

Stage 1 Preliminary Site Investigation

ROAD CLOSURE LAND, HOBART STREET, RIVERSTONE, NSW 2765

Prepared for Blacktown City Council

Ref: 10791EV.P.408-R01.docx

1 September 2023





Document Information	
Prepared for	Blacktown City Council
Report Name	Stage 1 Preliminary Site Investigation
Site Address	Road Closure Land, Hobart Street, Riverstone, NSW 2765
Project Reference	10791EV.P.408
File Reference	10791EV.P.408-R01.docx

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DOCUMENT HISTORY

Version	Effective Date	Author	Reviewer	Authorised
Final	1/09/2023	Amay Latwadekar	Nathan Watson	David Dethlefs

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Interpretation of Data: Data obtained from nominated discrete locations, subsequent laboratory testing and empirical or external sources are interpreted by trained professionals in order to provide an opinion about overall site conditions, their likely impact with respect to the report purpose and recommended actions in accordance with any relevant industry standards, guidelines or procedures.

Soil and Rock Descriptions: Soil and rock descriptions are based on AS 1726 – 1993, using visual and tactile assessment except at discrete locations where field and / or laboratory tests have been carried out. Refer to the accompanying soil and rock terms sheet for further information.

Further Advice: CS would be pleased to further discuss how any of the above issues could affect a specific project. We would also be pleased to provide further advice or assistance including:

- Assessment of suitability of designs and construction techniques;
- Contract documentation and specification;
- Construction control testing (earthworks, pavement materials, concrete);
- Construction advice (foundation assessments, excavation support).



Executive Summary

Construction Sciences Pty Ltd (CS) was engaged by Blacktown City Council, to undertake a stage 1 preliminary site investigation (PSI) for a parcel of road closure land adjacent to the western end of Hobart Street, Riverstone, NSW 2765 (the site).

At the commencement of this work, CS understood:

- The site is currently owned by Blacktown City Council;
- The site is currently not occupied and forms part of the Hobart Street road package;
- The site has an area of approximately 1,100m²;
- The site is currently zoned 'R2 Low Density Residential';
- The site is proposed for a land use scenario¹ comprising:
 - Commercial / industrial such as shops, offices, factories and industrial sites;
- The proposed land use scenario assumes a reticulated potable water supply will be available at the site;
- The client intends to sell the site and requires a contamination assessment of the site to support the rezoning of the site from 'R2 Low Density Residential' to 'IN General Industrial'; and
- The project is being undertaken to inform due diligence processes for sale of the site.

The objectives of this project were to:

- Assess the potential for contamination to be present at the site, arising from past and present land use activities;
- Provide advice on whether the site is suitable, in the context of land contamination, for the proposed land use scenario; and
- Provide recommendations for supplementary investigations, contamination management, or remedial works.

The scope of work undertaken to address the project objectives included:

- A desktop review of site history;
- A walkover of the site; and
- Data assessment and reporting.

The scope of works was undertaken with reference to the relevant sections of NEPC (2013), NSW EPA (2020b), HEPA (2020) and WA DOH (2009).

Three areas of environmental concern (AEC) on the site, where potential land contaminating activities may have occurred, have been identified for the site, based on the site history review and site walkover observations.

The identified AEC are presented in Figure 3, and the COPC associated with those AEC are presented in the table below.

ID	AEC	Source	COPC
AEC01	Entire Site	Negligible Uncontrolled filling (~1,100m ² x)	Hydrocarbons naturally occurring metals

¹ Adopted from Section 2.2 of NEPC (2013a) and Section 3 of NEPC (2013c).



ID	AEC	Source	COPC
AEC02	Exiting Driveway	Uncontrolled filling (~70m ²)	Hydrocarbons naturally occurring metals
AEC03	Historic Driveway	Uncontrolled filling (~150m ²)	Hydrocarbons naturally occurring metals

Based on CS's assessment of desktop review information and fieldwork observations, CS makes the following conclusions:

- Three areas of environmental concern (AEC) have been identified at the site as having received historic fill associated with site access (Gravel driveway) and adjacent road construction; and
- There is negligible potential for contamination to be present at the site, arising from past and present land use activities;
- The site is considered to be suitable for the following land use scenario:
 - Commercial / Industrial such as shops, offices, factories and industrial sites with limited access to soils.

Based on these conclusions, CS makes the following recommendations:

- Risk presented by the receipt of historic fill is low although in the event of unexpected finds the contractor undertaking works is required to implement an unexpected finds protocol and isolate the identified item of concern and engage a suitably qualified environmental consultant; and
- Any excess earth material generated during redevelopment requires assessment in accordance with the NSW RRO 14 Excavated Natural Material (ENM) order prior to disposal off site.

This report must be read in conjunction with the **Information About This Report** page at the front of this report.



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Figure 1 - Site Locality Plan

Figure 2 - Site Layout Plan

Figure 3 - Areas of Environmental Concern



1. Introduction

1.1 Background

Construction Sciences Pty Ltd (CS) was engaged by Blacktown City Council, to undertake a stage 1 preliminary site investigation (PSI) for a parcel of road closure land adjacent to the western end of Hobart Street, Riverstone, NSW 2765 (the site).

At the commencement of this work, CS understood:

- The site is currently owned by Blacktown City Council;
- The site is currently not occupied and forms part of the Hobart Street road package;
- The site has an area of approximately 1,100m²;
- The site is currently zoned 'R2 Low Density Residential';
- The site is proposed for a land use scenario² comprising:
 - Commercial / industrial such as shops, offices, factories and industrial sites;
- The proposed land use scenario assumes a reticulated potable water supply will be available at the site;
- The client intends to sell the site and requires a contamination assessment of the site to support the rezoning of the site from 'R2 Low Density Residential' to 'IN General Industrial'; and
- The project is being undertaken to inform due diligence processes for sale of the site.

1.2 Objectives

The objectives of this project were to:

- Assess the potential for contamination to be present at the site, arising from past and present land use activities;
- Provide advice on whether the site is suitable, in the context of land contamination, for the proposed land use scenario; and
- Provide recommendations for supplementary investigations, contamination management, or remedial works.

1.3 Scope of Work

The scope of work undertaken to address the project objectives included:

- A desktop review of site history;
- A walkover of the site; and
- Data assessment and reporting.

The scope of works was undertaken with reference to the relevant sections of NEPC (2013), NSW EPA (2020b), HEPA (2020) and WA DOH (2009).

² Adopted from Section 2.2 of NEPC (2013a) and Section 3 of NEPC (2013c).



2. Site Identification

2.1 Site Locality

The locality of the site is presented in Figure 1.

2.2 Site Layout

The site is rectangular and covers an area of approximately 1,100m².

The general layout of the site is present in Figure 2.

2.3 Lot Number and Deposited Plan

There is no current lot or deposited plan for this site.

2.4 Local Government Authority

The local government authority for the site is Blacktown City Council.

2.5 Zoning

A search of the NSW Planning Portal Spatial Viewer (<https://www.planningportal.nsw.gov.au/spatialviewer/>) indicates that the site is currently zoned 'R2: Low Density Residential'.

2.6 Geographic Coordinates

The geographic coordinates of the general centre of the site obtained from Google Earth were 33°40'9.6" S and 150°51'27.2" E.



3. Geology, Topography, Elevation, Hydrogeology, Hydrology and Acid Sulfate Soils

3.1 Geology

The Department of Mineral Resources Geological Survey of NSW Sydney 1:100,000 Geological Series Sheet 9130 (Edition 1) 1983, indicated that the site is likely to be underlain Triassic aged shale of the Wianamatta Group, comprising shale, carbonaceous claystone, claystone, laminite, fine to medium grained lithic sandstone, rare coal and tuff.

3.2 Topography and Elevation

A review of Google Earth indicated that the topography of the site typically slopes from approximately 25m Australian Height Datum (AHD) in the east towards approximately 20m AHD in the west.

3.3 Hydrogeology and Hydrology

An online search of WaterNSW RealTime Groundwater Map (accessed <https://realtimedata.waternsw.com.au>) yielded no registered groundwater features located within a 500m radius of the site.

A copy of the search record is presented in Appendix A.

An online review of Google Maps, indicated that surface water bodies near the site included:

- Eastern Creek, located approximately 500m to the west; and
- A tributary of First Ponds Creek, located approximately 2,000m to the east.

Based on the location of the identified surface water courses and site topography, the inferred groundwater flow direction at the site is considered likely to be towards the west.

Based on site surface topography and elevation, the inferred general surface water flow direction on the site is considered likely to be towards the west.

3.4 Acid Sulfate Soils

A review of <http://www.asris.csiro.au/mapping/viewer.htm> indicated that the site is located in an area mapped as:

- B4 Low Probability / Very Low Confidence.

Furthermore, the elevation of the site is understood to range from approximately 20-25m AHD (refer section 3.2). Acid sulfate soils are generally encountered below depths of 5m AHD (Sullivan et al., 2018), and are therefore considered unlikely to be present onsite.

Further assessment of acid sulfate soils, in the context of this project is considered not warranted.



4. Regulatory Records

4.1 Contaminated Land Management (CLM) Act 1997

4.1.1 [Record of Notices](#)

A search of the NSW EPA online contaminated land record of notices indicated that the site (and land located immediately adjacent to the site) was not the subject of:

- orders made under Part 3 of the Contaminated Land Management Act 1997;
- notices available to the public under section 58 of the CLM Act;
- an approved voluntary management proposal under the CLM Act that has not been fully carried out and where NSW EPA approval 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; or
- actions taken by NSW EPA (or the previous State Pollution Control Commission) under section 35 or 36³ of the Environmentally Hazardous Chemicals Act 1985.

A copy of the search record is presented in Appendix B.

4.1.2 [Register of Notified Sites](#)

A search of the NSW EPA online list of NSW contaminated sites notified to NSW EPA indicated that the site (and land located immediately adjacent to the site) was not on the list.

A copy of a relevant extract of the search record is presented in Appendix B.

4.2 Protection of the Environment Operations (POEO) Act 1997

4.2.1 [Register of Licences, Applications, Notices, Audits or Pollution Studies and Reduction Programs](#)

A search of the NSW EPA online POEO public register indicated that the site (and land located immediately adjacent to the site) was not the subject of a licence, application, notice, audit, pollution study or reduction program.

A copy of the search record is presented in Appendix B.

4.3 Environmental Planning and Assessment (EP&A) Act 1979

4.3.1 [Section 10.7 Planning Certificate](#)

A copy of a planning certificate issued under section 10.7(2) of the EP&A Act was not available for the site as this site has no registered lot or deposited plan.

³ Sections 35 and 36 of the Environmentally Hazardous Chemicals Act 1985 have been repealed. Notices under these sections are treated by the CLM Act as management orders.



4.4 Work Health and Safety (WHS) Regulation 2017

4.4.1 [Schedule 11 Hazardous Chemicals](#)

A site search with SafeWork NSW for Schedule 11 hazardous chemicals (dangerous goods)⁴ on the site was not undertaken.

CS's review of historical aerial photography and historical land title ownership records (refer section 5.1 and 5.2 of this report), did not indicate a potential for licensable quantities of Schedule 11 hazardous chemicals (dangerous goods) to have been stored on the site.

CS considers that further assessment of the storage of licensable quantities of Schedule 11 hazardous chemicals (dangerous goods), within the context of this project, is considered not warranted.

⁴ Under the Work Health and Safety Regulation.



5. Site History

5.1 Aerial Photography

A selection of historical aerial photographs of the site, were reviewed. Copies of selected historical aerial photographs are presented below. The approximate site boundary is presented by red outline in each image.

Image 5.1.1 View of 1947 historical photograph





Image 5.1.2 View of 1955 historical photograph



Image 5.1.4 View of 1961 historical photograph





Image 5.1.5 View of 1965 historical photograph



Image 5.1.6 View of 1975 historical photograph





Image 5.1.7 View of 1986 historical photograph



Image 5.1.8 View of 1998 historical photograph





Image 5.1.8 View of 2005 historical photograph



Image 5.1.8 View of 2016 historical photograph



**Image 5.1.8 View of 2023 historical photograph**

Observations made during that review (considered relevant to this project) are presented in Table 5.1.

Table 5.1 Aerial Photography

Photo Date	Site Observations	Surrounding Land Observations
1947	The site appears undeveloped and forms a part of a larger residential property with a dwelling located to the north. A driveway is observed passing through the central portion of the site, providing access to the residential dwelling from Hobart Street.	North: rural residential. South: Hobart Street then agricultural / rural residential. East: Potential orchard / rural residential. West: Riverstone Parade, Railway line then undeveloped land. Commercial / industrial development observed towards the southwest of the site.
1955	A fence line appears to have been installed running parallel to the southern boundary of the site.	North: rural residential. South: Hobart Street then agricultural / rural residential. East: The potential orchard to the east seems to have disappeared. Rural residential beyond. West: Riverstone Parade, railway line then a dam. Commercial / industrial development observed towards southwest of the site.
1961	No significant change since previous image.	North: rural residential. South: Hobart Street then rural residential / agricultural.



Photo Date	Site Observations	Surrounding Land Observations
		East: Low density residential development. West: Riverstone Parade, railway line then a dam. Commercial / industrial development observed towards the southwest of the site.
1965	No significant change since previous image.	No significant change since previous image.
1975	No significant change since previous image.	No significant change observed to the immediate north and east. South: Increased residential development. West: Industrial development beyond Riverstone Parade and the railway line.
1986	Fencing appears to be no longer visible at the site.	North: The residential dwelling situated to the north of the site has been demolished and replaced with commercial structures. South: Hobart Street appears to be paved. East: Commercial development towards the northeast of the site. West: Industrial development beyond Riverstone Parade and railway line.
1998	A new pathway / driveway is visible extending from east to west throughout the site.	No significant changes observed towards the north, south and west of the site. A new commercial building with a carpark can be observed to the northeast of the site.
2005	What appears to be a truck is parked in the central portion of the site.	No significant change since previous image.
2016	A potentially gravel driveway is observable in the eastern portion of the site.	No significant change since previous image.
2023	A new fence line is observed along the northern boundary of the site.	No significant change since previous image.

The review of historical aerial photography indicated a potential for land contaminating activities to have been undertaken on the site, specifically:

- uncontrolled filling within the driveway area between 1947 and 2023; and
- potential uncontrolled filling within the southern section of the site, during the installation of an apparent service drain between 2005 and 2009.

Further assessment of these identified potential land contaminating activities, in the context of other historical evidence reviewed during this project, and observations made during the site walkover (refer Section 6 of this report), is considered not warranted. The fill receipt is noted to be minor (no significant change in landform or grade) and earth materials are associated with road construction materials including crushed rock products. Risk presented by road construction materials is low and would not impact the proposed industrial /



commercial land use scenario. If works on the site generate excess earth material it is recommended that the excess soil be assessed in accordance with the NSW RRO 14 ENM order to ensure that the material is confirmed suitable for reuse at the proposed receiving site.

5.2 Historical Land Titles

A selection of historical land title ownership records of the site were reviewed. Observations made during that review (considered relevant to this project), indicated that registered proprietors of the site since 1922, have included:

- Private individuals (labourers) between 1922 and 1980; and
- Council of the City of Blacktown from 1980 to date.

There were no leases or easements reported for the site.

