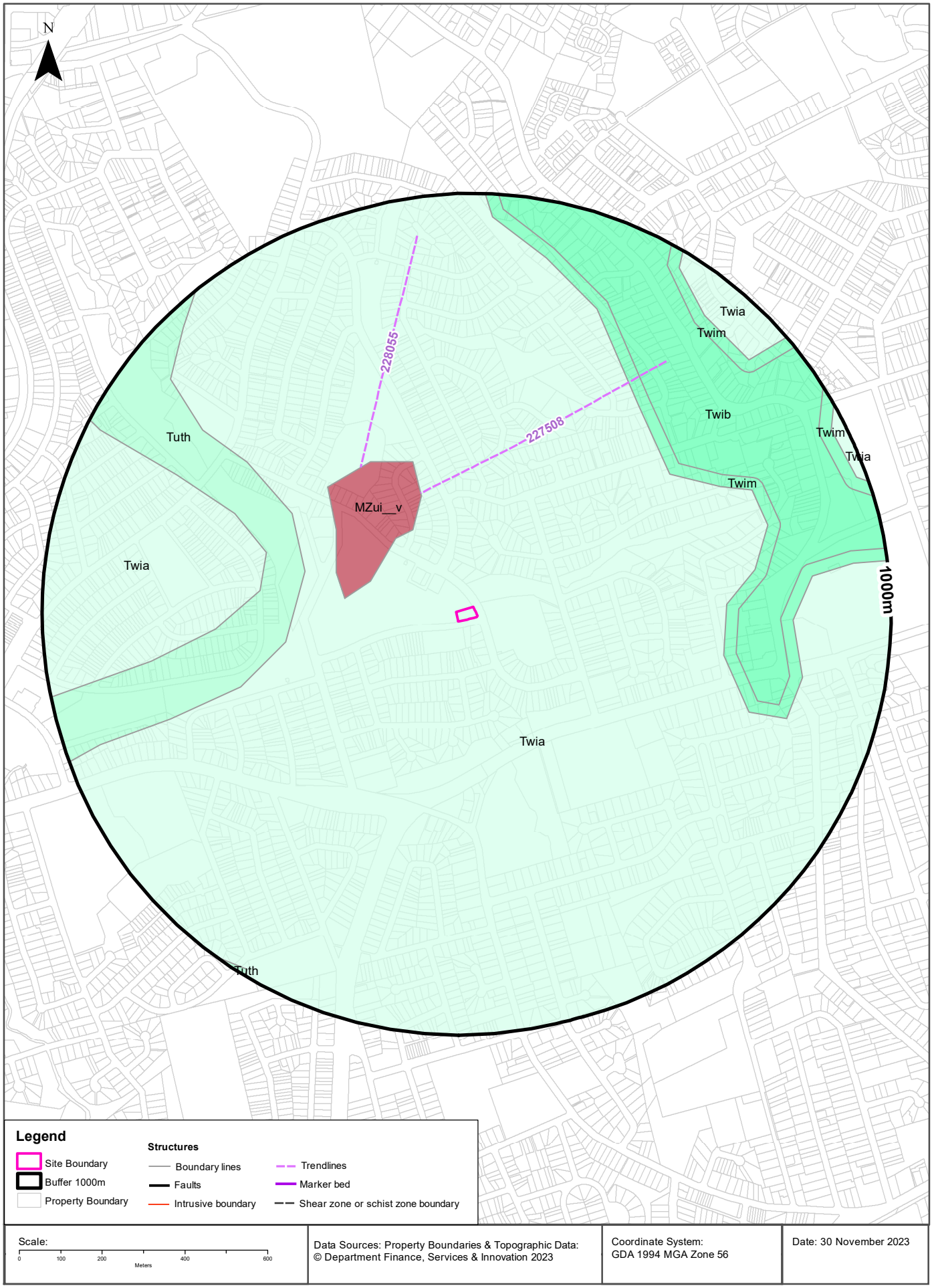
Driller's Logs

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

NGIS Bore ID	Drillers Log	Distance	Direction
10051631	0.00m-1.00m TOPSOIL,GRASS,LOOSE DIRT,FILL MATERIAL 1.00m-1.90m CLAY ,BROWN,DRY,FIRM,LOW PLASTICITY,TRACE GRAVELS 1.90m-2.50m CLAY BROWN,DRY,FIRM, NO PLASTICITY 2.50m-4.00m CLAY BROWN,DRY,HARD 4.00m-5.40m CLAY BROWN DRY,HARD,NO PLASTICITY,GRAVELS 5.40m-8.00m SHALE GREY,HARD, NO PLASTICITY,DRY, NO ODOUR 8.00m-10.00m SANDSTONE WHITE,WEATHERED,HARD,DRY,NO ODOUR	1728m	South West
10049911	0.00m-1.20m FILL,TOPSOIL,CLAY,SAND,TRACE GRAVELS,DRY,LOOSE 1.20m-1.90m CLAY,BROWN,LOW PLASTICITY,DRY,NO ODOUR 1.90m-4.50m CLAY BROWN,DRY,HARD, NO PLASTICITY 4.50m-8.00m SHALE.GREY,WEATHERED,DRY,NO PLASTICITY,HARD 8.00m-10.00m SANDSTONE WHITE,WEATHERED,DRY,HARD	1738m	South West
10059905	0.00m-1.80m FILL,GRAVELLY CLAY 1.80m-2.60m CLAY 2.60m-6.80m SHALE,BEIGE/GREY 6.80m-8.50m SHALE,BLUE,GREY,HARD	1742m	South West
10043720	0.00m-2.90m FILL,TOPSOIL,SAND,TRACE GRAVEL,DRY,LOOSE 2.90m-3.90m CLAY NATURAL,RED,BROWN, SOFT,DRY,NO ODOUR,TRACE GRAVELS 3.90m-5.70m AS ABOVE,MINOR GRAVELS,HARD 5.70m-9.50m SHALE,GREY,HARD,MOIST 9.50m-10.00m SANDSTONE GREY/WHITE,WEATHERED,HARD,DRY	1751m	South West
10058471	0.00m-2.60m FILL,BLACK,FIRM 2.60m-6.70m SHALE,WEATHEREAD,QUARTZ 6.70m-8.70m SHALE,DARK GREY 8.70m-10.50m SANDSTONE,GREY SOFT	1757m	South West
10060513	0.00m-1.20m FILL,SAND,RUBBLE,GRAVEL 1.20m-2.10m CLAY,LIGHT BROWN 2.10m-2.60m SHALE,BLUE GREY 2.60m-4.20m SHALE,LIGHT BROWN 4.20m-7.10m SHALE,GREY HARD	1758m	South West
10041291	0.00m-1.00m FILL:BROWN/RED CLAY, MOIST,LOOSE,SLIGHT PETROLEUM ODOUR,GRAVELS 1.00m-1.90m AS ABOVE,STRONGER ODOUR,DRY 1.90m-3.90m CLAY,LIGHT BROWN,DRY,HARD,TRACE GRAVELS,NO ODOUR 3.90m-5.00m AS ABOVE,MORE GRAVELS,TRACE SHALE 5.00m-7.00m SHALE GREY,L/BLUE,DRY,HARD,NO ODOUR 7.00m-9.00m SANDSTONE,WHITE,HARD,DRY NO ODOUR	1765m	South West
10059620	0.00m-1.20m FILL,GRAVEL,CLAY 1.20m-2.50m CLAY,BLACK TO BROWN 2.50m-3.10m CLAY GREY 3.10m-5.90m SHALE,GREY,BEIGE 5.90m-10.10m SHALE,GREY,HARD, WEATHERED	1765m	South West
10045609	0.00m-0.20m CONCRETE FOOTPATH 0.20m-1.00m FILL,CLAY,GRAVEL,SAND,COBBLES,BROWN,MOIST,LOOSE 1.00m-1.80m AS ABOVE , DRY 1.80m-3.80m CLAY BROWN,DRY,HARD,SOME GRAVELS 3.80m-5.30m AS ABOVE, UP TO5% GRAVELS 5.30m-6.50m SHALE,GREY,HARD,DRY 6.50m-10.00m SANDSTONE,WHITE/GREY,HARD,DRY	1769m	South West
10050594	0.00m-0.20m CONCRETE 0.20m-1.30m FILL,CLAY,GRAVELS,MOIST,LOW PLASTICITY,LOOSE 1.30m-3.40m CLAY BROWN,MOIST TO DRY,MODERATE PLASTICITY,TRACE GRAVEL,FIRM 3.40m-7.00m SHALE GREY,HARD,DRY 7.00m-10.00m SANDSTONE WHITE,HARD,DRY.	1774m	South West

Geology

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117



Geology

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

Geological Units

What are the Geological Units within the dataset buffer?

Unit Code	Unit Name	Description	Unit Stratigraphy	Age	Dominant Lithology	Distance
Twia	Ashfield Shale	Black to light grey shale and laminite.	/Wianamatta Group//Ashfield Shale//	Middle Triassic (base) to Middle Triassic (top)	Shale	0m
MZui__v	Ungrouped Mesozoic igneous units - breccia	Volcanic breccia, varying amounts of sedimentary breccia, and basalt.	/Ungrouped Mesozoic igneous units//Ungrouped Mesozoic igneous units - breccia//	Jurassic (base) to Cretaceous (top)	Undifferentiated breccia	216m
Tuth	Hawkesbury Sandstone	Medium- to coarse-grained quartz sandstone with minor shale and laminite lenses.	/Ungrouped Triassic units//Hawkesbury Sandstone//	Anisian (base) to Anisian (top)	Sandstone	378m
Twim	Minchinbury Sandstone	Fine- to medium-grained lithic sandstone.	/Wianamatta Group//Minchinbury Sandstone//	Middle Triassic (base) to Middle Triassic (top)	Sandstone	574m
Twib	Bringelly Shale	Shale, carbonaceous claystone, laminite, lithic sandstone, rare coal.	/Wianamatta Group//Bringelly Shale//	Middle Triassic (base) to Middle Triassic (top)	Shale	606m

Linear Geological Structures

What are the Dyke, Sill, Fracture, Lineament and Vein trendlines within the dataset buffer?

Map ID	Feature Description	Map Sheet Name	Distance
227508	Dyke or vein	Sydney 1:100,000 Geological Sheet	300m
228055	Dyke or vein	Sydney 1:100,000 Geological Sheet	418m

What are the Faults, Shear zones or Schist zones, Intrusive boundaries & Marker beds within the dataset buffer?

Map ID	Boundary Type	Description	Map Sheet Name	Distance
No Features				

Naturally Occurring Asbestos Potential

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

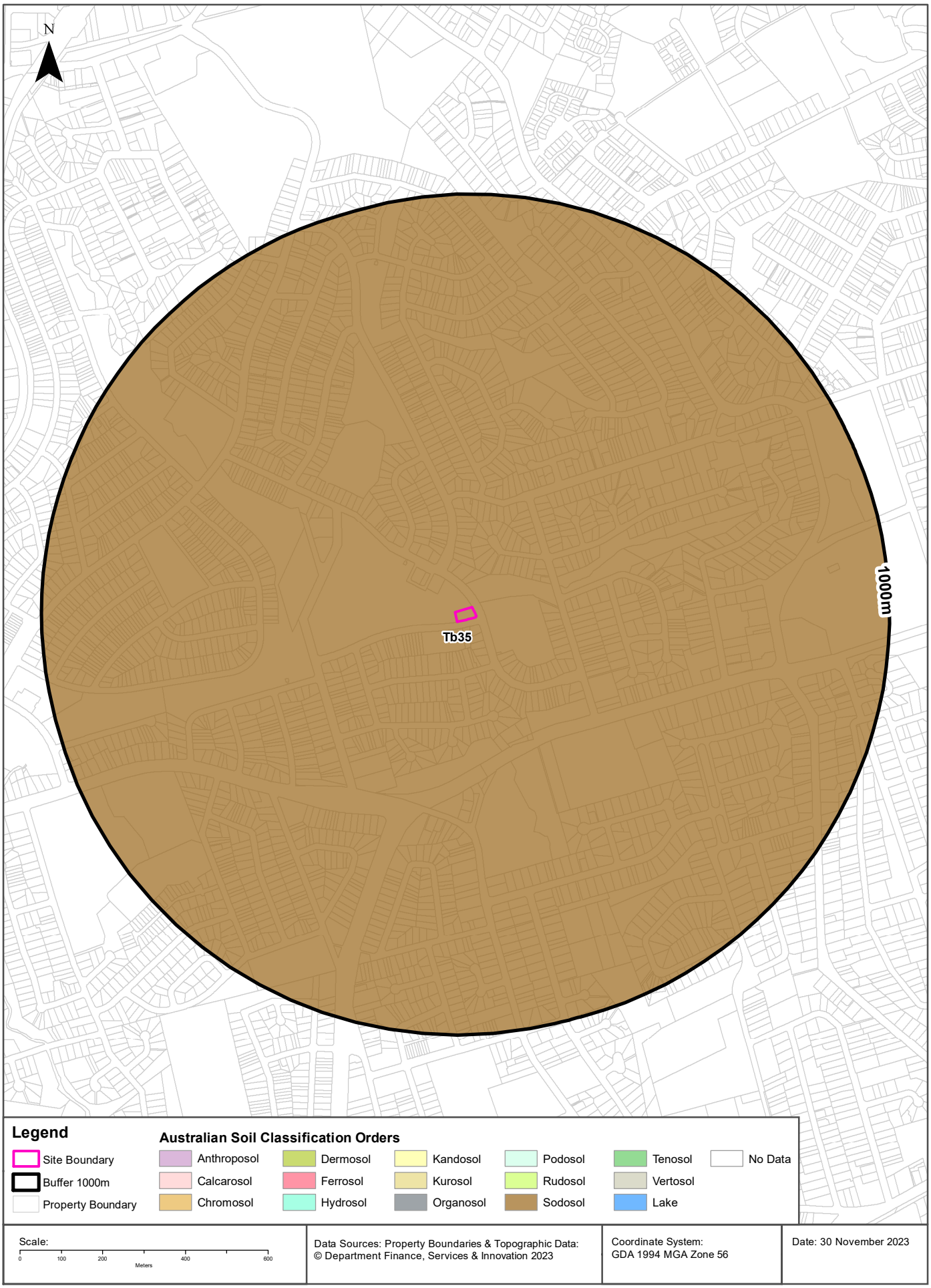
Naturally Occurring Asbestos Potential

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												

Atlas of Australian Soils

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117



Soils

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

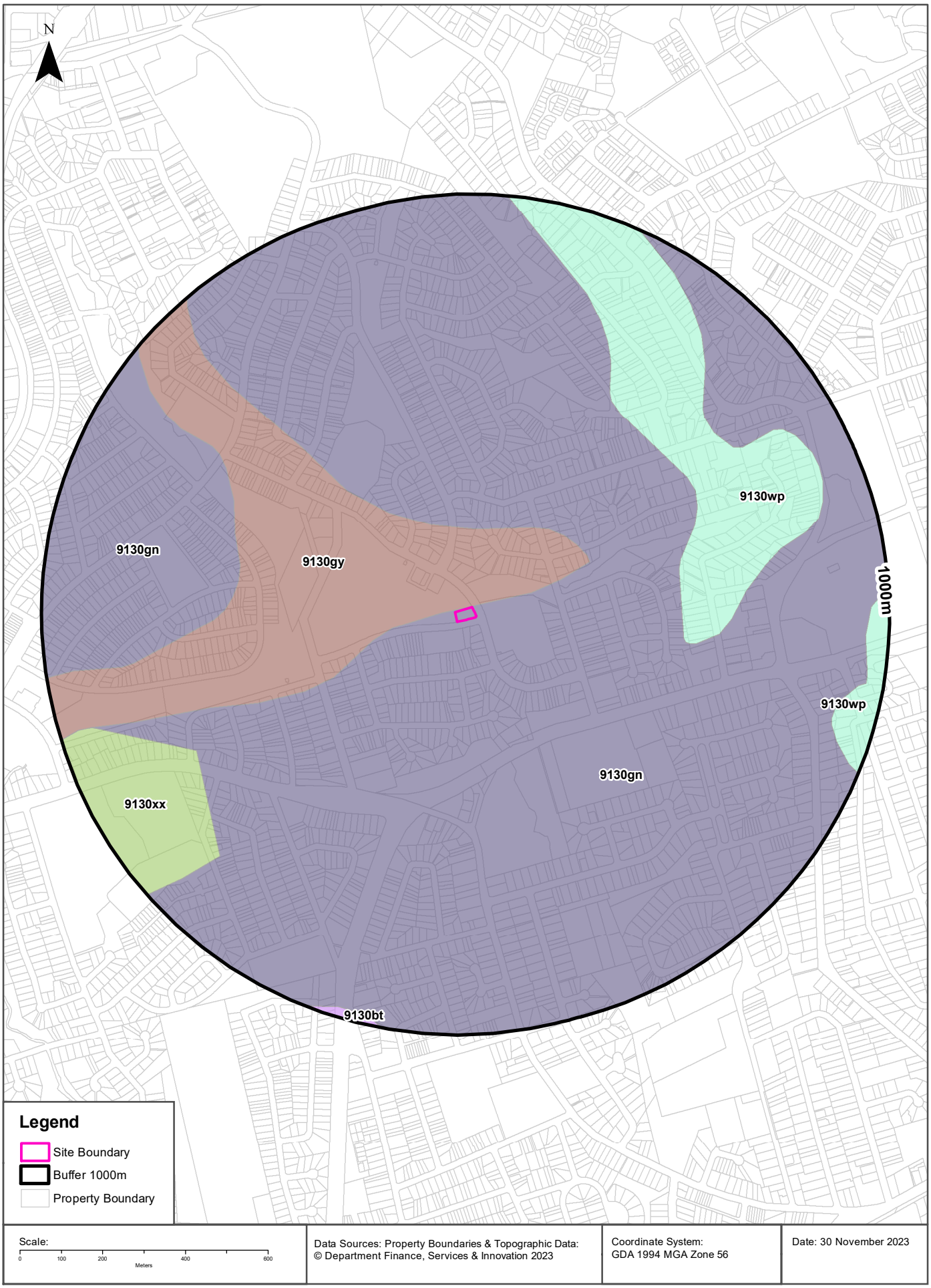
Atlas of Australian Soils

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

Map Unit Code	Soil Order	Map Unit Description	Distance	Direction
Tb35	Sodosol	Dissected plateau remnants--flat to undulating ridge tops with moderate to steep side slopes: chief soils are hard acidic yellow and yellow mottled soils (Dy3.41), (Dy2.21), and (Dy2.41) and hard acidic red soils (Dr2.21); many shallow profiles occur and profile thickness varies considerably over short distances. Associated are: (Gn3.54), (Gn3.14), and possibly other (Gn3) soils; (Db1.2) soils on some ridges; (Dy5.81) soils in areas transitional to unit Mb2; soils common to unit Mb2; and eroded lateritic remnants. Small areas of other soils are likely. Flat ferruginous shale or sandstone fragments are common on and/or in and/or below the soils of this unit.	0m	On-site

Soil Landscapes of Central and Eastern NSW

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117



Soils

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

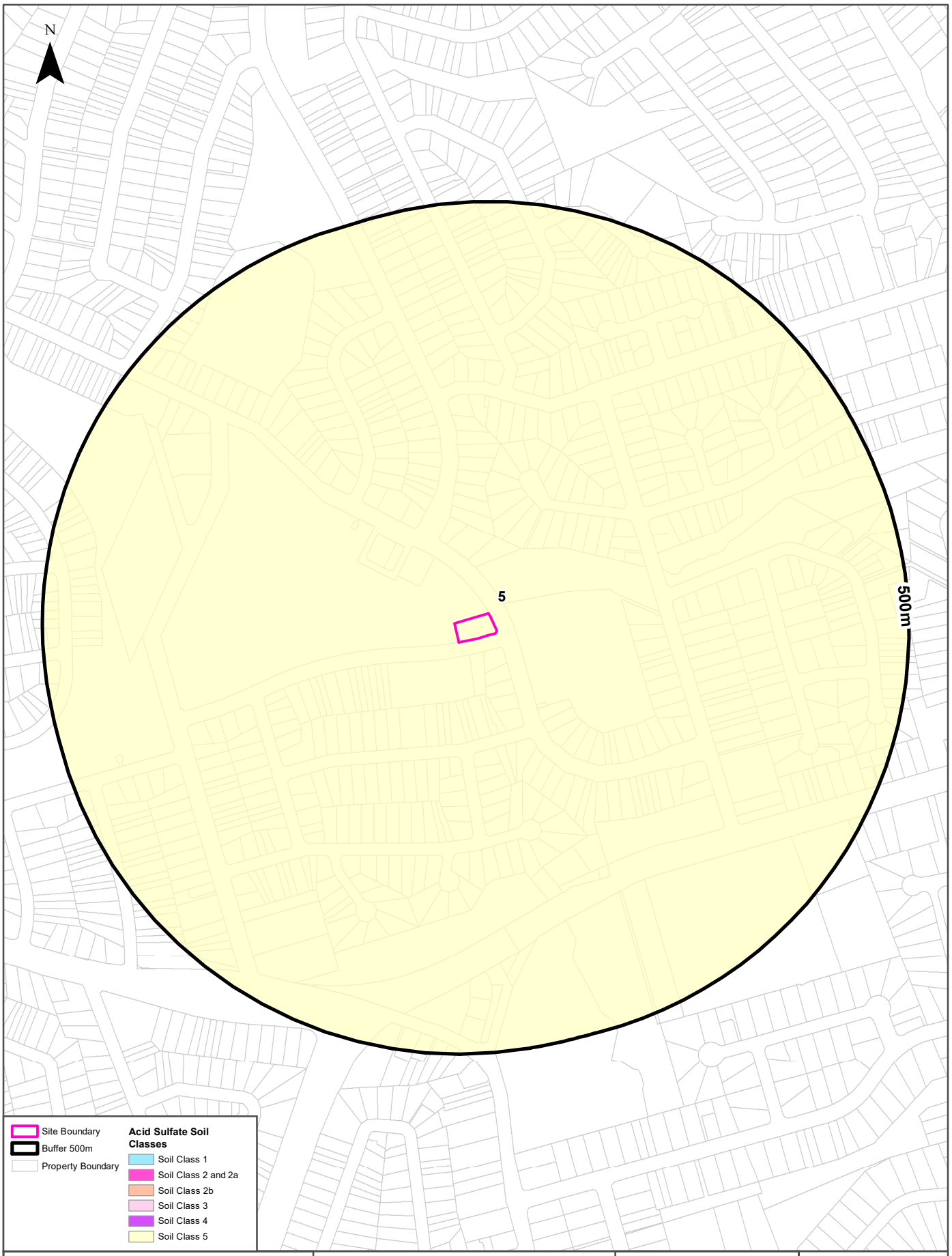
Soil Landscapes of Central and Eastern NSW

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

Soil Code	Name	Distance	Direction
9130gn	Glenorie	0m	On-site
9130gy	Gymea	3m	West
9130wp	West Pennant Hills	496m	North East
9130xx	Disturbed Terrain	704m	South West
9130bt	Blacktown	974m	South

