



**DETAILED SITE INVESTIGATION:
46 TENNYSON STREET, ELWOOD, VIC**

Prepared for:

*City of Port Phillip
99a Carlisle Street
St Kilda, VIC 3182*

*Project Ref: 2048 CoPP-Elwood
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MEMBER: Australian
Contaminated Land
Consultants Association

56 William Street, ABBOTSFORD, VIC. 3067
Phone: (03) 9429 6955 | Web: <https://atmaenvironmental.com>



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46 Tennyson Street, Elwood, VIC 3184


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PROJECT MANAGER:



Michael Condon
Senior Environmental Scientist

REVIEWED/APPROVED BY:



Rory McPhillips, CEnvP SC,
Principal Environmental Scientist

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56 William Street, Abbotsford, VIC. 3067
Telephone: (03) 9429 6955 | Web: www.atmaenvironmental.com

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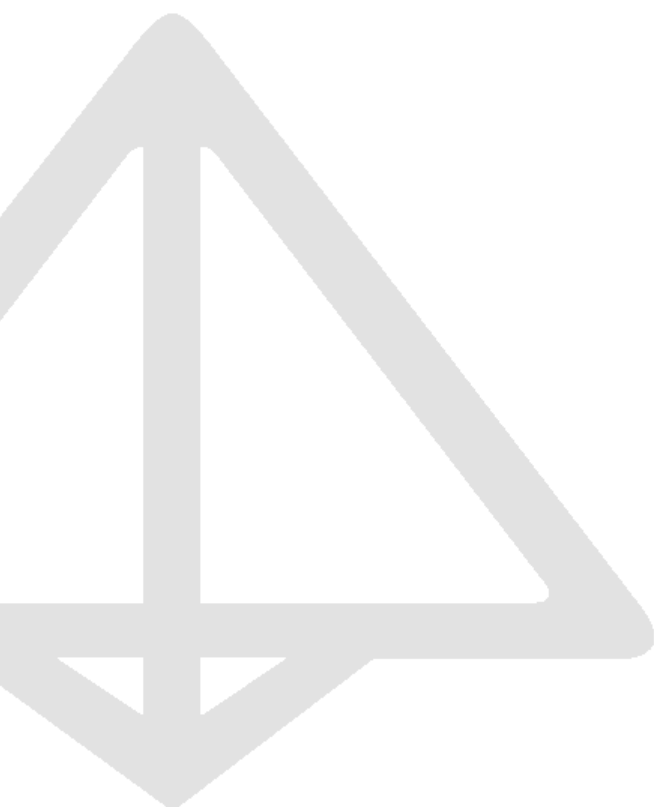
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Acronyms & Units

ABC	Ambient Background Concentration	meq	Milliequivalents
ACL	Added Contaminant Limits	mg	Milligram
ACM	Asbestos Containing Materials	mg/kg	Milligram per Kilogram
ADWG	Australian Drinking Water Guidelines	mg/L	Milligram per Litre
agl	Above Ground Level	mg/m³	Milligram per cubic meter
AHD	Australian Height Datum	MGA	Map Grid of Australia
ANZECC	Australian and New Zealand Environment Conservation Council	mm	Millimetre
ARMC	Agriculture and Resource Management Council	MMBW	Melbourne Metropolitan Board of Works
ANZ	of Australia and New Zealand	MW	Monitoring well
AS	Australian Standard	N	Nitrogen
ASLP	Australian Standard Leaching Procedure		

ASS	Acid Sulphate Soil	N/A	Not Applicable
AST	Aboveground Storage Tank	NAPL	Non-Aqueous Phase Liquid
B(a)P	Benzo(a)Pyrene	NATA	National Association of Testing Authorities
bgl	Below ground level	ND	Non-Detectable
BH	Borehole	NDD	Non-Destructive Digging
BPEM	Best Practice Environmental Management Siting, Design, Operation and Rehabilitation of Landfills	NEPC	National Environment Protection Council
BTEX	Benzene, toluene, ethylbenzene, xylenes	NEPM	National Environment Protection Measure
BTEXN	Benzene, toluene, ethylbenzene, xylenes, naphthalene	NHMRC	National Health and Medical Research Council
btoc	Below top of casing	OCF	Organochlorine Pesticides
CCME	Canadian Council of Ministers for the Environment	OPP	Organophosphate Pesticides
CEC	Cation Exchange Capacity	PAH	Polycyclic Aromatic Hydrocarbon
CHC	Chlorinated Hydrocarbons	PAN	Pollution Abatement Notice
COC	Chain of Custody	PASS	Potential Acid Sulphate Soil
COPC	Contaminant of Potential Concern	PCB	Polychlorinated Biphenyls
CRC	Cooperative Research Centre for Contamination	PCE	Tetrachloroethylene
CARE	Assessment and Remediation of the Environment	PCPAN	Post Closure Pollution Abatement Notice
CSM	Conceptual Site Model	PESA	Preliminary Environmental Site Assessment
CUN	Clean up Notice	pH	Potential Hydrogen
CUTEP	Clean up to the Extent Practicable	PID	Photo-ionisation Detector
DELWP	Department of Environment, Land, Water and Planning	PIW	Prescribed Industrial Waste
DNAPL	Dense Non-Aqueous Phase Liquid	ppm	Parts per million
DO	Dissolved Oxygen	PSI	Preliminary Site Investigation
DQO	Data Quality Objectives	PSR	Priority Sites Register
DSE	Department of Sustainability and Environment	QA/QC	Quality Assurance / Quality Control
DSI	Detailed Site Investigation	RL	Reduced Level
EC	Electrical Conductivity	RPD	Relative Percentage Difference
EIL	Ecological Investigation Level	SAQP	Sampling, Analysis & Quality Plan
EMP	Environmental Management Plan	SCMP	Site Contamination Management Plan
EPA	Environment Protection Authority	SEPP	State Environment Protection Policy.
ESA	Environmental Site Assessment	SRW	Southern Rural Water
ESL	Ecological Screening Level	SVOC	Semi-Volatile Organic Compounds
GIL	Groundwater Investigation Levels	SWL	Static Water Level
GME	Groundwater Monitoring Event	TCE	Trichloroethylene
GQRUZ	Groundwater Quality Restricted Use Zone	TDS	Total Dissolved Solids
GSV	Gas Screening Value	TEQ	Toxic Equivalence Quotient
GW	Groundwater	TIT	Triple Intercept Trap
Ha	Hectares	TOC	Top of Casing
HHRA	Human Health Risk Assessment	TP	Test Pit
HIL	Health Investigation Level	TPH	Total Petroleum Hydrocarbons
HSL	Health Screening Level	TRH	Total Recoverable Hydrocarbons
IWRG	Industrial Waste Resource Guidelines	UCL	Upper Confidence Limit
kg	Kilogram	µg/m³	Micrograms per cubic meter
km	Kilometre		

L	Litre	UPSS	Underground Petroleum Storage Systems
LFG	Landfill Gas	USEPA	United States Environmental Protection Agency
LNAPL	Light Non-Aqueous Phase Liquid	UST	Underground Storage Tank
LOR	Limit of Reporting	Vic	Victoria
m	Metre	VOC	Volatile Organic Compound
MAH	Monocyclic Aromatic Hydrocarbons	VVG	Visualising Victoria's Groundwater
mbgl	Metres Below Ground Level	WHO	World Health Organisation



EXECUTIVE SUMMARY

Atma Environmental was engaged to complete a Detailed Site Investigation (DSI) at 46 Tennyson Street, Elwood (~678 m²) to inform potential divestment of the site.

The objective was to provide sufficient information about site conditions to provide an understanding of:

- Thickness of fill on site, whether fill is suitable for the current site use, and likely landfill disposal category for fill in the event it's not suitable for use onsite, or if disposal is required for development.
- Likely disposal category for underlying natural soils.
- Likelihood of groundwater contamination from on/offsite sources.

The assessment included a review of physical site setting, planning, historical and environmental records, a site inspection and a programme of soil sampling at five borehole locations.

The site was formerly part of a larger parcel of land and estate named Evora, with the site located in the gardens area of this estate. Prior to this, the area was likely agricultural post European settlement. Evora was built in 1865 and was subdivided sometime in the late 19th and early 20th century. Since that time, the current dwelling onsite has remained, with minimal changes occurring over the years; the current childcare occupation commenced circa 1985. The surrounding land has also had a residential legacy and remains that way to this day.

The current childcare use and historic residential uses typically present a low potential for contamination. However, the potential presence of historically placed fill was identified as a potential source of contamination (as is common across urban Melbourne), with a lower potential for contamination also possible from potential onsite activities (such as lead-based paint use, termite treatment, demolition and general maintenance products).

The site is unlikely to be a source of groundwater contamination; the potential for groundwater pollution from off-site sources to migrate beneath the site is considered low to moderate, with the closest potential sources identified being a former dry cleaner (dating to 1970s), and former petrol station (dating to 1960s) located ~138 m and 154 m upgradient of the site respectively.

A layer of fill was found across the site, ranging in depth from 0.2 to 0.7 m. The fill was generally organic garden fill, with some clinker and brick observed at one location (BH05). The fill was underlain by natural sand and sandy clay.

Sample analysis confirmed the fill to be contaminated with polycyclic aromatic hydrocarbons, with lead and zinc additionally identified as contaminants of concern at location BH05. Elevated total recoverable hydrocarbons found at BH03 are considered likely to be attributable to non-petrogenic sources (given the silica-gel clean up analysis results, lack of odours, staining or elevated photoionisation detector results). The results are typical of historic fill material

generally found in urban Melbourne.

In the absence of a site-specific health risk assessment, the contaminant concentrations in the fill soil (namely polycyclic aromatic hydrocarbons and lead) should be considered to pose a *potential* risk to human receptors in residential and open space / recreational settings (but not commercial / industrial settings); however, the potential risks would only be realized in the event that receptors have uncontrolled and long-term access to the soil; therefore, the potential risks are considered easily manageable by restricting access to the fill soil (e.g. by covering with buildings, hardstand or a sufficient layer of other material so as to restrict uncontrolled soil access), or by removal.

With respect to off-site disposal of the fill domain (if required e.g. for development), it is considered likely that a larger dataset would allow categorisation of the fill domain as Category C Reportable Priority Waste (based on a 95% UCL average); however, the potential presence of small Category B hotspots should be conservatively assumed.

The natural soil was found to be uncontaminated. For off-site disposal (if required) it is considered likely that the natural soil would be categorised as Fill Material with naturally elevated arsenic (typical of the Brighton Group formation); however, we note that an EPA designation is now required in circumstances where results are being claimed as naturally occurring.

1 INTRODUCTION

The site at 46 Tennyson Street, Elwood, comprises approximately 678 m² of residential zoned land, currently used as the Elwood Children's Centre.

To establish site conditions prior to potential divestment, Atma Environmental was engaged by the City of Port Phillip (CoPP) to complete this detailed site investigation (DSI) for the site.

2 OBJECTIVES & SCOPE OF ASSESSMENT

2.1 Assessment Objective

The objective of this DSI was to provide sufficient information about site conditions to enable City of Port Phillip, and potentially, prospective buyers, to understand:

- Thickness of fill on site, whether fill is suitable for the current site use, and likely landfill disposal category for fill in the event it's not suitable for use onsite, or if disposal is required for development.
- Likely disposal category for underlying natural soils.
- Likelihood of groundwater contamination from on/offsite sources.

2.2 Scope of Work

The DSI comprised of the following scope of work:

- Documentation of the site history information, including review of previous environmental investigations, aerial photos, geology, hydrogeology, historical records, local and state government records, EPA records and other available desktop information;
- Review of surrounding environmental audits;
- Environmental site inspection by qualified environmental scientist;
- Soil sampling at five (5) unsealed locations via hand auger;
- Analysis of soil samples for the main contaminants of potential concern;
- Interpretation of soil analysis results;
- Assessment of the findings with respect to the protected beneficial uses of land; and
- Conclusions on the contamination status of the site and provision of recommendations for any further investigation, remediation or management as deemed necessary, based on the findings.

Physical site setting, planning, environmental records searches and historical aerial photos are predominantly provided by the appended third party 'Enviropro' report by Lotsearch (Appendix A). Additional records searches were also completed by Atma Environmental, and these are found in Appendix B.

3 SITE IDENTIFICATION AND REGIONAL SETTING

3.1 Site Identification

The site is situated in Elwood, approximately seven (7) kilometres south of central Melbourne CBD (refer to Figure 1). Details relating to the formal identification and main features of the site are outlined in Table A and a detailed plan of the site is presented on Figures 1 and Figure 2.

Maps showing the planning zones and overlays affecting the site and surrounding area are provided on pages 87 to 91 of the Lotsearch Report provided in Appendix A.

Table A. Site Identification & Setting

Site Address	46 Tennyson Street, Elwood, VIC 3184
Size of Site	~678 m ²
Lot/Plan No.	Lot 1 TP746302
Volume / Folios	Volume 4411 Folio 064
Local Government	City of Port Phillip
Planning Zone on Site	Neighbourhood Residential Zone
Planning Overlays on Site	Heritage Overlay
Current Site Use & Features	Childcare Centre
Adjacent Land Uses	North – Residential and mixed-use commercial, including the St Kilda Botanical Gardens. South – Residential. West – Residential. East – Residential, commercial, mixed use and Port Phillip Bay.

3.2 Topography & Surface Water Receptors

The site topography is relatively flat and planer in profile, with an approximate elevation of 8 mAHD (Lotsearch page 6).

There were no surface water receptors identified onsite. The nearest offsite surface water receptor is Port Phillip Bay, located approximately 1.15 km to the west of the site.

3.3 Geology & Regional Hydrogeology

The site and surrounding area are situated on 'Red Bluff Sandstone' consisting of Miocene to Pliocene-aged sandstone and conglomerate. See pages 76-77 of the Lotsearch report provided in Appendix A for geology details.

Mapping of estimated groundwater depths (Lotsearch page 56) indicates a likelihood of groundwater at between 5-10 m bgl (54% of area) and less than 5 m bgl (46% of site area), with salinity of 1,000 to 3,500 mg/L total dissolved solids. Groundwater occurrence appears to be related to surface topography, with the depth to groundwater being shallower towards Port Phillip Bay.

3.4 Groundwater Bore Database Search

The Lotsearch groundwater database searches identified approximately 193 registered groundwater bores within an approximate 2 km radius of the site. No bores were identified onsite. The closest relevant bores, with available information are outlined in Table B below. WRK982713 was located 279 m north of the site but is considered cross-gradient and did not have any relevant information available. It is currently located in a residential or apartment complex and was likely a former observation bore.

Table B. Registered Groundwater Bores (Nearest).

Bore ID	Drilling Log	Depth (m)	Position (m)	Registered Use
WRK054760	0.00m-0.80m FILL 0.80m-6.00m BRIGHTON GROUP SANDS	6	541m northeast	Observation
WRK054762	0.00m-0.80m FILL 0.80m-6.00m BRIGHTON GROUP SANDS	6	541m northeast	Observation

Bores WRK054760 and WRK054762 appear to be associated with an environmental audit (CARMS No. 67247-1) completed at 126 Chapel Street, St Kilda, Victoria. A summary of this audit report is available in Section 4.1 below.

Refer to the Lotsearch report in Appendix A for a location map (page 60) and details of the surrounding registered bores (pages 61-73).

3.5 Anticipated Groundwater Flow Direction

Based on topography and surrounding depth to groundwater mapping, the regional groundwater flow direction is considered to be towards the west / south-west, towards Port Phillip Bay.

4 RECORDS REVIEW

4.1 Environmental Records

In conducting the environmental site assessment, multiple record sources were reviewed by

Lotsearch to identify potential contamination sources and environmental conditions pertaining to both the site and surrounding areas within a 1 km buffer surrounding the site. In addition to the Lotsearch database report, additional searches were conducted directly with various data-holders by Atma Environmental.

The following sources relevant to contamination were reviewed in conducting this site assessment:

EPA Vic Priority Sites and Pollution Notices –

The search (Lotsearch pages 7-8) included current and former Priority Sites and Notices. The site is not listed on the EPA's Priority Sites Register. Four former Pollution Clean Up and Abatement Notices were identified within 1 km of the site. All of them related to a current BP service station located at 54A Marine Parade, St Kilda. This site is located hydraulically down-gradient of the site and is unlikely to potentially impact the site.

PFAS / Dept of Defence Investigation and Management Programs –

No records were found within the 1 km buffer area (Lotsearch pages 9-10).

Issued Certificates and Statements of Environmental Audit –

Certificates and Statements of Environmental Audit are statutory documents that are issued after an environmental audit of a property has been conducted. 30 completed audits were found within 1 km of the site. The closest two audits completed included 154 Chapel Street, St Kilda (CARMS No. 73246-1) located 409 m northeast of the site and 128-140 Chapel St Kilda (CARM No. 35722-1) located 470 m northeast of the site. Groundwater was not assessed in either of the audits, so on this basis it is assumed to be polluted (as standard practice when audits do not assess groundwater). Elevated lead and PAHs were identified in the soil during both audits.

The audit completed at 126 Chapel Street, St Kilda, Victoria (CARMS No. 67247-1) located 532 m northeast of the site, was reviewed. Groundwater was found to be impacted from inorganics and hydrocarbons (TRH) but the audit site was not considered to be a source of groundwater contamination for the purposes of off-site migration.

Groundwater Quality Restricted Use Zones –

A GQRUZ is an area where, following an environmental audit, groundwater pollution remains, usually as a result of previous industrial activity. A GQRUZ is implemented when attempts have been made to clean up the groundwater and EPA determines that restrictions should remain on how the water can be used without further treatment. Four records were found within the 1 km buffer area (Lotsearch page 14). The GQRUZs included:

- 308 Carlisle St Balaclava Vic 3183 (CARMS No. 73636-1), which is the site of a service station and fuel storage.
- 40 - 44 Pakington St Kilda Vic 3182 (CARMS No. 73000-1), which is the site of a commercial premise.
- 160 Hotham St Kilda East Vic 3183 (CARMS No. 70169-1), which is the site of a service station and fuel storage.
- 168-176 Hotham St and 2 Acacia St Elsternwick Vic 3185 (CARMS No. 54234-1), which is the site of a service station and fuel storage.

The off-site locations identified as containing a GQRUZ are likely to pose a low risk of potentially impacting the groundwater onsite, due to their distance from site (>500 m).

EPA Vic Licensed Activities & Works –

No current or former EPA licences are issued to properties within 1 km of the site and no EPA works approvals are issued to properties within 1 km of the site. Refer to Lotsearch, page 15 for details.

Waste Management Records (includes EPA Prescribed Industrial Waste treaters, disposers and permitted transporters and the Victorian Landfill Register) –

Five prescribed industrial waste facilities were identified within 1 km of the site, including the following one current facility within 500 m of the site:

- Imajika Pty Ltd, 2a Bothwell St, Balaclava, located 408 m northeast of the site. As this is a residential address, it is inferred that this is the registered address of this waste facility and not the location of waste storage.

Seven former waste disposal sites were identified within 1 km of the site, including the following three within 500 m of the site. One of these items did not have any relevant details, so was not included (Map ID 49). A summary of the sites includes:

- St Kilda Town Hall, former site of municipal wastes and located 304 m northeast of the site.
- St Kilda Botanical Gardens, former site of municipal wastes and prior use as a quarry. This site is located 304 m northeast of the site.

Refer to Lotsearch, pages 16-18 for further details.

Gas Works and Liquid Fuel Facilities –

No former Gas Works were recorded were within the dataset buffer (Lotsearch page 20).

Four National Liquid Fuel Facilities were identified within the dataset buffer. These included four current petrol stations located at:

- BP Balaclava, 308 Carlisle Street, Balaclava located 788m northeast of the site.
- Safeway Caltex St Kilda, 97 Chapel Street, St Kilda located 882m north of the site.
- BP Connect Cabarita, 54 Marine Parade, Elwood located 948m west of the site.
- Coles Express St Kilda, 120-134 Barkly Street, St Kilda located 971m northwest of the site

There is a low potential of these facilities impacting the site given they are all > 500 m distant. Refer to Lotsearch, page 20 for further details.

Acid Sulphate Soil -

According to the Atlas of Australian Acid Sulphate Soils (CSIRO), the site is not located in an area of probable acid sulphate soils and listed extremely low probability (1 – 5 %). Refer to the Lotsearch Report (pages 83-84) provided in Appendix A.

4.2 Historical Records

In addition to the Lotsearch database report, additional historical searches were conducted by Atma Environmental directly with various data-holders.

Evora, 18 Milton Street Elwood -

A Melbourne Metropolitan Board of Works Map identified in the Lotsearch report, Appendix A (refer to page 50) shows the site was formerly part of the grounds of “Evora”. A St Kilda Mansions Exhibition Catalogue published in 2018 (CoPP, 2018) identified Evora was the former residence of Francis Grey Smith and was built in 1865. Evora was three acres in size. The site appears to contain a broad garden, with the site falling in what appears to be either grass or a garden bed, with a gravel path along the south-western boundary.

Military Topographic Maps -

A c.1933 map from Commonwealth Section Imperial General Staff, shows the site in an inferred area of residential allotments. Refer to page 49 of the Lotsearch report in Appendix A for a copy of the map.

Melway Maps -

The 1966, 1978, 1986, 1998 and 2009 Melway maps shows no notable features on or in close vicinity to the site. Refer to pages 43 & 48 of the Lotsearch report in Appendix A.

1:100,000 Topographic Map -

A 1982 topographic map shows no notable features on or in close vicinity to the site.

Refer to page 46 of the Lotsearch report in Appendix A for a copy of the map.

Lotsearch Historical Business Directories Search -

The Lotsearch search of historical business listings (pages 24 to 26) found one record onsite and 17 within the search buffer of 2 km.

There was a “Painters, Decorators & Signwriters” onsite in 1974. This is likely the residence of a commercial painter. There is likely a low potential contaminating activities taking place onsite, with potential for minor storage of paints and solvents.

Business listings surrounding the site with a potential to contaminate include:

- A former Service Station/Motor Vehicle Maintenance facility at 67 and 69 Brighton Rd St Kilda, located 154 m northeast (operating during 1948-1963).
- A former Dry Cleaner at 95 – 97 Brighton Rd, St Kilda, located 138 m east of the site (operating 1948 – 1972).

There is a moderate potential for groundwater contamination at these locations, due to the potential former use and storage of hydrocarbons (TRHs) and chlorinated hydrocarbons (CHCs). These business listings are located hydraulically upgradient of the site. There is a low to moderate potential for contamination to have migrated onsite.

Historical Aerial Photographs -

As part of the site history review, historical aerial photographs from 1931 to 2021 were reviewed. Table C presents details of the aerial photo review conducted by Atma Environmental and refer to Appendix A (Lotsearch report pages 30 - 42) for copies of the images.

Table C. Aerial Photograph Observations

Date	Notes
1931	<p>Onsite: There is a house onsite, which appears to match the location of the current building. A shed can be observed in the southeast corner of the site.</p> <p>Surrounding Area: The area is largely residential. Evora, the former homestead in the area, can be observed to the east of the site. There are a few blocks surrounding the sites that are yet to be developed. The streets appear to match the current day.</p>
1945	<p>Onsite: Three trees are now observed onsite. There were no other significant changes from the 1931 aerial.</p> <p>Surrounding Area: All blocks surrounding the site have now been developed. There are no other significant changes from the 1931 aerial.</p>
1951	<p>Onsite: There were no significant changes from the 1945 aerial.</p> <p>Surrounding Area: There were no significant changes from the 1945 aerial.</p>

Date	Notes
1963	Onsite: There were no significant changes from the 1951 aerial. Surrounding Area: Development of the Evora site has occurred. There were no other significant changes from the 1951 aerial.
1968	Onsite: There were no significant changes from the 1963 aerial. Surrounding Area: There were no significant changes from the 1963 aerial.
1975	Onsite: There were no significant changes from the 1968 aerial. Surrounding Area: There were no significant changes from the 1968 aerial.
1978	Onsite: There were no significant changes from the 1975 aerial. Surrounding Area: There were no significant changes from the 1975 aerial.
1984	Onsite: There were no significant changes from the 1978 aerial. Surrounding Area: Evora has been demolished. There were no significant changes from the 1978 aerial.
1987	Onsite: A structure or inferred shade area, has been constructed in the backyard of the property. Surrounding Area: There has been some residential or commercial developments to the east of the site, at the former location of Evora.
2001	Onsite: The shed located in the southeast corner of the site appears to be gone. There are some shade structures erected across site. Surrounding Area: There were no significant changes from the 1987 aerial.
2009	Onsite: The site can be clearly seen to be a childcare centre, in line with its current use. Surrounding Area: There were no significant changes from the 2001 aerial.
2016	Onsite: There were no significant changes from the 2009 aerial. Surrounding Area: There were no significant changes from the 2009 aerial.
2021	Onsite: There were no significant changes from the 2016 aerial. Surrounding Area: There were no significant changes from the 2016 aerial.

Aerial photos confirm that the main dwelling and associated shed pre-date 1931. There have been few changes occur onsite, except for the addition of some shade structures and the demolition of an onsite shed between 1987 and 2001.

Surrounding land has remained predominantly residential overtime, with varying residential demolitions and some commercial developments surrounding the site.

Historical Land Title Search -

As part of the site history review, historical land title ownership from 1920 onwards was reviewed. Table D presents details of the historical ownership. Refer to Appendix B for a copy of the title records.

Table D. Current and Historic Land Title Ownership

Title Details	Date	Ownership
Vol. 4411 Fol. 882064	18 th December 1920	Simon Patience the Younger, <i>Contractor</i> is the proprietor.
	15 th September 1921	Marjorie Emily Smith, <i>Married Woman</i> , is the proprietor
	5 th November 1937	Adelaide Pretoria Leber, <i>Married Woman</i> is the proprietor.
	14 th November 1963	Leslie Arthur Rolfe, <i>Painter and Decorator</i> and Mary Gray Rolfe, <i>Married Woman</i> are joint proprietors.
	21 st May 1982	Harry Mrocki, <i>Manager</i> and Margaret Mary Mrocki, <i>Married Woman</i> are joint proprietors.
	27 th February 1985	The Mayor Councillors and Citizens of The City of St. Kilda are now the proprietors.
	9 th October 2013	Port Phillip City Council is the sole proprietor.

The current proprietor is the Port Phillip City Council. The site has likely remained a childcare centre since it was sold to the City of St. Kilda in 1985.

5 SITE RECONNAISSANCE

Atma Environmental conducted an inspection of the site on 23rd August 2021 with observations summarised below. Refer to Figure 2 for site details and to Appendix C for photos of the site inspection.

- The site is currently used as a childcare centre.
- There is a sand pit in the front yard.
- There is a main dwelling, consistent with its former footprint in historic aerials.
- There are shade clothes in various areas of the site.
- The ground cover in the rear of the site is bark.
- There was a paved path down the south boundary of the site.
- No significant sources of contamination were identified.
- Soils onsite were made up of sand. No significant staining or odours were identified.
- No heating oil tanks, or other evidence of potential contamination sources were identified.
- Surrounding land use was overwhelmingly residential.

6 CONTAMINATION POTENTIAL

6.1 Past, Current and Proposed Use of the Site

The site was formerly part of the grounds of an estate known as “Evora”, which was a residential estate built in circa 1865. The site appeared to be in the location of the gardens / lawns associated with this estate. During the period between the earliest plan of the site in 1897

and the earliest available aerial photograph in 1931, the Evora estate was subdivided, and the current site was formed. This included the establishment of the boundaries of the site and dwelling seen today.

The site is earmarked for divestment with ongoing sensitive (i.e. residential or childcare) use assumed likely given the site setting.

6.2 Potential for Site-Sourced Contamination

Some activities intrinsically give rise to contamination more frequently than others. The current childcare use and historic residential use typically present a low potential for contamination.

That said, historic residential use sites can become contaminated as a result of lead-based paints, termite /pest treatments, demolition (e.g. of sheds), small scale storage & use of general maintenance products (e.g. paints, fuel, pesticides etc.), and (most likely) the potential presence of historically placed uncontrolled fill material.

The site is unlikely to be a source of groundwater contamination.

6.3 Potential for Migrating Contamination

Several *potential* sources of groundwater pollution exist in the area surrounding the site, with the closest up-gradient potential sources identified as:

- A former Service Station/Motor Vehicle Maintenance facility, located 154 m hydraulically upgradient of the site, operating between 1948 and 1963.
- A former Dry Cleaner, located 138 m hydraulically upgradient of the site, operating between 1948 and 1972.

Given the age and distance of these potential sources from the site, the potential for groundwater pollution (if present) to migrate beneath the site is considered low to moderate.

6.4 Contaminants of Potential Concern

Potential contaminants and their possible sources are set out on Table E.

Table E. Potential Contaminant Types and Sources

Possible Sources:	Contaminants of Potential Concern:
Lead paint	<ul style="list-style-type: none"> • Lead
Termite Treatment	<ul style="list-style-type: none"> • Arsenic • OCPs

Possible Sources:	Contaminants of Potential Concern:
Potential use of small-scale maintenance products.	<ul style="list-style-type: none"> Metals OCPs TRH/BTEXN
Demolition.	<ul style="list-style-type: none"> Metals Physical contaminants (concrete, brick, plastic, wood, etc) Asbestos (disposal)
Uncontrolled historic filling.	<ul style="list-style-type: none"> Metals PAHs Physical contaminants (concrete, brick, plastic, wood, etc) Asbestos (disposal)
Offsite migrating groundwater contamination	<ul style="list-style-type: none"> TRHs. Chlorinated hydrocarbons (CHCs). Metals

7 ENVIRONMENTAL VALUES AND ASSESSMENT CRITERIA

7.1 Environmental Values of Land

The *Environmental Reference Standard* (Environment Protection Act 2017) outlines land use categories and associated 'Environmental Values' which must be protected for each category. Table F below summarises the relevant Environmental Values that must be protected for the different land uses.

Table F: Protected Environmental Values of Land

ENVIRONMENTAL VALUES TO BE PROTECTED:	POTENTIAL SITE LAND USE:						
	Parks & Reserves	Agriculture	Sensitive Use:		Recreation Open space	Commercial	Industrial
			High Density	Other			
Land dependent ecosystems and species:							
Natural Ecosystems >	✓						
Modified Ecosystems >	✓	✓		✓	✓		
Highly Modified >		✓	✓	✓	✓	✓	✓
Ecosystems >							
Human Health:	✓	✓	✓	✓	✓	✓	✓
Buildings & Structures:	✓	✓	✓	✓		✓	✓
Aesthetics:	✓		✓	✓	✓	✓	
Production of food, flora & fibre:	✓	✓		✓			

As the site is being divested, it is inferred that sensitive use would continue given its current zoning and setting.

7.2 Assessment Criteria

The following sections outline the assessment guidelines used to assess the sites condition against the protected Environmental Values.

Land Dependent Ecosystems & Species -

For the protection of ecology, contaminant concentrations in soil are compared to the Ecological Investigation and Screening Levels found in the National Environment Protection Council “*National Environment Protection (Assessment of Site Contamination) Measure 1999, Amendment Measure 2013 (No. 1)*” (NEPM) including the errata update of 30 April 2014.

NEPM Ecological Investigation Levels (EILs):

Ecological Investigation Levels (EILs) have been developed for selected metals and organic substances and are applicable for assessing risk to terrestrial ecosystems. EILs depend on specific soil physicochemical properties and land use scenarios, and generally apply to the top 2 m of soil.

The derivation of site-specific EILs for, copper, chromium, nickel and zinc were completed using the EIL calculation aids provided in the NEPM toolbox. To inform the derivation, representative soil samples from the site were measured for pH (CaCl₂ extract) and for cation exchange capacity (CEC), with the average CEC (12 cmolc/kg) and the average pH (4.97 units) values used for EIL derivations.

Clay content was not laboratory measured, therefore as a conservative screening method a clay content of 1% is used in the calculations; this value likely underestimates actual clay content conditions at this site. Background contaminant concentrations are not available for the site and thus a typical background concentration for low traffic areas in Victoria was adopted.

Where applicable, the EILs used are those based on aged contaminant values, relevant for contamination which has been present in soil for at least two years.

NEPM Ecological Screening Levels (ESLs):

The NEPM also provides Ecological Screening Levels (ESLs) which have been developed for selected petroleum hydrocarbon compounds, total petroleum hydrocarbon (TPH) fractions and for Benzo(a)Pyrene, and which are applicable for assessing risk to terrestrial ecosystems. ESLs broadly apply to coarse and fine-grained soils and to various land uses and they are generally applicable to the top 2 m of soil. For this assessment, the lowest values for fine/coarse grained soil ESLs have been adopted.

Land Use Scenarios:

EILs and ESLs have been developed for three generic land use settings:

- Areas of Ecological Significance
- Urban Residential/Public Open Spaces, and
- Commercial and industrial land uses

An area of ecological significance is one where the planning provisions or land use designation is for the primary intention of conserving and protecting the natural environment (e.g., national parks, state parks, wilderness areas and designated conservation areas). This land use setting is not relevant for the site and is not considered further.

In terms of the proposed future land uses, the Urban Residential/Public Open Space land use settings are considered the most applicable criteria, however, commercial/industrial land use criteria have also been considered in this assessment.

All relevant ecological assessment criteria are listed on the analytical summary table (Table 1).

Human Health -

Soil sample results are compared to Health-based Investigation and Screening Levels found in the “*National Environment Protection (Assessment of Site Contamination) Measure 1999, Amendment 2013 (No. 1)*” (NEPM) including the errata update of 30 April 2014.

Health Investigation Levels (HILs):

Health-based Investigation Levels (HILs) have been developed for a broad range of metals and organic substances. The HILs are applicable for assessing human health risk via all relevant pathways of exposure. The HILs are generic to all soil types but vary for different land use scenarios.

Health Screening Levels (HSLs):

Health Screening Levels (HSLs) for selected petroleum compounds and fractions are applicable for assessing human health risk by the inhalation pathway. The HSLs depend on specific soil physicochemical properties, land use scenarios, and the characteristics of building structures. They apply to different soil types, and depth below surface to greater than 4 m. For this assessment, the results are compared against the HSLs for sandy soils at <1 m depth, with further assessment triggered if results exceed these levels.

The NEPM also provides guidance for the assessment of asbestos in soils, which requires no visible asbestos to be present in the near surface soils (i.e., top 0.1 m depth), with qualitative HSLs available for the assessment of visible asbestos (where present) and non-visible asbestos (where suspected) in deeper soils.

Adopted Criteria:

In the absence of NEPM HIL/HSL criteria for contaminants of potential concern, the following criteria have been adopted:

- Soil HSLs for direct contact found in the CRC CARE Technical Report No. 10 (*Health*

Screening Levels for Petroleum Hydrocarbons in Soil and Groundwater Friebe & Nadebaum, 2011) are used for the assessment of human health risk from petroleum compounds and fractions by the direct contact pathway.

Land Use Scenarios:

There are four predominant exposure settings that are used when assessing the use or proposed use of a site:

- 'A' - for standard residential with garden/accessible soil including childcare centres, preschools and primary schools;
- 'B' - for high-density residential with minimal garden/accessible soil such as high-rise buildings and apartments;
- 'C' - for parks, recreational open space and playing fields, also includes secondary schools and footpaths; and
- 'D' - for commercial/industrial use including shops, offices, factories and industrial sites

All relevant human health assessment criteria are listed on the analytical summary table (Table 1).

Buildings and Structures -

The Environmental Value "Buildings and Structures" may be assessed by a review of soil parameters such as pH, sulphate concentration, redox potential, salinity, or any chemical substance or waste that may have a detrimental effect on the structural integrity of buildings or structures. The site is not located on an area of probable acid sulphate soil, though further investigation may be required where pH is less than 4.0 (per Victoria EPA Publication 655) and where sulphate exceeds 2,000 mg/kg (NEPM 1999 EIL) or where electrical conductivity (EC) is considered indicative of potentially aggressive soils.

The Australian Standard AS2159-2009 *Piling – Design and Installation*, provides data on the severity of soil sulphate and pH on concrete structures, with a pH >5.5 being considered non-aggressive to all soils above the groundwater.

Aesthetics -

In general, the criteria for aesthetics (relevant only to recreational / open space land, not industrial use land) relate to the presence of low-concern or non-hazardous inert foreign material (refuse) in soil or fill resulting from human activity. This may include general wastes, industrial, construction and demolition wastes, soil discoloration, or residual odours.

Circumstances which would trigger a further assessment of aesthetics include: highly malodorous soils or extracted groundwater, hydrocarbon sheen on surface water, significant soil staining (associated with otherwise inert chemical waste), significant deposits of low-risk materials, putrescible refuse, and animal burials.

Numerical criteria are not available for assessing aesthetics and its assessment requires a balanced consideration of the quantity, type and distribution of foreign material or odours in relation to the specific land use.

Production of Food Flora & Fibre -

This Environmental Value is assessed with reference to the same criteria as per Land Dependent Ecosystems & Species as those guideline values are set to be protective of plant (among other) species. However, it is recognised that these criteria may not necessarily be applicable for some contaminants (such as organochlorine pesticides, or OCPs).

Alternative criteria may be adopted for the assessment of OCPs in relation to the Environmental Value Production of Food, Flora & Fibre, where OCPs are detected above laboratory limit of reporting at the site.

Other -

Other assessment criteria considered in this assessment include the following:

Management Limits:

The “National Environment Protection (Assessment of Site Contamination) Measure 1999, Amendment 2013 (No. 1)” (NEPM) provides petroleum hydrocarbon management limits, which are protective of policy considerations which reflect the nature and properties of petroleum hydrocarbons, e.g. formation of observable light non-aqueous phase liquids, fire and explosion hazards and effects on buried infrastructure.

Management Limits “are relevant for operating sites where significant sub-surface leakage of petroleum compounds has occurred and when decommissioning industrial and commercial sites” e.g. service stations (NEPM). Use of the Management Limits is not considered relevant for this site.

Off-Site Disposal Categorisation:

Soil sample results are also compared to EPA waste disposal criteria found in EPA Victoria Publication #1828.2 ‘Waste Disposal Categories – Characteristics and Thresholds’ March 2021.

The Environment Protection Regulations (the Regulations), Part 4.2 (Industrial Waste and priority waste) specifies the process for classifying waste. Publication #1828.2 establishes the characteristics and thresholds necessary for complying with the Regulations, specifically, classification of wastes to determine the relevant waste disposal category in accordance with Schedule 6 of the Regulations.

The waste disposal thresholds (indicated on the attached Table 2) are only relevant for waste soil that is intended for off-site disposal.

8 SOIL INVESTIGATION

8.1 Sampling Methodology and Observations

Atma Environmental Pty Ltd's procedures for soil sampling, quality assurance and equipment decontamination are comparable with those found in the Australian Standard AS4482.1 – 2005, (*Guide to the investigation and sampling of sites with potentially contaminated soil, Part 1: Non-volatile and semi-volatile compounds*) and AS4482.2-1999 (*Guide to the sampling and investigation of potentially contaminated soil, Part 2: Volatile Substances*).

Soil sampling was completed on 22nd August 2021 at five (5) unsealed borehole locations (BH01 to BH05). Locations were chosen based on obtaining a general spread across site and in areas where unsealed surfaces were readily available. Figure 2 shows the sampling locations as completed.

8.2 Soil Sample Collection

Samples were collected from the near-surface soils (~0.1 m depth) at each location using decontaminated hand tools. Deeper samples (up to 1.0 m depth) were obtained via hand auger.

New, single use glass containers provided by the laboratory were used in conjunction with latex gloves for each sample and sampling location to avoid contact with contaminated material and cross-contamination. All samples were preserved on ice during site investigations and during transport to the laboratory.

All sampling equipment was decontaminated between each sampling location in accordance with Atma Environmental's in-house decontamination procedures.

8.3 Soil Investigation Observations

A layer of fill extending to a maximum depth of 0.7 m was found across site. The fill was generally organic garden fill, with some building waste (clinker and brick) observed at BH05. The fill was underlain by natural sand and sandy clay. The generalised soil profile, including details of the fill domain and the natural domain, are outlined in Table G below.

Table G. Generalised Soil Profile

Domain	Horizon	Typical Depth	Description
Fill	SAND	Surface to between ~0.2 to ~0.7 mbgl	Sand, white and black, with a medium amount of organic matter, organic odour, soft, loose and dry. Appears to be imported garden fill. Clinker and brick observed at the base of fill in BH05.
Natural	SAND	~0.2 to ~0.7 mbgl	Sand, white, grey, yellow natural sands, medium grained, soft, moist.
	Clayey SAND	~0.7 to ~1.0 mbgl	Clayey SAND, orange, low plasticity clay, firm, dense, saturated

No suspect asbestos containing materials were identified at the tested locations.

The soil was typically saturated at the maximum sample depth of 1.0 mbgl, but did not produce water (i.e. water did not fill the hole).

Soil description logs are provided in Appendix D.

8.4 Sample Analysis

The selected sample analysis program was based on the main contaminants of potential concern identified by the site history review, inspection and field observations (including PID results).

One sample at 0.1 m (BH03_0.1) and one sample at 0.5 m (BH04_0.5) were analysed for a screen of analytes in accordance with EPA Publication 1828.2. All samples at 0.1 m were analysed for PAHs, OCPs and a multi-metals suite. All samples at 0.5 m were analysed for TRHs, PAHs and multi-metals suite. All samples at 1.0 m were analysed for PAHs and a multi metal suite. Six samples were also analysed for pH (CaCl₂) and one for CEC for derivation of site-specific EILs. A summary of the analysis completed is outlined in Table G below.

Table H. Summary of Analytical Schedule

Analytes:	No. of Analysis per Soil Sample Depth			Total No.
	0.1 m	0.5 m	1.0 m	
EPA IWRG 1828.2 Screen	1	1	-	2
Total Recoverable Hydrocarbons (TRHs)	-	5	1	6
Polycyclic Aromatic Hydrocarbons (PAHs)	4	4	5	13
Metals Suite (13)	4	4	5	13
Organochlorine Pesticides (OCPs)	4	-	-	4
pH (CaCl ₂ per NEPM '13)	6	-	-	6
Cation Exchange Capacity (CEC)	1	-	-	1
ASLP	2	1	1	4

The primary laboratory used for soil sample analysis was Eurofins Environment Testing (a NATA accredited laboratory). The secondary (check) lab used was ALS - also NATA-accredited. Appendix E includes the Chain of Custody documentation used for the delivery of the samples to the lab and the full NATA certified lab reports.

8.5 Soil Analysis Results & Discussion

A comparison of the laboratory analysis results against ecological and human health assessment guidelines is provided on Table 1. Full laboratory reports are provided in

Appendix F. The following sections provide a discussion on the implication of the results with respect to the protected Environmental Values at the land.

8.5.1 Land Dependent Ecosystems & Species / Production of Food, Flora, Fibre

The fill material found across the site (with the exception of BH4) contains concentrations of Benzo(a)pyrene above the adopted ESLs for both recreational / public open space and commercial / industrial land uses.

Furthermore, concentrations of zinc (BH5) and TRH >C₁₆-C₃₄ (BH3) also exceed the relevant ecological assessment criteria for recreational / public open space land uses (but not commercial / industrial land uses).

All results for natural soil samples were below the adopted EILs & ESLs.

With respect to the TRH results, silica gel cleanup analysis reported concentrations of the TRH fractions below the limit of reporting and below the adopted assessment criteria; it is therefore considered likely that the initially reported concentrations are due to non-petrogenic sources (e.g. from natural oils such as eucalyptus oil), which is supported by the absence of plausible sources of petroleum hydrocarbons, staining, odours or elevated PID results.

With respect to the Benzo(a)pyrene and zinc, the NEPM states that the relevance of an ecological assessment should be considered within context of the conceptual site model and that a pragmatic risk-based approach should be taken in applying EILs and ESLs on residential and commercial/industrial land use settings.

“Site soils may have poor structure and drainage, low organic content, minimal topsoil depth and a limited ability to support plant growth and soil micro-organisms. In existing residential 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.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”. [NEPM 2013]

Furthermore, the NEPM Tier 1 screening level for benzo(a)pyrene (0.7 mg/kg for residential settings) is based on an older set of low reliability (limited toxicity dataset) data adopted from the 1997 provisional Canadian environmental health soil quality guidelines (CCME SQGs), which have since been revised. New toxicological data/information was presented in the 2010 CCME SQG, and the Benzo(a)Pyrene soil quality guideline has been subsequently revised to 20 mg/kg for residential/parkland scenarios. Additionally, in March 2017, CRC CARE Technical Report No. 39 (*“Risk-Based Management and Remediation Guidance for Benzo(a)pyrene”*) derived a Benzo(a)Pyrene ecological screening level of 33 mg/kg, which is more than an order of magnitude greater than the ESL listed in the NEPM and more generally

in accord with the revised Canadian guideline levels.

In summary, the results are considered unlikely to preclude the protected Environmental Values of 'Land Dependent Ecosystems & Species' or 'Production of Food, Flora & Fibre', and further investigation/remediation is not required with respect to same.

8.5.2 Human Health

The Sum of Carcinogenic PAHs (as BaP TEQ) in fill material at locations BH03 and BH05, exceed the HILs for low & high density residential as well as for recreational / public open space land uses (but not for commercial / industrial uses).

Furthermore, the lead concentration reported in the fill soil at location BH05 exceeds the HIL for low density residential land uses (but not for other land use settings).

All results for natural soil samples were below the adopted HILs & HSLs.

In the absence of a site-specific health risk assessment, the results should be considered to pose a *potential* risk to human receptors in residential and open space / recreational settings; however, the potential risks would only be realized in the event that receptors have uncontrolled and long-term access to the soil; therefore, the potential risks are considered easily manageable.

8.5.3 Buildings & Structures

Data from the Australian Standard AS2159-2009 ('*Piling – Design and Installation*') shows the severity of soil sulphate concentrations and pH on concrete piles. In accordance with the standard, the pH (CaCl₂ extract) range of 4.2 to 7.6, renders the soils as 'Moderate' to 'Severe' to structures in soils above the groundwater. This outcome is based on the most conservative value of pH (4.2 pH units). The site is not located in an area of probable acid sulphate soils and the pH results are considered indicative of natural soil conditions rather than a result of possible contamination.

8.5.4 Aesthetics

No noticeable hydrocarbon odours were noted in the discrete areas assessed and the soil is generally considered aesthetically acceptable for sensitive land. Some limited brick and clinker was observed at BH05, but is considered negligible and would not preclude this Environmental Value.

8.5.5 Preliminary Off-Site Soil Disposal Hazard Categorisation

Table 2 provides a comparison of the analytical results against soil hazard categorisation thresholds per EPA Publication 1828.2, for the purposes of providing a preliminary soil hazard categorisation of the soil domains (fill and natural).

A summary of the results for the fill domain (as per Table G above) includes:

- Total concentrations of arsenic, lead, zinc, TRH (C₁₀-C₃₆), PAHs and Benzo(a)pyrene exceeded the maximum allowable levels for Fill (i.e. within Category C range). One concentration of total PAHs (BH03_0.5) exceeded the Category C Threshold (and is within the Category B range).
- Australian Standard Leaching Procedure (ALSP pH 5) analysis was completed on selected samples, with the following results:
 - BH03_0.5 for arsenic (0.02 mg/L) PAHs (<0.001 mg/L) and Benzo(a)pyrene (<0.001 mg/L)
 - BH05_0.1 for arsenic (0.02 mg/L), lead (0.15 mg/L), PAHs (<0.001 mg/L) and Benzo(a)pyrene (<0.001 mg/L).
- The ASLP concentrations did not exceed the Category C leachable concentration upper limit. ASLP results are available in Eurofins lab report #822324 & #824601, provided in Appendix E.
- It is considered likely that a 95% UCL average of a larger dataset would allow categorisation of the fill domain as Category C Reportable Priority Waste; however, the potential presence of small Category B hotspots should be conservatively assumed.