The review of historical land titles indicated a potential for land contaminating activities to have been undertaken on the site, specifically:

- Uncontrolled filling during the construction of Hobart Street around 1980s.

No further assessment of these identified potential land contaminating activities, in the context of other historical evidence reviewed during this project, and observations made during the site walkover (refer Section 6 of this report), is considered not warranted.

A copy of the historical land title search record is presented in Appendix C.

5.3 Local Meteorology

The Bureau of Meteorology website (<http://www.bom.gov.au/climate/data/index.shtml?bookmark=200>) was accessed and a search conducted for climatic information measured by the nearest bureau station to the site. A summary of data obtained from that search is presented in Table 5.3.

Table 5.3 Local Meteorology

Nearest Weather Station Location and Number	Mean Annual Temperature (°C)		Mean Annual Rainfall (mm)
	Maximum	Minimum	
Seven Hills – 067026	23.4	11.2	933.4

The search record is presented in Appendix D.

5.4 Complaints

There was no evidence provided to CS during the project, regarding historical complaints about the site.

5.5 Incident Reports

There was no evidence provided to CS during the project, regarding historical incidents at the site.

5.6 Previous Contamination Assessments

There were no copies of previous contamination assessments provided to CS during the project.



5.7 Anecdotal Evidence

There was no anecdotal information regarding the site, provided to CS during the project.



6. Site Condition

A site walkover was undertaken by a suitably experienced environmental consultant from CS (Nathan Watson), on 4th August 2023. During the site walkover, observations were made of land use activities being undertaken on the site, as well as on the properties located immediately adjacent to the site. Information on these observations are presented in the following sub-sections.

6.1 Current Land Use

The site presented as a vacant grassed area that was currently not utilised.

6.2 Buildings, infrastructure and Surfaces

There were no buildings observed at the site during the walkover.

The following infrastructure was observed during the walkover:

- Power poles along the southern and western perimeter of the site; and
- Several service pits were also noted along the southern and western perimeter of the site.

The site surface presented as predominantly grass covered with the exception of an unsealed gravel driveway in the eastern portion of the site.

Image 6.2.1 View of general site condition (facing west)





Image 6.2.2 View of unpaved gravel driveway located in the eastern portion of the site





6.3 Site Boundaries

The northern site boundary was fenced. The eastern, western and southern boundaries were not fenced.

Image 6.3.1 View of fencing along the northern site boundary (facing northeast)



6.4 Surface Water and Drainage

There were no surface water bodies observed on site.

Based on observations made during the walkover, site drainage mechanisms on site are considered likely to include:

- Infiltration into site soils, if soil permeability allows it; and
- Overland surface flow following site topography, towards subsurface drainage pipes.

6.5 Staining and Odours

There was no visual evidence observed of significant or widespread staining on the surface of the site. There was no olfactory evidence detected of significant or widespread odours at the site.

6.6 Chemical Inventory, Handling and Storage

There was no evidence of chemical handling or storage at the site observed during the walkover.



6.7 Aboveground and Underground Storage Tanks

There was no visual evidence observed during the walkover, of aboveground storage tanks (AST) or underground storage tanks (UST) at the site.

6.8 Onsite Septic Systems

There was no visual evidence observed of the presence of onsite septic systems at the site.

6.9 Wastes

There was no visual evidence observed during the walkover, to indicate the storage of wastes on the site.

CS observed minor general waste items (i.e. litter) on the surface of site including glass, cardboard and plastic pieces. These items are considered likely to have been tossed from passing traffic or pedestrians. CS considers the pollution associated with this littering to be superficial and minor.

Image 6.9.1 View of litter on the site surface



6.10 Hazardous Materials

There was no visual evidence observed during the walkover of hazardous materials on the surface of the site.

6.11 Fill Material

There was no visual evidence observed to suggest widespread or significant filling observed at the site.

There was visual evidence of potential shallow filling within the driveway located in the eastern section of the site, indicated by the presence of surface gravels (refer to image 6.2.2).



6.12 Phytotoxicity

No visual evidence was observed to suggest widespread or significant phytotoxic impact in the form of plant stress and/or dieback in the vegetation present on the site. However, there appeared to be some discolouration in the vegetation along the northern fence line. CS believes that the discoloration of the grass along the northern fencing may have resulted from the recent spraying of the fence line along the northern boundary. Modern herbicides present negligible risk of residual contamination when applied in accordance with the manufactures recommended dosage rates. Risk presented by the observed vegetation controls are low and present negligible contamination risk in a commercial and industrial land-use scenario.

Image 6.12.1 View of discoloured grass along the northern fence line



6.13 Activities on Adjacent Land

Observations made from the site boundary, indicate that land use activities on adjacent properties were comprised of the following:

- North – commercial (welding supply store);
- East – Vacant grassed land to the immediate east. Commercial (car salvage yard) towards the northeast;
- West – Riverstone Parade, followed by railway line then an industrial warehouse; and
- South – Hobart Street, followed by low density residential beyond.



Image 6.13.1 View of land use activities to the north



Image 6.13.2 View of land use activities to the south





7. Emerging Contaminants of Concern and Chemical Control Orders

7.1 Per and Poly-Fluoroalkyl Substances (PFAS)

Per and Poly-Fluoroalkyl Substances (PFAS) are a group of chemicals that are manufactured for their unique properties. There are numerous PFASs that may be present in the environment. Perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA) are two major PFASs, that were originally found as components in products used to provide stain resistance or as firefighting foams.

PFAS chemicals have been recognised as highly persistent, potentially bio-accumulative and toxic, and have been detected in the environment, wildlife, people and food.

CS also considered guidance in the PFAS National Environmental Management Plan (NEMP), version 2.0 (HEPA, 2020). Section 6 of HEPA (2020) advises that consideration should be given to identifying the presence of:

- Major primary sources of PFAS, including major commercial, industrial and government facilities, infrastructure and activities that historically or currently use or store PFAS containing products, noting that all PFAS formulations should be considered, such as surfactants used in chrome plating or firefighting, hydraulic fluids and lubricants, and wastes and liquid wastes;
- Other primary sources where PFAS is or has been used, such as firefighting training facilities, foam deluge system installations, metal plating works, car washes, and electricity generation and distribution facilities;
- Secondary sources where diffuse PFAS inputs are or have been received, such as landfills, wastewater treatment facilities, liquid waste treatment facilities, and bio-solids stockpiles.

CS has adapted the PFAS decision matrix presented in EnRisk (2016), along with the aforementioned guidance in Section 6 of HEPA (2020) to facilitate an assessment of the potential for PFAS to be present on site.

Table 7.1 Adapted PFAS Decision Matrix

Preliminary PFAS Screening Question	Decision
Is there evidence of major commercial, industrial and government facilities, infrastructure and activities that historically or currently use or store PFAS containing products?	No
Is there evidence of fuel ⁵ fires on the site?	No
Is there evidence of foam deluge systems, metal plating works, car washes, or electricity generation / distribution on the site?	No
Is there evidence of landfill, waste water treatment, liquid waste treatment, bio-solid stockpiles or paper mill wastes on site?	No
Is there evidence of fire training occurring at the site?	No
Is there evidence of fire training occurring up gradient or adjacent to the site?	No
Is there evidence of the presence of an airport or fire station, up-gradient of, or adjacent to, the site?	No

⁵ Fuels could include solvents, petrol, diesel and kerosene.



Based on the results of the preliminary PFAS screening questions above, further assessment of PFAS related land contamination risks at the site, is considered not warranted.

7.2 Chemical Control Orders

Chemical control orders (CCO) are created under Part 3, Division 5 of the Environmentally Hazardous Chemicals Act 1985, and are used to selectively and specifically control particular chemicals or chemical wastes to limit their potential or actual impact on the environment. CS uses the decision matrix presented in Table 7.2 (based on the NSW EPA CCO available at the time of this project), to facilitate an assessment of the potential for those control chemicals to be present on site.

Table 7.2 CCO Decision Matrix

Preliminary CCO Screening Question	Decision
Were aluminium smelter wastes used or stored on site? ⁶	No
Were dioxin contaminated wastes generated or stored on site? ⁷	No
Were organotin wastes generated or stored on site? ⁸	No
Were polychlorinated biphenyls (PCB) used or stored on site? ⁹	No
Were scheduled chemicals ¹⁰ used, or wastes stored, on site? ¹¹	No

Based on the results of the preliminary CCO screening questions above, further assessment of CCO related land contamination risks at the site, is considered not warranted.

⁶ SPCC 1986, 'Chemical Control Order In Relation to Aluminium Smelter Wastes Containing Fluoride and/or Cyanide' dated 21 March 1986.

⁷ NSW EPA 1986, 'Chemical Control Order In Relation to Dioxin-Contaminated Waste Materials' dated 14 March 1986.

⁸ NSW EPA 1989, 'Chemical Control Order In Relation to Organotin Wastes' dated 11 March 1989.

⁹ NSW EPA 1997, 'Polychlorinated Biphenyl Chemical Control Order' dated 20 June 1997.

¹⁰ Primarily organochlorine pesticide (OCP) compounds, with some industrial by-products.

¹¹ NSW EPA 2004, 'Chemical Control Order in Relation to Scheduled Chemical Wastes.



8. Conceptual Site Model

The site history review and observations made during the site walkover, were assessed in the context of the project objectives, in order to develop a conceptual site model (CSM) for the site.

8.1 Sources of Contamination

Based on the site history review and site walkover observations, CS has identified minor filling of internal access pathways (presumed to have been undertaken as uncontrolled filling due to no supporting information being available at the time of detailing this report) as the limit of potential land contaminating activity for the site.

The areas of environmental concern (AEC) are presented in Figure 3.

The nature of the filling being associated with adjacent road construction activities, combined with visual confirmation of fill consisting of a crushed rock earth material presents low potential for contamination levels exceeding the adopted site use scenario, being present in the fill received on site. Table J1 in Appendix J of AS 4482.1-2005 and Appendix A in DUAP (1998) provide guidance on chemicals associated with the land uses activities. That guidance provides a basis for deciding on contaminants of potential concern (COPC) for each relevant land use activity. Information on COPC adopted for this investigation is presented in Section 8.5 of this report.

The proposed future land use scenario being industrial / commercial activities dictates limited access to soils. Limited access and low risk fill materials observed indicate that further contamination investigation is not warranted. If any excess earth material is generated during redevelopment activities this material will require assessment in accordance with the NSW RRO 14 ENM order, prior to disposal from site.

If any deleterious materials are identified during site re-development works the contractor undertaking civil works is required to implement an unexpected finds protocol as per their CEMP and engage a suitably qualified consultant to assess, characterise and make recommendations on the management measures required based on relevant analytical data.

8.2 Land Use Scenario

8.2.1 [Adopted Land Use Scenario](#)

For the purpose of this investigation, CS understands that the proposed land use scenario for the site includes:

- Commercial / industrial such as shops, offices, factories and industrial sites.

8.2.2 [Assumptions for Adopted Land Use Scenario](#)

Section 3 of NEPC (2013c) advises that the commercial/industrial land use scenario, which assumes typical commercial or light industrial properties, consisting of single or multistorey buildings where work areas are on the ground floor (constructed on a ground level slab) or above subsurface structures (such as basement car parks or storage areas).

The outdoor areas of the commercial/industrial facilities are largely covered by hardstand, with some limited areas of landscaping or lawns and facilities. Opportunities for direct access to soil by employees using these facilities are likely to be minimal, but there may be potential for employees to inhale, ingest or come into direct dermal contact with dust particulates derived from the soil on the site.



The land use scenario does not include more sensitive uses that may be permitted under relevant commercial or industrial zonings. These more sensitive uses include childcare, educational facilities, caretaker residences and hotels and hostels, etc. Information on uses permitted under local council zoning schemes for commercial/industrial land use can be obtained from local council planning zones/schemes. Should these more sensitive uses be permitted, then 'residential with accessible soil', 'residential with minimal access to soil', or 'public open space' land use scenarios should be considered.

8.3 Receptors

8.3.1 [Identified Receptors](#)

Based on the adopted land use scenario, CS considers receptors at the site may include residents, workers and intrusive maintenance workers.

8.3.2 [Assumptions for Identified Receptors](#)

The human receptors at a commercial/industrial site are adult employees, who are largely involved in office-based or light indoor industrial activities. The employees who are most susceptible to health risks associated with volatile soil contaminants are the employees who work in offices on the ground floor, as the greatest potential for vapour intrusion occurs with workspaces immediately overlying contaminated soil.

Employees may make use of outdoor areas of a commercial/industrial premises for activities such as meal breaks. Opportunities for direct access to soil by employees using these facilities are likely to be minimal, but there may be potential for employees to inhale, ingest or come into direct dermal contact with dust particulates derived from the soil on the site.

8.4 Exposure Pathways

8.4.1 [Human Health](#)

8.4.1.1 *Dermal Contact / Ingestion / Dust Inhalation*

Site history information and walkover observations indicated a potential for contaminants to be present in soils at the site, which may present a dermal contact, ingestion or dust inhalation risk to human health.

The proposed commercial / industrial land use scenario is likely to be covered by hardstand, with some limited areas of landscaping or lawns and facilities. Opportunities for direct access to soil by employees using these facilities are likely to be minimal. CS therefore considers a situation where a pathway between identified receptors and direct contact / ingestion contaminant sources, to be complete is unlikely.

Further assessment of dermal contact, ingestion and dust inhalation risk is not considered warranted.

8.4.1.2 *Vapour Intrusion / Inhalation*

Vapour intrusion / inhalation exposure risks to human health can occur when a primary or secondary vapour source¹² is present.

Site history information and walkover observations did not indicate a potential for primary vapour sources to be present at the site.

¹² Primary sources can include underground storage tanks, while secondary sources can include significantly contaminated soil or groundwater.



Site history information and walkover observations did indicate a potential for historical uncontrolled filling at the site (i.e. a potential secondary vapour source). However, CS considers that:

- the transport, placement and spreading of uncontrolled filling typically includes significant disturbance of soils, which would typically result in the volatilisation of contaminants that might normally present an intrusion / inhalation risk; and
- the potential for contaminants to be present in uncontrolled filling at concentrations which could present an intrusion / inhalation risk, is low.

Further assessment of vapour intrusion / inhalation risks associated with the uncontrolled filling, is considered not warranted.

8.4.1.3 Asbestos

Bonded asbestos containing materials (ACM) comprises asbestos which is in sound condition, although possibly broken or fragmented, and where the asbestos is bound in a matrix such as cement or resin.

Fibrous asbestos (FA) comprises friable asbestos material and includes severely weathered cement sheet, insulation products and woven asbestos material, which can be broken or crumbled by hand pressure.

Asbestos fines (AF) include free fibres, small fibre bundles and small fragments of bonded ACM that can pass through a 7mm x 7mm sieve.

Asbestos poses a risk to human health when asbestos fibres are made airborne and inhaled. The assessment of sites contaminated with asbestos in soil should aim to describe the nature and quantity of asbestos in soil in sufficient detail to enable a risk management plan to be developed for the proposed land use scenario.

Site walkover observations did not indicate or identify bonded ACM, FA and/or AF to be present at the site.. Furthermore, the proposed commercial / industrial land use scenario is likely to be covered by hardstand, with some limited areas of landscaping or lawns and facilities. Opportunities for direct access to soil by employees using these facilities are likely to be minimal. CS therefore considers a situation where a pathway between identified receptors and asbestos contaminant sources, to be complete is unlikely.