Acid Sulfate Soils

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117



Acid Sulfate Soils

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

Environmental Planning Instrument - Acid Sulfate Soils

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

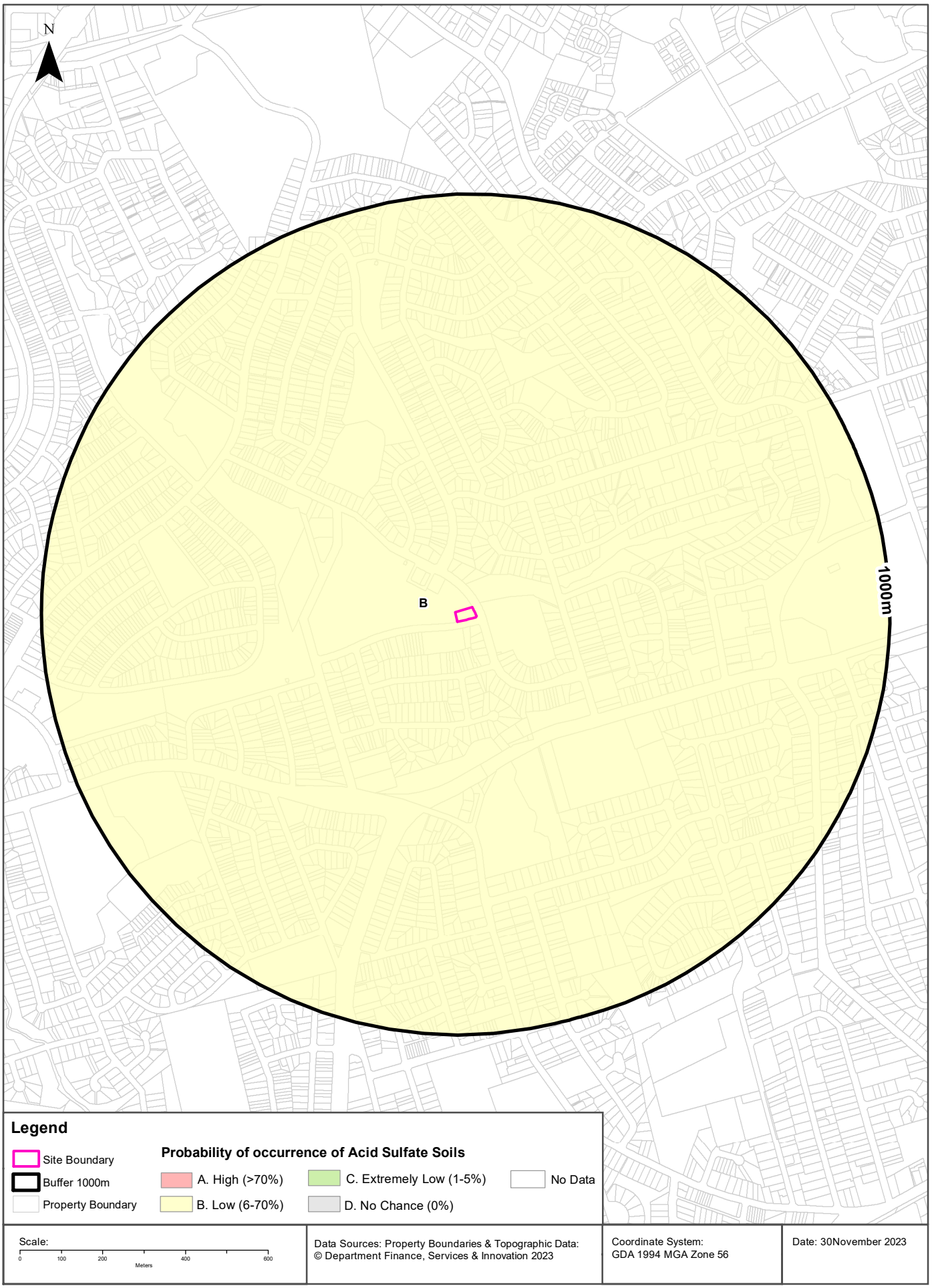
Soil Class	Description	EPI Name
5	Works within 500 metres of adjacent Class 1, 2, 3, or 4 land that is below 5 metres AHD and by which the watertable is likely to be lowered below 1 metre AHD on adjacent Class 1, 2, 3 or 4 land, present an environmental risk	Parramatta Local Environmental Plan 2023

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

Soil Class	Description	EPI Name	Distance	Direction
None				

Atlas of Australian Acid Sulfate Soils

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117



Acid Sulfate Soils

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

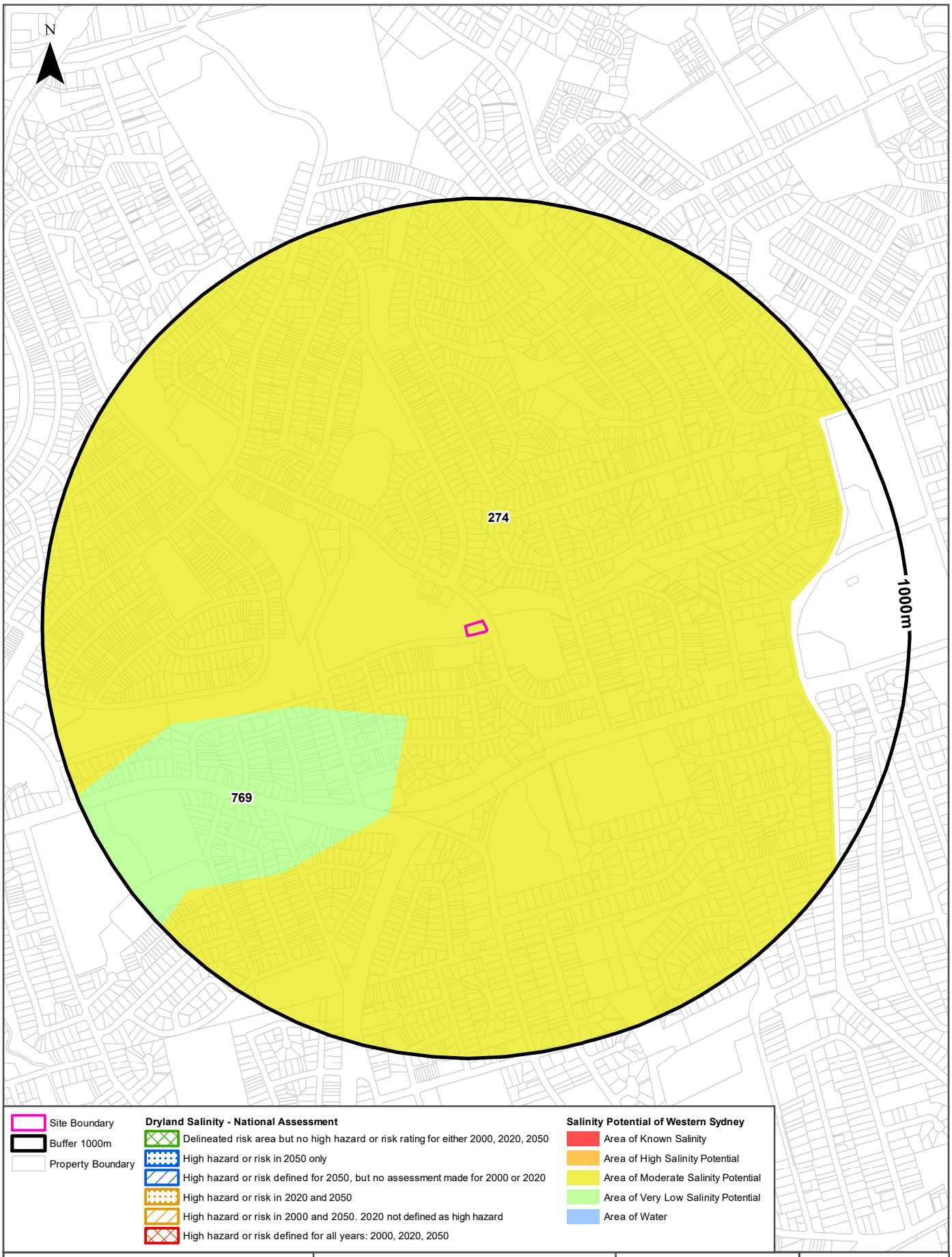
Atlas of Australian Acid Sulfate Soils

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

Dryland Salinity

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117



Dryland Salinity

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

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
769	LOW	Area of Very Low Salinity Potential	237m	South West

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

Mining

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

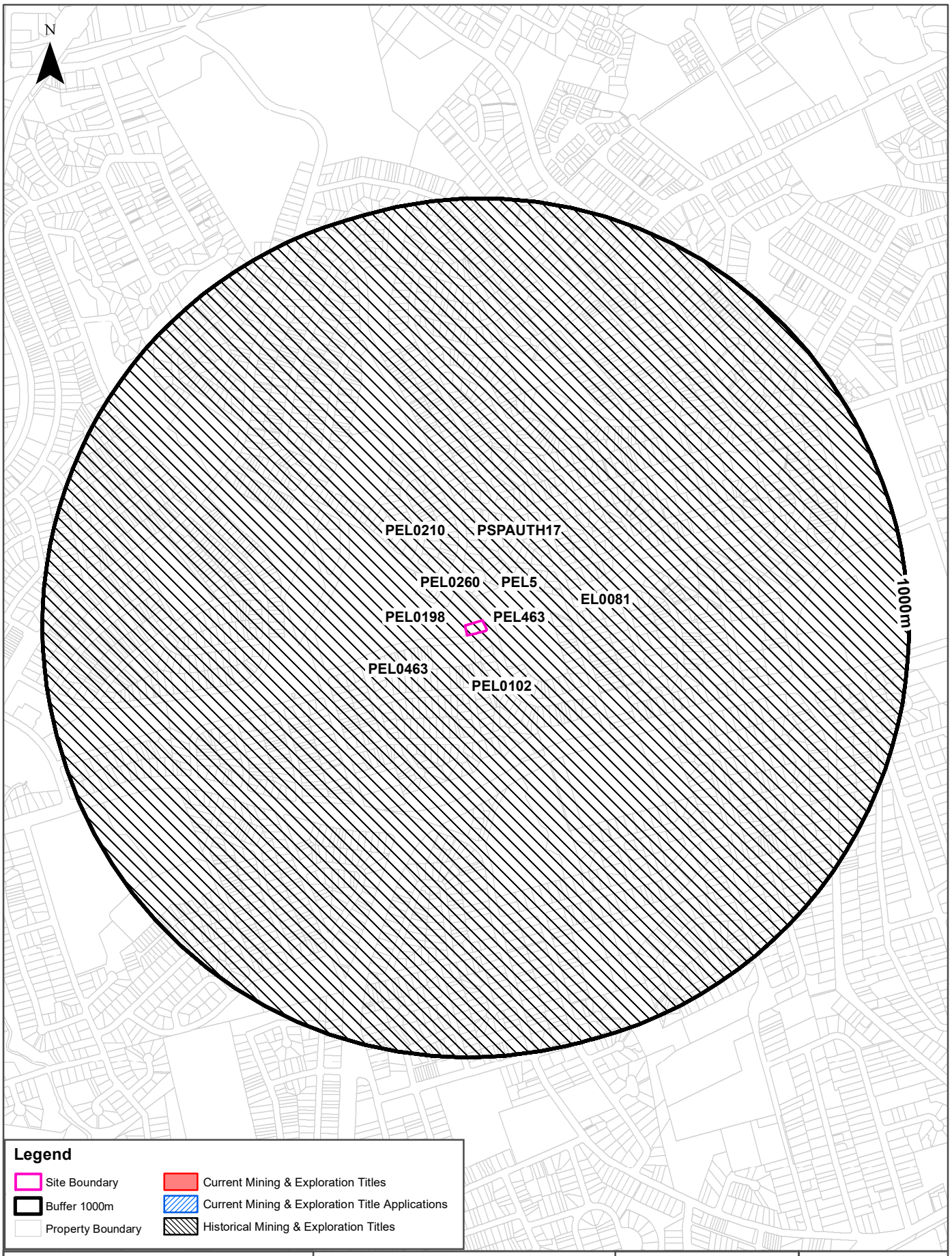
Mining Subsidence Districts

Mining Subsidence Districts within the dataset buffer:

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

Mining & Exploration Titles

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117



Mining

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

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

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

Historical Mining & Exploration Titles

Historical Mining & Exploration Titles within the dataset buffer:

Title Ref	Holder	Start Date	End Date	Resource	Minerals	Dist	Dir
EL0081	CONTINENTAL OIL CO OF AUSTRALIA LIMITED	19670201	19680201	MINERALS		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
PEL0210	THE AUSTRALIAN GAS LIGHT COMPANY (AGL), NORTH BULLI COLLIERIES PTY LTD			PETROLEUM	Petroleum	0m	On-site
PSPAUTH17	MACQUARIE ENERGY PTY LTD	20070803	20080703	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
PEL463	DART ENERGY (APOLLO) PTY LTD	20081022	20130227	MINERALS		0m	On-site
PEL5	AGL UPSTREAM INVESTMENTS PTY LIMITED	19931111	20011210	MINERALS		0m	On-site

State Environmental Planning Policy

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

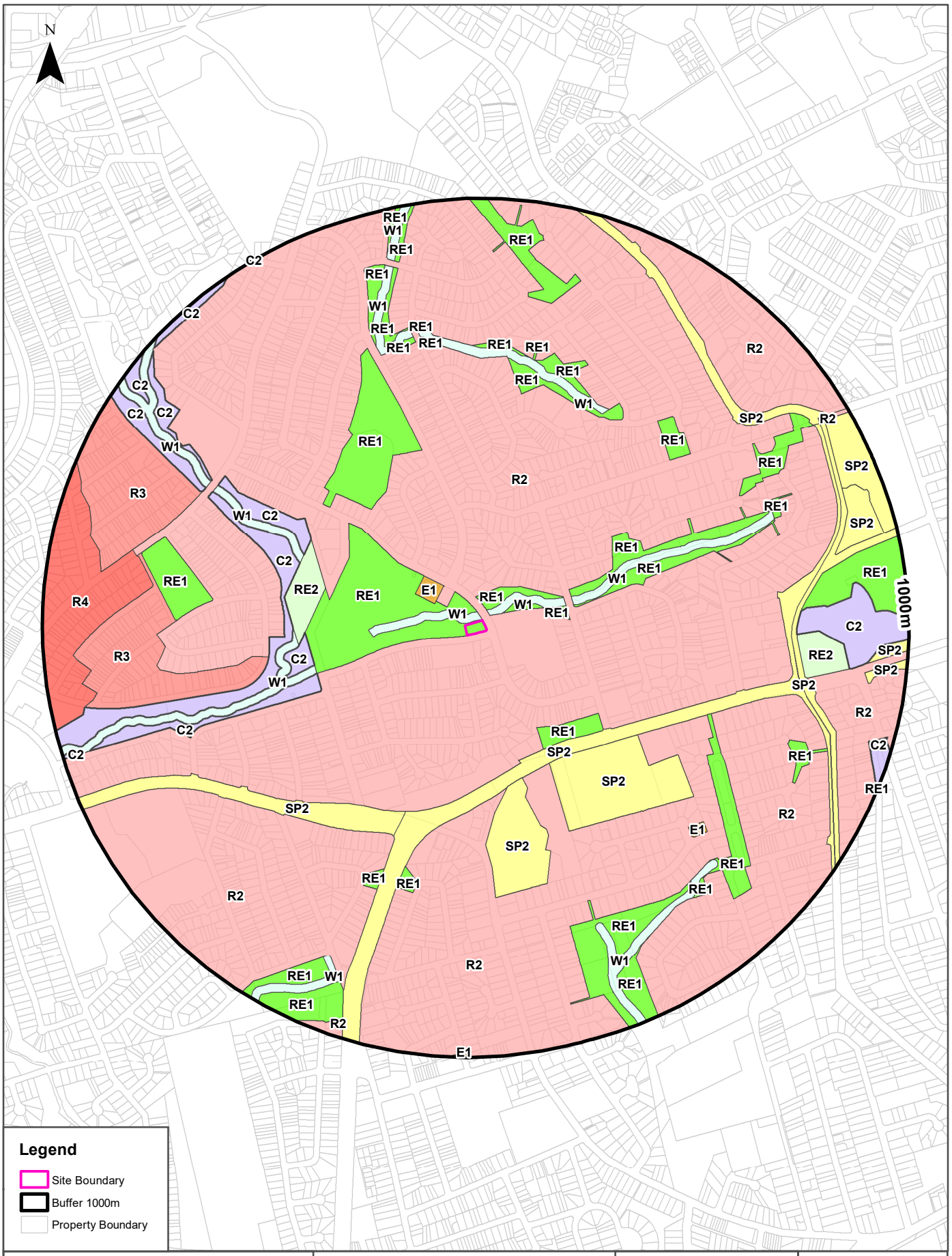
State Significant Precincts

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							

EPI Planning Zones

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117



Data Sources: Property Boundaries & Topographic Data: © Department Finance, Services & Innovation 2023
Planning: NSW Crown Copyright - Planning & Environment

Coordinate System: GDA 1994 MGA Zone 56

Date: 30 November 2023

Environmental Planning Instrument

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

Land Zoning

What EPI Land Zones exist within the dataset buffer?

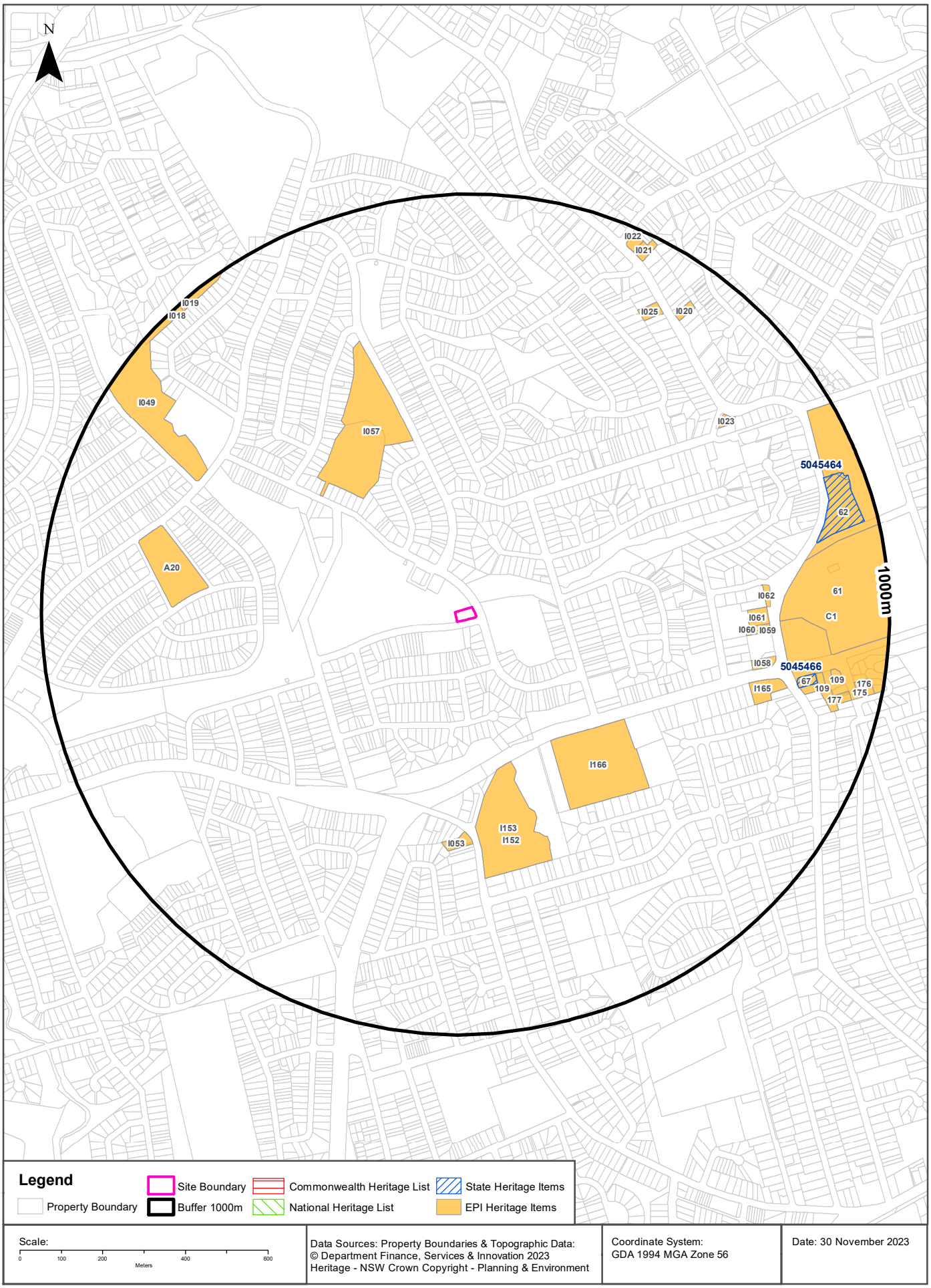
Zone	Description	Purpose	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
RE1	Public Recreation		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		0m	On-site
R2	Low Density Residential		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		0m	North
W1	Natural Waterways		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		2m	West
W1	Natural Waterways		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		21m	North East
RE1	Public Recreation		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		26m	North East
RE1	Public Recreation		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		48m	East
E1	Local Centre		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		89m	North West
W1	Natural Waterways		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		213m	East
RE1	Public Recreation		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		213m	East
RE1	Public Recreation		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		214m	North East
RE1	Public Recreation		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		258m	South East
SP2	Infrastructure	Classified Road	Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		311m	South East
RE2	Private Recreation		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		342m	West
SP2	Infrastructure	Health Services Facility	Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		346m	South East
R2	Low Density Residential		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		347m	South East
RE1	Public Recreation		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		355m	North West
SP2	Infrastructure	Public Administration Building	Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		358m	South
W1	Natural Waterways		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		368m	West
C2	Environmental Conservation		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		368m	West
C2	Environmental Conservation		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		369m	West
C2	Environmental Conservation		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		407m	West
C2	Environmental Conservation		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		417m	North West
W1	Natural Waterways		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		417m	North West
SP2	Infrastructure	Classified Road	Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		442m	South West
R3	Medium Density Residential		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		470m	West
R2	Low Density Residential		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		504m	South West
RE1	Public Recreation		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		545m	North
RE1	Public Recreation		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		558m	South East

Zone	Description	Purpose	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
W1	Natural Waterways		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		566m	North
RE1	Public Recreation		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		566m	South
RE1	Public Recreation		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		583m	North East
RE1	Public Recreation		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		586m	South
RE1	Public Recreation		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		587m	North
RE1	Public Recreation		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		600m	West
RE1	Public Recreation		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		628m	North
RE1	Public Recreation		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		633m	North
RE1	Public Recreation		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		664m	North
E1	Local Centre		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		667m	South East
RE1	Public Recreation		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		670m	North
W1	Natural Waterways		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		671m	North
RE1	Public Recreation		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		675m	North East
RE1	Public Recreation		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		683m	South East
RE1	Public Recreation		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		688m	North
C2	Environmental Conservation		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		691m	North West
W1	Natural Waterways		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		692m	North West
RE1	Public Recreation		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		694m	North
C2	Environmental Conservation		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		696m	North West
R3	Medium Density Residential		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		698m	West
RE1	Public Recreation		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		699m	North
SP2	Infrastructure	Classified Road	Ryde Local Environmental Plan 2014	21/04/2023	26/04/2023	26/04/2023	Map Amendment No 2	720m	East
RE1	Public Recreation		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		729m	East
C2	Environmental Conservation		Ryde Local Environmental Plan 2014	21/04/2023	26/04/2023	26/04/2023	Map Amendment No 2	732m	East
RE2	Private Recreation		Ryde Local Environmental Plan 2014	21/04/2023	26/04/2023	26/04/2023	Map Amendment No 2	733m	East
W1	Natural Waterways		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		741m	South East
RE1	Public Recreation		Ryde Local Environmental Plan 2014	21/04/2023	26/04/2023	26/04/2023	Map Amendment No 2	744m	East
R4	High Density Residential		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		745m	West
RE1	Public Recreation		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		761m	East
SP2	Infrastructure	Classified Road	Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		761m	North East
R2	Low Density Residential		Ryde Local Environmental Plan 2014	21/04/2023	26/04/2023	26/04/2023	Map Amendment No 2	765m	East
RE1	Public Recreation		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		769m	North

Zone	Description	Purpose	EPI Name	Published Date	Commenced Date	Currency Date	Amendment	Distance	Direction
RE1	Public Recreation		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		775m	South East
R2	Low Density Residential		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		789m	North East
W1	Natural Waterways		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		826m	South West
RE1	Public Recreation		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		835m	South West
SP2	Infrastructure	Community Purposes	Ryde Local Environmental Plan 2014	21/04/2023	26/04/2023	26/04/2023	Map Amendment No 2	842m	East
RE1	Public Recreation		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		872m	North
RE1	Public Recreation		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		873m	South West
W1	Natural Waterways		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		877m	North
RE1	Public Recreation		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		891m	North
SP2	Infrastructure	Classified Road	Ryde Local Environmental Plan 2014	21/04/2023	26/04/2023	26/04/2023	Map Amendment No 2	899m	East
SP2	Infrastructure	Educational Establishment	Ryde Local Environmental Plan 2014	21/04/2023	26/04/2023	26/04/2023	Map Amendment No 2	904m	North East
C2	Environmental Conservation		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		916m	North West
R2	Low Density Residential		Ryde Local Environmental Plan 2014	21/04/2023	26/04/2023	26/04/2023	Map Amendment No 2	925m	North East
C2	Environmental Conservation		Ryde Local Environmental Plan 2014	21/04/2023	26/04/2023	26/04/2023	Map Amendment No 2	941m	East
R2	Low Density Residential		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		952m	South
C2	Environmental Conservation		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		964m	West
C2	Environmental Conservation		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		982m	North West
E1	Local Centre		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		985m	South
RE1	Public Recreation		Ryde Local Environmental Plan 2014	21/04/2023	26/04/2023	26/04/2023	Map Amendment No 2	993m	East
C2	Environmental Conservation		Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	23/06/2023		997m	North West

Heritage Items

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117



Heritage

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

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							

National Heritage List

What are the National Heritage List Items located within the dataset buffer?
Note. Please click on Place Id to activate a hyperlink to online website.