A summary of the results for the natural domain (as per Table G above) includes:

- Total concentrations of arsenic exceeded the maximum allowable levels for Fill Material (i.e. within the range for Category C) at BH02, BH03 and BH05 in the natural domain.
- Due to the position of the site within the Brighton Group Sands, it is likely these concentrations of arsenic within the natural material are naturally occurring. According to the Victorian Background Soil Database (the “soil database”), Version 1.0 (RMIT, 2018), the mean concentration of arsenic in soils beyond 0.6 m depth in the Brighton group have a mean concentration of 20 mg/kg, with a maximum observed concentration of 1,200 mg/kg. The magnitude of the arsenic concentrations observed in the analytical data represent a similar range reported by the soil database. These concentrations in the natural domain are considered to be naturally occurring.
- Australian Standard Leaching Procedure (ALSP pH 5) analysis was completed on sample BH03_1.0 for arsenic (<0.01 mg/L), PAHs (<0.001 mg/L) and Benzo(a)pyrene (<0.001 mg/L). These ASLP concentrations did not exceed the Category C leachable concentration upper limit. ASLP results are available in Eurofins lab report #822324, provided in Appendix E.
- Based on the available results, it is considered likely that the natural soil would be categorised as Fill Material with naturally elevated arsenic; however, we note that an EPA designation is required to allow the soil to be classified as Fill Material to be taken to a like for like site.

9 QUALITY ASSURANCE

9.1 Fieldwork Quality Assurance

9.1.1 Procedures

All fieldworks were completed in accordance with Atma Environmental Pty Ltd's procedures for sampling, quality assurance and equipment decontamination. These procedures are comparable with those found in the Australian Standard AS4482.1 – 2005, (*Guide to the sampling and investigation of potentially contaminated soil, Part 1: Non-volatile and semi-volatile compounds*) and AS4482.2-1999 (*Guide to the sampling and investigation of potentially contaminated soil, Part 2: Volatile Substances*).

Atma Environmental recorded all samples on a Sample Master List, in the order of collection to enable tracking of any suspected incidence of cross-contamination if necessary.

Samples were transported to the laboratories under a Chain of Custody document listing all samples collected, analysis required for each sample and signatures of the persons responsible for the transport of the samples.

9.1.2 Decontamination, Field and Trip Blanks

Equipment rinsate blanks should be collected where cross-contamination of samples is likely to impact on the validity of the sampling and assessment process. Rinsate, collected during the sampling equipment decontamination process should be tested for contaminants of concern.

One equipment rinsate (decontamination) sample (DECON-220821B) was collected during the soil investigation and tested at the lab for metals. All analytical results were below laboratory detection limits, indicating the equipment decontamination procedure was effective and risk of cross contamination between sampling locations is unlikely.

Field Blanks are for the purpose of providing a control against contamination potentially introduced to samples during field works. A field blank sample was not collected during the soil investigation, as the site was assessed to be low risk of cross contamination from the ambient air or dust onsite.

A Trip Blank is for the purpose of providing a control sample against contamination potentially introduced during transport of samples from the field to the laboratory. One trip blank sample (TRIP-220821B) was collected during the soil investigation and placed on hold at the laboratory, pending evidence of potential cross contamination during sample transport. Analytical results were reported heterogeneous results across all samples and did not present characteristics associated with cross contamination during sample transport, demonstrating that sample integrity has not been affected during transport.

See Table 3.1 for a summary of the QA/QC – Decontamination and Trip Blank details and results.

9.2 **Blind Quality Control Replicate Testing**

Replicate samples, comprising two containers of the same media (sample) are created in the field and submitted to the primary laboratory or to a secondary laboratory in a blind test of reporting accuracy. The results of the check (replicate) sample are assessed against the primary sample in terms of the relative percent difference, or 'RPD' (difference in results divided by the mean of the results, x 100).

The Australian Standard AS4482.1 requires a minimum of one Primary Duplicate and one Split Duplicate be collected for every 20 primary samples collected, with sample analysis carried out to reflect the same ratio.

The standard provides 30% - 50% as a typical RPD value for quality control samples and notes that the significance of the RPD results should be evaluated on the basis of sampling technique, sample variability, absolute concentration relative to criteria and laboratory performance.

RPDs can be expected to be higher when based on low concentration of analytes. In this regard, RPD results that exceed 50% are not considered indicative of laboratory error if:

- The RPD is artificially elevated due to the halving of a non-detectable result, or if
- The RPD is based on low concentrations, less than 10 times the limit of reporting,

Where replicate RPDs exceed 50% and are not subject to either of the above conditions, additional comment is provided as to the possible explanation for the divergence in reported results.

The following duplicate and split duplicate samples (with paired primary sample) were collected/analysed as part of this investigation:

- DUP-210821B & SPLIT-210821B – PAHs and metals.

One replicate pair was tested with good comparative results. All replicate analysis results were within the target range, with only eight parameter pairs being above 50% but based on very low concentration (less than 10x limit of reporting) or due to the effect of one result being below the limit of detection.

Overall, the sampling and analysis process has produced reproducible results and did not identify any significant errors in the data collection process. Results of the duplicate RPD calculations are summarised on Table 3.2.

10 CONCLUSIONS

The site was formerly part of a larger parcel of land and estate named 'Evora', with the site located in the gardens area of this estate. Prior to this, the area was likely agricultural post European settlement. Evora was built in 1865 and was subdivided sometime in the late 19th and early 20th century. Since that time, the current dwelling onsite has remained, with minimal changes occurring over the years; the current childcare occupation commenced circa 1985. The surrounding land has also had a residential legacy and remains that way to this day.

The current childcare use and historic residential use typically present a low potential for contamination. However, the potential presence of historically placed fill was identified as a potential source of contamination (as is common across urban Melbourne), with a lower potential for contamination also possible from potential onsite activities (such as lead-paint use, termite treatment, demolition and general maintenance products).

The site is unlikely to be a source of groundwater contamination; the potential for groundwater pollution from off-site sources to migrate beneath the site is considered low to moderate, with the closest potential sources identified being a former dry cleaner, and former petrol station located ~138 – 154 m upgradient of the site respectively.

A layer of fill extending to a maximum depth of 0.7 m was found across site. The fill was generally organic garden fill, with some clinker and brick observed at one location (BH05). The fill was underlain by natural sand and sandy clay.

Sample analysis confirmed the fill to be contaminated with PAHs, with lead and zinc also identified as contaminants of concern at location BH05. Elevated TRH concentrations found at BH03 are considered likely to be attributable to non-petrogenic sources (given the silica-gel clean up analysis results, lack of odours, staining or elevated PID results). The results are typical of historic fill material generally found in urban Melbourne.

In the absence of a site-specific health risk assessment, the contaminant concentrations in the fill soil should be considered to pose a potential risk to human receptors in residential and open space / recreational settings (but not commercial / industrial settings); however, the potential risks would only be realized in the event that receptors have uncontrolled and long-term access to the soil; therefore, the potential risks are considered easily manageable.

With respect to off-site disposal of the fill domain (if required e.g. for development), it is considered likely that a larger dataset would allow categorisation of the fill domain as Category C Reportable Priority Waste (based on a 95% UCL average); however, the potential presence of small Category B hotspots should be conservatively assumed.

The natural soil was found to be uncontaminated. For disposal (if required) it is considered likely that the natural soil would be categorised as Fill Material with naturally elevated arsenic (typical of the Brighton Group formation); however, we note that an EPA designation is now required in circumstances where results are being claimed as naturally occurring.

11 LIMITATIONS AND EXCEPTIONS OF ASSESSMENT

The report consists of the scope of work outlined previously. This report describes the work undertaken and has been compiled for the use of City of Port Phillip (CoPP) only. Its conclusions are only valid for the purpose for which it was requested. This report is not a Preliminary Risk Screen Assessment or an 'environmental audit' within the meaning of the *Environment Protection Act 2017* (Vic), or its successor.

It is valid only when it is in original and complete form, and any person or company other than City of Port Phillip (CoPP) who rely on the report without specific reference to and permission from Atma Environmental Pty Ltd does so at their own risk. While every care has been taken in the compilation of this report, to the extent that its conclusions are based on the analysis of the data made available by your organisation or by a third party, no responsibility or liability is accepted for consequences arising from either errors or omissions in that data, or from factors or data which were not made available to Atma Environmental Pty Ltd, or which Atma Environmental Pty Ltd could not ascertain by reasonable inquiry in the ordinary course of its investigation, nor for any commercial decisions taken as a result of the report.

This report has not included an assessment of groundwater contamination, soil vapours or ground (landfill) gases. The site assessment has not specifically considered above ground issues such as silica dust, lead-based paint and installed asbestos containing building products.

Environmental site assessments document property conditions at the time they are conducted. These conditions may change over time. In addition, contamination (potentially of greater or lesser severity than as reported) may exist at other locations, which have not been tested. The results of additional site testing and future changes in assessment guidelines, criteria or legislative requirements may alter the conclusions of this report and any recommendations flowing therefrom.

12 REFERENCES

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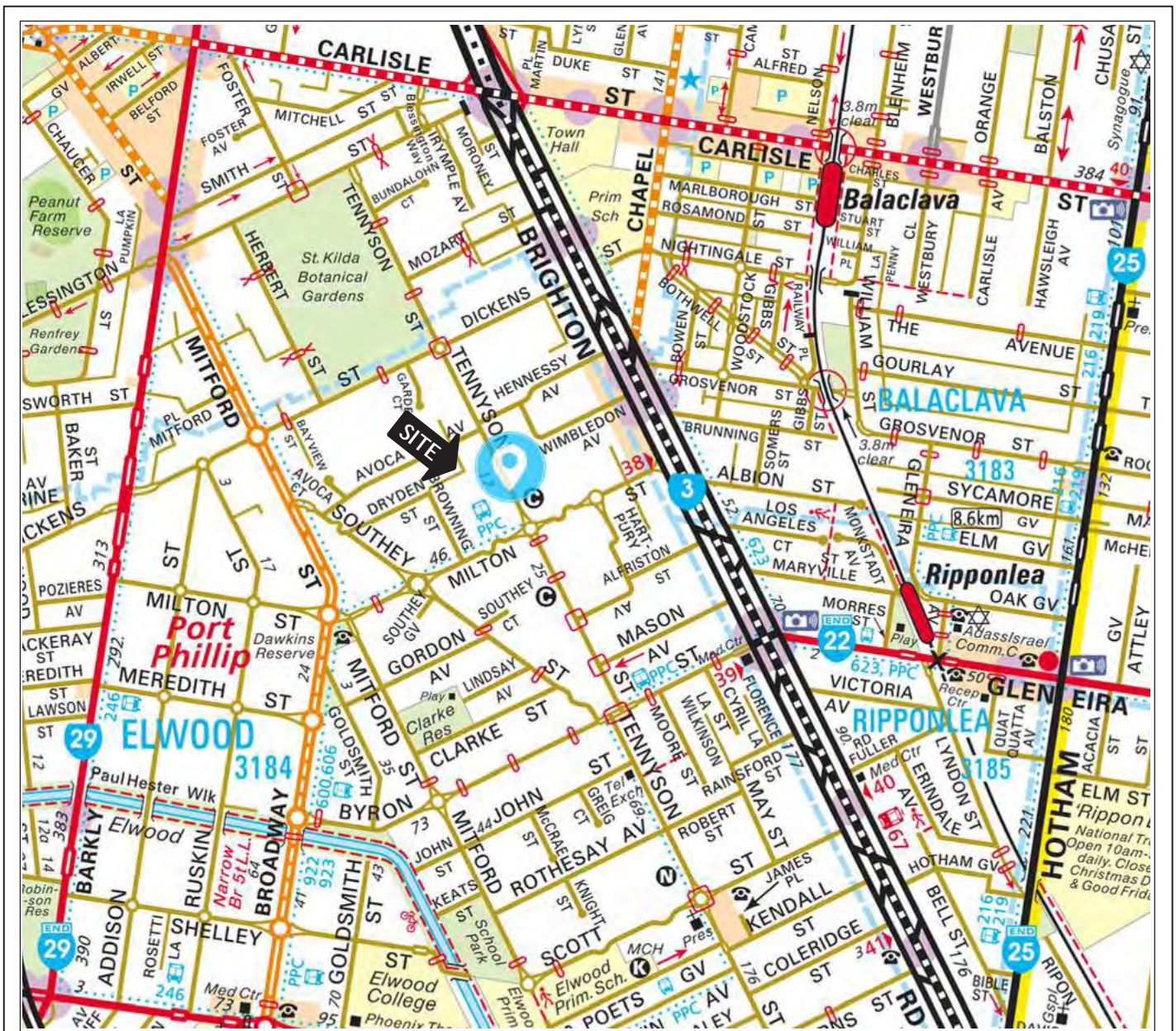
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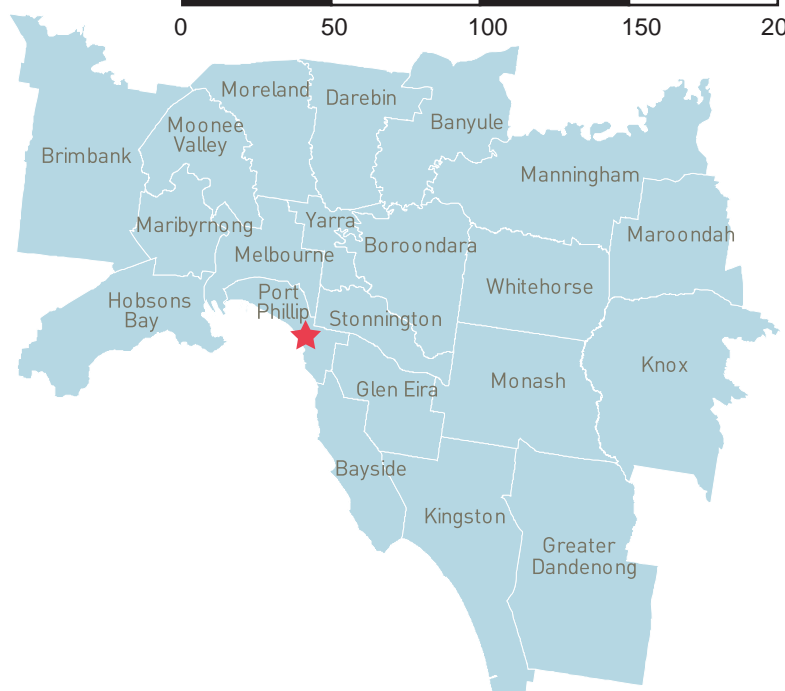
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Imagery: Melways

Approximate Scale:



★ Approximate Site Location

Atma Environmental

Client:

City of Port Phillip



Project: #2048 - Elwood - City of Port Phillip

Drawn by: GB Dated: 13/08/2021 Status: Final

Figure 1. Site Location



Imagery: Nearmap



Client:



Project: #2048 - Elwood - City of Port Phillip

Drawn by: GB Dated: 13/08/2021 Status: Final

Figure 2. Site Details

LEGEND:

- Investigation Area
- ⊕ Borehole
- Approximate Former Shed

Approximate Scale:



Table 1. Results Summary Vs Ecological & Human Health Assessment Criteria

PROJECT: Elwood (#2048-1



Page 1 of 1

Sample Identification	Date Sampled	Laboratory	Laboratory Report No.	Material Type	METALS														TRHs					BTEXN					CHCs		PAHs		PHENOLS			OCPs								PCBs	OTHER						
					Arsenic (As)	Cadmium (Cd)	Total Chromium Cr ^P	Hexavalent Chromium	Copper (Cu)	Lead (Pb)	Mercury (Hg)	Molybdenum (Mo)	Nickel (Ni)	Selenium (Se)	Silver (Ag)	Tin (Sn)	Zinc (Zn)	Cyanide (CN ⁻)	T.R.H (C6-C10) ^A	T.R.H (C10-C16)	T.R.H (C10-C16) ^C	T.R.H (C16-C34)	T.R.H (C34-C40)	Benzene	Toluene	Ethyl Benzene	Xylene	Naphthalene	EPA IWRG 621 CHC (Total)	EPA IWRG 621 Other CHC (Total)	PAHs (Total)	Benzo(a)-Pyrene	Sum of Carcinogenic PAHs (as BaP TEQ)	Phenol	Pentachlorophenol	Cresols	DDT+DDE+DDD	Aldrin and dieldrin	Chlordane	Endosulfan	Erdrin	Heptachlor	Hexachlorobenzene	Methoxychlor	Toxaphene	PCBs (total)	Fluoride (total fusion)	Cation Exchange Capacity (cmol/kg)	pH (1:5 Aqueous extract)	pH (1:5 soil:CaCl2 extract)	
Ecological Investigation & Screening Levels Residential / Public Open Space					100	n/a	200	n/a	95	1,100	n/a	n/a	200	n/a	n/a	n/a	230	n/a	180	120	n/a	300	2800	50	85	70	45	170	n/a	n/a	n/a	0.7	n/a	n/a	n/a	n/a	180	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Ecological Investigation & Screening Levels Commercial / Industrial					160	n/a	320	n/a	130	1,800	n/a	n/a	330	n/a	n/a	n/a	330	n/a	215	170	n/a	1700	3300	75	135	165	95	370	n/a	n/a	n/a	1.4	n/a	n/a	n/a	n/a	640	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Health Investigation & Screening Levels 'A' Setting - Low Density Residential					100	20	n/a	100	6,000	300	40	n/a	400	200	n/a	n/a	7,400	250	45	n/a	110	4500 ^A	6300 ^A	0.5	160	55	40	3.0	n/a	n/a	300	n/a	3.0	3,000	100	400	240	6.0	50	270	10	6.0	10	300	20	1.0	n/a	n/a	n/a	n/a	n/a
Health Investigation & Screening Levels 'B' Setting - High Density Residential					500	150	n/a	500	30,000	1,200	120	n/a	1,200	1,400	n/a	n/a	60,000	300	45	n/a	110	5800 ^A	8100 ^A	0.5	160	55	40	3.0	n/a	n/a	400	n/a	4.0	45,000	130	4,700	600	10	90	400	20	10	15	500	30	1.0	n/a	n/a	n/a	n/a	n/a
Health Investigation & Screening Levels 'C' Setting - Recreational / Public Open Space					300	90	n/a	300	17,000	600	80	n/a	1,200	700	n/a	n/a	30,000	240	5100 ^A	n/a	3800 ^A	5300 ^A	7400 ^A	120 ^A	18000 ^A	5300 ^A	15000 ^A	1900 ^A	n/a	n/a	300	n/a	3.0	40,000	120	4,000	400	10	70	340	20	10	10	400	30	1.0	n/a	n/a	n/a	n/a	n/a
Health Investigation & Screening Levels 'D' Setting - Commercial / Industrial					3,000	900	n/a	3,600	240,000	1,500	730	n/a	6,000	10,000	n/a	n/a	400,000	1,500	260	n/a	20000 ^A	27000 ^A	38000 ^A	3.0	99000 ^A	27000 ^A	230	11000 ^A	n/a	n/a	4,000	n/a	40	240,000	660	25,000	3600	45	530	2,000	100	50	80	2,500	160	7.0	n/a	n/a	n/a	n/a	n/a
BH01_0.1	22-Aug-21	Eurofins	819243	Fill	2.8	< 0.4	5.4	-	13	28	< 0.1	< 5	< 5	< 2	< 2	< 10	68	-	< 20	< 50	< 50	230	< 100	-	-	-	-	< 0.5	-	-	13.9	1.3	1.7	-	-	-	< 0.05	< 0.05	< 0.1	< 0.05	< 0.05	< 0.05	< 0.05	< 0.5	-	-	-	-	-	6.3	
BH01_0.5	22-Aug-21	Eurofins	819243	Fill	5.4	< 0.4	7.3	-	36	260	0.2	< 5	6.9	< 2	< 2	< 10	110	-	< 20	< 50	< 50	< 100	< 100	-	-	-	-	< 0.5	-	-	1.8	0.5	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
BH01_1.0	22-Aug-21	Eurofins	819243	Natural	12	< 0.4	10	-	< 5	5.7	< 0.1	< 5	< 5	< 2	< 2	< 10	6.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.5	< 0.5	< 0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
BH02_0.1	22-Aug-21	Eurofins	819243	Fill	6.1	< 0.4	18	-	26	72	< 0.1	< 5	19	< 2	< 2	< 10	100	-	< 20	< 50	< 50	230	100	-	-	-	-	< 0.5	-	-	13.3	1.8	2.3	-	-	-	< 0.05	< 0.05	< 0.1	< 0.05	< 0.05	< 0.05	< 0.05	< 0.5	-	-	-	-	6.9		
BH02_0.7	22-Aug-21	Eurofins	819243	Natural	5.4	< 0.4	7.1	-	5.9	86	0.1	< 5	< 5	< 2	< 2	< 10	52	-	< 20	< 50	< 50	< 100	< 100	-	-	-	-	< 0.5	-	-	0.6	< 0.5	< 0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
BH02_1.0	22-Aug-21	Eurofins	819243	Natural	40	< 0.4	52	-	< 5	15	< 0.1	< 5	13	< 2	< 2	< 10	10	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.5	< 0.5	< 0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
BH03_0.1	22-Aug-21	Eurofins	819243	Fill	3.1	< 0.4	6.0	< 1	15	68	< 0.1	< 5	6.3	< 2	< 2	< 10	74	< 5	< 20	< 50	< 50	350	150	< 0.1	< 0.1	< 0.3	< 0.5	< 0.5	< 0.5	27.3	3.0	4.6	< 0.5	< 1	< 0.5	< 0.05	< 0.05	< 0.1	< 0.05	< 0.05	< 0.05	< 0.05	< 0.5	< 0.1	< 100	-	7.3	7.0			
BH03_0.5	22-Aug-21	Eurofins	819243	Fill	54	< 0.4	25	-	34	250	0.2	< 5	11	< 2	< 2	28	210	-	< 20	< 50	< 50	1100	270	-	-	-	-	< 0.5	-	-	128	10	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
BH03_0.5 (silica gel)	22-Aug-21	Eurofins	822324	Fill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 20	< 50	< 50	< 100	< 100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
BH03_1.0	22-Aug-21	Eurofins	819243	Natural	62	< 0.4	26	-	< 5	10	< 0.1	< 5	< 5	< 2	< 2	< 10	13	-	-	-	-	-	-	-	-	-	-	-	-	< 0.5	< 0.5	< 0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
BH03_1.0 (silica gel)	22-Aug-21	Eurofins	822324	Natural	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 20	< 50	< 50	< 100	< 100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
BH04_0.1	22-Aug-21	Eurofins	819243	Fill	< 2	< 0.4	< 5	-	5.7	5.3	< 0.1	< 5	< 5	< 2	< 2	< 10	17	-	< 20	< 50	< 50	290	100	-	-	-	-	< 0.5	-	-	< 0.5	< 0.5	< 0.5	-	-	< 0.05	< 0.05	< 0.1	< 0.05	< 0.05	< 0.05	< 0.05	< 0.5	-	-	-	-	4.2			
BH04_0.5	22-Aug-21	Eurofins	819243	Natural	4.2	< 0.4	7.6	< 1	< 5	8.3	< 0.1	< 5	< 5	< 2	< 2	< 10	< 5	< 5	< 20	< 50	< 50	< 100	< 100	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 0.05	< 0.05	< 0.1	< 0.05	< 0.05	< 0.05	< 0.5	< 0.1	< 100	-	7.3	-			
BH04_1.0	22-Aug-21	Eurofins	819243	Natural	9.0	< 0.4	52	-	< 5	13	< 0.1	< 5	13	< 2	< 2	< 10	8.7	-	-	-	-	-	-	-	-	-	-	-	-	-	< 0.5	< 0.5	< 0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
BH05_0.1	22-Aug-21	Eurofins	819243	Fill	23	0.4	15	-	42	510	0.2	< 5	12	< 2	< 2	37	570	-	< 20	< 50	< 50	300	110	< 2	-	-	-	< 0.5	-	-	30.5	4.6	6.2	-	-	-	0.14	0.77	< 0.1	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.5	-	-	12	-	7.6	
BH05_0.5	22-Aug-21	Eurofins	819243	Natural	21	< 0.4	50	-	9.5	38	0.1	< 5	18	< 2	< 2	< 10	36	-	< 20	< 50	< 50	< 100	< 100	-	-	-	-	< 0.5	-	-	< 0.5	< 0.5	< 0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.4		
BH05_1.0	22-Aug-21	Eurofins	819243	Natural	3.0	< 0.4	7.5	-	19	98	< 0.1	< 5	< 5	< 2	< 2	< 10	86	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

NOTES: ^A = NEPM HSLs (for vapour intrusion) are Non-Limiting. Therefore, Soil Health Screening Levels for Direct Contact from CRC CARE 2011 Technical Report No. 10 'Health Screening Levels for Petroleum Hydrocarbons in Soil and Groundwater' are adopted

^B = Less BTEX

^C = Less Naphthalene

^D = EIL is for Cr 3+

Bolded results exceed criteria;

ND means Not Detected;

n/a means Not Available or Not Applicable;

All units are in **mg/kg** unless otherwise stated;

HSLs are for SANDY soils at 0 - <1 m depth

ESLs are the LOWEST values for fine/coarse grained soils

EILs for Copper, Chromium, Nickel and Zinc are for aged contaminants, calculated using the NEPM EIL calculators using the following parameters:

-Traffic Volume: High

-Clay Content (%): 1 (Conservative value in the absence of clay content analysis)

-CEC (cmolc/kg): 12 (Lowest recorded CEC value)

-pH (CaCl2): 4.97 (Average of recorded pH values)

Table 2. Results Summary Vs Off-Site Disposal Criteria

PROJECT: Elwood (#2048-1



Page 1 of 1

Sample Identification	Date Sampled	Laboratory	Laboratory Report No.	Material Type	METALS													ORGANIC SPECIES													PESTICIDES						OTHER		
					Arsenic (As)	Cadmium (Cd)	Chromium Hexavalent (Cr VI)	Copper (Cu)	Lead (Pb)	Mercury (Hg)	Molybdenum (Mo)	Nickel (Ni)	Selenium (Se)	Silver (Ag)	Tin (Tn)	Zinc (Zn)	T.R.H (C6-C9)	T.R.H (C10-C36)	MAHs (sum)	Benzene	Toluene	Ethylbenzene	Xylenes (total)	Styrene	PAHs (Total)	Benzo (a) Pyrene	CHCs	Polychlorinated biphenyls	Phenols (Halogenated)	Phenols (total, nonhalogenated)	Organochlorine pesticides	Aldrin + Dieldrin	DDT+DDE+DDD	Chlordane	Heptachlor	Other OCPs	Cyanide (total)	Fluoride (total, fusion)	pH (units)
Category C Threshold - Maximum allowable for Fill					20	3.0	1.0	100	300	1.0	40	60	10	10	50	200	100	1000	7.0	1.0	n/a	n/a	n/a	n/a	20	1.0	1.0	2.0	1.0	60	1.0	n/a	n/a	n/a	n/a	n/a	50	450	<4 or >10
Category B Threshold					500	100	500	5,000	1,500	75	1,000	3,000	10,000	180	n/a	35,000	650	10,000	n/a	4.0	3,200	1,200	2,400	120	100	40	n/a	n/a	n/a	560	n/a	1.2	50	4.0	1.2	10	2,500	10,000	n/a
Category A Threshold					2,000	400	2,000	20,000	6,000	300	4,000	12,000	40,000	720	n/a	140,000	2,600	40,000	n/a	16	12,800	4,800	9,600	480	400	160	n/a	n/a	n/a	2,200	n/a	4.8	50	16	4.8	50	10,000	40,000	<2 or >12.5
BH01_0.1	22-Aug-21	Eurofins	819243	Fill	2.8	< 0.4	-	13	28	< 0.1	< 5	< 5	< 2	< 2	< 10	68	< 20	270	-	-	-	-	-	13.9	1.3	-	-	-	-	< 0.1	< 0.05	< 0.05	< 0.1	< 0.05	< 0.1	-	-	-	
BH01_0.5	22-Aug-21	Eurofins	819243	Fill	5.4	< 0.4	-	36	260	0.2	< 5	6.9	< 2	< 2	< 10	110	< 20	< 50	-	-	-	-	-	1.8	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH01_1.0	22-Aug-21	Eurofins	819243	Natural	12	< 0.4	-	< 5	5.7	< 0.1	< 5	< 5	< 2	< 2	< 10	6.4	-	-	-	-	-	-	-	< 0.5	< 0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH02_0.1	22-Aug-21	Eurofins	819243	Fill	6.1	< 0.4	-	26	72	< 0.1	< 5	19	< 2	< 2	< 10	100	< 20	290	-	-	-	-	-	13.3	1.8	-	-	-	-	< 0.1	< 0.05	< 0.05	< 0.1	< 0.05	< 0.1	-	-	-	
BH02_0.7	22-Aug-21	Eurofins	819243	Natural	5.4	< 0.4	-	5.9	86	0.1	< 5	< 5	< 2	< 2	< 10	52	< 20	< 50	-	-	-	-	-	0.6	< 0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH02_1.0	22-Aug-21	Eurofins	819243	Natural	40	< 0.4	-	< 5	15	< 0.1	< 5	13	< 2	< 2	< 10	10	-	-	-	-	-	-	-	< 0.5	< 0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH03_0.1	22-Aug-21	Eurofins	819243	Fill	3.1	< 0.4	< 1	15	68	< 0.1	< 5	6.3	< 2	< 2	< 10	74	< 20	430	< 0.5	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	27.3	3.0	< 0.5	< 0.1	< 1	< 20	< 0.1	< 0.05	< 0.05	< 0.1	< 0.05	< 0.1	< 5	< 100	7.3
BH03_0.5	22-Aug-21	Eurofins	819243	Fill	54	< 0.4	-	34	250	0.2	< 5	11	< 2	< 2	28	210	< 20	1200	-	-	-	-	-	128	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03_0.5 (silica gel)	22-Aug-21	Eurofins	822324	Fill	-	-	-	-	-	-	-	-	-	-	-	-	< 20	< 50	-	-	-	-	-	< 0.5	< 0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH03_1.0	22-Aug-21	Eurofins	819243	Natural	62	< 0.4	< 5	10	< 0.1	< 5	< 5	< 2	< 2	< 10	13	-	< 20	< 50	-	-	-	-	-	< 0.5	< 0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH03_1.0 (silica gel)	22-Aug-21	Eurofins	822324	Natural	-	-	-	-	-	-	-	-	-	-	-	-	< 20	< 50	-	-	-	-	-	< 0.5	< 0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	
BH04_0.1	22-Aug-21	Eurofins	819243	Fill	< 2	< 0.4	-	5.7	5.3	< 0.1	< 5	< 5	< 2	< 2	< 10	17	< 20	340	-	-	-	-	-	< 0.5	< 0.5	-	-	-	-	< 0.1	< 0.05	< 0.05	< 0.1	< 0.05	< 0.1	-	-	-	
BH04_0.5	22-Aug-21	Eurofins	819243	Natural	4.2	< 0.4	< 1	< 5	8.3	< 0.1	< 5	< 5	< 2	< 2	< 10	< 5	< 20	< 50	< 0.5	< 0.1	< 0.1	< 0.1	< 0.3	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1	< 1	< 20	< 0.1	< 0.05	< 0.05	< 0.1	< 0.05	< 0.1	< 5	< 100	7.3
BH04_1.0	22-Aug-21	Eurofins	819243	Natural	9.0	< 0.4	-	< 5	13	< 0.1	< 5	13	< 2	< 2	< 10	8.7	-	-	-	-	-	-	-	< 0.5	< 0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05_0.1	22-Aug-21	Eurofins	819243	Fill	23	0.4	-	42	510	0.2	< 5	12	< 2	< 2	37	570	< 20	360	-	-	-	-	-	30.5	4.6	-	-	-	-	0.91	0.77	0.14	< 0.1	< 0.05	< 0.1	-	-	-	-
BH05_0.5	22-Aug-21	Eurofins	819243	Natural	21	< 0.4	-	9.5	38	0.1	< 5	18	< 2	< 2	< 10	36	< 20	< 50	-	-	-	-	-	< 0.5	< 0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05_1.0	22-Aug-21	Eurofins	819243	Natural	3.0	< 0.4	-	19	98	< 0.1	< 5	< 5	< 2	< 2	< 10	86	-	-	-	-	-	-	-	4.2	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-

NOTES:

ND means Not Detected;

n/a means Not Available or Not Applicable;

K means x 1,000

Bolded results exceed criteria;

Underlined results exceed the maximum allowable levels for Fill and 20 times the relevant Category B elutriable threshold

Units are in mg/kg unless otherwise stated;

Refer to EPA Publication 1828-2 for further details on contaminant concentration thresholds

Table 3.1 QA/QC - Equipment Decontamination, Field & Trip Samples

Date Sampled	Laboratory	Laboratory Report No.	Sample Name	Arsenic (As)	Cadmium (Cd)	Total Chromium (Cr)	Copper (Cu)	Lead (Pb)	Mercury (Hg)	Molybdenum (Mo)	Nickel (Ni)	Selenium (Se)	Silver (Ag)	Tin (Sn)	Zinc (Zn)	PAHs (Total)	Benzo (a) Pyrene
22-Aug-21	Eurofins	819243	TRIP-220821B	Held at lab	-	-	-	-	-	-	-	-	-	-	-	-	-
22-Aug-21	Eurofins	819243	DECON-220821B	< 0.001	< 0.0002	< 0.001	< 0.001	< 0.001	< 0.0001	< 0.005	< 0.001	< 0.001	< 0.005	< 0.005	< 0.005	-	-

NOTES: All results in mg/L.

Table 3.2. Sample Relative Percentage Differences (RPDs)

Date Sampled	Laboratory	Laboratory Report No.	Sample Name	Arsenic (As)	Cadmium (Cd)	Total Chromium (Cr)	Copper (Cu)	Lead (Pb)	Mercury (Hg)	Molybdenum (Mo)	Nickel (Ni)	Selenium (Se)	Silver (Ag)	Tin (Sn)	Zinc (Zn)	PAHs (Total)	Benzo (a) Pyrene
	Eurofins		Limit of Reporting	2.0	0.4	5.0	5.0	5.0	0.1	5.0	5.0	2.0	0.2	10	5.0	0.5	0.5
	ALS		Limit of Reporting	5.0	1.0	2.0	5.0	5.0	0.1	2.0	2.0	5.0	2.0	5.0	5.0	0.5	0.5
22-Aug-21	Eurofins	819243	BH05_0.5	3.0	< 0.4	7.5	19	98	< 0.1	< 5	< 5	< 2	< 2	< 10	86	< 0.5	< 0.5
			DUP-220821B	5.0	< 0.4	7.8	35	220	0.2	< 5	6.2	< 2	< 2	< 10	98	9.8	1.1
	RPD:			50.0	0*	3.9	129.4	168.2	199.2	0*	85.1	0*	0*	0*	180.6	159.1	125.9
22-Aug-21	Eurofins	819243	BH05_0.5	3.0	< 0.4	7.5	19	98	< 0.1	< 5	< 5	< 2	< 2	< 10	86	< 0.5	< 0.5
	ALS	EM2116836	SPLIT-220821B	11.0	<1	7	53	440	-	-	8	-	-	-	145	44.3	6
	RPD			114.3	0*	6.9	94.4	127.1	-	-	104.8	-	-	-	51.1	197.8	184.0

NOTES: Where one sample is non-detectable and its paired result is positive, one half the detection limit is used to calculate the RPD.

Grey shaded results exceed 50%, although are based on low results <10 x LOR or due to halving a non-detectable value to calculate the RPD

Yellow highlighted results indicate an RPD above the acceptable limit after an allowance for the effect of non-detect values and/or limits of reporting has been taken

All results in mg/kg;

* = effectively zero

APPENDIX A

Lotsearch EnviroPro Report



LOTSEARCH

LOTSEARCH ENVIRO PROFESSIONAL

Date: 16 Aug 2021 09:26:42

Reference: LS023222 EP

Address: Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184

Disclaimer:

The purpose of this report is to provide an overview of some of the site history, environmental risk and planning information available, affecting an individual address or geographical area in which the property is located. It is not a substitute for an on-site inspection or review of other available reports and records. It is not intended to be, and should not be taken to be, a rating or assessment of the desirability or market value of the property or its features.

You should obtain independent advice before you make any decision based on the information within the report.

The detailed terms applicable to use of this report are set out at the end of this report.

Dataset Listing

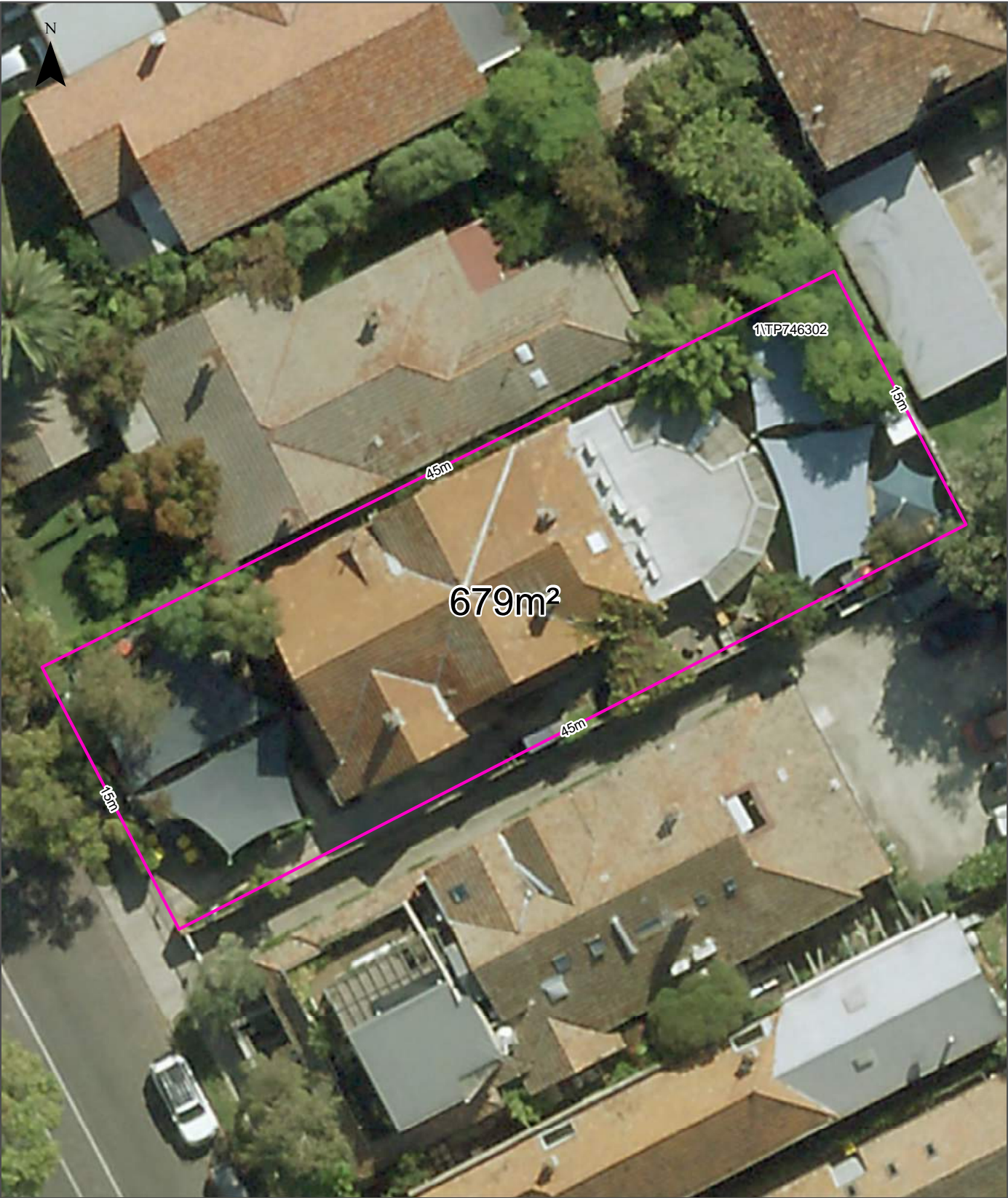
Datasets contained within this report, detailing their source and data currency:

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features On-site	No. Features within 100m	No. Features within Buffer
Topographic and Cadastre data	State Government Victoria - Department of Environment, Land, Water & Planning	19/07/2021	19/07/2021	Monthly	-	-	-	-
Current EPA Priority Sites	Environment Protection Authority (Vic)	02/08/2021	30/06/2021	Monthly	1000m	0	0	0
Former EPA Priority Sites & other Remedial Notices	Environment Protection Authority (Vic)	25/01/2021	25/01/2021	Monthly	1000m	0	0	4
EPA PFAS Site Investigations	Environment Protection Authority (Vic)	03/08/2021	18/09/2020	Monthly	2000m	0	0	0
Defence PFAS Investigation & Management Program - Investigation Sites	Department of Defence	02/08/2021	02/08/2021	Monthly	2000m	0	0	0
Defence PFAS Investigation & Management Program - Management Sites	Department of Defence	02/08/2021	02/08/2021	Monthly	2000m	0	0	0
Airservices Australia National PFAS Management Program	Airservices Australia	05/08/2021	05/08/2021	Monthly	2000m	0	0	0
Defence 3 Year Regional Contamination Investigation Program	Department of Defence	11/05/2021	11/05/2021	Quarterly	2000m	0	0	0
EPA Environmental Audit Reports	Environment Protection Authority (Vic)	22/07/2021	22/07/2021	Monthly	1000m	0	0	30
EPA Groundwater Zones with Restricted Uses	Environment Protection Authority (Vic)	11/08/2021	11/08/2021	Monthly	1000m	0	0	4
Current EPA Licensed Activities	Environment Protection Authority (Vic)	22/07/2021	22/07/2021	Monthly	1000m	0	0	0
Former EPA Licensed Activities	Environment Protection Authority (Vic)	22/07/2021	22/07/2021	Monthly	1000m	0	0	0
EPA Works Approvals	Environment Protection Authority (Vic)	09/08/2021	09/08/2021	Monthly	1000m	0	0	0
National Waste Management Facilities Database	Geoscience Australia	12/05/2021	07/03/2017	Annually	1000m	0	0	0
Statewide Waste and Resource Recovery Infrastructure Plan Facilities	State Government Victoria - Department of Sustainability	27/11/2014	31/12/2012	None planned	1000m	0	0	0
EPA Prescribed Industrial Waste	Environment Protection Authority (Vic)	12/08/2020	12/08/2020	Quarterly	1000m	0	0	5
EPA Victorian Landfill Register	Environment Protection Authority (Vic)	04/08/2021	25/08/2020	Quarterly	1000m	0	0	0
Former Waste Disposal Sites	Various historical sources collated by Lotsearch	15/08/2017	29/12/1998	Not required	1000m	0	0	7
Former Gasworks	Various historical sources collated by Lotsearch	15/08/2017	15/08/2017	Not required	1000m	0	0	0
National Liquid Fuel Facilities	Geoscience Australia	15/02/2021	15/03/2012	Annually	1000m	0	0	4
Historical Business Directories (Premise & Intersection Matches)	Hardie Grant; Sands & McDougall, State Library Victoria			Not required	100m	1	17	17
Historical Business Directories (Road & Area Matches)	Hardie Grant; Sands & McDougall, State Library Victoria			Not required	100m	-	12	12
Historical Business Directory Dry Cleaners & Motor Garages/Service Stations (Premise & Intersection Matches)	Hardie Grant; Sands & McDougall, State Library Victoria			Not required	250m	0	0	93
Historical Business Directory Dry Cleaners & Motor Garages/Service Stations (Road & Area Matches)	Hardie Grant; Sands & McDougall, State Library Victoria			Not required	250m	-	0	0
Features of Interest	State Government Victoria - Department of Environment, Land, Water & Planning	31/05/2021	31/05/2021	Quarterly	1000m	1	2	198
Hydrogeology Map of Australia	Commonwealth of Australia (Geoscience Australia)	08/10/2014	17/03/2000	As required	1000m	1	1	1
Groundwater Salinity	State Government Victoria - Department of Environment, Land, Water & Planning	14/08/2015	29/08/2012	Unknown	0m	1	-	-
Depth to Watertable	State Government Victoria - Department of Environment, Land, Water & Planning	14/08/2015	29/08/2012	Unknown	0m	2	-	-

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features On-site	No. Features within 100m	No. Features within Buffer
Surface Elevation	State Government Victoria - Department of Environment, Land, Water & Planning	14/08/2015	23/09/2013	Unknown	0m	1	-	-
Basement Elevation	State Government Victoria - Department of Environment, Land, Water & Planning	14/08/2015	23/09/2013	Unknown	0m	1	-	-
Groundwater Boreholes WMIS	State Government Victoria - Department of Environment, Land, Water & Planning	16/02/2021	16/02/2021	Quarterly	2000m	0	0	193
Groundwater Boreholes Earth Resources Database	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	20/05/2021	17/02/2010	Annually	2000m	0	0	4
Groundwater Boreholes Fed Uni	Federation University Australia	21/12/2017	07/01/2014	As required	2000m	0	0	0
Historical Mining Activity - Shafts	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	11/05/2021	11/05/2021	Annually	1000m	0	0	0
Geological Units 1:50,000	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	13/01/2015	24/06/2014	Unknown	1000m	1	1	5
Geological Structures 1:50,000	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	13/01/2015	24/06/2014	Unknown	1000m	0	0	0
Dykes and Marker Beds 50k	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	13/01/2015	24/06/2014	Unknown	1000m	0	0	0
Shear zones 250k	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	13/01/2015	24/06/2014	Unknown	1000m	0	0	0
Atlas of Australian Soils	ABARES	19/05/2017	17/02/2011	As required	1000m	1	1	1
Victorian Soil Type Mapping	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	24/08/2017	21/03/2016	Unknown	1000m	1	1	1
Atlas of Australian Acid Sulfate Soils	CSIRO	19/01/2017	21/02/2013	As required	1000m	1	1	2
Coastal Acid Sulfate Soils	State Government Victoria - Department of Economic Development, Jobs, Transport and Resources	28/03/2017	30/03/2011	None planned	1000m	0	1	2
Planning Scheme Zones	State Government Victoria - Department of Environment, Land, Water & Planning	06/07/2021	30/06/2021	Monthly	1000m	1	5	111
Planning Scheme Overlay	State Government Victoria - Department of Environment, Land, Water & Planning	06/07/2021	30/06/2021	Monthly	1000m	1	2	141
Commonwealth Heritage List	Australian Government Department of Agriculture, Water and the Environment	18/05/2021	20/11/2019	Annually	1000m	0	0	0
National Heritage List	Australian Government Department of Agriculture, Water and the Environment	18/05/2021	20/11/2019	Annually	1000m	0	0	0
Victorian Heritage Register	State Government Victoria - Department of Environment, Land, Water & Planning	05/08/2021	05/08/2021	Quarterly	1000m	0	0	9
Cultural Heritage Sensitivity	State Government Victoria - Department of Premier and Cabinet	31/05/2021	31/05/2021	Quarterly	1000m	0	0	7
Bushfire Prone Area	State Government Victoria - Department of Transport, Planning and Local Infrastructure	05/08/2021	06/07/2021	Quarterly	1000m	0	0	0
Fire History	State Government Victoria - Department of Environment, Land, Water & Planning	12/07/2021	30/12/2020	Quarterly	1000m	0	0	0
Flood - 1 in 100 Year Modelled Flood Extent	State Government Victoria - Department of Environment, Land, Water & Planning	11/08/2021	05/02/2018	Quarterly	1000m	0	0	0
Victorian Coastal Inundation Sea Level Rise	State Government Victoria - Department of Environment, Land, Water & Planning	10/04/2018	24/10/2017	Unknown	1000m	0	0	8
Native Vegetation (Modelled 2005 Ecological Vegetation Classes)	State Government Victoria - Department of Environment, Land, Water & Planning	13/01/2015	31/12/2005	None planned	1000m	0	0	0
Ramsar Wetland Areas in Victoria	State Government Victoria - Department of Environment, Land, Water & Planning	25/02/2021	13/03/2019	Annually	1000m	0	0	0
Groundwater Dependent Ecosystems Atlas	Bureau of Meteorology	14/08/2017	15/05/2017	Unknown	1000m	0	0	1
Inflow Dependent Ecosystems Likelihood	Bureau of Meteorology	14/08/2017	15/05/2017	Unknown	1000m	0	0	1