Further assessment of asbestos exposure risk is considered not warranted. If any indicators of ACM being present in sub-surface soils works are to cease, and the unexpected finds protocols are to be implemented.

8.4.2 Hazardous Ground Gases

NSW EPA (2020a) provides advice on ground gases that if present in the pore space of soils and rocks, can adversely impact human health and safety or the integrity of structures. The ground gases that are generally of concern in this context are:

- Bulk ground gases, including methane, carbon dioxide, carbon monoxide, hydrogen, hydrogen sulphide, and petroleum vapours; and
- Trace ground gases including radon, volatile organic compounds and mercury vapour.

CS has reviewed desktop site history information review and site walkover data in the context of sources and origins of hazardous ground gases in Table 1 and Table 2 of NSW EPA (2020a). Based on that review, CS is of the opinion that further assessment of hazardous ground gases in the context of this project, is considered not warranted.



8.4.3 Aesthetics

CS has used the guidance in Section 3.6.2 and Section 3.6.3 of NEPC (2013a) to facilitate an assessment of site history review information and site walkover observations, in the context of aesthetics risk and the sensitivity of the proposed land use. For example, higher expectations apply to residential properties with gardens compared with industrial settings.

Table 8.4.2 Preliminary Aesthetics Risk Screening

Preliminary Aesthetics Risk Screening Questions	Potential
Is there a potential for highly malodorous soils or extracted groundwater (e.g. strong residual petroleum hydrocarbon odours, hydrogen sulphide in soil or extracted groundwater, organosulfur compounds) to be present on site?	No
Is there a hydrocarbon sheen on surface waters on site?	No
Is there potential for discoloured chemical deposits or soil staining with chemical waste other than of a very minor nature, on be present in site soils;	No
Is there potential for large monolithic deposits of otherwise low risk material, e.g. gypsum as powder or plasterboard or cement kiln dust, to be present in site soils;	No
Is there potential for the presence of putrescible refuse including material that may generate hazardous levels of methane such as a deep fill profile of green waste or large quantities of timber waste, in site soils?	No
Is there potential for soils containing residue from animal burial (e.g. former abattoir sites) to be onsite.	No
Is there a potential for large quantities of non-hazardous inert material to be present in site soils?	No
Is there a potential for high odour residue material to be present in site soils?	No
Is there a potential for large quantities of various fill types and demolition rubble to be present in site soils proposed for residential land use?	No

The historical records review, observations made during the site walkover and results of the preliminary risk screening, did not identify a potential for unacceptable aesthetics risks to be present on the site. Further assessment of aesthetic risks on site, is considered not warranted.

8.4.4 Management Limits for Petroleum Hydrocarbons

Section 2.9 of NEPC (2013a) indicates that there are a number of policy considerations which reflect the nature and properties of petroleum hydrocarbons:

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

Section 2.9 of NEPC (2013a) notes that CCME (2008) includes management limits to avoid or minimise these potential effects. Application of management limits requires consideration of site specific factors such as depth of building basements and services, and depth to groundwater, to determine the maximum depth to which the limits should apply. NEPC (2013a) also states that:



- management limits may have less relevance at operating industrial sites (including mine sites) which have no or limited sensitive receptors in the area of potential impact.
- the presence of site total petroleum hydrocarbon (TPH) contamination at the levels of the management limits does not imply that there is no need for administrative notification or controls in accordance with jurisdiction requirements.

Site history information indicate that historically site may have been a subject of uncontrolled filling that presents low risk of petroleum hydrocarbon contamination at the site. On that basis, further assessment of petroleum hydrocarbons in soils, in the context of those policy decisions, is considered not warranted.

8.4.5 Groundwater

Section 2.2 of NSW DEC (2007) provides guidance on the need for the potential for groundwater contamination to be assessed, for the purposes of evaluating whether it may pose an unacceptable risk to human health and/or the environment.

Section 3.2 of NEPC (2013b) provides guidance on the environmental values (that are conducive to public benefit, welfare, safety or health) and that require protection from the effects of pollution, waste discharge and deposits. These values include:

- Ecosystem protection;
- Aquaculture and human consumers of food;
- Agricultural water (irrigation and stock water);
- Recreation and aesthetics;
- Drinking water; and
- Industrial water.

Each of these values is considered in the following sub-sections.

8.4.5.1 *Aquatic ecosystem protection*

The nearest surface water body (Eastern Creek, located approximately 500m to the west) likely to host an aquatic ecosystem, is considered likely to be polluted and be of a quality that is not consistent with natural background water quality.

The shallowest groundwater at the site is likely to be transient perched groundwater generally present at the soil-bedrock interface, after heavy rain events. Data on natural background water quality for transient groundwater is generally not available. Subsequently, comparison of site specific shallow transient groundwater data against background quality is therefore not practical.

Given the combination of

- physical distance between the site and the nearest surface water body (~500m),
- regional geology (which is likely to include low permeability clays; and
- the likely nature of the contaminants of potential concern on the site,

it is considered unlikely that those contaminants would become sufficiently mobile, migrate into groundwater and subsequently be transported to the nearest surface water receptor.

Based on these scenarios, CS considers that further assessment of aquatic ecosystem protection as a groundwater value, is not warranted.



8.4.5.2 Aquaculture and human consumers of food

The nearest surface water body is not located on or adjacent to the site and is located a significant distance (~500m) from the site. On that basis, it is unlikely that site occupants would frequent that surface water body for the collection and consumption of aquatic based foods, at a rate that the intake would present an unacceptable risk to human health.

The nearest surface water body (Eastern Creek, located approximately 500m to the west) is likely to be shallow in nature. On that basis, it is unlikely that the surface water body would contain an aquatic food source suitable for significant human consumption.

Given the combination of:

- physical distance between the site and the nearest surface water body (~500m),
- regional geology (which is likely to include low permeability clays); and
- the likely nature of the contaminants of potential concern on the site,

it is considered unlikely that those contaminants would become sufficiently mobile, migrate into groundwater and subsequently be transported to the nearest surface water receptor, in order to potentially present an unacceptable aquaculture or human food consumption risk.

Based on these scenarios, CS considers that further assessment of aquaculture and human consumers of food as a groundwater value, is not warranted.

8.4.5.3 Agricultural water (irrigation and stock water)

Section 3.3 of this report did not identify any registered groundwater bores within a 500m radius of the site, authorised for irrigation or stock watering purposes.

The commercial / industrial development within the locality of the site, is likely to prevent agricultural land use activities from being undertaken. Subsequently, extraction of groundwater for agricultural purposes in the future is considered unlikely.

Based on these scenarios, CS considers that further assessment of agricultural water as a groundwater value, is not warranted.

8.4.5.4 Recreation and aesthetics

Based on the nearest surface water body identified for the site, and the inferred groundwater flow direction at the site (refer Section 3.3), it is considered that groundwater at the site would discharge into the Eastern Creek located approximately 500m to the west.

The nearest surface water body (Eastern Creek) is likely to be shallow in nature and has limited access to the general public. On that basis, it is unlikely that the surface water body would be used for:

- sports in which the user comes into frequent direct contact with water, either as part of the activity or accidentally, for example, swimming or surfing (primary contact);
- sports that generally have less-frequent body contact with the water, for example, boating or fishing (secondary contact); or
- visual passive recreational use, for example, pleasant places to be near or to look at (no body contact).

Given the combination of:

- physical distance between the site and the nearest surface water body (~500m),



- regional geology (which is likely to include low permeability clays; and
- the likely nature of the contaminants of potential concern on the site,

it is considered unlikely that those contaminants would become sufficiently mobile, migrate into groundwater and subsequently be transported to the nearest surface water receptor, in order to potentially present an unacceptable recreation or aesthetics risk.

Based on these scenarios, CS considers that further assessment of recreation and aesthetics as a groundwater value, is not warranted.

8.4.5.5 Drinking water

Section 3.3 of this report did not identify any registered groundwater bores within a 500m radius of the site, authorised for drinking water purposes.

The current / future land use scenario for the site includes a reticulated drinking water system. Urban development surrounding the site is also likely to include a reticulated drinking water system.

The shallowest groundwater at the site is likely to be transient perched groundwater generally present at the soil-bedrock interface, after heavy rain events, and therefore, unlikely to be a reliable drinking water extraction source.

Given the combination of:

- physical distance between the site and the nearest surface water body (~500m),
- regional geology (which is likely to include low permeability clays; and
- the likely nature of the contaminants of potential concern on the site,

it is considered unlikely that those contaminants would become sufficiently mobile and migrate into groundwater, in order to potentially present an unacceptable drinking water risk.

Based on these scenarios, CS considers that further assessment of drinking water as a groundwater value, is not warranted.

8.4.5.6 Industrial water

Section 3.3 of this report did not identify any registered groundwater bores within a 500m radius of the site, authorised for industrial purposes.

Although industrial development is noted on the land down gradient of the site (approximately 50m to the west), CS considers that the extraction of groundwater for industrial purposes is considered unlikely due to the absence of registered groundwater bores within a 500m radius of the site.

Based on these scenarios, CS considers that further assessment of industrial water as a groundwater value, is not warranted.

8.4.6 Terrestrial Ecosystems

Site history information and walkover observations did not indicate a potential for contaminants, which may present an ecological risk, may be present on site.

Furthermore, section 3.4.2 of NEPC (2013a) indicates that:

- a pragmatic risk-based approach should be taken when assessing ecological risk in the commercial / industrial land use settings;



- in existing commercial and urban development sites, there are often practical considerations that enable soil properties to be improved by addition of ameliorants with a persistent modifying effect or by the common practice of backfilling or top dressing with clean soil;
- in other cases, all of the site soils will be removed during site development works or relocated for the formation of new land forms;
- sites may also be backfilled with clean soil/fill and the fate of any excavated contaminated soil should be considered in process; and
- commercial and industrial sites may have large building structures and extensive areas covered with concrete, other pavement or hardstand materials and may have limited environmental values requiring consideration while in operational use.

Considering the planned commercial/industrial land use of the site, where a significant terrestrial ecosystem is unlikely to be present, CS believes that further assessment of terrestrial ecosystem exposure risks is not considered warranted.

8.5 Source, Receptor, Pathway Model

A conceptual site model (CSM) is a representation of site-related information regarding contamination sources and receptors, and exposure pathways between those sources and receptors.

Based on:

- the areas of environmental concern (AEC) at the site where sources of contamination may be present have been assessed and deemed low risk based on the proposed site use scenario;
- the contaminants of potential concern (COPC) identified for the site are acknowledged but present negligible concern and are able to managed during construction;
- receptors identified for the site; and
- the exposure pathways between those sources and receptors assessed as being incomplete,

a CSM is presented for the site in Table 8.5.

**Table 8.5 Conceptual Site Model**

ID	AEC	Source	COPC	Exposure Pathway	Receptor
AEC01	Entire Site	Negligible Uncontrolled filling (~1,100m ² x)	Hydrocarbons naturally occurring metals	Limited access to soil, with the exception of construction activities.	Site workers Maintenance Workers
AEC02	Exiting Driveway	Uncontrolled filling (~70m ²)	Hydrocarbons naturally occurring metals	Limited access to soil, with the exception of construction activities.	Site workers Maintenance Workers
AEC03	Historic Driveway	Uncontrolled filling (~150m ²)	Hydrocarbons naturally occurring metals	Limited access to soil, with the exception of construction activities.	Site workers Maintenance Workers



9. Conclusions and Recommendations

Based on CS's assessment of desktop review information and fieldwork observations, CS makes the following conclusions:

- Three areas of environmental concern (AEC) have been identified at the site as having received historic fill associated with site access (Gravel driveway) and adjacent road construction; and
- There is negligible potential for contamination to be present at the site, arising from past and present land use activities;
- The site is considered to be suitable for the following land use scenario:
 - Commercial / Industrial such as shops, offices, factories and industrial sites with limited access to soils.

Based on these conclusions, CS makes the following recommendations:

- The site is suitable for redevelopment for Industrial / Commercial land use.
- Risk presented by the receipt of historic fill is low although in the event of unexpected finds the contractor undertaking works is required to implement an unexpected finds protocol and isolate the identified item of concern and engage a suitably qualified environmental consultant; and
- Any excess earth material generated during redevelopment requires assessment in accordance with the NSW RRO 14 Excavated Natural Material (ENM) order prior to disposal off site.

This report must be read in conjunction with the **Information About This Report** page at the front of this report.



10. References

AS 4482.1-2005 'Guide to the investigation and sampling of sites with potentially contaminated soil, Part 1: Non-volatile and semi-volatile compounds' dated November 2005.

Berkman D A 1989, 'Field Geologist's Manual, Third Edition' published by The Australasian Institute of Mining and Metallurgy.

CCME 2008, 'Canada-wide standard for petroleum hydrocarbons (PHC) in soil, technical supplement' dated January 2008.

CRC CARE 2017, 'Risk based management and remediation guidance for benzo(a)pyrene', CRC CARE Technical Report No. 39, dated March 2017.

DUAP 1998, 'Managing Land Contamination Planning Guidelines SEPP55 – Remediation of Land', dated April 1999, ref: 98/65.

EnRisk 2016, 'Proposed Decision Tree for Prioritising Sites Potentially Contaminated with PFAS' dated 25 February 2016.

Fletcher T, Duncan H, Poelsman P & Lloyd S 2004, Stormwater Flow and Quality, and the Effectiveness of Non-Proprietary Stormwater Treatment Measures – A Review and Data Gap Analysis', CRC for Catchment Hydrology Technical Report 04/8, dated December 2004.

Friebel, E & Nadebaum, P 2011, 'Health screening levels for petroleum hydrocarbons in soil and groundwater. Part 2: Application document', CRC CARE Technical Report No. 10.

HEPA 2020, 'PFAS National Environmental Management Plan', dated January 2020, version 2.0.

McNally 2009, 'Soil and groundwater salinity in the shales of western Sydney', IAH NSW Groundwater in the Sydney Basin Symposium, Sydney, NSW, 4-5 August 2009.

National Environment Protection Council (NEPC) 2013a, 'Schedule B(1) Guideline on Investigation Levels for Soil and Groundwater', National Environment Protection (Assessment of Site Contamination) Measure (NEPM) as amended in May 2013.

National Environment Protection Council (NEPC) 2013b, 'Schedule B(6) Guideline on The Framework for Risk-Based Assessment of Groundwater Contamination', National Environment Protection (Assessment of Site Contamination) Measure (NEPM) as amended in May 2013.

National Environment Protection Council (NEPC) 2013c, 'Schedule B(7) Guideline on Derivation of Health-Based Investigation Levels', National Environment Protection (Assessment of Site Contamination) Measure (NEPM) as amended in May 2013.

NSW DEC 2005, 'Contaminated Sites: Guidelines for Assessing Former Orchards and Market Gardens', dated June 2005, ref: DEC 2005/195.

NSW DEC 2007, 'Contaminated Sites: Guidelines for the Assessment and Management of Groundwater Contamination' dated March 2007, ref: DEC 2007/144.

NSW EPA 1986, 'Chemical Control Order in Relation to Dioxin-Contaminated Waste Materials' dated 14 March 1986.

NSW EPA 1989, 'Chemical Control Order in Relation to Organotin Wastes' dated 11 March 1989.