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

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
5045466	Riverview House, Outbuildings etc	135 Marsden Road West Ryde	RYDE	02/04/1999	00775	1857	791m	East
5045464	Brush Farm	Marsden Road, Eastwood	RYDE	02/04/1999	00612	1627	842m	East

Environmental Planning Instrument - Heritage

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

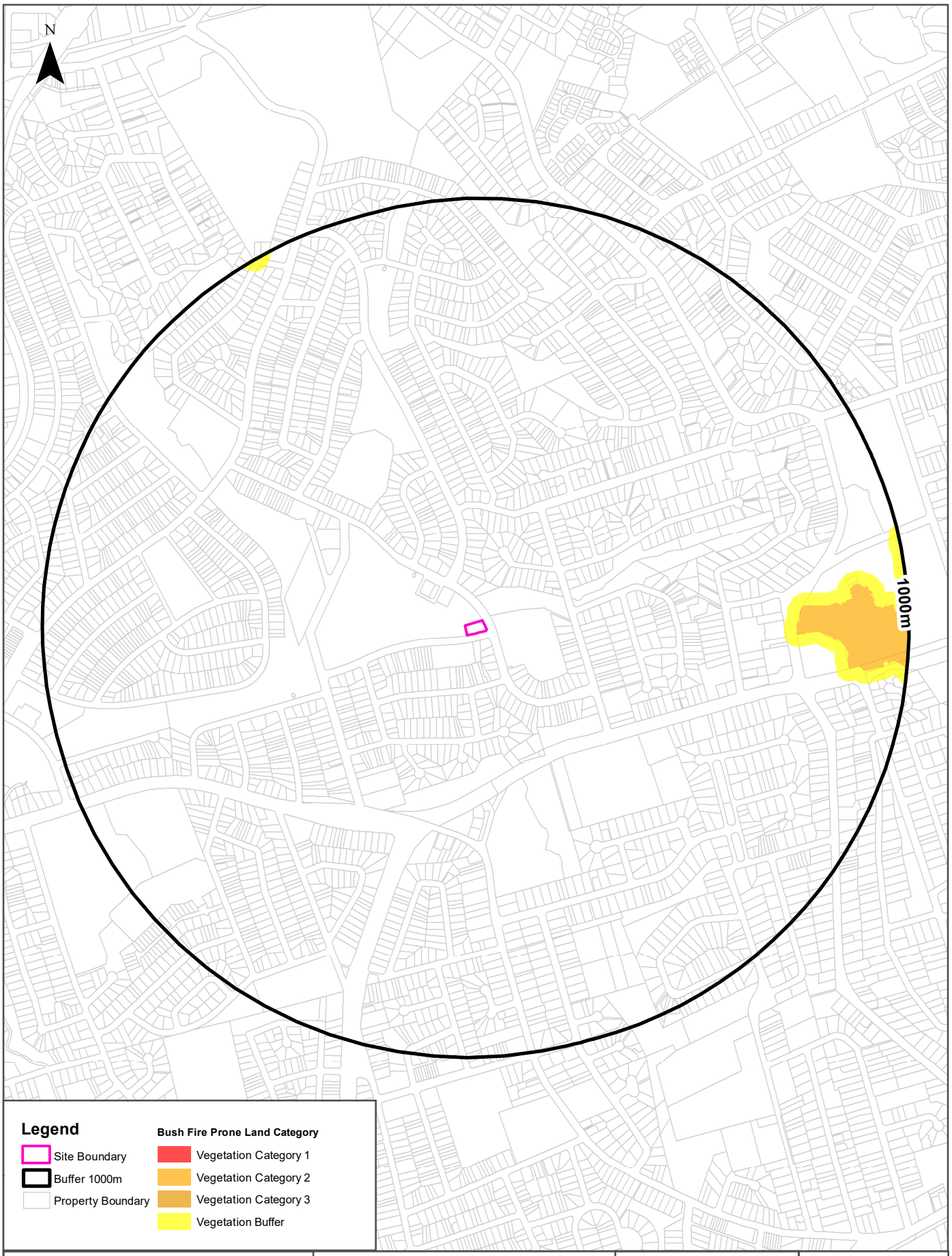
Map Id	Name	Classification	Significance	EPI Name	Published Date	Commenced Date	Currency Date	Distance	Direction
I166	R E Tebbutt Lodge	Item - General	Local	Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	28/07/2023	348m	South East
I057	Former quarry in Sir Thomas Mitchell Reserve Former quarry in Sir Thomas Mitchell Reserve	Item - General	Local	Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	28/07/2023	355m	North West

Map Id	Name	Classification	Significance	EPI Name	Published Date	Commenced Date	Currency Date	Distance	Direction
I153	Signals Hall, Army Signal Corps The White	Item - General	Local	Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	28/07/2023	358m	South
I152	Kissing Point Cottage	Item - General	Local	Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	28/07/2023	358m	South
I053	Single storey residence	Item - General	Local	Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	28/07/2023	507m	South
A20	Kishnaghur archaeological site	Item - Archaeological	Local	Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	28/07/2023	600m	West
I060	Single storey residence	Item - General	Local	Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	28/07/2023	649m	East
I061	Former Dundas Municipal Council Chambers	Item - General	Local	Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	28/07/2023	654m	East
I059	Dundas Baptist Church	Item - General	Local	Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	28/07/2023	669m	East
I058	Lauriston Reception House	Item - General	Local	Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	28/07/2023	672m	East
I165	Two storey residence	Item - General	Local	Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	28/07/2023	678m	East
I049	Rapanea Community Forest	Item - General	Local	Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	28/07/2023	691m	North West
I062	Former alignment of Marsden Road	Item - General	Local	Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	28/07/2023	692m	East
61	Brush Farm Park	Item - General	State	Ryde Local Environmental Plan 2014	12/09/2014	12/09/2014	21/04/2023	732m	East
C1	Brush Farm Park, Eastwood	Conservation Area - General	Local	Ryde Local Environmental Plan 2014	12/09/2014	12/09/2014	21/04/2023	732m	East
I023	Gaskie-Ben	Item - General	Local	Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	28/07/2023	735m	North East
67	Riverview House and outbuildings	Item - General	State	Ryde Local Environmental Plan 2014	12/09/2014	12/09/2014	21/04/2023	791m	East
I025	Brick house	Item - General	Local	Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	28/07/2023	807m	North East
109	Houses	Item - General	Local	Ryde Local Environmental Plan 2014	12/09/2014	12/09/2014	21/04/2023	832m	East
62	Brush Farm (house)	Item - General	State	Ryde Local Environmental Plan 2014	12/09/2014	12/09/2014	21/04/2023	842m	East
177	Houses	Item - General	Local	Ryde Local Environmental Plan 2014	12/09/2014	12/09/2014	21/04/2023	847m	East
I020	Stone cottage	Item - General	Local	Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	28/07/2023	854m	North East
109	Houses	Item - General	Local	Ryde Local Environmental Plan 2014	12/09/2014	12/09/2014	21/04/2023	865m	East
176	House	Item - General	Local	Ryde Local Environmental Plan 2014	12/09/2014	12/09/2014	21/04/2023	926m	East
I021	Uniting Church	Item - General	Local	Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	28/07/2023	932m	North East
175	House	Item - General	Local	Ryde Local Environmental Plan 2014	12/09/2014	12/09/2014	21/04/2023	934m	East

Map Id	Name	Classification	Significance	EPI Name	Published Date	Commenced Date	Currency Date	Distance	Direction
I022	Timber cottage	Item - General	Local	Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	28/07/2023	944m	North East
I018	Remnant bushland	Item - General	Local	Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	28/07/2023	982m	North West
I019	Stone bridge in Fitzgerald Forest	Item - General	Local	Parramatta Local Environmental Plan 2023	03/03/2023	03/03/2023	28/07/2023	982m	North West

Natural Hazards - Bush Fire Prone Land

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117



Data Sources: Bush Fire Prone Land: © NSW Rural Fire Service 2023. Property Boundaries: © Department Finance, Services & Innovation 2023

Coordinate System: GDA 1994 MGA Zone 56

Date: 30 November 2023

Natural Hazards

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

Bush Fire Prone Land

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

Bush Fire Prone Land Category	Distance	Direction
Vegetation Buffer	703m	East
Vegetation Category 2	733m	East

Ecological Constraints - Vegetation & Ramsar Wetlands

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

- 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 2023

Coordinate System: GDA 1994 MGA Zone 56

Date: 30 November 2023

Ecological Constraints

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

Native Vegetation

What native vegetation exists within the dataset buffer?

Map ID	Vegetation Formation	Plant Community Type and Vegetation Formation	Vegetation Class	Dist	Dir
3396556	Not classified	(Not classified) Not classified	Not classified	0m	On-site
3039566	Wet Sclerophyll Forests (Grassy sub-formation)	(Wet Sclerophyll Forests (Grassy sub-formation)) Sydney Turpentine Ironbark Forest	Northern Hinterland Wet Sclerophyll Forests	4m	West
3396623	Wet Sclerophyll Forests (Shrubby sub-formation)	(Wet Sclerophyll Forests (Shrubby sub-formation)) Blue Gum High Forest	North Coast Wet Sclerophyll Forests	553m	North East
3397854	Rainforests	(Rainforests) Western Sydney Complex Dry Rainforest	Dry Rainforests	769m	East

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

Ramsar Wetlands

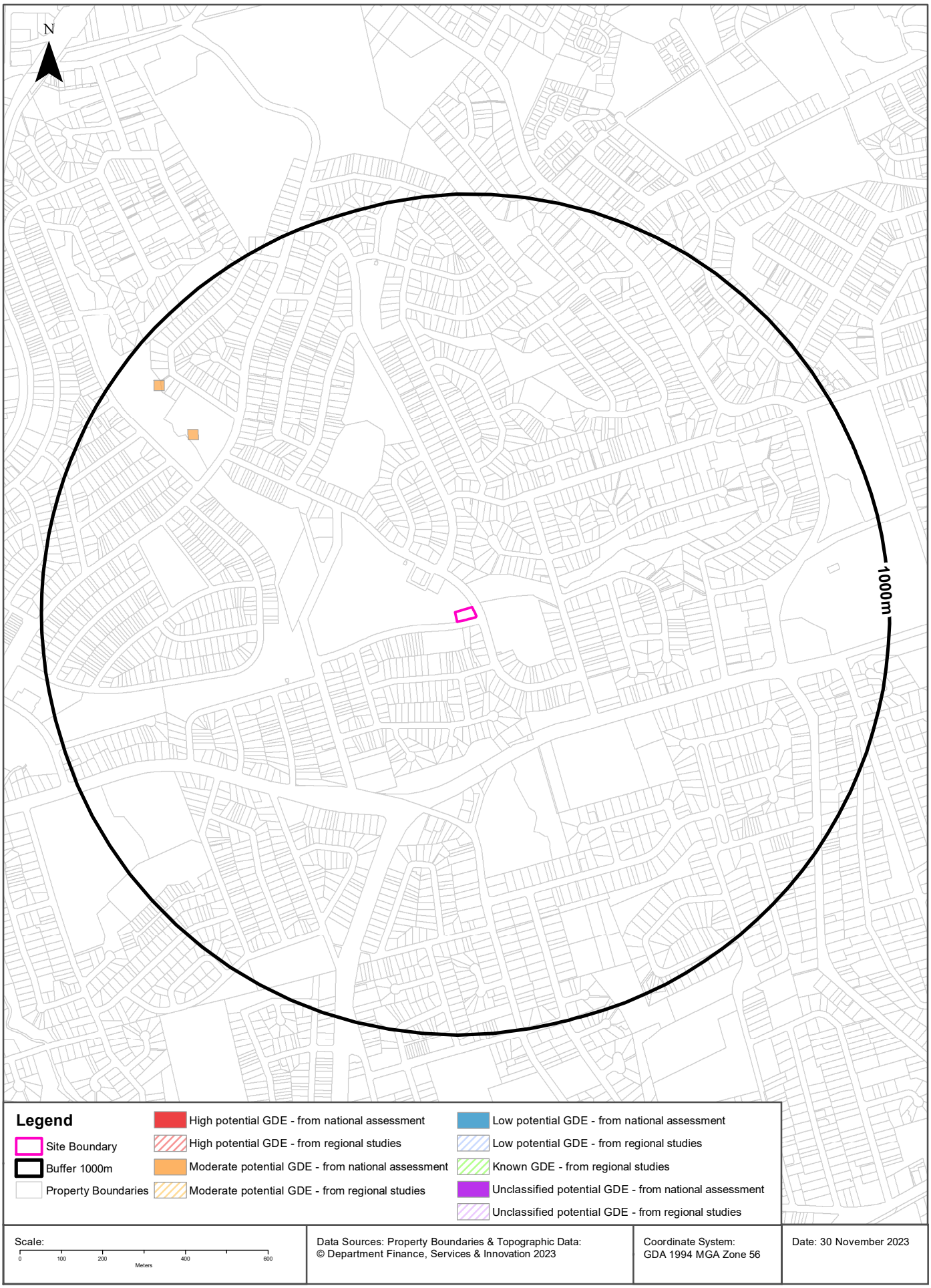
What Ramsar Wetland areas exist within the dataset buffer?

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 - Groundwater Dependent Ecosystems Atlas

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117



Ecological Constraints

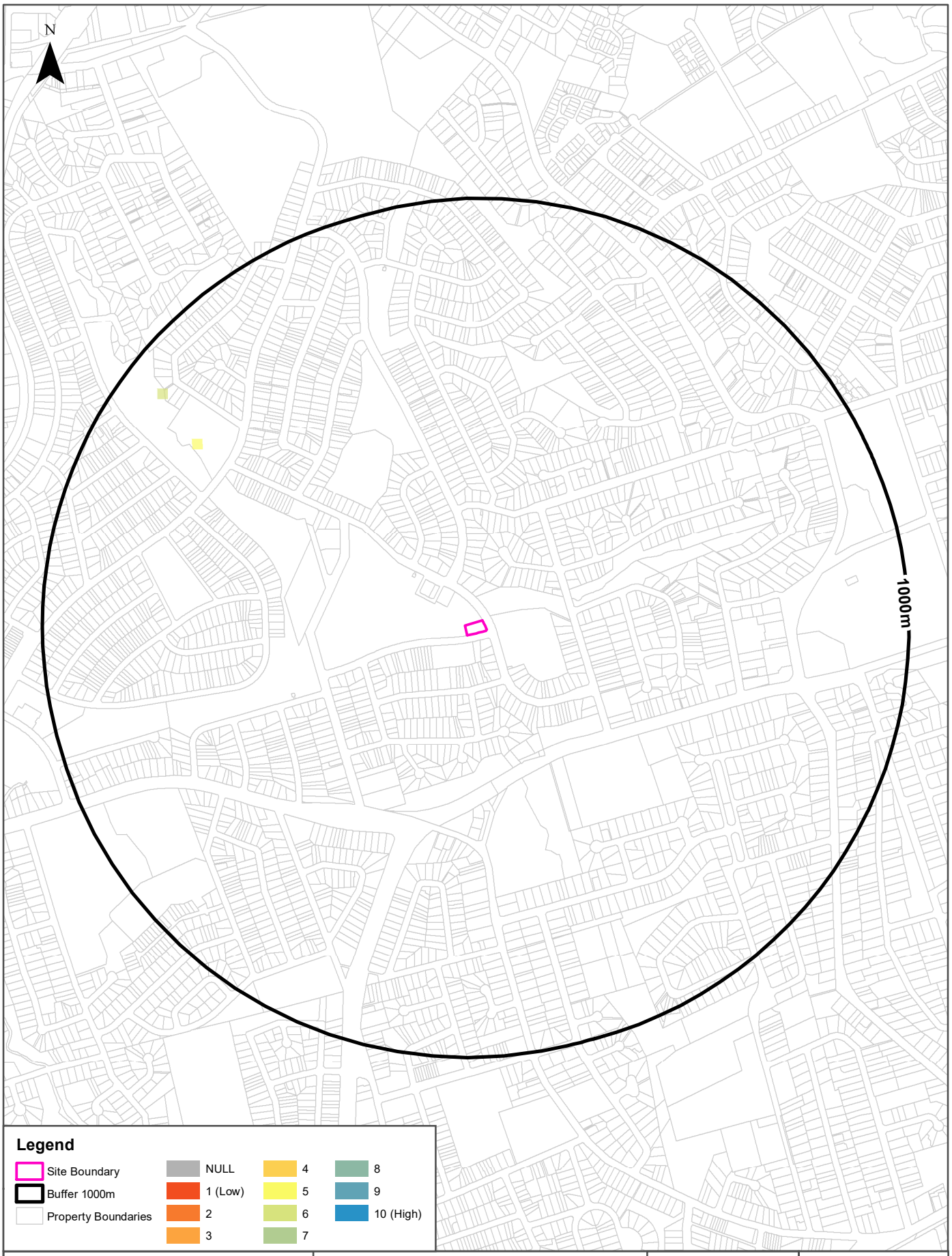
Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

Groundwater Dependent Ecosystems Atlas

Type	GDE Potential	Geomorphology	Ecosystem Type	Aquifer Geology	Distance	Direction
Terrestrial	Moderate potential GDE - from national assessment	Deeply dissected sandstone plateaus.	Vegetation	Consolidated sedimentary	748m	North West

Ecological Constraints - Inflow Dependent Ecosystems Likelihood

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117



Data Sources: Property Boundaries & Topographic Data:
© Department Finance, Services & Innovation 2023

Coordinate System:
GDA 1994 MGA Zone 56

Date: 30 November 2023

Ecological Constraints

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

Inflow Dependent Ecosystems Likelihood

Type	IDE Likelihood	Geomorphology	Ecosystem Type	Aquifer Geology	Distance	Direction
Terrestrial	5	Deeply dissected sandstone plateaus.	Vegetation	Consolidated sedimentary	748m	North West
Terrestrial	6	Deeply dissected sandstone plateaus.	Vegetation	Consolidated sedimentary	885m	North West

Ecological Constraints

Corner of Fullford Street and Yates Avenue, Dundas Valley, NSW 2117

NSW BioNet Atlas

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

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Animalia	Amphibia	Heleioporus australiacus	Giant Burrowing Frog	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Amphibia	Litoria aurea	Green and Golden Bell Frog	Endangered	Not Sensitive	Vulnerable	
Animalia	Amphibia	Pseudophryne australis	Red-crowned Toadlet	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Actitis hypoleucos	Common Sandpiper	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Amaurornis moluccana	Pale-vented Bush-hen	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Anthochaera phrygia	Regent Honeyeater	Critically Endangered	Category 2	Critically Endangered	
Animalia	Aves	Apus pacificus	Fork-tailed Swift	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Ardenna tenuirostris	Short-tailed Shearwater	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Arenaria interpres	Ruddy Turnstone	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Artamus cyanopterus cyanopterus	Dusky Woodswallow	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Botaurus poiciloptilus	Australasian Bittern	Endangered	Not Sensitive	Endangered	
Animalia	Aves	Burhinus grallarius	Bush Stone-curlew	Endangered	Not Sensitive	Not Listed	
Animalia	Aves	Calidris acuminata	Sharp-tailed Sandpiper	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Calidris alba	Sanderling	Vulnerable	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Calidris canutus	Red Knot	Not Listed	Not Sensitive	Endangered	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Calidris ferruginea	Curlew Sandpiper	Endangered	Not Sensitive	Critically Endangered	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Calidris melanotos	Pectoral Sandpiper	Not Listed	Not Sensitive	Not Listed	ROKAMBA;JAMBA
Animalia	Aves	Calidris ruficollis	Red-necked Stint	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Calidris tenuirostris	Great Knot	Vulnerable	Not Sensitive	Critically Endangered	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Callocephalon fimbriatum	Gang-gang Cockatoo	Endangered Population, Vulnerable	Category 3	Endangered	
Animalia	Aves	Callocephalon fimbriatum	Gang-gang Cockatoo	Vulnerable	Category 3	Endangered	
Animalia	Aves	Calyptorhynchus banksii samueli	Red-tailed Black-Cockatoo (inland subspecies)	Vulnerable	Category 2	Not Listed	
Animalia	Aves	Calyptorhynchus lathami lathami	South-eastern Glossy Black-Cockatoo	Vulnerable	Category 2	Vulnerable	
Animalia	Aves	Charadrius leschenaultii	Greater Sand-plover	Vulnerable	Not Sensitive	Vulnerable	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Chlidonias leucopterus	White-winged Black Tern	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Chthonicola sagittata	Speckled Warbler	Vulnerable	Not Sensitive	Not Listed	

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Animalia	Aves	Circus assimilis	Spotted Harrier	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Climacteris picumnus victoriae	Brown Treecreeper (eastern subspecies)	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Cuculus optatus	Oriental Cuckoo	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Daphoenositta chrysoptera	Varied Sittella	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Ephippiorhynchus asiaticus	Black-necked Stork	Endangered	Not Sensitive	Not Listed	
Animalia	Aves	Epthianura albifrons	White-fronted Chat	Endangered Population, Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Falco hypoleucos	Grey Falcon	Vulnerable	Category 2	Vulnerable	
Animalia	Aves	Falco subniger	Black Falcon	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Gallinago hardwickii	Latham's Snipe	Not Listed	Not Sensitive	Not Listed	ROKAMBA;JAMBA
Animalia	Aves	Gelochelidon nilotica	Gull-billed Tern	Not Listed	Not Sensitive	Not Listed	CAMBA
Animalia	Aves	Glossopsitta pusilla	Little Lorikeet	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Grantiella picta	Painted Honeyeater	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Aves	Haematopus longirostris	Pied Oystercatcher	Endangered	Not Sensitive	Not Listed	
Animalia	Aves	Haliaeetus leucogaster	White-bellied Sea-Eagle	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Hieraaetus morphnoides	Little Eagle	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Hirundapus caudacutus	White-throated Needletail	Not Listed	Not Sensitive	Vulnerable	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Hydroprogne caspia	Caspian Tern	Not Listed	Not Sensitive	Not Listed	JAMBA
Animalia	Aves	Ixobrychus flavicollis	Black Bittern	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Lathamus discolor	Swift Parrot	Endangered	Not Sensitive	Critically Endangered	
Animalia	Aves	Limicola falcinellus	Broad-billed Sandpiper	Vulnerable	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Limosa lapponica	Bar-tailed Godwit	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Limosa limosa	Black-tailed Godwit	Vulnerable	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Lophochroa leadbeateri	Major Mitchell's Cockatoo	Vulnerable	Category 2	Not Listed	
Animalia	Aves	Lophoictinia isura	Square-tailed Kite	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Menura alberti	Albert's Lyrebird	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Motacilla flava	Yellow Wagtail	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Neophema pulchella	Turquoise Parrot	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Nettapus coromandelianus	Cotton Pygmy-Goose	Endangered	Not Sensitive	Not Listed	
Animalia	Aves	Ninox connivens	Barking Owl	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Ninox strenua	Powerful Owl	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Numenius madagascariensis	Eastern Curlew	Not Listed	Not Sensitive	Critically Endangered	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Numenius minutus	Little Curlew	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Numenius phaeopus	Whimbrel	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Animalia	Aves	Onychoprion fuscata	Sooty Tern	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Oxyura australis	Blue-billed Duck	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Pachycephala olivacea	Olive Whistler	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Pandion cristatus	Eastern Osprey	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Petroica boodang	Scarlet Robin	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Petroica phoenicea	Flame Robin	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Petroica rodinogaster	Pink Robin	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Pezoporus wallicus wallicus	Eastern Ground Parrot	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Philomachus pugnax	Ruff	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Pluvialis fulva	Pacific Golden Plover	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Pluvialis squatarola	Grey Plover	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Podargus ocellatus	Marbled Frogmouth	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Polytelis swainsonii	Superb Parrot	Vulnerable	Category 3	Vulnerable	
Animalia	Aves	Ptilinopus magnificus	Wompoo Fruit-Dove	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Ptilinopus regina	Rose-crowned Fruit-Dove	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Ptilinopus superbus	Superb Fruit-Dove	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Rostratula australis	Australian Painted Snipe	Endangered	Not Sensitive	Endangered	
Animalia	Aves	Sterna hirundo	Common Tern	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Sternula albifrons	Little Tern	Endangered	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Stictonetta naevosa	Freckled Duck	Vulnerable	Not Sensitive	Not Listed	
Animalia	Aves	Thalasseus bergii	Crested Tern	Not Listed	Not Sensitive	Not Listed	JAMBA
Animalia	Aves	Thinornis cucullatus cucullatus	Eastern Hooded Dotterel	Critically Endangered	Not Sensitive	Vulnerable	
Animalia	Aves	Tringa brevipes	Grey-tailed Tattler	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Tringa glareola	Wood Sandpiper	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Tringa nebularia	Common Greenshank	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Tringa stagnatilis	Marsh Sandpiper	Not Listed	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Aves	Tyto longimembris	Eastern Grass Owl	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Tyto novaehollandiae	Masked Owl	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Tyto tenebricosa	Sooty Owl	Vulnerable	Category 3	Not Listed	
Animalia	Aves	Xenus cinereus	Terek Sandpiper	Vulnerable	Not Sensitive	Not Listed	ROKAMBA;CAMBA; JAMBA
Animalia	Gastropoda	Meridolum corneovirens	Cumberland Plain Land Snail	Endangered	Not Sensitive	Not Listed	
Animalia	Gastropoda	Pommerhelix duralensis	Dural Land Snail	Endangered	Not Sensitive	Endangered	
Animalia	Mammalia	Arctocephalus forsteri	New Zealand Fur-seal	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Cercartetus nanus	Eastern Pygmy-possum	Vulnerable	Not Sensitive	Not Listed	