Site Diagram

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184



Legend <div><div></div> Site Boundary</div> <div><div></div> Internal Parcel Boundaries</div>	Total Area: 679m ² Total Perimeter: 121m	
	Disclaimers: Measurements are approximate only and may have been simplified or smaller lengths removed for readability. Parcels that make up a small percentage of the total site area have not been labelled for increased legibility.	
	Scale: <div><div></div><div>0 5 10</div><div>Meters</div></div> Data Source Aerial Imagery: © Aerometrex Pty Ltd	Coordinate System: GDA 1994 MGA Zone 55
		Date: 16 August 2021

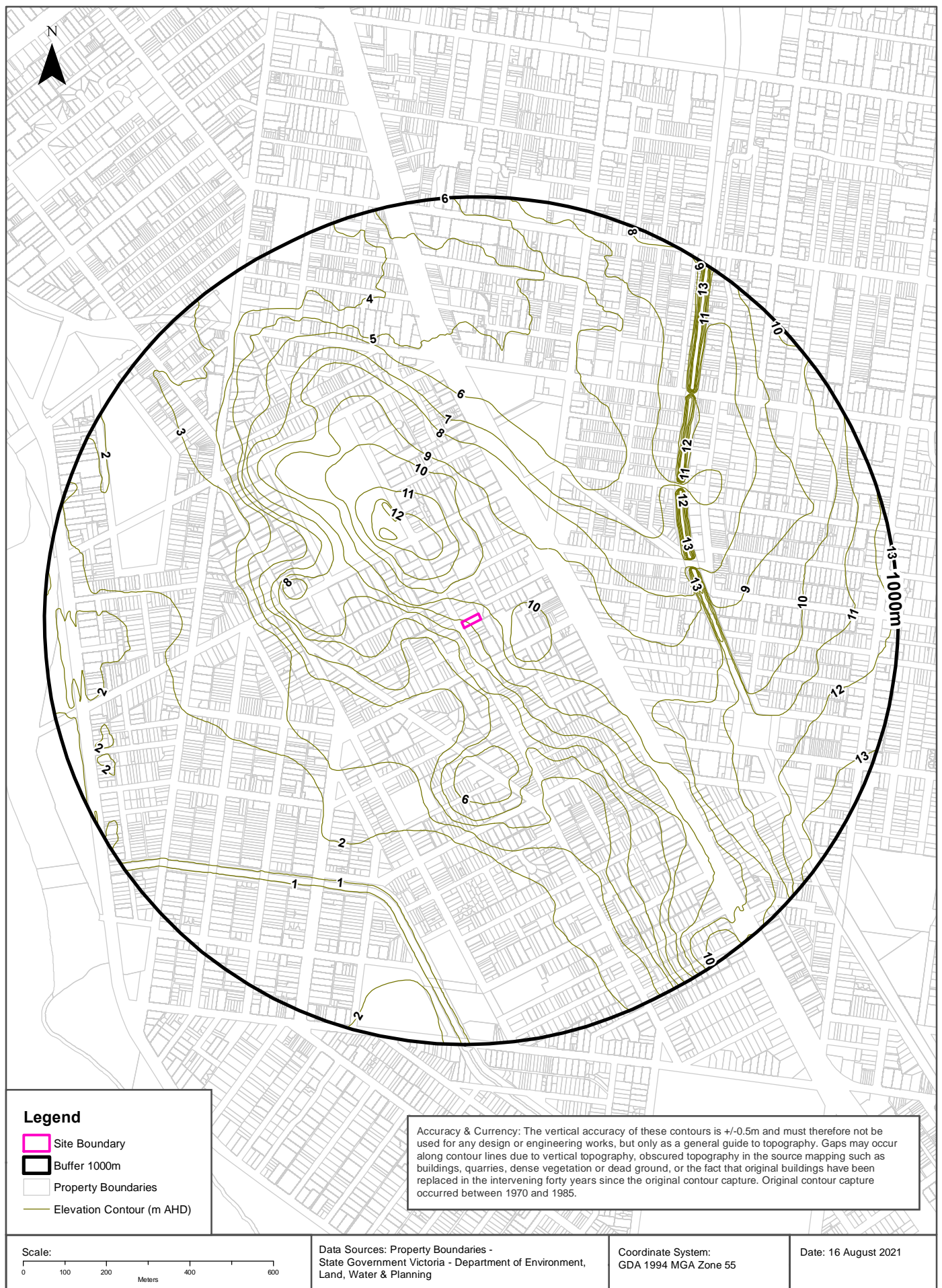
Topographic Data

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184



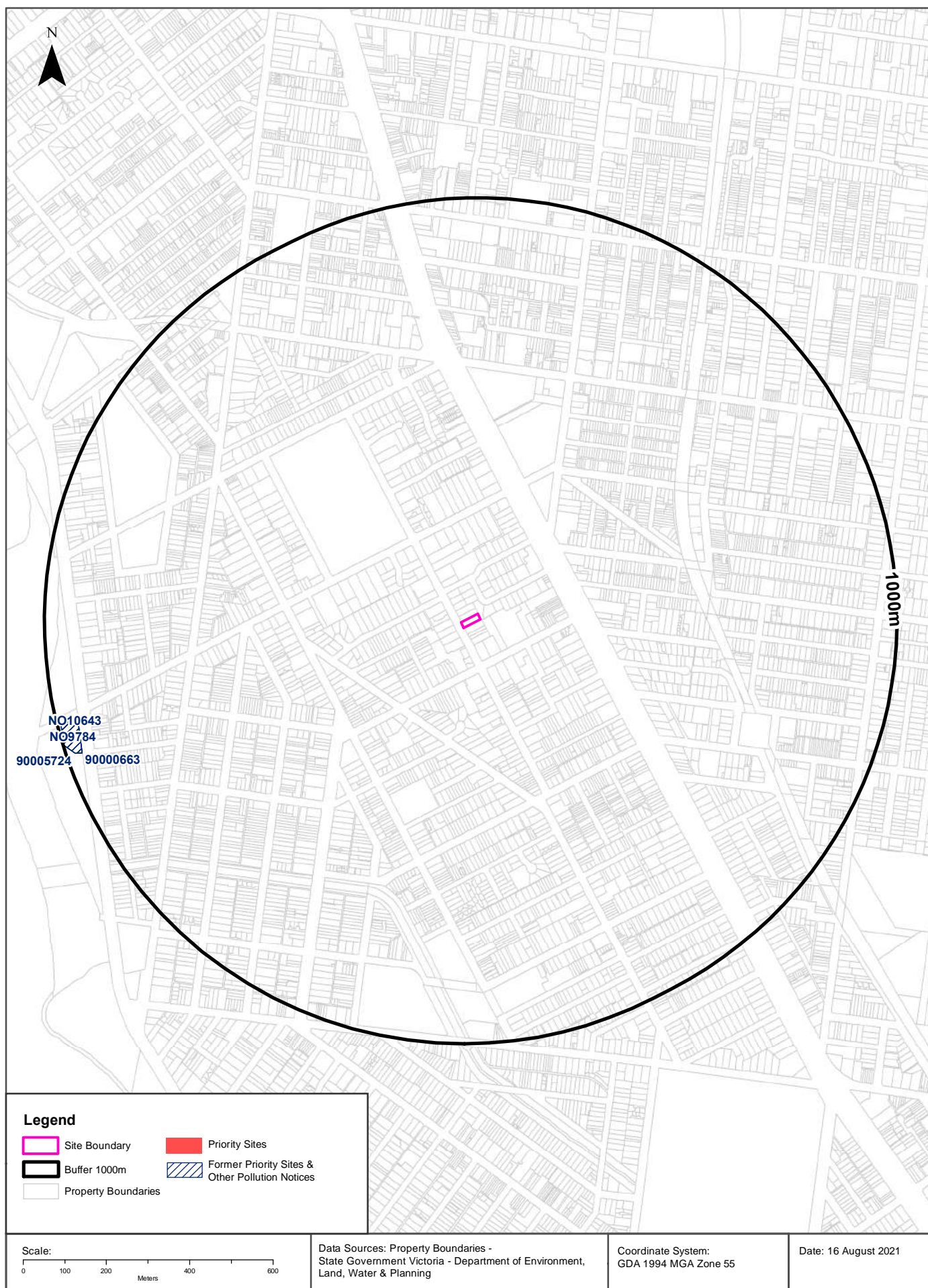
Elevation Contours (m AHD)

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184



EPA Records - Priority Sites & Pollution Notices

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184



EPA Priority Sites & Pollution Notices

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184

Current EPA Priority Sites Register

Sites on the current EPA priority sites register that exist within the dataset buffer:

Notice No	Address	Suburb	Issue	Loc Conf	Dist (m)	Direction
N/A	No records in buffer					

Priority Sites Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

Former EPA Priority Sites & Other Pollution Notices

Sites within the dataset buffer that have been issued a Pollution Notice:

Note. Due to pollution notices being revoked and removed from published lists this is not an exhaustive list of all past pollution notices.

Notice No	Notice Type	Company	Address	Suburb	Status	Issue	Date Issued	Loc Conf	Dist	Dir
90000663	Previous Priority Notice, Clean Up Notice	B P AUSTRALIA PTY LIMITED [ELWOOD]	54A MARINE PDE	ELWOOD	Previous Pollution Notice	Current Service Station. Requires assessment and/or clean up	16/05/2012	Premise Match	948m	West
90005724	Previous Priority Notice, Pollution Abatement Notice	B P AUSTRALIA PTY LTD	54A MARINE PDE	ELWOOD	Previous Priority Notice	Current Service Station. Requires ongoing management.	19/08/2015	Premise Match	948m	West
NO10643	62A(1)	B P AUSTRALIA PTY LTD	54A MARINE PDE	ELWOOD	Legacy EPA Database Pollution Notice	Current Service Station, Requires assessment and/or clean up.	16/05/2012	Premise Match	948m	West
NO9784	62A(1)	B P AUSTRALIA PTY LTD	54A MARINE PDE	ELWOOD	Legacy EPA Database Pollution Notice	Current Service Station, Requires assessment and/or clean up.	19/10/2011	Premise Match	948m	West

Pollution Notice Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

PFAS Investigation & Management Programs

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184

EPA PFAS Site Investigations

Sites being investigated by the EPA for PFAS contamination within the dataset buffer:

Map ID	Site Name	Address	Location Confidence	Distance	Direction
N/A	No records in buffer				

EPA PFAS Site Investigations Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

Defence PFAS Investigation & Management Program Investigation Sites

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

Map ID	Base Name	Address	Location Confidence	Distance	Direction
N/A	No records in buffer				

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

Defence PFAS Investigation & Management Program Management Sites

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

Map ID	Base Name	Address	Location Confidence	Distance	Direction
N/A	No records in buffer				

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

Airservices Australia National PFAS Management Program

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

Map ID	Site Name	Impacts	Location Confidence	Distance	Direction
N/A	No records in buffer				

Airservices Australia National PFAS Management Program Data Custodian: Airservices Australia

Defence Sites

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184

Defence 3 Year Regional Contamination Investigation Program

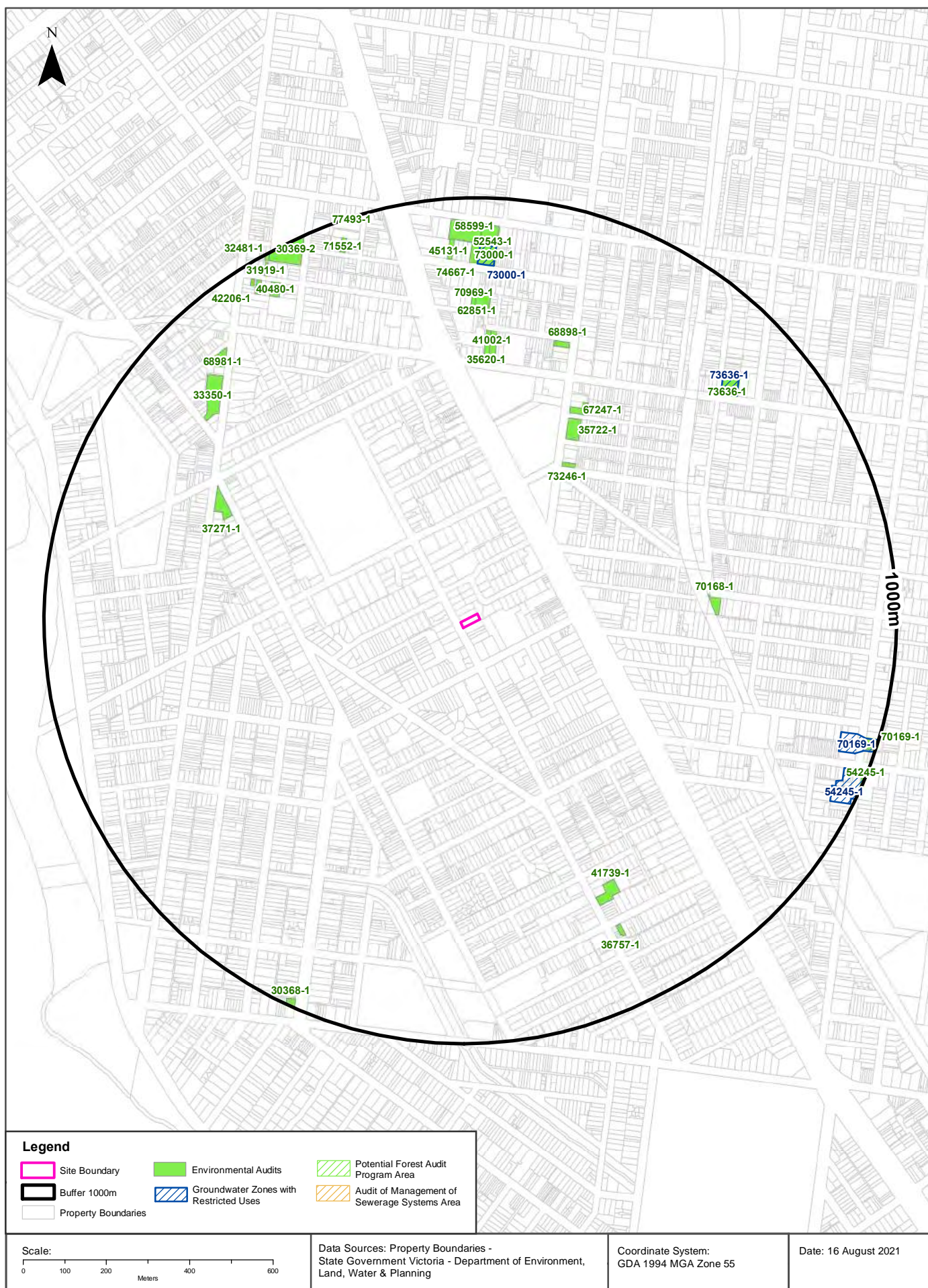
Sites which have been assessed as part of the Defence 3 Year Regional Contamination Investigation Program within the dataset buffer:

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

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

EPA Records - Audit Reports & GQRUZ

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184



EPA Records

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184

EPA Environmental Audits

EPA environmental audit records that exist within the dataset buffer:

Note. Please click on CARMS No. to activate a hyperlink to online documentation. If link does not work, documentation may still be accessible via the EPA Interaction Portal.

CARMS No	Transaction No	Site	Address	Suburb	Date Complete	Audit Category	Loc Conf	Distance	Direction
73246-1	8004491	154 CHAPEL STREET	154 CHAPEL STREET	ST KILDA	18/12/2014	53X Statement	Premise Match	409m	North East
35722-1	8000805	128-140 CHAPEL ST	128-140 CHAPEL ST	ST KILDA	30/09/1998	53X Statement	Premise Match	470m	North East
67247-1	8002905	126 CHAPEL ST	126 CHAPEL ST	ST KILDA	13/07/2010	53X Statement	Premise Match	532m	North East
70168-1	8003233	65-69 GROSVENOR ST	65-69 GROSVENOR ST	BALACLAVA	13/09/2012	53X Statement	Premise Match	548m	East
37271-1	8000890	CNR BARKLY, MITFORD STS FMR SERVICE STAT CNR BARKLY & MILFORD ST	218A BARKLY ST, ST KILDA VIC 3182 218A BARKLY ST	ST KILDA	07/01/1999	53X Statement	Premise Match	606m	North West
41002-1	8001120	126 CARLISLE ST, ST KILDA VIC 3182 49, 126 CARLISLE ST	126 CARLISLE ST	ST KILDA	29/02/2000	53X Statement	Premise Match	606m	North
35620-1	8000801	120-124 CARLISLE ST	120-124 CARLISLE ST	ST KILDA	16/09/1998	53X Statement	Premise Match	608m	North
68898-1	8003078	141 CHAPEL ST	141 CHAPEL ST	ST KILDA	22/02/2011	53X Statement	Premise Match	669m	North
41739-1	8001188	130-132 TENNYSON ST	130-132 TENNYSON ST	ELWOOD	24/08/2000	53X Statement	Premise Match	701m	South East
62851-1	8002502	12, 14 & 18 MARTIN ST	12, 14 & 18 MARTIN ST	ST KILDA	17/07/2009	53X Statement	Premise Match	726m	North
70969-1	8003309	10 MARTIN ST, ST KILDA VIC 3182 10 MARTIN ST	10 MARTIN ST	ST KILDA	03/04/2013	53X Statement	Premise Match	731m	North
33350-1	8000701	181-189 BARKLY ST	181-189 BARKLY ST	ST KILDA	30/06/1999	53X Statement	Premise Match	768m	North West
73636-1	8004685	308 CARLISLE STREET	308 CARLISLE STREET, BALACLAVA	BALACLAVA	05/08/2016	53X Statement	Premise Match	788m	North East
36757-1	8000857	29-31 SCOTT ST	29-31 SCOTT ST	ELWOOD	15/06/1999	53X Statement	Premise Match	803m	South East
68981-1	8003093	173-177 BARKLY ST	173-177 BARKLY ST	ST KILDA	22/08/2012	53X Certificate	Premise Match	835m	North West
73000-1	8004353	40-44 PAKINGTON STREET	40-44 PAKINGTON STREET	St Kilda	20/02/2015	53X Statement	Premise Match	837m	North
74667-1	8005143	22-24 PAKINGTON ST, ST KILDA VIC 3182 22-24 PAKINGTON ST	22-24 PAKINGTON ST, ST KILDA VIC 3182 22-24 PAKINGTON ST	ST KILDA	15/11/2019	53X Statement	Premise Match	842m	North
45131-1	8001320	12 PAKINGTON ST	12 PAKINGTON ST	ST KILDA	09/04/2001	53X Statement	Premise Match	854m	North
52543-1	8001713	163-169 INKERMANN ST	163-169 INKERMANN ST	ST KILDA	15/08/2005	53X Statement	Premise Match	885m	North
58599-1	8002059	135 INKERMANN ST	135 INKERMANN ST	ST KILDA	26/07/2006	53X Statement	Premise Match	889m	North
40480-1	8001090	9-11 VALE ST	9-11 VALE ST	ST KILDA	17/12/1999	53X Statement	Premise Match	895m	North West
42206-1	8001225	1-3 VALE ST	1-3 VALE ST	ST KILDA	10/10/2000	53X Statement	Premise Match	924m	North West

CARMS No	Transaction No	Site	Address	Suburb	Date Complete	Audit Category	Loc Conf	Distance	Direction
71552-1	8003359	36 BLANCHE ST	36 BLANCHE ST	ST KILDA	07/01/2013	53X Statement	Premise Match	924m	North
30369-2	8000508	FORMER MUNICIPAL DEPOT 33 INKERMANS ST	FORMER MUNICIPAL DEPOT 33 INKERMANS ST	ST KILDA	14/04/2000	53X Statement	Premise Match	940m	North West
31919-1	8000597	6 VALE ST	6 VALE ST	ST KILDA	27/05/1997	53X Statement	Premise Match	954m	North West
70169-1	8003234	160 HOTHAM ST	160 HOTHAM ST	ST KILDA EAST	05/03/2014	53X Statement	Premise Match	969m	East
30368-1	8000507	73 GLENHUNTLY RD, ELWOOD VIC 3184	73 GLENHUNTLY RD	ELWOOD	13/02/1997	53X Statement	Premise Match	980m	South West
32481-1	8000633	3 BLANCHE ST	3 BLANCHE ST	ST KILDA	12/01/1998	53X Statement	Premise Match	984m	North West
54245-1	8001818	168-176 HOTHAM ST AND 2 ACACIA ST, ELST 168-176 HOTHAM STREET & 2 ACACIA ST	168-174 HOTHAM ST, ELSTERNWICK VIC 3185 168-174 HOTHAM ST	ELSTERNWICK	18/10/2013	53X Statement	Premise Match	985m	East
77493-1	8005988	71 INKERMANS STREET 71 INKERMANS ST	71 INKERMANS STREET 71 INKERMANS ST	ST KILDA	27/03/2019	53X Statement	Premise Match	990m	North

Environmental Audit Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

EPA Records

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184

EPA Groundwater Zones with Restricted Uses

EPA GQRUZ records that exist within the dataset buffer:

Note. Please click on CARMS No. to activate a hyperlink to online documentation.

CARMS No	EPA Id	Site History	Site Address	Restricted Uses	Status	Loc Conf	Distance	Direction
73636-1	7001431	Service station/fuel storage	308 CARLISLE ST BALACLAVA VIC 3183	Drinking water Irrigation of crops (including domestic gardens) and parks Livestock water supply Water used for industrial purposes Water used for recreational purposes (e.g. swimming)	Current EPA list	Premise Match	788m	North East
73000-1	7001158	Commercial	40 - 44 PAKINGTON ST ST KILDA VIC 3182	Drinking water Irrigation of crops (including domestic gardens) and parks Water used for industrial purposes Water used for recreational purposes (e.g. swimming)	Current EPA list	Premise Match	837m	North
70169-1	7000654	Service station/fuel storage	160 HOTHAM ST ST KILDA EAST VIC 3183	Drinking water Livestock water supply Water used for recreational purposes (e.g. swimming)	Current EPA list	Premise Match	909m	East
54245-1	7000571	Service station/fuel storage	168-176 Hotham St and 2 Acacia St Elsternwick VIC 3185	Drinking water Irrigation of crops (including domestic gardens) and parks Livestock water supply Water used for recreational purposes (e.g. swimming)	Current EPA list	Premise Match	935m	South East

Environmental GQRUZ Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

EPA Activities

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184

EPA Licensed Activities

EPA licensed activities that exist within the dataset buffer:

Trans No	Licence No	Licence Type	Organisation	Premise Ref	Premise Address 1	Premise Address 2	Activities	Loc Conf	Dist (m)	Direction
N/A	No records in buffer									

Licensed Activity Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

Former EPA Licensed Activities

Former EPA licensed activities that exist within the dataset buffer:

Licence No	Organisation	Premise Address	Suburb	Activities	Loc Conf	Dist (m)	Direction
N/A	No records in buffer						

Former Licensed Activity Data Custodian: State Government Victoria - Environmental Protection Authority (EPA)

EPA Works Approvals

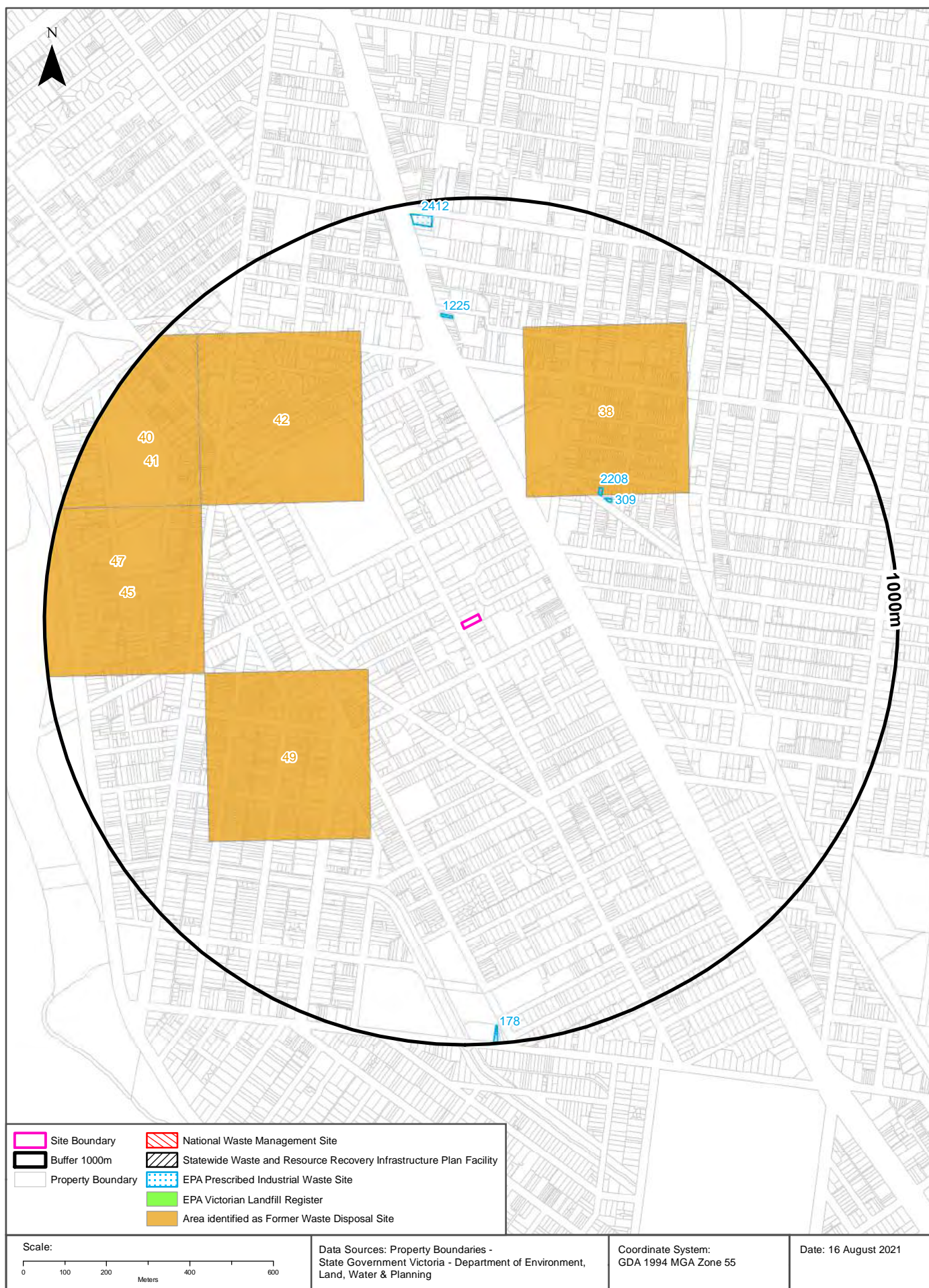
EPA works approvals that exist within the dataset buffer:

Transaction No	Status	Approval No	Organisation	Premise Address	Suburb	Scheduled Categories	Loc Conf	Dist (m)	Direction
N/A	No records in buffer								

Works Approvals Data Custodian: State Government Victoria - Environment Protection Authority (EPA)

Waste Management Facilities and Landfills

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184



Waste Management Facilities & Landfills

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184

National Waste Management Site Database

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

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

Waste Management Facilities Data Source: Australian Government Geoscience Australia

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Statewide Waste and Resource Recovery Infrastructure Plan Facilities

Statewide Waste and Resource Recovery Infrastructure Plan Facilities within the dataset buffer:

Map Id	Owner	Site Name	Address	Suburb	Category	Sub Category	Loc Conf	Distance	Direction
N/A	No records in buffer								

SWRRIPF Data Source: State Government Victoria - Department of Sustainability

EPA Prescribed Industrial Waste

EPA Prescribed Industrial Waste treaters, disposers and permitted transporters within the dataset buffer:

Map Id	Company Name	Address	Suburb	Treatment /Disposal	Transport	Accredited Agent	EPA List Status	Loc Conf	Dist (m)	Dir
2208	IMAJIKA PTY LTD	2a BOTHWELL ST	BALACLAVA VIC 3183	No	Yes	No	Current EPA List	Premise Match	408m	North East
309	IMAJIKA PTY LTD	2 BOTHWELL ST	BALACLAVA VIC 3183	No	Yes	No	Previous EPA List	Premise Match	410m	North East
1225	TOLL TRANSPORT PTY LIMITED	Level 7, 380 ST KILDA ROAD	ST KILDA	No	Yes	No	Previous EPA List	Premise Match	715m	North
2412	RJC ELECTRICAL SOLUTIONS PTY LTD	UNIT 206 109 INKERMANN ST	ST KILDA VIC 3182	No	Yes	No	Previous EPA List	Premise Match	937m	North
178	DETAIL GROUP PTY LTD	107 GLENHUNTLY RD	ELWOOD VIC 3184	No	Yes	Yes	Current EPA List	Premise Match	956m	South

Prescribed Industrial Waste Data Source: State Government Victoria - Environment Protection Authority (EPA)

Waste Management Facilities & Landfills

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184

EPA Victorian Landfill Register

EPA Victorian Landfill Register sites within the dataset buffer:

Landfill Register No.	Site	Address	Operating Status	Est. Year Of Closure	Waste type	Loc Conf	Dist (m)	Direction
N/A	No records in buffer							

EPA Victorian Landfill Register Data Source: State Government Victoria - Environment Protection Authority (EPA)

Former Waste Disposal sites

Former Waste Disposal sites identified from various historical sources within the dataset buffer:

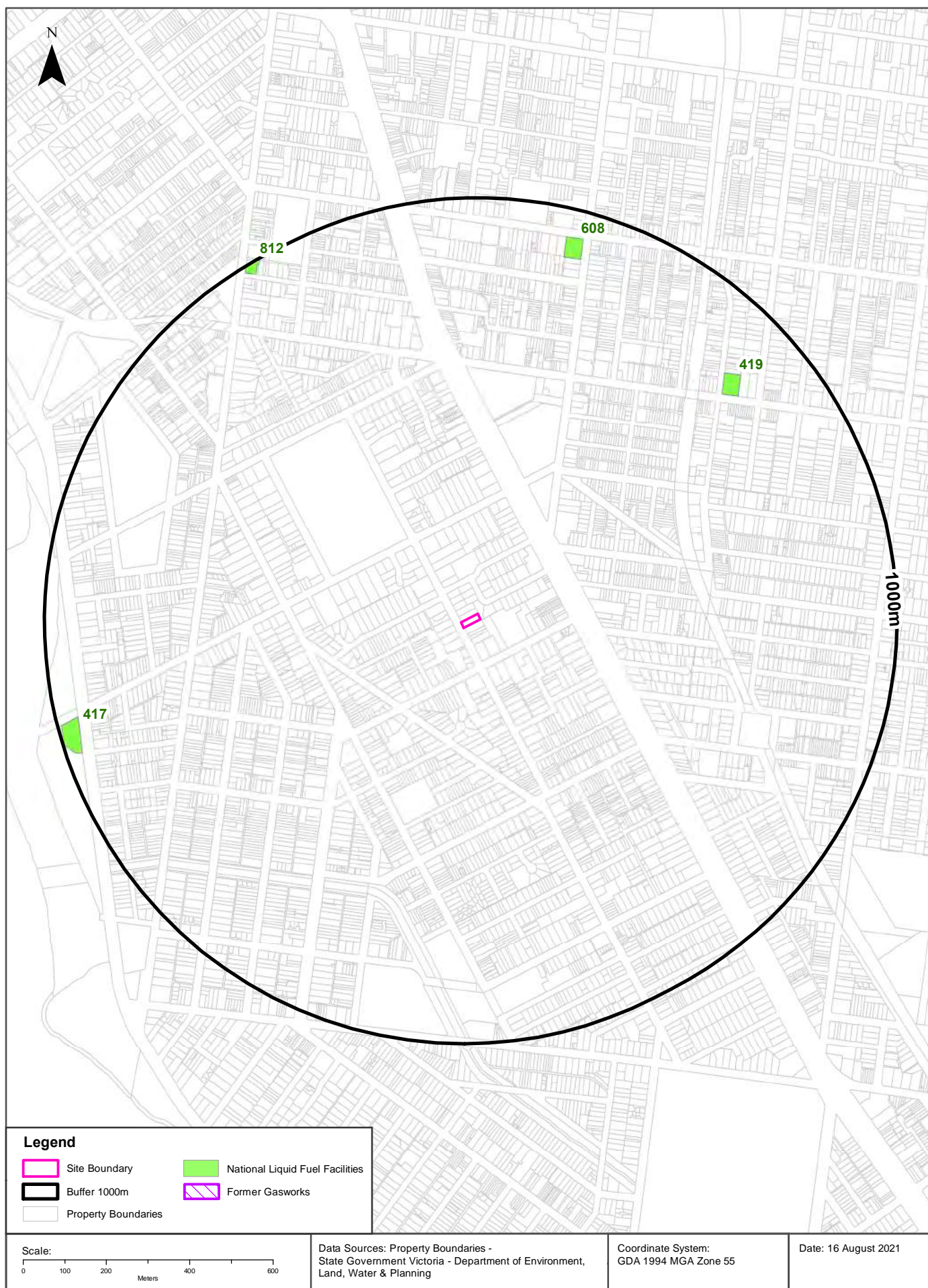
Note - As this is a dataset collated from various historical sources, it is not an exhaustive list of all former waste disposal sites

Map Id	Title	Suburb	Fill Type	Prior Use	Current Use	Start Year	Finish Year	Other Information	Melway Page	Melway Grid	Location Confidence	Dist	Direction
49		Elwood	inert	swamp	residential	prior to 1899		parts to a depth of 3ft 6in, with silt dredged from the	67	B1	Melway Map Grid Reference	252m	South West
38	St Kilda Town Hall Site	St Kilda	municipal wastes		residential	1859	1888	original levels of the land were approx 3ft lower. Current Town Hall site	58	D11	Melway Map Grid Reference	304m	North East
42	St.Kilda Botannical Gardens	St Kilda	municipal waste	quarry	reserve			Gravel removed & holes filled will rubbish	58	B11	Melway Map Grid Reference	376m	North West
45	marine pde	St Kilda			foreshore	1899		Marine Pde embanked, fromed and metalled	58	A12	Melway Map Grid Reference	619m	West
47	marine Pde	St Kilda		sandbanks	road	1930		sandbanks enclosed and filled	58	A12	Melway Map Grid Reference	619m	West
40	O'Donnell gardens	St Kilda	municipal waste		reserve		up until 1877	increased ground height by 4ft 6in	58	A11	Melway Map Grid Reference	686m	North West
41	Peanut Farm Reserve	St Kilda	manure & nightsoil		reserve	1857	1877	extent not certain	58	A11	Melway Map Grid Reference	686m	North West

Former Waste Disposal Sites Data Source: Collated from various historical sources

Former Gasworks & Liquid Fuel Facilities

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184



Former Gasworks and Liquid Fuel Facilities

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184

Former Gasworks

Former Gasworks identified from various historical sources within the dataset buffer:

Note - As this is a dataset collated from various historical sources, it is not an exhaustive list of all former Gasworks

Map Id	Site Name	Date Opened	Year Closed	Location Confidence	Distance	Direction
N/A	No records in buffer					

Former Gasworks Data Source: Collated from various historical sources

National Liquid Fuel Facilities

National Liquid Fuel Facilities within the dataset buffer:

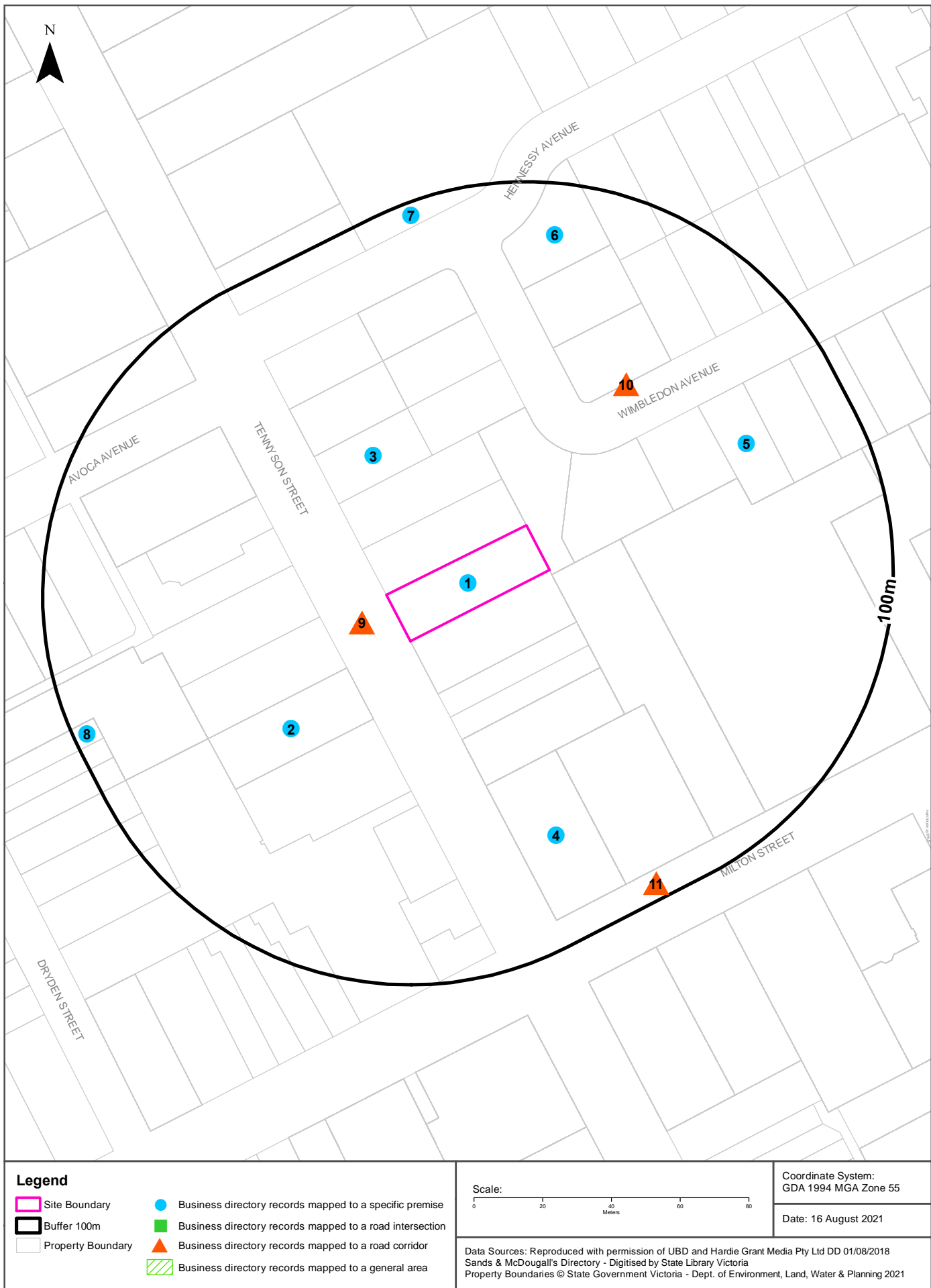
Map Id	Owner	Name	Address	Suburb	Class	Operational Status	Operator	Revision Date	Loc Conf	Dist (m)	Direction
419	BP	BP Balaclava	308 Carlisle Street	Balaclava	Petrol Station	Operational		25/07/2011	Premise Match	788m	North East
608	Caltex	Safeway Caltex St Kilda	97 Chapel Street	St Kilda	Petrol Station	Operational		25/07/2011	Premise Match	882m	North
417	BP	BP Connect Cabarita	54 Marine Parade	Elwood	Petrol Station	Operational		25/07/2011	Premise Match	948m	West
812	Shell	Coles Express St Kilda	120-134 Barkly Street	St Kilda	Petrol Station	Operational		25/07/2011	Premise Match	971m	North West

National Liquid Fuel Facilities Data Source: Geoscience Australia

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Historical Business Directories

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184



Historical Business Directories

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184

Business Directory Records 1896-1991 Premise or Road Intersection Matches

Universal Business Directory and Sands & McDougall Directory records, from years 1991, 1984, 1980, 1977, 1974, 1965, 1960, 1950, 1945, 1925, 1905 & 1896, mapped to a premise or road intersection within the dataset buffer:

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
1	PAINTERS, DECORATORS & SIGNWRITERS.	Rolfe Bros., 46 Tennyson St., Elwood., 3184	163770	1974	Premise Match	0m	On-site
2	FLATS	Kelburn . 15 Tennyson St St. K.	385214	1925	Premise Match	20m	South West
3	JEWELLERS &/OR WATCHMAKERS.	Buchbinder, L., 40 Tennyson St., Elwood.	34209	1980	Premise Match	30m	North West
	JEWELLERS &/OR WATCHMAKERS.	Buchbinder, L., 40 Tennyson St., Elwood.3184	21674	1977	Premise Match	30m	North West
4	Guest Houses	ELWOOD, S.3-Barry, Mrs L. M, 56 Tennyson-st	27665	1945	Premise Match	47m	South
5	DETECTIVES-PRIVATE	Abbey Detective Agency., 9 Wimbledon Av., Elwood	29042	1965	Premise Match	60m	North East
	MERCANTILE AGENTS	G.I.S. Repossession & Collection Agency., 9 Wimbledon Av., Elwood	64676	1965	Premise Match	60m	North East
6	FLATS & APARTMENTS	Wingfield Manor, 13 Hennessy Av., St. Kilda	32866	1950	Premise Match	69m	North
7	MEDICAL PRACTITIONERS.	Steinberg, O., 16 Hennessy Ave., St. Kilda.3182	38901	1984	Premise Match	92m	North
	PHYSICIANS & SURGEONS.	Steinberg, O., 16 Hennessy Ave., St. Kilda.	44485	1980	Premise Match	92m	North
	PHYSICIANS & SURGEONS	Steinberg, O., 16 Hennessy Ave., St. Kilda. 3182	30389	1977	Premise Match	92m	North
	PHYSICIANS & SURGEONS.	Steinberg, Oscar, 16 Hennessy Ave., St. Kilda, 3182	167656	1974	Premise Match	92m	North
	PHYSICIANS & SURGEONS	Steinberg, Oscar., 16 Hennessey Av., St. Kilda	80430	1965	Premise Match	92m	North
	PHYSIOTHERAPISTS	Rosenblatt, E., 14 Hennessy Ave., Elwood	9968	1960	Premise Match	92m	North
	PHYSIOTHERAPISTS	Rosenblatt, E., 14 Hennessy Av., Elwood	64333	1950	Premise Match	92m	North
	MEDICAL PRACTITIONERS	Shatin, R., 14 Hennessey Av., Elwood	54290	1950	Premise Match	92m	North
8	MUSICIANS AND MUSIC TEACHERS	Sack Mrs K . 5 Browning St St.K.	386830	1925	Premise Match	92m	West

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Business Directory Records 1896-1991

Road or Area Matches

Universal Business Directory and Sands & McDougall Directory records, from years 1991, 1984, 1980, 1977, 1974, 1965, 1960, 1950, 1945, 1925, 1905 & 1896, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published:

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
9	DAIRY PRODUCE.	Coon. Mrs P Tennyson st St. K.	366527	1925	Road Match	0m
	BUTCHERS AND MEAT SALESMEN	Evans A Tennyson St St. K.	391188	1925	Road Match	0m
	FRUITERERS & GREENGROCERS	Lagerlof Mrs M . Tennyson St St. K.	391791	1925	Road Match	0m
	BOOT, &c., RETAILERS	Richardson W Tennyson st.St.K.	391037	1925	Road Match	0m
	CONFECTIONERS	Rvan F Tennyson st St. K.	391396	1925	Road Match	0m
	NEWS AGENTS	Ryan F . Tennyson St St. K.	392306	1925	Road Match	0m
	FRUITERERS & GREENGROCERS	Tormey L . Tennyson St St. K.	391807	1925	Road Match	0m
	GROCERS (RETAIL)	Wallis T. R . Tennyson St St. K.	391932	1925	Road Match	0m
10	FLATS & APARTMENTS	Corvey Flats, Wimbledon Av., Elwood	32805	1950	Road Match	25m
	FLATS	Wimbledon. Wimbledon-Av. St.K.	387688	1925	Road Match	25m
11	FLATS & APARTMENTS	Camberley Flats, Milton St., Elwood	32797	1950	Road Match	91m
	FLATS	Craigmore . 18 Milton St St. K.	384781	1925	Road Match	91m

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Dry Cleaners, Motor Garages & Service Stations

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184



Legend		Scale: 0 40 80 120 160 Meters	Coordinate System: GDA 1994 MGA Zone 55
Site Boundary	Business directory records mapped to a specific premise		Date: 16 August 2021
Buffer 250m	Business directory records mapped to a road intersection	Data Sources: Reproduced with permission of UBD and Hardie Grant Media Pty Ltd DD 01/08/2018 Sands & McDougall's Directory - Digitised by State Library Victoria Property Boundaries © State Government Victoria - Dept. of Environment, Land, Water & Planning 2021	
Property Boundary	Business directory records mapped to a road corridor		
Business directory records mapped to a general area			

Historical Business Directories

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184

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

Dry Cleaners, Motor Garages & Service Stations from Sands & McDougall's Directories (1925, 1945) and UBD Business Directories (1948-1992), mapped to a premise or road intersection, within the dataset buffer. As spatial coverage varies between directory editions, this table may not include every year in the dataset.