NSW EPA 1995, 'Contaminated Sites: Sampling Design Guidelines', dated September 1995, ref: EPA 95/59.

NSW EPA 1997, 'Polychlorinated Biphenyl Chemical Control Order' dated 20 June 1997.

NSW EPA 2004, 'Chemical Control Order in Relation to Scheduled Chemical Wastes.

NSW EPA 2015, 'Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act 1997' dated September 2015, ref: EPA 2015/0164.

NSW EPA 2020a, 'Assessment and management of hazardous ground gases' dated May 2020, ref: EPA 2019P2047.

NSW EPA 2020b, 'Contaminated Land Guidelines: Consultants reporting on contaminated land' dated May 2020, ref: EPA2020P2233.

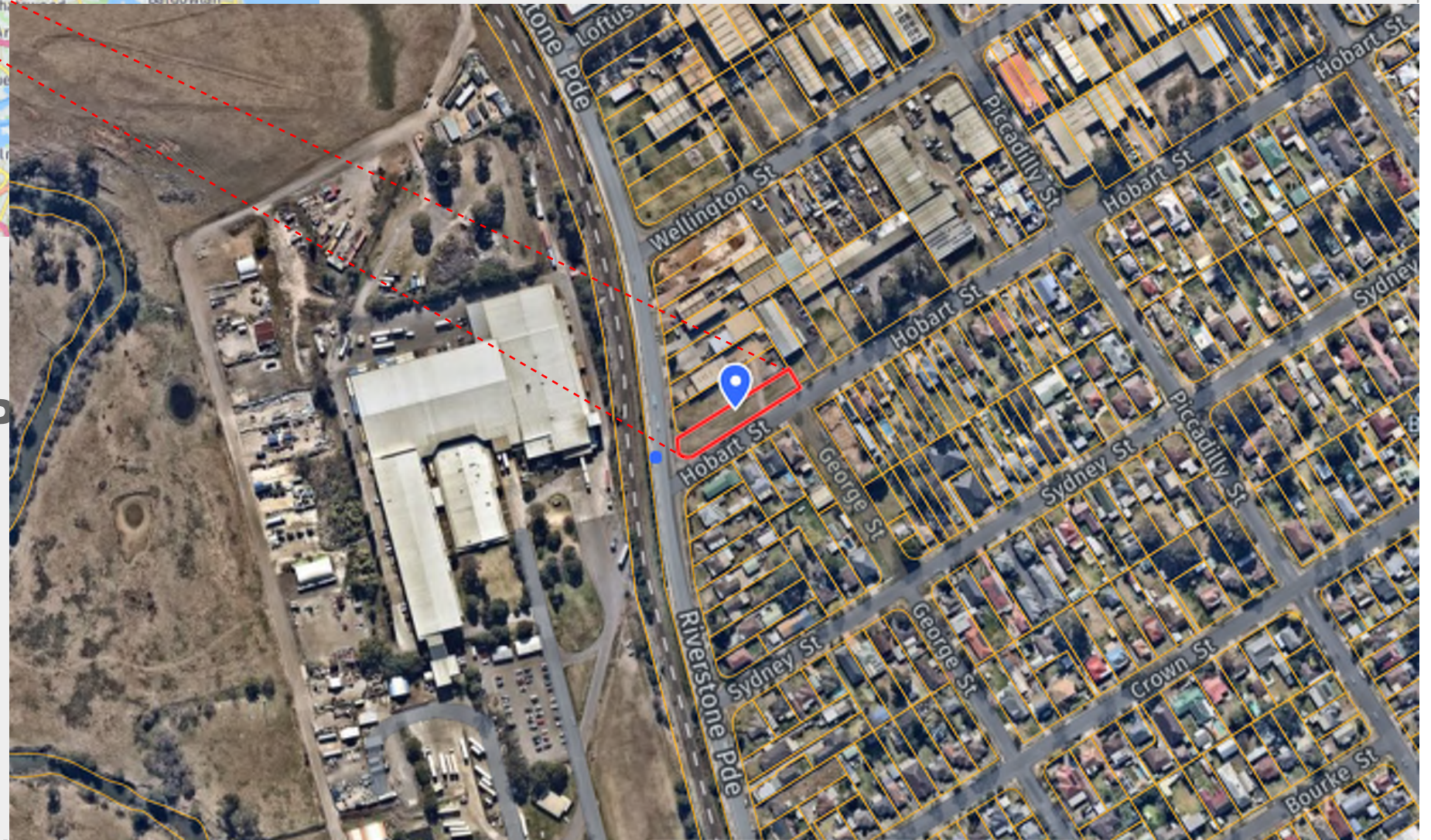
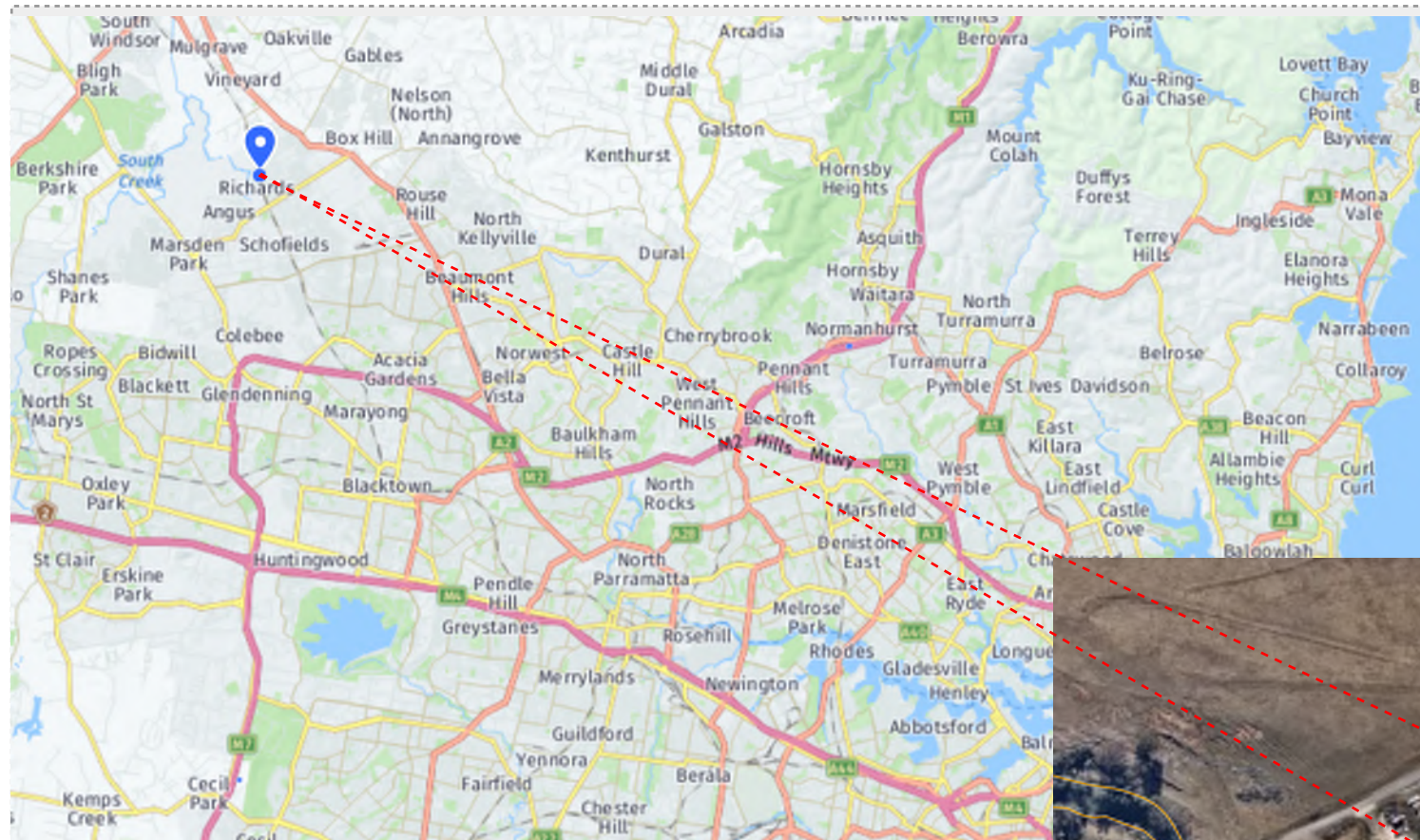
SPCC 1986, 'Chemical Control Order In Relation to Aluminium Smelter Wastes Containing Fluoride and/or Cyanide' dated 21 March 1986.

Sullivan, L, Ward, N, Toppler, N and Lancaster, G, 2018, 'National Acid Sulfate Soils Guidance: National acid sulfate soils sampling and identification methods manual' dated June 2018, ref: CC BY 4.0.

WA DOH 2009, 'Guidelines for the Assessment, Remediation and Management of Asbestos Contaminated Sites in Western Australia', dated May 2009.

FIGURES

A decorative graphic on the left side of the page. It features a large, dark blue circle. Two thick blue arcs are positioned around the circle: one is on the right side, curving upwards, and the other is at the bottom, curving to the left. The arcs appear to be part of a larger circular design, possibly representing a stylized 'C' or a partial circle.



LEGEND:



Approximate site location



Approximate site boundary



2/4 Kellogg Road
ROOTY HILL NSW 2766
Tel: +61 1300 165 769
Web: www.constructionsciences.net

Scale: Not to scale

Date: 23 August 2023

Drawn By: AL

Drawing No: F1

Client: Blacktown City Council




Project: Stage 1 Preliminary Site Investigation

Location: Hobart Street, Riverstone, NSW 2765 (Road Closure Land)

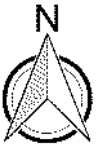



Version:

SITE LOCALITY



	<p>LEGEND:</p> <div> Approximate Site Boundary</div>	<div><p>2/4 Kellogg Road ROOTY HILL NSW 2766 Tel: 1300 165 769 Web: www.constructionsciences.net</p></div>	Scale: 		Client: Blacktown City Council	Job ref: 10791EV.P.408-P01
			Date: 1 August 2023		Project: Stage 1 Preliminary Site Investigation	
			Drawn By: AL		Location: Hobart Street, Riverstone NSW (Road Closure Land)	
			Drawing No: 2	Sheet: 1 of 1	Site Layout Plan	

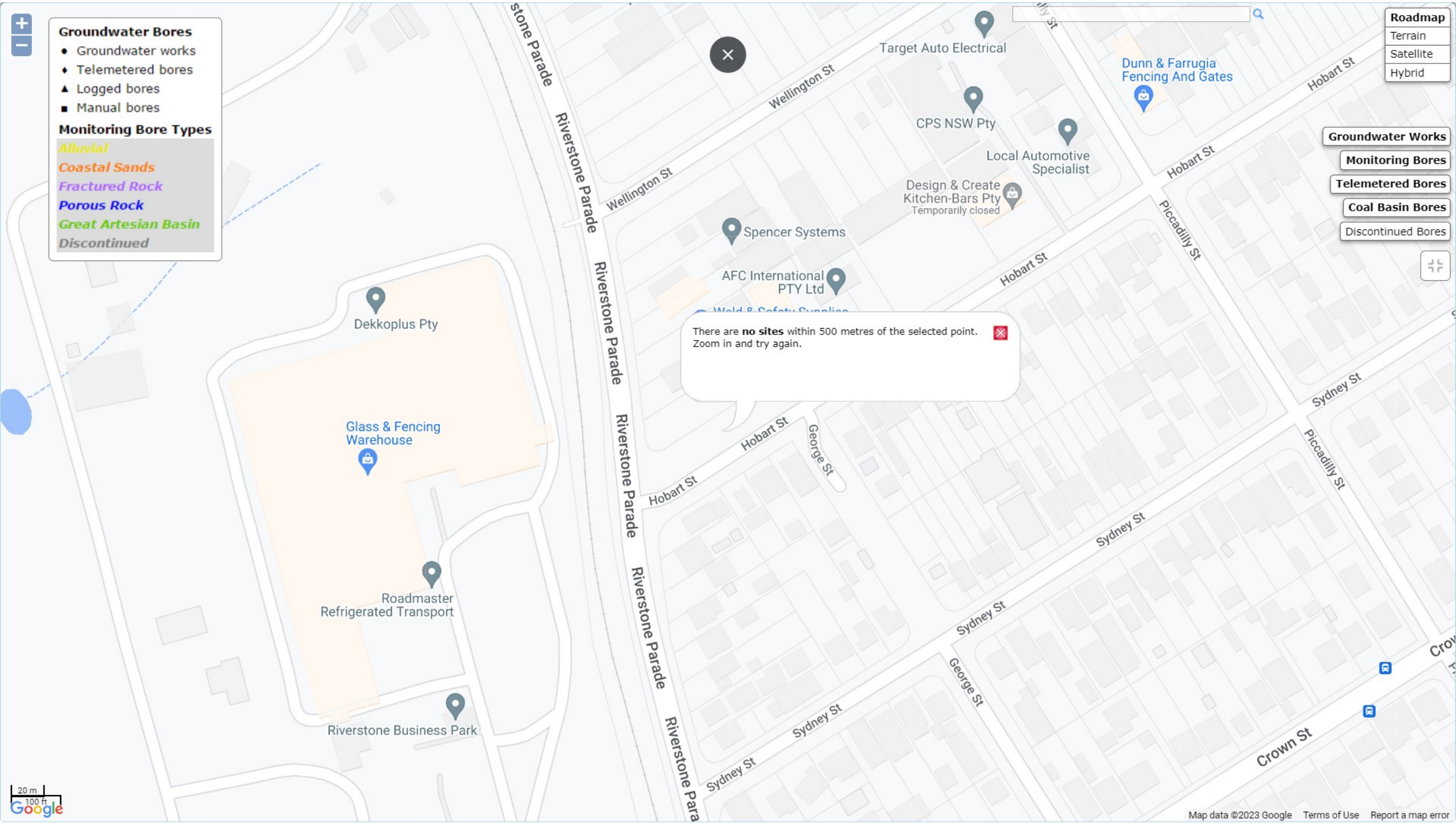


	LEGEND:  Approximate Site Boundary	 2/4 Kellogg Road ROOTY HILL NSW 2766 Tel: 1300 165 769 Web: www.constructionsciences.net	Scale: 	Client: Blacktown City Council	Job ref: 10791EV.P.408-P01
			Date: 1 August 2023	Project: Stage 1 Preliminary Site Investigation	
			Drawn By: AL	Location: Hobart Street, Riverstone NSW (Road Closure Land)	
			Drawing No: 3	Sheet: 1 of 1	Areas of Environmental Concern



Appendix A

GROUNDWATER BORE SEARCH



Groundwater Bores

- Groundwater works
- ◆ Telemetered bores
- ▲ Logged bores
- Manual bores

Monitoring Bore Types

- Alluvial
- Coastal Sands
- Fractured Rock
- Porous Rock
- Great Artesian Basin
- Discontinued

Roadmap

- Terrain
- Satellite
- Hybrid

Groundwater Works

Monitoring Bores

Telemetered Bores

Coal Basin Bores

Discontinued Bores

There are **no sites** within 500 metres of the selected point. Zoom in and try again.



Appendix B

EPA AND POEO RECORDS

Search results

Your search for:Suburb: RIVERSTONE

did not find any records in our database.