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Animalia	Mammalia	Chalinolobus dwyeri	Large-eared Pied Bat	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Mammalia	Dasyurus maculatus	Spotted-tailed Quoll	Vulnerable	Not Sensitive	Endangered	
Animalia	Mammalia	Falsistrellus tasmaniensis	Eastern False Pipistrelle	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Micronomus norfolkensis	Eastern Coastal Free-tailed Bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Miniopterus australis	Little Bent-winged Bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Miniopterus orianae oceanensis	Large Bent-winged Bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Myotis macropus	Southern Myotis	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Perameles nasuta	Long-nosed Bandicoot	Endangered Population	Not Sensitive	Not Listed	
Animalia	Mammalia	Petauroides volans	Southern Greater Glider	Endangered	Not Sensitive	Endangered	
Animalia	Mammalia	Petaurus australis	Yellow-bellied Glider	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Petaurus norfolcensis	Squirrel Glider	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Phascolarctos cinereus	Koala	Endangered	Not Sensitive	Endangered	
Animalia	Mammalia	Pseudomys australis	Plains Rat	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Mammalia	Pteropus poliocephalus	Grey-headed Flying-fox	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Mammalia	Saccolaimus flaviventris	Yellow-bellied Sheathtail-bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Mammalia	Scoteanax rueppellii	Greater Broad-nosed Bat	Vulnerable	Not Sensitive	Not Listed	
Animalia	Reptilia	Aspidites ramsayi	Woma	Vulnerable	Not Sensitive	Not Listed	
Animalia	Reptilia	Caretta caretta	Loggerhead Turtle	Endangered	Not Sensitive	Endangered	
Animalia	Reptilia	Chelonia mydas	Green Turtle	Vulnerable	Not Sensitive	Vulnerable	
Animalia	Reptilia	Pseudonaja modesta	Ringed Brown Snake	Endangered	Not Sensitive	Not Listed	
Animalia	Reptilia	Tiliqua occipitalis	Western Blue-tongued Lizard	Vulnerable	Not Sensitive	Not Listed	
Animalia	Reptilia	Uvidicolus sphyrurus	Border Thick-tailed Gecko	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Acacia bakeri	Marblewood	Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Acacia bynoeana	Bynoe's Wattle	Endangered	Not Sensitive	Vulnerable	
Plantae	Flora	Acacia cluniesrossiae	Kanangra Wattle	Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Acacia pubescens	Downy Wattle	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Argyrotegium nitidulum	Shining Cudweed	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Callistemon linearifolius	Netted Bottle Brush	Vulnerable	Category 3	Not Listed	
Plantae	Flora	Darwinia biflora		Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Darwinia peduncularis		Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Davidsonia jerseyana	Davidson's Plum	Endangered	Category 2	Endangered	
Plantae	Flora	Dillwynia tenuifolia		Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Dillwynia tenuifolia		Endangered Population, Vulnerable	Not Sensitive	Not Listed	

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Plantae	Flora	Epacris purpurascens var. purpurascens		Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Epacris sparsa	Sparse Heath	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Eucalyptus camfieldii	Camfield's Stringybark	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Eucalyptus leucoxylon subsp. pruinosa	Yellow Gum	Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Eucalyptus nicholii	Narrow-leaved Black Peppermint	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Eucalyptus scoparia	Wallangarra White Gum	Endangered	Not Sensitive	Vulnerable	
Plantae	Flora	Galium australe	Tangled Bedstraw	Endangered	Not Sensitive	Not Listed	
Plantae	Flora	Genoplesium baueri	Bauer's Midge Orchid	Endangered	Category 2	Endangered	
Plantae	Flora	Grammitis stenophylla	Narrow-leaf Finger Fern	Endangered	Category 3	Not Listed	
Plantae	Flora	Grevillea beadleana	Beadle's Grevillea	Endangered	Category 3	Endangered	
Plantae	Flora	Grevillea hilliana	White Yiel Yiel	Endangered	Not Sensitive	Not Listed	
Plantae	Flora	Hibbertia spanantha	Julian's Hibbertia	Critically Endangered	Category 2	Critically Endangered	
Plantae	Flora	Hibbertia superans		Endangered	Not Sensitive	Not Listed	
Plantae	Flora	Isotoma fluviatilis subsp. fluviatilis		Not Listed	Category 3	Extinct	
Plantae	Flora	Lasiopetalum joyceae		Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Leptospermum deanei		Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Macadamia integrifolia	Macadamia Nut	Not Listed	Not Sensitive	Vulnerable	
Plantae	Flora	Macadamia tetraphylla	Rough-shelled Bush Nut	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Marsdenia viridiflora subsp. viridiflora	Native Pear	Endangered Population	Not Sensitive	Not Listed	
Plantae	Flora	Melaleuca biconvexa	Biconvex Paperbark	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Melaleuca deanei	Deane's Paperbark	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Persicaria elatior	Tall Knotweed	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Persoonia hirsuta	Hairy Geebung	Endangered	Category 3	Endangered	
Plantae	Flora	Pimelea curviflora var. curviflora		Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Pimelea spicata	Spiked Rice-flower	Endangered	Not Sensitive	Endangered	
Plantae	Flora	Pomaderris prunifolia	Plum-leaf Pomaderris	Endangered Population	Not Sensitive	Not Listed	
Plantae	Flora	Prostanthera marifolia	Seaforth Mintbush	Critically Endangered	Category 3	Critically Endangered	
Plantae	Flora	Pterostylis nigricans	Dark Greenhood	Vulnerable	Category 2	Not Listed	
Plantae	Flora	Pterostylis saxicola	Sydney Plains Greenhood	Endangered	Category 2	Endangered	
Plantae	Flora	Rhizanthella slateri	Eastern Australian Underground Orchid	Vulnerable	Category 2	Endangered	
Plantae	Flora	Rhodamnia rubescens	Scrub Turpentine	Critically Endangered	Not Sensitive	Critically Endangered	
Plantae	Flora	Senecio behrianus		Extinct	Not Sensitive	Endangered	

Kingdom	Class	Scientific	Common	NSW Conservation Status	NSW Sensitivity Class	Federal Conservation Status	Migratory Species Agreements
Plantae	Flora	Syzygium paniculatum	Magenta Lilly Pilly	Endangered	Not Sensitive	Vulnerable	
Plantae	Flora	Tetratheca glandulosa		Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Tetratheca juncea	Black-eyed Susan	Vulnerable	Not Sensitive	Vulnerable	
Plantae	Flora	Triplarina imbricata	Creek Triplarina	Endangered	Not Sensitive	Endangered	
Plantae	Flora	Wahlenbergia multicaulis	Tadgell's Bluebell	Endangered Population	Not Sensitive	Not Listed	
Plantae	Flora	Wilsonia backhousei	Narrow-leafed Wilsonia	Vulnerable	Not Sensitive	Not Listed	
Plantae	Flora	Zannichellia palustris		Endangered	Not Sensitive	Not Listed	

Data does not include NSW category 1 sensitive species.

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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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Appendix E – Supporting Documents

Asbestos Materials Survey

Prepared for:	Abril
Prepared by:	Karim Nazemi Licensed Asbestos Assessor #001359 Trinitas Group
Site	1st Dundas Scout Hall
Address:	Yates Avenue, Dundas Valley NSW 2117
Date:	Thursday, 31 August 2023

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Please note there are limitations associated with this report due to a range of factors, including, but not limited to the scope of works, survey methodology and inaccessible areas. To ensure its contextual integrity, the report must be read in its entirety and should not be copied, distributed or referred to in part only.

This report is not adequate for the purposes of refurbishment or demolition works. This report must be reviewed prior to the commencement of such works and a more intrusive risk assessment undertaken to identify asbestos-containing materials which may be disturbed during building demolition or refurbishment works.

Refer to the Statement of Limitations for further details. Refer to the Areas Not Accessed for further details.

Document Distribution

Version	Format	Issued to	Date
1	Electronic Copy	Tim Conchie	12/09/2023

Document Status

Version	Report Prepared by:		Report Authorised by:	
	Name	Karim Nazemi	Name	Denny Bolatti
1	Signature		Signature	
	Date:	31/08/2023	Date:	12/09/2023

Contents

Summary of Findings

The following table provides a summary of identified asbestos risks during the building:

Building Name	No. High Risk Asbestos Items	No. Medium Risk Asbestos Items	No. Low Risk Asbestos Items	Total Asbestos Items
1st Dundas Scout	5	0	4	9
TOTAL	**5**	**0**	**4**	**9**

Areas Not Accessed

Area/Item	Not Accessed	Comments
Building facade fixing brackets	All	
Lift shaft and lift cabin fittings	N/A	
Height restricted areas of site and ceiling where safe lifting platforms were not provided	All	
Inaccessible culverts and floor trenches or tunnels	All	
Waterproof membranes	All	
Inside mechanical equipment	All	
Behind ceramic wall tiles	All	
Fire door cores	All	
Within air conditioning re-heat boxes	All	
Within electrical switchboard cupboard or backing	All	
Gaskets, mastics & sealants to pipework, ductwork, mechanical equipment & construction/expansion joints	All	
Within internal walls partitioning	All	
Inaccessible ceiling spaces	All	
Under carpeted floor coverings	All	
Wall cavities	All	

It is possible that asbestos-containing materials, which may be concealed within inaccessible areas/voids, may not have been located during the asbestos materials survey. It is noted that asbestos-containing material may be contained within or behind those areas identified in the above table. Caution should be exercised when accessing these areas, particularly in relation to potential disturbance of the building fabric or concealed spaces.

Scope of Works & Methodology

Scope

The scope of works for the project was as follows:

- Undertake an Asbestos Materials survey
- Inspect representative and accessible areas of the site to identify probable asbestos-containing materials (ACM)
- Identify the likelihood of ACM in inaccessible areas
- Identify the types of ACM and their condition
- Assess the risks posed by the ACM
- Take photographs of suspected ACM
- Collect samples of suspected ACM
- Transporting samples under a chain of custody to a NATA-Accredited laboratory for analysis
- Compile an ACM register
- Recommend control measures and actions necessary to manage any ACM related risks

Methodology

Asbestos

This component of the assessment was carried out in accordance with the guidelines documented in SafeWork NSW, Code of Practice for How to Manage and Control of Asbestos in Workplaces (2019). Samples of suspected asbestos- containing materials were collected during the survey and were analysed in a NATA-accredited laboratory for the presence of asbestos by Polarised Light Microscopy.

Recommendations

These recommendations should be followed whenever any ACM is identified, irrespective of the level of risk.

Asbestos

In accordance with the WHS Regulations (2017) and SafeWork NSW, Code of Practice for How to Manage and Control of Asbestos in Workplaces (2019) we make the following recommendations:

- Record the following information in the site's asbestos register:
  - details of the type, condition, accessibility and location of all asbestos-containing material at the site;
  - measures taken control the asbestos-containing material;
  - details of any risk assessment carried out prior to these measures being taken;
  - records of any other work done on the asbestos-containing material;
  - records of any communication and/or consultation relation to asbestos-containing material at the site.
- Ensure a copy of the asbestos is on site, kept up to date and made readily accessible to the employees, contractors, subcontractors, persons removing asbestos-containing material, persons engaged to do work that may disturb asbestos- containing material and any other person who may be exposed to the asbestos-containing material.
- Review the asbestos register and risk assessments every 12 months, or earlier if:
  - a risk assessment indicates the need for reassessment;
  - there is evidence any risk assessment is no longer valid;
  - there is evidence that any control measures are ineffective;
  - changes to work practices and systems of work are introduced;
  - there is a change to the condition of the asbestos-containing material; or
  - any asbestos-containing material has been disturbed, removed, enclosed or sealed
  - a visual inspection should be undertaken as part of any review of asbestos register. Risk assessments should be undertaken in by a competent person, such as a asbestos containing material specialist.
- Develop and maintain an asbestos management plan that contains the following information:
  - the asbestos register;
  - details of any maintenance or service work on asbestos-containing material;
  - mechanisms for providing the employees, contractors, subcontractors, persons removing asbestos-containing material, persons engaged to do work that may disturb asbestos-containing material and any other person who may be exposed to the asbestos-containing material with the asbestos register;
  - decisions about management options (ie to maintain the asbestos-containing material or replace it) and reasons for those decisions;
  - a timetable for action, including priorities, dates for risk assessment review, etc;
  - monitoring arrangements;
  - responsibilities of all persons involved;
  - training arrangements;
  - procedure for reviewing and updating the asbestos management pan and asbestos register; and
  - safe work methods.
  - The asbestos management plan should be reviewed whenever the asbestos register is reviewed.
- Provide Asbestos Awareness training to staff and site personnel in accordance with the requirements SafeWork NSW, Code of Practice for How to Manage and Control of Asbestos in Workplaces (2019) Part 6.3.

- Consult with staff and health and safety representatives on the findings of this risk assessment and this report must be made available upon request, in accordance with the requirements of *SafeWork NSW, Code of Practice for How to Manage and Control of Asbestos in Workplaces (2019). Part 3.3.*
- Areas highlighted as areas of 'no access' should be presumed to contain asbestos containing material. Appropriate management planning should be implemented in order to control access to and maintenance activities in these areas, until such a time as they can be inspected and the presence or absence of asbestos containing material can be confirmed.
- Ensure all asbestos-containing materials remaining in-situ are labelled appropriately to warn of the dangers of disturbing these materials, in accordance with the requirements of SafeWork NSW, Code of Practice for How to Manage and Control of Asbestos in Workplaces (2019) *Part 2.5.*

Asbestos Risk Assessment Factors

To assess the health risk posed by the presence of asbestos-containing material, all relevant factors must be considered. These factors include:

- Evidence of physical damage;
- Evidence of water damage;
- Proximity of air plenums and direct air stream;
- Friability of asbestos material;
- Requirement for access for building operations;
- Requirement for access for maintenance operations;
- Likelihood of disturbance of the asbestos material;
- Accessibility;
- Exposed surface areas; and
- Environmental conditions

These aspects are in turn judged upon: (i) potential for fibre generation, and, (ii) the potential for exposure.

Condition
The condition of the asbestos products identified during the survey is usually reported as being good, fair or poor.

- Good: - refers to asbestos materials, which have not been damaged or have not deteriorated.
- Fair: - refers to the asbestos material having suffered minor cracking or de-surfacing.
- Poor: - describes asbestos materials which have been damaged, or their condition has deteriorated over time.

Friability
The friability of asbestos products describes the ease of which the material can be crumbled, and hence to release fibres.

- Friable asbestos: - (e.g. limpet beam insulation, pipe lagging) can be easily crumbled and is more hazardous than non-friable asbestos products.
- Non-Friable asbestos: - commonly known as bonded asbestos, is typically comprised of asbestos fibres tightly bound in a stable non-asbestos matrix. Examples of non-friable asbestos products include asbestos cement materials (sheeting, pipes etc), asbestos containing vinyl floor tiles and electrical backing boards.

Accessibility/Disturbance Potential
Asbestos products can be classified as having low, medium or high accessibility/disturbance potential.

- Low accessibility describes asbestos products that cannot be easily disturbed, such as materials in building voids, set ceilings, etc.
- Medium accessibility describes asbestos products that are visible but normal access is impeded, such as materials behind cladding material or are present in a ceiling space or are height restricted
- High accessibility asbestos products can be easily accessed or damaged due to their close proximity to personnel, e.g. asbestos cement walls or down pipes.

Risk Status
The risk factors described above are used to rank the health risk posed by the presence of asbestos-containing materials.

- A low risk ranking describes asbestos materials that pose a low health risk to personnel, employees and the general public providing they stay in a stable condition, for example asbestos materials that are in good condition and have low accessibility.
- A medium risk ranking applies to materials that pose an increased risk to people in the area.

- Asbestos materials that possess a high-risk ranking pose a high health risk to personnel or the public in the area of the material. Materials with a high-risk ranking will also possess a Priority 1 recommendation to manage the asbestos and reduce the risk.

The following priority rating system is adopted to assist in the programming and budgeting of the control of asbestos risk identified at the site.

Priority 1 (P1): Organise Remedial Works Immediately

An area has asbestos containing materials, which are either damaged or are being exposed to continual disturbance. Due to these conditions, there is an increased potential for exposure and/or transfer of the material to other parts with continued unrestricted use of this area. Representative asbestos fibre monitoring should be conducted in the building area during normal building operation where recommended. Prompt abatement of the asbestos hazard is recommended. As an interim action, restrict access.

Priority 2 (P2): Organise Remedial Works Within 3 Months

An area has asbestos containing materials with a potential for disturbance due to the following conditions:

- Material has been disturbed or damaged and its current condition, while not posing an immediate hazard, is unstable.
- The material is accessible and can when disturbed, present a short-term exposure risk.
- Demolition, renovation, refurbishment, maintenance, modification or new installations, involving air-handling system,

Appropriate abatement measures should be taken as soon as practicable. A negligible health risk exists if materials remain undisturbed under the control of an asbestos management plan.

Priority 3 (P3): No Remedial Works Required

An area has asbestos-containing materials, where:

- The condition of the friable asbestos material is now stable and has low potential of being disturbed or
- The material is currently in a non-friable condition, may have slight damage but do not present an exposure risk unless cut, drilled, sanded or otherwise abraded.

Negligible health risks are present if materials are left undisturbed under the control of an asbestos management plan. Defer any major action unless materials are to be disturbed as a result of maintenance, refurbishment or demolition operations.

Priority 4 (P4): No Remedial Works Required

The asbestos material is in a non-friable form and in good condition. It is most unlikely that the material can be disturbed under normal circumstances and can be safety subjected to normal traffic. Even if it were subjected to minor disturbance the material poses a negligible health risk. These materials should be left, and their condition monitored during subsequent reviews. As with any asbestos materials, these materials must be removed prior to renovations that may impact on the materials.

Asbestos Management Requirements

Introduction
Asbestos is the fibrous form of mineral silicates belonging to the serpentine and amphibole groups with the most common types being crocidolite (blue asbestos), amosite (brown or grey asbestos) and chrysotile (white asbestos).

Asbestos is a hazardous material that poses a risk to health by inhalation if the asbestos fibres become airborne and people are exposed to these airborne fibres. Exposure to asbestos fibres is known to cause mesothelioma, asbestosis and lung cancer.

Asbestos and asbestos-containing materials were used extensively in Australian buildings and structures, plant and equipment and in ships, trains and motor vehicles during the 1950s, 1960s and 1970s, and some uses, including some friction materials and gaskets, were only discontinued on 31 December 2003.

Asbestos materials in a bonded form do not present an immediate health risk if they remain undisturbed and in good condition. It is the inhalation of fibres from friable forms of asbestos, or dusts generated by disturbing bonded materials, that may lead to the risk of asbestos-related disease.

Asbestos Management Plan (AMP)
An AMP (including an asbestos register) should be developed for the site as per Part 4.1 of SafeWork NSW, Code of Practice for How to Manage and Control of Asbestos in Workplaces (2019). See the Recommendation section of this report for details of what should be included in the AMP.

Updates to Register, AMP and Risk Assessments
The asbestos register and the AMP should be reviewed (via visual inspection by a competent person) and updated at least every 5 years for non-friable ACM and every 12 months for friable ACM where a risk assessment indicates the need for a reassessment or if any ACMs have been removed or updated as per Parts 3.2 and 4.2 of SafeWork NSW, Code of Practice for How to Manage and Control of Asbestos in Workplaces (2019).

Risk assessments should be reviewed regularly, particularly when there is evidence that the risk assessment is no longer valid, control measures are shown to be ineffective or there is a significant change planned for the workplace or work practices or procedures relevant to the risk assessment; or there is a change in ACM condition or ACMs have since been enclosed, encapsulated or removed.

Labelling
All confirmed or presumed ACMs (or their enclosures) should be labelled to identify the material as *asbestos-containing* or *presumed asbestos-containing* and to warn that the items should not be disturbed as per Part 2.5 of SafeWork NSW, Code of Practice for How to Manage and Control of Asbestos in Workplaces (2019).

Training
Staff and site personnel must be provided with *Asbestos Awareness* training in accordance with Part 6.3 of SafeWork NSW, Code of Practice for How to Manage and Control of Asbestos in Workplaces (2019).

Training should inform staff how to work safely alongside asbestos by instructing them of:

- The health risks associated with asbestos.
- Their roles and responsibilities under the AMP.
- Procedures for managing asbestos on-site.
- The correct use of control measures and safe work methods to minimise the risks from asbestos. Training records must be kept.

Refurbishment / Demolition Requirements
This audit is limited by the Scope of Works and Methodology outlined within this report.

Generally, a new audit or revised audit is required prior to any planned refurbishment, alteration, demotion or upgrade works that may disturb ACMs at the site in accordance with *Australia Standard AS 2601: The Demolition of Structures*

Removal of Asbestos Materials
If the asbestos management plan calls for the removal of asbestos, the Work Health and Safety Regulation 2017 (NSW) requires that this be done in accordance with *SafeWork NSW, Code of Practice: How to Safely Remove Asbestos (2019).*

Ensure that a risk assessment is performed by a competent person prior to the asbestos removal and that the asbestos removalist considers this risk assessment when developing their asbestos removal control plan.

Asbestos removal licences are required for non-friable and friable asbestos removal work. Friable asbestos removal work also requires a WorkCover permit.

Consultation and Communication related to Asbestos Removal

When asbestos-containing materials are to be removed, there must be full consultation, information sharing and involvement by everyone in the workplace at each step of the asbestos-containing material removal process and records should be kept.

Provision of Information to the Asbestos Removalist

Before any removal work commences, the asbestos removalist must be provided with a copy of the asbestos register and work specifications for the asbestos-containing materials removal.

Air Monitoring

Air monitoring may need to be performed when asbestos-containing materials are being removed to ensure control measures are effective. Air monitoring is required for all indoor removals of friable asbestos-containing materials and for all outdoor removals of friable asbestos-containing materials where there might be a risk to other people.

The need for air monitoring should be determined by a competent person who is independent from the person responsible for the removal work.

If air monitoring is required, the competent person shall develop a documented air-monitoring program, which includes the requirements for clearance monitoring.

Asbestos removal must not commence until the air monitoring has commenced.

The results of air monitoring shall be provided to all relevant parties as soon as possible.

In accordance with *Section 261 of the Work Health & Safety Regulations (2017),* any air monitoring must be analysed in a NATA-Accredited laboratory in accordance with the *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC: 3003 (2005)].*

Clearance to Reoccupy an Asbestos Work Area

Before clearance is granted for an asbestos work area to be re-occupied, there must be a thorough clearance inspection. The clearance inspection must be conducted by a competent person who is independent from the person responsible for the removal work.

Following the final clearance inspection, a clearance certificate must be issued by this competent person. Any protective barriers between the asbestos work area and public areas must remain intact until completion of all asbestos removal work and successful completion of the clearance inspection.

Disposal of Asbestos Waste

The handling and storage of asbestos waste at a worksite is regulated solely by SafeWork NSW. The storage at any location other than worksites, transport and disposal of asbestos waste are regulated by the NSW Department of Environment, Climate Change and Water (DECCW).

At the asbestos removal site, asbestos waste must be collected and disposed of in an asbestos waste bag, a drum, a bin or asbestos waste skip. If the asbestos waste cannot be disposed of immediately, it should be stored in a solid waste drum, bin or skip, sealed, and secured at the completion of each day's work.
All asbestos waste must be removed from the workplace by a competent person. When transported, bonded asbestos must be securely packaged at all times and friable asbestos must be kept in sealed containers. All asbestos waste must be transported in a covered, leak-proof vehicle.