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
1	DRY CLEANERS, DYERS & PRESSERS	Renown Dry Cleaners:- 95 Brighton Rd., St. Kilda	27545	1950	Premise Match	138m	East
	DRY CLEANERS, DYERS & PRESSERS.	Renown Dry Cleaners:-, 95 Brighton Rd St Kilda	27755	1948-49	Premise Match	138m	East
2	DRY CLEANERS PRESSERS &/OR DYERS.	Gouge Country Services Pty. Ltd., 97 Brighton Rd., Elwood 3184	44055	1972	Premise Match	142m	East
	DRY CLEANERS, DYERS & PRESSERS.	Gouge Country Services Pty. Ltd., 97 Brighton Rd Elwood	29984	1971	Premise Match	142m	East
	DRY CLEANERS, DYERS & PRESSERS.	Gouge Country Services Pty. Ltd., 97 Brighton Rd., Elwood	5356	1968-69	Premise Match	142m	East
	DRY CLEANERS, DYERS & PRESSERS.	Gouge Country Services Pty. Ltd., 97 Brighton Rd., Elwood	62795	1967	Premise Match	142m	East
	DRY CLEANERS, DYERS & PRESSED.	Gouge Country Services Pty. Ltd., 97 Brighton Rd Elwood	49251	1966-67	Premise Match	142m	East
	DRY CLEANERS, DYERS & PRESSERS.	Gouge Country Services Pty. Ltd., 97 Brighton Rd Elwood	37798	1966	Premise Match	142m	East
	DRY CLEANERS, DYERS & PRESSERS	Gouge Country Services Pty. Ltd., 97 Brighton Rd., Elwood	31453	1965	Premise Match	142m	East
	DRY CLEANERS, DYERS & PRESSERS.	Gouge Country Services Pty. Ltd., 97 Brighton Rd Elwood	25201	1963-64	Premise Match	142m	East
	DRY CLEANERS, DYERS & PRESSERS.	Gouge Country Services Pty. Ltd., 97 Brighton Rd Elwood	17853	1961	Premise Match	142m	East
	DRY CLEANERS, DYERS & PRESSERS	Gouge Country Services Pty. Ltd., 97 Brighton Rd., Elwood	62	1960	Premise Match	142m	East
	DRY CLEANERS, DYERS & PRESSERS.	Gouge Country Services Pty. Ltd., 97 Brighton Rd Elwood	68028	1959	Premise Match	142m	East
	DRY CLEANERS, DYERS & PRESSERS.	Gouge Country Services., 97 Brighton Rd Elwood	63629	1958	Premise Match	142m	East
	DRY CLEANERS, DYERS & PRESSERS.	Gouge Country Services., 97 Brighton Rd Elwood	57189	1957	Premise Match	142m	East
	DRY CLEANERS, DYERS & PRESSERS.	Gouge Country Service., 97 Brighton Rd., Elwood	50016	1956	Premise Match	142m	East
	DRY CLEANERS, DYERS & PRESSERS.	Gouge Country Services., 97 Brighton Rd Elwood	43342	1954	Premise Match	142m	East
	DRY CLEANERS, DYERS & PRESSERS.	Gouge Country Services., 97 Brighton Rd., Elwood	39695	1952-53	Premise Match	142m	East
3	MOTOR SERVICE STATIONS, PETROL, ETC.	Barkell. & Chesterfield., 69 Brighton Rd., Elwood	33637	1963-64	Premise Match	154m	North East
	MOTOR SERVICE STATIONS, PETROL, ETC.	Gould's Alex Service Station, 69 Brighton Rd., Elwood	34056	1963-64	Premise Match	154m	North East
	MOTOR SERVICE STATIONS, PETROL, ETC.	Barkell & Chesterfield., 69 Brighton Rd., Elwood	22096	1961	Premise Match	154m	North East
	MOTOR SERVICE STATIONS, PETROL, ETC.	Gould's Alex. Service Station., 69 Brighton Rd Elwood	24505	1961	Premise Match	154m	North East
	MOTOR SERVICE STATIONS, PETROL, ETC.	Barkell & Chesterfield, 69 Brighton Rd., Elwood	852	1960	Premise Match	154m	North East

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
3	MOTOR SERVICE STATIONS, PETROL, ETC.	Gould's, Alex. Service Station, 69 Brighton Rd., Elwood	851	1960	Premise Match	154m	North East
	MOTOR SERVICE STATIONS PETROL ETC.	Barkell & Chesterfield., 69 Brighton Rd Elwood	7367	1959	Premise Match	154m	North East
	MOTOR SERVICE STATIONS PETROL ETC.	Gould's Alex Service Station., 69 Brighton Rd Elwood	7692	1959	Premise Match	154m	North East
	MOTOR SERVICE STATIONS—PETROL, ETC.	Barkell And Chesterfield., 69 Brighton Rd Elwood	60489	1957	Premise Match	154m	North East
	MOTOR SERVICE STATIONS—PETROL, ETC.	Gould's Alex Service Station., 69 Brighton Rd Elwood	60799	1957	Premise Match	154m	North East
	MOTOR SERVICE STATIONS-PETROL, ETC.	Barkell & Chesterfield., 69 Brighton Rd Elwood	53522	1956	Premise Match	154m	North East
	MOTOR SERVICE STATIONS—PETROL, ETC.	Gould's Alex Service Station., 69 Brighton Rd Elwood	53760	1956	Premise Match	154m	North East
	MOTOR SERVICE STATIONS—PETROL, ETC.	White's Service Station, 69 Brighton Rd., St. Kilda	57044	1956	Premise Match	154m	North East
	MOTOR GARAGES & ENGINEERS.	Whites Service Station., 69 Brighton Rd St-Kilda	53413	1956	Premise Match	154m	North East
	MOTOR GARAGES & ENGINEERS.	D.K.W. Car Service., 69 Brighton Rd Elwood	46228	1954	Premise Match	154m	North East
	MOTOR GARAGES & ENGINEERS.	White's Service Station., 69 Brighton Rd St Kilda	49889	1954	Premise Match	154m	North East
	MOTOR SERVICE STATIONS-PETROL, ETC.	Barkell & Chesterfield., 69 Brighton Rd., Elwood	42731	1952-53	Premise Match	154m	North East
	MOTOR GARAGES & ENGINEERS.	D. K. W. Car Service., 69 Brighton Rd., Elwood	40085	1952-53	Premise Match	154m	North East
	MOTOR SERVICE STATIONS-PETROL, ETC.	Gould's Alex Service Station., 69 Brighton Rd Elwood	42890	1952-53	Premise Match	154m	North East
	MOTOR GARAGES & ENGINEERS.	White's Service Station., 69 Brighton Rd St Kilda	40632	1952-53	Premise Match	154m	North East
	MOTOR SERVICE STATIONS-PETROL, ETC.	White's Service Station., 69 Brighton Rd., St. Kilda	43209	1952-53	Premise Match	154m	North East
	MOTOR SERVICE STATIONS-PETROL, ETC.	Barkly Chesterfield., 69 Brighton Rd Elwood	36065	1951-52	Premise Match	154m	North East
	MOTOR GARAGES & ENGINEERS	D.K.W. Car Service., 69 Brighton Rd Elwood	31486	1951-52	Premise Match	154m	North East
	MOTOR SERVICE STATIONS-PETROL, ETC.	Goulds Alex Service Station., 69 Brighton Rd Elwood	36023	1951-52	Premise Match	154m	North East
	MOTOR SERVICE STATIONS-PETROL, ETC.	Gould's Alex Service Station., 69 Brighton Rd Elwood	36217	1951-52	Premise Match	154m	North East
	MOTOR GARAGES & ENGINEERS	White's Service Station., 69 Brighton Rd St Kilda	35994	1951-52	Premise Match	154m	North East
	MOTOR SERVICE STATIONS-PETROL, ETC.	White's Service Station., 69 Brighton Rd St Kilda	36488	1951-52	Premise Match	154m	North East
	MOTOR SERVICE STATIONS-PETROL, ETC.	Barkell & Chesterfield, 69 Brighton Rd., Elwood	59404	1950	Premise Match	154m	North East
	MOTOR SERVICE STATIONS-PETROL, ETC.	Smyth's Service Station, 67 Brighton Rd., St. Kilda	59820	1950	Premise Match	154m	North East
	MOTOR GARAGES & ENGINEERS	White's Service Station, 69 Brighton Rd., St. Kilda	58591	1950	Premise Match	154m	North East
	MOTOR SERVICE STATIONS-PETROL, ETC.	White's Service Station, 69 Brighton Rd., St. Kilda	59876	1950	Premise Match	154m	North East

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
3	MOTOR SERVICE STATIONS—PETROL ETC.	Sqtyth's Service Station., 67 Brighton Rd St Kilda	30883	1948-49	Premise Match	154m	North East
	MOTOR GARAGES & ENGINEERS.	Whites Service Station., 69 Brighton Rd St Kilda	30573	1948-49	Premise Match	154m	North East
	MOTOR SERVICE STATIONS—PETROL ETC.	White's Service Station., 69 Brighton Rd St Kilda	30924	1948-49	Premise Match	154m	North East
4	DRY CLEANERS &/OR PRESSERS	L'Art Parisienne, 77 Brighton Rd., Elwood. 3184.	6993	1989	Premise Match	176m	North East
	DRY CLEANERS & PRESSERS.	L'Art Parisienne, 77 Brighton Rd., Elwood. 3184	66866	1988	Premise Match	176m	North East
5	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Gillespie. W., 31 Dickens St., Elwood 3184	33414	1979	Premise Match	221m	West
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Gillespie W, 31 Dickens St., Elwood 3184	26669	1978	Premise Match	221m	West
	MOTOR GARAGES&/OR ENGINEERS &/OR SERVICE STATIONS.	Gillespie. W., 31 Dickens St., Elwood.3184	25370	1977	Premise Match	221m	West
6	MOTOR GARAGES & SERVICE STATIONS	Awa Panels, 18 Brighton Rd., Balaclava. 3183	11481	1989	Premise Match	249m	North East
	MOTOR GARAGES & SERVICE STATIONS.	Awa Panels., 18 Brighton Rd., Balaclava. 3183.	2213	1988	Premise Match	249m	North East
	MOTOR GARAGES & SERVICE STATIONS.	Awa Panels, 18 Brighton Rd., Balaclava. 3183	61046	1986	Premise Match	249m	North East
	MOTOR' GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Awa Panels., 18 Brighton Rd., Balaclava. 3183	43630	1984	Premise Match	249m	North East
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Golden Fleece St. Kilda, 16A Brighton Rd., St. Kilda	1246	1980	Premise Match	249m	North East
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Golden Fleece St. Kilda., 16A Brighton Rd., St Kilda 3182	33504	1979	Premise Match	249m	North East
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Golden Fleece St. Kilda, 16A Brighton Rd, St. Kilda 3182	26770	1978	Premise Match	249m	North East
	MOTOR GARAGES&/OR ENGINEERS &/OR SERVICE STATIONS.	Golden Fleece St. Kilda., 16A Brighton Rd., St. Kilda.3182	25468	1977	Premise Match	249m	North East
	MOTOR GARAGES &/OR ENGINEERS &/OR SERVICE STATIONS.	Golden Fleece St. Kilda., 16A Brighton Rd., St Kilda 3182	18616	1976	Premise Match	249m	North East
	MOTOR SERVICE STATIONS - PETROL, OIL.	Golden Fleece St. Kilda, 16a Brighton Rd., 3182	6010	1975-76	Premise Match	249m	North East
	MOTOR SERVICE STATIONS - PETROL, OIL.	Golden Fleece St. Kilda, 16a Brighton Rd., 3182	159938	1974	Premise Match	249m	North East
	MOTOR GARAGES &/OR ENGINEERS.	Stewart, J. K., & Co., 16A Brighton Rd., St. Kilda., 3182	157331	1974	Premise Match	249m	North East
	MOTOR SERVICE STATIONS - PETROL, OIL.	Golden Fleece St. Kilda 16a Brighton Rd., 3182	64283	1973	Premise Match	249m	North East
	MOTOR GARAGES &/OR ENGINEERS.	Stewart J. K & Co., 16A Brighton Rd., St Kilda 3182	55879	1973	Premise Match	249m	North East
	MOTOR SERVICE STATIONS- PETROL, OIL.	Golden Fleece, St. Kilda 16a Brighton Rd., 3182	51854	1972	Premise Match	249m	North East

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
6	MOTOR GARAGES &/OR ENGINEERS.	Stewart J. K & Co., 16A Brighton Rd., St Kilda 3182	47845	1972	Premise Match	249m	North East
	MOTOR SERVICE STATIONS-PETROL, ETC.	Golden Fleece (H. C. SLEIGH LIMITED), 16A Brighton Rd., St. Kilda	39066	1971	Premise Match	249m	North East
	MOTOR GARAGES AND ENGINEERS.	Stewart J. K & Co., 16A Brighton Rd St Kilda	34739	1971	Premise Match	249m	North East
	MOTOR SERVICE STATIONS, PETROL, ETC.	Golden Fleece., 16A Brighton Rd., St. Kilda	23968	1969	Premise Match	249m	North East
	MOTOR GARAGES & ENGINEERS	Stewart J. K & Co, 16a Brighton Rd St Kilda	19656	1969	Premise Match	249m	North East
	MOTOR SERVICE STATIONS, PETROL, ETC.	Golden Fleece (H.C. SLEIGH LIMITED), St Kilda 16A Brighton Rd.	12889	1968-69	Premise Match	249m	North East
	MOTOR GARAGES AND ENGINEERS.	Stewart J. K & Co., 16A Brighton Rd St Kilda	8521	1968-69	Premise Match	249m	North East
	MOTOR SERVICE STATIONS—PETROL, ETC.	Golden Fleece., 16A Brighton Rd., St. Kilda	1754	1967	Premise Match	249m	North East
	MOTOR GARAGES & ENGINEERS.	Stewart J. K & Co., 16A Brighton Rd St Kilda	65566	1967	Premise Match	249m	North East
	MOTOR SERVICE STATIONS, PETROL, ETC.	Golden Fleece (H. C. Sleigh Limited), 16A Brighton Rd., St Kilda	58820	1966-67	Premise Match	249m	North East
	MOTOR GARAGES AND ENGINEERS.	Stewart J. K & Co., 16A Brighton Rd St Kilda	54487	1966-67	Premise Match	249m	North East
	MOTOR SERVICE STATIONS, PETROL, ETC.	Golden Fleece., 16A Brighton Rd., St. Kilda	45284	1966	Premise Match	249m	North East
	MOTOR GARAGES AND ENGINEERS.	Stewart J. K & Co., 16A Brighton Rd St Kilda	40962	1966	Premise Match	249m	North East
	MOTOR SERVICE STATIONS-PETROL, ETC.	Golden Fleece (H. C. Sleigh Limited), 16a Brighton Rd., St.Kilda	72248	1965	Premise Match	249m	North East
	MOTOR GARAGES & ENGINEERS	Stewart, J. K., & Co., 16a Brighton Rd., St. Kilda	69672	1965	Premise Match	249m	North East
	MOTOR GARAGES & ENGINEERS	Micro Motors, Rear 16A Brighton Rd., St Kilda	29384	1963-64	Premise Match	249m	North East
	MOTOR GARAGES & ENGINEERS	Stewart J. K & Co., 16A Brighton Rd St Kilda	29616	1963-64	Premise Match	249m	North East
	MOTOR GARAGE & ENGINEERS	Micro Motors Rear., 16A Brighton Rd St Kilda	21712	1961	Premise Match	249m	North East
	MOTOR SERVICE STATIONS, PETROL, ETC.	Grosvenor Motors Pty. Ltd., 16A Brighton Rd., St. Kilda	2202	1960	Premise Match	249m	North East
	MOTOR GARAGES AND ENGINEERS	Stewart, J. K., & Co., 16a Brighton Rd., St. Kilda	2201	1960	Premise Match	249m	North East
	MOTOR GARAGES & ENGINEERS.	Stewart J. K & Co., 16a Brighton Rd., St. Kilda	3997	1959	Premise Match	249m	North East

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

Dry Cleaners, Motor Garages & Service Stations from Sands & McDougall's Directories (1925, 1945) and UBD Business Directories (1948-1992), mapped to a road or an area within the dataset buffer. As spatial coverage varies between directory editions, this table may not include every year in the dataset. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published.

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
N/A	No records in buffer					

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Aerial Imagery 2021

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184



Scale: 0 20 40 60 80 Meters	Data Source Aerial Imagery: © Aerometrex Pty Ltd	Coordinate System: GDA 1994 MGA Zone 55	Date: 16 August 2021
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Aerial Imagery 2016

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184



Legend

- Site Boundary
- Buffer 150m

Scale: 0 20 40 60 80 Meters	Data Source Aerial Imagery: © Aerometrex Pty Ltd	Coordinate System: GDA 1994 MGA Zone 55	Date: 16 August 2021
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Aerial Imagery 2009

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184



Legend

- Site Boundary
- Buffer 150m

Scale:
0 20 40 60 80
Meters

Data Source Aerial Imagery:
© Aerometrex Pty Ltd

Coordinate System:
GDA 1994 MGA Zone 55

Date: 16 August 2021

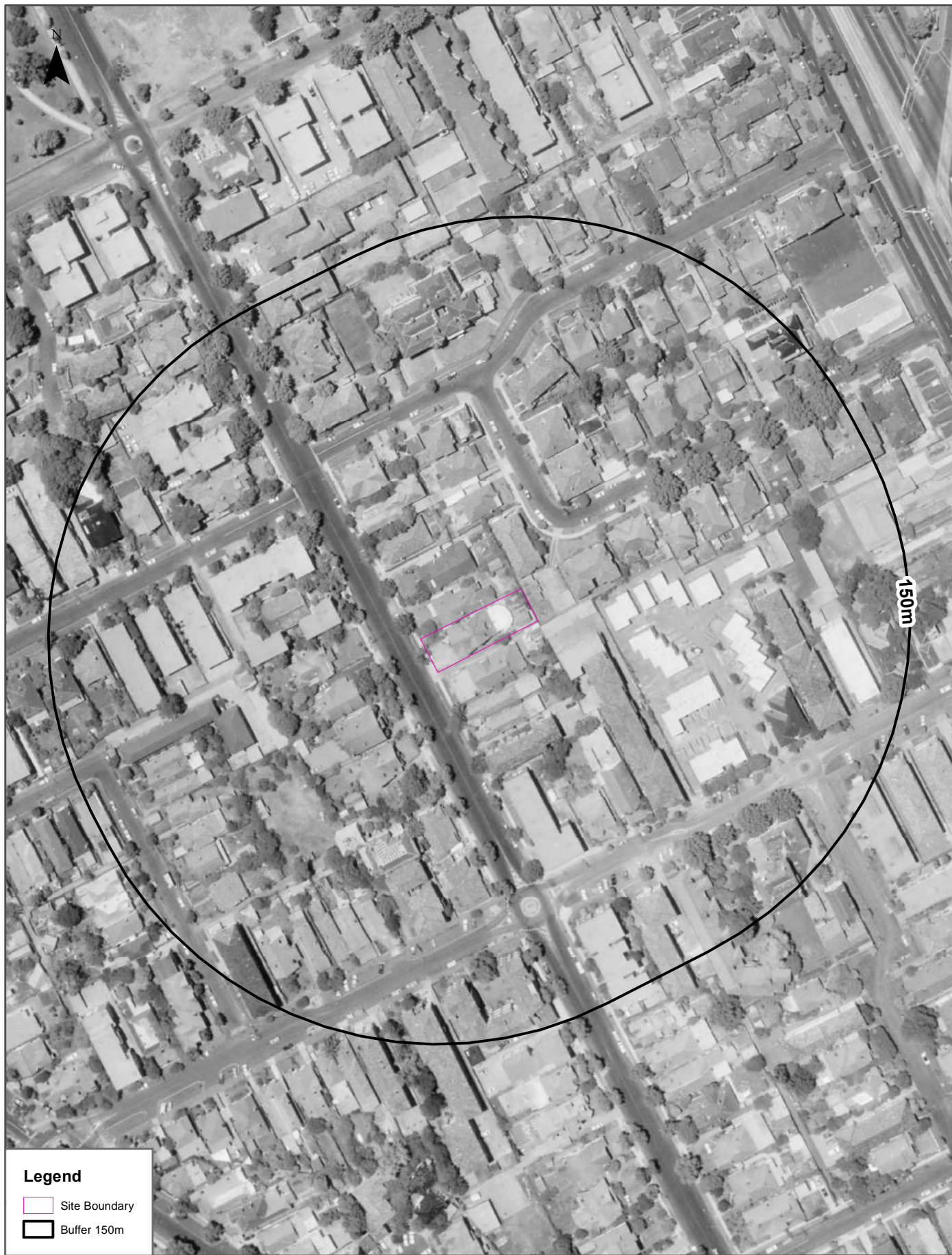
Aerial Imagery 2001

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184





Aerial Imagery 1987

Elwood Children’s Centre - 46 Tennyson Street, Elwood, VIC 3184



Legend

 Site Boundary

 Buffer 150m

<div>Scale:</div> <div><div>0</div><div>20</div><div>40</div><div>60</div><div>80</div></div> <div>Meters</div>	<div>Data Source Aerial Imagery:</div> <div>© Department of Environment, Land, Water and Planning</div> <div>(Vicmap Topographic Mapping Program)</div>	<div>Coordinate System:</div> <div>GDA 1994 MGA Zone 55</div>	<div>Date: 13 August 2021</div>
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Aerial Imagery 1984

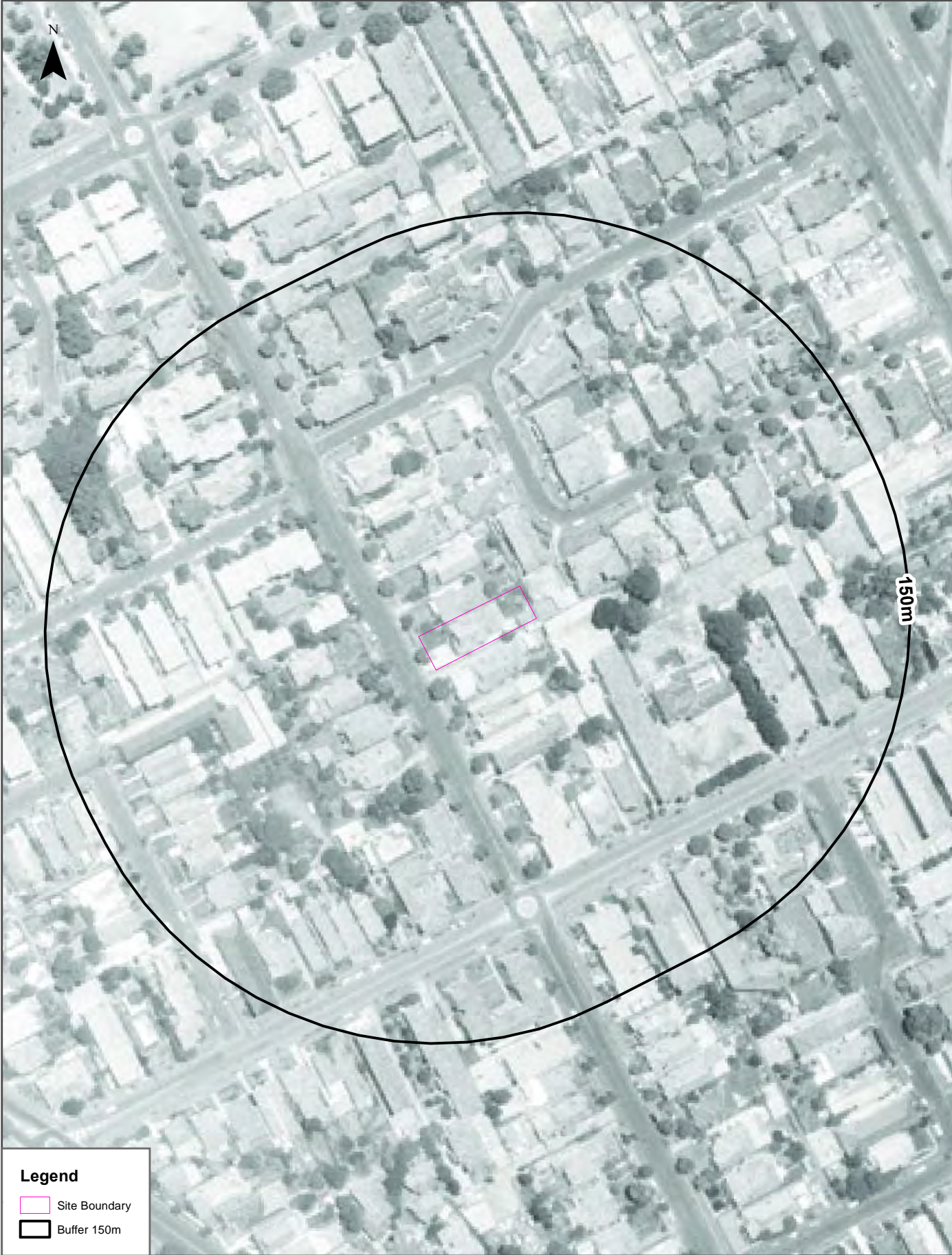
Elwood Children’s Centre - 46 Tennyson Street, Elwood, VIC 3184



<p>Legend</p> <p> Site Boundary</p> <p> Buffer 150m</p>	<p>Scale:</p> <p>0 20 40 60 80</p> <p>Meters</p>	<p>Data Source Aerial Imagery:</p> <p>© Department of Environment, Land, Water and Planning</p> <p>(Vicmap Topographic Mapping Program)</p>	<p>Coordinate System:</p> <p>GDA 1994 MGA Zone 55</p>	<p>Date: 13 August 2021</p>
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Aerial Imagery 1978

Elwood Children’s Centre - 46 Tennyson Street, Elwood, VIC 3184



Scale: 0 20 40 60 80 Meters	Data Source Aerial Imagery: © Department of Environment, Land, Water and Planning (Vicmap Topographic Mapping Program)	Coordinate System: GDA 1994 MGA Zone 55	Date: 13 August 2021
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Aerial Imagery 1975

Elwood Children’s Centre - 46 Tennyson Street, Elwood, VIC 3184



Aerial Imagery 1968

Elwood Children’s Centre - 46 Tennyson Street, Elwood, VIC 3184



Scale: 0 20 40 60 80 Meters	Data Source Aerial Imagery: © Department of Environment, Land, Water and Planning (Vicmap Topographic Mapping Program)	Coordinate System: GDA 1994 MGA Zone 55	Date: 13 August 2021
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Aerial Imagery 1963

Elwood Children’s Centre - 46 Tennyson Street, Elwood, VIC 3184



Scale: 0 20 40 60 80 Meters	Data Source Aerial Imagery: © Department of Environment, Land, Water and Planning (Vicmap Topographic Mapping Program)	Coordinate System: GDA 1994 MGA Zone 55	Date: 13 August 2021
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Aerial Imagery 1951

Elwood Children’s Centre - 46 Tennyson Street, Elwood, VIC 3184



Scale: 0 20 40 60 80 Meters	Data Source Aerial Imagery: © Department of Environment, Land, Water and Planning (Vicmap Topographic Mapping Program)	Coordinate System: GDA 1994 MGA Zone 55	Date: 13 August 2021
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Aerial Imagery 1945

Elwood Children’s Centre - 46 Tennyson Street, Elwood, VIC 3184



Aerial Imagery 1931

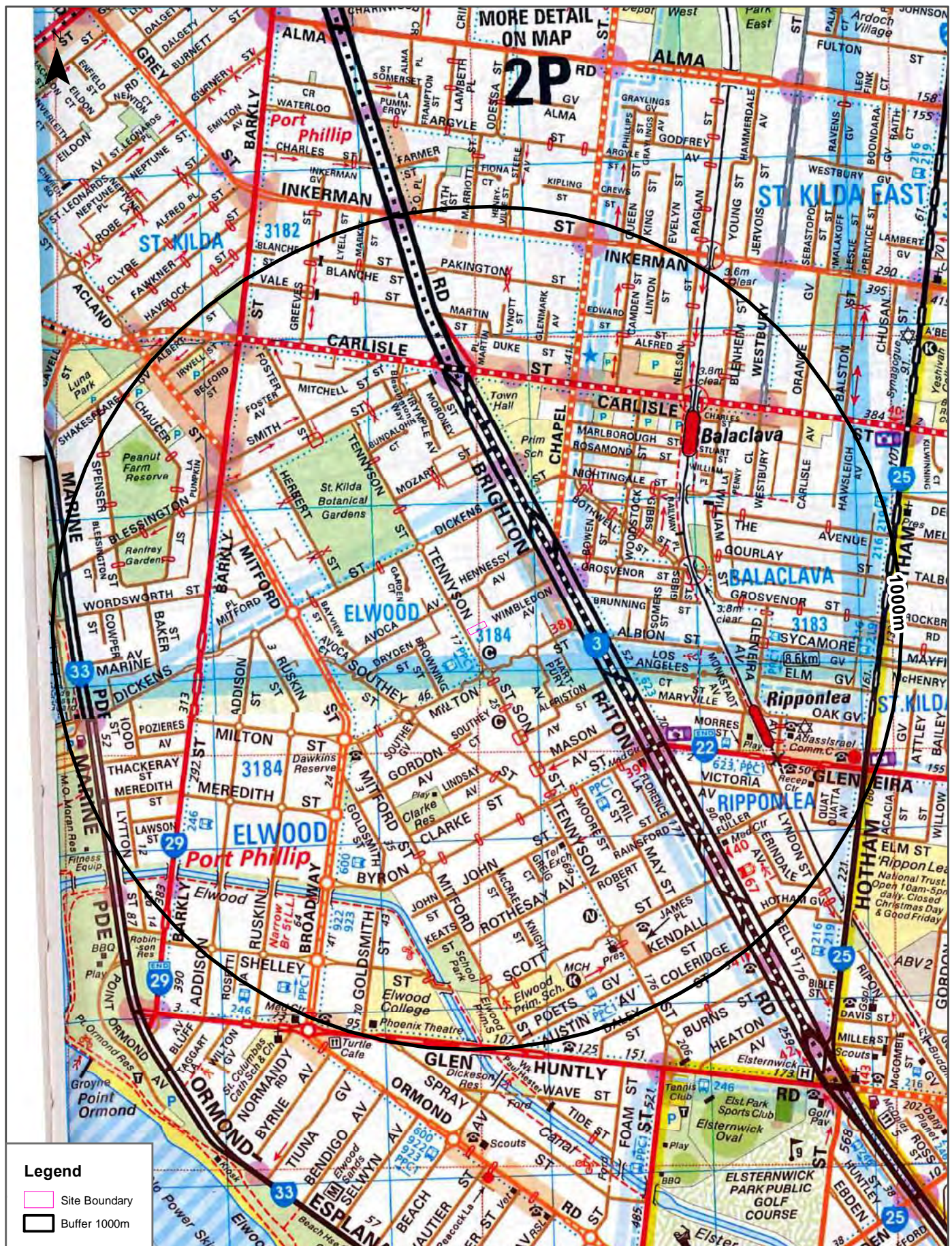
Elwood Children’s Centre - 46 Tennyson Street, Elwood, VIC 3184



<p>Scale:</p> <p>0 20 40 60 80</p> <p>Meters</p>	<p>Data Source Aerial Imagery:</p> <p>© Department of Environment, Land, Water and Planning</p> <p>(Vicmap Topographic Mapping Program)</p>	<p>Coordinate System:</p> <p>GDA 1994 MGA Zone 55</p>	<p>Date: 13 August 2021</p>
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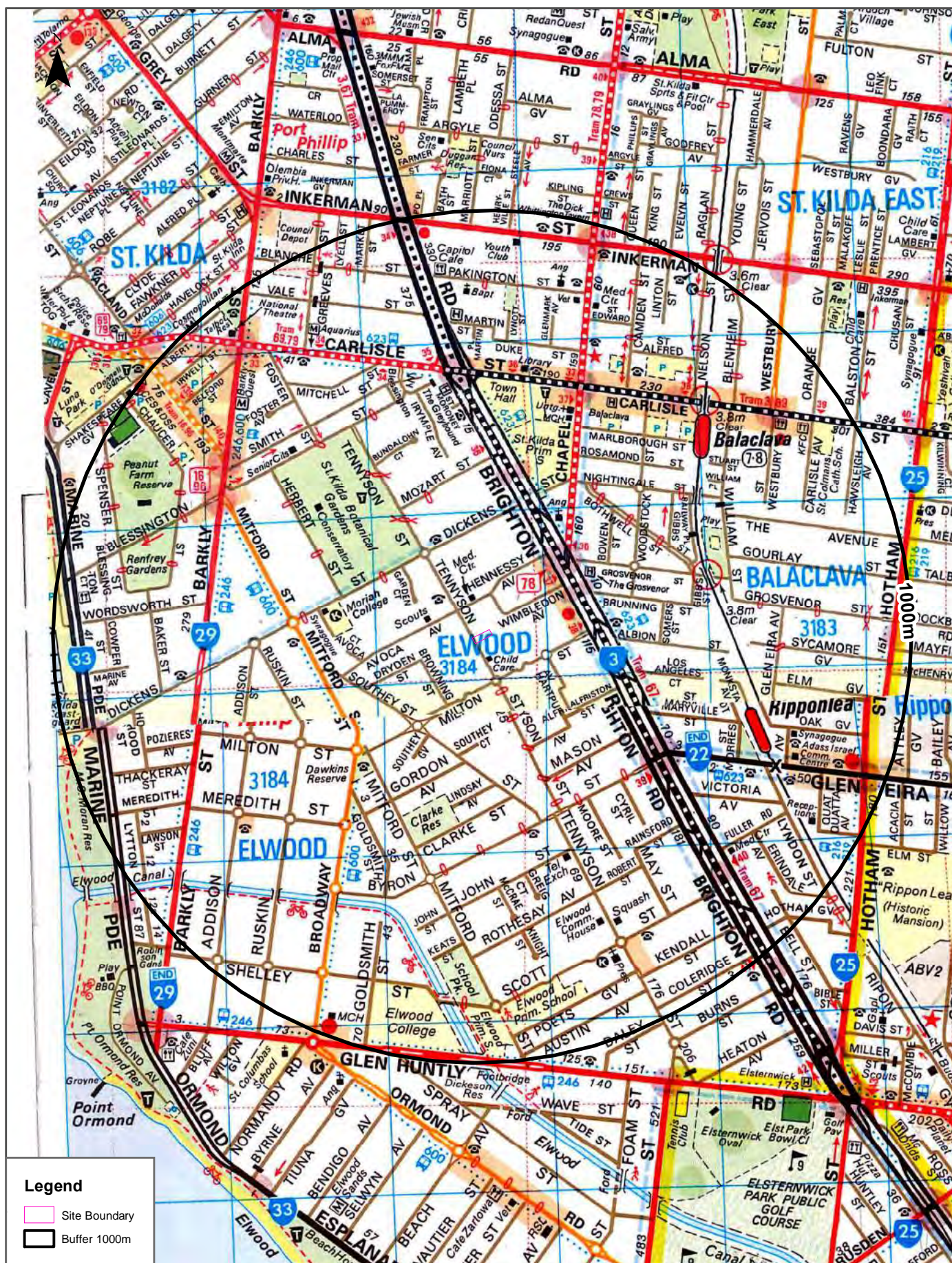
Historical Map 2009

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184

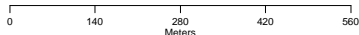


Historical Map 1998

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184



Scale:



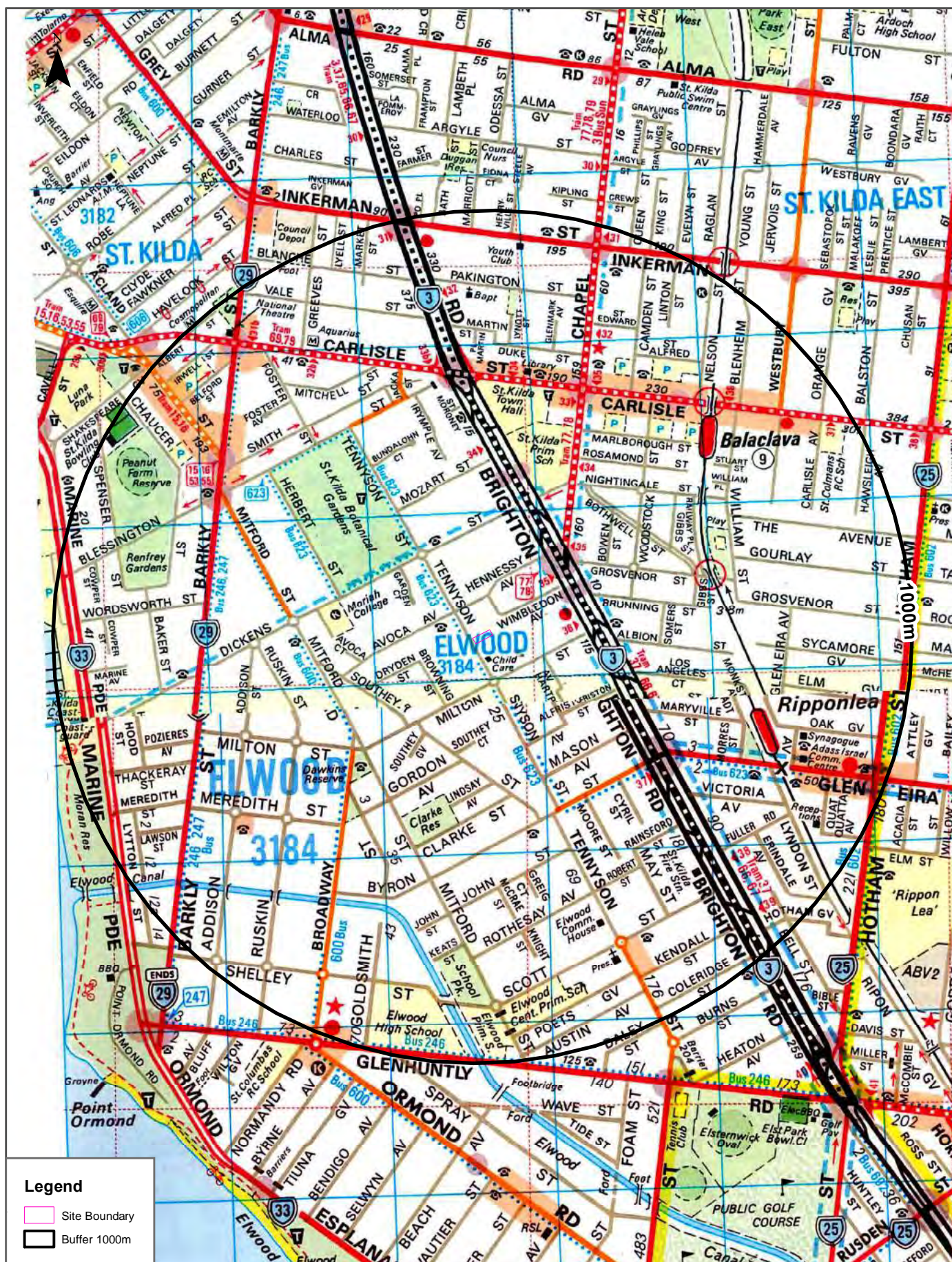
Data Sources: Maps reproduced from 1998, Edition 26 of the Melway Street Directory

Coordinate System:
GDA 1994 MGA Zone 55

Date: 14 August 2021

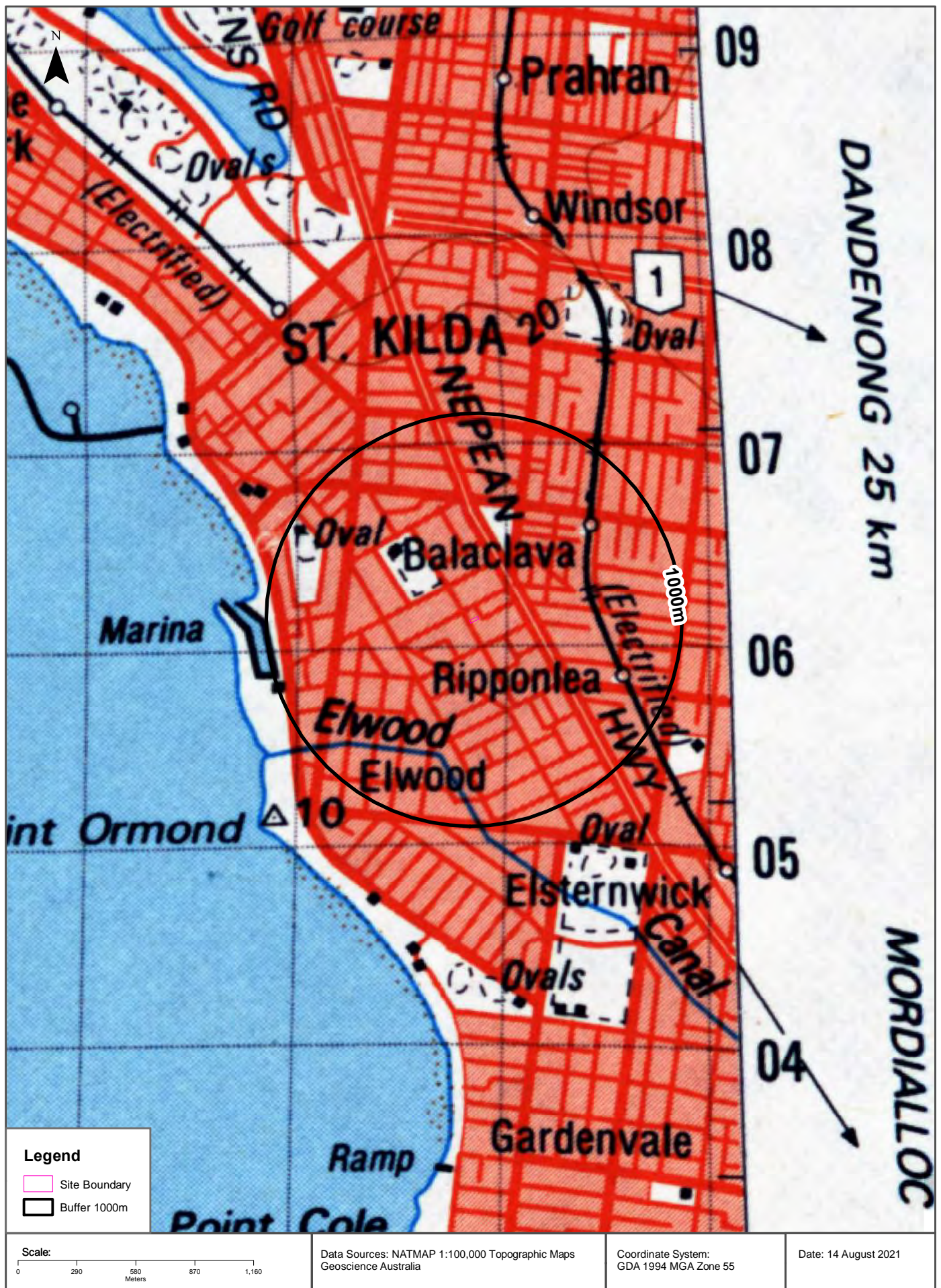
Historical Map 1986

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184



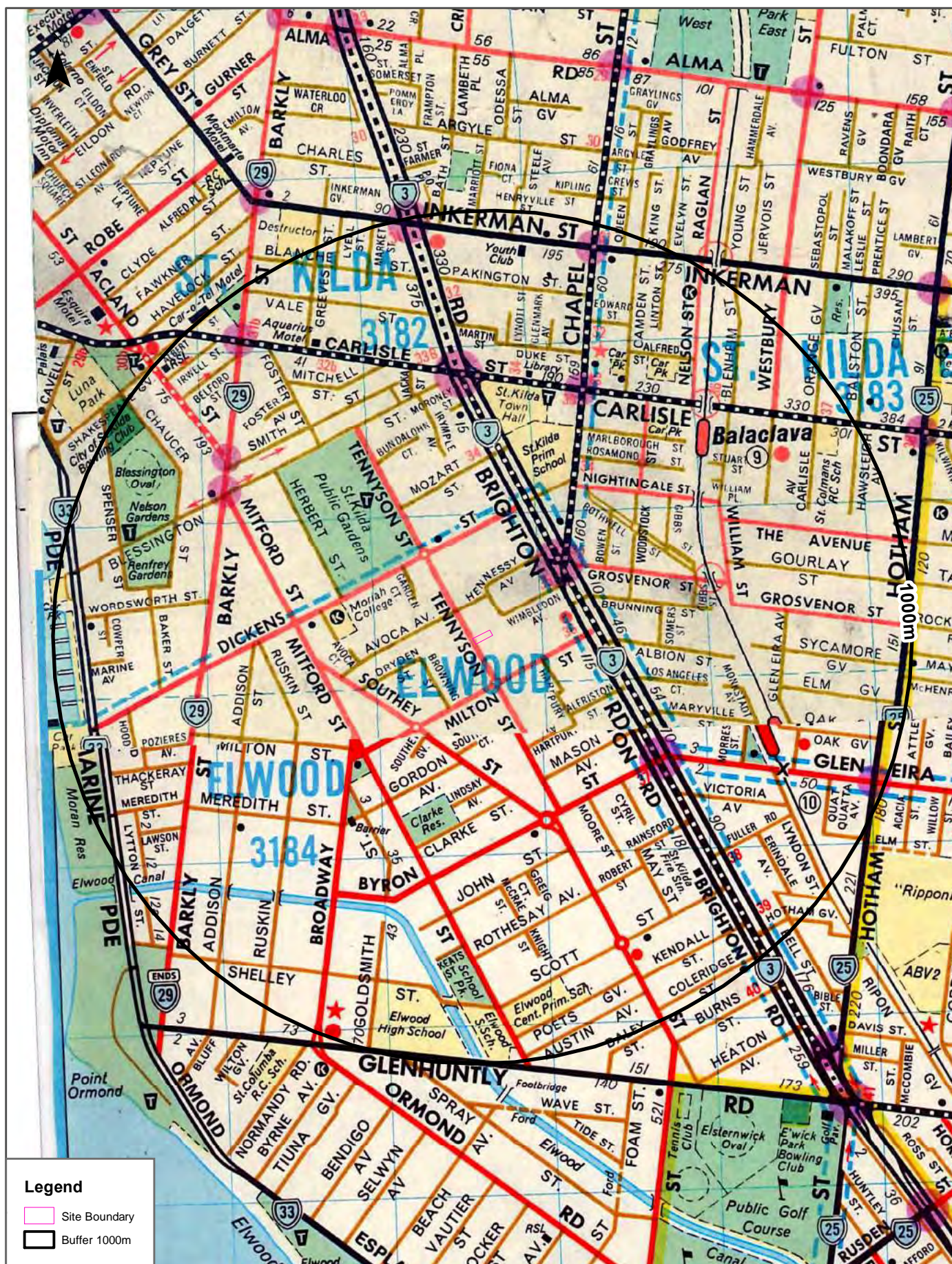
Historical Map 1982

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184



Historical Map 1978

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184



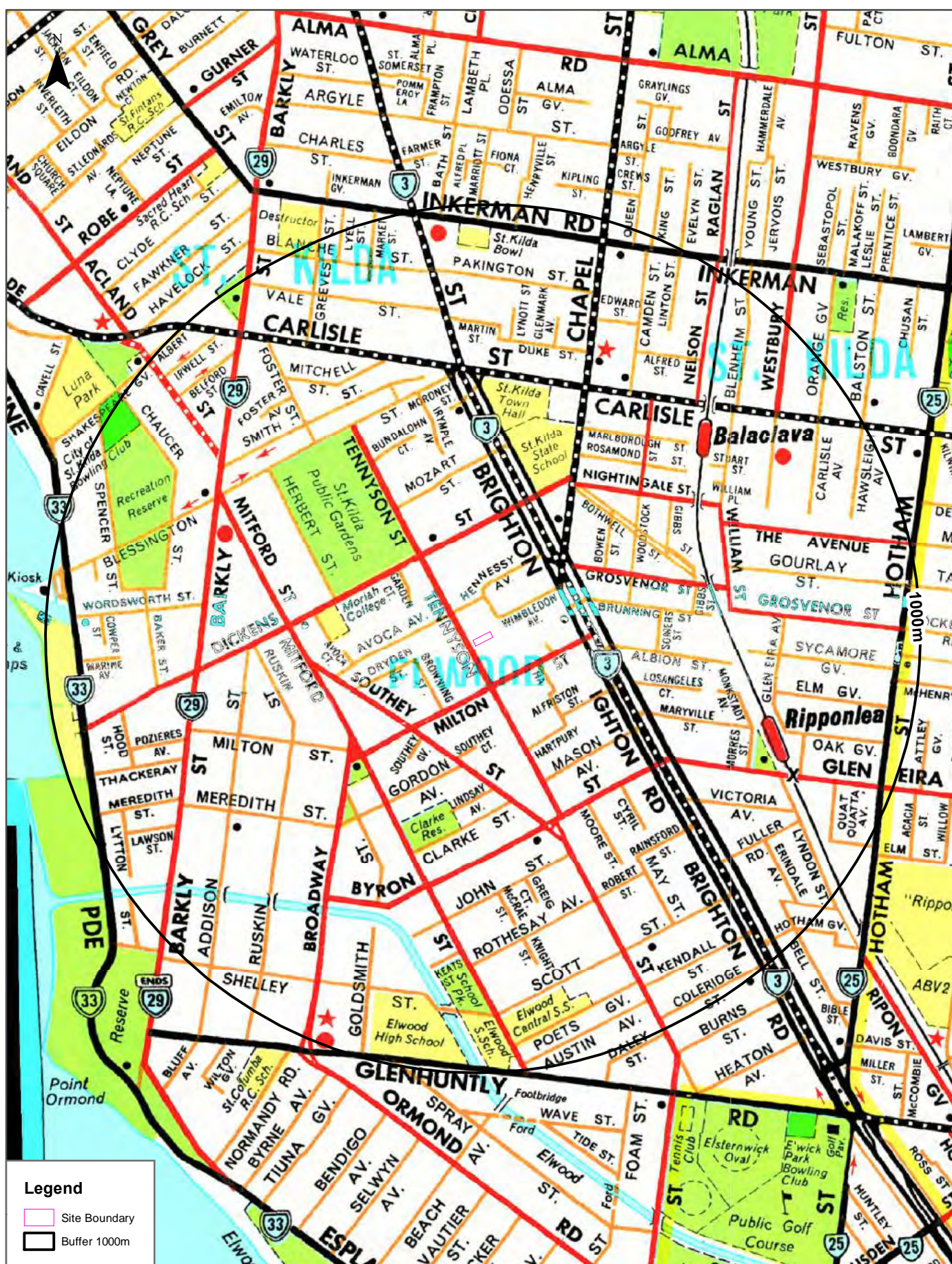
Data Sources: Maps reproduced from 1978, Edition 11 of the Melway Street Directory