If a site does not appear on the record it may still be affected by contamination. For example:

- Contamination may be present but the site has not been regulated by the EPA under the Contaminated Land Management Act 1997 or the Environmentally Hazardous Chemicals Act 1985.
- The EPA may be regulating contamination at the site through a licence or notice under the Protection of the Environment Operations Act 1997 (POEO Act).
- Contamination at the site may be being managed under the [planning process](#).

More information about particular sites may be available from:

- The [POEO public register](#)
- The appropriate planning authority: for example, on a planning certificate issued by the local council under [section 149 of the Environmental Planning and Assessment Act](#).

See [What's in the record and What's not in the record](#).

If you want to know whether a specific site has been the subject of notices issued by the EPA under the CLM Act, we suggest that you search by Local Government Area only and carefully review the sites that are listed.

This public record provides information about sites regulated by the EPA under the Contaminated Land Management Act 1997, including sites currently and previously regulated under the Environmentally Hazardous Chemicals Act 1985. Your inquiry using the above search criteria has not matched any record of current or former regulation. You should consider searching again using different criteria. The fact that a site does not appear on the record does not necessarily mean that it is not affected by contamination. The site may have been notified to the EPA but not yet assessed, or contamination may be present but the site is not yet being regulated by the EPA. Further information about particular sites may be available from the appropriate planning authority, for example, on a planning certificate issued by the local council under section 149 of the Environmental Planning and Assessment Act. In addition the EPA may be regulating contamination at the site through a licence under the Protection of the Environment Operations Act 1997. You may wish to search the POEO public register.[POEO public register](#)

[Search Again](#)

[Refine Search](#)

Search TIP

To search for a specific site, search by LGA (local government area) and carefully review all sites listed.

... [more search tips](#)

21 August 2023

For business and industry ^

For local government ^

Contact us

131 555 (tel:131555)

Online (<https://www.epa.nsw.gov.au/about-us/contact-us/feedback>)

info@epa.nsw.gov.au (<mailto:info@epa.nsw.gov.au>)

EPA Office Locations (<https://www.epa.nsw.gov.au/about-us/contact-us/locations>)

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Background

A strategy to systematically prioritise, assess and respond to notifications under Section 60 of the *Contaminated Land Management Act 1997* (CLM Act) has been developed by the EPA. This strategy acknowledges the EPA's obligations to make information available to the public under *Government Information (Public Access) Act 2009*.

When a site is notified to the EPA, it may be accompanied by detailed site reports where the owner has been proactive in addressing the contamination and its source. However, often there is minimal information on the nature or extent of the contamination.

After receiving a report, the first step is to confirm that the report does not relate to a pollution incident. The Protection of the Environment Operations Act 1997 (POEO Act) deals with pollution incidents, waste stockpiling or dumping. The EPA also has an incident management process to manage significant incidents (<https://www.epa.nsw.gov.au/reporting-and-incidents/incident-management>).

In many cases, the information indicates the contamination is securely immobilised within the site, such as under a building or carpark, and is not currently causing any significant risks for the community or environment. Such sites may still need to be cleaned up, but this can be done in conjunction with any subsequent building or redevelopment of the land. These sites do not require intervention under the CLM Act, and are dealt with through the planning and development consent process. In these cases, the EPA informs the local council or other planning authority, so that the information can be recorded and considered at the appropriate time (<https://www.epa.nsw.gov.au/your-environment/contaminated-land/managing-contaminated-land/role-of-planning-authorities>).

Where indications are that the contamination could cause actual harm to the environment or an unacceptable offsite impact (i.e. the land is 'significantly contaminated'), the EPA would apply the regulatory provisions of the CLM Act to have the responsible polluter and/or landowner investigate and remediate the site. If the reported contamination could present an immediate or long-term threat to human health NSW Health will be consulted. SafeWork NSW and Water NSW can also be consulted if there appear to be occupational health and safety risks or an impact on groundwater quality.

As such, the sites notified to the EPA and presented in the list of contaminated sites notified to the EPA are at various stages of the assessment and remediation process. Understanding the nature of the underlying contamination, its implications and implementing a remediation program where required, can take a considerable period of time. The list provides an indication, in relation to each nominated site, as to the management status of that particular site. Further detailed information may be available from the EPA or the person who notified the site.

The following questions and answers may assist those interested in this issue.

Frequently asked questions

Why does my land appear on the list of notified sites?

Your land may appear on the list because:

- the site owner and/or the polluter has notified the EPA under section 60 of the CLM Act
- the EPA has been notified via other means and is satisfied that the site is or was contaminated.

If a site is on the list, it does not necessarily mean the contamination is significant enough to regulate under the CLM Act.

Does the list contain all contaminated sites in NSW?

No. The list only contains contaminated sites that EPA is aware of. If a site is not on the list, it does not necessarily mean the site is not contaminated.

The EPA relies on responsible parties and the public to notify contaminated sites.

How are notified contaminated sites managed by the EPA?

There are different ways the EPA can manage notified contaminated sites. Options include:

- regulation under the CLM Act, POEO Act, or both
- notifying the relevant planning authority for management under the planning and development process
- managing the site under the Protection of the Environment Operation (Underground Petroleum Storage Systems) Regulation 2014.

There are specific cases where contamination is managed under a tailored program operated by another agency (for example, the Resources & Geoscience's Legacy Mines Program).

What should I do if I am a potential buyer of a site that appears on the list?

You should seek advice from the seller to understand the contamination issue. You may need to seek independent contamination or legal advice.

The information provided in the list is indicative only and a starting point for your own assessment. Land contamination from past site uses is common, mainly in urban environments. If the site is properly remediated or managed, it may not affect the intended future use of the site.

Who can I contact if I need more information about a site?

You can contact the Environment Line at any time by calling 131 555 or by emailing info@environment.nsw.gov.au.

List of NSW Contaminated Sites Notified to the EPA

Disclaimer

The EPA has taken all reasonable care to ensure that the information in the list of contaminated sites notified to the EPA (the list) is complete and correct. The EPA does not, however, warrant or represent that the list is free from errors or omissions or that it is exhaustive.

The EPA may, without notice, change any or all of the information in the list at any time.

You should obtain independent advice before you make any decision based on the information in the list.

The list is made available on the understanding that the EPA, its servants and agents, to the extent permitted by law, accept no responsibility for any damage, cost, loss or expense incurred by you as a result of:

1. any information in the list; or
2. any error, omission or misrepresentation in the list; or
3. any malfunction or failure to function of the list;
4. without limiting (2) or (3) above, any delay, failure or error in recording, displaying or updating information.

Site Status	Explanation
Under assessment	The contamination is being assessed by the EPA to determine whether regulation is required. The EPA may require further information to complete the assessment. For example, the completion of management actions regulated under the planning process or <i>Protection of the Environment Operations Act 1997</i> .
Under Preliminary Investigation Order	The EPA has issued a Preliminary Investigation Order under s10 of the <i>Contaminated Land Management Act 1997</i> , to obtain additional information needed to complete the assessment.
Regulation under CLM Act not required	The EPA has completed an assessment of the contamination and decided that regulation under the <i>Contaminated Land Management Act 1997</i> is not required.

Regulation being finalised	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation under the <i>Contaminated Land Management Act 1997</i> . A regulatory approach is being finalised.
Contamination currently regulated under CLM Act	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation under the Contaminated Land Management Act 1997 (CLM Act). Management of the contamination is regulated by the EPA under the CLM Act. Regulatory notices are available on the EPA's Contaminated Land Public Record.
Contamination currently regulated under POEO Act	Contamination is currently regulated under the Protection of the Environment Operations Act 1997 (POEO Act). The EPA as the appropriate regulatory authority reasonably suspects that a pollution incident is occurring/ has occurred and that it requires regulation under the POEO Act. The EPA may use environment protection notices, such as clean up notices, to require clean up action to be taken. Such regulatory notices are available on the POEO public register.
Contamination being managed via the planning process (EP&A Act)	The EPA has completed an assessment of the contamination and decided that the contamination is significant enough to warrant regulation. The contamination of this site is managed by the consent authority under the <i>Environmental Planning and Assessment Act 1979</i> (EP&A Act) planning approval process, with EPA involvement as necessary to ensure significant contamination is adequately addressed. The consent authority is typically a local council or the Department of Planning and Environment.
Contamination formerly regulated under the CLM Act	The EPA has determined that the contamination is no longer significant enough to warrant regulation under the <i>Contaminated Land Management Act 1997</i> (CLM Act). The contamination was addressed under the CLM Act.
Contamination formerly regulated under the POEO Act	The EPA has determined that the contamination is no longer significant enough to warrant regulation. The contamination was addressed under the <i>Protection of the Environment Operations Act 1997</i> (POEO Act).

Contamination was addressed via the planning process (EP&A Act)	The EPA has determined that the contamination is no longer significant enough to warrant regulation. The contamination was addressed by the appropriate consent authority via the planning process under the <i>Environmental Planning and Assessment Act 1979</i> (EP&A Act).
Ongoing maintenance required to manage residual contamination (CLM Act)	The EPA has determined that ongoing maintenance, under the 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.

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
REDFERN	Surry Hills Shopping Village	397-399 Cleveland & 2-38 Baptist STREET	Other Industry	Regulation under CLM Act not required	-33.89229521	151.2119397
REVESBY	Caltex Service Station Revesby	181 The River ROAD	Service Station	Regulation under CLM Act not required	-33.95573605	151.0171779
REVESBY	Commercial Premises	40 Marigold STREET	Unclassified	Regulation under CLM Act not required	-33.936897	150.998204
REVESBY	Dorf Clark Industries	184-194 Milperra ROAD	Metal Industry	Regulation under CLM Act not required	-33.93387149	151.000553
REVESBY	Mirotone Pty Ltd	21 Marigold STREET	Chemical Industry	Contamination currently regulated under POEO Act	-33.93559608	151.0002207
REVESBY	Thetis Pty Ltd - Bituminous Products	33-35 Violet STREET	Chemical Industry	Contamination currently regulated under CLM Act	-33.93702092	151.0067896
RHODES	Former Allied Feeds site	Walker STREET	Other Industry	Contamination formerly regulated under the CLM Act	-33.82465376	151.0870401
RHODES	Former Glad factory site	10-16 Marquet STREET	Chemical Industry	Regulation under CLM Act not required	-33.82884048	151.0848716
RHODES	Former UCAL site	Walker STREET	Chemical Industry	Ongoing maintenance required to manage residual contamination (CLM Act)	-33.82727505	151.0853195
RHODES	Homebush Bay sediments adjoining former Berger Paint factory	Oulton AVENUE	Chemical Industry	Ongoing maintenance required to manage residual contamination (CLM Act)	-33.83535308	151.083238
RHODES	Homebush Bay Sediments adjoining the former UCAL and Allied Feeds sites	Homebush BAY	Chemical Industry	Ongoing maintenance required to manage residual contamination (CLM Act)	-33.8263749	151.0839216
RICHMOND	Caltex Richmond Service Station	98 March (Cnr East Market St) STREET	Service Station	Regulation under CLM Act not required	-33.59937996	150.7514483
RICHMOND	Western Sydney University	2 College STREET	Unclassified	Regulation under CLM Act not required	-33.6192	150.755816
RIVERSTONE	7-Eleven Riverstone	55 Garfield ROAD	Service Station	Regulation under CLM Act not required	-33.67802232	150.8635246
RIVERSTONE	Axalta Coating Systems	15-23 Melbourne ROAD	Other Industry	Regulation under CLM Act not required	-33.6636649	150.8557519

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
RIVERSTONE	Vacant Commercial Land	88-94 Junction ROAD	Unclassified	Regulation under CLM Act not required	-33.66226398	150.8789967
RIVERSTONE	Woolworths Vineyard Service Station, Riverstone	1 Woodland Street, corner of Windsor ROAD	Service Station	Regulation under CLM Act not required	-33.65607641	150.8724067
RIVERWOOD	7-Eleven Riverwood	30 Bonds ROAD	Service Station	Regulation under CLM Act not required	-33.9523701	151.0583887
ROCKDALE	7-Eleven (former Mobil) Service Station	293 West Botany STREET	Service Station	Regulation under CLM Act not required	-33.94995672	151.1484667
ROCKDALE	7-Eleven Service Station	99 Railway STREET	Service Station	Regulation under CLM Act not required	-33.95247322	151.1356785
ROCKDALE	Lindsay St, Rockdale	7 Lindsay STREET	Other Industry	Under assessment	-33.95900867	151.1436466
ROOTY HILL	7-Eleven (former Mobil) Service Station	106 Rooty Hill Road South ROAD	Service Station	Regulation under CLM Act not required	-33.78036181	150.8501998
ROOTY HILL	7-Eleven (former Mobil) Service Station	1042 Great Western HIGHWAY	Service Station	Regulation under CLM Act not required	-33.78214955	150.8287656
ROOTY HILL	Infrabuild NSW Pty Ltd (formerly OneSteel NSW Pty Ltd)	22 Kellogg ROAD	Other Industry	Regulation under CLM Act not required	-33.76664143	150.8493465
ROSE BAY	Caltex Rose Bay Service Station	488 Old South Head ROAD	Service Station	Regulation under CLM Act not required	-33.87475145	151.2723847
ROSE BAY	Rose Bay Budget Service station	638-646 New South Head ROAD	Service Station	Contamination formerly regulated under the CLM Act	-33.87062149	151.2677617
ROSEBERY	Autofoil P/L	2 Mentmore AVENUE	Other Industry	Regulation under CLM Act not required	-33.91121318	151.2054882
ROSEBERY	Caltex Rosebery Service Station	321 Gardeners (Cnr Macquarie St) ROAD	Service Station	Contamination formerly regulated under the CLM Act	-33.92302898	151.2059541
ROSEBERY	Former Industrial Site (Former Electroplating Facility)	108 Dunning AVENUE	Other Industry	Regulation under CLM Act not required	-33.91630811	151.201557
ROSEBERY	Rosebery Service Station	395 Gardeners ROAD	Service Station	Contamination formerly regulated under the CLM Act	-33.92246784	151.2024589