The asbestos waste may only be disposed of at a landfill site licensed by the DECCW to accept asbestos waste. This landfill site must receive prior notification by the asbestos remover of the intention to dispose of asbestos waste at this site. The landfill site must issue a certificate of disposal and the asbestos remover must provide the Facilities Manager with a copy of this certificate. It is the Facilities Manager's responsibility to ensure a copy of the certificate of disposal is placed within the relevant site's asbestos register.

Statement of Limitations

This report has been prepared in accordance with the agreement between the client and Trinitas Group. Within the limitations of the agreed upon scope of services, this work has been undertaken and performed in a professional manner, in accordance with generally accepted practices, using a degree of skill and care ordinarily exercised by members of its profession and consulting practice. No other warranty, expressed or implied, is made.

This report is solely for the use of the client and any reliance on this report by third parties shall be at such party's sole risk and may not contain sufficient information for purposes of other parties or for other uses. This report shall only be presented in full and may not be used to support any other objective than those set out in the report, except where written approval with comments are provided by Trinitas Group.

This report relates only to the identification of asbestos-containing materials used in the construction of the building and does not include the identification of dangerous goods or hazardous substances in the form of chemicals used, stored or manufactured within the building or plant.

'The following should also be noted:
While the survey has attempted to locate the asbestos-containing materials within the site it should be noted that the review was a visual inspection and a limited sampling program was conducted and/or the analysis results of the previous report were used. Representative samples of suspect asbestos materials were collected for analysis. Other asbestos materials of similar appearance are assumed to have a similar content.

Not all suspected asbestos materials were sampled. Only those asbestos materials that were physically accessible could be located and identified. Therefore, it is possible that asbestos materials, which may be concealed within inaccessible areas/voids, may not have been located during the audit. Such inaccessible areas fall into a number of categories.

- Locations behind locked doors.
- In set ceilings or wall cavities.
- Those areas accessible only by dismantling equipment or performing minor localised demolition works.
- Service shafts, ducts etc., concealed within the building structure.
- Energised services, gas, electrical, pressurised vessel and chemical lines
- Voids or internal areas of machinery, plant, equipment, air conditioning ducts etc.
- Totally inaccessible areas such as voids and cavities created and intimately concealed within the building structure. These voids are only accessible during major demolition works.
- Height restricted areas.
- Areas deemed unsafe or hazardous at time of audit

In addition to areas that were not accessible, the possible presence of asbestos containing materials may not have been assessed because it was not considered practicable as:

- It would require unnecessary dismantling of equipment; and/or
- It was considered disruptive to the normal operations of the building; and/or
- It may have caused unnecessary damage to equipment, furnishings or surfaces; and/or
- The asbestos containing material was not considered to represent a significant exposure risk; and/or
- The time taken to determine the presence of the asbestos containing material was considered prohibitive.

Only minor destructive auditing and sampling techniques were employed to gain access to those areas documented in the register. Consequently, without substantial demolition of the building, it is not possible to guarantee that every source of asbestos containing material has been detected.

During the course of normal site works care should be exercised when entering any previously inaccessible areas or areas mentioned above and it is imperative that work cease pending further sampling if materials suspected of containing asbestos or unknown materials are encountered. Therefore, during any refurbishment or

demolition works, further investigations and assessment may be required should any suspect material be observed in previously inaccessible areas or areas not fully inspected previously, i.e. carpeted floors.

This report is not intended to be used for the purposes of tendering, programming of works, refurbishment works, or demolition works unless used in conjunction with a specification detailing the extent of the works. To ensure its contextual integrity, the report must be read in its entirety and should not be copied, distributed or referred to in part only

Asbestos Register

Client Name:	Abril	**Property Number:**	N/A	**Survey Date:**	31/08/2023
Site Name:	1st Dundas Scout Hall	**Building Age:**	1950	**Inspected By:**	Karim Nazemi
Site Address:	Yates Avenue, Dundas Valley NSW 2117	**Construction Type:**	Cladding	**Building Size (m2):**	300
Building Name:	1st Dundas Scout	**Roof Type:**	Metal	**No. Levels:**	1

Item	Location	Level	Room-Specific Location	Hazard Type	Item description	Sample Reference	Sample Status	Photo No	Extent	Condition	Friability	Disturbance Potential	Risk Rating	Current Label	Control Priority	Control Recommendation
1	Exterior	Ground Floor	Building eaves throughout	Asbestos	FC sheeting	01	Positive	230831-133207	60	Good	Non-Friable	Low	Low	No	P4	P4 - No short term remediation works required. Review periodically and manage as part of an AMP
2	Interior	Ground Floor	West side, electricity meter box	Asbestos	Electrical backing board	Nil	Presumed Positive	230831-134031	1 unit	Good	Non-Friable	Low	Low	No	P4	P4 - No short term remediation works required. Review periodically and manage as part of an AMP
3	Exterior	Ground Floor	Southwest corner, debris on ground surface	Asbestos	FC fragments	02	Positive	230831-134050	20	Poor	Friable	High	High	No	P1	P1 - Restrict access to area & organise remediation works as soon as practicable & manage any remaining materials as part of an AMP
4	Interior	Ground Floor	South-east corner, debris on floor (partially inspected due to u safe structure)	Asbestos	FC fragments	Similar to 02	Presumed Positive	230831-135813	100	Poor	Friable	High	High	No	P1	P1 - Restrict access to area & organise remediation works as soon as practicable & manage any remaining

Item	Location	Level	Room-Specific Location	Hazard Type	Item description	Sample Reference	Sample Status	Photo No	Extent	Condition	Friability	Disturbance Potential	Risk Rating	Current Label	Control Priority	Control Recommendation
																materials as part of an AMP
5	Exterior	Ground Floor	East side, electricity meter box, fire damaged	Asbestos	Electrical backing board	Nil	Presumed Positive	230831-134131	1 unit	Poor	Friable	Medium	High	No	P1	P1 - Restrict access to area & organise remediation works as soon as practicable & manage any remaining materials as part of an AMP
6	Exterior	Ground Floor	South side, external areas adjacent kitchen	Asbestos	FC fragments	Similar to 02	Presumed Positive	230831-134216	15	Poor	Friable	High	High	No	P1	P1 - Restrict access to area & organise remediation works as soon as practicable & manage any remaining materials as part of an AMP
7	Interior	Ground Floor	Internal wall linings in the western section (not fire damaged)	Asbestos	Masonite like material	03	Negative	230831-134405								
8	Interior	Ground Floor	Internal wall linings in the western section (not fire damaged)	Asbestos	Masonite like material	Similar to 03	Presumed Negative	230831-134441								
9	Interior	Ground Floor	Kitchen, vinyl flooring	Asbestos	Vinyl flooring	04	Negative	230831-134901								
10	Interior	Ground Floor	Internal wall linings in the western section (not fire damaged)	Asbestos	Masonite like material	Similar to 03	Presumed Negative	230831-134915								
11	Exterior	Ground Floor	North side, fire damage debris on ground surface	Asbestos	FC fragments	05	Positive	230831-135903	30	Poor	Friable	High	High	No	P1	P1 - Restrict access to area & organise remediation works as soon as practicable & manage any remaining materials as part of an AMP
12	Interior	Sub-floor	Subfloor throughout, Packers on piers	Asbestos	FC fragments	06	Positive	230831-140719	Through out	Good	Non-Friable	Low	Low	No	P4	P4 - No short term remediation works required. Review periodically and manage as part of an AMP
13	Interior	Sub-floor	Subfloor surface, fragments on surface	Asbestos	FC fragments	Similar to 06	Presumed Positive	230831-140857		Good	Non-Friable	Low	Low	No	P4	P4 - No short term remediation works required. Review periodically and manage as part of an AMP
14	Exterior	Ground Floor	North side, Insulation material	Asbestos	SMF like material	Nil	Presumed Negative	230831-140906								

Item	Location	Level	Room-Specific Location	Hazard Type	Item description	Sample Reference	Sample Status	Photo No	Extent	Condition	Friability	Disturbance Potential	Risk Rating	Current Label	Control Priority	Control Recommendation
15	Interior	Ground Floor	Western section, insulation material on floor	Asbestos	SMF like material	Nil	Presumed Negative	230831-140909								

Positive Photos

Photo No: 230831-133207
Result: Asbestos - Positive
Location-Level: Exterior - Ground Floor
Room-Location: Building eaves throughout
Feature-Material: FC sheeting
Item No - Risk Rating: 1 - Low

Photo No: 230831-134031
Result: Asbestos - Presumed Positive
Location-Level: Interior - Ground Floor
Room-Location: West side, electricity meter box
Feature-Material: Electrical backing board
Item No - Risk Rating: 2 - Low

Photo No: 230831-134050
Result: Asbestos - Positive
Location-Level: Exterior - Ground Floor
Room-Location: Southwest corner, debris on ground surface
Feature-Material: FC fragments
Item No - Risk Rating: 3 - High

Photo No: 230831-135813
Result: Asbestos - Presumed Positive
Location-Level: Interior - Ground Floor
Room-Location: South-east corner, debris on floor (partially inspected due to u safe structure)
Feature-Material: FC fragments
Item No - Risk Rating: 4 - High

Photo No: 230831-134131
Result: Asbestos - Presumed Positive
Location-Level: Exterior - Ground Floor
Room-Location: East side, electricity meter box, fire damaged
Feature-Material: Electrical backing board
Item No - Risk Rating: 5 - High

Photo No: 230831-134216
Result: Asbestos - Presumed Positive
Location-Level: Exterior - Ground Floor
Room-Location: South side, external areas adjacent kitchen
Feature-Material: FC fragments
Item No - Risk Rating: 6 - High

Photo No: 230831-135903
Result: Asbestos - Positive
Location-Level: Exterior - Ground Floor
Room-Location: North side, fire damage debris on ground surface
Feature-Material: FC fragments
Item No - Risk Rating: 11 - High

Photo No: 230831-140719
Result: Asbestos - Positive
Location-Level: Interior - Sub-floor
Room-Location: Subfloor throughout, Packers on piers
Feature-Material: FC fragments
Item No - Risk Rating: 12 - Low

Photo No: 230831-140857
Result: Asbestos - Presumed Positive
Location-Level: Interior - Sub-floor
Room-Location: Subfloor surface, fragments on surface
Feature-Material: FC fragments
Item No - Risk Rating: 13 - Low

Negative Photos

Photo No: 230831-134405
Result: Asbestos - Negative
Location-Level: Interior - Ground Floor
Room-Location: Internal wall linings in the western section (not fire damaged)
Feature-Material: Masonite like material

Photo No: 230831-134441
Result: Asbestos - Presumed Negative
Location-Level: Interior - Ground Floor
Room-Location: Internal wall linings in the western section (not fire damaged)
Feature-Material: Masonite like material

Photo No: 230831-134901
Result: Asbestos - Negative
Location-Level: Interior - Ground Floor
Room-Location: Kitchen, vinyl flooring
Feature-Material: Vinyl flooring

Photo No: 230831-134915
Result: Asbestos - Presumed Negative
Location-Level: Interior - Ground Floor
Room-Location: Internal wall linings in the western section (not fire damaged)
Feature-Material: Masonite like material

Photo No: 230831-140906
Result: Asbestos - Presumed Negative
Location-Level: Exterior - Ground Floor
Room-Location: North side, Insulation material
Feature-Material: SMF like material

Photo No: 230831-140909
Result: Asbestos - Presumed Negative
Location-Level: Interior - Ground Floor
Room-Location: Western section, insulation material on floor
Feature-Material: SMF like material

How to Contact Us

Mail	Trinitas Group
	PO Box 1376 Parramatta NSW 2124
Email	admin@trinitasgroup.com.au
Address	Level 3, 24 Hunter Street, Parramatta NSW 2150
Website	www.trinitasgroup.com.au
Telephone	1800 4 TRINITAS
Facsimile	02 8016 0875

Trinitas Group Pty Ltd
ABN 12 161 759 708

Certificate of Analysis

eurofins | Environment Testing

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025–Testing
NATA is a signatory to the ILAC Mutual Recognition Arrangement for the mutual recognition of the equivalence of testing, medical testing, calibration, inspection, proficiency testing scheme providers and reference materials producers reports and certificates.

Trinitas Group Pty Ltd
Level 3, 24 Hunter Street
Parramatta
NSW 2150

Attention:	Denny Bolatti
Report	1022644-AID
Project Name	1ST DUNDAS SCOUT HALL
Received Date	Sep 01, 2023
Date Reported	Sep 08, 2023

Methodology:

Asbestos Fibre Identification	Conducted in accordance with the Australian Standard AS 4964 – 2004: Method for the Qualitative Identification of Asbestos in Bulk Samples and in-house Method LTM-ASB-8020 by polarised light microscopy (PLM) and dispersion staining (DS) techniques. *NOTE: Positive Trace Analysis results indicate the sample contains detectable respirable fibres.*
Unknown Mineral Fibres	Mineral fibres of unknown type, as determined by PLM with DS, may require another analytical technique, such as Electron Microscopy, to confirm unequivocal identity. *NOTE: While Actinolite, Anthophyllite and Tremolite asbestos may be detected by PLM with DS, due to variability in the optical properties of these materials, AS4964 requires that these are reported as UMF unless confirmed by an independent technique.*
Subsampling Soil Samples	The whole sample submitted is first dried and then passed through a 10mm sieve followed by a 2mm sieve. All fibrous matter greater than 10mm, greater than 2mm as well as the material passing through the 2mm sieve are retained and analysed for the presence of asbestos. If the sub 2mm fraction is greater than approximately 30 to 60g then a sub-sampling routine based on ISO 3082:2009(E) is employed. *NOTE: Depending on the nature and size of the soil sample, the sub-2 mm residue material may need to be sub-sampled for trace analysis, in accordance with AS 4964-2004.*
Bonded asbestos-containing material (ACM)	The material is first examined and any fibres isolated for identification by PLM and DS. Where required, interfering matrices may be removed by disintegration using a range of heat, chemical or physical treatments, possibly in combination.The resultant material is then further examined in accordance with AS 4964 - 2004. *NOTE: Even after disintegration it may be difficult to detect the presence of asbestos in some asbestos-containing bulk materials using PLM and DS. This is due to the low grade or small length or diameter of the asbestos fibres present in the material, or to the fact that very fine fibres have been distributed intimately throughout the materials. Vinyl/asbestos floor tiles, some asbestos-containing sealants and mastics, asbestos-containing epoxy resins and some ore samples are examples of these types of material, which are difficult to analyse.*
Limit of Reporting	The performance limitation of the AS 4964 (2004) method for non-homogeneous samples is around 0.1 g/kg (equivalent to 0.01% (w/w)). Where no asbestos is found by PLM and DS, including Trace Analysis, this is considered to be at the nominal reporting limit of 0.01% (w/w). The NEPM screening level of 0.001% (w/w) is intended as an on-site determination, not a laboratory Limit of Reporting (LOR), per se. Examination of a large sample size (e.g. 500 mL) may improve the likelihood of detecting asbestos, particularly AF, to aid assessment against the NEPM criteria. Gravimetric determinations to this level of accuracy are outside of AS 4964 and hence NATA Accreditation does not cover the performance of this service (non-NATA results shown with an asterisk). *NOTE: NATA News March 2014, p.7, states in relation to AS 4964: "This is a qualitative method with a nominal reporting limit of 0.01 % " and that currently in Australia "there is no validated method available for the quantification of asbestos".This report is consistent with the analytical procedures and reporting recommendations in the NEPM and the WA DoH.*

Project Name 1ST DUNDAS SCOUT HALL
Project ID
Date Sampled Aug 31, 2023
Report 1022644-AID

Client Sample ID	Eurofins Sample No.	Date Sampled	Sample Description	Result
01-FC SHEETING	23-Se0004499	Aug 31, 2023	Approximate Sample 5g / 25x20x4mm Sample consisted of: (a) Brown/ black fibre cement material (b) Brown paint	Chrysotile asbestos detected (a). Organic fibre detected.
02- FC FRAGMENT	23-Se0004500	Aug 31, 2023	Approximate Sample 34g / 65x50x5mm Sample consisted of: (a) Brown/ black fibre cement material (b) Brown paint	Chrysotile asbestos detected (a). Organic fibre detected.
03- MASONITE LIKE MATERIAL	23-Se0004501	Aug 31, 2023	Approximate Sample 8g / 70x30x3mm Sample consisted of: Brown/ black fibre board like material	No asbestos detected. Organic fibre detected. No trace asbestos detected.
04-VINYL FLOORING	23-Se0004502	Aug 31, 2023	Approximate Sample 3g / 60x35x1mm Sample consisted of: Brown vinyl material with yellow adhesive on one side	No asbestos detected. Synthetic mineral fibre detected. No trace asbestos detected.
05-FC FRAGMENTS	23-Se0004503	Aug 31, 2023	Approximate Sample 24g / 50x40x4mm Sample consisted of: Brown/ black fibre cement material	Chrysotile and amosite asbestos detected.
06-FC FRAGMENTS	23-Se0004504	Aug 31, 2023	Approximate Sample 36g / 85x50x4mm Sample consisted of: White fibre cement material	Chrysotile asbestos detected. Organic fibre detected.

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Asbestos - LTM-ASB-8020	Sydney	Sep 04, 2023	Indefinite

eurofins

web: www.eurofins.com.au
email: EnviroSales@eurofins.com

Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne	Geelong	Sydney	Canberra	Brisbane	Newcastle
6 Monterey Road	19/8 Lewalan Street	179 Magowar Road	Unit 1,2 Dacre Street	1/21 Smallwood Place	1/2 Frost Drive
Dandenong South	Grovedale	Girraween	Mitchell	Murarrie	Mayfield West NSW 2304
VIC 3175	VIC 3216	NSW 2145	ACT 2911	QLD 4172	Tel: +61 2 4968 8448
Tel: +61 3 8564 5000	Tel: +61 3 8564 5000	Tel: +61 2 9900 8400	Tel: +61 2 6113 8091	Tel: +61 7 3902 4600	NATA# 1261
NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	Site# 25079 & 25289
Site# 1254	Site# 25403	Site# 18217	Site# 25466	Site# 20794	

Eurofins ARL Pty Ltd
ABN: 91 05 0159 898

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Welshpool
WA 6106
Tel: +61 8 6253 4444
NATA# 2377
Site# 2370

Eurofins Environment Testing NZ Ltd
NZBN: 9429046024954

Auckland	Christchurch	Tauranga
35 O'Rorke Road	43 Detroit Drive	1277 Cameron Road,
Penrose,	Rolleston,	Gate Pa,
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IANZ# 1327	IANZ# 1290	IANZ# 1402

Company Name: Trinitas Group Pty Ltd
Address: Level 3, 24 Hunter Street
Parramatta
NSW 2150

Project Name: 1ST DUNDAS SCOUT HALL

Order No.:
Report #: 1022644
Phone: 02 8810 4445
Fax: 02 8016 0875

Received: Sep 1, 2023 4:24 PM
Due: Sep 8, 2023
Priority: 5 Day
Contact Name: Denny Bolatti

Eurofins Analytical Services Manager : Bonnie Pu

Sample Detail						Asbestos Absence /Presence
Sydney Laboratory - NATA # 1261 Site # 18217						X
External Laboratory						
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**	
1	01-FC SHEETING	Aug 31, 2023		Building Materials	S23-Se0004499	X
2	02- FC FRAGMENT	Aug 31, 2023		Building Materials	S23-Se0004500	X
3	03- MASONITE LIKE MATERIAL	Aug 31, 2023		Building Materials	S23-Se0004501	X
4	04-VINYL FLOORING	Aug 31, 2023		Building Materials	S23-Se0004502	X
5	05-FC FRAGMENTS	Aug 31, 2023		Building Materials	S23-Se0004503	X
6	06-FC FRAGMENTS	Aug 31, 2023		Building Materials	S23-Se0004504	X
Test Counts						6

Internal Quality Control Review and Glossary General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. Information identified on this report with the colour **blue** indicates data provided by customer that may have an impact on the results.
5. This report replaces any interim results previously issued.

Holding Times

Please refer to the most recent version of the 'Sample Preservation and Container Guide' for holding times (QS3001).
If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported. Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

Units

% w/w:	Percentage weight-for-weight basis, e.g. of asbestos in asbestos-containing finds in soil samples (**% w/w**)
F/fld	Airborne fibre filter loading as Fibres (**N**) per Fields counted (**n**)
F/mL	Airborne fibre reported concentration as Fibres per millilitre of air drawn over the sampler membrane (**C**)
g, kg	Mass, e.g. of whole sample (**M**) or asbestos-containing find within the sample (**m**)
g/kg	Concentration in grams per kilogram
L, mL	Volume, e.g. of air as measured in AFM (**V** = **r** x **t**)
L/min	Airborne fibre sampling Flowrate as litres per minute of air drawn over the sampler membrane (**r**)
min	Time (**t**), e.g. of air sample collection period

Calculations

Airborne Fibre Concentration: $C = \left(\frac{A}{a}\right) \times \left(\frac{N}{n}\right) \times \left(\frac{1}{r}\right) \times \left(\frac{1}{t}\right) = K \times \left(\frac{N}{n}\right) \times \left(\frac{1}{V}\right)$

Asbestos Content (as asbestos): $\%\, w/w = \frac{(m \times P_A)}{M}$

Weighted Average (of asbestos): $\%_{WA} = \sum \frac{(m \times P_A)_x}{x}$

Terms

%asbestos	Estimated percentage of asbestos in a given matrix. May be derived from knowledge or experience of the material, informed by HSG264 *Appendix 2*, else assumed to be 15% in accordance with WA DOH *Appendix 2* (**P_A**).
ACM	Asbestos Containing Materials. Asbestos contained within a non-asbestos matrix, typically presented in bonded (non-friable) condition. For the purposes of the NEPM and WA DOH, ACM corresponds to material larger than 7 mm x 7 mm.
AF	Asbestos Fines. Asbestos contamination within a soil sample, as defined by WA DOH. Includes loose fibre bundles and small pieces of friable and non-friable material such as asbestos cement fragments mixed with soil. Considered under the NEPM as equivalent to “non-bonded / friable”.
AFM	Airborne Fibre Monitoring, e.g. by the MFM.
Amosite	Amosite Asbestos Detected. Amosite may also refer to Fibrous Grunerite or Brown Asbestos. Identified in accordance with AS 4964-2004.
AS	Australian Standard.
Asbestos Content (as asbestos)	Total % w/w asbestos content in asbestos-containing finds in a soil sample (**% w/w)**.
Chrysotile	Chrysotile Asbestos Detected. Chrysotile may also refer to Fibrous Serpentine or White Asbestos. Identified in accordance with AS 4964-2004.
COC	Chain of Custody.
Crocidolite	Crocidolite Asbestos Detected. Crocidolite may also refer to Fibrous Riebeckite or Blue Asbestos. Identified in accordance with AS 4964-2004.
Dry	Sample is dried by heating prior to analysis.
DS	Dispersion Staining. Technique required for Unequivocal Identification of asbestos fibres by PLM.
FA	Fibrous Asbestos. Asbestos containing material that is wholly or in part friable, including materials with higher asbestos content with a propensity to become friable with handling, and any material that was previously non-friable and in a severely degraded condition. For the purposes of the NEPM and WA DOH, FA generally corresponds to material larger than 7 mm x 7 mm, although FA may be more difficult to visibly distinguish and may be assessed as AF.
Fibre Count	Total of all fibres (whether asbestos or not) meeting the counting criteria set out in the NOHSC:3003
Fibre ID	Fibre Identification. Unequivocal identification of asbestos fibres according to AS 4964-2004. Includes Chrysotile, Amosite (Grunerite) or Crocidolite asbestos.
Friable	Asbestos-containing materials of any size that may be broken or crumbled by hand pressure. For the purposes of the NEPM, this includes both AF and FA. It is outside of the laboratory’s remit to assess degree of friability.
HSG248	UK HSE HSG248, *Asbestos: The Analysts Guide*, 2nd Edition (2021).
HSG264	UK HSE HSG264, *Asbestos: The Survey Guide* (2012).
ISO (also ISO/IEC)	International Organization for Standardization / International Electrotechnical Commission.
K Factor	Microscope constant (**K**) as derived from the effective filter area of the given AFM membrane used for collecting the sample (**A**) and the projected eyepiece graticule area of the specific microscope used for the analysis (**a**).
LOR	Limit of Reporting.
MFM (also NOHSC:3003)	Membrane Filter Method. As described by the Australian Government National Occupational Health and Safety Commission, *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres*, 2nd Edition [NOHSC:3003(2005)].
NEPM (also ASC NEPM)	National Environment Protection (Assessment of Site Contamination) Measure, (2013, as amended).
Organic	Organic Fibres Detected. Organic may refer to Natural or Man-Made Polymeric Fibres. Identified in accordance with AS 4964-2004.
PCM	Phase Contrast Microscopy. As used for Fibre Counting according to the MFM.
PLM	Polarised Light Microscopy. As used for Fibre Identification and Trace Analysis according to AS 4964-2004.
Sampling	Unless otherwise stated Eurofins are not responsible for sampling equipment or the sampling process.
SMF	Synthetic Mineral Fibre Detected. SMF may also refer to Man Made Vitreous Fibres. Identified in accordance with AS 4964-2004.
SRA	Sample Receipt Advice.
Trace Analysis	Analytical procedure used to detect the presence of respirable fibres (particularly asbestos) in a given sample matrix.
UK HSE HSG	United Kingdom, Health and Safety Executive, Health and Safety Guidance, publication.
UMF	Unidentified Mineral Fibre Detected. Fibrous minerals that are detected but have not been unequivocally identified by PLM with DS according the AS 4964-2004. May include (but not limited to) Actinolite, Anthophyllite or Tremolite asbestos.
WA DOH	Reference document for the NEPM. Government of Western Australia, *Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia* (updated 2021), including Appendix Four: *Laboratory analysis*
Weighted Average	Combined average % w/w asbestos content of all asbestos-containing finds in the given aliquot or total soil sample (**$\%_{WA}$**).