Coordinate System: GDA 1994 MGA Zone 55

Date: 14 August 2021

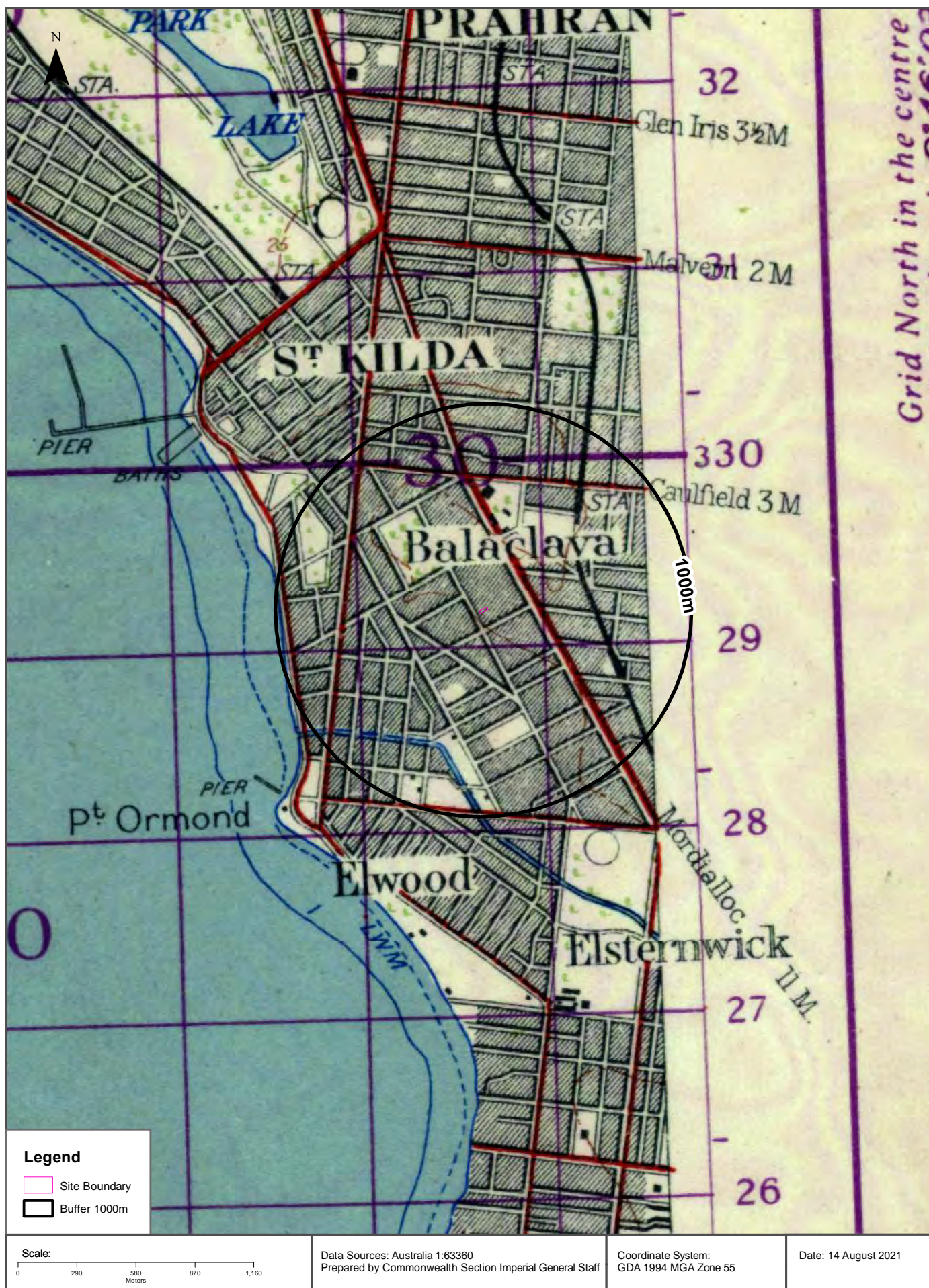
Historical Map 1966

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184



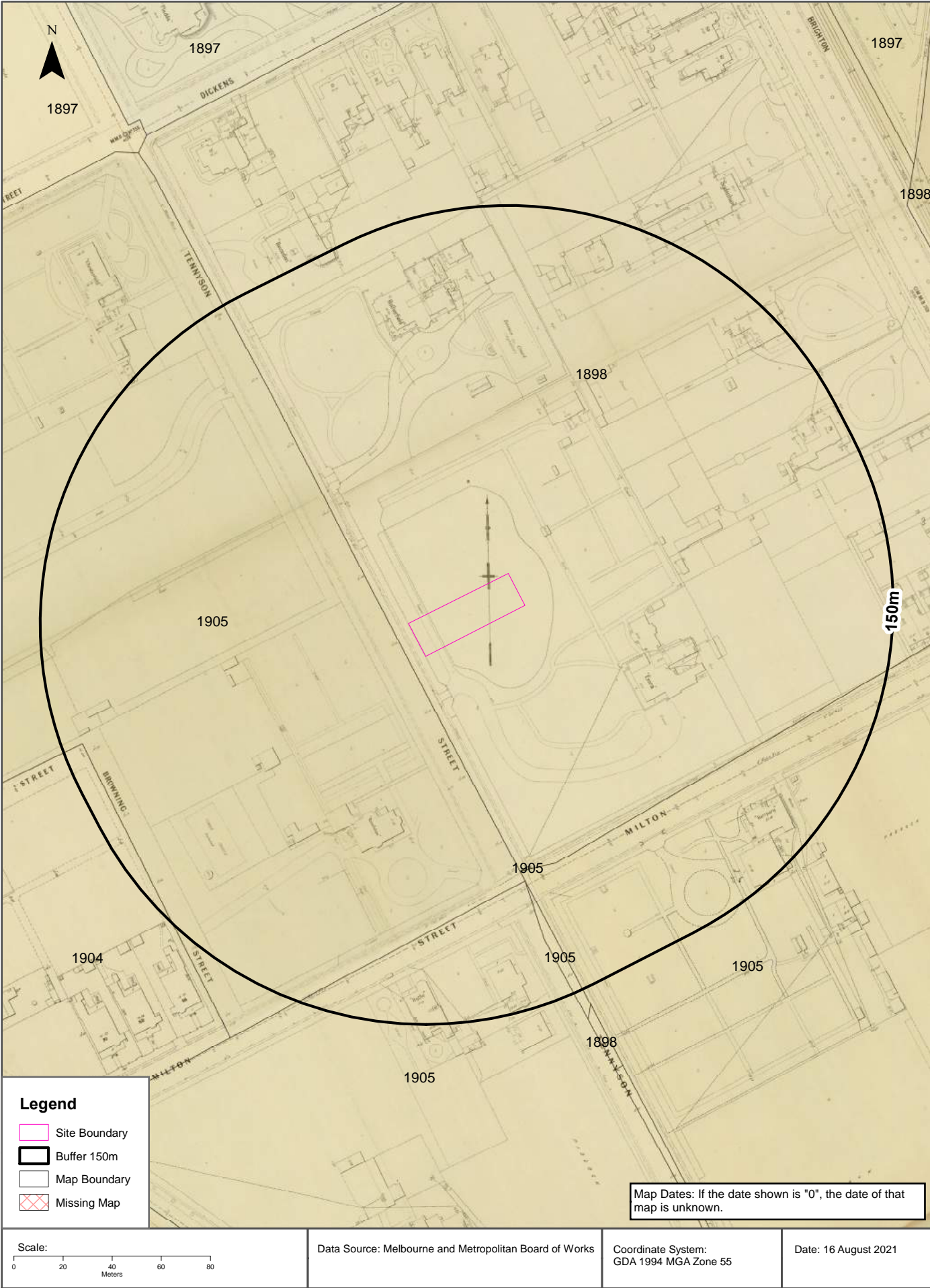
Historical Map c.1933

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184



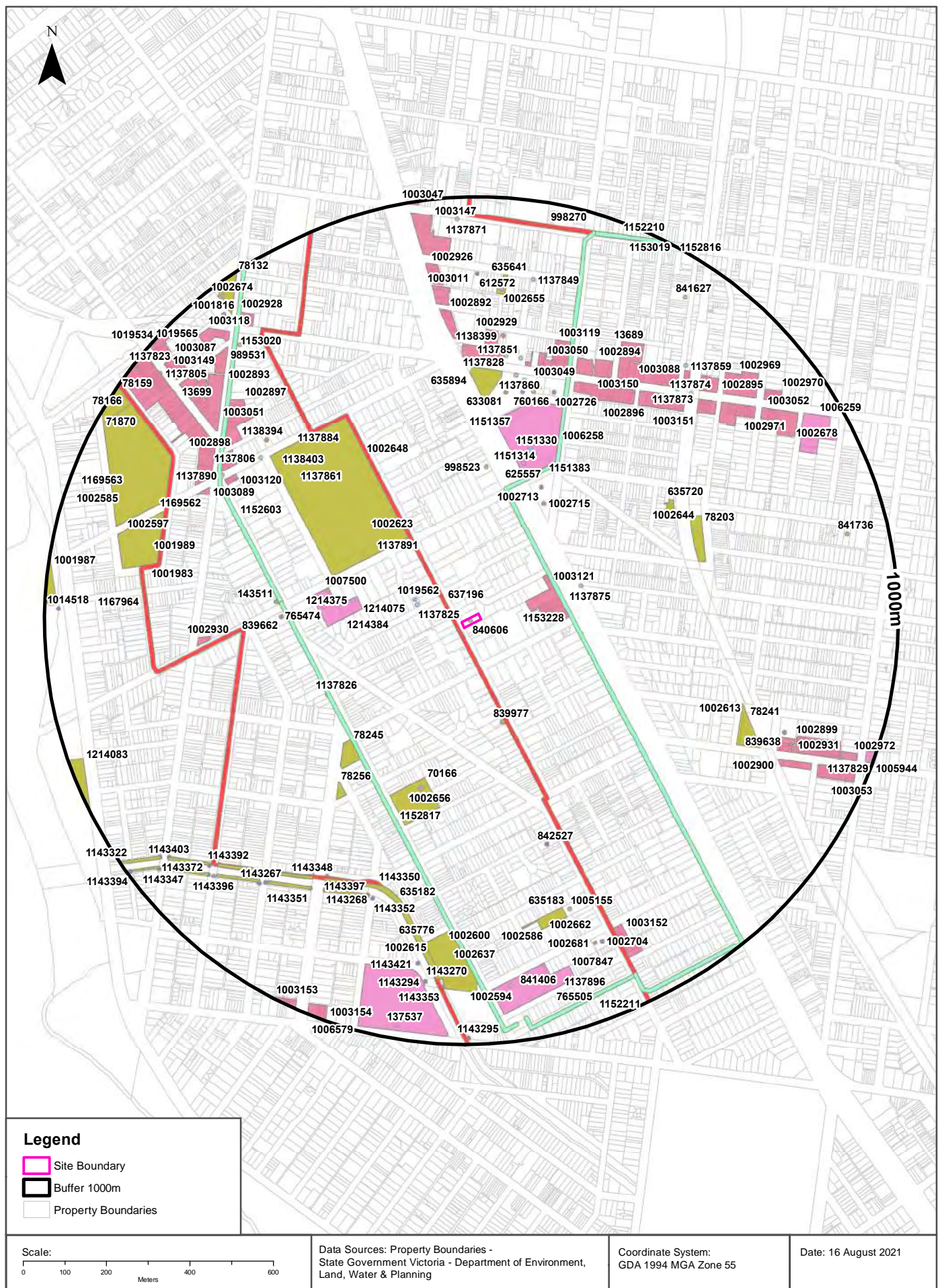
Historical Map 1897 - 1905

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184



Features of Interest

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184



Features of Interest

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184

Features of Interest

Features of Interest within the dataset buffer:

Feature Id	Feature Type	Feature Sub Type	Name	Distance	Direction
840606	care facility	child care	Elwood Childrens Centre	0m	On-site
637196	pipeline	gas pipeline	Highett - West Melbourne	11m	North West
1137825	landmark	tourist attraction	3rd St Kilda Scout Group	111m	West
1003121	commercial facility	shopping precinct		113m	East
1019562	recreational resource	club house	Elwood Memorial Scout Hall	121m	West
1153228	power line	power sub transmission		187m	East
839977	care facility	child care	Goodstart Early Learning Elwood	238m	South
1002648	reserve	gardens	St Kilda Botanical Gardens	240m	North West
1007500	education centre	education complex		240m	West
1214075	sport facility	sports ground		241m	West
1137875	landmark	tourist attraction	Brunnings Nurseries	245m	East
1214375	recreational resource	playground		261m	West
1137891	landmark	tourist attraction	Play Pavilion	269m	North West
1214384	recreational resource	playground		274m	West
1002623	recreational resource	playground		281m	North West
1002715	community venue	hall	Holy Trinity Hall	302m	North East
1214401	recreational resource	playground		303m	West
841963	care facility	child care	Yesodei Hatorah College	325m	West
763502	education centre	primary/secondary school	Yesodei Hatorah College	328m	West
765474	education centre	primary/secondary school	Yesodei Hatorah College - Yesodei Hatorah College Elwood	328m	West
1002713	place of worship	church	Holy Trinity Anglican Church Balaclava	334m	North East
1006258	education centre	education complex		344m	North
998523	care facility	child care	Guardian Childcare Education St Kilda South	348m	North
1152817	power line	power sub transmission		358m	South
1137826	landmark	tourist attraction	Edward Dysons House	362m	South West
625557	education centre	primary school	St Kilda Primary School	371m	North
70166	reserve	park	Clarke Reserve	372m	South
78245	reserve	park	F L Dawkins Reserve	383m	South West
1002656	recreational resource	playground		393m	South
1151330	sport facility	sports ground		393m	North
994319	care facility	child care	St Kilda Ps Theircare	399m	North

Feature Id	Feature Type	Feature Sub Type	Name	Distance	Direction
1151383	recreational resource	playground		404m	North East
1151314	sport facility	sports ground		413m	North
839662	place of worship	synagogue	Elwood Talmud Torah Congregation	428m	West
1152603	power line	power sub transmission		430m	North West
143511	hospital	day procedure centre	St Kilda Day Hospital	443m	West
1151357	sport facility	sports ground		443m	North
78256	reserve	park	E C Mitty Reserve	477m	South West
1137861	landmark	tourist attraction	St Kilda Rain Man (Version li)	482m	North West
635720	reserve	gardens	St Kilda Community Gardens Club Balaclava	506m	North East
635894	reserve	park	Town Hall Reserve	511m	North
1167964	pipeline	oil pipeline	Wag24	519m	South West
633081	community venue	hall	St Kilda Town Hall	530m	North
78203	reserve	park	William Street Reserve	537m	East
760166	admin facility	municipal office	Port Phillip City Council	538m	North
994272	care facility	child care	Bubup Nairm Childrens Centre	544m	North
1137842	landmark	tourist attraction	The Cone	549m	North
842527	communication service	telephone exchange	Elwood Telephone Exchange	550m	South
1002726	place of worship	church	St Kilda Parish Mission Uniting Church	556m	North
1137895	landmark	tourist attraction	Constellation	557m	North
1137898	health facility	maternal/child health centre	Bubup Nairm Family And Childrens Centre	557m	North
1002644	recreational resource	playground		559m	North East
1137889	landmark	tourist attraction	Axiomatic	566m	North
1137884	landmark	tourist attraction	Painted Tile Mural	574m	North West
1137860	landmark	tourist attraction	Monument For A Public Building	575m	North
1002896	commercial facility	shopping precinct		579m	North East
1138403	community venue	community centre	Botatic Gardens - Eco Centre	586m	North West
1002930	commercial facility	shopping precinct		602m	West
1002929	commercial facility	shopping precinct		605m	North
1003049	commercial facility	shopping precinct		605m	North
1003119	commercial facility	shopping precinct		607m	North
1137851	landmark	tourist attraction	Jasperware Mural	616m	North
1137894	landmark	tourist attraction	Stone Garden Mosaic	617m	North
1137806	landmark	tourist attraction	Albert Tuckers Home	618m	North West
1003050	commercial facility	shopping precinct		623m	North East
1137828	landmark	tourist attraction	Untitled	626m	North
702543	cultural centre	library	St Kilda Library	629m	North
1003150	commercial facility	shopping precinct		629m	North East

Feature Id	Feature Type	Feature Sub Type	Name	Distance	Direction
1002894	commercial facility	shopping precinct		634m	North East
1138394	community venue	community centre	Cora Graves Community Centre	635m	North West
1003120	commercial facility	shopping precinct		637m	North West
1143350	sign	emergency marker	COP811	648m	South
635182	reserve	park	Elwood Canal Linear Reserve	649m	South West
13689	commercial facility	shopping precinct		653m	North East
78241	reserve	park		656m	East
1002892	commercial facility	shopping precinct		660m	North
1002898	commercial facility	shopping precinct		660m	North West
1002613	recreational resource	playground		664m	East
1138399	community venue	community centre	St Kilda Youth Services (Skys)	664m	North
143510	emergency facility	police station	St Kilda Police Station	666m	North
1137890	landmark	tourist attraction	Monument On Wheels	669m	North West
1143266	sign	emergency marker	COP810	676m	South West
1143397	sign	emergency marker	COP831	678m	South
1003089	commercial facility	shopping precinct		679m	North West
1143352	sign	emergency marker	COP830	681m	South
1002897	commercial facility	shopping precinct		686m	North West
1143269	sign	emergency marker	COP812	691m	South
1143348	sign	emergency marker	COP809	693m	South West
13699	commercial facility	shopping precinct		694m	North West
1143268	sign	emergency marker	COP832	708m	South West
635183	reserve	park	Elwood Community House Reserve	709m	South
1003151	commercial facility	shopping precinct		710m	North East
1137873	landmark	tourist attraction	Carlisle Street Parking Information Sign	714m	North East
1005155	care facility	child care	Team Holiday - Elwood	715m	South
1153020	power line	power sub transmission		716m	North West
1002662	recreational resource	playground		719m	South
1143351	sign	emergency marker	COP833	722m	South West
635776	reserve	park	School Park	726m	South
1137874	landmark	tourist attraction	The Lady Of St Kilda, (Bridge Sculpture)	729m	North East
1003088	commercial facility	shopping precinct		730m	North East
1002586	reserve	gardens	Elwood Community House Gardens	731m	South
1002971	commercial facility	shopping precinct		734m	North East
1001983	reserve	park	Renfrey Reserve	743m	West
1003011	commercial facility	shopping precinct		744m	North
1003051	commercial facility	shopping precinct		745m	North West

Feature Id	Feature Type	Feature Sub Type	Name	Distance	Direction
1143265	sign	emergency marker	COP808	745m	South West
1002600	sport facility	sports ground		752m	South
1002895	commercial facility	shopping precinct		753m	North East
1002637	recreational resource	playground		754m	South
1143446	sign	emergency marker	COP807	755m	South West
1143371	sign	emergency marker	COP813	758m	South
1002615	recreational resource	playground		765m	South
1002931	commercial facility	shopping precinct		766m	East
78166	reserve	park	Peanut Farm Reserve	768m	North West
635641	reserve	park	Pakington Street Reserve	769m	North
839638	place of worship	synagogue	Adass Israel Congregation	769m	East
1001989	recreational resource	playground		769m	West
1137859	landmark	tourist attraction	Graham Kennedys Childhood Home	770m	North East
1143267	sign	emergency marker	COP834	771m	South West
1002655	recreational resource	playground		777m	North
1143349	sign	emergency marker	COP835	781m	South West
1002900	commercial facility	shopping precinct		785m	South East
1169562	recreational resource	playground		785m	West
1002969	commercial facility	shopping precinct		788m	North East
71870	sport facility	sports ground		793m	North West
1002926	commercial facility	shopping precinct		793m	North
1003152	commercial facility	shopping precinct		803m	South East
1002899	commercial facility	shopping precinct		806m	East
1137849	landmark	tourist attraction	Sidney Nolan'S Childhood Home	808m	North
1143421	sign	emergency marker	COP829	809m	South
612572	emergency facility	ambulance station	Windsor Ambulance Station	810m	North
1002681	community venue	hall	Elwood Presbyterian Church Hall	813m	South
1143392	sign	emergency marker	COP806	814m	South West
1002704	place of worship	church	Elwood Presbyterian Church	816m	South
1002597	sport facility	basketball court		819m	West
1002645	recreational resource	playground		819m	South
1003052	commercial facility	shopping precinct		821m	North East
1002893	commercial facility	shopping precinct		824m	North West
765505	reserve	park		827m	South
1007847	education centre	education complex		827m	South
1006579	education centre	education complex		831m	South
1143370	sign	emergency marker	COP805	832m	South West

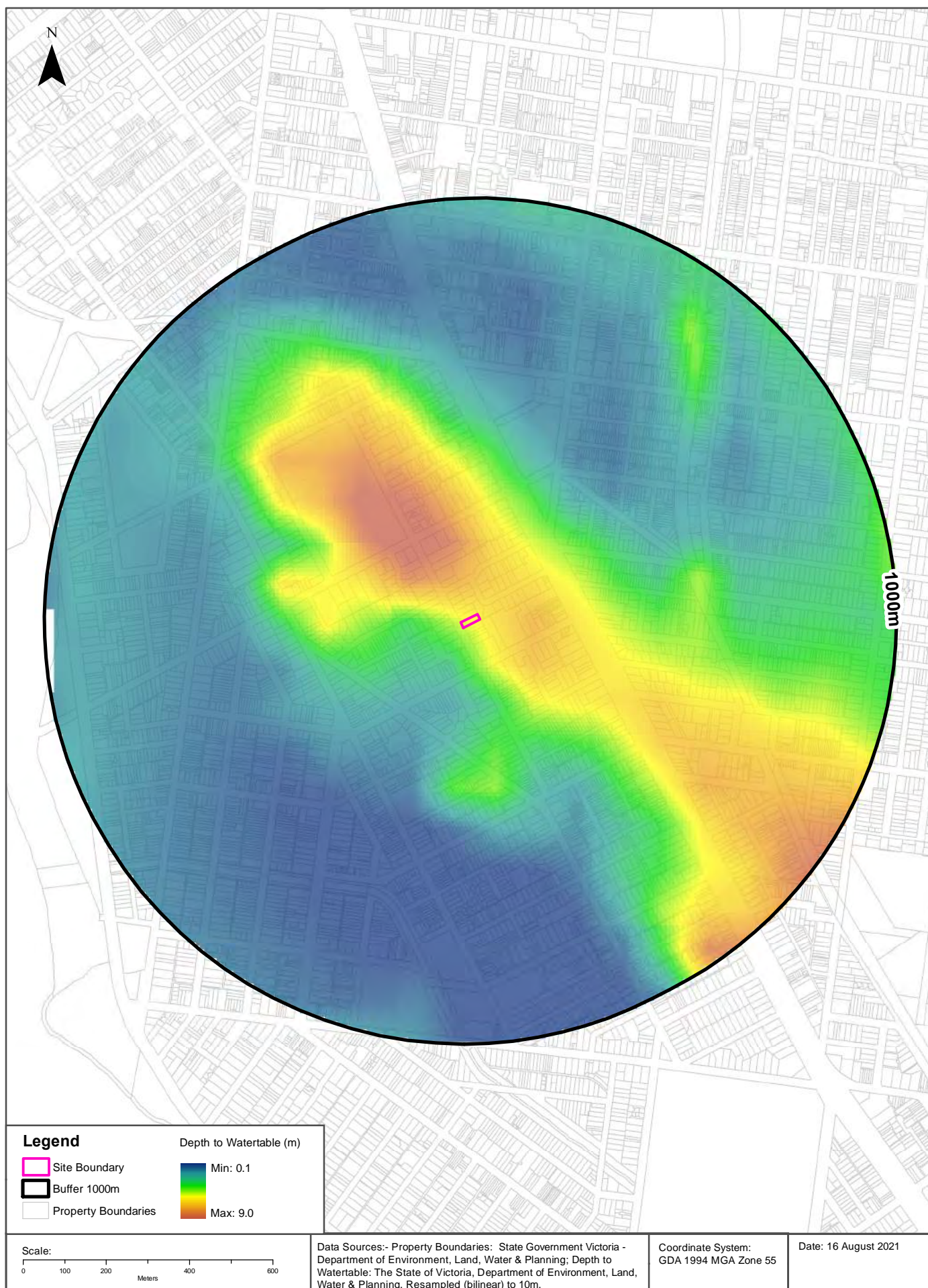
Feature Id	Feature Type	Feature Sub Type	Name	Distance	Direction
1002585	sport facility	netball court		834m	West
1002594	sport facility	sports ground		837m	South
1143396	sign	emergency marker	COP836	842m	South West
1143270	sign	emergency marker	COP814	844m	South
989531	care facility	aged care	Acland Grange	847m	North West
1143294	sign	emergency marker	COP828	849m	South
1143319	sign	emergency marker	COP837	849m	South West
1002970	commercial facility	shopping precinct		855m	North East
1003147	commercial facility	shopping precinct		856m	North
1006259	education centre	education complex		860m	North East
1143353	sign	emergency marker	COP815	860m	South
137538	education centre	primary school	Elwood Primary School	861m	South
1169563	recreational resource	club house		865m	West
1002928	commercial facility	shopping precinct		868m	North West
841406	care facility	child care	Poets Grove Family And Childrens Centre	870m	South
1137896	health facility	maternal/child health centre	Poets Grove Family And Childrens Centre	872m	South
1003053	commercial facility	shopping precinct		878m	South East
1003118	commercial facility	shopping precinct		879m	North West
1003087	commercial facility	shopping precinct		891m	North West
841736	care facility	child care	The Avenue Childrens Centre And Kindergarten	893m	East
1143403	sign	emergency marker	COP804	893m	South West
841627	care facility	child care	St Kilda & Balaclava Kindergarten	901m	North East
1002678	place of worship	church	St Colmans Catholic Church	907m	North East
1143372	sign	emergency marker	COP803	910m	South West
1137829	landmark	tourist attraction	Brinsmead'S Pharmacy	914m	East
1143347	sign	emergency marker	COP838	914m	South West
1002972	commercial facility	shopping precinct		918m	East
78132	reserve	park	J Talbot Reserve	923m	North West
1152211	power line	power sub transmission		923m	South
1001816	commercial facility	entertainment centre	National Theatre	929m	North West
1143393	sign	emergency marker	COP839	929m	South West
1137805	landmark	tourist attraction	Scheherazade	933m	North West
998270	pipeline	gas pipeline	Dandenong - West Melbourne	938m	North
1137871	landmark	tourist attraction	Gallier And Klaerrs	942m	North
1152210	power line	power sub transmission		948m	North East
1003149	commercial facility	shopping precinct		951m	North West
78159	reserve	gardens	Veg Out Community Garden	952m	North West

Feature Id	Feature Type	Feature Sub Type	Name	Distance	Direction
1014518	sign	emergency marker	COP630	962m	West
137537	education centre	secondary school	Elwood College	964m	South
1002674	recreational resource	playground		965m	North West
1214083	reserve	park	M C Moran Reserve	965m	West
1003154	commercial facility	shopping precinct		966m	South
1001987	reserve	park	Marina Park	973m	West
1005944	education centre	education complex		975m	East
1143322	sign	emergency marker	COP802	975m	South West
1143295	sign	emergency marker	COP816	979m	South
1003153	commercial facility	shopping precinct		980m	South West
1143394	sign	emergency marker	COP840	988m	South West
1019534	community venue	hall	St Kilda Memorial Hall	990m	North West
1003047	commercial facility	shopping precinct		991m	North
645970	education centre	secondary school	Adass Israel School - Glen Eira Road Campus	992m	East
763477	education centre	primary/secondary school	Adass Israel School	992m	East
1019565	recreational resource	club house	St Kilda Rsl	993m	North West
1137823	landmark	tourist attraction	(Ceramic / Metal Seats)	997m	North West
1152816	power line	power sub transmission		998m	North East
1153019	power line	power sub transmission		998m	North East

Features of Interest Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning
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Depth to Watertable

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184



Hydrogeology & Groundwater

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184

Hydrogeology

Description of aquifers within the dataset buffer:

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

Hydrogeology Map of Australia: Commonwealth of Australia (Geoscience Australia)

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Groundwater Salinity

On-site Groundwater Salinity:

Groundwater Salinity	Percent Of Site Area
1,000 - 3,500 mg/l	100

Depth to Watertable

On-site Depth to Watertable:

Depth to Watertable	Percent Of Site Area
5 to 10 metres	54
Less than 5 metres	46

Surface Elevation

Approximate on-site Surface Elevation:

Surface Elevation
8 AHDm

Basement Elevation

Approximate on-site Basement Elevation:

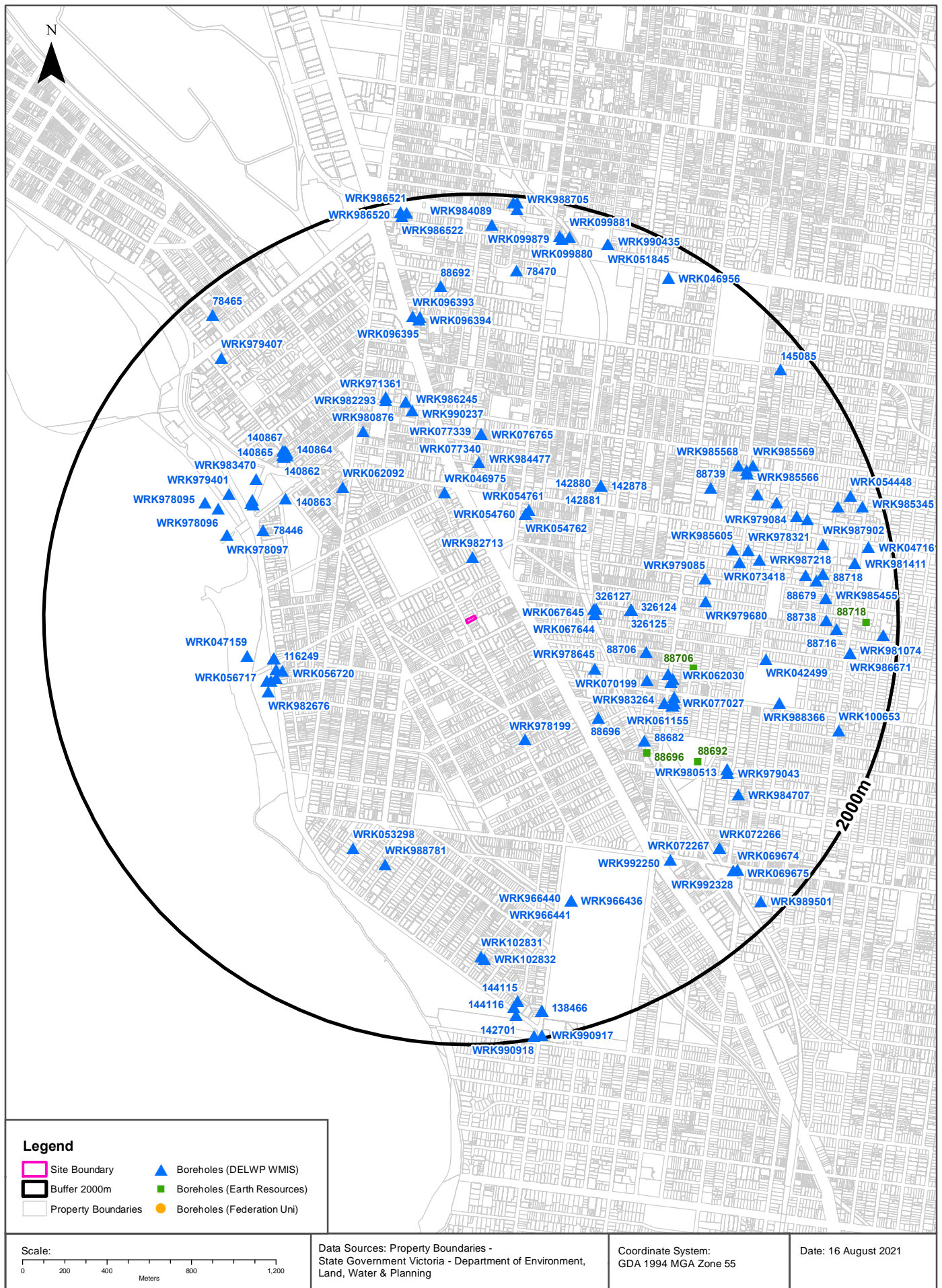
Basement Elevation - Basement Rocks comprise Lower Palaeozoic basement rocks that form the highlands and the crystalline basement; and Mesozoic rocks of the Otway and Gippsland basins both outcropping and subsurface
-15 AHDm

Groundwater Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning

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Groundwater Boreholes

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184



Groundwater Boreholes

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Boreholes (DELWP WMIS)

Boreholes from the Department of Environment, Land, Water & Planning's Water Measurement Information System, within the dataset buffer:

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
WRK982713							279m	North
WRK054760	Observation	0.00m-0.80m fill 0.80m-6.00m brighton group sands	0.00m-3.00m INNER LINING - CASING = Pvc 3.00m-6.00m INNER LINING - SCREEN = Pvc 0.00m-2.80m OUTER LINING - GRAVEL = Bentonite 2.80m-6.00m OUTER LINING - GRAVEL = Gravel		0.00m-3.00m Sand 3.00m-6.00m Sand	01/02/2010	541m	North East
WRK054762	Observation	0.00m-0.80m fill 0.80m-6.00m brighton group sands	0.00m-3.00m INNER LINING - CASING = Pvc 3.00m-6.00m INNER LINING - SCREEN = Pvc 0.00m-2.80m OUTER LINING - GRAVEL = Bentonite 2.80m-6.00m OUTER LINING - GRAVEL = Gravel		0.00m-3.00m Sand 3.00m-6.00m Sand	01/02/2010	541m	North East
WRK067645	Observation					01/01/2011	561m	East
WRK054761	Observation	0.00m-0.80m fill 0.80m-6.00m brighton group sands	0.00m-3.00m INNER LINING - CASING = Pvc 3.00m-6.00m INNER LINING - SCREEN = Pvc 0.00m-2.80m OUTER LINING - GRAVEL = Bentonite 2.80m-6.00m OUTER LINING - GRAVEL = Gravel		0.00m-3.00m Sand 3.00m-6.00m Sand	01/02/2010	564m	North East
WRK067644	Observation					01/01/2011	564m	East
WRK067643	Observation					01/01/2011	571m	East
WRK046975	Domestic & Stock		0.00m-23.00m OUTER LINING - GRAVEL = Cement			19/06/2007	603m	North
WRK978645							611m	East
WRK978199							616m	South East
WRK984477	Groundwater Investigation		0.00m-0.50m OUTER LINING - GRAVEL = Cement 0.50m-1.50m OUTER LINING - GRAVEL = Bentonite 1.50m-5.00m OUTER LINING - GRAVEL = Gravel			19/01/2009	729m	North
326124	Non Groundwater					31/12/1957	735m	East
326125	Non Groundwater					31/12/1957	735m	East
326126	Non Groundwater					31/12/1957	735m	East
326127	Non Groundwater					31/12/1957	735m	East
326128	Non Groundwater					31/12/1957	735m	East
326129	Non Groundwater					31/12/1957	735m	East
326130	Non Groundwater					31/12/1957	735m	East
326131	Non Groundwater					31/12/1957	735m	East
326132	Non Groundwater					31/12/1957	735m	East
326133	Non Groundwater					31/12/1957	735m	East

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
326134	Non Groundwater					31/12/1957	735m	East
326135	Sec Bores (Use Unidentified)					12/08/1960	735m	East
326136	Sec Bores (Use Unidentified)					09/08/1965	735m	East
326137	Sec Bores (Use Unidentified)					10/08/1965	735m	East
326138	Sec Bores (Use Unidentified)					14/12/1964	735m	East
326139	Sec Bores (Use Unidentified)					15/12/1964	735m	East
326140	Sec Bores (Use Unidentified)					15/12/1964	735m	East
326141	Sec Bores (Use Unidentified)					15/12/1964	735m	East
326142	Sec Bores (Use Unidentified)					16/12/1964	735m	East
326143	Sec Bores (Use Unidentified)					16/12/1964	735m	East
326144	Sec Bores (Use Unidentified)					16/12/1964	735m	East
326145	Sec Bores (Use Unidentified)					16/12/1964	735m	East
326146	Sec Bores (Use Unidentified)					16/12/1964	735m	East
326147	Sec Bores (Use Unidentified)					10/10/1966	735m	East
326148	Sec Bores (Use Unidentified)					10/10/1966	735m	East
326150	Sec Bores (Use Unidentified)					11/10/1966	735m	East
326151	Sec Bores (Use Unidentified)					11/10/1966	735m	East
326152	Sec Bores (Use Unidentified)					09/11/1972	735m	East
326153	Sec Bores (Use Unidentified)					09/11/1972	735m	East
326154	Sec Bores (Use Unidentified)					09/11/1972	735m	East
326155	Sec Bores (Use Unidentified)					14/11/1972	735m	East
326156	Sec Bores (Use Unidentified)					14/11/1972	735m	East
326157	Sec Bores (Use Unidentified)					14/11/1972	735m	East
326158	Sec Bores (Use Unidentified)					16/11/1972	735m	East

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
326159	Sec Bores (Use Unidentified)					16/11/1972	735m	East
326160	Sec Bores (Use Unidentified)					30/11/1967	735m	East
326161	Sec Bores (Use Unidentified)					01/12/1967	735m	East
88696	Domestic	0.00m-1.50m FILL 1.50m-3.00m GRAVEL SAND 3.00m-10.50m YELLOW CLAY/SAND 10.50m-13.50m YELLOW COARSE SAND 13.50m-17.50m BROWN YELLOW CLAY 17.50m-19.50m BROWN WEATHERED MUDSTONE 19.50m-22.50m BROWN YELLOW CLAY 22.50m-24.50m BLACK SAND PEAT 24.50m-0.00m BEDROCK	0.00m-23.50m INNER LINING - CASING = Pvc 23.50m-24.50m INNER LINING - SCREEN = Pvc 19.50m-24.50m OUTER LINING - GRAVEL = Gravel		23.50m-24.50m Clay	08/12/1982	745m	South East
88706	Domestic, Stock	0.00m-4.50m BROWN CLAY 4.50m-19.00m BROWN SILTY CLAY 19.00m-21.00m GREY SILTY CLAY 21.00m-24.00m WEATHERED GREY MUDSTONE 24.00m-36.00m GREY MUDSTONE	0.00m-21.00m INNER LINING - CASING = Galvanised Iron 21.00m-36.00m INNER LINING - SCREEN = Galvanised Iron		21.00m-36.00m Mudstone	01/03/1983	821m	East
142878	Groundwater Investigation	0.00m-0.20m CONCRETE 0.20m-0.50m SAND & GRAVEL 0.50m-5.00m SILTY CLAY & SANDY CLAY, ORANGE, YELLOW, BROWN, MOIST	0.00m-2.00m INNER LINING - CASING = Pvc Class 18 2.00m-5.00m INNER LINING - SCREEN = Pvc Class 18 0.00m-0.30m OUTER LINING - GRAVEL = Cement 0.30m-1.50m OUTER LINING - GRAVEL = Bentonite 1.50m-5.00m OUTER LINING - GRAVEL = Gravel		2.00m-5.00m Clay	06/10/1999	860m	North East
142880	Groundwater Investigation	0.00m-0.20m CONCRETE 0.20m-0.50m SAND & GRAVEL 0.50m-5.00m SILTY CLAY & SANDY CLAY, YELLOW, MOIST-WET	0.00m-1.00m INNER LINING - CASING = Pvc Class 18 1.00m-5.00m INNER LINING - SCREEN = Pvc Class 18 0.00m-0.30m OUTER LINING - GRAVEL = Cement 0.30m-0.80m OUTER LINING - GRAVEL = Bentonite 0.80m-5.00m OUTER LINING - GRAVEL = Gravel		1.00m-5.00m Sand	06/10/1999	860m	North East
142881	Groundwater Investigation	0.00m-0.20m CONCRETE 0.20m-0.50m SAND & GRAVEL 0.50m-8.00m SANDY CLAY, SILTY CLAY, & CLAYEY SAND, YELLOW/BROWN/ORANGE,	0.00m-2.00m INNER LINING - CASING = Pvc Class 18 2.00m-8.00m INNER LINING - SCREEN = Pvc Class 18 0.00m-0.30m OUTER LINING - GRAVEL = Cement 0.70m-1.50m OUTER LINING - GRAVEL = Bentonite 1.50m-8.00m OUTER LINING - GRAVEL = Gravel		2.00m-8.00m Clay	05/10/1999	860m	North East
WRK062092	Observation					03/11/2011	861m	North West
WRK070199	Observation					17/07/2012	861m	East
WRK076765	Observation	0.00m-5.00m CLAY	0.00m-1.40m OUTER LINING - GRAVEL = Cement 1.40m-1.90m OUTER LINING - GRAVEL = Bentonite 1.90m-5.00m OUTER LINING - GRAVEL = Gravel		2.00m-5.00m Clay	02/12/2013	862m	North
WRK077339	Observation	0.00m-5.00m CLAY	0.00m-1.40m OUTER LINING - GRAVEL = Cement 1.40m-1.90m OUTER LINING - GRAVEL = Bentonite 1.90m-5.00m OUTER LINING - GRAVEL = Gravel		2.00m-5.00m Clay	02/12/2013	862m	North
WRK077340	Observation	0.00m-5.00m CLAY	0.00m-1.40m OUTER LINING - GRAVEL = Cement 1.40m-1.90m OUTER LINING - GRAVEL = Bentonite 1.90m-5.00m OUTER LINING - GRAVEL = Gravel		2.00m-5.00m Clay	02/12/2013	862m	North
WRK056720	Observation					07/10/2010	901m	West

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
116249	Groundwater Investigation	0.00m-2.00m FILL CLAYEY SAND 2.00m-3.00m DARK GREY-BROWN CLAYEY SILT 3.00m-4.20m PALE GREY CLAYEY SAND	0.00m-0.50m INNER LINING - CASING = Pvc Class 18 0.50m-4.20m INNER LINING - SCREEN = Pvc Class 18 0.00m-0.50m OUTER LINING - GRAVEL = Bentonite 0.50m-4.20m OUTER LINING - GRAVEL = Gravel		0.50m-4.20m Sand	16/07/1992	928m	West
116250	Groundwater Investigation	0.00m-0.75m CLAY & BRICK FILL 0.75m-3.60m LIGHT BROWN SAND 3.60m-4.00m BROWN CLAY	0.00m-0.50m INNER LINING - CASING = Pvc Class 18 0.50m-4.00m INNER LINING - SCREEN = Pvc Class 18 0.00m-0.25m OUTER LINING - GRAVEL = Bentonite 0.25m-4.00m OUTER LINING - GRAVEL = Gravel		0.50m-4.00m Sand	11/12/1992	928m	West
116251	Groundwater Investigation	0.00m-1.50m CLAY & BRICK FILL 1.50m-4.00m GREY SANDY CLAY	0.00m-0.50m INNER LINING - CASING = Pvc Class 18 0.50m-4.00m INNER LINING - SCREEN = Pvc Class 18 0.00m-0.30m OUTER LINING - GRAVEL = Bentonite 0.30m-4.00m OUTER LINING - GRAVEL = Gravel		0.50m-4.00m Clay	11/12/1992	928m	West
116252	Groundwater Investigation	0.00m-0.75m CLAY & BRICK FILL 0.75m-3.00m BROWN-GREY SILTY CLAY 3.00m-4.00m GREY SANDY CLAY	0.00m-0.50m INNER LINING - CASING = Pvc Class 18 0.50m-4.00m INNER LINING - SCREEN = Pvc Class 18 0.00m-0.50m OUTER LINING - GRAVEL = Bentonite 0.50m-4.00m OUTER LINING - GRAVEL = Gravel		0.50m-4.00m Clay	11/12/1992	928m	West
116253	Groundwater Investigation	0.00m-0.20m BITUMEN 0.20m-2.00m GRAVEL & CLAY FILL 2.00m-4.00m GREY-BROWN SANDY CLAY	0.00m-0.75m INNER LINING - CASING = Pvc Class 18 0.75m-4.00m INNER LINING - SCREEN = Pvc Class 18 0.00m-0.50m OUTER LINING - GRAVEL = Bentonite 0.50m-4.00m OUTER LINING - GRAVEL = Gravel		0.75m-4.00m Clay	17/12/1992	928m	West
116254	Groundwater Investigation	0.00m-0.20m BITUMAN 0.20m-2.25m SANDY CLAY & GRAVEL FILL 2.25m-5.00m GREY SANDY CLAY	0.00m-0.75m INNER LINING - CASING = Pvc Class 18 0.75m-5.00m INNER LINING - SCREEN = Pvc Class 18 0.00m-0.50m OUTER LINING - GRAVEL = Bentonite 0.50m-5.00m OUTER LINING - GRAVEL = Gravel		0.75m-5.00m Clay	17/12/1992	928m	West
116255	Groundwater Investigation	0.00m-2.00m SANDY GRAVELLY CLAY FILL 2.00m-4.00m GREY SANDY CLAY	0.00m-0.75m INNER LINING - CASING = Pvc Class 18 0.75m-4.00m INNER LINING - SCREEN = Pvc Class 18 0.00m-0.50m OUTER LINING - GRAVEL = Bentonite 0.50m-4.00m OUTER LINING - GRAVEL = Gravel		0.75m-4.00m Clay	17/12/1992	928m	West
116256	Groundwater Investigation	0.00m-0.75m TAN-BROWN SAND 0.75m-2.25m DARK BROWN SILTY CLAYEY SAND 2.25m-4.45m GREY SANDY CLAY	0.00m-0.50m INNER LINING - CASING = Pvc Class 18 0.50m-4.50m INNER LINING - SCREEN = Pvc Class 18 0.00m-0.25m OUTER LINING - GRAVEL = Bentonite 0.25m-4.50m OUTER LINING - GRAVEL = Gravel		0.50m-4.50m Clay	01/04/1992	928m	West
121288	Groundwater Investigation	0.00m-4.50m GREY SILTY SAND	0.00m-0.50m INNER LINING - CASING = Pvc 0.50m-4.50m INNER LINING - SCREEN = Pvc 0.00m-0.50m OUTER LINING - GRAVEL = Bentonite 0.50m-4.50m OUTER LINING - GRAVEL = Gravel		0.50m-4.50m Sand	22/09/1993	930m	West
121289	Groundwater Investigation	0.00m-4.50m GREY SILTY SAND	0.00m-0.50m INNER LINING - CASING = Pvc 0.50m-4.50m INNER LINING - SCREEN = Pvc 0.00m-0.50m OUTER LINING - GRAVEL = Bentonite 0.50m-4.50m OUTER LINING - GRAVEL = Gravel		0.50m-4.50m Sand	22/09/1993	941m	West
WRK070198	Observation					17/07/2012	947m	East
WRK056718	Observation					10/05/2011	967m	West