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
ROSEHILL	2 Ritchie Street, Rosehill	2 Ritchie STREET	Unclassified	Contamination formerly regulated under the CLM Act	-33.82691192	151.0154948
ROSEHILL	Former Akzo Nobel site	4 Grand AVENUE	Chemical Industry	Contamination currently regulated under CLM Act	-33.82238826	151.0319264
ROSEHILL	James Hardie Australia and former James Hardie lands	8 and 10 Colquhoun Street and 5 Devon STREET	Landfill	Ongoing maintenance required to manage residual contamination (CLM Act)	-33.82539019	151.0339466
ROSEHILL	James Hardie Factory (former, western portion)	181 James Ruse DRIVE	Other Industry	Ongoing maintenance required to manage residual contamination (CLM Act)	-33.81605834	151.0238145
ROSEHILL	Viva Clyde Western Area	Durham Street, Rosehill (Camellia Peninsula) STREET	Other Petroleum	Regulation under CLM Act not required	-33.824104	151.037338
ROSELANDS	7-Eleven (former Mobil) Service Station	91 Canary's ROAD	Service Station	Regulation under CLM Act not required	-33.93356078	151.0736274
ROSELANDS	Roselands Shopping Centre	24 Roseland AVENUE	Service Station	Regulation under CLM Act not required	-33.93499281	151.0691284
ROSELANDS	Woolworths Caltex Petrol Service Station Roselands	218 King Georges ROAD	Service Station	Regulation under CLM Act not required	-33.93303118	151.0735036
ROSEVILLE	Mobil Service Station	2 Boundary STREET	Service Station	Regulation under CLM Act not required	-33.78769177	151.1796011
ROSEVILLE CHASE	Coles Express Roseville Chase	388 Eastern Valley WAY	Service Station	Regulation under CLM Act not required	-33.78337722	151.1973901
ROZELLE	7-Eleven (former Mobil) Service Station	178-180 (176-184) Victoria ROAD	Service Station	Regulation under CLM Act not required	-33.8630268	151.1680857
ROZELLE	BP Service Station	Corner Darling Street and Thornton STREET	Service Station	Regulation under CLM Act not required	-33.8591647	151.1716591
ROZELLE	Caltex Service Station	121 Victoria ROAD	Service Station	Regulation under CLM Act not required	-33.86252996	151.168497
ROZELLE	Kennards Rozelle	15-39 Wellington STREET	Other Petroleum	Regulation under CLM Act not required	-33.86176757	151.1686519
ROZELLE	White Bay Power Station	Robert STREET	Other Industry	Regulation under CLM Act not required	-33.86674636	151.1772204

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
RUFUS RIVER	SA Water Depot - Rufus River	Old Wentworth STREET	Other Petroleum	Regulation under CLM Act not required	-34.04191512	141.2679475
RUSHCUTTERS BAY	d'Albora Marinas	1b New Beach ROAD	Other Industry	Contamination currently regulated under POEO Act	-33.87351297	151.2345082
RUTHERFORD	Caltex Service Station	134-138 New England HIGHWAY	Service Station	Regulation under CLM Act not required	-32.7202589	151.5381526
RUTHERFORD	Former Anambah Landfill	Anambah ROAD	Landfill	Contamination currently regulated under CLM Act	-32.70493978	151.512629
RUTHERFORD	Rutherford Transpacific	11 Kyle STREET	Other Industry	Regulation under CLM Act not required	-32.71105203	151.500311
RUTHERFORD	Shell Coles Express Service Station Rutherford	118 New England HIGHWAY	Service Station	Regulation under CLM Act not required	-32.7208703	151.5394595
RUTHERFORD	Transpacific Industrial Services/Nationwide Oil Pty Ltd	99 Kyle STREET	Chemical Industry	Regulation under CLM Act not required	-32.71262159	151.5013865
RYDALMERE	BP Service Station	265 Victoria ROAD	Service Station	Regulation under CLM Act not required	-33.8109483	151.0328101
RYDALMERE	Caltex Service Station	309 Victoria ROAD	Service Station	Regulation under CLM Act not required	-33.81196193	151.0371185
RYDALMERE	Hunter Douglas	Victoria ROAD	Chemical Industry	Regulation under CLM Act not required	-33.81009112	151.0384732
RYDALMERE	Mitsubishi Electric	348 Victoria ROAD	Other Industry	Contamination currently regulated under CLM Act	-33.81040138	151.0392812
RYDALMERE	Rheem Australia	1 Alan STREET	Other Industry	Contamination formerly regulated under the CLM Act	-33.81545013	151.0295476
RYDALMERE	United Petroleum (former 7-Eleven) Service Station Rydalmere	262-272 Victoria ROAD	Service Station	Regulation under CLM Act not required	-33.81006724	151.032377
RYDE	7-Eleven (former Mobil) Service Station	326-328 Blaxland ROAD	Service Station	Regulation under CLM Act not required	-33.80242183	151.1004278
RYDE	Caltex Service Station	110 Lane Cove ROAD	Service Station	Regulation under CLM Act not required	-33.80142973	151.1137925

Suburb	SiteName	Address	ContaminationActivityType	ManagementClass	Latitude	Longitude
RYDE	Ryde Bus Depot	51 - 75 Buffalo ROAD	Other Petroleum	Regulation under CLM Act not required	-33.81679771	151.1225255
RYDE	Shell Coles Express Ryde	45 Lane Cove ROAD	Service Station	Regulation under CLM Act not required	-33.80726028	151.109981
SANCTUARY POINT	United Service Station, Sanctuary Point	147 Larmer AVENUE	Service Station	Regulation under CLM Act not required	-35.09918861	150.6329537
SANDGATE	Caltex Service Station Sandgate	162 Maitland ROAD	Service Station	Regulation under CLM Act not required	-32.86501596	151.706161
SANDGATE	North Limited Storage Handling facility	Maitland ROAD	Other Industry	Contamination formerly regulated under the CLM Act	-32.86598453	151.7012866
SANS SOUCI	7-Eleven (Former Mobil) Service Station	474 Rocky Point ROAD	Service Station	Regulation under CLM Act not required	-33.99088939	151.1333779
SANS SOUCI	BP Sans Souci	520 Rocky Point ROAD	Service Station	Contamination currently regulated under CLM Act	-33.99245122	151.1323571
SANS SOUCI	Former 7-Eleven Ramsgate	368 Rocky Point ROAD	Service Station	Contamination formerly regulated under the CLM Act	-33.98615125	151.1359961
SANS SOUCI	Former Service Station	542-544 Rocky Point ROAD	Service Station	Contamination was addressed via the planning process (EP&A Act)	-33.99376148	151.1316131
SANS SOUCI	Kendall Street Reserve	Lawson Street and Kendall STREET	Landfill	Regulation under CLM Act not required	-33.99966431	151.13005
SCHOFIELDS	Reserve 478, Grange Avenue, Schofields	Reserve 478, Grange AVENUE	Landfill	Regulation under CLM Act not required	-33.70228736	150.8518591
SCONE	BP - Former Depot	Scone St, Guernsey St & Susan STREET	Service Station	Contamination formerly regulated under the CLM Act	-32.04599284	150.8662046
SCONE	BP Scone	26 Kelly STREET	Service Station	Regulation under CLM Act not required	-32.04033034	150.86549
SCONE	BP Scone Service Station	58 Kelly STREET	Service Station	Contamination currently regulated under CLM Act	-32.0437827	150.8662754
SCONE	Mobil Scone Airport Elt	8 Walter Pye AVENUE	Other Petroleum	Regulation under CLM Act not required	-32.03596733	150.8323698

Number	Name	Location	Type	Status	Issued date
6361	A.C.N. 098 953 336 PTY LTD	34 WELLINGTON STREET, RIVERSTONE, NSW 2765	POEO licence	Surrendered	9-Jun-00
1015255	A.C.N. 098 953 336 PTY LTD	34 WELLINGTON STREET, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	2-May-02
1017861	A.C.N. 098 953 336 PTY LTD	34 WELLINGTON STREET, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	30-Aug-02
1037188	A.C.N. 098 953 336 PTY LTD	34 WELLINGTON STREET, RIVERSTONE, NSW 2765	s.80 Surrender of a Licence	Issued	20-May-04
1100	A.J. BUSH & SONS (MANUFACTURES) PTY LTD	WINDSOR ROAD, RIVERSTONE, NSW 2765	POEO licence	Issued	9-Oct-00
1011896	A.J. BUSH & SONS (MANUFACTURES) PTY LTD	WINDSOR ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	6-May-02
1020686	A.J. BUSH & SONS (MANUFACTURES) PTY LTD	WINDSOR ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	21-May-03
1095658	A.J. BUSH & SONS (MANUFACTURES) PTY LTD	WINDSOR ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	12-Dec-08
1118850	A.J. BUSH & SONS (MANUFACTURES) PTY LTD	WINDSOR ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	2-Sep-10
1524627	A.J. BUSH & SONS (MANUFACTURES) PTY LTD	WINDSOR ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	13-Oct-14
1573186	A.J. BUSH & SONS (MANUFACTURES) PTY LTD	WINDSOR ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	15-Feb-19
1584834	A.J. BUSH & SONS (MANUFACTURES) PTY LTD	WINDSOR ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	31-Jan-20
1599082	A.J. BUSH & SONS (MANUFACTURES) PTY LTD	WINDSOR ROAD, RIVERSTONE, NSW 2765	Compliance Audit	Complete	21-Aug-20
1604174	A.J. BUSH & SONS (MANUFACTURES) PTY LTD	WINDSOR ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	20-Jan-21
3173530288	A.J. BUSH & SONS (MANUFACTURES) PTY LTD	WINDSOR ROAD, RIVERSTONE, NSW 2765	Penalty Notice	Issued	18-May-21
1613024	A.J. BUSH & SONS (MANUFACTURES) PTY LTD	WINDSOR ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	20-Oct-21
1619490	A.J. BUSH & SONS (MANUFACTURES) PTY LTD	WINDSOR ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	16-Aug-22
3504394	A.J. BUSH & SONS (MANUFACTURES) PTY LTD	WINDSOR ROAD, RIVERSTONE, NSW 2765	s.91 Clean Up Notice	Issued	19-Dec-22
1623211	A.J. BUSH & SONS (MANUFACTURES) PTY LTD	WINDSOR ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	10-Mar-23
2550	AUSCOL PTY LTD	148 RIVERSTONE PDE, RIVERSTONE, NSW 2765	POEO licence	Issued	13-Jun-00
1027280	AUSCOL PTY LTD	148 RIVERSTONE PDE, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	30-May-03
1050914	AUSCOL PTY LTD	148 RIVERSTONE PDE, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	1-Sep-05
1095910	AUSCOL PTY LTD	148 RIVERSTONE PDE, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	30-Jan-09
1519688	AUSCOL PTY LTD	148 RIVERSTONE PDE, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	30-Jan-14
1596507	AUSCOL PTY LTD	148 RIVERSTONE PDE, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	25-Jun-20
21421	AUSTIP RECYCLING PTY LTD	48-52 EDWARD STREET, RIVERSTONE, NSW 2765	POEO licence	Issued	18-Sep-20
13102	AUSTRALIAN ECO OILS PTY LIMITED	55 Princes Street, RIVERSTONE, NSW 2765	POEO licence	Issued	12-Jun-09
1532669	AUSTRALIAN ECO OILS PTY LIMITED	55 Princes Street, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	4-Aug-15
1575392	AUSTRALIAN ECO OILS PTY LIMITED	55 Princes Street, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	5-Jul-19
1597039	AUSTRALIAN ECO OILS PTY LIMITED	55 Princes Street, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	13-Oct-20
1604500	AUSTRALIAN ECO OILS PTY LIMITED	55 Princes Street, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	17-Feb-21
4926	AUSTRALIAN WATER TECHNOLOGIES PTY LTD	BANDON ROAD, RIVERSTONE, NSW 2765	POEO licence	Surrendered	24-Jul-00
1001542	AUSTRALIAN WATER TECHNOLOGIES PTY LTD	BANDON ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	19-Sep-00
1014390	AUSTRALIAN WATER TECHNOLOGIES PTY LTD	BANDON ROAD, RIVERSTONE, NSW 2765	s.80 Surrender of a Licence	Issued	18-Jan-02
1511523	AXALTA COATING SYSTEMS AUSTRALIA PTY LTD	13 MELBOURNE ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	16-Apr-13
1532057	AXALTA COATING SYSTEMS AUSTRALIA PTY LTD	13 MELBOURNE ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	1-Sep-15
10989	BETTER DRUMS PTY LTD	3/11 EDWARD STREET, RIVERSTONE, NSW 2765	POEO licence	Surrendered	15-Nov-00
1021908	BETTER DRUMS PTY LTD	3/11 EDWARD STREET, RIVERSTONE, NSW 2765	s.91 Clean Up Notice	Issued	1-Nov-02

1035785	BETTER DRUMS PTY LTD	3/11 EDWARD STREET, RIVERSTONE, NSW 2765	s.80 Surrender of a Licence	Issued	30-Mar-04
1664	BLACKTOWN CITY COUNCIL	GARFIELD ROAD EAST, RIVERSTONE, NSW 2765	POEO licence	Surrendered	26-Jun-00
1010319	BLACKTOWN CITY COUNCIL	GARFIELD ROAD EAST, RIVERSTONE, NSW 2765	s.80 Surrender of a Licence	Issued	3-Aug-01
1632122	CLEANAWAY OPERATIONS PTY LTD	55 Princes Street, RIVERSTONE, NSW 2765	s.55 Licence Transfer	Pending	18-Aug-23
1041409	CONNIE HOLLOWAY	132 BURFITT ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	20-Oct-04
1042040	CONNIE HOLLOWAY	132 BURFITT ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	17-Nov-04
1096075	CONNIE HOLLOWAY	132 BURFITT ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	21-Jan-09
1107104	CONNIE HOLLOWAY	132 BURFITT ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	8-Feb-10
1522844	CONNIE HOLLOWAY	132 BURFITT ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	18-Jun-14
1578031	DAITAHMOR PTY LTD	157 Crown Street, RIVERSTONE, NSW 2765	s.91 Clean Up Notice	Issued	23-May-19
1582267	DAITAHMOR PTY LTD	157 Crown Street, RIVERSTONE, NSW 2765	s.110 Variation of Clean Up Notice	Issued	3-Oct-19
1587236	DAITAHMOR PTY LTD	157 Crown Street, RIVERSTONE, NSW 2765	s.110 Variation of Clean Up Notice	Issued	22-Oct-19
1588790	DAITAHMOR PTY LTD	157 Crown Street, RIVERSTONE, NSW 2765	s.91 Clean Up Notice	Issued	5-Feb-20
5726	DINGA ENTERPRISES PTY LIMITED	UNIT 4/29-31 HOBART STREET, RIVERSTONE, NSW 2765	POEO licence	Surrendered	15-Aug-00
1018797	DINGA ENTERPRISES PTY LIMITED	UNIT 4/29-31 HOBART STREET, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	9-Dec-02
1097582	DINGA ENTERPRISES PTY LIMITED	UNIT 4/29-31 HOBART STREET, RIVERSTONE, NSW 2765	s.80 Surrender of a Licence	Issued	16-Apr-09
1093178	DU PONT (AUSTRALIA) PTY LTD	13 MELBOURNE ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	14-May-09
1107106	DU PONT (AUSTRALIA) PTY LTD	13 MELBOURNE ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	11-Feb-10
1117669	DU PONT (AUSTRALIA) PTY LTD	13 MELBOURNE ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	13-Sep-10
1122844	DU PONT (AUSTRALIA) PTY LTD	13 MELBOURNE ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	16-Feb-11
1126655	DU PONT (AUSTRALIA) PTY LTD	13 MELBOURNE ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	6-Apr-11
1130372	DU PONT (AUSTRALIA) PTY LTD	13 MELBOURNE ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	11-Jul-11
1502787	DU PONT (AUSTRALIA) PTY LTD	13 MELBOURNE ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	5-Dec-11
1005172	DU PONT PERFORMANCE COATINGS PTY LIMITED	13 MELBOURNE ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	21-Mar-01
1049736	DU PONT PERFORMANCE COATINGS PTY LIMITED	13 MELBOURNE ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	13-Jul-05
11620	GREENWASTE ONLY PTY LTD	132 BURFITT ROAD, RIVERSTONE, NSW 2765	POEO licence	Issued	14-Mar-02
1534351	GREENWASTE ONLY PTY LTD	132 BURFITT ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	28-Jan-16
1628341	GREENWASTE ONLY PTY LTD	132 BURFITT ROAD, RIVERSTONE, NSW 2765	Compliance Audit	Complete	19-Apr-23
1217	HANSON CONSTRUCTION MATERIALS PTY LTD	LOT 48 MELBOURNE ROAD, RIVERSTONE, NSW 2765	POEO licence	No longer in force	1-May-00
2701	HYMIX AUSTRALIA PTY LIMITED	55 MELBOURNE ROAD, RIVERSTONE, NSW 2765	POEO licence	No longer in force	21-Mar-00
1007047	HYMIX AUSTRALIA PTY LIMITED	55 MELBOURNE ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	9-Jun-01
1079609	HYMIX AUSTRALIA PTY LIMITED	55 MELBOURNE ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	30-Oct-07
3085767731	J. T. K. HAULAGE PTY LTD	The Avenue, RIVERSTONE, NSW 2765	Penalty Notice	Issued	31-Jan-13
1032742	J.M.TYRE RECYCLING PTY LTD	81 RIVERSTONE PARADE, RIVERSTONE, NSW 2765	s.55 Licence Refusal	Issued	26-Nov-03
1575045	MICHAEL RODNEY	97 The Avenue, RIVERSTONE, NSW 2765	s.91 Clean Up Notice	Issued	19-Aug-19
6070	OMEGA INDUSTRIES PTY LTD	13 MELBOURNE ROAD, RIVERSTONE, NSW 2765	POEO licence	Issued	11-May-00
1571770	OMEGA INDUSTRIES PTY LTD	13 MELBOURNE ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	1-Nov-18
1585675	OMEGA INDUSTRIES PTY LTD	13 MELBOURNE ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	6-Nov-19
1613590	OMEGA INDUSTRIES PTY LTD	13 MELBOURNE ROAD, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	7-Jun-22