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	N/A
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Asbestos Counter/Identifier:

Geronimo Jr Abrot	Senior Analyst-Asbestos

Authorised by:

Sayeed Abu	Senior Analyst-Asbestos

Glenn Jackson
Managing Director

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

Appendix F – Laboratory Documents

Trinitas Group Pty Ltd
Level 3, 24 Hunter Street
Parramatta
NSW 2150

Attention:	- RESULTS/SRAs
Report	1041686-AID
Project Name	DUNDAS SCOUT HALL
Received Date	Nov 06, 2023
Date Reported	Nov 14, 2023

Methodology:

Asbestos Fibre Identification

Conducted in accordance with the Australian Standard AS 4964 – 2004: Method for the Qualitative Identification of Asbestos in Bulk Samples and in-house Method LTM-ASB-8020 by polarised light microscopy (PLM) and dispersion staining (DS) techniques.
NOTE: Positive Trace Analysis results indicate the sample contains detectable respirable fibres.

Unknown Mineral Fibres

Mineral fibres of unknown type, as determined by PLM with DS, may require another analytical technique, such as Electron Microscopy, to confirm unequivocal identity.
NOTE: While Actinolite, Anthophyllite and Tremolite asbestos may be detected by PLM with DS, due to variability in the optical properties of these materials, AS4964 requires that these are reported as UMF unless confirmed by an independent technique.

Subsampling Soil Samples

The whole sample submitted is first dried and then passed through a 10mm sieve followed by a 2mm sieve. All fibrous matter greater than 10mm, greater than 2mm as well as the material passing through the 2mm sieve are retained and analysed for the presence of asbestos. If the sub 2mm fraction is greater than approximately 30 to 60g then a sub-sampling routine based on ISO 3082:2009(E) is employed.
NOTE: Depending on the nature and size of the soil sample, the sub-2 mm residue material may need to be sub-sampled for trace analysis, in accordance with AS 4964-2004.

Bonded asbestos-containing material (ACM)

The material is first examined and any fibres isolated for identification by PLM and DS. Where required, interfering matrices may be removed by disintegration using a range of heat, chemical or physical treatments, possibly in combination.The resultant material is then further examined in accordance with AS 4964 - 2004.
NOTE: Even after disintegration it may be difficult to detect the presence of asbestos in some asbestos-containing bulk materials using PLM and DS. This is due to the low grade or small length or diameter of the asbestos fibres present in the material, or to the fact that very fine fibres have been distributed intimately throughout the materials. Vinyl/asbestos floor tiles, some asbestos-containing sealants and mastics, asbestos-containing epoxy resins and some ore samples are examples of these types of material, which are difficult to analyse.

Limit of Reporting

The performance limitation of the AS 4964 (2004) method for non-homogeneous samples is around 0.1 g/kg (equivalent to 0.01% (w/w)). Where no asbestos is found by PLM and DS, including Trace Analysis, this is considered to be at the nominal reporting limit of 0.01% (w/w).
The NEPM screening level of 0.001% (w/w) is intended as an on-site determination, not a laboratory Limit of Reporting (LOR), per se. Examination of a large sample size (e.g. 500 mL) may improve the likelihood of detecting asbestos, particularly AF, to aid assessment against the NEPM criteria. Gravimetric determinations to this level of accuracy are outside of AS 4964 and hence NATA Accreditation does not cover the performance of this service (non-NATA results shown with an asterisk).
NOTE: NATA News March 2014, p.7, states in relation to AS 4964: "This is a qualitative method with a nominal reporting limit of 0.01 % " and that currently in Australia "there is no validated method available for the quantification of asbestos".This report is consistent with the analytical procedures and reporting recommendations in the NEPM and the WA DoH.

Project Name DUNDAS SCOUT HALL
Project ID
Date Sampled Nov 01, 2023
Report 1041686-AID

Client Sample ID	Eurofins Sample No.	Date Sampled	Sample Description	Result
TP01_0.3	23-No0014126	Nov 01, 2023	Approximate Sample 468g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP02_0.3	23-No0014127	Nov 01, 2023	Approximate Sample 493g Sample consisted of: Brown fine-grained clayey soil, corroded metal, cement, glass, organic debris and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Synthetic mineral fibre detected. Organic fibre detected. No trace asbestos detected.
TP03_0.3	23-No0014128	Nov 01, 2023	Approximate Sample 442g Sample consisted of: Brown fine-grained clayey soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP04_0.3	23-No0014129	Nov 01, 2023	Approximate Sample 453g Sample consisted of: Brown fine-grained clayey soil, cement, glass and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.
TP05_0.3	23-No0014130	Nov 01, 2023	Approximate Sample 542g Sample consisted of: Brown fine-grained clayey soil, cement and rocks	ACM: Chrysotile and amosite asbestos detected in fibre cement material. Approximate raw weight of ACM = 1.9g Total estimated asbestos content in ACM = 0.19g* Total estimated asbestos concentration in ACM = 0.034% w/w* Organic fibre detected. No trace asbestos detected.
TP06_0.3	23-No0014131	Nov 01, 2023	Approximate Sample 312g Sample consisted of: Brown fine-grained clayey soil, cement, organic debris and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No trace asbestos detected.

Client Sample ID	Eurofins Sample No.	Date Sampled	Sample Description	Result
TP07_0.3	23-No0014132	Nov 01, 2023	Approximate Sample 440g Sample consisted of: Brown fine-grained clayey soil, coal and rocks	FA: Chrysotile asbestos detected in weathered fibre cement material. Approximate raw weight of FA = 3.9g Estimated asbestos content in FA = 1.5g* Total estimated asbestos concentration in FA = 0.35% w/w* Organic fibre detected. No trace asbestos detected.
TP07_FC	23-No0014133	Nov 01, 2023	Approximate Sample 134g / 150x110x5mm Sample consisted of: Grey fibre plaster cement sheet	Chrysotile asbestos detected. Organic fibre detected.
TP08_0.2	23-No0014134	Nov 01, 2023	Approximate Sample 397g Sample consisted of: Brown fine-grained clayey soil, cement, corroded metal, organic debris and rocks	ACM: Chrysotile asbestos detected in fibre cement material. Approximate raw weight of ACM = 36g Total estimated asbestos content in ACM = 1.8g* Total estimated asbestos concentration in ACM = 0.45% w/w* Organic fibre detected. No trace asbestos detected.

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Asbestos - LTM-ASB-8020	Sydney	Nov 07, 2023	Indefinite
Asbestos - LTM-ASB-8020	Sydney	Nov 07, 2023	Indefinite

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Eurofins Environment Testing Australia Pty Ltd
ABN: 50 005 085 521

Melbourne	Geelong	Sydney	Canberra	Brisbane	Newcastle
6 Monterey Road	19/8 Lewalan Street	179 Magowar Road	Unit 1,2 Dacre Street	1/21 Smallwood Place	1/2 Frost Drive
Dandenong South	Grovedale	Girraween	Mitchell	Murarrie	Mayfield West NSW 2304
VIC 3175	VIC 3216	NSW 2145	ACT 2911	QLD 4172	Tel: +61 2 4968 8448
Tel: +61 3 8564 5000	Tel: +61 3 8564 5000	Tel: +61 2 9900 8400	Tel: +61 2 6113 8091	Tel: +61 7 3902 4600	NATA# 1261
NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	Site# 25079 & 25289
Site# 1254	Site# 25403	Site# 18217	Site# 25466	Site# 20794	

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IANZ# 1327	IANZ# 1290	IANZ# 1402

Company Name: Trinitas Group Pty Ltd
Address: Level 3, 24 Hunter Street
Parramatta
NSW 2150

Project Name: DUNDAS SCOUT HALL

Order No.:
Report #: 1041686
Phone: 02 8810 4445
Fax: 02 8016 0875

Received: Nov 6, 2023 3:39 PM
Due: Nov 13, 2023
Priority: 5 Day
Contact Name: - RESULTS/SRAs

Eurofins Analytical Services Manager : Bonnie Pu

Sample Detail						Asbestos - WA guidelines	Asbestos Absence /Presence	Polychlorinated Biphenyls	Moisture Set	Eurofins Suite B10: BTEX/TRH/PAH/OCP/OPP/M8	BTEXN and Volatile TRH	BTEXN and Volatile TRH
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X
External Laboratory												
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**							
1	TP01_0.3	Nov 01, 2023		Soil	S23-No0014126	X		X	X	X		
2	TP02_0.3	Nov 01, 2023		Soil	S23-No0014127	X		X	X	X		
3	TP03_0.3	Nov 01, 2023		Soil	S23-No0014128	X		X	X	X		
4	TP04_0.3	Nov 01, 2023		Soil	S23-No0014129	X		X	X	X		
5	TP05_0.3	Nov 01, 2023		Soil	S23-No0014130	X		X	X	X		
6	TP06_0.3	Nov 01, 2023		Soil	S23-No0014131	X		X	X	X		
7	TP07_0.3	Nov 01, 2023		Soil	S23-No0014132	X		X	X	X		
8	TP07_FC	Nov 01, 2023		Building Materials	S23-No0014133		X					
9	TP08_0.2	Nov 01, 2023		Soil	S23-No0014134	X		X	X	X		
10	QD1	Nov 01, 2023		Soil	S23-No0014135			X	X	X		
11	TS1	Nov 01, 2023		Trip Spike (solid)	S23-No0014136							X
12	TB1	Nov 01, 2023		Trip Blank (solid)	S23-No0014137						X	

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VIC 3175	VIC 3216	NSW 2145	ACT 2911	QLD 4172	Tel: +61 2 4968 8448
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NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	Site# 25079 & 25289
Site# 1254	Site# 25403	Site# 18217	Site# 25466	Site# 20794	

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IANZ# 1327	IANZ# 1290	IANZ# 1402

Company Name: Trinitas Group Pty Ltd
Address: Level 3, 24 Hunter Street
Parramatta
NSW 2150

Project Name: DUNDAS SCOUT HALL

Order No.:
Report #: 1041686
Phone: 02 8810 4445
Fax: 02 8016 0875

Received: Nov 6, 2023 3:39 PM
Due: Nov 13, 2023
Priority: 5 Day
Contact Name: - RESULTS/SRAs

Eurofins Analytical Services Manager : Bonnie Pu

Sample Detail	Asbestos - WA guidelines	Asbestos Absence /Presence	Polychlorinated Biphenyls	Moisture Set	Eurofins Suite B10: BTEX/TRH/PAH/OCP/OPP/M8	BTEXN and Volatile TRH	BTEXN and Volatile TRH
Sydney Laboratory - NATA # 1261 Site # 18217	X	X	X	X	X	X	X
Test Counts	8	1	9	9	9	1	1

Internal Quality Control Review and Glossary General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. Information identified on this report with the colour **blue** indicates data provided by customer that may have an impact on the results.
5. This report replaces any interim results previously issued.

Holding Times

Please refer to the most recent version of the 'Sample Preservation and Container Guide' for holding times (QS3001).
If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported. Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

Units

% w/w:	Percentage weight-for-weight basis, e.g. of asbestos in asbestos-containing finds in soil samples (**% w/w**)
F/fld	Airborne fibre filter loading as Fibres (**N**) per Fields counted (**n**)
F/mL	Airborne fibre reported concentration as Fibres per millilitre of air drawn over the sampler membrane (**C**)
g, kg	Mass, e.g. of whole sample (**M**) or asbestos-containing find within the sample (**m**)
g/kg	Concentration in grams per kilogram
L, mL	Volume, e.g. of air as measured in AFM (**V** = **r** x **t**)
L/min	Airborne fibre sampling Flowrate as litres per minute of air drawn over the sampler membrane (**r**)
min	Time (**t**), e.g. of air sample collection period

Calculations

Airborne Fibre Concentration: $C = \left(\frac{A}{a}\right) \times \left(\frac{N}{n}\right) \times \left(\frac{1}{r}\right) \times \left(\frac{1}{t}\right) = K \times \left(\frac{N}{n}\right) \times \left(\frac{1}{V}\right)$

Asbestos Content (as asbestos): $\%\, w/w = \frac{(m \times P_A)}{M}$

Weighted Average (of asbestos): $\%_{WA} = \sum \frac{(m \times P_A)_x}{x}$

Terms

%asbestos	Estimated percentage of asbestos in a given matrix. May be derived from knowledge or experience of the material, informed by HSG264 *Appendix 2*, else assumed to be 15% in accordance with WA DOH *Appendix 2* (**P_A**).
ACM	Asbestos Containing Materials. Asbestos contained within a non-asbestos matrix, typically presented in bonded (non-friable) condition. For the purposes of the NEPM and WA DOH, ACM corresponds to material larger than 7 mm x 7 mm.
AF	Asbestos Fines. Asbestos contamination within a soil sample, as defined by WA DOH. Includes loose fibre bundles and small pieces of friable and non-friable material such as asbestos cement fragments mixed with soil. Considered under the NEPM as equivalent to “non-bonded / friable”.
AFM	Airborne Fibre Monitoring, e.g. by the MFM.
Amosite	Amosite Asbestos Detected. Amosite may also refer to Fibrous Grunerite or Brown Asbestos. Identified in accordance with AS 4964-2004.
AS	Australian Standard.
Asbestos Content (as asbestos)	Total % w/w asbestos content in asbestos-containing finds in a soil sample (**% w/w)**.
Chrysotile	Chrysotile Asbestos Detected. Chrysotile may also refer to Fibrous Serpentine or White Asbestos. Identified in accordance with AS 4964-2004.
COC	Chain of Custody.
Crocidolite	Crocidolite Asbestos Detected. Crocidolite may also refer to Fibrous Riebeckite or Blue Asbestos. Identified in accordance with AS 4964-2004.
Dry	Sample is dried by heating prior to analysis.
DS	Dispersion Staining. Technique required for Unequivocal Identification of asbestos fibres by PLM.
FA	Fibrous Asbestos. Asbestos containing material that is wholly or in part friable, including materials with higher asbestos content with a propensity to become friable with handling, and any material that was previously non-friable and in a severely degraded condition. For the purposes of the NEPM and WA DOH, FA generally corresponds to material larger than 7 mm x 7 mm, although FA may be more difficult to visibly distinguish and may be assessed as AF.
Fibre Count	Total of all fibres (whether asbestos or not) meeting the counting criteria set out in the NOHSC:3003
Fibre ID	Fibre Identification. Unequivocal identification of asbestos fibres according to AS 4964-2004. Includes Chrysotile, Amosite (Grunerite) or Crocidolite asbestos.
Friable	Asbestos-containing materials of any size that may be broken or crumbled by hand pressure. For the purposes of the NEPM, this includes both AF and FA. It is outside of the laboratory’s remit to assess degree of friability.
HSG248	UK HSE HSG248, *Asbestos: The Analysts Guide*, 2nd Edition (2021).
HSG264	UK HSE HSG264, *Asbestos: The Survey Guide* (2012).
ISO (also ISO/IEC)	International Organization for Standardization / International Electrotechnical Commission.
K Factor	Microscope constant (**K**) as derived from the effective filter area of the given AFM membrane used for collecting the sample (**A**) and the projected eyepiece graticule area of the specific microscope used for the analysis (**a**).
LOR	Limit of Reporting.
MFM (also NOHSC:3003)	Membrane Filter Method. As described by the Australian Government National Occupational Health and Safety Commission, *Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres*, 2nd Edition [NOHSC:3003(2005)].
NEPM (also ASC NEPM)	National Environment Protection (Assessment of Site Contamination) Measure, (2013, as amended).
Organic	Organic Fibres Detected. Organic may refer to Natural or Man-Made Polymeric Fibres. Identified in accordance with AS 4964-2004.
PCM	Phase Contrast Microscopy. As used for Fibre Counting according to the MFM.
PLM	Polarised Light Microscopy. As used for Fibre Identification and Trace Analysis according to AS 4964-2004.
Sampling	Unless otherwise stated Eurofins are not responsible for sampling equipment or the sampling process.
SMF	Synthetic Mineral Fibre Detected. SMF may also refer to Man Made Vitreous Fibres. Identified in accordance with AS 4964-2004.
SRA	Sample Receipt Advice.
Trace Analysis	Analytical procedure used to detect the presence of respirable fibres (particularly asbestos) in a given sample matrix.
UK HSE HSG	United Kingdom, Health and Safety Executive, Health and Safety Guidance, publication.
UMF	Unidentified Mineral Fibre Detected. Fibrous minerals that are detected but have not been unequivocally identified by PLM with DS according the AS 4964-2004. May include (but not limited to) Actinolite, Anthophyllite or Tremolite asbestos.
WA DOH	Reference document for the NEPM. Government of Western Australia, *Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia* (updated 2021), including Appendix Four: *Laboratory analysis*
Weighted Average	Combined average % w/w asbestos content of all asbestos-containing finds in the given aliquot or total soil sample (**$\%_{WA}$**).

Comments

23-No0014126 to 23-No0014129, 23-No0014131, 23-No0014132, 23-No0014134: Samples received were less than the nominal 500mL as recommended in Section 4.10 of the NEPM Schedule B1 - Guideline on Investigation Levels for Soil and Groundwater.

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Asbestos Counter/Identifier:

Laxman Dias	Senior Analyst-Asbestos

Authorised by:

Chamath JHM Annakkage	Senior Analyst-Asbestos

Glenn Jackson
Managing Director

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

Trinitas Group Pty Ltd
Level 3, 24 Hunter Street
Parramatta
NSW 2150

Attention: **- RESULTS/SRAs**

Report **1041686-S**
Project name DUNDAS SCOUT HALL
Received Date Nov 06, 2023

Client Sample ID			**TP01_0.3**	[G01]**TP02_0.3**	**TP03_0.3**	[G01]**TP04_0.3**
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins Sample No.			**S23-No0014126**	**S23-No0014127**	**S23-No0014128**	**S23-No0014129**
Date Sampled			**Nov 01, 2023**	**Nov 01, 2023**	**Nov 01, 2023**	**Nov 01, 2023**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	78	82	87	73
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			TP01_0.3	[G01]TP02_0.3	TP03_0.3	[G01]TP04_0.3
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S23-No0014126	S23-No0014127	S23-No0014128	S23-No0014129
Date Sampled			Nov 01, 2023	Nov 01, 2023	Nov 01, 2023	Nov 01, 2023
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	104	89	106	72
p-Terphenyl-d14 (surr.)	1	%	102	73	94	72
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 1	< 0.1	< 1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.5	< 0.05	< 0.5
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.5	< 0.05	< 0.5
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.5	< 0.05	< 0.5
a-HCH	0.05	mg/kg	< 0.05	< 0.5	< 0.05	< 0.5
Aldrin	0.05	mg/kg	< 0.05	< 0.5	< 0.05	< 0.5
b-HCH	0.05	mg/kg	< 0.05	< 0.5	< 0.05	< 0.5
d-HCH	0.05	mg/kg	< 0.05	< 0.5	< 0.05	< 0.5
Dieldrin	0.05	mg/kg	< 0.05	< 0.5	< 0.05	< 0.5
Endosulfan I	0.05	mg/kg	< 0.05	< 0.5	< 0.05	< 0.5
Endosulfan II	0.05	mg/kg	< 0.05	< 0.5	< 0.05	< 0.5
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.5	< 0.05	< 0.5
Endrin	0.05	mg/kg	< 0.05	< 0.5	< 0.05	< 0.5
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.5	< 0.05	< 0.5
Endrin ketone	0.05	mg/kg	< 0.05	< 0.5	< 0.05	< 0.5
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.5	< 0.05	< 0.5
Heptachlor	0.05	mg/kg	< 0.05	< 0.5	< 0.05	< 0.5
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.5	< 0.05	< 0.5
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.5	< 0.05	< 0.5
Methoxychlor	0.05	mg/kg	< 0.05	< 0.5	< 0.05	< 0.5
Toxaphene	0.5	mg/kg	< 0.5	< 10	< 0.5	< 10
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.5	< 0.05	< 0.5
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.5	< 0.05	< 0.5
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 1	< 0.1	< 1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 1	< 0.1	< 1
Dibutylchlorendate (surr.)	1	%	110	113	123	59
Tetrachloro-m-xylene (surr.)	1	%	121	101	120	86
Organophosphorus Pesticides						
Azinphos-methyl	0.2	mg/kg	< 0.2	< 0.5	< 0.2	< 0.5
Bolstar	0.2	mg/kg	< 0.2	< 0.5	< 0.2	< 0.5
Chlorfenvinphos	0.2	mg/kg	< 0.2	< 0.5	< 0.2	< 0.5
Chlorpyrifos	0.2	mg/kg	< 0.2	< 0.5	< 0.2	< 0.5
Chlorpyrifos-methyl	0.2	mg/kg	< 0.2	< 0.5	< 0.2	< 0.5
Coumaphos	2	mg/kg	< 2	< 5	< 2	< 5
Demeton-S	0.2	mg/kg	< 0.2	< 0.5	< 0.2	< 0.5
Demeton-O	0.2	mg/kg	< 0.2	< 0.5	< 0.2	< 0.5
Diazinon	0.2	mg/kg	< 0.2	< 0.5	< 0.2	< 0.5
Dichlorvos	0.2	mg/kg	< 0.2	< 0.5	< 0.2	< 0.5
Dimethoate	0.2	mg/kg	< 0.2	< 0.5	< 0.2	< 0.5

Client Sample ID			TP01_0.3	[G01]TP02_0.3	TP03_0.3	[G01]TP04_0.3
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S23-No0014126	S23-No0014127	S23-No0014128	S23-No0014129
Date Sampled			Nov 01, 2023	Nov 01, 2023	Nov 01, 2023	Nov 01, 2023
Test/Reference	LOR	Unit				
Organophosphorus Pesticides						
Disulfoton	0.2	mg/kg	< 0.2	< 0.5	< 0.2	< 0.5
EPN	0.2	mg/kg	< 0.2	< 0.5	< 0.2	< 0.5
Ethion	0.2	mg/kg	< 0.2	< 0.5	< 0.2	< 0.5
Ethoprop	0.2	mg/kg	< 0.2	< 0.5	< 0.2	< 0.5
Ethyl parathion	0.2	mg/kg	< 0.2	< 0.5	< 0.2	< 0.5
Fenitrothion	0.2	mg/kg	< 0.2	< 0.5	< 0.2	< 0.5
Fensulfothion	0.2	mg/kg	< 0.2	< 0.5	< 0.2	< 0.5
Fenthion	0.2	mg/kg	< 0.2	< 0.5	< 0.2	< 0.5
Malathion	0.2	mg/kg	< 0.2	< 0.5	< 0.2	< 0.5
Merphos	0.2	mg/kg	< 0.2	< 0.5	< 0.2	< 0.5
Methyl parathion	0.2	mg/kg	< 0.2	< 0.5	< 0.2	< 0.5
Mevinphos	0.2	mg/kg	< 0.2	< 0.5	< 0.2	< 0.5
Monocrotophos	2	mg/kg	< 2	< 5	< 2	< 5
Naled	0.2	mg/kg	< 0.2	< 0.5	< 0.2	< 0.5
Omethoate	2	mg/kg	< 2	< 5	< 2	< 5
Phorate	0.2	mg/kg	< 0.2	< 0.5	< 0.2	< 0.5
Pirimiphos-methyl	0.2	mg/kg	< 0.2	< 0.5	< 0.2	< 0.5
Pyrazophos	0.2	mg/kg	< 0.2	< 0.5	< 0.2	< 0.5
Ronnel	0.2	mg/kg	< 0.2	< 0.5	< 0.2	< 0.5
Terbufos	0.2	mg/kg	< 0.2	< 0.5	< 0.2	< 0.5
Tetrachlorvinphos	0.2	mg/kg	< 0.2	< 0.5	< 0.2	< 0.5
Tokuthion	0.2	mg/kg	< 0.2	< 0.5	< 0.2	< 0.5
Trichloronate	0.2	mg/kg	< 0.2	< 0.5	< 0.2	< 0.5
Triphenylphosphate (surr.)	1	%	87	65	90	57
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 1
Dibutylchlorendate (surr.)	1	%	110	113	123	59
Tetrachloro-m-xylene (surr.)	1	%	121	101	120	86
Heavy Metals						
Arsenic	2	mg/kg	6.1	15	6.0	7.4
Cadmium	0.4	mg/kg	< 0.4	0.6	< 0.4	< 0.4
Chromium	5	mg/kg	17	30	18	20
Copper	5	mg/kg	9.0	30	9.4	15
Lead	5	mg/kg	23	63	24	37
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	6.8	16	6.9	8.6
Zinc	5	mg/kg	31	190	23	82
Sample Properties						
% Moisture	1	%	14	13	13	12