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
WRK070197	Observation	0.00m-0.20m FILL 0.20m-1.20m SAND 1.20m-1.60m CLAY 1.60m-6.20m SAND 6.20m-9.00m SILT	0.00m-3.00m INNER LINING - CASING = Pvc 3.00m-9.00m INNER LINING - SCREEN = Pvc 0.00m-2.00m OUTER LINING - GRAVEL = Cement 2.00m-2.50m OUTER LINING - GRAVEL = Bentonite 2.50m-9.00m OUTER LINING - GRAVEL = Gravel		3.00m-9.00m Silt	17/07/2012	973m	East
WRK062030	Observation	0.00m-0.50m FILL 0.50m-4.00m CLAY 4.00m-9.00m SAND	0.00m-6.00m INNER LINING - CASING = Pvc 6.00m-9.00m INNER LINING - SCREEN = Pvc 0.00m-4.50m OUTER LINING - GRAVEL = Cement 4.50m-5.50m OUTER LINING - GRAVEL = Bentonite 5.50m-9.00m OUTER LINING - GRAVEL = Gravel		6.00m-9.00m Basalt	20/04/2011	974m	East
WRK983264							977m	South East
88682	Domestic, Stock	0.00m-1.22m TOP SOIL 1.22m-3.66m CLAY 3.66m-10.67m SILTY CLAY-ORANGE-WET 10.67m-15.24m SILTY CLAY-ORANGE-WATER	0.00m-15.24m INNER LINING - CASING = Not Known 3.05m-15.24m INNER LINING - SCREEN = Not Known		3.05m-15.24m	16/01/1973	986m	South East
WRK056717	Observation	0.00m-5.50m clayey sand	0.00m-1.50m INNER LINING - CASING = Pvc 1.50m-5.50m INNER LINING - SCREEN = Pvc 0.00m-1.00m OUTER LINING - GRAVEL = Bentonite 1.00m-5.50m OUTER LINING - GRAVEL = Gravel		1.50m-5.50m Sand	07/10/2010	986m	West
WRK982676							996m	West
WRK991356	Groundwater Investigation		0.00m-6.00m INNER LINING - CASING = Pvc 6.00m-10.00m INNER LINING - SCREEN = Pvc 0.00m-4.20m OUTER LINING - GRAVEL = Cement 4.20m-5.50m OUTER LINING - GRAVEL = Bentonite 5.50m-10.00m OUTER LINING - GRAVEL = Gravel			28/05/2009	1010 m	East
WRK077027	Observation	0.00m-0.00m	0.00m-0.00m OUTER LINING - GRAVEL = Not Known			01/01/2011	1015 m	South East
WRK077028	Observation	0.00m-0.00m	0.00m-0.00m OUTER LINING - GRAVEL = Not Known			02/01/2011	1015 m	South East
WRK077029	Observation	0.00m-0.00m	0.00m-0.00m OUTER LINING - GRAVEL = Not Known			01/01/2011	1015 m	South East
WRK077030	Observation	0.00m-0.00m	0.00m-0.00m OUTER LINING - GRAVEL = Not Known			01/01/2013	1015 m	South East
WRK077031	Observation	0.00m-0.00m	0.00m-0.00m OUTER LINING - GRAVEL = Not Known			01/04/2013	1015 m	South East
WRK077032	Observation	0.00m-0.00m	0.00m-0.00m OUTER LINING - GRAVEL = Not Known			01/11/2013	1015 m	South East
WRK077033	Observation	0.00m-0.00m	0.00m-0.00m OUTER LINING - GRAVEL = Not Known			02/01/2013	1015 m	South East
WRK061157	Observation					23/02/2011	1017 m	South East
WRK061155	Observation	0.00m-1.00m FILL 1.00m-11.00m SAND	0.00m-8.00m INNER LINING - CASING = Pvc 8.00m-11.00m INNER LINING - SCREEN = Pvc 0.00m-5.50m OUTER LINING - GRAVEL = Cement 5.50m-7.50m OUTER LINING - GRAVEL = Bentonite 7.50m-11.00m OUTER LINING - GRAVEL = Gravel		0.00m-8.00m Sand 8.00m-11.00m Sand	23/02/2011	1020 m	South East
WRK990237							1020 m	North
WRK077034	Observation	0.00m-0.00m	0.00m-0.00m OUTER LINING - GRAVEL = Not Known			01/01/2013	1021 m	East
WRK980876							1021 m	North West

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
140863	Groundwater Investigation	0.00m-0.10m ASPHALT 0.10m-0.80m SANDY CLAY, BROWN ORANGE, MOTTLED, MOIST 0.80m-2.80m SANDY CLAY LIGHT BROWN, PLASTIC 2.80m-10.60m CLAYEY SAND, LIGHT BRWON, MEDIUM GRAINED 10.60m-11.60m SANDY CLAY, ORANGE BROWN, PLASTIC, MOIST 11.60m-12.00m SAND, LIGHT BROWN, WET	0.00m-7.50m INNER LINING - CASING = Pvc Class 18 7.50m-12.00m INNER LINING - SCREEN = Pvc Class 18 0.00m-0.50m OUTER LINING - GRAVEL = Cement 0.50m-0.00m OUTER LINING - GRAVEL = Packer 7.00m-7.50m OUTER LINING - GRAVEL = Bentonite 7.50m-12.00m OUTER LINING - GRAVEL = Gravel			29/02/2000	1031 m	North West
WRK047159	Commercial	0.00m-5.00m Fill 5.00m-16.00m brown sandy clay 16.00m-28.00m black lignite 28.00m-39.00m basalt 39.00m-42.00m lignite 42.00m-90.00m grey basalt 93.00m-105.00m grey basalt	0.00m-53.00m INNER LINING - CASING = Pvc 0.00m-53.00m OUTER LINING - GRAVEL = Cement			17/02/2009	1050 m	West
78446	Domestic, Stock	0.00m-0.91m SANDY TOPSOIL 0.91m-2.74m CLAY 2.74m-11.58m LIGHT BROWN DAMP SILTY CLAY 11.58m-20.72m WET SILTY CLAY	0.00m-20.72m INNER LINING - CASING = Not Known 3.05m-20.72m INNER LINING - SCREEN = Not Known		3.05m-20.72m	19/01/1973	1051 m	North West
WRK986245							1067 m	North
WRK979680							1091 m	East
WRK979085							1101 m	East
WRK982293							1105 m	North
WRK971361							1119 m	North
WRK974719	Domestic & Stock		0.00m-7.00m INNER LINING - CASING = Pvc 7.00m-11.00m INNER LINING - SCREEN = Pvc 0.00m-5.50m OUTER LINING - GRAVEL = Cement 5.50m-6.50m OUTER LINING - GRAVEL = Bentonite 6.50m-11.00m OUTER LINING - GRAVEL = Gravel			05/10/2006	1146 m	North West
140866	Groundwater Investigation	0.00m-0.40m BITUMEN OVER BLUESTONE 0.40m-1.60m SILTY CLAY, DARK GREY BROWN, PLASTIC, MOIST 1.60m-3.80m SANDY CLAY, ORANGE BROWN, FINE GRAINED, MINOR QUARTZ, MOIST 3.80m-10.00m CLAYEY SAND, LIGHT BROWN, FINE MEDIUM GRAINED, MOIST 10.00m-12.00m SAND, LIGHT BRWON, FINE MEDIUM GRAINED, WET	0.00m-7.50m INNER LINING - CASING = Pvc Class 18 7.50m-12.00m INNER LINING - SCREEN = Pvc Class 18 0.00m-0.50m OUTER LINING - GRAVEL = Cement 0.50m-0.00m OUTER LINING - GRAVEL = Packer 7.00m-7.50m OUTER LINING - GRAVEL = Bentonite 7.50m-12.00m OUTER LINING - GRAVEL = Gravel			29/02/2000	1152 m	North West
140862	Groundwater Investigation	0.00m-0.05m ASPHALT 0.05m-0.80m CRUSHED BASALT, STABILISED ROCK, MINOR SAND, MOIST 0.80m-3.60m SANDY CLAY, GREY BROWN, FINE GRAINED, MOIST 3.60m-5.60m CLAYEY SAND, LIGHT BRWON, FINE MEDIUM GRAINED, MOIST 5.60m-9.00m CLAYEY SAND, ORANGE, FINE MEDIUM GRAINED, MOIST 9.00m-12.60m CLAYEY SAND, ORANGE FINE MEDIUM GRAINED, MINOR ROCK	0.00m-8.10m INNER LINING - CASING = Pvc Class 18 8.10m-12.60m INNER LINING - SCREEN = Pvc Class 18 0.00m-0.50m OUTER LINING - GRAVEL = Cement 0.50m-0.00m OUTER LINING - GRAVEL = Packer 7.60m-8.10m OUTER LINING - GRAVEL = Bentonite 8.10m-12.60m OUTER LINING - GRAVEL = Gravel			28/02/2000	1158 m	North West
WRK974720	Domestic & Stock	0.00m-1.00m FILL 1.00m-11.00m CLAY	0.00m-7.00m INNER LINING - CASING = Pvc 7.00m-11.00m INNER LINING - SCREEN = Pvc 0.00m-5.50m OUTER LINING - GRAVEL = Cement 5.50m-6.50m OUTER LINING - GRAVEL = Bentonite 6.50m-11.00m OUTER LINING - GRAVEL = Gravel			05/10/2006	1160 m	North West

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
WRK974721	Domestic & Stock	0.00m-1.00m FILL 1.00m-11.00m CLAY	0.00m-7.00m INNER LINING - CASING = Pvc 7.00m-11.00m INNER LINING - SCREEN = Pvc 0.00m-5.50m OUTER LINING - GRAVEL = Cement 5.50m-6.50m OUTER LINING - GRAVEL = Bentonite 6.50m-11.00m OUTER LINING - GRAVEL = Gravel			05/10/2006	1162 m	North West
140864	Groundwater Investigation	0.00m-0.80m SAND, DARK BROWN, MEDIUM GRAINED, MOIST 0.80m-1.60m SANDY CLAY, BROWN ORANGE MOTTLED, MOIST 1.60m-5.60m SANDY CLAY, LIGHT BROWN, MOIST 5.60m-6.60m SANDY CLAY, LIGHT BROWN, MINOR QUARTZ, MOIST 6.60m-8.00m CLAYEY SAND, LIGHT BROWN, MEDIUM GRAINED MOIST 8.00m-9.00m SAND, LIGHT BROWN, MEDIUM GRAINED, MOIST 9.00m-12.00m SAND, GREY, MEDIUM GRAINED, WET	0.00m-7.50m INNER LINING - CASING = Pvc Class 18 7.50m-12.00m INNER LINING - SCREEN = Pvc Class 18 0.00m-0.50m OUTER LINING - GRAVEL = Cement 0.50m-0.00m OUTER LINING - GRAVEL = Packer 7.00m-7.50m OUTER LINING - GRAVEL = Bentonite 7.50m-12.00m OUTER LINING - GRAVEL = Gravel			29/02/2000	1163 m	North West
140865	Groundwater Investigation	0.00m-0.18m CONCRETE 0.18m-1.40m SILTY SAND, GREY BROWN, FINE MEDIUM GRAINED, MOIST 1.40m-2.60m SANDY CLAY, ORANGE BROWN, MEDIUM GRAINED, MOIST 2.60m-11.00m SANDY CLAY, BROWN, FINE GRAINED, MINOR QUARTZ, MOIST 11.00m-12.00m CLAYEY SILT, BROWN, MINOR QUARTZ PEBBLES, WET	0.00m-7.50m INNER LINING - CASING = Pvc Class 18 7.50m-12.00m INNER LINING - SCREEN = Pvc Class 18 0.00m-0.50m OUTER LINING - GRAVEL = Cement 0.50m-0.00m OUTER LINING - GRAVEL = Packer 7.00m-7.50m OUTER LINING - GRAVEL = Bentonite 7.50m-12.00m OUTER LINING - GRAVEL = Gravel			01/03/2000	1167 m	North West
140868	Groundwater Investigation	0.00m-0.30m ASPHALT 0.30m-1.60m SANDY CLAY, DARK BROWN, MOIST 1.60m-4.60m SANDY CLAY, LIGHT BROWN, MOIST 4.60m-7.60m CLAYEY SAND, BROWN, FINE GRAINED, MOIST 7.60m-8.80m SANDSTONE, BROWN, MOIST 8.80m-11.60m SANDSTONE, LIGHT BROWN, FINE GRAINED, MOIST 11.60m-13.50m SANDSTONE, LIGHT BROWN, FINE GRAINED, WET	0.00m-7.50m INNER LINING - CASING = Pvc Class 18 7.50m-13.50m INNER LINING - SCREEN = Pvc Class 18 0.00m-0.50m OUTER LINING - GRAVEL = Cement 0.50m-0.00m OUTER LINING - GRAVEL = Packer 7.00m-7.50m OUTER LINING - GRAVEL = Bentonite 7.50m-13.50m OUTER LINING - GRAVEL = Gravel			31/03/2000	1176 m	North West
140867	Groundwater Investigation	0.00m-0.10m ASPHALT 0.10m-0.80m GRAVEL, SAND, CLAY, MOIST 0.80m-7.60m SANDY CLAY, BROWN, MOIST 7.60m-9.00m SANDSTONE, BROWN, FINE GRAINED, MOIST 9.00m-10.60m METAMORPHOSED SANDSTONE, GREY, MOIST 10.60m-15.40m SANDSTONE, LIGHT BROWN, VERY FINE GRAINED, MOIST 15.40m-17.20m SANDSTONE, LIGHT BROWN, FINE GRAINED, WET	0.00m-8.20m INNER LINING - CASING = Pvc Class 18 8.20m-17.20m INNER LINING - SCREEN = Pvc Class 18 0.00m-0.50m OUTER LINING - GRAVEL = Cement 0.50m-0.00m OUTER LINING - GRAVEL = Packer 7.70m-8.20m OUTER LINING - GRAVEL = Bentonite 8.20m-17.20m OUTER LINING - GRAVEL = Gravel			01/03/2000	1182 m	North West
WRK053298	Domestic & Stock	0.00m-1.00m loam soil 1.00m-2.50m orange sandy clays 2.50m-4.00m coarse sands 4.00m-8.50m coarse red sands 8.50m-13.00m brown sands & hard layer 13.00m-17.80m hard layer of brown coarse sands 17.80m-22.00m coarse brown sands	0.30m-12.00m INNER LINING - CASING = Pvc 12.00m-24.00m INNER LINING - SLOT = Pvc 0.50m-1.00m OUTER LINING - GRAVEL = Cement 10.00m-24.00m OUTER LINING - GRAVEL = Gravel		0.30m-12.00m Sand 12.00m-24.00m Sand	17/12/2009	1199 m	South West
WRK983470							1199 m	North West
WRK978097	Domestic & Stock		0.00m-3.00m INNER LINING - CASING = Pvc 3.00m-6.00m INNER LINING - SCREEN = Pvc 0.00m-0.46m OUTER LINING - GRAVEL = Cement 1.50m-2.50m OUTER LINING - GRAVEL = Bentonite 2.50m-6.00m OUTER LINING - GRAVEL = Gravel			16/01/2007	1203 m	West
WRK988781							1210 m	South

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
WRK985605	Domestic	0.00m-6.00m orange clay 6.00m-12.00m white sand 12.00m-22.00m ironstone 22.00m-26.00m grey mud stone 26.00m-55.00m black shale	0.00m-43.00m INNER LINING - CASING = Pvc 43.00m-49.00m INNER LINING - SCREEN = Pvc 49.00m-55.00m INNER LINING - CASING = Pvc 0.00m-27.00m OUTER LINING - GRAVEL = Cement 27.00m-30.00m OUTER LINING - GRAVEL = Bentonite			11/02/2009	1260 m	East
WRK979401							1272 m	North West
88739	Domestic	0.00m-0.50m SANDY SOIL 0.50m-12.00m SANDY CLAY 12.00m-15.00m SHALE 15.00m-24.00m GREY SILTSTONE (SOFT) 24.00m-56.00m GREY SILTSTONE (MEDIUM)				07/09/1989	1273 m	North East
WRK073418	Domestic & Stock	0.00m-1.80m SANDY TOPSOIL 1.80m-8.00m SANDY CLAY 8.00m-12.00m SAND 12.00m-18.00m SILTSTONE 18.00m-32.00m SILTSTONE MEDIUM 32.00m-62.00m SILTSTONE HARD	0.00m-18.00m INNER LINING - CASING = UPVC class 12 18.00m-56.00m INNER LINING - CASING = UPVC class 12 56.00m-62.00m INNER LINING - SCREEN = Pvc Class 12 0.00m-22.00m OUTER LINING - GRAVEL = Cement 22.00m-24.00m OUTER LINING - GRAVEL = Bentonite 24.00m-25.00m OUTER LINING - GRAVEL = Seal		56.00m-62.00m Siltstone	05/03/2013	1278 m	East
WRK978096	Domestic & Stock		0.00m-4.50m INNER LINING - CASING = Pvc 4.50m-7.50m INNER LINING - SCREEN = Pvc 0.00m-0.45m OUTER LINING - GRAVEL = Cement 2.70m-4.00m OUTER LINING - GRAVEL = Bentonite 4.00m-7.50m OUTER LINING - GRAVEL = Gravel			16/01/2007	1286 m	North West
WRK978321							1330 m	East
WRK978095	Domestic & Stock		0.00m-0.50m OUTER LINING - GRAVEL = Cement 3.50m-4.70m OUTER LINING - GRAVEL = Bentonite 4.70m-9.00m OUTER LINING - GRAVEL = Gravel			16/01/2007	1358 m	North West
WRK987218	Domestic		0.00m-18.00m OUTER LINING - GRAVEL = Cement 20.00m-25.00m OUTER LINING - GRAVEL = Bentonite			17/11/2008	1373 m	East
WRK042499	Irrigation, Groundwater Investigation	0.00m-2.00m SANDY SOIL & CLAY 2.00m-8.00m MOTTLED CLAY 8.00m-15.00m SANDY CLAY 15.00m-18.00m CLAY 18.00m-63.00m GREY SILTONE SANDSTONE	0.00m-63.00m INNER LINING - CASING = Pvc 0.00m-6.00m OUTER LINING - GRAVEL = Cement 6.00m-27.00m OUTER LINING - GRAVEL = Bentonite 27.00m-63.00m OUTER LINING - GRAVEL = Gravel		0.00m-63.00m Clay	10/07/2007	1386 m	East
WRK980513							1387 m	South East
WRK979043							1400 m	South East
WRK966436	Groundwater Investigation	0.00m-2.50m BLACK SILTY CLAY 2.50m-6.20m BROWN SILTY CLAY	0.00m-3.20m INNER LINING - CASING = Pvc 3.20m-6.20m INNER LINING - SLOT = Pvc 0.00m-1.70m OUTER LINING - GRAVEL = Cement 1.70m-2.70m OUTER LINING - GRAVEL = Bentonite 2.70m-6.20m OUTER LINING - GRAVEL = Gravel			21/10/2004	1405 m	South
WRK966440	Groundwater Investigation	0.00m-2.50m BLACK SILTY CLAY 2.50m-6.20m BROWN SILTY CLAY	0.00m-3.20m INNER LINING - CASING = Pvc 3.20m-6.20m INNER LINING - SLOT = Pvc 0.00m-1.70m OUTER LINING - GRAVEL = Cement 1.70m-2.70m OUTER LINING - GRAVEL = Bentonite 2.70m-6.20m OUTER LINING - GRAVEL = Gravel			21/10/2004	1405 m	South

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
WRK966441	Groundwater Investigation	0.00m-2.50m BLACK SILTY CLAY 2.50m-6.20m BROWN SILTY CLAY	0.00m-3.20m INNER LINING - CASING = Pvc 3.20m-6.20m INNER LINING - SLOT = Pvc 0.00m-1.70m OUTER LINING - GRAVEL = Cement 1.70m-2.70m OUTER LINING - GRAVEL = Bentonite 2.70m-6.20m OUTER LINING - GRAVEL = Gravel			21/10/2004	1405 m	South
WRK096395	Observation	0.00m-4.00m CLAY	0.00m-0.30m INNER LINING - CASING = UPVC class 12 1.00m-4.00m INNER LINING - SCREEN = UPVC class 12 0.00m-0.30m OUTER LINING - GRAVEL = Cement 0.30m-0.50m OUTER LINING - GRAVEL = Bentonite 0.50m-4.00m OUTER LINING - GRAVEL = Gravel			13/10/2016	1430 m	North
WRK985568	Groundwater Investigation	0.00m-0.15m bluestone 0.15m-0.25m fill 0.25m-1.80m silty clay 1.80m-10.00m sandy clay	0.00m-7.00m INNER LINING - CASING = Pvc 7.00m-10.00m INNER LINING - SCREEN = Pvc 0.60m-5.50m OUTER LINING - GRAVEL = Cement 5.50m-6.50m OUTER LINING - GRAVEL = Bentonite 6.50m-10.00m OUTER LINING - GRAVEL = Seal			18/11/2008	1440 m	North East
WRK096394	Observation	0.00m-4.00m CLAY	0.00m-1.00m INNER LINING - CASING = UPVC class 12 1.00m-4.00m INNER LINING - SCREEN = UPVC class 12 0.00m-0.30m OUTER LINING - GRAVEL = Cement 0.30m-0.50m OUTER LINING - GRAVEL = Bentonite 0.50m-4.00m OUTER LINING - GRAVEL = Gravel			13/10/2016	1441 m	North
WRK096393	Observation	0.00m-4.00m CLAY	0.00m-1.00m INNER LINING - CASING = UPVC class 12 1.00m-4.00m INNER LINING - SCREEN = UPVC class 12 0.00m-0.30m OUTER LINING - GRAVEL = Cement 0.30m-0.50m OUTER LINING - GRAVEL = Bentonite 0.50m-4.00m OUTER LINING - GRAVEL = Gravel			13/10/2016	1452 m	North
WRK985566	Groundwater Investigation	0.00m-0.50m Ashphalt 0.50m-1.50m silty sand 1.50m-10.00m sandy clay	0.00m-7.00m INNER LINING - CASING = Pvc 7.00m-10.00m INNER LINING - SCREEN = Pvc 0.80m-5.00m OUTER LINING - GRAVEL = Cement 5.50m-6.50m OUTER LINING - GRAVEL = Bentonite 6.50m-10.00m OUTER LINING - GRAVEL = Seal			17/11/2008	1457 m	North East
WRK988277							1457 m	North East
WRK985567	Groundwater Investigation	0.00m-0.50m ashphalt 0.50m-1.70m silty sand 1.70m-10.00m sandy clay	0.00m-7.00m INNER LINING - CASING = Pvc 7.00m-10.00m INNER LINING - SCREEN = Pvc 0.80m-5.50m OUTER LINING - GRAVEL = Cement 5.50m-6.50m OUTER LINING - GRAVEL = Bentonite 6.50m-10.00m OUTER LINING - GRAVEL = Seal			17/11/2008	1462 m	North East
WRK992250	Groundwater Investigation	0.00m-1.00m fill 1.00m-8.00m sandy clay	0.00m-3.50m INNER LINING - CASING = Pvc 3.50m-8.00m INNER LINING - SCREEN = Pvc 0.00m-2.00m OUTER LINING - GRAVEL = Cement 2.00m-3.00m OUTER LINING - GRAVEL = Bentonite 3.00m-8.00m OUTER LINING - GRAVEL = Gravel			28/08/2009	1467 m	South East
WRK988366							1492 m	East
WRK984707							1496 m	South East

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
WRK985569	Groundwater Investigation	0.00m-0.15m concrete 0.15m-0.30m crush rock 0.30m-1.70m silty sand 1.70m-10.00m sand clay	0.00m-7.00m INNER LINING - CASING = Pvc 7.00m-10.00m INNER LINING - SCREEN = Pvc 0.40m-5.50m OUTER LINING - GRAVEL = Cement 5.50m-6.50m OUTER LINING - GRAVEL = Bentonite 6.50m-10.00m OUTER LINING - GRAVEL = Seal			18/11/2008	1500 m	North East
WRK989207							1527 m	East
88692	Irrigation	0.00m-2.00m STIFF YELLOW CLAY 2.00m-12.00m FINE YELLOW SANDY CLAY 12.00m-24.00m STIFF YELLOW CLAY 24.00m-26.00m WEATHERED BASALT 26.00m-45.00m WEATHERED MUDSTONE 45.00m-60.00m MUDSTONE	0.00m-45.00m INNER LINING - CASING = Mild Steel 45.00m-60.00m INNER LINING - SCREEN = Mild Steel		45.00m-60.00m Mudstone	22/03/1983	1571 m	North
WRK964564	Domestic & Stock	0.00m-1.20m TOP SOIL & FILL 1.20m-11.00m STIFF MOTTLED CLAYS 11.00m-21.00m MEDIUM BROWN MUDSTONE 21.00m-50.00m FRACTURED BLUE SILTSTONE	0.00m-37.00m INNER LINING - CASING = Pvc 37.00m-49.00m INNER LINING - SLOT = Pvc 49.00m-50.00m INNER LINING - CASING = Pvc 32.00m-32.50m OUTER LINING - GRAVEL = Seal			05/05/2004	1576 m	East
WRK102831	Investigation	0.00m-5.70m CLAYSandy 5.70m-12.00m CLAYSand	0.00m-6.00m INNER LINING - CASING = Pvc 6.00m-12.00m INNER LINING - SCREEN = Pvc 0.00m-5.00m OUTER LINING - GRAVEL = Cement			06/10/2017	1583 m	South
WRK072266	Observation					01/11/2012	1587 m	South East
WRK072267	Observation					01/11/2012	1587 m	South East
WRK072268	Observation					01/11/2012	1587 m	South East
WRK979084							1595 m	East
WRK102832	Investigation	0.00m-6.20m SANDY CLAY 6.20m-12.00m SANDY CLAY	0.00m-6.00m INNER LINING - CASING = Pvc 6.00m-12.00m INNER LINING - SCREEN = Pvc 0.00m-0.00m OUTER LINING - GRAVEL = Not Known			06/10/2017	1597 m	South
88679	Domestic, Stock	0.00m-0.91m FINE BLACK SAND 0.91m-2.74m ORANGE SANDY CLAY 2.74m-6.10m COARSE ORANGE SANDY CLAY 6.10m-7.92m FINE ORANGE SAND (DAMP) 7.92m-9.14m ORANGE SAND A LITTLE CLAY 9.14m-12.50m ORANGE SANDY CLAY DAMP 12.50m-17.68m ORANGE SANDY CLAY COARSE (WET) 17.68m-18.29m HARD BAND 18.29m-19.81m GREY CLAY AND MUDSTONE	0.00m-19.81m INNER LINING - CASING = Not Known 0.00m-19.81m INNER LINING - SCREEN = Not Known		0.00m-19.81m	15/01/1973	1622 m	East
WRK988236	Domestic		0.00m-18.00m OUTER LINING - GRAVEL = Cement 27.00m-33.00m OUTER LINING - GRAVEL = Bentonite			24/11/2008	1638 m	East
78470	Irrigation	0.00m-3.50m REDISH YELLOW SANDY CLAY 3.50m-5.00m YELLOW SAND 5.00m-7.50m PARTY WEATHERED SANDSTONE 7.50m-35.80m LIGHT BROWN SANDSTONE 35.80m-40.00m VERY BROKEN GREY SANDSTONE & QUARTZ 40.00m-42.60m GREY SANDSTONE	0.00m-7.50m INNER LINING - CASING = Not Known 7.50m-42.60m INNER LINING - SCREEN = Not Known		7.50m-42.60m Sandstone	06/09/1983	1649 m	North
88718	Domestic	0.00m-0.61m TOP SOIL 0.61m-1.83m FINE SAND 1.83m-3.91m COARSE SAND WITH FINES 3.91m-5.13m CLAY 5.13m-7.00m CLAY AND FEW COARSE PARTS 7.00m-7.61m ROCK 7.61m-17.07m NOT KNOWN	0.00m-13.41m INNER LINING - CASING = Pvc 13.41m-15.24m INNER LINING - SCREEN = Pvc 15.24m-16.07m INNER LINING - CASING = Pvc 16.07m-17.07m INNER LINING - SCREEN = Pvc		13.41m-15.24m 16.07m-17.07m	25/10/1983	1658 m	East

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
88738	Domestic	0.00m-0.50m SANDY SOIL 0.50m-2.00m BLACK SILTY SAND 2.00m-10.00m CLAYEY SAND 10.00m-15.00m CLAY 15.00m-18.00m COARSE SAND 18.00m-24.00m BLACK SILTS,SAND 24.00m-27.00m MUDSTONE 27.00m-46.00m GREY SILTSTONE & SANDSTONE LAYERS	33.00m-0.00m OUTER LINING - GRAVEL = Seal			25/08/1989	1659 m	East
WRK985455							1660 m	East
WRK987902						24/10/2008	1681 m	East
WRK979407							1700 m	North West
WRK992328							1706 m	South East
88716	Domestic	0.00m-1.52m GREY BLACK TOP SOIL AND SAND 1.52m-3.00m DAMP GREY FINE SAND 3.00m-4.52m WHITE GREY FINE SAND 4.52m-6.10m GREY FINE SAND 6.10m-7.62m FINE WHITE GREY SAND SOME CLAY 7.62m-15.24m COARSE GREY GRANULAR SAND 15.24m-16.76m COARSE BROWN GRANULAR SAND 16.76m-18.59m GREEN CLAY WITH GRITTY SAND	0.00m-7.32m INNER LINING - CASING = Pvc 7.32m-16.76m INNER LINING - SCREEN = Pvc 16.76m-18.59m INNER LINING - SCREEN = Slotted Pvc		7.32m-16.76m Sand 16.76m-18.59m Clay	30/08/1983	1709 m	East
WRK069674	Observation	0.00m-1.00m SAND 1.00m-4.00m CLAY 4.00m-18.00m SAND	0.00m-12.00m INNER LINING - CASING = Pvc 12.00m-18.00m INNER LINING - SCREEN = Pvc 0.00m-10.50m OUTER LINING - GRAVEL = Cement 10.50m-11.50m OUTER LINING - GRAVEL = Bentonite 11.50m-18.00m OUTER LINING - GRAVEL = Gravel		12.00m-18.00m Sand	07/06/2012	1719 m	South East
WRK069675	Observation					07/06/2012	1719 m	South East
WRK981074							1780 m	East
WRK986671							1780 m	East
WRK991987							1796 m	East
WRK100653	Domestic & Stock	0.00m-1.00m SANDY SOIL 1.00m-2.50m BROWN CLAY 2.50m-10.00m MOTTLED SANDY CLAY 10.00m-25.00m DARK GREY SILT 25.00m-39.00m DARK GREY SOFT SILTSTONE	0.00m-51.00m INNER LINING - CASING = Pvc Class 12 0.50m-3.00m OUTER LINING - GRAVEL = Cement 3.00m-33.00m OUTER LINING - GRAVEL = Seal 33.00m-34.00m OUTER LINING - GRAVEL = Bentonite 34.00m-51.50m OUTER LINING - GRAVEL = Gravel			13/07/2017	1800 m	East
144115	Groundwater Investigation	0.00m-0.60m (FILL) TOP SOIL, GRAVEL 0.60m-1.80m SANDY CLAY 1.80m-5.60m CLAYEY SAND	0.00m-2.60m INNER LINING - CASING = Pvc 2.60m-5.60m INNER LINING - SCREEN = Pvc 1.60m-2.10m OUTER LINING - GRAVEL = Bentonite 2.10m-5.60m OUTER LINING - GRAVEL = Gravel			11/11/1999	1809 m	South
WRK981411							1814 m	East
144116	Groundwater Investigation	0.00m-0.10m BITUMAN 0.10m-0.60m 9FILL0 SAND GRAVEL CLAY 0.60m-1.80m SANDY CLAY 5.00m-5.00m CLAYEY SAND TO SANDSTONE	0.00m-2.00m INNER LINING - CASING = Pvc 2.00m-5.00m INNER LINING - SCREEN = Pvc 1.00m-1.50m OUTER LINING - GRAVEL = Bentonite 1.50m-5.00m OUTER LINING - GRAVEL = Gravel			11/11/1999	1834 m	South
WRK099880	Investigation	0.00m-1.00m FILL 1.00m-10.50m SILTSTONE	0.00m-7.50m INNER LINING - CASING = Pvc 7.50m-10.00m INNER LINING - SCREEN = Pvc 0.00m-6.00m OUTER LINING - GRAVEL = Cement 6.00m-7.00m OUTER LINING - GRAVEL = Bentonite 7.00m-10.50m OUTER LINING - GRAVEL = Gravel			25/05/2017	1834 m	North

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
WRK099879	Investigation	0.00m-1.00m FILL 1.00m-10.50m SILTSTONE	0.00m-7.50m INNER LINING - CASING = Pvc 7.50m-10.00m INNER LINING - SCREEN = Pvc 0.00m-6.00m OUTER LINING - GRAVEL = Cement 6.00m-7.00m OUTER LINING - GRAVEL = Bentonite 7.00m-10.50m OUTER LINING - GRAVEL = Gravel			25/05/2017	1846 m	North
WRK046956							1847 m	North East
WRK099881	Investigation	0.00m-1.00m FILL 1.00m-10.50m SILTSTONE	0.00m-7.50m INNER LINING - CASING = Pvc 7.50m-10.00m INNER LINING - SCREEN = Pvc 0.00m-6.00m OUTER LINING - GRAVEL = Cement 6.00m-7.00m OUTER LINING - GRAVEL = Bentonite 7.00m-10.50m OUTER LINING - GRAVEL = Gravel			25/05/2017	1855 m	North
WRK984089							1858 m	North
145085	Groundwater Investigation					01/01/2001	1860 m	North East
WRK054448	Domestic & Stock	0.00m-18.00m clay sands 18.00m-28.00m soft mudstone 30.00m-45.00m hard mudstone	0.00m-30.00m INNER LINING - CASING = Pvc		0.00m-30.00m Sand 30.00m-45.00m Mudstone	30/01/2010	1867 m	East
WRK051845	Irrigation						1871 m	North
WRK990435		0.00m-7.00m SANDY CLAY 7.00m-48.00m MUDSTONE 48.00m-75.00m WHEATHERED BASALT	0.00m-9.00m INNER LINING - CASING = Pvc 9.00m-63.00m INNER LINING - CASING = Pvc 0.00m-24.00m OUTER LINING - GRAVEL = Bentonite 24.00m-25.00m OUTER LINING - GRAVEL = Cement			17/07/2009	1871 m	North
138466	Groundwater Investigation	0.00m-0.20m CONCRETE 0.20m-0.60m SILTY CLAY 0.60m-1.60m BROWN ORANGE STIFF BROWN CLAY 1.60m-2.80m SILTY CLAY WITH TRACES OF VERY FINE SAND 2.80m-4.80m SILTY SANDY CLAY 4.80m-6.00m BROWN SILTY CLAY				15/01/1998	1873 m	South
138467	Groundwater Investigation	0.00m-0.20m CONCRETE 0.20m-0.60m DARK GREY SILTY CLAY 0.60m-1.80m BROWN ORANGE SILTY CLAY 1.80m-3.80m SILTY CLAY FINE SAND 3.80m-5.00m SILTY CLAY WITH TRACES OF GRAVEL 5.00m-5.80m SILTY CLAY WITH TRACES OF FINE SAND 5.80m-7.00m SILTY CLAY WITH TRACES OF FINE SAND & GRAVEL				14/01/1998	1873 m	South
138468	Groundwater Investigation	0.00m-0.20m CONCRETE 0.20m-0.60m SILTY CLAY WITH TRACES OF GRAVEL 0.60m-1.60m BROWN ORANGE SILTY CLAY 1.60m-2.80m SILTY CLAY WITH TRACES OF VERY FINE SAND 2.80m-4.80m SILTY SANDY CLAY 4.80m-6.00m SILTY CLAY				15/01/1998	1873 m	South
138469	Groundwater Investigation	0.00m-0.20m CONCRETE 0.20m-0.60m DARK GREY SILTY CLAY 0.60m-1.80m BROWN ORANGE SILTY CLAY 1.80m-3.80m SILTY CLAY WITH TRACES OF FINE SAND 3.80m-5.00m SILTY CLAY WITH TRACES OF GRAVEL 5.00m-5.80m SILTY CLAY WITH TRACES OF FINE SAND 5.80m-7.00m SILTY CLAY WITH TRACES OF FINE SAND & GRAVEL				14/01/1998	1873 m	South
138470	Groundwater Investigation	0.00m-0.50m BLUESTONE PAVERS 0.50m-1.50m SILTY CLAY 1.50m-3.40m GREY & RED SANDY CLAY 3.40m-6.00m BROWN TO ORANGE SILTY CLAY				03/04/1998	1873 m	South

Bore Id	Use Type	Drillers Log	Construction	Latest Water Levels	Geology	Completed Date	Dist (m)	Dir
138825	Groundwater Investigation	0.00m-0.20m CONCRETE 0.20m-0.60m SILTY CLAY WITH TRACES OF GRAVEL 0.60m-1.60m BROWN ORANGE SILTY CLAY 1.60m-2.80m SILTY CLAY WITH TRACES OF VERY FINE SAND 2.80m-4.80m SILTY SANDY CLAY 4.80m-6.00m SILTY CLAY				15/01/1998	1873 m	South
142701	Groundwater Investigation	0.00m-0.50m FILL, CLAY & CRUSH ROCK 0.50m-6.00m SAND, WHITE, FINE, LOOSE, BECOMING WET	0.00m-3.00m INNER LINING - CASING = Pvc Class 18 3.00m-6.00m INNER LINING - SCREEN = Pvc Class 18 0.00m-1.50m OUTER LINING - GRAVEL = Cement 1.50m-2.50m OUTER LINING - GRAVEL = Bentonite 2.50m-6.00m OUTER LINING - GRAVEL = Gravel			10/08/1998	1875 m	South
78465	Domestic	0.00m-1.50m FINE WHITE SAND 1.50m-3.90m FINE WHITE SAND WITH TRACES OF BLACK SILTY CLAY 3.90m-6.60m WHITE SANDS	0.00m-6.00m INNER LINING - CASING = Galvanised Iron 6.00m-6.60m INNER LINING - SCREEN = Galvanised Iron 6.00m-6.60m OUTER LINING - GRAVEL = Gravel		6.00m-6.60m Sand	06/12/1983	1880 m	North West
WRK047161	Irrigation	0.00m-0.50m top soil 0.50m-1.00m grey sand 1.00m-3.00m clay bound red sand 3.00m-6.00m clay bound orange sand 6.00m-22.00m clay bound yellow sand 22.00m-29.50m light med grey 29.50m-61.00m med hard grey 61.00m-80.00m hard blue sandstone with quartz layers	0.00m-30.00m INNER LINING - CASING = Steel 30.00m-80.00m INNER LINING - SLOT = Pvc			07/03/2009	1891 m	East
WRK989501							1901 m	South East
WRK985345							1906 m	East
WRK986522							1927 m	North
WRK987561							1930 m	East
WRK988706							1937 m	North
WRK986521							1941 m	North
WRK986520							1950 m	North
WRK988705							1970 m	North
WRK988707							1970 m	North
WRK990918							1984 m	South
WRK990917							1987 m	South

Boreholes WMIS Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning
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Groundwater Boreholes

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184

Boreholes (Earth Resources Database)

Boreholes from the Earth Resources dataset, within the dataset buffer:

Bore Id	Bore Type	Company	Usage	Method	Status	Drill Date	Depth	Elevation	Accuracy (m)	Dist (m)	Dir
88696		Private Individual/Corporation	Domestic water supply	Rotary (diamond/drag bit)		08/12/1982	24.50		100	1032 m	South East
88706		Private Individual/Corporation	Domestic water supply	Rotary (diamond/drag bit)		01/03/1983	36.00		100	1058 m	East
88692		Victorian Government	Irrigation	Rotary (diamond/drag bit)		22/03/1983	60.00		100	1251 m	South East
88718		Private Individual/Corporation	Domestic water supply	Rotary (diamond/drag bit)		25/10/1983	17.07		100	1850 m	East

Boreholes Earth Resources Data Source: © The State of Victoria, Department of Economic Development, Jobs, Transport and Resources 2015. Creative Commons Attribution 3.0 Australia

Boreholes (Federation University)

Boreholes from the Federation University Australia dataset, within the dataset buffer:

Bore Id	Authority	Type	Uses	Initial TD	Log	Dist (m)	Dir
N/A	No records in buffer						

Boreholes FedUni Data Source: © Federation University Australia

Historical Mining Activity - Shafts

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184

Historical Mining Activity - Shafts

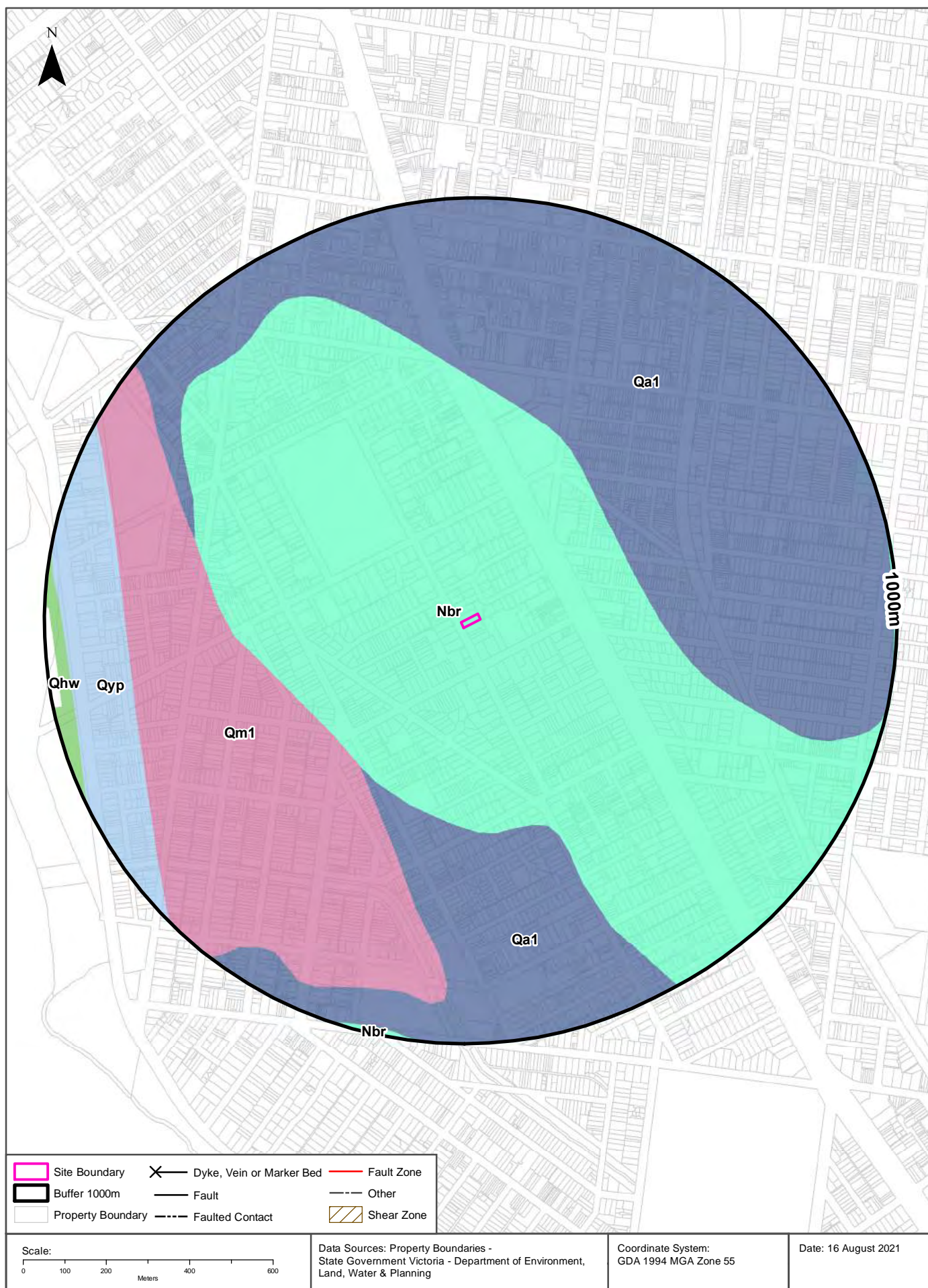
Mine Shaft Locations were collected by a variety of methods from 1869 in some areas of the state, mainly concentrating in Ballarat and Bendigo. In places a shaft may be recorded multiple times with a different source. In cases where several shaft locations are shown close together (generally with separations less than stated position errors) and they have different sources, it is possible that one shaft has been mapped several times. In cases where several shaft locations are shown close together but they have the same information source, it is possible that each shaft location represents a different shaft on the ground.

Historical Mine Shafts within the dataset buffer:

Map Id	Name	Source	Depth (m)	Collar (ft)	Fill/Cap Method	Location Desc	Location Accuracy	Distance	Direction
N/A	No records in buffer								

Historical Mining Activity Data Custodian: State Government Victoria - Dept of Economic Development, Jobs, Transport & Resources

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Geology

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184

Geological Units 1:50,000

What are the Geological Units within the dataset buffer?

Symbol	Name	Description	Geological Age	Lithology	Distance	Direction
Nbr	Red Bluff Sandstone (Nbr): generic	Sandstone, conglomerate: pale yellow and brown; fine to coarse-grained, massive to well bedded; cross-bedded; local ironstone	Miocene to Pliocene	conglomerate (significant); sandstone (significant)	0m	On-site
Qa1	alluvium(Qa1): generic	Gravel, sand, silt: variably sorted and rounded; generally unconsolidated; includes deposits of low terraces; alluvial floodplain deposits	Pleistocene to Holocene	gravel material (significant); sand (significant); silt material (significant)	377m	North East
Qm1	swamp and lake deposits (Qm1): generic	Grey to black carbonaceous mud, silt, clay, minor peat: generally unconsolidated; rare dolomite	Pleistocene to Holocene	mud (major proportion); silt material (significant); clay lithology (significant); peat (minor proportion)	407m	South West
Qyp	Port Melbourne Sand(Qyp): generic	Aeolian and beach ridges. Bedded and cross-bedded sand, moderately silty, with shelly fossils including bivalves and gastropods.	Holocene to Holocene	medium sand material (all); fine sand (all)	802m	West
Qhw	waste deposits (Qhw): generic	Clayey silt containing organic and non-organic material; land fill of various kinds.	Holocene to Holocene	fill (all)	948m	West

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Geology

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184

Geological Structures 1:50,000

What are the Geological Faults or Faulted Contacts within the dataset buffer?

Map Id	Type	Name	Contact	Positional Accuracy	Distance	Direction
N/A	No records in buffer					

What are the Dykes, Marker Beds and Veins within the dataset buffer?

Map Id	Type	Name	Description	Positional Accuracy	Distance	Direction
N/A	No records in buffer					

Geological Structures 1:250,000

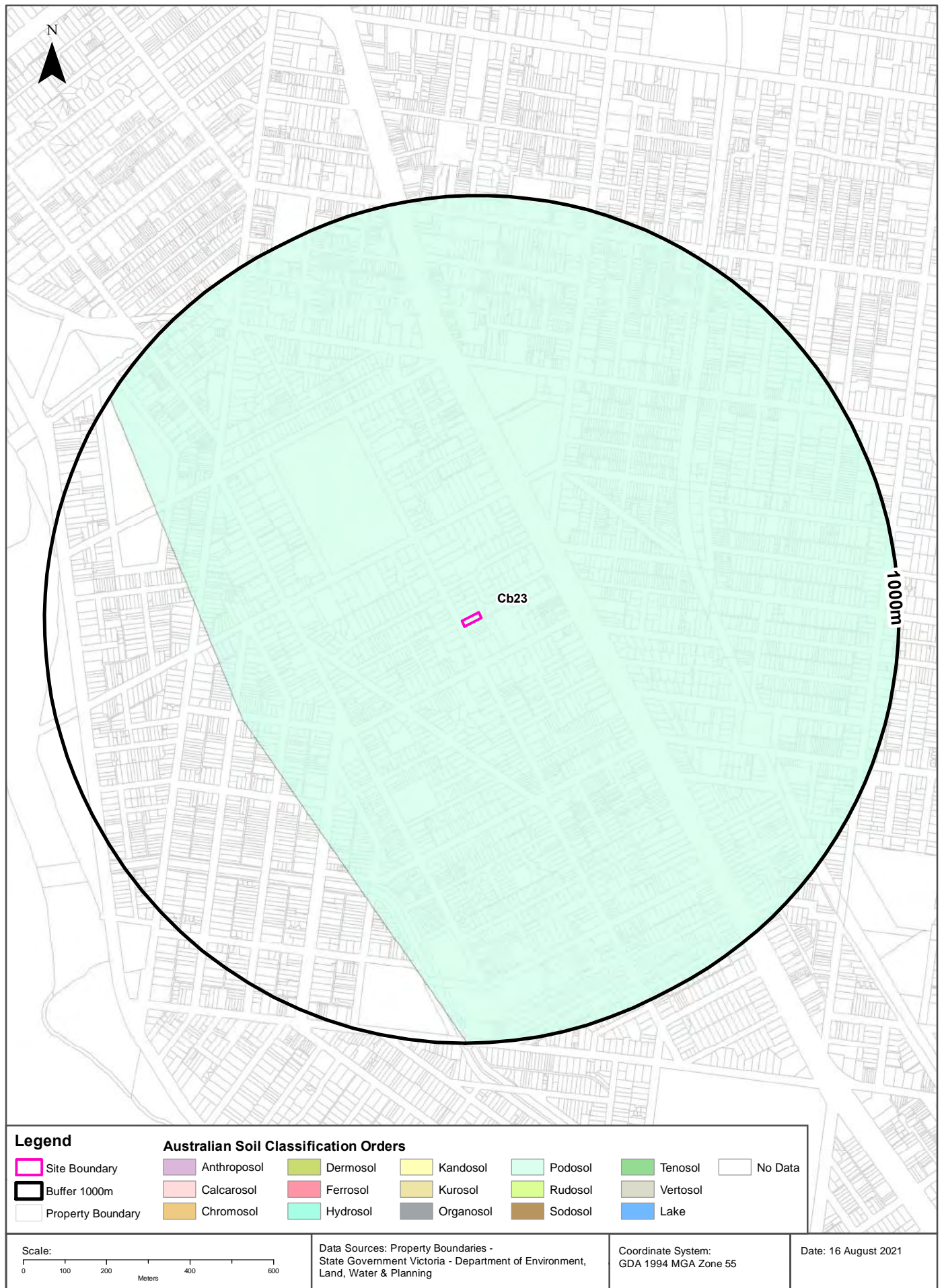
What are the Shear Zones within the dataset buffer?