5625	ROADMASTER HAULAGE PTY LTD	81 RIVERSTONE PARADE, RIVERSTONE, NSW 2765	POEO licence	Surrendered	23-Oct-00
1018796	ROADMASTER HAULAGE PTY LTD	81 RIVERSTONE PARADE, RIVERSTONE, NSW 2765	s.80 Surrender of a Licence	Issued	3-Jul-02
11949	SYDNEYWIDE ENVIRONMENTAL SERVICES PTY LTD	40 Edward Street, RIVERSTONE, NSW 2765	POEO licence	Issued	23-Jun-04
1072596	SYDNEYWIDE ENVIRONMENTAL SERVICES PTY LTD	40 Edward Street, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	15-May-07
1093498	SYDNEYWIDE ENVIRONMENTAL SERVICES PTY LTD	40 Edward Street, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	30-Dec-08
1096756	SYDNEYWIDE ENVIRONMENTAL SERVICES PTY LTD	40 Edward Street, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	16-Jan-09
1108622	SYDNEYWIDE ENVIRONMENTAL SERVICES PTY LTD	40 Edward Street, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	15-Jan-10
1532886	SYDNEYWIDE ENVIRONMENTAL SERVICES PTY LTD	40 Edward Street, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	12-Aug-15
1604475	SYDNEYWIDE ENVIRONMENTAL SERVICES PTY LTD	40 Edward Street, RIVERSTONE, NSW 2765	s.58 Licence Variation	Issued	16-Feb-21
1609930	SYDNEYWIDE ENVIRONMENTAL SERVICES PTY LTD	40 Edward Street, RIVERSTONE, NSW 2765	Compliance Audit	Complete	22-Jun-21



Appendix C

HISTORICAL LAND TITLE RECORDS



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

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

Summary of Owners Report

Re: - Hobart Street, Riverstone

Description: - Parts of Hobart Street tinted blue and yellow on the attached Cadastral Records Enquiry Report

<u>Date of Acquisition and term held</u>	<u>Registered Proprietor(s) & Occupations where available</u>	<u>Reference to Title at Acquisition and sale</u>
	<u>As regards the whole of the subject land</u>	
02.09.1922 (1922 to 1956)	Jack Gunton (Laborer)	Volume 678 Folio 116
11.10.1956 (1956 to 1980)	Eric Raymond Gunton (Labourer) (Section 94 Application not investigated)	Volume 678 Folio 116 Now Volume 11953 Folio 3
03.09.1980	Council of the City of Blacktown	Volume 11953 Folio 3
	<u>Continued as regards the part of Hobart Street tinted yellow</u>	
03.09.1980 (1980 to Date)	# Council of the City of Blacktown	Volume 11953 Folio 3
13.07.1983	Registration of D.P. 633300 Now Council Public Road pursuant to the Local Government Act of 1919	Current Title Residue remaining in Volume 11953 Folio 3
	<u>Continued as regards the part of Hobart Street tinted blue</u>	
03.09.1980 (1980 to Date)	Council of the City of Blacktown	Volume 11953 Folio 3 Then Volume 15091 Folio 79 Now 11/633300
07.06.1993	Registration of D.P. 830554 Now Council Public Road pursuant to the Local Government Act of 1993	Current Title Residue remaining in Cancelled Folio Identifier 11/633300

Denotes current registered proprietor

Leases: - NIL

Easements: - NIL

- It is noted that the part of Hobart Street to the south east of the subject lands has been set aside as road prior to 1883.

Yours Sincerely
Mark Groll
9 August 2023

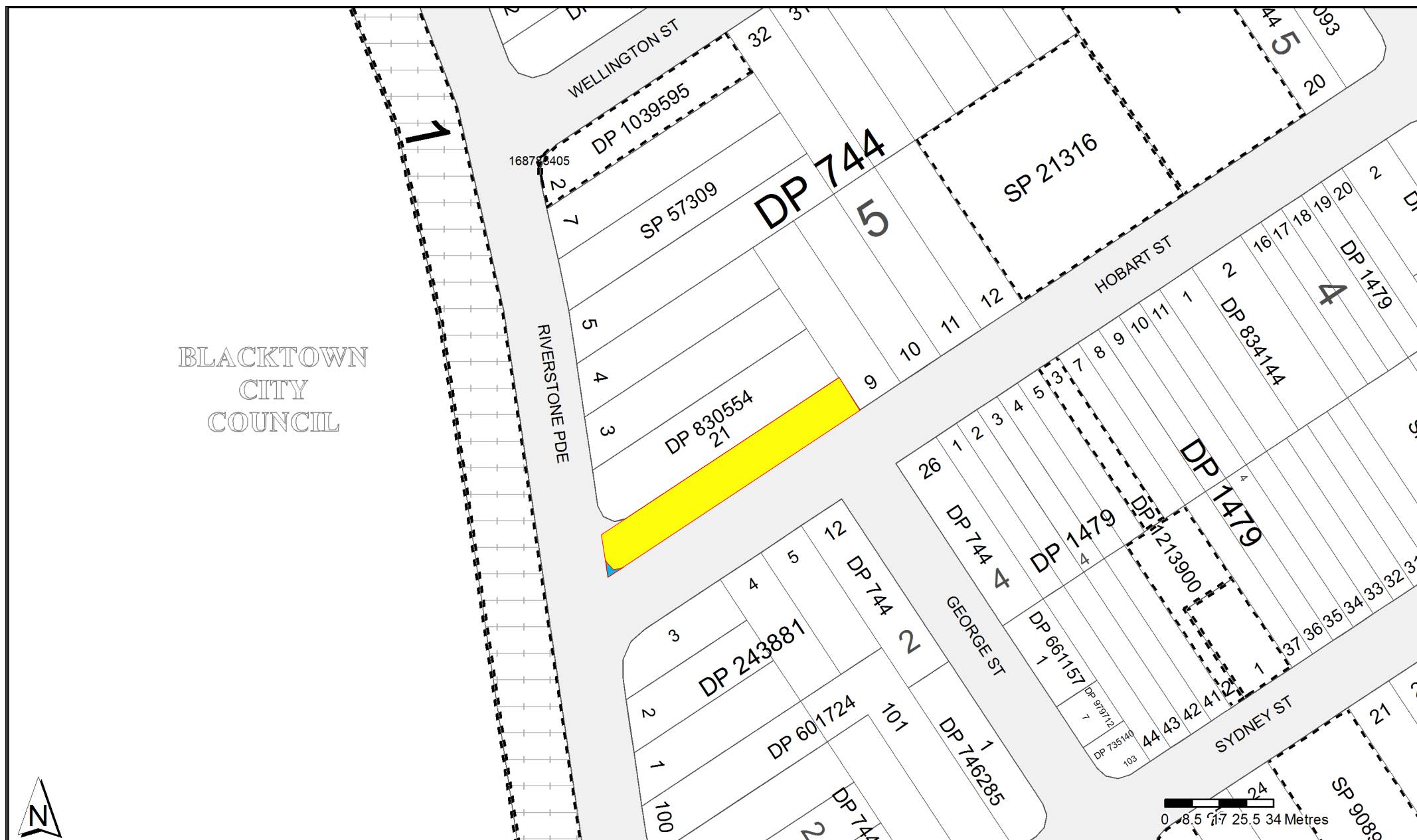
Cadastral Records Enquiry Report : Lot 21 DP 830554

Locality : RIVERSTONE

LGA : BLACKTOWN

Parish : ST MATTHEW

County : CUMBERLAND



BLACKTOWN
CITY
COUNCIL



CERTIFICATE OF TITLE



11953003

NEW SOUTH WALES

PROPERTY ACT, 1900

Appln. No. 515

Prior Title Vol. 678 Fol. 116



Vol. **11953** Fol. **3**

Edition issued 16-10-1972

M869387

~~CANCELLED~~

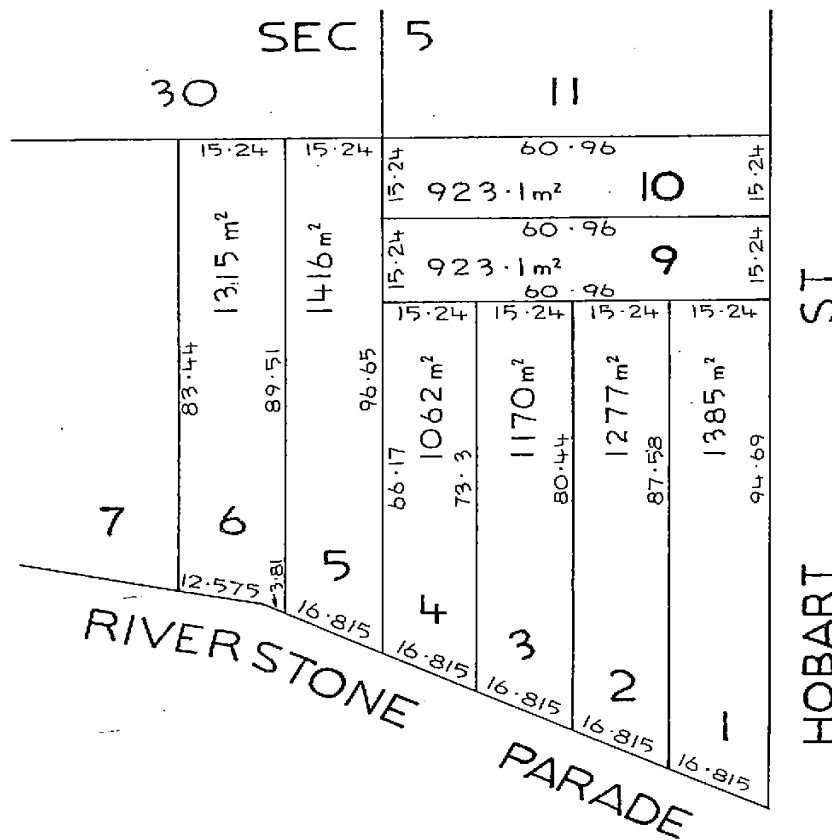
I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such exceptions encumbrances and interests as are shown in the Second Schedule.

Jawatson
Registrar General.



PLAN SHOWING LOCATION OF LAND

LENGTHS ARE IN METRES



M869387 *lo*
RE

REDUCTION RATIO 1 : 1000

ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot **1** of Section 5 in Deposited Plan 744 in the Municipality of Blacktown Parish of St. Matthew and County of Cumberland being part of Portion 95 granted to Maurice Charles O'Connell on 7-5-1810.

FIRST SCHEDULE

~~ERIC RAYMOND GUNTON, of Riverstone, Labourer.~~

SECOND SCHEDULE

1. Reservations and conditions, if any, contained in the Crown Grant above referred to.
2. ~~Caveat No. G584245 by the Registrar General. Entered 10-1956. Withdrawn S9859~~

Jawatson
Registrar General.

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

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

PLAN FORM 1

WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION

*OFFICE USE ONLY

Council Clerk's Certificate	Surveyor's Certificate	PLAN OF SUDVISION OF LOT 1 SEC. 5 D.P. 744.
<p>I hereby certify that -</p> <p>(a) the requirements of the Local Government Act, 1919 (other than the requirements for the registration of plans), and</p> <p>(b) the requirements of section 34B of the Metropolitan Water, Sewerage, and Drainage Act, 1924, as amended, (Hunter District Water, Sewerage, and Drainage Act, 1928, as amended)</p> <p>have been complied with by the applicant in relation to the proposed <u>SUBDIVISION</u> (insert "new road", "subdivision" or "consolidated lot") set out herein</p> <p>Subdivision No. <u>6615</u></p> <p>Date <u>31-5-1983</u></p> <p>(Signature) <u>[Signature]</u> Council Clerk</p> <p>*This part of certificate to be deleted where the application is only for a consolidated lot or the opening of a new road or where the land to be subdivided is wholly outside the area of operations of the Metropolitan Water Sewerage and Drainage Board and the Hunter District Water Board.</p> <p>Delete if inapplicable.</p> <p>Consent 2466 - 30/5/83 153/632/2</p>	<p>BRIAN PATRICK O'ROURKE</p> <p>of BLACKTOWN CITY COUNCIL</p> <p>Surveyor registered under the Surveyors Act, 1929, as amended, hereby certify that the survey represented in this plan</p> <p>is accurate and has been made (1) by me (2) under my immediate supervision in accordance with the Survey Practice Regulations, 1932, and was completed on <u>10.5.82</u></p> <p>Signature <u>[Signature]</u></p> <p>Surveyor registered under Surveyors Act, 1929, as amended.</p> <p>Datum Line of Azimuth.</p> <p>*Strike out either (1) or (2). Insert date of survey.</p>	<p>D.P. 633300</p> <p>Registered: <u>[Stamp]</u> 13-7-1983 86</p> <p>CA: No. 6615 OF 31-5-1983</p> <p>Title System: TORRENS</p> <p>Purpose: SUBDIVISION</p> <p>Ref. Map: U 8267-2 *</p> <p>Last Plan: D.P. 744</p> <p>Mun/Shire: City: BLACKTOWN Locality: RIVERSTONE</p> <p>Parish: St. MATTHEW County: CUMBERLAND</p> <p>Reduction Ratio 1:500 Lengths are in metres</p> <p>(M)</p>
<p>Signatures, seals and statements of intention to dedicate public roads or to create public reserves, drainage reserves, easements or restrictions as to user.</p> <p>IT IS INTENDED TO DEDICATE THE LAND MARKED 'ROAD WIDENING' TO THE PUBLIC AS ROAD.</p> <p>THE COMMON SEAL OF THE COUNCIL OF THE CITY OF BLACKTOWN WAS HERETO AFFIXED THIS 1ST DAY OF JUNE, 1983, PURSUANT TO A RESOLUTION OF COUNCIL DATED 5TH NOVEMBER, 1980, MIN N^o 36</p> <p><u>[Signature]</u> MAYOR</p> <p><u>[Signature]</u> TOWN CLERK</p>		<p>D.P. 744</p> <p>SEC. 5</p> <p>1367 m²</p> <p>85.545</p> <p>228° 15'</p> <p>15° 24'</p> <p>138° 15'</p> <p>48° 15'</p> <p>87.58</p> <p>RIVERSTONE PDE.</p> <p>2</p> <p>11</p> <p>HOBART STREET</p> <p>⊗ ROAD WIDENING</p> <p>① 247° 25' 50" 3.825</p> <p>② 285° 47' 30" 3.825</p> <p>③ 324° 09' 10" 3.825</p> <p>D.P. 633300 M.M.</p>

M.P.D. SURVEYOR'S REFERENCE S.R. 1082

Plan Drawing only to appear in this space

<p>I, Bruce Richard Davies, Under Secretary for Lands and Registrar General for New South Wales, certify that this negative is a photograph made as a permanent record of a document in my custody this day.</p> <p><u>[Signature]</u></p> <p>15th July, 1983</p>	
<p>Table of mm</p> <p>10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170</p>	



CERTIFICATE OF TITLE

PROPERTY ACT, 1900



15091079

NEW SOUTH WALES

First Title : Old System

Prior Title : Vol.11953 Fol.3



Vol. **15091** Fol. **79**
EDITION
ISSUED **21 7 1983**

I certify that the person named in the First Schedule is the registered proprietor of an estate in fee simple (or such other estate or interest as is set out below) in the land described subject to the recordings appearing in the Second Schedule and to the provisions of the Real Property Act, 1900.