Client Sample ID			G01TP05_0.3	G01TP06_0.3	G01TP07_0.3	G01TP08_0.2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S23-No0014130	S23-No0014131	S23-No0014132	S23-No0014134
Date Sampled			Nov 01, 2023	Nov 01, 2023	Nov 01, 2023	Nov 01, 2023
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	56
TRH C29-C36	50	mg/kg	61	67	63	78
TRH C10-C36 (Total)	50	mg/kg	61	67	63	134
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	110
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	110
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	62	81	86	83
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	0.7
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	1.2
Total PAH*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	2.4
2-Fluorobiphenyl (surr.)	1	%	74	81	80	76
p-Terphenyl-d14 (surr.)	1	%	68	84	80	82

Client Sample ID			G01TP05_0.3	G01TP06_0.3	G01TP07_0.3	G01TP08_0.2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S23-No0014130	S23-No0014131	S23-No0014132	S23-No0014134
Date Sampled			Nov 01, 2023	Nov 01, 2023	Nov 01, 2023	Nov 01, 2023
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 1	< 1	< 1	< 1
4.4'-DDD	0.05	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4.4'-DDE	0.05	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4.4'-DDT	0.05	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
a-HCH	0.05	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin	0.05	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
b-HCH	0.05	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
d-HCH	0.05	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dieldrin	0.05	mg/kg	< 0.5	< 0.5	< 0.5	4.2
Endosulfan I	0.05	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endosulfan II	0.05	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endosulfan sulphate	0.05	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endrin	0.05	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endrin aldehyde	0.05	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endrin ketone	0.05	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
g-HCH (Lindane)	0.05	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Heptachlor	0.05	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Heptachlor epoxide	0.05	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobenzene	0.05	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Methoxychlor	0.05	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Toxaphene	0.5	mg/kg	< 10	< 10	< 10	< 10
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.5	< 0.5	< 0.5	4.2
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 1	< 1	< 1	4.2
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 1	< 1	< 1	< 1
Dibutylchlorendate (surr.)	1	%	82	59	52	120
Tetrachloro-m-xylene (surr.)	1	%	100	67	93	70
Organophosphorus Pesticides						
Azinphos-methyl	0.2	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bolstar	0.2	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chlorfenvinphos	0.2	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chlorpyrifos	0.2	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chlorpyrifos-methyl	0.2	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Coumaphos	2	mg/kg	< 5	< 5	< 5	< 5
Demeton-S	0.2	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Demeton-O	0.2	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Diazinon	0.2	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dichlorvos	0.2	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dimethoate	0.2	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Disulfoton	0.2	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
EPN	0.2	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Ethion	0.2	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Ethoprop	0.2	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Ethyl parathion	0.2	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fenitrothion	0.2	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fensulfothion	0.2	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fenthion	0.2	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Malathion	0.2	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Merphos	0.2	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			G01TP05_0.3	G01TP06_0.3	G01TP07_0.3	G01TP08_0.2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			S23-No0014130	S23-No0014131	S23-No0014132	S23-No0014134
Date Sampled			Nov 01, 2023	Nov 01, 2023	Nov 01, 2023	Nov 01, 2023
Test/Reference	LOR	Unit				
Organophosphorus Pesticides						
Methyl parathion	0.2	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Mevinphos	0.2	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Monocrotophos	2	mg/kg	< 5	< 5	< 5	< 5
Naled	0.2	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Omethoate	2	mg/kg	< 5	< 5	< 5	< 5
Phorate	0.2	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pirimiphos-methyl	0.2	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrazophos	0.2	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Ronnel	0.2	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Terbufos	0.2	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachlorvinphos	0.2	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Tokuthion	0.2	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Trichloronate	0.2	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Triphenylphosphate (surr.)	1	%	67	56	63	58
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 1	< 1	< 1	< 1
Aroclor-1221	0.1	mg/kg	< 1	< 1	< 1	< 1
Aroclor-1232	0.1	mg/kg	< 1	< 1	< 1	< 1
Aroclor-1242	0.1	mg/kg	< 1	< 1	< 1	< 1
Aroclor-1248	0.1	mg/kg	< 1	< 1	< 1	< 1
Aroclor-1254	0.1	mg/kg	< 1	< 1	< 1	< 1
Aroclor-1260	0.1	mg/kg	< 1	< 1	< 1	< 1
Total PCB*	0.1	mg/kg	< 1	< 1	< 1	< 1
Dibutylchlorendate (surr.)	1	%	82	59	52	120
Tetrachloro-m-xylene (surr.)	1	%	100	67	93	70
Heavy Metals						
Arsenic	2	mg/kg	7.0	5.5	9.7	8.3
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	41	36	20	28
Copper	5	mg/kg	27	24	28	14
Lead	5	mg/kg	49	36	49	80
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nickel	5	mg/kg	29	33	13	15
Zinc	5	mg/kg	130	110	190	1400
Sample Properties						
% Moisture	1	%	7.7	7.6	9.9	12

Client Sample ID			QD1	TS1	TB1
Sample Matrix			Soil	Trip Spike (solid)	Trip Blank (solid)
Eurofins Sample No.			S23-No0014135	S23-No0014136	S23-No0014137
Date Sampled			Nov 01, 2023	Nov 01, 2023	Nov 01, 2023
Test/Reference	LOR	Unit			
Total Recoverable Hydrocarbons					
TRH C6-C9	20	mg/kg	< 20	-	< 20
TRH C10-C14	20	mg/kg	< 20	-	-
TRH C15-C28	50	mg/kg	< 50	-	-
TRH C29-C36	50	mg/kg	< 50	-	-
TRH C10-C36 (Total)	50	mg/kg	< 50	-	-
TRH C6-C10	20	mg/kg	< 20	-	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20	-	< 20
TRH >C10-C16	50	mg/kg	< 50	-	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	-	-
TRH >C16-C34	100	mg/kg	< 100	-	-
TRH >C34-C40	100	mg/kg	< 100	-	-
TRH >C10-C40 (total)*	100	mg/kg	< 100	-	-
BTEX					
Benzene	0.1	mg/kg	< 0.1	-	< 0.1
Toluene	0.1	mg/kg	< 0.1	-	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	-	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	-	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	-	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	-	< 0.3
4-Bromofluorobenzene (surr.)	1	%	82	-	95
Total Recoverable Hydrocarbons - 2013 NEPM Fractions					
Naphthalene[N02]	0.5	mg/kg	< 0.5	-	-
Polycyclic Aromatic Hydrocarbons					
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	-	-
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	-	-
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	-	-
Acenaphthene	0.5	mg/kg	< 0.5	-	-
Acenaphthylene	0.5	mg/kg	< 0.5	-	-
Anthracene	0.5	mg/kg	< 0.5	-	-
Benz(a)anthracene	0.5	mg/kg	< 0.5	-	-
Benzo(a)pyrene	0.5	mg/kg	< 0.5	-	-
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	-	-
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	-	-
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	-	-
Chrysene	0.5	mg/kg	< 0.5	-	-
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	-	-
Fluoranthene	0.5	mg/kg	< 0.5	-	-
Fluorene	0.5	mg/kg	< 0.5	-	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	-	-
Naphthalene	0.5	mg/kg	< 0.5	-	-
Phenanthrene	0.5	mg/kg	< 0.5	-	-
Pyrene	0.5	mg/kg	< 0.5	-	-
Total PAH*	0.5	mg/kg	< 0.5	-	-
2-Fluorobiphenyl (surr.)	1	%	105	-	-
p-Terphenyl-d14 (surr.)	1	%	96	-	-

Client Sample ID			QD1	TS1	TB1
Sample Matrix			Soil	Trip Spike (solid)	Trip Blank (solid)
Eurofins Sample No.			S23-No0014135	S23-No0014136	S23-No0014137
Date Sampled			Nov 01, 2023	Nov 01, 2023	Nov 01, 2023
Test/Reference	LOR	Unit			
Organochlorine Pesticides					
Chlordanes - Total	0.1	mg/kg	< 0.1	-	-
4.4'-DDD	0.05	mg/kg	< 0.05	-	-
4.4'-DDE	0.05	mg/kg	< 0.05	-	-
4.4'-DDT	0.05	mg/kg	< 0.05	-	-
a-HCH	0.05	mg/kg	< 0.05	-	-
Aldrin	0.05	mg/kg	< 0.05	-	-
b-HCH	0.05	mg/kg	< 0.05	-	-
d-HCH	0.05	mg/kg	< 0.05	-	-
Dieldrin	0.05	mg/kg	< 0.05	-	-
Endosulfan I	0.05	mg/kg	< 0.05	-	-
Endosulfan II	0.05	mg/kg	< 0.05	-	-
Endosulfan sulphate	0.05	mg/kg	< 0.05	-	-
Endrin	0.05	mg/kg	< 0.05	-	-
Endrin aldehyde	0.05	mg/kg	< 0.05	-	-
Endrin ketone	0.05	mg/kg	< 0.05	-	-
g-HCH (Lindane)	0.05	mg/kg	< 0.05	-	-
Heptachlor	0.05	mg/kg	< 0.05	-	-
Heptachlor epoxide	0.05	mg/kg	< 0.05	-	-
Hexachlorobenzene	0.05	mg/kg	< 0.05	-	-
Methoxychlor	0.05	mg/kg	< 0.05	-	-
Toxaphene	0.5	mg/kg	< 0.5	-	-
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	-	-
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	-	-
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	-	-
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	-	-
Dibutylchlorendate (surr.)	1	%	126	-	-
Tetrachloro-m-xylene (surr.)	1	%	128	-	-
Organophosphorus Pesticides					
Azinphos-methyl	0.2	mg/kg	< 0.2	-	-
Bolstar	0.2	mg/kg	< 0.2	-	-
Chlorfenvinphos	0.2	mg/kg	< 0.2	-	-
Chlorpyrifos	0.2	mg/kg	< 0.2	-	-
Chlorpyrifos-methyl	0.2	mg/kg	< 0.2	-	-
Coumaphos	2	mg/kg	< 2	-	-
Demeton-S	0.2	mg/kg	< 0.2	-	-
Demeton-O	0.2	mg/kg	< 0.2	-	-
Diazinon	0.2	mg/kg	< 0.2	-	-
Dichlorvos	0.2	mg/kg	< 0.2	-	-
Dimethoate	0.2	mg/kg	< 0.2	-	-
Disulfoton	0.2	mg/kg	< 0.2	-	-
EPN	0.2	mg/kg	< 0.2	-	-
Ethion	0.2	mg/kg	< 0.2	-	-
Ethoprop	0.2	mg/kg	< 0.2	-	-
Ethyl parathion	0.2	mg/kg	< 0.2	-	-
Fenitrothion	0.2	mg/kg	< 0.2	-	-
Fensulfothion	0.2	mg/kg	< 0.2	-	-
Fenthion	0.2	mg/kg	< 0.2	-	-
Malathion	0.2	mg/kg	< 0.2	-	-

Client Sample ID			QD1	TS1	TB1
Sample Matrix			Soil	Trip Spike (solid)	Trip Blank (solid)
Eurofins Sample No.			S23-No0014135	S23-No0014136	S23-No0014137
Date Sampled			Nov 01, 2023	Nov 01, 2023	Nov 01, 2023
Test/Reference	LOR	Unit			
Organophosphorus Pesticides					
Merphos	0.2	mg/kg	< 0.2	-	-
Methyl parathion	0.2	mg/kg	< 0.2	-	-
Mevinphos	0.2	mg/kg	< 0.2	-	-
Monocrotophos	2	mg/kg	< 2	-	-
Naled	0.2	mg/kg	< 0.2	-	-
Omethoate	2	mg/kg	< 2	-	-
Phorate	0.2	mg/kg	< 0.2	-	-
Pirimiphos-methyl	0.2	mg/kg	< 0.2	-	-
Pyrazophos	0.2	mg/kg	< 0.2	-	-
Ronnel	0.2	mg/kg	< 0.2	-	-
Terbufos	0.2	mg/kg	< 0.2	-	-
Tetrachlorvinphos	0.2	mg/kg	< 0.2	-	-
Tokuthion	0.2	mg/kg	< 0.2	-	-
Trichloronate	0.2	mg/kg	< 0.2	-	-
Triphenylphosphate (surr.)	1	%	96	-	-
Polychlorinated Biphenyls					
Aroclor-1016	0.1	mg/kg	< 0.1	-	-
Aroclor-1221	0.1	mg/kg	< 0.1	-	-
Aroclor-1232	0.1	mg/kg	< 0.1	-	-
Aroclor-1242	0.1	mg/kg	< 0.1	-	-
Aroclor-1248	0.1	mg/kg	< 0.1	-	-
Aroclor-1254	0.1	mg/kg	< 0.1	-	-
Aroclor-1260	0.1	mg/kg	< 0.1	-	-
Total PCB*	0.1	mg/kg	< 0.1	-	-
Dibutylchlorendate (surr.)	1	%	126	-	-
Tetrachloro-m-xylene (surr.)	1	%	128	-	-
Heavy Metals					
Arsenic	2	mg/kg	9.6	-	-
Cadmium	0.4	mg/kg	< 0.4	-	-
Chromium	5	mg/kg	18	-	-
Copper	5	mg/kg	12	-	-
Lead	5	mg/kg	23	-	-
Mercury	0.1	mg/kg	< 0.1	-	-
Nickel	5	mg/kg	5.6	-	-
Zinc	5	mg/kg	28	-	-
Sample Properties					
% Moisture	1	%	14	-	-
TRH C6-C10	1	%	-	95	-
Naphthalene[N02]	0.5	mg/kg	-	-	< 0.5
Total Recoverable Hydrocarbons					
Naphthalene	1	%	-	86	-
TRH C6-C9	1	%	-	94	-
BTEX					
Benzene	1	%	-	100	-
Ethylbenzene	1	%	-	97	-
m&p-Xylenes	1	%	-	99	-
o-Xylene	1	%	-	95	-

Client Sample ID			QD1	TS1	TB1
Sample Matrix			Soil	Trip Spike (solid)	Trip Blank (solid)
Eurofins Sample No.			S23-No0014135	S23-No0014136	S23-No0014137
Date Sampled			Nov 01, 2023	Nov 01, 2023	Nov 01, 2023
Test/Reference	LOR	Unit			
BTEX					
Toluene	1	%	-	97	-
Xylenes - Total	1	%	-	96	-
4-Bromofluorobenzene (surr.)	1	%	-	55	-

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Nov 10, 2023	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Nov 10, 2023	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons	Sydney	Nov 10, 2023	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	Nov 10, 2023	14 Days
- Method: LTM-ORG-2010 BTEX and Volatile TRH			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Nov 10, 2023	14 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Polycyclic Aromatic Hydrocarbons	Sydney	Nov 10, 2023	14 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Organochlorine Pesticides	Sydney	Nov 10, 2023	14 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
Organophosphorus Pesticides	Sydney	Nov 10, 2023	14 Days
- Method: LTM-ORG-2200 Organophosphorus Pesticides by GC-MS			
Metals M8	Sydney	Nov 10, 2023	28 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Polychlorinated Biphenyls	Sydney	Nov 10, 2023	28 Days
- Method: LTM-ORG-2220 OCP & PCB in Soil and Water			
% Moisture	Sydney	Nov 07, 2023	14 Days
- Method: LTM-GEN-7080 Moisture			

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Tel: +61 3 8564 5000	Tel: +61 3 8564 5000	Tel: +61 2 9900 8400	Tel: +61 2 6113 8091	Tel: +61 7 3902 4600	NATA# 1261
NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	Site# 25079 & 25289
Site# 1254	Site# 25403	Site# 18217	Site# 25466	Site# 20794	

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Company Name: Trinitas Group Pty Ltd
Address: Level 3, 24 Hunter Street
Parramatta
NSW 2150

Project Name: DUNDAS SCOUT HALL

Order No.:
Report #: 1041686
Phone: 02 8810 4445
Fax: 02 8016 0875

Received: Nov 6, 2023 3:39 PM
Due: Nov 13, 2023
Priority: 5 Day
Contact Name: - RESULTS/SRAs

Eurofins Analytical Services Manager : Bonnie Pu

Sample Detail						Asbestos - WA guidelines	Asbestos Absence /Presence	Polychlorinated Biphenyls	Moisture Set	Eurofins Suite B10: BTEX/TRH/PAH/OCP/OPP/M8	BTEXN and Volatile TRH	BTEXN and Volatile TRH
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X
External Laboratory												
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**							
1	TP01_0.3	Nov 01, 2023		Soil	S23-No0014126	X		X	X	X		
2	TP02_0.3	Nov 01, 2023		Soil	S23-No0014127	X		X	X	X		
3	TP03_0.3	Nov 01, 2023		Soil	S23-No0014128	X		X	X	X		
4	TP04_0.3	Nov 01, 2023		Soil	S23-No0014129	X		X	X	X		
5	TP05_0.3	Nov 01, 2023		Soil	S23-No0014130	X		X	X	X		
6	TP06_0.3	Nov 01, 2023		Soil	S23-No0014131	X		X	X	X		
7	TP07_0.3	Nov 01, 2023		Soil	S23-No0014132	X		X	X	X		
8	TP07_FC	Nov 01, 2023		Building Materials	S23-No0014133		X					
9	TP08_0.2	Nov 01, 2023		Soil	S23-No0014134	X		X	X	X		
10	QD1	Nov 01, 2023		Soil	S23-No0014135			X	X	X		
11	TS1	Nov 01, 2023		Trip Spike (solid)	S23-No0014136							X
12	TB1	Nov 01, 2023		Trip Blank (solid)	S23-No0014137						X	

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NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	NATA# 1261	Site# 25079 & 25289
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IANZ# 1327	IANZ# 1290	IANZ# 1402

Company Name: Trinitas Group Pty Ltd
Address: Level 3, 24 Hunter Street
Parramatta
NSW 2150

Project Name: DUNDAS SCOUT HALL

Order No.:
Report #: 1041686
Phone: 02 8810 4445
Fax: 02 8016 0875

Received: Nov 6, 2023 3:39 PM
Due: Nov 13, 2023
Priority: 5 Day
Contact Name: - RESULTS/SRAs

Eurofins Analytical Services Manager : Bonnie Pu

Sample Detail	Asbestos - WA guidelines	Asbestos Absence /Presence	Polychlorinated Biphenyls	Moisture Set	Eurofins Suite B10: BTEX/TRH/PAH/OCP/OPP/M8	BTEXN and Volatile TRH	BTEXN and Volatile TRH
Sydney Laboratory - NATA # 1261 Site # 18217	X	X	X	X	X	X	X
Test Counts	8	1	9	9	9	1	1

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follow guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013. They are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil/sediment/solid results are reported on a dry weight basis unless otherwise stated.
3. All biota/food results are reported on a wet weight basis on the edible portion unless otherwise stated.
4. For CEC results where the sample's origin is unknown or environmentally contaminated, the results should be used advisedly.
5. Actual LORs are matrix dependent. Quoted LORs may be raised where sample extracts are diluted due to interferences.
6. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
7. SVOC analysis on waters is performed on homogenised, unfiltered samples unless noted otherwise.
8. Samples were analysed on an 'as received' basis.
9. Information identified in this report with blue colour indicates data provided by customers that may have an impact on the results.
10. This report replaces any interim results previously issued.

Holding Times

Please refer to the 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours before sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and despite any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling; therefore, compliance with these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether, the holding time is 7 days; however, for all other VOCs, such as BTEX or C6-10 TRH, the holding time is 14 days.

Units

mg/kg: milligrams per kilogram
mg/L: milligrams per litre
µg/L: micrograms per litre
ppm: parts per million
ppb: parts per billion
%: Percentage
org/100 mL: Organisms per 100 millilitres
NTU: Nephelometric Turbidity Units
MPN/100 mL: Most Probable Number of organisms per 100 millilitres
CFU: Colony forming unit

Terms

APHA	American Public Health Association
CEC	Cation Exchange Capacity
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where moisture has been determined on a solid sample, the result is expressed on a dry weight basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples, these are performed on laboratory-certified clean sands and in the case of water samples, these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC represents the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
TBTO	Tributyltin oxide (*bis*-tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment; however free tributyltin was measured, and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 5.4
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should be used as a guide only and may be different when site-specific Sampling Analysis and Quality Plan (SAQP) have been implemented.

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30%; however the following acceptance guidelines are equally applicable: Results <10 times the LOR: No Limit

Results between 10-20 times the LOR: RPD must lie between 0-50%

Results >20 times the LOR: RPD must lie between 0-30%

NOTE: pH duplicates are reported as a range, not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS. SVOCs recoveries 20 – 150%

PFAS field samples that contain surrogate recoveries above the QC limit designated in QSM 5.4, where no positive PFAS results have been reported, have been reviewed, and no data was affected.