Map Id	Type	Name	Description	Positional Accuracy	Distance	Direction
N/A	No records in buffer					

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Atlas of Australian Soils

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184



Soils

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184

Atlas of Australian Soils

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

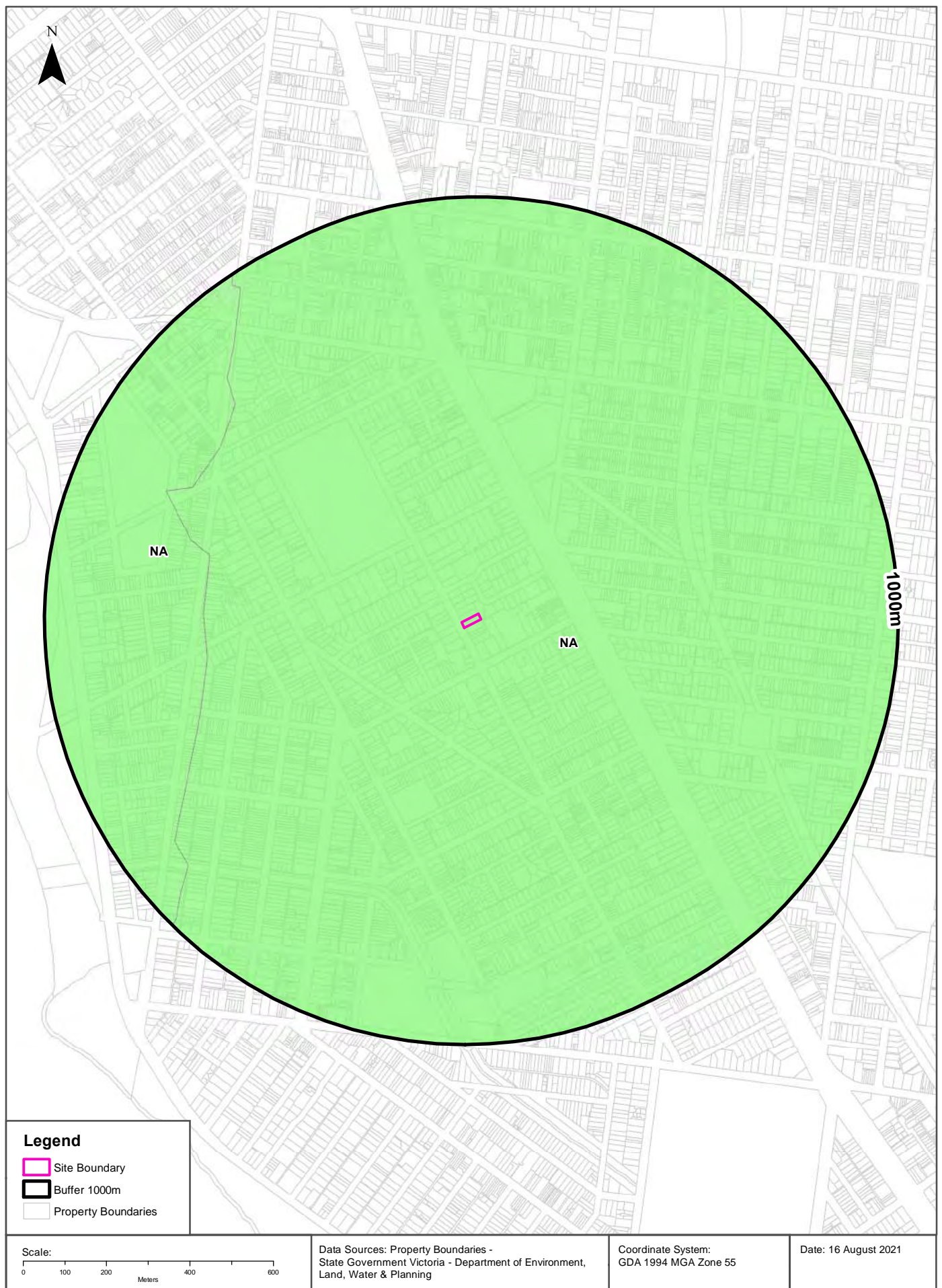
Map Unit Code	Soil Order	Map Unit Description	Distance	Direction
Cb23	Podosol	Coastal plains: plains of leached sands (Uc2.33) and other (Uc2.3) soils in association with sandy acidic yellow mottled soils (Dy5.41 and Dy5.81) and small areas of (Dy3.4) soils with dunes of leached sands, (Uc2.2) on dune crests, and (Uc2.3) on dune slopes; and with small swampy areas and possibly some lunettes both with undescribed soils.	0m	On-site

Atlas of Australian Soils Data Source: CSIRO

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Victorian Soil Type Mapping

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184



Soils

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Victorian Soil Type Mapping

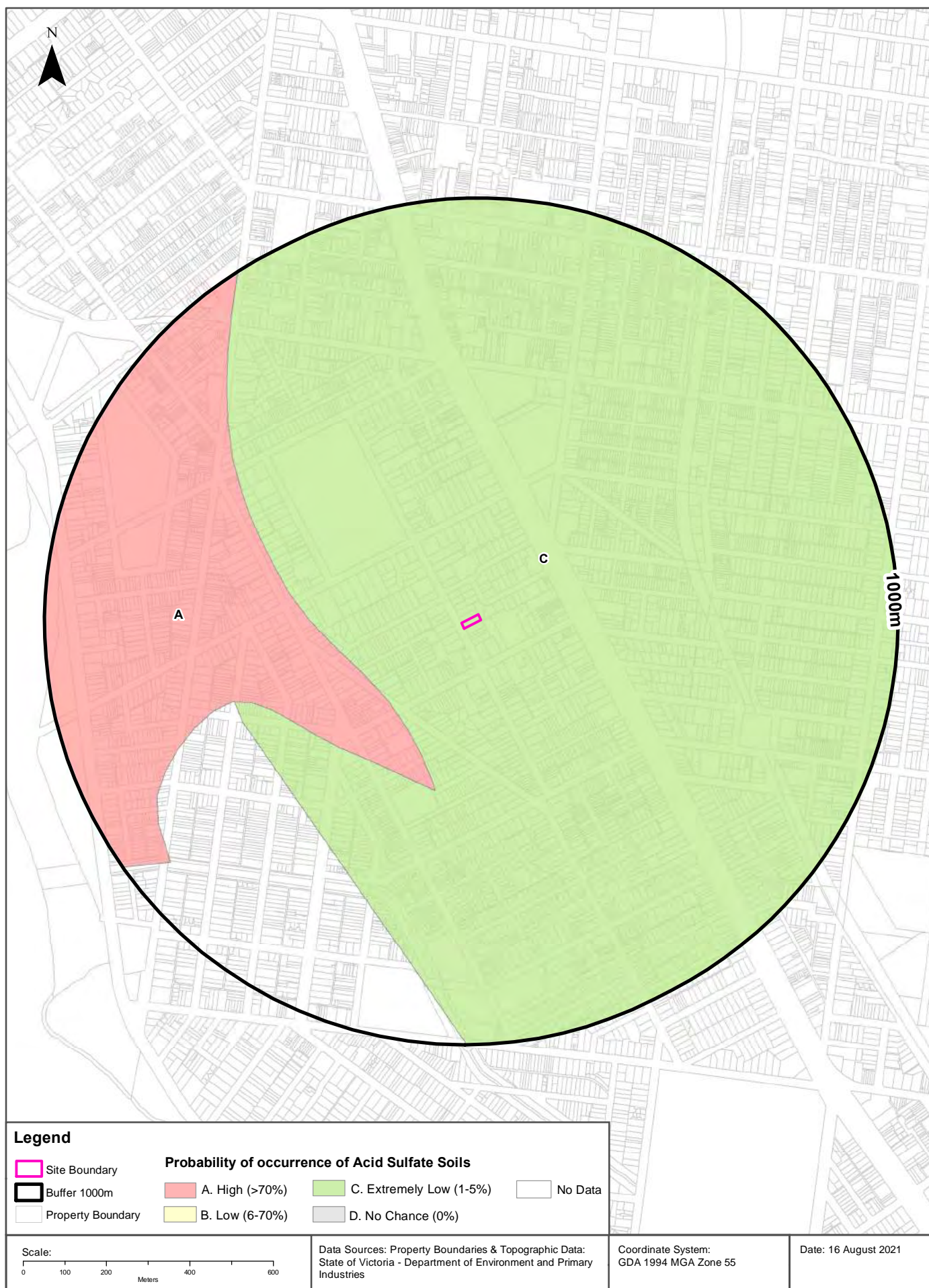
Victorian Soil Types within the dataset buffer:

Symbol	Description	Distance	Direction
NA	Unassigned	0m	On-site

Victorian Soil Type Mapping Data Source: Department of Economic Development, Jobs, Transport and Resources
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Atlas of Australian Acid Sulfate Soils

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184



Acid Sulfate Soils

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184

Atlas of Australian Acid Sulfate Soils

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

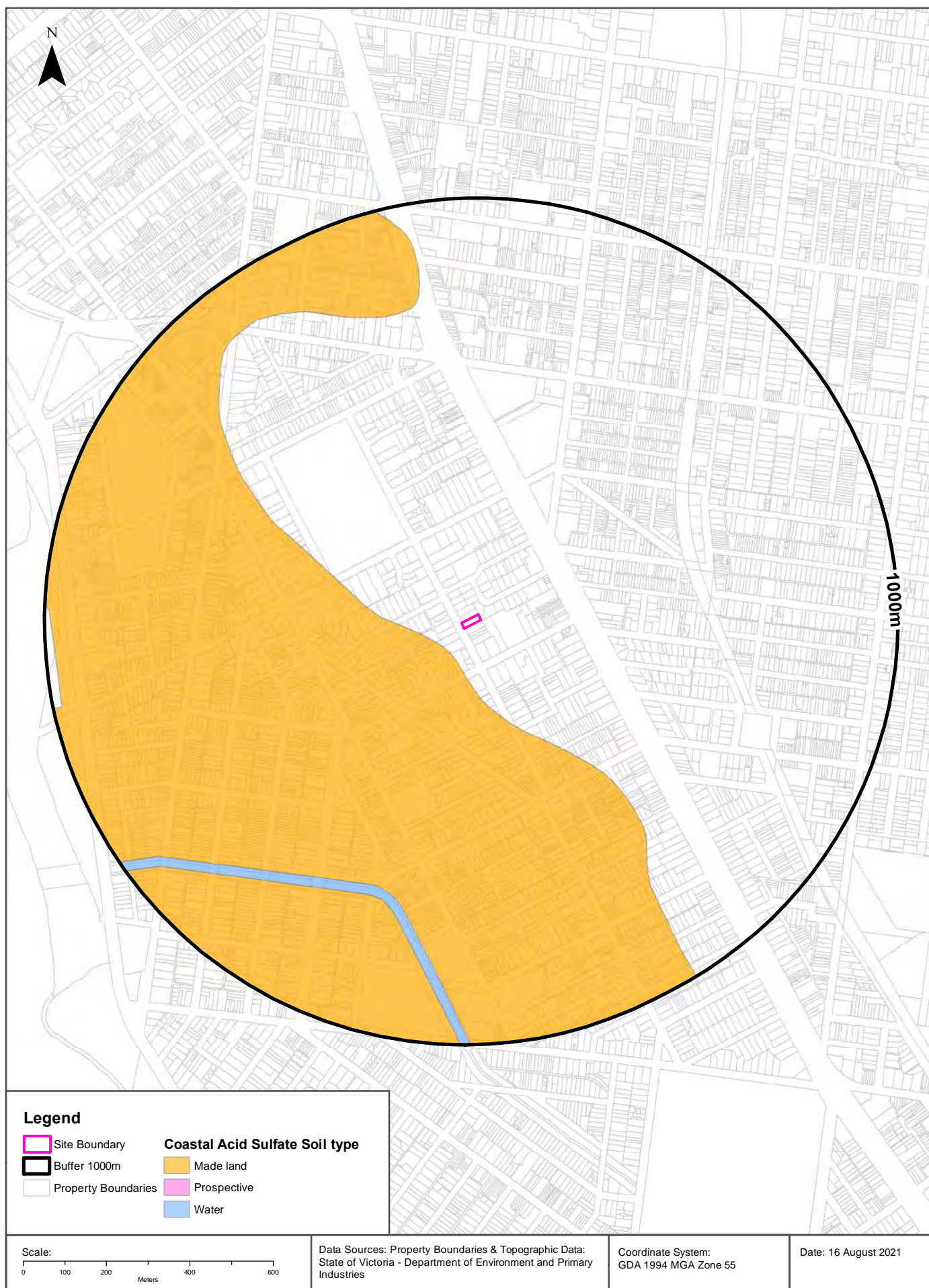
Class	Description	Distance	Direction
C	Extremely low probability of occurrence. 1-5% chance of occurrence with occurrences in small localised areas.	0m	On-site
A	High Probability of occurrence. >70% chance of occurrence.	253m	West

Atlas of Australian Acid Sulfate Soils Data Source: CSIRO

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Coastal Acid Sulfate Soils

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Acid Sulfate Soils

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Coastal Acid Sulfate Soils

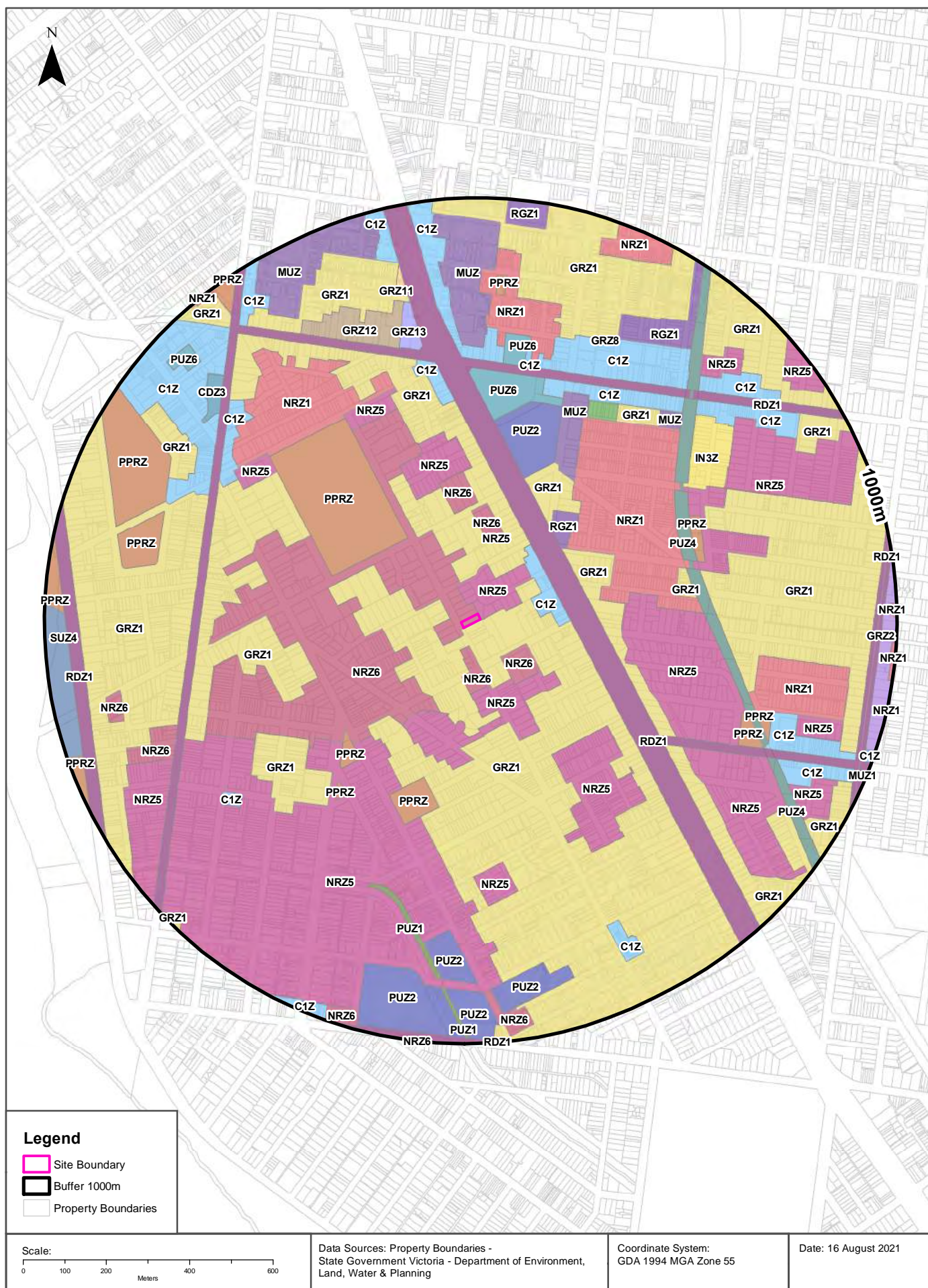
Coastal Acid Sulfate Soil types within the dataset buffer:

Coastal Acid Sulfate Soil Types	Distance	Direction
Made land	68	South West
Water	652	South West

Coastal Acid Sulfate Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning
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Planning Zones

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184



Planning

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184

Planning Zones

Planning zones within the dataset buffer:

Zone Code	Description	Distance	Direction
NRZ6	NEIGHBOURHOOD RESIDENTIAL ZONE - SCHEDULE 6	0m	On-site
GRZ1	GENERAL RESIDENTIAL ZONE - SCHEDULE 1	0m	South
NRZ5	NEIGHBOURHOOD RESIDENTIAL ZONE - SCHEDULE 5	0m	North East
NRZ6	NEIGHBOURHOOD RESIDENTIAL ZONE - SCHEDULE 6	44m	South
GRZ1	GENERAL RESIDENTIAL ZONE - SCHEDULE 1	85m	North
NRZ6	NEIGHBOURHOOD RESIDENTIAL ZONE - SCHEDULE 6	102m	South East
C1Z	COMMERCIAL 1 ZONE	128m	North East
NRZ5	NEIGHBOURHOOD RESIDENTIAL ZONE - SCHEDULE 5	150m	South
NRZ5	NEIGHBOURHOOD RESIDENTIAL ZONE - SCHEDULE 5	174m	North
NRZ6	NEIGHBOURHOOD RESIDENTIAL ZONE - SCHEDULE 6	174m	North
RDZ1	ROAD ZONE - CATEGORY 1	188m	North East
PPRZ	PUBLIC PARK AND RECREATION ZONE	240m	North West
NRZ6	NEIGHBOURHOOD RESIDENTIAL ZONE - SCHEDULE 6	247m	North
GRZ1	GENERAL RESIDENTIAL ZONE - SCHEDULE 1	249m	East
RGZ1	RESIDENTIAL GROWTH ZONE - SCHEDULE 1	254m	North East
NRZ1	NEIGHBOURHOOD RESIDENTIAL ZONE - SCHEDULE 1	264m	North East
GRZ1	GENERAL RESIDENTIAL ZONE - SCHEDULE 1	268m	North East
NRZ5	NEIGHBOURHOOD RESIDENTIAL ZONE - SCHEDULE 5	312m	North
NRZ5	NEIGHBOURHOOD RESIDENTIAL ZONE - SCHEDULE 5	334m	South West
NRZ5	NEIGHBOURHOOD RESIDENTIAL ZONE - SCHEDULE 5	337m	East
PUZ2	PUBLIC USE ZONE - EDUCATION	344m	North
NRZ5	NEIGHBOURHOOD RESIDENTIAL ZONE - SCHEDULE 5	367m	South East
GRZ1	GENERAL RESIDENTIAL ZONE - SCHEDULE 1	369m	West
PPRZ	PUBLIC PARK AND RECREATION ZONE	372m	South
PPRZ	PUBLIC PARK AND RECREATION ZONE	376m	South West
MUZ	MIXED USE ZONE	393m	North East
GRZ1	GENERAL RESIDENTIAL ZONE - SCHEDULE 1	459m	South West
PUZ6	PUBLIC USE ZONE - LOCAL GOVERNMENT	466m	North
GRZ1	GENERAL RESIDENTIAL ZONE - SCHEDULE 1	469m	East
PPRZ	PUBLIC PARK AND RECREATION ZONE	477m	South West
PUZ4	PUBLIC USE ZONE - TRANSPORT	505m	North East
C1Z	COMMERCIAL 1 ZONE	508m	North

Zone Code	Description	Distance	Direction
NRZ5	NEIGHBOURHOOD RESIDENTIAL ZONE - SCHEDULE 5	525m	North East
NRZ5	NEIGHBOURHOOD RESIDENTIAL ZONE - SCHEDULE 5	528m	North West
GRZ1	GENERAL RESIDENTIAL ZONE - SCHEDULE 1	532m	South East
PPRZ	PUBLIC PARK AND RECREATION ZONE	537m	East
GRZ1	GENERAL RESIDENTIAL ZONE - SCHEDULE 1	538m	East
GRZ8	GENERAL RESIDENTIAL ZONE - SCHEDULE 8	540m	North East
C1Z	COMMERCIAL 1 ZONE	549m	North East
NRZ1	NEIGHBOURHOOD RESIDENTIAL ZONE - SCHEDULE 1	565m	North West
GRZ1	GENERAL RESIDENTIAL ZONE - SCHEDULE 1	569m	North East
NRZ5	NEIGHBOURHOOD RESIDENTIAL ZONE - SCHEDULE 5	570m	South
NRZ5	NEIGHBOURHOOD RESIDENTIAL ZONE - SCHEDULE 5	572m	South East
NRZ5	NEIGHBOURHOOD RESIDENTIAL ZONE - SCHEDULE 5	572m	North West
IN3Z	INDUSTRIAL 3 ZONE	578m	North East
C1Z	COMMERCIAL 1 ZONE	605m	North
PUZ6	PUBLIC USE ZONE - LOCAL GOVERNMENT	605m	North
NRZ1	NEIGHBOURHOOD RESIDENTIAL ZONE - SCHEDULE 1	606m	North
C1Z	COMMERCIAL 1 ZONE	607m	North East
MUZ	MIXED USE ZONE	623m	North East
C1Z	COMMERCIAL 1 ZONE	637m	North West
MUZ	MIXED USE ZONE	639m	North
GRZ1	GENERAL RESIDENTIAL ZONE - SCHEDULE 1	642m	West
GRZ13	GENERAL RESIDENTIAL ZONE - SCHEDULE 13	649m	North
PUZ1	PUBLIC USE ZONE - SERVICE AND UTILITY	649m	South
NRZ1	NEIGHBOURHOOD RESIDENTIAL ZONE - SCHEDULE 1	664m	East
PPRZ	PUBLIC PARK AND RECREATION ZONE	665m	East
GRZ12	GENERAL RESIDENTIAL ZONE - SCHEDULE 12	666m	North
C1Z	COMMERCIAL 1 ZONE	667m	South West
C1Z	COMMERCIAL 1 ZONE	679m	North West
GRZ1	GENERAL RESIDENTIAL ZONE - SCHEDULE 1	692m	North East
PPRZ	PUBLIC PARK AND RECREATION ZONE	698m	East
C1Z	COMMERCIAL 1 ZONE	708m	North East
GRZ8	GENERAL RESIDENTIAL ZONE - SCHEDULE 8	714m	North East
NRZ6	NEIGHBOURHOOD RESIDENTIAL ZONE - SCHEDULE 6	724m	West
PUZ2	PUBLIC USE ZONE - EDUCATION	726m	South
C1Z	COMMERCIAL 1 ZONE	732m	East
GRZ1	GENERAL RESIDENTIAL ZONE - SCHEDULE 1	734m	North West
RGZ1	RESIDENTIAL GROWTH ZONE - SCHEDULE 1	740m	North East

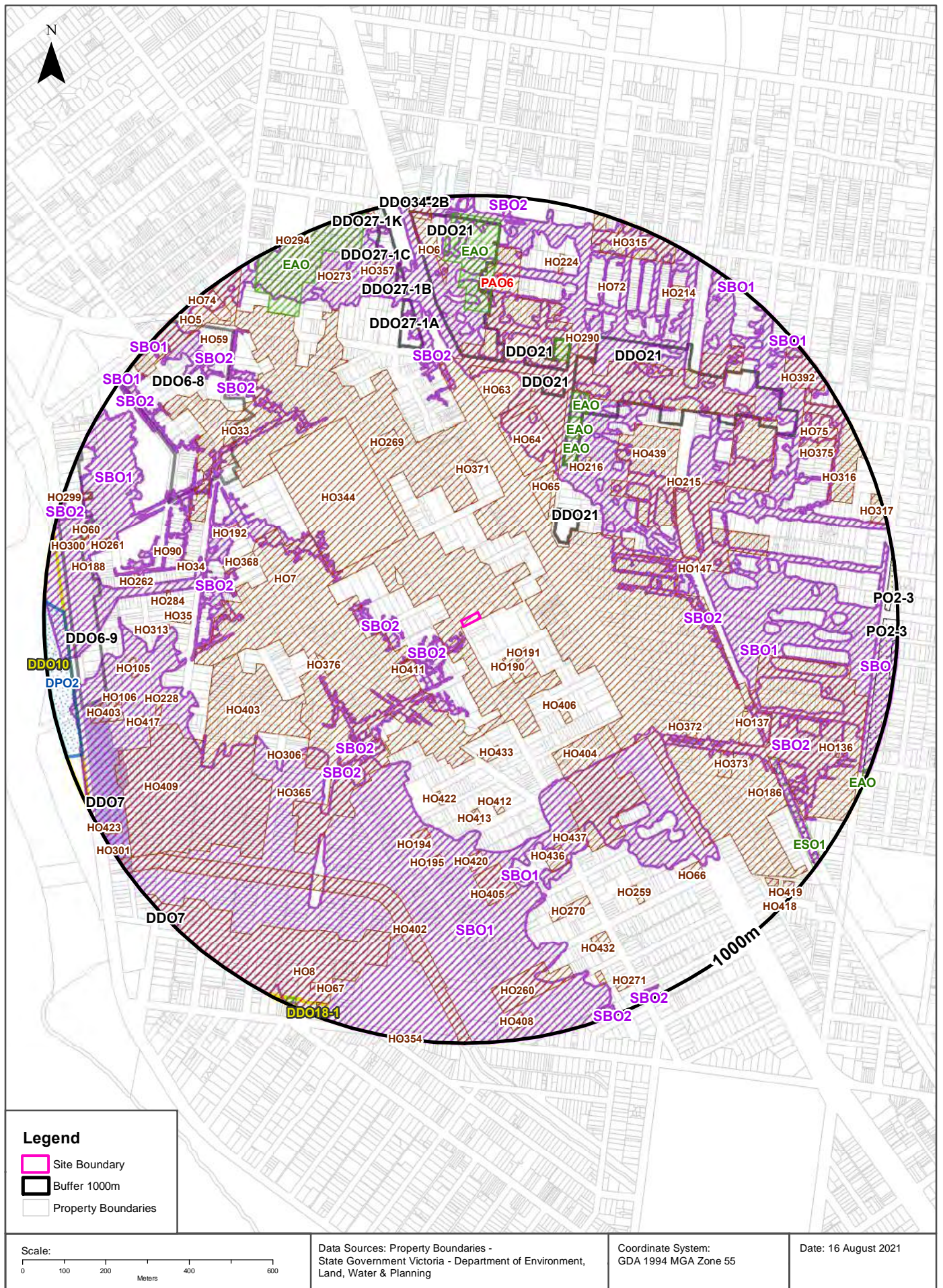
Zone Code	Description	Distance	Direction
PPRZ	PUBLIC PARK AND RECREATION ZONE	744m	West
GRZ1	GENERAL RESIDENTIAL ZONE - SCHEDULE 1	750m	North
C1Z	COMMERCIAL 1 ZONE	753m	North East
PUZ4	PUBLIC USE ZONE - TRANSPORT	763m	South East
NRZ5	NEIGHBOURHOOD RESIDENTIAL ZONE - SCHEDULE 5	766m	South West
CDZ3	COMPREHENSIVE DEVELOPMENT ZONE - SCHEDULE 3	768m	North West
PPRZ	PUBLIC PARK AND RECREATION ZONE	768m	North West
PPRZ	PUBLIC PARK AND RECREATION ZONE	769m	North
NRZ5	NEIGHBOURHOOD RESIDENTIAL ZONE - SCHEDULE 5	782m	North East
GRZ11	GENERAL RESIDENTIAL ZONE - SCHEDULE 11	783m	North
C1Z	COMMERCIAL 1 ZONE	785m	South East
C1Z	COMMERCIAL 1 ZONE	793m	South East
NRZ5	NEIGHBOURHOOD RESIDENTIAL ZONE - SCHEDULE 5	794m	East
PUZ2	PUBLIC USE ZONE - EDUCATION	827m	South
MUZ	MIXED USE ZONE	829m	North West
PUZ2	PUBLIC USE ZONE - EDUCATION	831m	South
NRZ5	NEIGHBOURHOOD RESIDENTIAL ZONE - SCHEDULE 5	836m	South East
NRZ6	NEIGHBOURHOOD RESIDENTIAL ZONE - SCHEDULE 6	836m	West
C1Z	COMMERCIAL 1 ZONE	865m	North
PUZ1	PUBLIC USE ZONE - SERVICE AND UTILITY	866m	South
PUZ2	PUBLIC USE ZONE - EDUCATION	868m	South
NRZ6	NEIGHBOURHOOD RESIDENTIAL ZONE - SCHEDULE 6	872m	South
C1Z	COMMERCIAL 1 ZONE	877m	North West
PUZ6	PUBLIC USE ZONE - LOCAL GOVERNMENT	886m	North West
GRZ1	GENERAL RESIDENTIAL ZONE - SCHEDULE 1	899m	North West
GRZ1	GENERAL RESIDENTIAL ZONE - SCHEDULE 1	911m	South East
NRZ1	NEIGHBOURHOOD RESIDENTIAL ZONE - SCHEDULE 1	911m	North East
NRZ5	NEIGHBOURHOOD RESIDENTIAL ZONE - SCHEDULE 5	921m	North East
PPRZ	PUBLIC PARK AND RECREATION ZONE	923m	North West
RGZ1	RESIDENTIAL GROWTH ZONE - SCHEDULE 1	937m	North
SUZ4	SPECIAL USE ZONE - SCHEDULE 4	942m	West
RDZ1	ROAD ZONE - CATEGORY 1	945m	East
NRZ6	NEIGHBOURHOOD RESIDENTIAL ZONE - SCHEDULE 6	952m	South
PPRZ	PUBLIC PARK AND RECREATION ZONE	953m	West
GRZ2	GENERAL RESIDENTIAL ZONE - SCHEDULE 2	955m	East
C1Z	COMMERCIAL 1 ZONE	965m	South West
GRZ1	GENERAL RESIDENTIAL ZONE - SCHEDULE 1	967m	South West

Zone Code	Description	Distance	Direction
C1Z	COMMERCIAL 1 ZONE	974m	East
NRZ1	NEIGHBOURHOOD RESIDENTIAL ZONE - SCHEDULE 1	978m	East
MUZ1	MIXED USE ZONE - SCHEDULE 1	985m	East
NRZ1	NEIGHBOURHOOD RESIDENTIAL ZONE - SCHEDULE 1	990m	North West
NRZ6	NEIGHBOURHOOD RESIDENTIAL ZONE - SCHEDULE 6	999m	South

Planning Zone Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning
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Planning Overlays

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184



Planning

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184

Planning Overlays

Planning overlays within the dataset buffer:

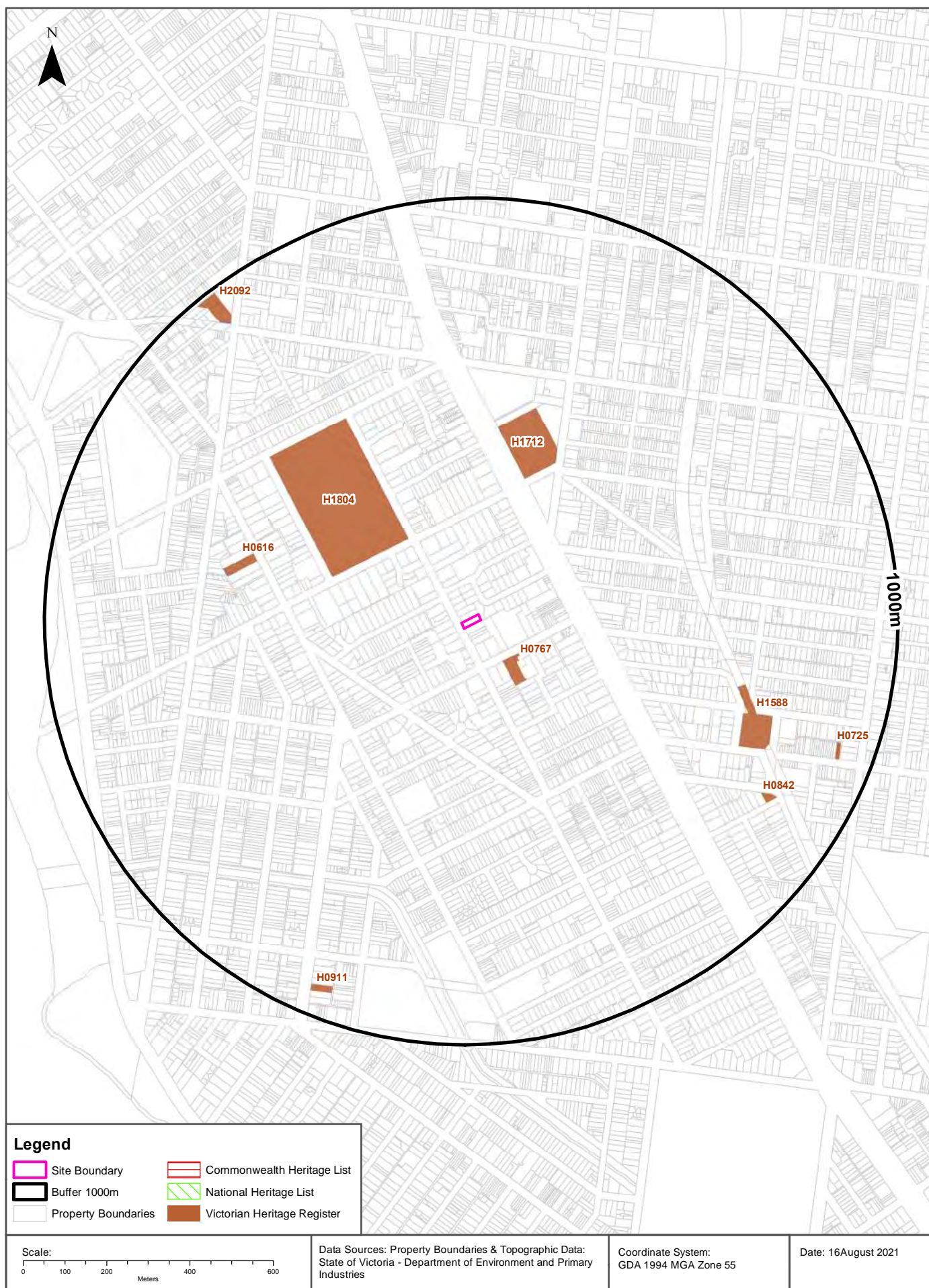
Zone Code	Description	Distance	Direction
HO7	HERITAGE OVERLAY (HO7)	0m	On-site
SBO2	SPECIAL BUILDING OVERLAY - SCHEDULE 2	17m	South West
HO190	HERITAGE OVERLAY (HO190)	112m	South East
HO191	HERITAGE OVERLAY (HO191)	118m	South East
SBO2	SPECIAL BUILDING OVERLAY - SCHEDULE 2	143m	West
HO411	HERITAGE OVERLAY (HO411)	145m	South West
HO344	HERITAGE OVERLAY (HO344)	240m	North West
DDO21	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 21	256m	North East
HO406	HERITAGE OVERLAY (HO406)	267m	South East
HO65	HERITAGE OVERLAY (HO65)	277m	North East
HO433	HERITAGE OVERLAY (HO433)	295m	South
SBO2	SPECIAL BUILDING OVERLAY - SCHEDULE 2	307m	West
HO376	HERITAGE OVERLAY (HO376)	319m	West
HO371	HERITAGE OVERLAY (HO371)	333m	North
SBO2	SPECIAL BUILDING OVERLAY - SCHEDULE 2	335m	East
HO64	HERITAGE OVERLAY (HO64)	344m	North
SBO1	SPECIAL BUILDING OVERLAY - SCHEDULE 1	348m	North East
SBO1	SPECIAL BUILDING OVERLAY - SCHEDULE 1	354m	South West
HO404	HERITAGE OVERLAY (HO404)	367m	South East
SBO2	SPECIAL BUILDING OVERLAY - SCHEDULE 2	376m	South West
HO422	HERITAGE OVERLAY (HO422)	399m	South
DDO21	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 21	409m	North East
EAO	ENVIRONMENTAL AUDIT OVERLAY	409m	North East
HO403	HERITAGE OVERLAY (HO403)	417m	South West
HO412	HERITAGE OVERLAY (HO412)	420m	South
SBO2	SPECIAL BUILDING OVERLAY - SCHEDULE 2	422m	South West
HO439	HERITAGE OVERLAY (HO439)	424m	North East
HO216	HERITAGE OVERLAY (HO216)	431m	North East
HO269	HERITAGE OVERLAY (HO269)	431m	North West
HO413	HERITAGE OVERLAY (HO413)	437m	South
HO63	HERITAGE OVERLAY (HO63)	468m	North

Zone Code	Description	Distance	Direction
EAO	ENVIRONMENTAL AUDIT OVERLAY	470m	North East
HO306	HERITAGE OVERLAY (HO306)	489m	South West
HO194	HERITAGE OVERLAY (HO194)	491m	South
SBO2	SPECIAL BUILDING OVERLAY - SCHEDULE 2	502m	North
HO147	HERITAGE OVERLAY (HO147)	505m	East
SBO2	SPECIAL BUILDING OVERLAY - SCHEDULE 2	508m	South East
HO368	HERITAGE OVERLAY (HO368)	513m	West
EAO	ENVIRONMENTAL AUDIT OVERLAY	532m	North East
HO372	HERITAGE OVERLAY (HO372)	532m	South East
HO420	HERITAGE OVERLAY (HO420)	539m	South
DDO21	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 21	549m	North
HO195	HERITAGE OVERLAY (HO195)	549m	South
HO437	HERITAGE OVERLAY (HO437)	554m	South East
HO215	HERITAGE OVERLAY (HO215)	557m	North East
HO365	HERITAGE OVERLAY (HO365)	568m	South West
HO436	HERITAGE OVERLAY (HO436)	572m	South
HO405	HERITAGE OVERLAY (HO405)	573m	South
HO192	HERITAGE OVERLAY (HO192)	575m	West
SBO2	SPECIAL BUILDING OVERLAY - SCHEDULE 2	583m	North West
SBO1	SPECIAL BUILDING OVERLAY - SCHEDULE 1	595m	South
DDO21	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 21	605m	North
SBO1	SPECIAL BUILDING OVERLAY - SCHEDULE 1	625m	West
EAO	ENVIRONMENTAL AUDIT OVERLAY	634m	North
HO137	HERITAGE OVERLAY (HO137)	634m	East
DDO6-8	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 6-8	637m	North West
HO34	HERITAGE OVERLAY (HO34)	644m	West
HO35	HERITAGE OVERLAY (HO35)	647m	West
DDO27-1A	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 27 1A	649m	North
HO402	HERITAGE OVERLAY (HO402)	649m	South West
HO373	HERITAGE OVERLAY (HO373)	656m	South East
HO290	HERITAGE OVERLAY (HO290)	658m	North East
HO33	HERITAGE OVERLAY (HO33)	686m	North West
HO90	HERITAGE OVERLAY (HO90)	687m	West
HO284	HERITAGE OVERLAY (HO284)	697m	West
HO313	HERITAGE OVERLAY (HO313)	700m	West
HO270	HERITAGE OVERLAY (HO270)	708m	South
EAO	ENVIRONMENTAL AUDIT OVERLAY	720m	North

Zone Code	Description	Distance	Direction
HO228	HERITAGE OVERLAY (HO228)	737m	West
HO259	HERITAGE OVERLAY (HO259)	739m	South East
SBO2	SPECIAL BUILDING OVERLAY - SCHEDULE 2	740m	North West
HO8	HERITAGE OVERLAY (HO8)	753m	South West
ESO1	ENVIRONMENTAL SIGNIFICANCE OVERLAY - SCHEDULE 1	763m	South East
HO66	HERITAGE OVERLAY (HO66)	771m	South East
HO262	HERITAGE OVERLAY (HO262)	775m	West
DDO27-1B	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 27 1B	783m	North
HO105	HERITAGE OVERLAY (HO105)	786m	West
HO186	HERITAGE OVERLAY (HO186)	787m	South East
PAO6	PUBLIC ACQUISITION OVERLAY 6	789m	North
HO6	HERITAGE OVERLAY (HO6)	791m	North
HO417	HERITAGE OVERLAY (HO417)	794m	West
HO409	HERITAGE OVERLAY (HO409)	801m	South West
HO431	HERITAGE OVERLAY (HO431)	803m	South
HO432	HERITAGE OVERLAY (HO432)	805m	South
SBO2	SPECIAL BUILDING OVERLAY - SCHEDULE 2	816m	North West
HO260	HERITAGE OVERLAY (HO260)	827m	South
EAO	ENVIRONMENTAL AUDIT OVERLAY	829m	North West
HO72	HERITAGE OVERLAY (HO72)	834m	North East
HO224	HERITAGE OVERLAY (HO224)	835m	North
HO106	HERITAGE OVERLAY (HO106)	836m	West
HO403	HERITAGE OVERLAY (HO403)	841m	West
HO357	HERITAGE OVERLAY (HO357)	846m	North
SBO2	SPECIAL BUILDING OVERLAY - SCHEDULE 2	859m	North West
HO261	HERITAGE OVERLAY (HO261)	860m	West
HO273	HERITAGE OVERLAY (HO273)	860m	North
HO75	HERITAGE OVERLAY (HO75)	860m	North East
DDO6-9	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 6-9	866m	West
DDO7	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 7	868m	South West
DDO27-1C	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 27 1C	872m	North
HO316	HERITAGE OVERLAY (HO316)	876m	North East
HO59	HERITAGE OVERLAY (HO59)	879m	North West
HO214	HERITAGE OVERLAY (HO214)	882m	North East
HO407	HERITAGE OVERLAY (HO407)	888m	South
HO5	HERITAGE OVERLAY (HO5)	892m	North West
HO375	HERITAGE OVERLAY (HO375)	894m	North East

Zone Code	Description	Distance	Direction
HO188	HERITAGE OVERLAY (HO188)	895m	West
HO136	HERITAGE OVERLAY (HO136)	901m	East
HO74	HERITAGE OVERLAY (HO74)	908m	North West
HO315	HERITAGE OVERLAY (HO315)	911m	North East
HO60	HERITAGE OVERLAY (HO60)	916m	West
HO67	HERITAGE OVERLAY (HO67)	918m	South
HO392	HERITAGE OVERLAY (HO392)	921m	North East
HO410	HERITAGE OVERLAY (HO410)	921m	South East
HO300	HERITAGE OVERLAY (HO300)	929m	West
HO271	HERITAGE OVERLAY (HO271)	932m	South East
HO299	HERITAGE OVERLAY (HO299)	933m	West
HO408	HERITAGE OVERLAY (HO408)	933m	South
DDO10	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 10	942m	West
DPO2	DEVELOPMENT PLAN OVERLAY - SCHEDULE 2	942m	West
SBO	SPECIAL BUILDING OVERLAY	945m	East
HO251	HERITAGE OVERLAY (HO251)	947m	North
DDO27-1K	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 27 1K	948m	North
HO423	HERITAGE OVERLAY (HO423)	949m	South West
SBO2	SPECIAL BUILDING OVERLAY - SCHEDULE 2	949m	North
PO2-3	PARKING OVERLAY - PRECINCT 2-3	955m	East
HO317	HERITAGE OVERLAY (HO317)	960m	East
HO419	HERITAGE OVERLAY (HO419)	960m	South East
HO6	HERITAGE OVERLAY (HO6)	961m	North
SBO2	SPECIAL BUILDING OVERLAY - SCHEDULE 2	961m	West
DDO18-1	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 18-1	966m	South West
PO2-3	PARKING OVERLAY - PRECINCT 2-3	967m	East
HO301	HERITAGE OVERLAY (HO301)	970m	South West
SBO2	SPECIAL BUILDING OVERLAY - SCHEDULE 2	972m	South
HO294	HERITAGE OVERLAY (HO294)	977m	North West
HO161	HERITAGE OVERLAY (HO161)	978m	North
EAO	ENVIRONMENTAL AUDIT OVERLAY	980m	South West
EAO	ENVIRONMENTAL AUDIT OVERLAY	985m	East
DDO34-2A	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 34 2A	986m	North
HO418	HERITAGE OVERLAY (HO418)	989m	South East
DDO34-2B	DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 34 2B	991m	North
HO354	HERITAGE OVERLAY (HO354)	999m	South

Planning Overlay Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning
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Heritage

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184

Commonwealth Heritage List

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

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

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

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

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

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

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

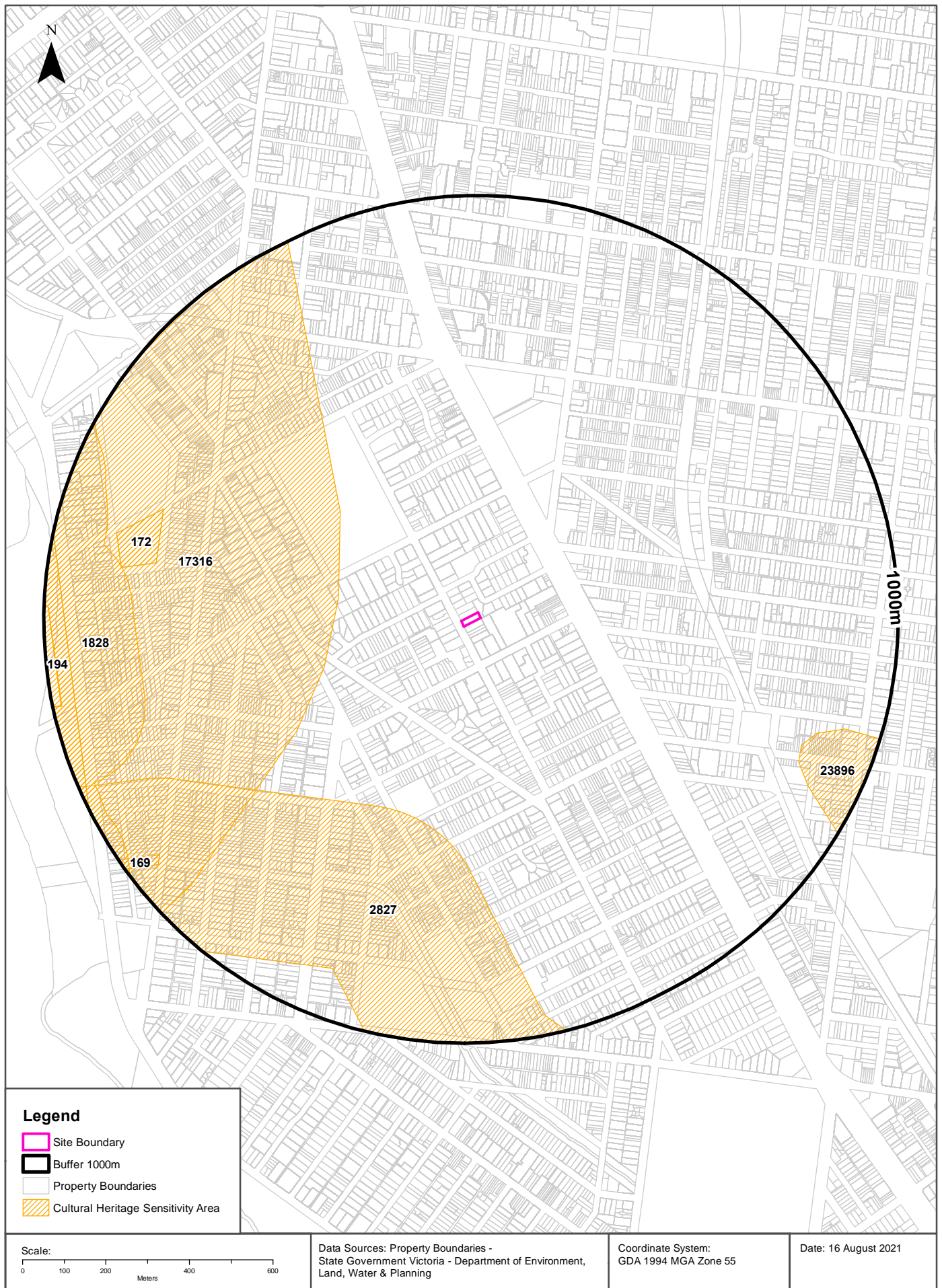
What are the Victorian Heritage Register items located within the dataset buffer?:

VHR Number	Description	Distance	Direction
H0767	HARTPURY COURT COMPLEX	112m	South East
H1804	ST KILDA BOTANICAL GARDENS	240m	North West
H1712	PRIMARY SCHOOL NO. 1479	344m	North
H0616	RESIDENCE AND AIR RAID SHELTER	513m	West
H1588	RIPPONLEA RAILWAY STATION COMPLEX	634m	East
H0842	TINTARA	787m	South East
H0725	BRINSMEADS PHARMACY	901m	East
H2092	NATIONAL THEATRE ST KILDA	908m	North West
H0911	WINDERMERE FLATS	918m	South

Victorian Heritage Register Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning
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Cultural Heritage Sensitivity

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184



Heritage

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184

Cultural Heritage Sensitivity

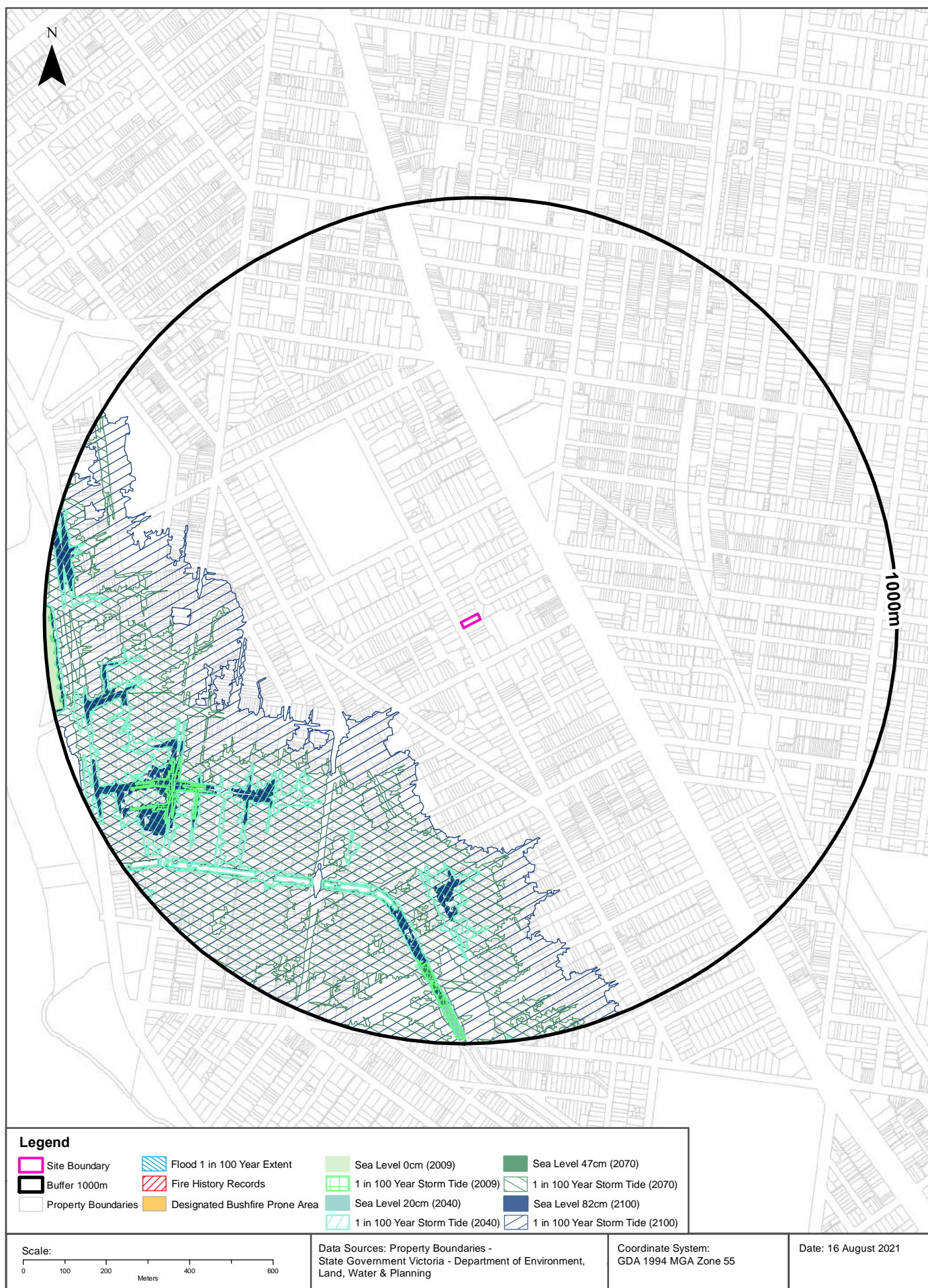
Areas of Cultural Heritage Sensitivity as specified in Division 3 of Part 2 in the Victorian Aboriginal Heritage Regulations 2018, within the dataset buffer:

Map Id	Distance	Direction
17316	299m	West
2827	470m	South West
172	743m	West
1828	776m	West
23896	827m	East
169	912m	South West
194	942m	West

Cultural Heritage Sensitivity Data Custodian: State Government Victoria - Department of Premier and Cabinet
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Natural Hazards

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184



Natural Hazards

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184

Bushfire Prone Areas

What are the designated bushfire prone areas within the dataset buffer?