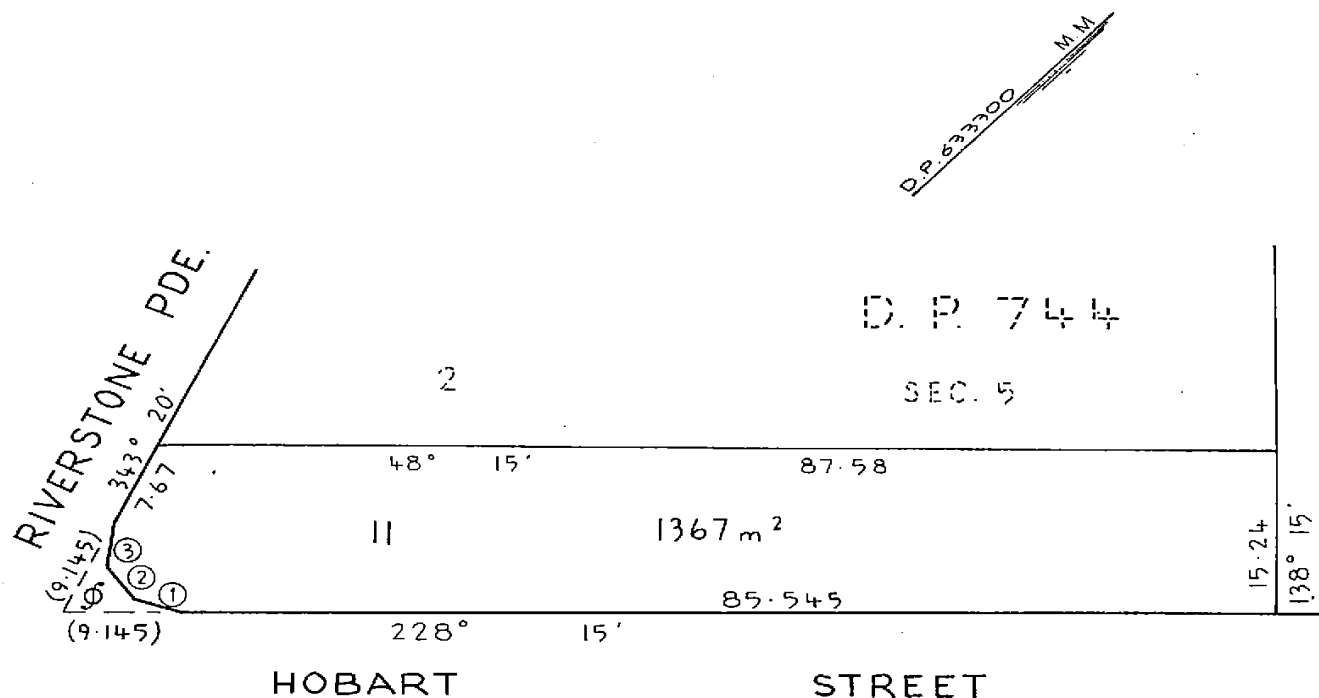
CANCELLED

Registrar General.



PLAN SHOWING LOCATION OF LAND

LENGTHS ARE IN METRES



⊘ ROAD WIDENING

- | | | |
|---|--------------|-------|
| ① | 247° 25' 50" | 3.825 |
| ② | 285° 47' 30" | 3.825 |
| ③ | 324° 09' 10" | 3.825 |

S

LAND REFERRED TO

Lot 11 in Deposited Plan 633300 at Riverstone in the City of Blacktown Parish of St. Matthew and County of Cumberland.

FIRST SCHEDULE

THE COUNCIL OF THE CITY OF BLACKTOWN.

GRY

SECOND SCHEDULE

1. Reservations and conditions contained in the Crown Grant.

PERSONS ARE CAUTIONED AGAINST ALTERING OR ADDING TO THIS CERTIFICATE OR ANY NOTIFICATION HEREON
(Page 1) Vol. 15091 Fol. 79

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

FIRST SCHEDULE (continued)		
REGISTERED PROPRIETOR		Registrar General
<div>CANCELLED</div> <div>SEE AUTO FOLIO</div>		
SECOND SCHEDULE (continued)		
PARTICULARS	Registrar General	CANCELLATION
NOTATIONS AND UNREGISTERED DEALINGS		



SEARCH DATE

9/8/2023 11:33PM

FOLIO: 11/633300

First Title(s): SEE PRIOR TITLE(S)

Prior Title(s): VOL 15091 FOL 79

Recorded -----	Number -----	Type of Instrument -----	C.T. Issue -----
28/3/1988		TITLE AUTOMATION PROJECT	LOT RECORDED FOLIO NOT CREATED
22/9/1988		CONVERTED TO COMPUTER FOLIO	FOLIO CREATED CT NOT ISSUED
7/6/1993	DP830554	DEPOSITED PLAN	FOLIO CANCELLED RESIDUE REMAINS

*** END OF SEARCH ***

PLAN FORM 1

Plan Drawing only to appear in this space

OFFICE USE ONLY

SIGNATURES, SEALS AND STATEMENTS of intention to dedicate public roads or to create public reserves, drainage reserves, easements, restrictions on the use of land or positive covenants.

IT IS INTENDED TO DEDICATE THE LAND MARKED 'ROAD WIDENING' TO THE PUBLIC AS ROAD.

THE COMMON SEAL OF THE COUNCIL OF THE CITY OF BLACKTOWN WAS AFFIXED HERETO THIS 22nd DAY OF JANUARY, 1993, PURSUANT TO A RESOLUTION OF COUNCIL PASSED AT ITS ORDINARY MEETING DATED 27TH MARCH 1991.

[Signature]
MAYOR
[Signature]
TOWN CLERK

Crown Lands Office Approval

PLAN APPROVED
Authorised Officer
Land District
Paper No.
Field Book pages

Council Clerk's Certificate

I hereby certify that —
(a) the requirements of the Local Government Act, 1919 (other than the requirements for the registration of plans), and
(b) the requirements of Part 3 Division 2 of the Water Board Act 1987 and the Water Supply Authorities Act 1987

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

Subdivision No. 8336

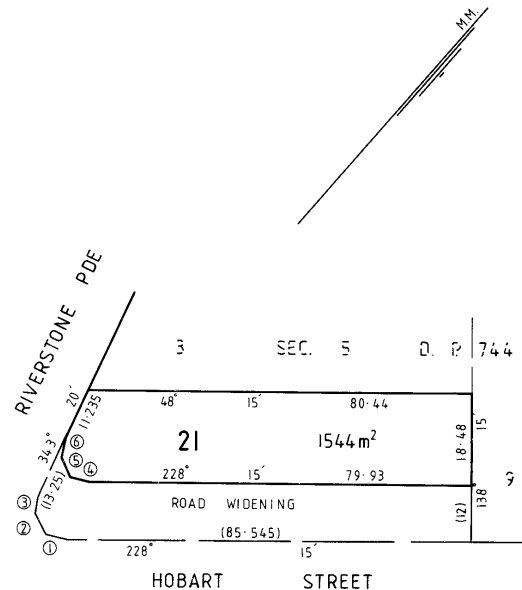
Date 22nd January 1993

(Signature) *[Signature]*
Council Clerk

Council File No. 114591

*This part of the certificate to be deleted where the application is only for a consolidated lot or the opening of a new road or where the land is to be subdivided is wholly outside the areas of operations of the Metropolitan Water Sewerage and Drainage Board and the Hunter District Water Board.

† Delete if inapplicable



Nº	BEARING	DIST.
①	247° 25' 50"	3-825
②	285° 47' 30"	3-825
③	324° 09' 10"	3-825
④	247° 25' 50"	3-825
⑤	285° 47' 30"	3-825
⑥	324° 09' 10"	3-825

10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 Table of mm

SURVEYOR'S REFERENCE: S.R. 8923

MPV

WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION

DP 830554

Registered: *[Signature]* 7-6-1993

C.A.: N^o 8336 OF 22-1-1993

Title System: TORRENS

Purpose: SUBDIVISION

Ref. Map: U 8267 2 #

Last Plan: DP 744, DP 633300

PLAN OF SUBDIVISION OF
LOT 11 IN D.P. 633300 &
LOT 2 OF SEC. 5 IN D.P. 744

Lengths are in metres. Reduction Ratio 1: 800

Mun./Shire-
City BLACKTOWN

Locality: RIVERSTONE

Parish: ST MATTHEW

County: CUMBERLAND

Plans used in preparation of survey/compilation.

D. P. 633300

D. P. 744

I, BRIAN PATRICK GOURKE
of BLACKTOWN CITY COUNCIL

a surveyor registered under the Surveyors Act, 1929, as amended, hereby certify that the survey represented in this

plan
is accurate and has been made in accordance with the Survey Practice Regulations, 1933 and any special requirements of the Department of Lands, and was completed on

..... 31-10-1989

Signature *[Signature]*
Surveyor registered under Surveyors Act, 1929, as amended.
Datum Line of Azimuth.
#Insert date of survey.

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

This negative is a photograph made as a permanent record of a document in the custody of the Registrar General this day. 10th June 1993





Appendix D

BUREAU OF METEOROLOGY

Climate statistics for Australian locations

Monthly climate statistics

All years of record

Site information

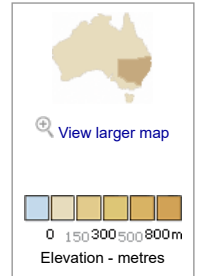
Site name: SEVEN HILLS (COLLINS ST)
Site number: 067026
Latitude: 33.77 °S **Longitude:** 150.93 °E
Elevation: 50 m
Commenced: 1950 **Status:** Open
Latest available data: 30 Jun 2023

Additional information

[Additional site information](#)

Nearest alternative sites

- 067019 PROSPECT RESERVOIR (5.7km)
- 066046 PARRAMATTA (8.1km)
- 066124 PARRAMATTA NORTH (MASONS DRIVE) (8.3km)



  **View:** ☒ Main statistics ☐ All available

 **Period:** Use all years of data ▼

  **Text size:** ☒ Normal ☐ Large

Statistics	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual	Years
Temperature														
Mean maximum temperature (°C)	28.3	27.7	27.0	24.1	20.0	17.5	17.4	18.6	21.4	23.8	26.3	28.4	23.4	18 1950 1975
Mean minimum temperature (°C)	16.7	17.0	15.7	12.3	8.3	6.3	4.5	5.9	7.9	11.0	12.9	15.3	11.2	18 1950 1975
Rainfall														
Mean rainfall (mm)	103.6	118.0	116.8	75.0	64.7	78.0	47.3	54.0	47.3	71.8	81.2	72.2	933.4	70 1950 2023
Decile 5 (median) rainfall (mm)	82.2	94.4	89.8	54.3	39.4	49.4	31.2	31.0	37.2	52.0	72.4	60.6	913.3	70 1950 2023
Mean number of days of rain ≥ 1 mm	8.0	8.6	9.0	6.5	6.0	6.8	5.3	5.4	5.8	7.5	7.6	7.6	84.1	69 1950 2023
Other daily elements														
Mean daily sunshine (hours)														
Mean number of clear days														2 1969 1973
Mean number of cloudy days														2 1969 1973
9 am conditions														
Mean 9am temperature (°C)	22.5	22.3	20.7	17.7	13.4	10.6	9.7	12.1	15.3	18.4	20.2	22.1	17.1	11 1965 1975
Mean 9am relative humidity (%)														
Mean 9am wind speed (km/h)	5.1	5.0	5.6	4.2	4.4	5.5	5.5	5.6	5.9	6.0	6.0	5.2	5.3	10 1965 1975
3 pm conditions														
Mean 3pm temperature (°C)														2 1969 1973
Mean 3pm relative humidity (%)														
Mean 3pm wind speed (km/h)														1 1969 1973

red = highest value blue = lowest value

Product IDCJCM0028 Prepared at Thu 17 Aug 2023 04:22:41 AM AEST

Monthly statistics are only included if there are more than 10 years of data. The number of years (provided in the 2nd last column of the table) may differ between elements if the observing program at the site changed. More detailed data for individual sites can be obtained by contacting the Bureau.

Related Links

- This page URL: http://www.bom.gov.au/climate/averages/tables/cw_067026.shtml
- About climate averages: <http://www.bom.gov.au/climate/cdo/about/about-stats.shtml>
- Bureau of Meteorology website: <http://www.bom.gov.au>

Page created: Thu 17 Aug 2023 04:22:41 AM AEST

This page was created at on

Located across Australia and New Zealand

QLD

Airlie
Beenleigh
Brisbane (Acacia Ridge)
Brisbane (Beenleigh)
Brisbane (Brendale)
Brisbane (Petrie)
Cairns
Emerald
Gladstone
Gold Coast
Mackay
Moranbah
Rockhampton
Petrie
Sunshine Coast
Toowoomba
Townsville

NSW

Ballina
Coffs Harbour
Grafton
Lynwood
Newcastle
Sydney (Glendenning)
Sydney (St Peters)
Taree
Wollongong

VIC

Ararat
Bendigo
Echuca
Melbourne (Chadstone)
Melbourne (Keysborough)
Melbourne (Pakenham)
Melbourne (Oaklands Junction)
Melbourne (Sunshine West)
Traralgon

WA

Bunbury
Kalgoorlie
Newman
Perth
Port Hedland

SA

Adelaide
Port Augusta

NT

Darwin

ACT

Canberra

NZ

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