QC Data General Comments

1. Where a result is reported as less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown are not data from your samples.
3. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time.Analysis will begin as soon as possible after sample receipt.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery, the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results, a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data; thus, it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g.h.i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/kg	< 0.1			0.1	Pass	
4.4'-DDD	mg/kg	< 0.05			0.05	Pass	
4.4'-DDE	mg/kg	< 0.05			0.05	Pass	
4.4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-HCH	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-HCH	mg/kg	< 0.05			0.05	Pass	
d-HCH	mg/kg	< 0.05			0.05	Pass	
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	
Endrin	mg/kg	< 0.05			0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-HCH (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.05			0.05	Pass	
Toxaphene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Organophosphorus Pesticides							
Azinphos-methyl	mg/kg	< 0.2			0.2	Pass	
Bolstar	mg/kg	< 0.2			0.2	Pass	
Chlorfenvinphos	mg/kg	< 0.2			0.2	Pass	
Chlorpyrifos	mg/kg	< 0.2			0.2	Pass	
Chlorpyrifos-methyl	mg/kg	< 0.2			0.2	Pass	
Coumaphos	mg/kg	< 2			2	Pass	
Demeton-S	mg/kg	< 0.2			0.2	Pass	
Demeton-O	mg/kg	< 0.2			0.2	Pass	
Diazinon	mg/kg	< 0.2			0.2	Pass	
Dichlorvos	mg/kg	< 0.2			0.2	Pass	
Dimethoate	mg/kg	< 0.2			0.2	Pass	
Disulfoton	mg/kg	< 0.2			0.2	Pass	
EPN	mg/kg	< 0.2			0.2	Pass	
Ethion	mg/kg	< 0.2			0.2	Pass	
Ethoprop	mg/kg	< 0.2			0.2	Pass	
Ethyl parathion	mg/kg	< 0.2			0.2	Pass	
Fenitrothion	mg/kg	< 0.2			0.2	Pass	
Fensulfothion	mg/kg	< 0.2			0.2	Pass	
Fenthion	mg/kg	< 0.2			0.2	Pass	
Malathion	mg/kg	< 0.2			0.2	Pass	
Merphos	mg/kg	< 0.2			0.2	Pass	
Methyl parathion	mg/kg	< 0.2			0.2	Pass	
Mevinphos	mg/kg	< 0.2			0.2	Pass	
Monocrotophos	mg/kg	< 2			2	Pass	
Naled	mg/kg	< 0.2			0.2	Pass	
Omethoate	mg/kg	< 2			2	Pass	
Phorate	mg/kg	< 0.2			0.2	Pass	
Pirimiphos-methyl	mg/kg	< 0.2			0.2	Pass	
Pyrazophos	mg/kg	< 0.2			0.2	Pass	
Ronnel	mg/kg	< 0.2			0.2	Pass	
Terbufos	mg/kg	< 0.2			0.2	Pass	
Tetrachlorvinphos	mg/kg	< 0.2			0.2	Pass	
Tokuthion	mg/kg	< 0.2			0.2	Pass	
Trichloronate	mg/kg	< 0.2			0.2	Pass	
Method Blank							
Polychlorinated Biphenyls							
Aroclor-1016	mg/kg	< 0.1			0.1	Pass	
Aroclor-1221	mg/kg	< 0.1			0.1	Pass	
Aroclor-1232	mg/kg	< 0.1			0.1	Pass	
Aroclor-1242	mg/kg	< 0.1			0.1	Pass	
Aroclor-1248	mg/kg	< 0.1			0.1	Pass	
Aroclor-1254	mg/kg	< 0.1			0.1	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Aroclor-1260	mg/kg	< 0.1			0.1	Pass	
Total PCB*	mg/kg	< 0.1			0.1	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	87			70-130	Pass	
TRH C10-C14	%	126			70-130	Pass	
TRH C6-C10	%	85			70-130	Pass	
TRH >C10-C16	%	108			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	99			70-130	Pass	
Toluene	%	85			70-130	Pass	
Ethylbenzene	%	97			70-130	Pass	
m&p-Xylenes	%	93			70-130	Pass	
o-Xylene	%	91			70-130	Pass	
Xylenes - Total*	%	92			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	78			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	95			70-130	Pass	
Acenaphthylene	%	80			70-130	Pass	
Anthracene	%	98			70-130	Pass	
Benz(a)anthracene	%	77			70-130	Pass	
Benzo(a)pyrene	%	72			70-130	Pass	
Benzo(g.h.i)perylene	%	72			70-130	Pass	
Benzo(k)fluoranthene	%	83			70-130	Pass	
Chrysene	%	74			70-130	Pass	
Dibenz(a.h)anthracene	%	92			70-130	Pass	
Fluoranthene	%	86			70-130	Pass	
Fluorene	%	73			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	88			70-130	Pass	
Naphthalene	%	83			70-130	Pass	
Phenanthrene	%	78			70-130	Pass	
Pyrene	%	109			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	81			70-130	Pass	
4.4'-DDD	%	94			70-130	Pass	
4.4'-DDE	%	88			70-130	Pass	
4.4'-DDT	%	102			70-130	Pass	
a-HCH	%	90			70-130	Pass	
Aldrin	%	77			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
b-HCH	%	86			70-130	Pass	
d-HCH	%	88			70-130	Pass	
Dieldrin	%	89			70-130	Pass	
Endosulfan I	%	92			70-130	Pass	
Endosulfan II	%	85			70-130	Pass	
Endosulfan sulphate	%	90			70-130	Pass	
Endrin	%	102			70-130	Pass	
Endrin aldehyde	%	95			70-130	Pass	
Endrin ketone	%	90			70-130	Pass	
g-HCH (Lindane)	%	85			70-130	Pass	
Heptachlor	%	92			70-130	Pass	
Heptachlor epoxide	%	85			70-130	Pass	
Hexachlorobenzene	%	91			70-130	Pass	
Methoxychlor	%	101			70-130	Pass	
LCS - % Recovery							
Organophosphorus Pesticides							
Diazinon	%	92			70-130	Pass	
Ethion	%	88			70-130	Pass	
Fenitrothion	%	102			70-130	Pass	
Mevinphos	%	83			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls							
Aroclor-1016	%	93			70-130	Pass	
Aroclor-1260	%	92			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	104			80-120	Pass	
Cadmium	%	102			80-120	Pass	
Chromium	%	92			80-120	Pass	
Copper	%	93			80-120	Pass	
Lead	%	102			80-120	Pass	
Mercury	%	99			80-120	Pass	
Nickel	%	92			80-120	Pass	
Zinc	%	94			80-120	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons				Result 1					
TRH C6-C9	N23-No0011779	NCP	%	71			70-130	Pass	
TRH C10-C14	N23-No0000132	NCP	%	115			70-130	Pass	
TRH C6-C10	N23-No0011779	NCP	%	70			70-130	Pass	
TRH >C10-C16	N23-No0000132	NCP	%	112			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	N23-No0011779	NCP	%	95			70-130	Pass	
Toluene	N23-No0011779	NCP	%	99			70-130	Pass	
Ethylbenzene	N23-No0011779	NCP	%	102			70-130	Pass	
m&p-Xylenes	N23-No0011779	NCP	%	108			70-130	Pass	
o-Xylene	N23-No0011779	NCP	%	103			70-130	Pass	
Xylenes - Total*	N23-No0011779	NCP	%	106			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	N23-No0011779	NCP	%	86			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Acenaphthene	S23-No0022952	NCP	%	105			70-130	Pass	
Acenaphthylene	S23-No0022952	NCP	%	93			70-130	Pass	
Anthracene	S23-No0022952	NCP	%	96			70-130	Pass	
Benz(a)anthracene	S23-No0022952	NCP	%	100			70-130	Pass	
Benzo(a)pyrene	S23-No0022952	NCP	%	98			70-130	Pass	
Benzo(b&j)fluoranthene	S23-No0022952	NCP	%	83			70-130	Pass	
Benzo(g.h.i)perylene	S23-No0005519	NCP	%	72			70-130	Pass	
Benzo(k)fluoranthene	S23-No0022952	NCP	%	113			70-130	Pass	
Chrysene	S23-No0022952	NCP	%	107			70-130	Pass	
Dibenz(a.h)anthracene	S23-No0022952	NCP	%	96			70-130	Pass	
Fluoranthene	S23-No0022952	NCP	%	120			70-130	Pass	
Fluorene	S23-No0022952	NCP	%	102			70-130	Pass	
Indeno(1.2.3-cd)pyrene	S23-No0022952	NCP	%	89			70-130	Pass	
Naphthalene	S23-No0022952	NCP	%	105			70-130	Pass	
Phenanthrene	S23-No0022952	NCP	%	95			70-130	Pass	
Pyrene	S23-No0022952	NCP	%	127			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Dieldrin	S23-No0014069	NCP	%	116			70-130	Pass	
Endrin aldehyde	S23-No0014069	NCP	%	105			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S23-No0023616	NCP	%	119			75-125	Pass	
Cadmium	S23-No0023616	NCP	%	104			75-125	Pass	
Chromium	S23-No0023616	NCP	%	106			75-125	Pass	
Copper	S23-No0023616	NCP	%	107			75-125	Pass	
Lead	S23-No0023616	NCP	%	109			75-125	Pass	
Mercury	S23-No0023616	NCP	%	105			75-125	Pass	
Nickel	S23-No0023616	NCP	%	99			75-125	Pass	
Zinc	S23-No0023616	NCP	%	118			75-125	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Chlordanes - Total	S23-No0014129	CP	%	128			70-130	Pass	
4.4'-DDD	S23-No0014129	CP	%	90			70-130	Pass	
4.4'-DDE	S23-No0014129	CP	%	109			70-130	Pass	
4.4'-DDT	S23-No0014129	CP	%	104			70-130	Pass	
a-HCH	S23-No0014129	CP	%	98			70-130	Pass	
Aldrin	S23-No0014129	CP	%	101			70-130	Pass	
b-HCH	S23-No0014129	CP	%	89			70-130	Pass	
d-HCH	S23-No0014129	CP	%	98			70-130	Pass	
Endosulfan I	S23-No0014129	CP	%	104			70-130	Pass	
Endosulfan II	S23-No0014129	CP	%	105			70-130	Pass	
Endosulfan sulphate	S23-No0014129	CP	%	93			70-130	Pass	
g-HCH (Lindane)	S23-No0014129	CP	%	96			70-130	Pass	
Heptachlor epoxide	S23-No0014129	CP	%	109			70-130	Pass	
Hexachlorobenzene	S23-No0014129	CP	%	108			70-130	Pass	
Spike - % Recovery									
Polychlorinated Biphenyls				Result 1					
Aroclor-1016	S23-No0014129	CP	%	78			70-130	Pass	
Aroclor-1260	S23-No0014129	CP	%	84			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C10-C14	N23-No0000110	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	N23-No0000110	NCP	mg/kg	330	330	1.1	30%	Pass	
TRH C29-C36	N23-No0000110	NCP	mg/kg	560	550	1.1	30%	Pass	
TRH >C10-C16	N23-No0000110	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	N23-No0000110	NCP	mg/kg	720	710	1.7	30%	Pass	
TRH >C34-C40	N23-No0000110	NCP	mg/kg	350	360	2.9	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Toxaphene	S23-No0014469	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S23-No0014066	NCP	mg/kg	6.8	8.4	21	30%	Pass	
Cadmium	S23-No0014066	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S23-No0014066	NCP	mg/kg	16	23	37	30%	Fail	Q15
Copper	S23-No0014066	NCP	mg/kg	30	43	36	30%	Fail	Q15
Lead	S23-No0014066	NCP	mg/kg	38	22	54	30%	Fail	Q15
Mercury	S23-No0014066	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S23-No0014066	NCP	mg/kg	6.7	7.4	11	30%	Pass	
Zinc	S23-No0014126	CP	mg/kg	31	35	11	30%	Pass	
Duplicate									
Sample Properties				Result 1	Result 2	RPD			
% Moisture	S23-No0014066	NCP	%	5.0	4.6	8.9	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	S23-No0014129	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C6-C10	S23-No0014129	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S23-No0014129	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S23-No0014129	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S23-No0014129	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S23-No0014129	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S23-No0014129	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	S23-No0014129	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S23-No0014129	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Naphthalene	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S23-No0014130	CP	mg/kg	< 1	< 1	<1	30%	Pass	
4.4'-DDD	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4.4'-DDE	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4.4'-DDT	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
a-HCH	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aldrin	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
b-HCH	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
d-HCH	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dieldrin	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endosulfan I	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endosulfan II	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endosulfan sulphate	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin aldehyde	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Endrin ketone	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
g-HCH (Lindane)	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Heptachlor	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Heptachlor epoxide	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Hexachlorobenzene	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Methoxychlor	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Organophosphorus Pesticides				Result 1	Result 2	RPD			
Azinphos-methyl	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bolstar	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chlorfenvinphos	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chlorpyrifos	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chlorpyrifos-methyl	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Coumaphos	S23-No0014130	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Demeton-S	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Demeton-O	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Diazinon	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dichlorvos	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dimethoate	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Disulfoton	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
EPN	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Ethion	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Ethoprop	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Ethyl parathion	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fenitrothion	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fensulfothion	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fenthion	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Malathion	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Merphos	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Methyl parathion	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Mevinphos	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Monocrotophos	S23-No0014130	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Naled	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Omethoate	S23-No0014130	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Phorate	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Organophosphorus Pesticides				Result 1	Result 2	RPD			
Pirimiphos-methyl	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrazophos	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Ronnel	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Terbufos	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Tetrachlorvinphos	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Tokuthion	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichloronate	S23-No0014130	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls				Result 1	Result 2	RPD			
Aroclor-1016	S23-No0014130	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Aroclor-1221	S23-No0014130	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Aroclor-1232	S23-No0014130	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Aroclor-1242	S23-No0014130	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Aroclor-1248	S23-No0014130	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Aroclor-1254	S23-No0014130	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Aroclor-1260	S23-No0014130	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Total PCB*	S23-No0014130	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	S23-No0014132	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C6-C10	S23-No0014132	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S23-No0014132	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S23-No0014132	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S23-No0014132	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S23-No0014132	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S23-No0014132	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total*	S23-No0014132	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S23-No0014132	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
G01	The LORs have been raised due to matrix interference
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
Q15	The RPD reported passes Eurofins Environment Testing's QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report.

Authorised by:

Adam Bateup	Analytical Services Manager
Chamath JHM Annakkage	Senior Analyst-Asbestos
Raymond Siu	Senior Analyst-Volatile
Roopesh Rangarajan	Senior Analyst-Organic
Fang Yee Tan	Senior Analyst-Metal

Glenn Jackson
Managing Director

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please click here.

CERTIFICATE OF ANALYSIS

Work Order	: **ES2338389**	Page	: 1 of 7
Client	: **TRINITAS GROUP**	Laboratory	: Environmental Division Sydney
Contact	: LAB REPORTS	Contact	: Customer Services ES
Address	: Suite 101/24 Hunter St PARRAMATTA NSW 2150	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61-2-8784 8555
Project	: DUNDAS SCOUT HALL	Date Samples Received	: 07-Nov-2023 15:39
Order number	: ----	Date Analysis Commenced	: 09-Nov-2023
C-O-C number	: ----	Issue Date	: 14-Nov-2023 15:27
Sampler	: ----		
Site	: ----		
Quote number	: ----		
No. of samples received	: 1		
No. of samples analysed	: 1		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Alex Rossi	Organic Chemist	Sydney Organics, Smithfield, NSW
Ankit Joshi	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW

General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contract for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- Benzo(a)pyrene Toxicity Equivalent Quotient (TEQ) per the NEPM (2013) is the sum total of the concentration of the eight carcinogenic PAHs multiplied by their Toxicity Equivalence Factor (TEF) relative to Benzo(a)pyrene. TEF values are provided in brackets as follows: Benz(a)anthracene (0.1), Chrysene (0.01), Benzo(b+j) & Benzo(k)fluoranthene (0.1), Benzo(a)pyrene (1.0), Indeno(1.2.3.cd)pyrene (0.1), Dibenz(a.h)anthracene (1.0), Benzo(g.h.i)perylene (0.01). Less than LOR results for 'TEQ Zero' are treated as zero, for 'TEQ 1/2LOR' are treated as half the reported LOR, and for 'TEQ LOR' are treated as being equal to the reported LOR. Note: TEQ 1/2LOR and TEQ LOR will calculate as 0.6mg/Kg and 1.2mg/Kg respectively for samples with non-detects for all of the eight TEQ PAHs.
- EP080: Where reported, Total Xylenes is the sum of the reported concentrations of m&p-Xylene and o-Xylene at or above the LOR.
- EP068: Where reported, Total Chlordane (sum) is the sum of the reported concentrations of cis-Chlordane and trans-Chlordane at or above the LOR.
- EP068: Where reported, Total OCP is the sum of the reported concentrations of all Organochlorine Pesticides at or above LOR.
- EP075(SIM): Where reported, Total Cresol is the sum of the reported concentrations of 2-Methylphenol and 3- & 4-Methylphenol at or above the LOR.

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	QT1	----	----	----	----
				Sampling date / time	01-Nov-2023 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2338389-001	--------	--------	--------	--------
					Result	----	----	----	----
EA055: Moisture Content (Dried @ 105-110°C)									
Moisture Content	----	1.0	%		**13.4**	----	----	----	----
EG005(ED093)T: Total Metals by ICP-AES									
Arsenic	7440-38-2	5	mg/kg		**6**	----	----	----	----
Cadmium	7440-43-9	1	mg/kg		<1	----	----	----	----
Chromium	7440-47-3	2	mg/kg		**24**	----	----	----	----
Copper	7440-50-8	5	mg/kg		**11**	----	----	----	----
Lead	7439-92-1	5	mg/kg		**23**	----	----	----	----
Nickel	7440-02-0	2	mg/kg		**8**	----	----	----	----
Zinc	7440-66-6	5	mg/kg		**28**	----	----	----	----
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg		<0.1	----	----	----	----
EP066: Polychlorinated Biphenyls (PCB)									
Total Polychlorinated biphenyls	----	0.1	mg/kg		<0.1	----	----	----	----
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.05	mg/kg		<0.05	----	----	----	----
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg		<0.05	----	----	----	----
beta-BHC	319-85-7	0.05	mg/kg		<0.05	----	----	----	----
gamma-BHC	58-89-9	0.05	mg/kg		<0.05	----	----	----	----
delta-BHC	319-86-8	0.05	mg/kg		<0.05	----	----	----	----
Heptachlor	76-44-8	0.05	mg/kg		<0.05	----	----	----	----
Aldrin	309-00-2	0.05	mg/kg		<0.05	----	----	----	----
Heptachlor epoxide	1024-57-3	0.05	mg/kg		<0.05	----	----	----	----
^ Total Chlordane (sum)	----	0.05	mg/kg		<0.05	----	----	----	----
trans-Chlordane	5103-74-2	0.05	mg/kg		<0.05	----	----	----	----
alpha-Endosulfan	959-98-8	0.05	mg/kg		<0.05	----	----	----	----
cis-Chlordane	5103-71-9	0.05	mg/kg		<0.05	----	----	----	----
Dieldrin	60-57-1	0.05	mg/kg		<0.05	----	----	----	----
4.4`-DDE	72-55-9	0.05	mg/kg		<0.05	----	----	----	----
Endrin	72-20-8	0.05	mg/kg		<0.05	----	----	----	----
beta-Endosulfan	33213-65-9	0.05	mg/kg		<0.05	----	----	----	----
^ Endosulfan (sum)	115-29-7	0.05	mg/kg		<0.05	----	----	----	----
4.4`-DDD	72-54-8	0.05	mg/kg		<0.05	----	----	----	----
Endrin aldehyde	7421-93-4	0.05	mg/kg		<0.05	----	----	----	----
Endosulfan sulfate	1031-07-8	0.05	mg/kg		<0.05	----	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	QT1	----	----	----	----
				Sampling date / time	01-Nov-2023 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2338389-001	--------	--------	--------	--------
					Result	----	----	----	----
EP068A: Organochlorine Pesticides (OC) - Continued									
4.4`-DDT	50-29-3	0.2	mg/kg		<0.2	----	----	----	----
Endrin ketone	53494-70-5	0.05	mg/kg		<0.05	----	----	----	----
Methoxychlor	72-43-5	0.2	mg/kg		<0.2	----	----	----	----
^ **Sum of Aldrin + Dieldrin**	309-00-2/60-57-1	0.05	mg/kg		<0.05	----	----	----	----
^ **Sum of DDD + DDE + DDT**	72-54-8/72-55-9/50-2	0.05	mg/kg		<0.05	----	----	----	----
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.05	mg/kg		<0.05	----	----	----	----
Demeton-S-methyl	919-86-8	0.05	mg/kg		<0.05	----	----	----	----
Monocrotophos	6923-22-4	0.2	mg/kg		<0.2	----	----	----	----
Dimethoate	60-51-5	0.05	mg/kg		<0.05	----	----	----	----
Diazinon	333-41-5	0.05	mg/kg		<0.05	----	----	----	----
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg		<0.05	----	----	----	----
Parathion-methyl	298-00-0	0.2	mg/kg		<0.2	----	----	----	----
Malathion	121-75-5	0.05	mg/kg		<0.05	----	----	----	----
Fenthion	55-38-9	0.05	mg/kg		<0.05	----	----	----	----
Chlorpyrifos	2921-88-2	0.05	mg/kg		<0.05	----	----	----	----
Parathion	56-38-2	0.2	mg/kg		<0.2	----	----	----	----
Pirimphos-ethyl	23505-41-1	0.05	mg/kg		<0.05	----	----	----	----
Chlorfenvinphos	470-90-6	0.05	mg/kg		<0.05	----	----	----	----
Bromophos-ethyl	4824-78-6	0.05	mg/kg		<0.05	----	----	----	----
Fenamiphos	22224-92-6	0.05	mg/kg		<0.05	----	----	----	----
Prothiofos	34643-46-4	0.05	mg/kg		<0.05	----	----	----	----
Ethion	563-12-2	0.05	mg/kg		<0.05	----	----	----	----
Carbophenothion	786-19-6	0.05	mg/kg		<0.05	----	----	----	----
Azinphos Methyl	86-50-0	0.05	mg/kg		<0.05	----	----	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	----	----	----	----
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	----	----	----	----
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	----	----	----	----
Fluorene	86-73-7	0.5	mg/kg		<0.5	----	----	----	----
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	----	----	----	----
Anthracene	120-12-7	0.5	mg/kg		<0.5	----	----	----	----
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	----	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	QT1	----	----	----	----
				Sampling date / time	01-Nov-2023 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2338389-001	--------	--------	--------	--------
					Result	----	----	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued									
Pyrene	129-00-0	0.5	mg/kg		<0.5	----	----	----	----
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	----	----	----	----
Chrysene	218-01-9	0.5	mg/kg		<0.5	----	----	----	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	0.5	mg/kg		<0.5	----	----	----	----
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg		<0.5	----	----	----	----
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5	----	----	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	----	----	----	----
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	----	----	----	----
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	----	----	----	----
^ **Sum of polycyclic aromatic hydrocarbons**	----	0.5	mg/kg		<0.5	----	----	----	----
^ **Benzo(a)pyrene TEQ (zero)**	----	0.5	mg/kg		<0.5	----	----	----	----
^ **Benzo(a)pyrene TEQ (half LOR)**	----	0.5	mg/kg		**0.6**	----	----	----	----
^ **Benzo(a)pyrene TEQ (LOR)**	----	0.5	mg/kg		**1.2**	----	----	----	----
EP080/071: Total Petroleum Hydrocarbons									
C6 - C9 Fraction	----	10	mg/kg		<10	----	----	----	----
C10 - C14 Fraction	----	50	mg/kg		<50	----	----	----	----
C15 - C28 Fraction	----	100	mg/kg		<100	----	----	----	----
C29 - C36 Fraction	----	100	mg/kg		<100	----	----	----	----
^ **C10 - C36 Fraction (sum)**	----	50	mg/kg		<50	----	----	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions									
C6 - C10 Fraction	C6_C10	10	mg/kg		<10	----	----	----	----
^ **C6 - C10 Fraction minus BTEX (F1)**	C6_C10-BTEX	10	mg/kg		<10	----	----	----	----
>C10 - C16 Fraction	----	50	mg/kg		<50	----	----	----	----
>C16 - C34 Fraction	----	100	mg/kg		<100	----	----	----	----
>C34 - C40 Fraction	----	100	mg/kg		<100	----	----	----	----
^ **>C10 - C40 Fraction (sum)**	----	50	mg/kg		<50	----	----	----	----
^ **>C10 - C16 Fraction minus Naphthalene (F2)**	----	50	mg/kg		<50	----	----	----	----
EP080: BTEXN									
Benzene	71-43-2	0.2	mg/kg		<0.2	----	----	----	----
Toluene	108-88-3	0.5	mg/kg		<0.5	----	----	----	----
Ethylbenzene	100-41-4	0.5	mg/kg		<0.5	----	----	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg		<0.5	----	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)				Sample ID	QT1	----	----	----	----
				Sampling date / time	01-Nov-2023 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2338389-001	--------	--------	--------	--------
					Result	----	----	----	----
EP080: BTEXN - Continued									
ortho-Xylene	95-47-6	0.5	mg/kg		<0.5	----	----	----	----
^ **Sum of BTEX**	----	0.2	mg/kg		<0.2	----	----	----	----
^ **Total Xylenes**	----	0.5	mg/kg		<0.5	----	----	----	----
Naphthalene	91-20-3	1	mg/kg		<1	----	----	----	----
EP066S: PCB Surrogate									
Decachlorobiphenyl	2051-24-3	0.1	%		**92.4**	----	----	----	----
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.05	%		**91.9**	----	----	----	----
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.05	%		**98.2**	----	----	----	----
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	0.5	%		**96.5**	----	----	----	----
2-Chlorophenol-D4	93951-73-6	0.5	%		**90.5**	----	----	----	----
2.4.6-Tribromophenol	118-79-6	0.5	%		**59.7**	----	----	----	----
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	0.5	%		**98.6**	----	----	----	----
Anthracene-d10	1719-06-8	0.5	%		**102**	----	----	----	----
4-Terphenyl-d14	1718-51-0	0.5	%		**107**	----	----	----	----
EP080S: TPH(V)/BTEX Surrogates									
1.2-Dichloroethane-D4	17060-07-0	0.2	%		**71.9**	----	----	----	----
Toluene-D8	2037-26-5	0.2	%		**89.8**	----	----	----	----
4-Bromofluorobenzene	460-00-4	0.2	%		**105**	----	----	----	----

Surrogate Control Limits

Sub-Matrix: SOIL		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP066S: PCB Surrogate			
Decachlorobiphenyl	2051-24-3	39	149
EP068S: Organochlorine Pesticide Surrogate			
Dibromo-DDE	21655-73-2	49	147
EP068T: Organophosphorus Pesticide Surrogate			
DEF	78-48-8	35	143
EP075(SIM)S: Phenolic Compound Surrogates			
Phenol-d6	13127-88-3	63	123
2-Chlorophenol-D4	93951-73-6	66	122
2.4.6-Tribromophenol	118-79-6	40	138
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	70	122
Anthracene-d10	1719-06-8	66	128
4-Terphenyl-d14	1718-51-0	65	129
EP080S: TPH(V)/BTEX Surrogates			
1.2-Dichloroethane-D4	17060-07-0	63	125
Toluene-D8	2037-26-5	67	124
4-Bromofluorobenzene	460-00-4	66	131

How to Contact Us

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