Map ID	Feature	Plan No	LGA	Gazetted Date	Distance	Direction
N/A	No records in buffer					

Bushfire Prone Area Data Custodian: State Government Victoria - Dept of Transport, Planning & Local Infrastructure
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Fire History

What are the fire history records of fires primarily on public land, within the dataset buffer?

Map Id	Fire Type	Fire Key	Season	Fire No	Fire Name	Treatment	Fire Cover	Start Date	Dist (m)	Direction
N/A	No records in buffer									

Fire History Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning
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Flood - 1 in 100 year modelled flood extent

What 1 in 100 year flood extent features exist within the dataset buffer?

Feature	Source	Method	Scale	Modified Date	Distance	Direction
N/A	No records in buffer					

Flood Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning
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Natural Hazards

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184

Victorian Coastal Inundation Sea Level Rise

What coastal inundation sea level rise features exist within the dataset buffer?

Description	Distance	Direction
Inundation to 1-in-100 year storm tide level with storm surge increased by 19% plus 82 cm sea level rise (2100)	256m	South West
Inundation to 1-in-100 year storm tide level with storm surge increased by 13% plus 47 cm sea level rise (2070)	360m	South
Inundation to 1-in-100 year storm tide level with storm surge increased by 6% plus 20 cm sea level rise (2040)	513m	South West
Projected 82cm sea level rise by 2100	583m	South West
Current (2009) inundation to 1-in-100 year storm tide level	723m	South West
Projected 47cm sea level rise by 2070	808m	South
Projected 20cm sea level rise by 2040	908m	South
Current (2009) sea level	977m	West

Victorian Coastal Inundation Sea Level Rise Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning

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Ecological Constraints

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184

Native Vegetation (Modelled 2005 Ecological Vegetation Classes)

What native vegetation exists within the dataset buffer?

Veg Code	EVC Name	EVCCode	Group	Subgroup	Bioregion	Conservation Status	Geographic Occurance	Dist	Dir
N/A	No records in buffer								

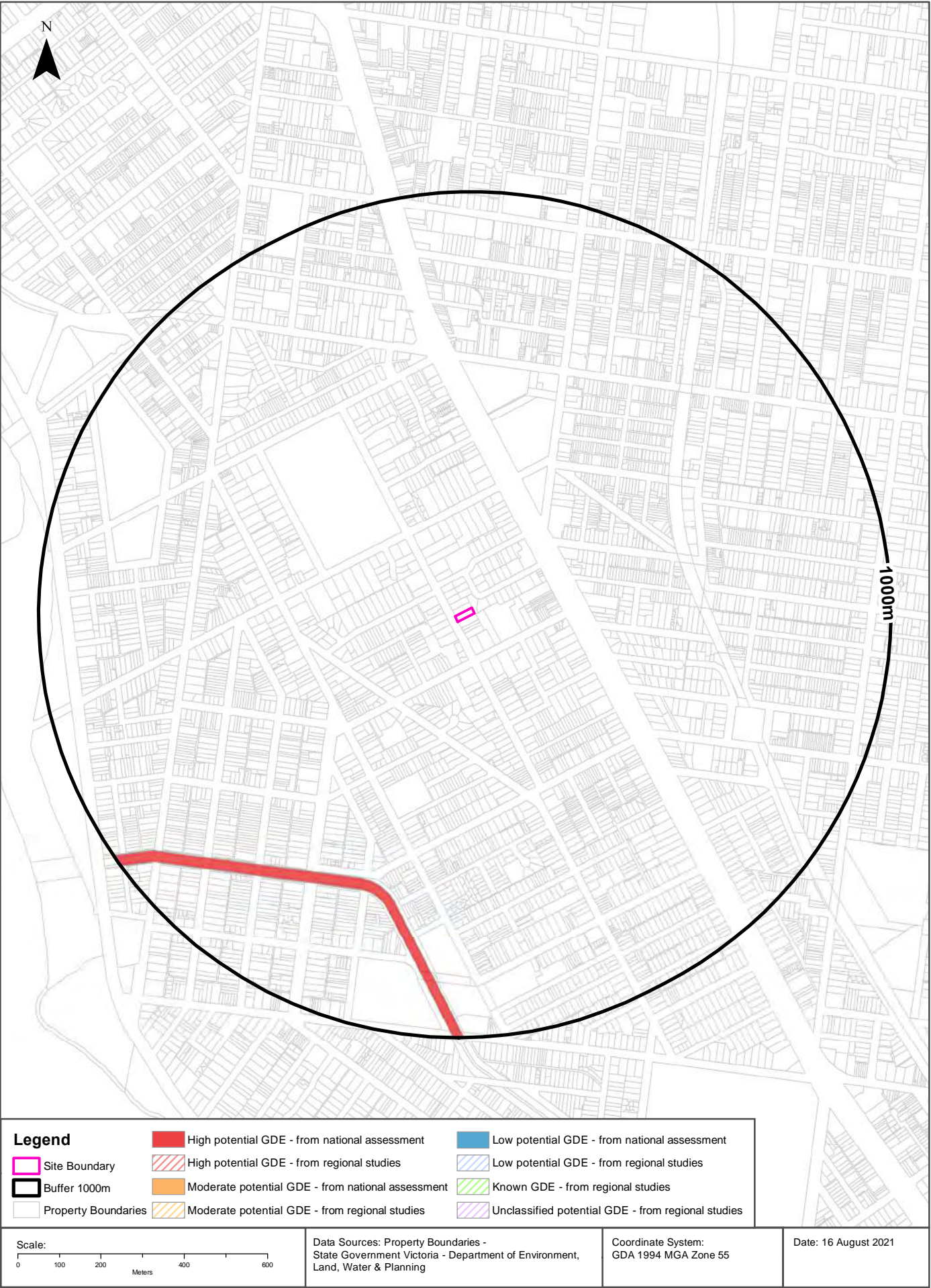
Native Vegetation Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning
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Ramsar Wetlands

What Ramsar wetland areas exist within the dataset buffer?

Map ID	Site Name	Lake Name	Distance	Direction
N/A	No records in buffer			

Ramsar Wetland Area Data Custodian: State Government Victoria - Dept of Environment, Land, Water & Planning
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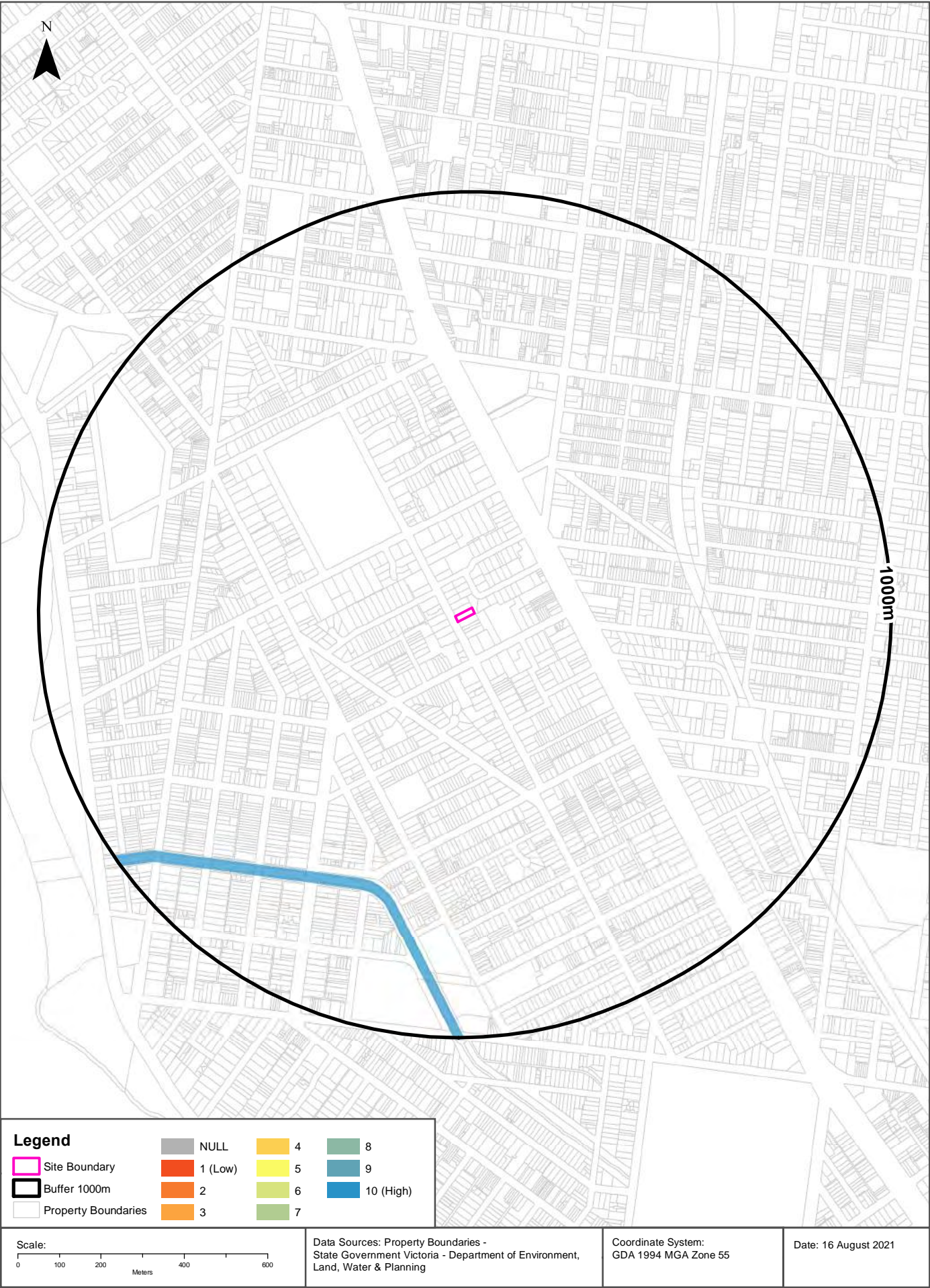
Ecological Constraints

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184

Groundwater Dependent Ecosystems Atlas

Type	Name	GDE Potential	Geomorphology	Ecosystem Type	Aquifer Geology	Distance	Direction
Aquatic	ELSTER CREEK	High potential GDE - from national assessment	Plains mainly on basalt lavas with many volcanic forms and lakes, partly on weak sedimentary rocks.	River	Unconsolidated sedimentary	657m	South West

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

Elwood Children's Centre - 46 Tennyson Street, Elwood, VIC 3184

Inflow Dependent Ecosystems Likelihood

Type	Name	IDE Likelihood	Geomorphology	Ecosystem Type	Aquifer Geology	Distance	Direction
Aquatic	ELSTER CREEK	10	Plains mainly on basalt lavas with many volcanic forms and lakes, partly on weak sedimentary rocks.	River	Unconsolidated sedimentary	657m	South West

Inflow Dependent Ecosystems Likelihood Data Source: The Bureau of Meteorology
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Location Confidences

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

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

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APPENDIX B

Other Records Reviewed

Property Report from www.land.vic.gov.au on 28 July 2021 12:51 PM

Address: 46 TENNYSON STREET ELWOOD 3184

Lot and Plan Number: Lot 1 TP746302

Standard Parcel Identifier (SPI): 1\TP746302

Local Government (Council): PORT PHILLIP **Council Property Number:** 206450

Directory Reference: Melway 2P F12

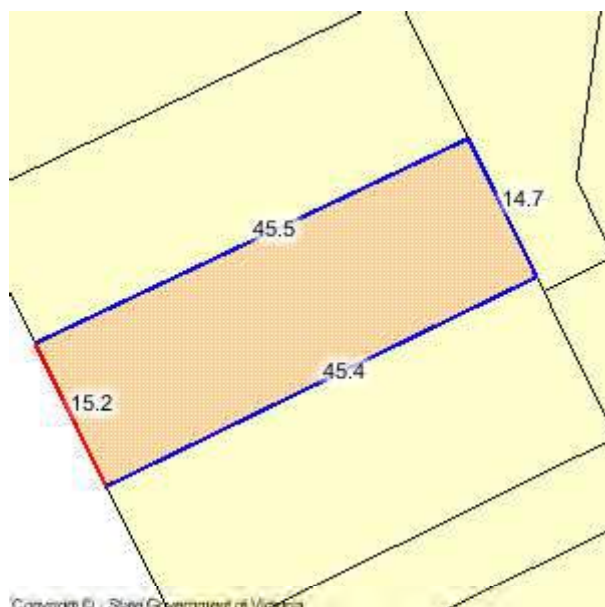
This property is not in a designated bushfire prone area.

No special bushfire construction requirements apply. Planning provisions may apply.

Further information about the building control system and building in bushfire prone areas can be found in the Building Commission section of the Victorian Building Authority website www.vba.vic.gov.au

Site Dimensions

All dimensions and areas are approximate. They may not agree with the values shown on a title or plan.



Area: 678 sq. m

Perimeter: 121 m

For this property:

— Site boundaries

— Road frontages

Dimensions for individual parcels require a separate search, but dimensions for individual units are generally not available.

For more accurate dimensions get copy of plan at [Title and Property Certificates](#)

State Electorates

Legislative Council: SOUTHERN METROPOLITAN

Legislative Assembly: BRIGHTON

Utilities

Rural Water Corporation: Southern Rural Water

Melbourne Water Retailer: South East Water

Melbourne Water: inside drainage boundary

Power Distributor: UNITED ENERGY (Information about [choosing an electricity retailer](#))

Planning information continued on next page

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Planning Zone Summary

Planning Zone: NEIGHBOURHOOD RESIDENTIAL ZONE (NRZ)
NEIGHBOURHOOD RESIDENTIAL ZONE - SCHEDULE 6 (NRZ6)

Planning Overlay: HERITAGE OVERLAY (HO)
HERITAGE OVERLAY SCHEDULE (HO7)

Planning scheme data last updated on 21 July 2021.

A **planning scheme** sets out policies and requirements for the use, development and protection of land.

This report provides information about the zone and overlay provisions that apply to the selected land.

Information about the State and local policy, particular, general and operational provisions of the local planning scheme that may affect the use of this land can be obtained by contacting the local council or by visiting [Planning Schemes Online](#)

This report is NOT a **Planning Certificate** issued pursuant to Section 199 of the *Planning and Environment Act 1987*.

It does not include information about exhibited planning scheme amendments, or zonings that may affect the land.

To obtain a Planning Certificate go to [Titles and Property Certificates](#)

The Planning Property Report includes separate maps of zones and overlays

For details of surrounding properties, use this service to get the Reports for properties of interest

To view planning zones, overlay and heritage information in an interactive format visit [Planning Maps Online](#)

For other information about planning in Victoria visit www.planning.vic.gov.au

Area Map



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HISTORICAL SEARCH STATEMENT

Land Use Victoria

Page 1 of 4

Produced 20/08/2021 11:14 AM

Volume 4411 Folio 064

Folio Creation: Created as paper folio continued as computer folio

Parent title Volume 02776 Folio 108

THE IMAGE OF THE FOLIO CEASED TO BE THE DIAGRAM LOCATION ON 27/09/2002 05:00:03 AM

RECORD OF HISTORICAL DEALINGS

Date Lodged for Registration	Date Recorded on Register	Dealing	Imaged	Dealing Type and Details
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RECORD OF VOTS DEALINGS

Date Lodged for Registration	Date Recorded on Register	Dealing	Imaged
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22/11/2007	22/11/2007	AF484748W	Y
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RECTIFICATION-PROPRIETOR NAME/ADDRESS

RESULTING PROPRIETORSHIP:

Estate Fee Simple

Sole Proprietor

THE MAYOR COUNCILLORS AND CITIZENS OF THE CITY OF ST KILDA of CNR
BRIGHTON ROAD & CARLISLE STREET ST KILDA VIC 3182
L534452P 27/02/1985

09/10/2013	10/10/2013	AK643897B	Y
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RECORDING OF DISPOSITION OF LAND

FROM:

THE MAYOR COUNCILLORS AND CITIZENS OF THE CITY OF ST KILDA

TO:

PORT PHILLIP CITY COUNCIL

RESULTING PROPRIETORSHIP:

Estate Fee Simple

Sole Proprietor

PORT PHILLIP CITY COUNCIL of 99A CARLISLE STREET ST KILDA VIC 3182
AK643897B 09/10/2013

STATEMENT END

VOTS Snapshot

Volume 04411 Folio 064

124024128297T

Produced 22/11/2007 08:14 am

LAND DESCRIPTION

HISTORICAL SEARCH STATEMENT

Land Use Victoria

Page 2 of 4

Lot 1 on Title Plan 746302K (formerly known as part of Portion 102A SOUTH EAST OF ST.KILDA Parish of Prahran).
PARENT TITLE Volume 02776 Folio 108
Created by instrument 0979150 18/12/1920

REGISTERED PROPRIETOR

Estate Fee Simple
Sole Proprietor

THE MAYOR COUNCILLORS AND CITIZENS OF THE CITY OF ST. KILDA
L534452P 27/02/1985

ENCUMBRANCES, CAVEATS AND NOTICES

COVENANT 0979150

Any encumbrances created by Section 98 Transfer of Land Act 1958 or Section 24 Subdivision Act 1988 and any other encumbrances shown or entered on the plan set out under DIAGRAM LOCATION below.

DIAGRAM LOCATION

SEE TP746302K FOR FURTHER DETAILS AND BOUNDARIES

Paper Title Images

4411/064 - Version 0, Date 04/12/1999

Entered in the Register Book



Vol. 4411 Fol. 882064

VICTORIA.



232

Certificate of Title,

UNDER THE "TRANSFER OF LAND ACT 1915."

ORIGINAL CERTIFICATE.
Not to be dealt with outside the Titles Office.

Simon Patience the Younger of 27 Carlisle Street St.Kilda Contractor is - - -
now the proprietor of an Estate in *Fee-simple*, subject to the Encumbrances
notified hereunder in *All that* piece of Land, delineated and coloured
red and blue on the map in the margin being part of Crown Portion One hundred and
two^A South East of St.Kilda Parish of Prahran County of Bourke - - - - -

Dated the *Eighteenth*
thousand nine hundred and twenty.

day of *December* *One*

Wm. Cornforth
Assistant Registrar of Titles.



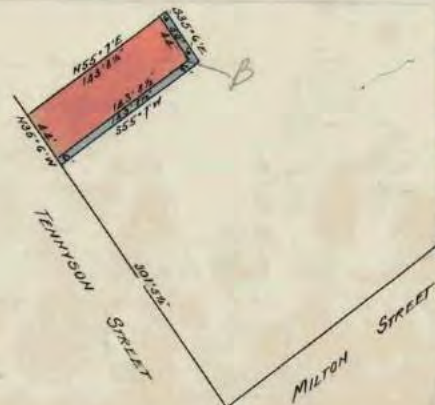
ENCUMBRANCES REFERRED TO.

As to the land colored blue - - -

THE DRAINAGE AND SEWERAGE EASEMENT reserved
by Instrument of Transfer No.979150 in the
Register Book- - - - -

As to the whole of the land - - -

THE COVENANT contained in said Instrument --
of Transfer that there may not be erected on
the said land any building other than a -----
dwelling house to be built of brick or stone--
or concrete with main roof of such dwelling--
of slates tiles or other materials except--
iron and not less than £1250 shall be -----
expended in the erection of such dwelling----
exclusive of outbuildings and not more than--
one such dwelling may be erected on the said--
land and such dwelling may not be used for a--
shop or for trading or manufacturing purposes
and that no soil may be removed from the said
land except for the purpose of laying the ---
foundation of any building to be erected ----
thereon or for use in the erection of such --
building and that no hoarding or - - - - -
advertisement may be erected on the said land.



lv.
The Measurements are in feet and inches.



T04411-064-1-9

Vol. 2776 Fol. 555108

Transfer. 9/9/50

Application

Nature of Instrument.	Time of its Production for Registration.	To whom given.	Number or Symbol thereon.
<p><i>Maryjorie</i> is now the proprietor of the within described estate pursuant to a transfer from <i>Simon Patience the younger</i> registered on the 15th day of September 1921 and numbered 1073219</p> <p>MORTGAGE to THE AUSTRALIAN SAVINGS AND AUSTRALIAN BANK LIMITED registered on 18th November 1936 numbered 732180</p> <p><i>L. Forbes</i> Assistant Registrar of Titles</p>	<p><i>Emily Smith</i> of Hartpury Avenue St Kilda married woman</p> <p><i>Simon Patience the younger</i> 15th day of September 1921 and numbered 1073219</p> <p><i>L. Forbes</i> Assistant Registrar of Titles</p>	<p>HARRY MROCKI Manager and MARGARET MARY MROCKI Married Woman both of 71 Downshire Road Elsternwick are now JOINT PROPRIETORS Registered 21st May 1982 No. J937356</p> <p>OFFICE OF TITLES F. BR. VICTORIA</p>	
<p><i>Adelaide Victoria Leber</i> of 60 Blessington Street St. Kilda Married Woman is now the proprietor of the within described estate by transfer registered on 5th November 1937 and numbered 1668103</p> <p><i>L. Forbes</i> Assistant Registrar of Titles</p>	<p><i>Adelaide Victoria Leber</i> of 60 Blessington Street St. Kilda Married Woman is now the proprietor of the within described estate by transfer registered on 5th November 1937 and numbered 1668103</p> <p><i>L. Forbes</i> Assistant Registrar of Titles</p>	<p>MORTGAGE to AUSTRALIA AND NEW ZEALAND SAVINGS BANK LIMITED Registered 21st May 1982 No. J937357</p> <p>DISCHARGED 27 FEB 1985 OFFICE OF TITLES F. BR. VICTORIA</p>	
<p>MORTGAGE to THE AUSTRALASIAN TEMPERANCE AND GENERAL MUTUAL LIFE ASSURANCE SOCIETY LIMITED registered on 5th November 1937 numbered 746506</p> <p><i>L. Forbes</i> Assistant Registrar of Titles</p>	<p><i>Adelaide Victoria Leber</i> of 60 Blessington Street St. Kilda Married Woman is now the proprietor of the within described estate by transfer registered on 5th November 1937 and numbered 1668103</p> <p><i>L. Forbes</i> Assistant Registrar of Titles</p>	<p>MORTGAGE to AUSTRALIA AND NEW ZEALAND BANKING GROUP LIMITED Registered 21st May 1982 No. J937358</p> <p>DISCHARGED 27 FEB 1985 OFFICE OF TITLES F. BR. VICTORIA</p>	
<p>CAVEAT No. 1427476 LODGED 30 OCT 1957 CAVEAT LAPSED - 9 DEC 1963</p>	<p><i>LESLIE ARTHUR ROLFE</i> Painter and Decorator and <i>MARY GRAY ROLFE</i> Married Woman both of 46 Tennyson Street St. Kilda are now JOINT PROPRIETORS Registered 14th November 1963 No. B796740</p> <p>OFFICE OF TITLES R.J.M. VICTORIA</p>	<p>THE MAYOR COUNCILLORS AND CITIZENS OF THE CITY OF ST. KILDA is now the proprietor Registered 27th February 1985 No. L534452P</p> <p>OFFICE OF TITLES F. BR. VICTORIA</p>	
<p>MORTGAGE to BANK OF NEW SOUTH WALES Registered 14th November 1963 No. B796741</p> <p>DISCHARGED 1982 OFFICE OF TITLES F. BR. VICTORIA</p>	<p><i>LESLIE ARTHUR ROLFE</i> Painter and Decorator and <i>MARY GRAY ROLFE</i> Married Woman both of 46 Tennyson Street St. Kilda are now JOINT PROPRIETORS Registered 14th November 1963 No. B796740</p> <p>OFFICE OF TITLES R.J.M. VICTORIA</p>		
<p>CAVEAT No. 5864678 LODGED 23 MAR 1982 CAVEAT WILL LAPSE ON REGISTRATION OF J937356</p>	<p><i>LESLIE ARTHUR ROLFE</i> Painter and Decorator and <i>MARY GRAY ROLFE</i> Married Woman both of 46 Tennyson Street St. Kilda are now JOINT PROPRIETORS Registered 14th November 1963 No. B796740</p> <p>OFFICE OF TITLES P. B. VICTORIA</p>		

17 11/11/1987



ST KILDA TIMES

St Kilda Historical Society Newsletter

Issue No 225

August 2018

www.stkildahistory.org.au

Skating Girl's new home at St Kilda Town Hall

Made in 1939, the Skating Girl neon sign formerly graced the exterior of the St Moritz Skating Rink on The Esplanade, St Kilda (the site of the current Novotel hotel). Salvaged from the building after a fire in 1982, it was gifted to the St Kilda Historical Society who donated it to the City of Port Phillip. It will now be on permanent display at the St Kilda Town Hall.

When lit the Skating Girl sign glows with an icy blue light indicating that the neon sign is made of argon gas with a small amount of mercury. The tubing is made from lead glass.

In 2018, the Skating Girl was rewired and a new acid free backing board in white was installed. The sign is now illuminated by solar power. However, the original tubing has been retained for its heritage value.



As part of History Week, City of Port Phillip will host an event on Thursday 11 October 5.30pm - 7.30pm to celebrate the repair and installation of our much-loved St Moritz Ice Skating Girl neon sign. ■



Foyer, City of Port Phillip offices, St Kilda Town Hall.

The Phillips Brothers

Brothers Herman, Leon and Harold Phillips, from Spokane, Washington, were leading showmen in the Australian entertainment industry from 1910 to the 1950s. Their diverse interests included cinemas, amusement parks and dance halls.

They are largely responsible for boosting and consolidating St Kilda's status as one of the key focal points for arts and entertainment activities in Victoria.

They built Luna Park (1912), Palais Pictures (1913) and the Palais de Danse Ballroom (1919). Situated side by side on the foreshore, directly opposite the beach, these famous landmarks became the hub around which Melbourne's aquatic playground has revolved ever since.

When the Palais Pictures was destroyed by fire in 1926 (as it was being revamped by Chicago-born husband and wife architectural team of Walter Burley Griffin and Marion Mahoney Griffin) the brothers replaced it with a more substantial and palatial structure designed by Henry E. White. The new Palais opened in 1927 and with a seating capacity



l-r Herman Phillips (Table Talk, February 10, 1921) Leon Phillips (Table Talk, February 14, 1929)



of 2,896 people it remains the largest venue of its type in Australia.

Unfortunately, the Palais De Danse ballroom burnt down in 1968, and its replacement, the Palace Nightclub, in 2007. The site remains vacant.

The Phillips brothers came to Australia in 1909. Starting in Sydney, they built several prestige cinemas in the heart of the city, which included the Colonial, Lyric and Crystal Palace. They also launched a film exchange and a newsreel production unit.

continued on page 2

In those pioneering days when most showmen presented the “flicks” in rough – and – ready, makeshift surroundings, the newcomers from the States were more service orientated. Offering comfortable, pleasant and convenient entertainment at low prices, they also introduced the concept of continuous screenings, which gave the public even better value for their money. It proved to be a winning combination and business boomed.

In 1911, they moved into the Melbourne market with the luxurious Melba Theatre in Bourke Street. The following year they unveiled the even grander Britannia right next door. (Later they were part owners of the Capitol Theatre).

They then decided to diversify into the area of outdoor amusements. Their first, St Kilda's Luna Park, proved an immediate success. Twenty years later, they built their second major Luna Park at Glenelg beach in Adelaide. However, due to a combination of factors, it struggled and eventually folded. The rides were dismantled, loaded onto a ship and taken to the Phillips' newly acquired industrial land at Milson's Point, Sydney. After three months of reassembly, Sydney's Luna Park opened on 4 October 1935. It proved to be an instant hit and a most profitable enterprise and continues to this day just like its Melbourne counterpart. As an extra bonus for Sydney patrons, a “Floating Ballroom” was moored on the harbour beside the park.

Herman died first, Harold and Leon passed away within a few months of each other in 1957. A brass plaque, still in place on the second level of the Palais Theatre, bears a tribute to Leon Phillips from members of the American community of Victoria.

This is an edited extract from Bruce Corneil's blog, [The Phillips Brothers: American Showmen Down Under](#), which includes many historical photos and an interview with Melbourne radio and television personality Peter Smith who knew Harold and Leon Phillips. ■

Elwood's Lost Mansions

Continuing our Lost Mansions series, we travel to Elwood to revisit the prosperity of the period 1850-1872, when the large influx of new money arriving with the wealthy middle class immigrants from around the world, coupled with wealth creation caused by the gold rush and later by the pastoral boom, led to a growing demand for new housing.

The photos are by Donald McDonald (c.1830-1880) who was an important Melbourne photographer specialising in landscape and architectural subjects. The research is by Peter Johnson, who curated the photographic display at the Port Phillip Heritage Centre earlier this year.



Evora 18 Milton Street, Elwood

Evora was built as a residence for Francis Grey Smith (1827-1900) in 1865. It was designed in the Italianate style by the architects Crouch & Wilson and stood in grounds of three acres on the northeast corner of Milton and Tennyson Streets.

Smith was at various times manager of the Bank of Australasia, chief manager of the National Bank of Australasia, lay canon and treasurer at St Paul's Cathedral, president of the Melbourne Club and Melbourne Cricket Club (1886-1900). A grandstand at the MCG was named after him.

Smith's executors sold the property in 1908 by which time

the house had been renamed Craigmoores. It was demolished in about 1980.

Corvey 79 Brighton Road, Elwood

Corvey was built as the residence of Emil Thoneman (1832-1874) and family in 1868. The architect was probably Alfred Frederick Kursteiner (c.1829-1897). Designed in the Italianate style it had an elegant balcony of timber columns and curved brackets with cast iron infill panels.

Emil Thoneman was a partner in the firm of Lange and Thoneman and was appointed a Commissioner for the 1873 International Exhibitions by the Victorian government. For the last two years of his life he held the office of Austrian Consul. His widow

Corvey, SLV Collection



remained in the house until at least 1885.

This picture shows the whole family proudly standing in front of their house. Above the house flies an extremely large Imperial Austrian flag.

The site was subdivided in the 1920s when Wimbledon Avenue was formed. The house was demolished in the early 1970s. A block of flats now stands on the site.

Ascog 2-10 Southey Street, Elwood

Ascog was built as the residence for William Kaye (c.1820-1893) in c.1865 and designed in the Italianate style, replacing an earlier 1853 portable iron house by William Hutchinson & Son. The architect is

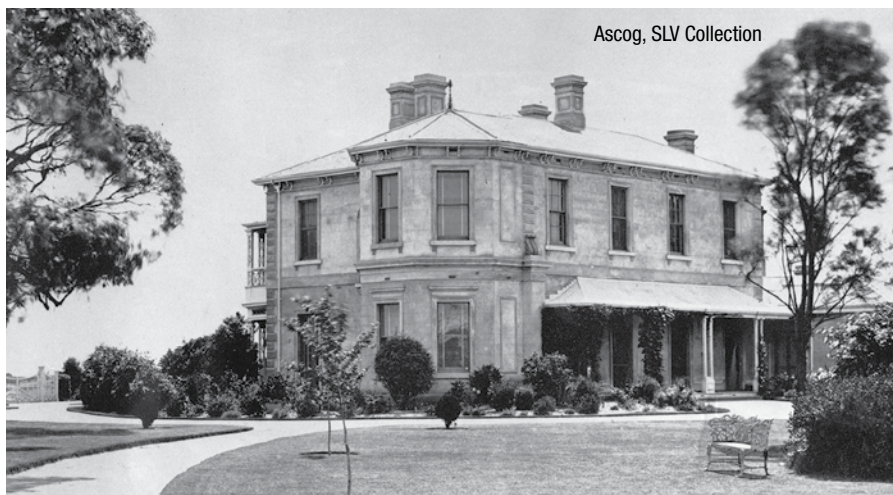
unknown. It stood in grounds of about 15 acres.

William Kaye was the senior partner in Kaye & Butchart, stock and station agency. He was MLC for Eastern Province 1856-7, a member of the provisional committee of the Melbourne Mount Alexander and Murray River Railway Company and president of the Melbourne & Hobson's Bay Railway Company. He also acquired extensive pastoral properties in Victoria and NSW.

Gavan Gibson (c.1823-1888), footwear importer, purchased the house on reduced grounds of 6 acres in 1868. He named the house Ascog probably after the village on the Isle of Bute in Scotland.

In 1907 Ascog Street was formed and the gardens subdivided. From about this time Ascog became a guesthouse. It was demolished in 1939. ■

Ascog, SLV Collection



SKHS CONTACTS

OFFICE

St Kilda Library by appt.

150 Carlisle Street

Balaclava 3183

Mail: PO Box 177

Balaclava VIC 3183

(03) 9209 6866

info@stkildahistory.org.au

www.stkildahistory.org.au

flickr.com/photos/
stkildahistory

facebook.com/stkildahistory

pinterest.com/stkildahistory

twitter.com/stkildahist

Inquiries/Appointments/ Membership:

Elizabeth Burns: 0402 211 529

Helen Halliday: 0448 422 002

COMMITTEE OF MANAGEMENT 2017-2018

President: Jennifer Stone

Vice President: Helen Halliday

Secretary: Helen Haliday

Treasurer: Elizabeth Burns

Ordinary Members:

Maureen Walker

Phillip Stewart

Liz Kelly



St Kilda Historical Society (SKHS)

Established 1970

PRESERVING THE PAST TO
ENRICH THE FUTURE



SKHS thanks Port Phillip City for its
ongoing support and assistance

Upcoming Events...

Bookings for all our events are essential. For further information contact:
info@stkildahistory.org.au

Carlo Catani – The Man and His Legacy

Sunday, 26 August 2018

4:00pm – 5:30pm

St Kilda RSL – 88 Acland Street

Daniela Riachi, author of “From Tuscany to Victoria”, will talk about the life and work of emigrant Carlo Catani, who defined the everlasting beauty of St Kilda’s foreshore.

His Italian heritage, immigration, relationships and family, engineering feats and design aesthetics make for a fascinating afternoon of local history storytelling.



SKHS Annual General Meeting

Sunday, 16 September 2018

3:30pm – 4:00pm

St Kilda RSL – 88 Acland Street

We will present our Annual Report and elect Committee members. All our SKHS members are welcome to attend and to nominate for the Committee. Please note that the AGM will be followed by Councillor David Brand’s fascinating journey through Carlo Catani’s Mediterranean inspired vision for St Kilda’s Foreshore. (see next item).

In Carlo Catani’s Memory

Sunday, 16 September 2018

4:00pm – 5:30pm

St Kilda RSL – 88 Acland Street

In 2001, St Kilda Ward Councillor David Brand travelled through the French and Italian Riviera in search of the historical landscapes that shaped and inspired Carlo Catani’s beloved St Kilda Foreshore. He found that the language of Catani’s St Kilda landscapes has deep roots in the foreshore gardens and beachfronts of Cannes, Nice,

San Remo, Rapallo, Porto Fino, Salerno and Naples.

On the centenary of Catani’s death, let’s retrace this investigative journey, to see if we too can find in those Mediterranean beachfronts the social and aesthetic ideal that inspired Catani as a young man, and the sources of the vision that gives our own foreshore its distinctive character and design coherence.

After the War – St Kilda Remembers

Sunday, 25 November 2018

5:00pm – 7:00pm

Walking Tour

To mark the centenary of the end of WW1, the St Kilda Historical Society is hosting a guided tour of St Kilda landmarks and buildings to tell the story of how the local community welcomed home and commemorated the sacrifices made by local members of the armed forces and their families.





Presentation of Medallions to St Kilda 1914 ANZACS, 4 December 1918 – SKHS Collection

Starting at the Cenotaph and concluding at MEMO, the evening walk re-visits the sites of post-war initiatives, events and monuments that confirmed St Kilda's patriotism. ■



Catani Clock Tower

Councillor David Brand moved a motion at Council asking officers to investigate the feasibility of installing a bell-chime in the Catani Clock Tower on the St Kilda foreshore. Cr Brand said, "It's a beautiful idea put to me by members of the community, and which I hope might be embraced by the whole community within earshot". Thanks to Elwood resident and history buff Isaac Hermann for his efforts in bringing this idea to Council's attention. Cr Brand made a statement explaining the proposal in more detail which is available here: <http://www.portphillip.vic.gov.au/Notice-of-Motion.pdf>

What does it take to save St Kilda's history?

Christ Church and its surrounding buildings (being the Vicarage, Community Centre, Bishop's residence and the Parish Hall – home of Theatre Works), set amongst a modest garden with mature trees, have been a part of St Kilda's built heritage and community life for more than 160 years.

The State of Victoria granted the land bounded by Acland Street, Eildon Road, Church Square and St Leonard's Avenue to the Church of England in 1855. Nestled in a residential area, which over the decades has come to be defined by high-density apartment living, the land is recognised as "a rare and significant square in the history of town planning in Victoria which demonstrates the importance of the church to the community". (Heritage Victoria)

In July 2018, St Kilda community lodged a 400-signature objection to a developer's planning application to convert the existing parkland and children's playground into a fenced-in car park for 25 vehicles and to develop the Bishop's residence into a commercial child-care centre with up to 118 places. The proposal requires the removal of 100 year-old cypress trees and two peppercorn trees.

However, the community's move to protect the integrity and heritage of the site is tinged with conflict as the proposed private development is supposed to bring in the much needed funds to save the most important building on the site, the Church itself.

The Church's foundation stone – sand stone shipped from Point King near Sorrento – was laid on 29 November 1854. It was opened on Sunday, 2 August 1857 and consecrated on 19 January 1863. Built in Gothic Revival style with a nave, two transepts and a chancel, it is the oldest surviving church in St Kilda. The hand-carved gargoyles are a distinctive feature, reminiscent of medieval European churches. Unfortunately, age is beginning to weary the building, and a dwindling congregation is no longer able to maintain it.

A year ago, the Anglican Diocese [launched a campaign](#) to raise \$4.6 million to restore its crumbling stone and leaking roofs. The extent of deterioration is such that the Church may need to be closed within 5 years because of public risk. [Donations are tax deductible via the National Trust.](#)

For more information about the history of Christ Church visit: http://skhs.org.au/SKHSchurches/christ_church_complex.htm <https://www.christchurchstkilda.org.au/history> ■



Photo from Open House Melbourne

President's Update

Understanding how frustrating the continuing website problems are for everyone, there is finally some good news to share. By the time you receive this newsletter we're confident the website will be fully functioning again with improved accessibility. Further, we are undertaking a complete rebuild of the web site and we all look forward to seeing further developments and improvements to come.

The Committee is working on renewal of all aspects of the Society and have been busy with the following activities:

- Undertaking training and working with the 'Victorian Collection' on cataloguing our Collection to enable greater public access
- Updating governance policies and procedures
- Networking with peer organisations and peak bodies
- Planning and hosting events
- Recruiting new Committee members and volunteer helpers
- Submitting project funding proposals
- Participating in the City of Port Phillip's Heritage Advisory Committee
- Producing the Newsletter
- Communicating with members via Facebook, Twitter and email updates

Membership Renewals Due Now

It's that time of the year again. Membership remains at only \$20 (\$15 Concession) and helps us do what we need to do. We receive a small operating grant from the City of Port Phillip for which we are very grateful - but we need your support too. Membership renewal notices will be circulated shortly. Enquiries can be emailed to <mailto:info@stkildahistory.org.au>

Volunteers

We're keen to make SKHS bigger, better and bolder. Are you a local history buff or have any of the following skills you'd like to share – computing and Internet savvy, data entry, research, writing, event planning, marketing, fund-raising, social media, teamwork and a sense of humour? If so, we'd love to hear from you via email:

<mailto:info@stkildahistory.org.au>.

National Trust Advocacy Toolkit

The National Trust has produced a free online Advocacy Toolkit to support anyone wanting to advocate for the protection of places of cultural heritage significance. They have worked with heritage experts, planners, lawyers and communities across Victoria to develop a set of guides covering key areas of heritage planning. The guides can be downloaded here <https://www.nationaltrust.org.au/advocacy-toolkit/>

Catani Family Gravestone

The Carlo Catani Commemorative Committee wishes to place a headstone on the Catani Family Grave at Brighton General Cemetery and seeks expression of interest from the Holder of Right of Internment and other stakeholders in the proposed work. Contact Isaac Hermann on 9531 0998 or email marantsen@gmail.com

Early Houses of St Kilda

By Phillip Stewart

On Sunday afternoon 15 July, I took 20 SKHS Members on a walk around the early houses of St Kilda.

The walk focuses on architectural details unique to the period from 1843 to around 1865, when Melbourne was undergoing a building boom from the wealth and influx of people created by the gold rushes of the early 1850s. White settlement started in Melbourne in 1835, and the first St Kilda land sales were in 1842.

You may be surprised to know that many, if not most of these houses, still survive – often in remarkable authenticity. They survived because they were usually well built, but more importantly, they were highly adaptable to changing tastes, times and demographics.

We met at my house in Acland Street, across from Christ Church, one of four houses of Northampton Terrace built in 1857. These houses epitomise this adaptability. They started as houses for the well to do in early St Kilda, then after the 1890s financial crash, became guest houses, often for seaside holiday makers, then they declined into increasingly run down rooming houses after the 1929 depression, until being revived as private houses in the 1990s.

Over an hour and a half we looked at around twenty five houses, mostly terrace houses built after the gold rush, in Acland, Robe, Grey, Dalgety, and Princes streets, and we finished in Burnett Street, where we had the privilege of viewing the most elegant of St Kilda houses, Oberwyl, through the generosity of its owner, enjoying refreshments in its wonderful ballroom.

My aim with this walk is to make people aware of these extraordinary architectural gems, and teach them to identify similar houses dotted throughout our inner suburbs. This is one way of supporting the survival of these beautiful and vulnerable houses, into an ever more precarious future. ■